

# BRONZE AGE AND EARLY SAXON ACTIVITY AT DAGENHAM HEATHWAY, LONDON BOROUGH OF BARKING AND DAGENHAM

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## SUMMARY

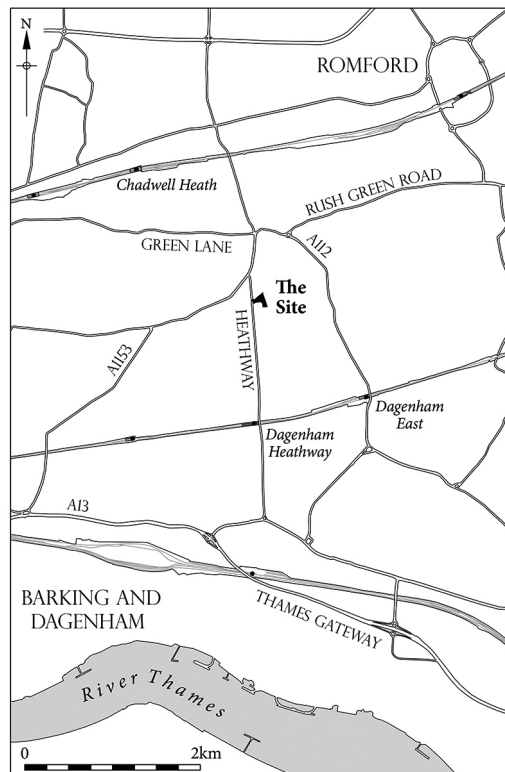
*Excavations by Pre-Construct Archaeology Ltd in advance of development of a former school playing field at Dagenham Heathway, in the London Borough of Barking and Dagenham, revealed prehistoric archaeology, dominated by two phases of Late Bronze Age activity. This comprised a series of ditched fields with possible stock management elements, which was superseded by an enclosed settlement containing three roundhouses. The site was not reoccupied again until the Early Saxon period, when a different type of agrarian settlement was established. During either the Middle or Late Saxon period the site was abandoned and another series of field ditches was laid out.*

## INTRODUCTION

Pre-Construct Archaeology Ltd was commissioned by CgMs Consulting on behalf of Bellway Homes (Essex) to undertake a programme of archaeological evaluation and excavation prior to residential development on a former school playing field at Dagenham Heathway (Fig 1). Initial trial trenching (trenches 1–15) revealed that significant later prehistoric deposits were present and it was decided that an open area excavation should be carried out across the central part of the site (Fig 2). This revealed extensive remains, mostly of Late Bronze Age date, though a significant Saxon presence was also apparent (Fig 3).

The site, centred on National Grid Refer-

ence TQ 4905 8610, was situated in the London Borough of Barking and Dagenham, and was bounded by The Heathway to the



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*Fig 1. Site location (scale 1:85,000)*

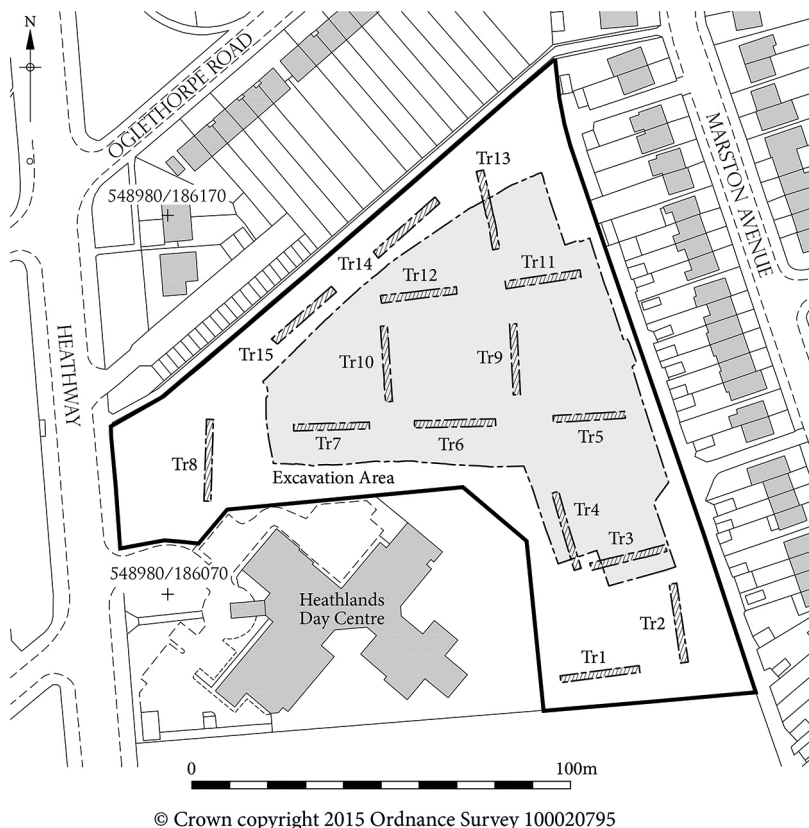


Fig 2. Trench locations (scale 1:2000)

west, residential housing to the north and east and the Heathlands Day Centre to the south (Fig 2). At the time of the evaluation, it was a disused playing field. Both the evaluation and the excavation were carried out by Pre-Construct Archaeology Ltd under the supervision of Fiona Keith-Lucas and the project management of David Divers.

The Dagenham Heathway site is of great importance in understanding broader aspects of the development of settlement patterns in north-east London and its environs during the later prehistoric and early medieval periods. The site archive (code: DMH03) will be deposited with the Valence House Museum and Archives and Local Studies Centre, Dagenham.

## PROJECT METHODOLOGY

The evaluation completed on the site was

designed to sample a representative portion of the area to be redeveloped. Fifteen evaluation trenches, 20m in length and 1.80m wide, were opened up across the area (Fig 2). This work was carried out between 3 and 9 April 2003 and revealed significant archaeological remains. It was clear that further archaeological mitigation would be necessary and it was decided to carry out an open area excavation. This was conducted between 9 February and 20 March 2004. A broadly triangular section of  $c.6,000\text{m}^2$  was opened up, revealing further, extensive archaeology (Fig 3). The trench outline was further extended into an agreed contingency area to expose as much as possible of the ditched enclosure. The site was excavated following the standard methodology used in Greater London as detailed in the Written Scheme of Investigation (Divers 2004b).

Bulk environmental samples and column



Fig 3. The archaeological features on site, showing their found and conjectured extents (scale 1:800)

samples were taken from relevant features. Poor environmental preservation meant that the potential for reconstructing the local prehistoric land-use, economic and domestic activity was very limited. In general, bone was not preserved at the site because of the soil conditions (Green *et al* 2005). A very small quantity of animal bone was only recovered from two contexts, and the condition of these faunal remains was very poor.

### GEOLOGY AND TOPOGRAPHY

The site is some 4.5km to the north of the River Thames situated between two minor tributaries of the river: the Seven Kings Water and the River Rom (Green *et al* 2005). The solid geology consists of Eocene London Clay extending over an area some 6km north of the Thames, while the overlying drift geology consists of Pleistocene terrace

gravels, at higher levels up to c.30m OD (British Geological Survey 1996). The geological map shows the site within an extensive spread of Hackney Gravel, which is equivalent to part of the Corbets Tey Gravel (Bridgland 1994; Gibbard 1994).

Recent work in the Hackney/Stoke Newington area (Green *et al* 2004; 2006) has suggested that Gibbard and Bridgland's Lynch Hill/Corbets Tey Gravel comprises two separate aggradations, both of Middle Pleistocene age. On the basis of their elevation, the sediments underlying Dagenham Heathway are likely to be contemporary with the later aggradation, which has been equated with Marine Isotope Stage (MIS) 8, and to be the product of cold climate environmental conditions. 'Brickearth', mapped by British Geological Survey (1996) as the Ilford Silt, occurs in the form of several extensive spreads in the Dagenham-Ilford area, though none are recorded in the vicinity of Dagenham Heathway.

## ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

There is evidence for human activity close to Dagenham Heathway for the Palaeolithic to post-medieval periods. A number of Palaeolithic implements including 26 handaxes were found at Gale Street, some 2km to the south-west of the site (National Monuments Record (NMR) no. TQ 48 SE 101). They are believed to have been found either during the building of the Beacontree Housing Estate, or in the gravel pit that is now the ornamental pond in Parsloes Park.

There is little evidence for the Mesolithic and Neolithic periods in the immediate vicinity. The only evidence for a monument of Neolithic date in east London comprises a ring ditch at Launder Lane in Rainham, Havering (Essex) (Howell *et al* 2011, 24–6). The evidence for Bronze Age activity in the Dagenham area is more extensive. At the former Digby Garden allotments, a little more than 2km south, three possible Bronze Age ditches were identified during an archaeological evaluation (Divers 2004a). A small pit of Late Bronze Age to Early Iron Age date was also identified at a former allotment site on Blackborne Road, less than 2km south (Hodkins 1993; Bazley 2004).

Further to the south, excavations in 1993 on low-lying peat deposits revealed a metallated causeway or burnt mound of Bronze Age date (Meddens 1996). At Church Lane, a little less than 2km east, a Late Bronze Age ditch was identified during an evaluation in 1998 (NMR no. 1255101).

In Dagenham Old Park, 1.5km south, a number of prehistoric features have been identified, including a ditched enclosure (Greater London Sites and Monuments Record (GLSMR) no. 061541), a ring ditch (GLSMR no. 061540) and trackways (GLSMR nos 061542, 061543). Prehistoric pottery has been noted at Ford Road, 2km south (GLSMR no. 062698).

Evidence for Roman activity is sparse, though a pottery vessel is recorded from Redbridge, 2km north-west (NMR no. TQ 48 NE 27). The Dagenham Heathway excavation was situated approximately midway between the Thames and the A12, the route of which approximates that of the former Roman Road from London to Colchester. The A12 route was also used during the Saxon period, forming part of the network connecting *Lundenwic* to centres such as Barking Abbey, Barking (Barking and Dagenham) and Ipswich (Suffolk). Barking Abbey, which was founded in c.AD 666, was the third richest Benedictine nunnery in England at the time of its dissolution in 1539 (Fowler 1907, 120).

The place-name Dagenham (*deccahaam*) or 'Dæcca's homestead' is first recorded in a charter of Barking Abbey dating to AD 685–694 or AD 690–693 (Sawyer 1968, no. 1171). It is derived from an Old English personal name and the suffix *ham* meaning homestead or dwelling place (Watts 2004, 177). However, there is no previously recorded Saxon archaeology from this locality. The main endowment of Barking Abbey was the manor of Barking, which in the Domesday Survey of 1086 had a recorded population of some 250, making it one of the most populous manors in Essex (Oxley 1966, 185; Williams & Martin 2002, 981). At this date and later, Barking manor included estates in Dagenham and Ilford in Redbridge (Oxley 1966, 185). 'All the manors in Dagenham parish originated as free tenements of the manor of Barking. There was no capital manor of Dagenham' (O'Leary 1966, 272). From the 13th century onward references to

the parish of Dagenham, plus 'its farms and hamlets are sufficiently numerous to suggest a flourishing community' (*ibid*, 267).

There is rather more evidence for medieval activity. Excavations at Ferry House, Crown Street, less than 2km south-east, revealed postholes and ditches, suggesting a medieval settlement (Jarrett 1992). Nearby, at Church Lane, a medieval gravel pit was identified (NMR no. 1255101). Medieval moated sites are known from Frizlands Lane, a short distance east (GLSMR no. 061103), and at nearby Sedgemoor Drive (GLSMR no. 06110401). Later medieval manor houses are known from Parsloes Park to the south-west (NMR no. TQ 48 SE 6) and adjacent to Gale Street, west of the park (NMR no. TQ 48 SE 1). A further example comes from near the junction of Dagenham Heathway and Ripple Road, some 2km south. Further medieval buildings are present at Gale Street (GLSMR nos 061079, 061083), Dagenham Heathway (GLSMR no. 061094) and Raydons Road, less than 1km south-west (GLSMR no. 060622). Historic documents and cartographic evidence suggest that until the post-medieval period the site was situated within a pastoral agrarian landscape.

Most records for the post-medieval period relate to historic buildings, though a number of post-medieval pits were identified in the Ferry House excavations (Jarrett 1992). Features including a well and a boundary ditch were seen in the Church Lane evaluation (NMR no. 1255101), and a Tudor brick kiln was recorded at Parsloes Park (GLSMR no. 060496). During the mid 20th century as part of the expansion of Dagenham the environs of the site became suburban. The land to the west of this stretch of the Heathway (and a small area to the east of the road) was developed as the Beacontree Housing Estate during 1921–1938, while the area to the east of the road was developed as the Heath Park Estate during 1949–1951 (O'Leary 1966, 270–1). A local resident saw a VI flying bomb fall in the vicinity of the Dagenham Heathway site during the Second World War and the excavations uncovered evidence for the impact crater caused, as well as exposing a range of fragmented rusted metal distributed across the area of damage (Fig 3).

## THE ARCHAEOLOGICAL SEQUENCE

### Before the Bronze Age

The site included a large number of naturally formed features, some of which may have been the results of periglacial processes, comprising relatively regularly distributed shallow features which could have formed as a result of freezing and thawing action on saturated ground. There were also a number of shallow features thought to be localised undulations that had been infilled with natural deposits. A large number (in the order of several dozen) of tree-throw holes and areas of prehistoric root disturbance extended across the area of excavation (not illustrated). Three sherds of intrusive Bronze Age pottery derived from these contexts. These features indicate a fairly intense woodland cover prior to clearance, which probably started during the Neolithic period. No archaeological features pre-dating the Bronze Age were identified, but a small number of struck flints dated to the Late Mesolithic and Neolithic periods were from residual contexts. Particularly noteworthy was an unusual, symmetrical hollow-based arrowhead of Neolithic date which came from a Late Bronze Age enclosure ditch (see Bishop below). The only pottery from the site that pre-dated the Bronze Age was a single sherd of Late Neolithic Grooved Ware, which was residual (see Rayner below). There was one tree-throw hole situated near the north-east corner of the excavation that contained *in situ* dating evidence. This comprised a single thinning flake, attributable on its technological traits to the Late Mesolithic/Neolithic. This, plus the residual Early Neolithic lithic material, which mostly comprised blades (see Bishop below), suggests that there was some level of activity here prior to the Bronze Age and this probably included the clearance of some of the natural woodland.

### A field system of the earlier Late Bronze Age (c.1000–c.700 BC)

The first phase of occupation dated to the earlier part of the Late Bronze Age, and it appears to have involved activity in a boundary area of an extensive late prehistoric field system. Associated ceramics consisted

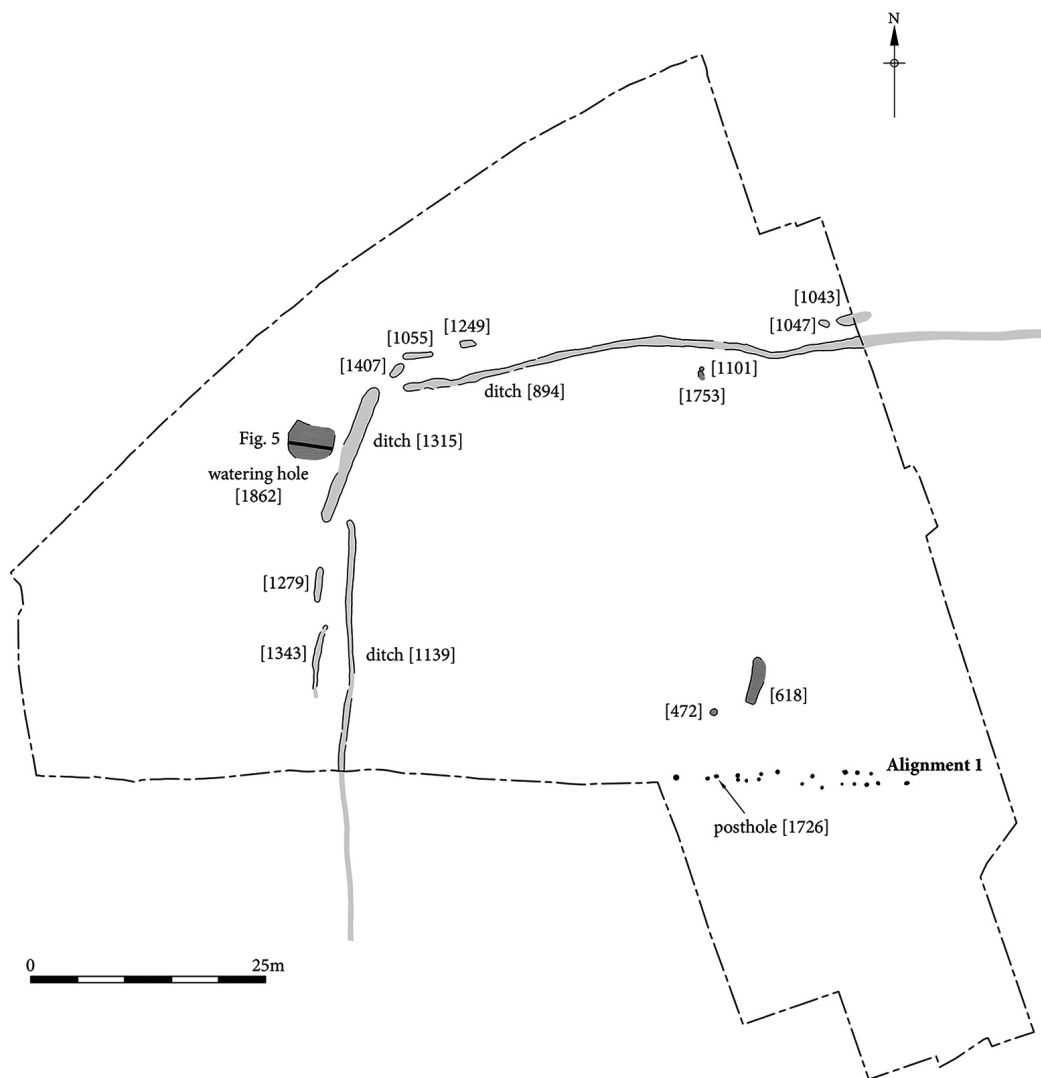


Fig 4. The earlier Late Bronze Age field system, showing found and conjectured extents (scale 1:800)

of a typical ‘plainware’ assemblage dating to the 10th–8th centuries BC (see Rayner below). The most clearly definable features were two ditches aligned perpendicular to one another (Fig 4). Ditch [1139], aligned north–south, was up to 0.8m wide and 0.4m deep and extended for a little more than 26m from the edge of excavation before terminating. Ditch [894], aligned east–west, was of a similar width and depth as ditch [1139] and extended for almost 50m from the limit of excavation before terminating. Both contained a silty sand fill, which

included sparse cultural material. The pottery assemblage included fragments of burnished bowls (Fig 13, P16 & P17) and a sherd with a lugged handle (see Rayner below). Ditch [1139] also contained the corner of a ceramic block (or perforated slab), further examples of which were found in a number of Late Bronze Age features discussed below. There was a very wide gap between the two ditches at the north-western corner of the field. This break measured 15m between the two ditch terminals. A short distance to the north-west of the gap

was a third ditch, [1315], aligned north-east to south-west, a little more than 15m long but wider and deeper than the two other ditches. Its sides were cut at 45° to a depth of 0.70m and it was filled with pale silty deposits which had slumped in from the south-east. Finds retrieved from its various fills included Late Bronze Age pottery, fragments of fired clay (including another ceramic block) and burnt flints. There was an opening of *c.*2.5m between the western terminus of ditch [894] and the northern terminus of ditch [1315]. A gap of *c.*2m existed between the northern terminus of ditch [1139] and the southern end of ditch [1315]. It appeared that all three were related and formed elements of a complex access mechanism between the fields in this area. Further elements of this complex included ditches [1279] and [1343], which ran to the west of, and approximately parallel to, ditch [1139]. Ditch [1055] and pit [1407] were on the north-west side of ditch [894]. Pits [1249], [1047] and [1043] may also have been associated with this activity, along with a number of postholes, which could have been settings for fences or gateposts.

It is suggested that the features within this complex were elements of a system that controlled the movement of stock between different fields. Clearly the 15m gap between the terminals of the perpendicular ditches is too large for a simple entrance/exit, but the placement of ditch [1315] (and probably an associated hedged bank) meant that two controllable fenced or gated entrances/exits could be put in place to the north-east and south-west. Although further fields to the north and west were not identified, the two access points created would have permitted the control of stock movements between the excavated field and the unexcavated area beyond. A mechanism similar to that suggested by Pryor (2006, 100–5) is thus envisaged. Furthermore, the narrow corridors created between the main enclosure ditches and parallel features to the north and west, whilst probably being too narrow to act as droveways in the normal sense, may have functioned as races, again as outlined by Pryor, for the close control of stock movement, most likely sheep given their restricted width (*ibid.*).

A further contemporary element of the field system, also associated with stock management, was located a short distance to

the north-west of the controlled access. This was a large pit some 5.0m in diameter and 1.8m deep that had been recut on at least three occasions (Figs 4 & 5). It seems likely that this feature was a watering hole. A column sample taken through the exposed section of the pit attested to its rapid infilling. Small charcoal fragments were present towards the base, along with a single piece of Late Bronze Age pottery, which would have been contemporary with the first recutting of the pit. At a similar level to this cultural material were the *in situ* remains of an upright timber stake cut from mature oak heartwood. The tip of the stake was burnt, perhaps to harden it for driving into the partially filled pit. It is possible that the stake was part of a revetment structure, analogous to those recorded in similar features of broadly contemporary date (*eg* Lewis & Batt 2006, 133–51). Such waterholes are often situated in the corners of fields (Cotton 2004, 10). This suggests that the example at Dagenham Heathway may have been associated with fields beyond the main excavated area, as it lay beyond the access control mechanism at the north-west corner of the field.

A parallel posthole alignment (Alignment 1) comprised at least twenty postholes (Fig 4), which originally probably included many more features; this post configuration continued beyond the limit of excavation to the west and had been truncated by a later enclosure ditch to the east. It was not clear whether it comprised two parallel lines of posts, or if there had originally only been one line, the arrangement of which altered slightly as posts were replaced. Whatever its form, it appears that these features represent an internal fence within the ditched fields. Included within the group, feature [1726] was of particular interest. This was a 0.30m by 0.40m by 0.10m deep cut, which contained an intentionally placed ceramic vessel, [1724]. The posthole had been horizontally truncated by ploughing and only the base of the pot remained. It broadly dated to the Mid–Late Bronze Age. Additional sherds from the fill were dated to the Late Bronze Age (see Rayner below). On other comparable sites, such as the nearby Late Bronze Age enclosure at South Hornchurch in Essex it has been noted that intentionally placed pots were discovered at intersecting

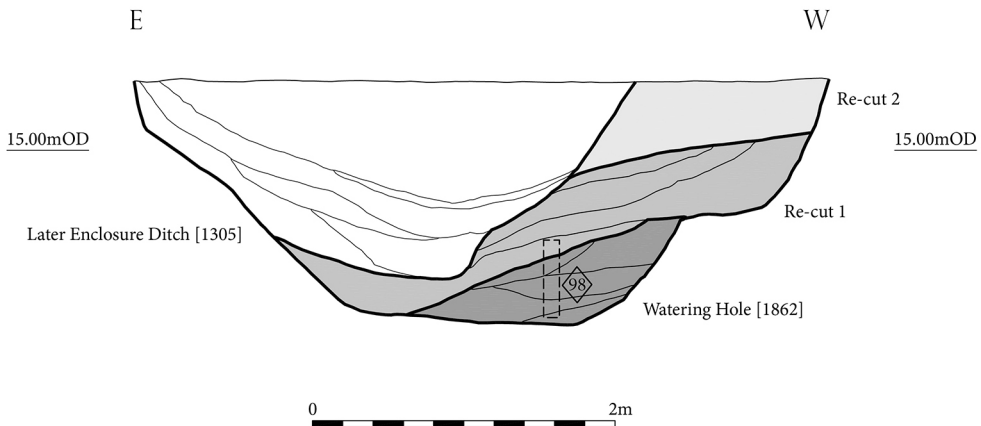


Fig 5. Cross section of the earlier Late Bronze Age watering hole [1862] (for location see Fig 4; location of a column sample to extract environmental samples is shown) (scale 1:50)

boundaries (Guttmann & Last 2000, 354–5). This situation is most likely where a later boundary was constructed across a pre-existing one and a structured deposit was placed in respect of it. There is insufficient evidence for the placed deposit at Dagenham Heathway being at a boundary intersection, but it was certainly located within a boundary feature.

A small pit, [472] (Fig 4), contained sherds of coarse ceramic vessels broadly dated to the Mid–Late Bronze Age (*c.*1500–*c.*700 BC). Although it was unclear whether this constituted a placed deposit, it appears to have been contemporary. Another small pit, [1101] (Fig 4), was just 0.42m in diameter and 0.11m deep, having been heavily horizontally truncated, and it similarly contained a deliberately placed deposit, comprising the *in situ* remains of a substantial, thick-walled ceramic vessel, broadly dated to the Mid–Late Bronze Age. Given a lack of contemporary domestic material in the near vicinity, it appears that this vessel too was deliberately placed. A short distance to the south, truncated pit [1753] contained a number of body sherds, possibly from a single vessel, which may also have been intentionally placed. Interestingly, these four pits with possible placed deposits formed a broad north–south configuration, parallel to western ditch [1315], and perpendicular to northern ditch [894] and the southern posthole alignment (Fig 4).

A final feature that appears to have been contemporary with this field system was

elongated pit [618] (Fig 4). This lay a short distance to the east of the possible placed deposit in pit [472]. It was aligned north-east to south-west, measured 4.85m in length, 1.25m wide and was 0.56m deep. Its upper fill contained a large basal fragment and body sherds of a coarse ware jar. The location of this feature, apparently in the middle of a field, appears odd, and it may be that it dates to a later phase and the pottery is residual.

#### An enclosure of the later Late Bronze Age/Early Iron Age (*c.*800–*c.*500 BC)

At some point during the Late Bronze Age, the nature of activity on the site changed dramatically from one dominated by animal husbandry to habitation within an enclosure (Fig 6). The associated pottery is characterised by ‘decorated’ assemblages dated to the 8th–6th centuries BC (see Rayner below). The principal feature comprised a substantial ditch, [157]/[348]/[1137]/[1305], that enclosed a sub-square area, measuring *c.*75m across, and which possibly was positioned on an area of relatively higher ground. Although no stratigraphic relationship was seen between this enclosure ditch and the stock control elements of the previous phase, the ditch was seen to cut through the abandoned fully silted-up watering hole, [1862], to the north-west – a further indication of a deliberate change of land use.

The profile of the enclosure ditch was relatively uniform, with its sides cutting at



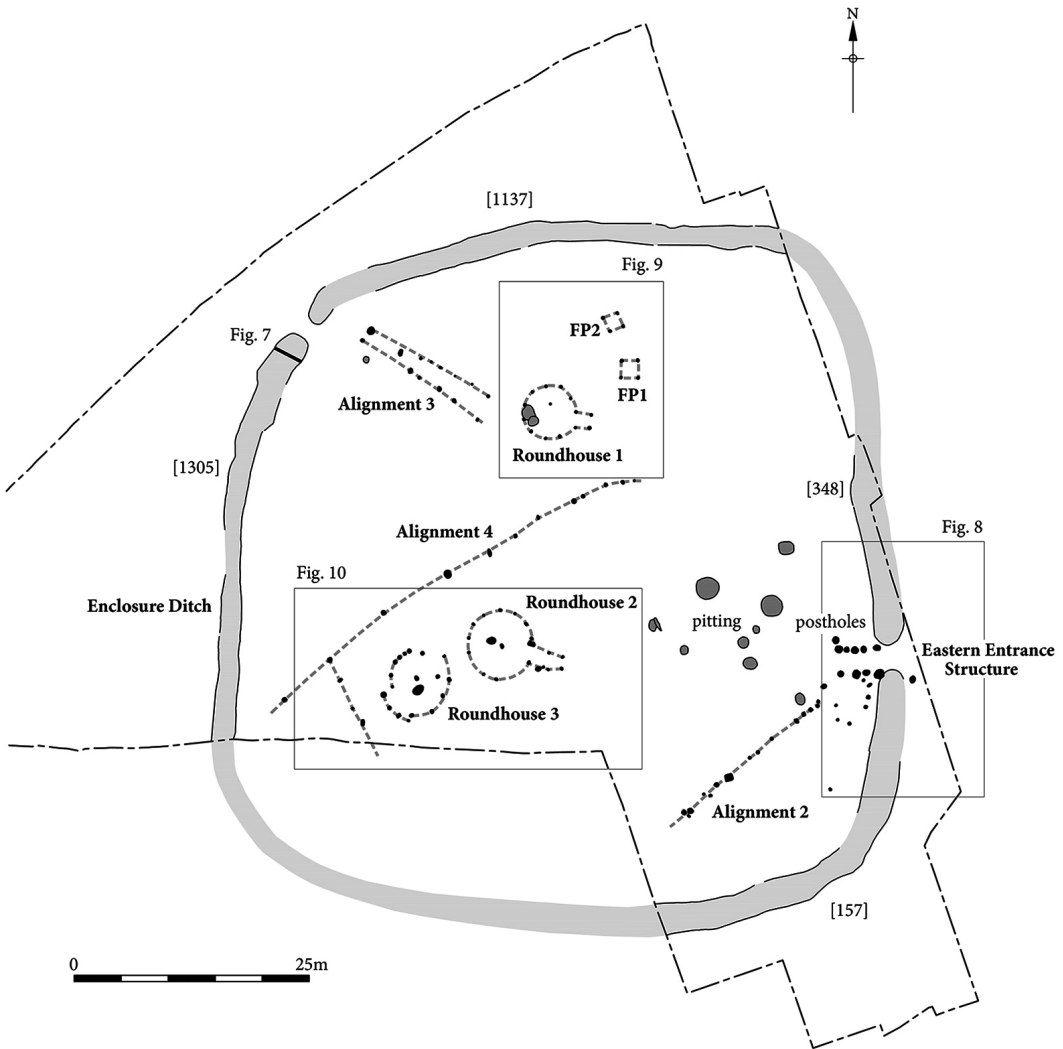


Fig 6. The Late Bronze Age enclosure showing its found and conjectured extent (scale 1:800)

$\approx 40^\circ$  from the horizontal to form a broad 'V'-shaped cross section with a rounded base (Fig 7). On average it was  $\approx 0.90\text{m}$  deep and between 2.25m to 3.00m wide. The main access was located towards the south-east side of the enclosure and faced due east, but there was also another entrance at the north-west corner. Slots were excavated through the enclosure ditch in 18 locations. The sequence of deposits in the ditch comprised slumped or eroded sand and gravel forming the primary fills, which were sealed by natural silting and finally dumped deposits which represent the systematic backfilling of the ditch. The

absence of anthropogenic material in the column samples, in particular the lack of charcoal or indeed any other environmental material, plus the absence of any evidence for buried soil horizons suggest that the initial infilling of the ditches was quite rapid. Excavation of the western ditch terminus was at variance from the sequence mostly indicated elsewhere and showed further fills that indicated a period of stabilisation, marked by a turf line between the primary and secondary fills (Fig 7). A slot excavated through the western part of the ditch also identified additional

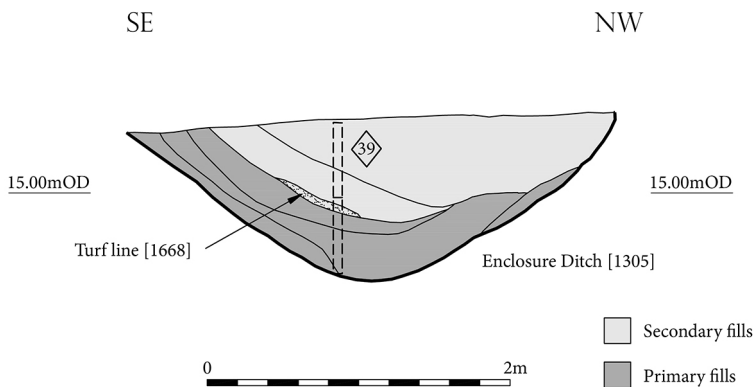


Fig 7. Cross section of the Late Bronze Age enclosure ditch (for location see Fig 6; location of a column sample to extract environmental samples is shown) (scale 1:50)

fills including a charcoal-rich layer between the natural silting and backfill. This deposit was seen in a few other slots where it was very thin and sometimes only present as a lens. Cross sections of the ditch illustrate that most of the material infilling it derived from within the enclosure, suggesting that there may have been an internal bank, elements of which could have eroded into the ditch (Fig 7). Just to the north of the eastern entrance, the ditch was found to be wider (2.8m) and deeper (1.35m) than elsewhere. The primary fill in this section of ditch was noticeably different. Being a far more substantial deposit, it was only overlain by a thin layer of much later erosion material, which suggests that this part of the ditch was either deliberately kept clean or was regularly scoured out while the enclosure was in use.

Datable ceramics recovered from the enclosure ditch were characterised by undecorated coarse ware jars typical of the Late Bronze Age (see Rayner below). Forms with fingertip decoration were also found along with examples of fine ware jars, cups and a bowl. Vessel fragments typical of the mid to late 2nd millennium BC were unearthed throughout the fills. However, the overall assemblage is indicative of a date in the early 1st millennium BC, possibly the 10th–9th century BC. It appears that the ditch was initially excavated in the late 2nd/early 1st millennium BC, and that its final backfilling took place during the Late Bronze Age/Early Iron Age transition.

In addition to the large ceramic assemblage, a number of other significant finds were recovered from the backfill of the enclosure ditch, including fragments of fired clay, burnt flints, flint knapping debris and a residual Neolithic arrowhead (see Bishop below). The secondary fill of the ditch contained a quern rubber, an uncommon artefact type. The backfill of the ditch close to the eastern entrance contained a fragmentary but complete perforated clay slab, <SF11>, a ceramic spindle whorl, <SF2>, and a large fragment of a decorated coarse ware bowl (see Rayner below).

A line of paired postholes marked the eastern entrance, extending approximately 5m into the enclosure (Figs 6 & 8). All of these features contained a similar single homogenous silty sand, with little or no cultural material. Generally these postholes had steep, straight sides and a concave base, and all were wider than they were deep, having been truncated. It is likely that the posts formed a simple free-standing structure. Outside the enclosure, a single posthole, [324], appears to have marked the southern side of the east-facing entrance. Any equivalent posthole on the north side could have been destroyed as a result of truncation caused by a later ditch.

Another line of postholes (Alignment 2) extended south-westwards from the entrance (Fig 6). These postholes were generally 0.30m in diameter, 0.30m deep and spaced at 3.0m intervals. Only one of these produced

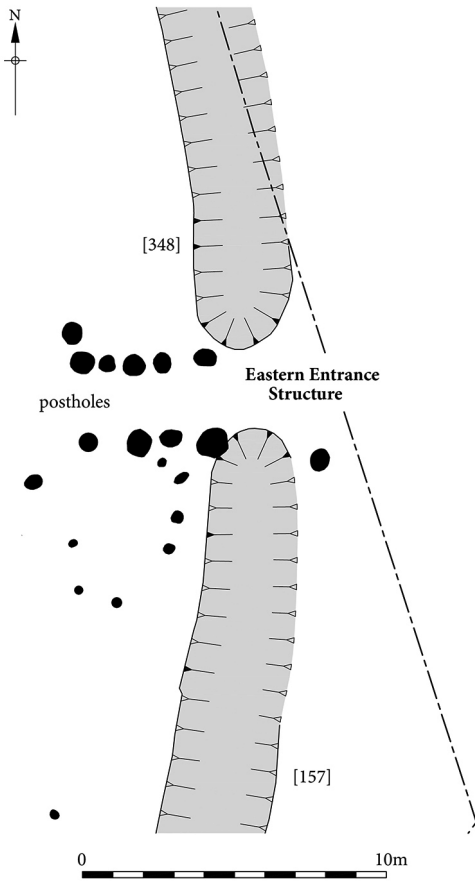


Fig 8. Plan of the eastern access features of the enclosure (for location see Fig 6) (scale 1:250)

cultural material. The Late Bronze Age pottery recovered was in keeping with the date of the material from the entrance structure. This posthole alignment probably represented a fence line, which would have encompassed the south-eastern corner of the enclosure. As such it may have acted as a screen to separate the dwellings from other activities. In the angle between the entrance element and the north-eastern end of the posthole alignment there was an arc of postholes, suggesting a further small elliptical screen. No finds were associated with this feature and its function is unknown.

A double alignment of roughly parallel postholes (Alignment 3) extended from the north-west entrance into the settlement and appeared to represent a possible corridor style entrance, though its north-western end

was slightly offset from the entrance gap (Fig 6). At the point where this avenue crossed the earlier backfilled ditch [894], a small pit, [1674], was positioned midway between the two lines of posts. Within this cut was a deliberately placed deposit. This comprised the complete profile of a bipartite coarse ware bowl along with the fragmentary remains of a second vessel with a decorated cordon at the neck and impressed slash decoration on the rim. It was originally thought that this represented a cremation but no burnt bone was recovered from the fill. Because of a lack of stratigraphic relationships other than its cutting through the backfilled earlier ditch, it was unclear whether this deposit dated to the end of the earlier phase or to the beginning of the contemporary one. If the placed deposit belonged to the previous phase then its placement could be interpreted as a ritual closure deposit. However, if it dates to this phase, then its placement in the middle of an apparent access route appears a little odd unless it was marked above ground to signal its presence to those entering or leaving the settlement. A short distance to the west and also truncating the earlier ditch, though to the side of the entrance avenue, was another small pit that contained a modest assemblage of Late Bronze Age pottery. Although this did not appear to be a placed deposit, the similarity with pit [1674] (see above) may be more than coincidence.

Within the settlement area there were at least three circular, post-built structures interpreted as roundhouses. The first (Roundhouse 1) was located close to the southern end of the post alignment 3 (Figs 6 & 9). It comprised a circle of 11 postholes, 6.7m in diameter, with an east-facing entrance marked by the differential spacing of two of the postholes in the circle and the presence of two further external postholes. The postholes averaged around 0.30m in diameter,  $c.0.20-0.30\text{m}$  deep and were filled with a greyish brown sandy deposit. An internal feature was similar in character and was thought to have been contemporary, though it may not have been a structural element of the roundhouse. Small assemblages of Late Bronze Age pottery were recovered from four of the roundhouse postholes. Late Bronze Age pottery was also recovered from two internal pits that post-

dated the roundhouse (Fig 9). Although the pits were later, given their proximity to the roundhouse their contents may have derived from its occupation. Both pits contained significant assemblages of fired clay blocks and fragments of a cylindrical clay weight (see Rayner below).

To the north-east of Roundhouse 1 were two, four-post structures (Figs 6 & 9). The southernmost of these (FP1) comprised a grouping of postholes arranged in a square. It would have measured *c.*2m across and all four postholes produced Late Bronze Age pottery. A short distance to the north, a second group (FP2) was arranged in a square, measuring *c.*1.8m across. The eastern two postholes in this group also produced sherds of Late Bronze Age pottery. Such structures are normally interpreted as raised granaries (Guttmann & Last 2000, 354). They may therefore provide indirect evidence of arable farming. This is in contrast to the structural evidence from the earlier phase which suggests an emphasis on pastoralism.

A second probable roundhouse (Roundhouse 2) was located some 19m to the south of the first (Fig 10). This was a little more than 7m in diameter and comprised a ring of at least twelve postholes, though there were probably more such features that remain unidentified. There were further external postholes that suggested this structure had a porch to the east, this time facing slightly south of due east. Pit [544], which probably held a post that was part of an entrance structure, included a small assemblage of Late Bronze Age pottery, a quantity of burnt flint and a fragment of perforated clay slab. Pit [530], which probably held a post representing part of the porch arrangement, also contained a small assemblage of Late Bronze Age pottery. Two internal features may have been contemporary, one of which, posthole [570], produced a small quantity of pottery broadly datable to the Late Bronze/Early Iron Age transition.

A further possible roundhouse (Roundhouse 3) had a less clear ground plan, but its configuration of postholes suggested two phases of building, its position shifting slightly during rebuilding (Fig 10). It apparently measured between 6m and 7.5m in diameter with no clear evidence for either an entrance or a porch. There

may have been a number of contemporary internal features, though contemporaneity with the structure could not be proven because of a lack of associated artefactual dating evidence.

To the west of Roundhouse 3 was a north-west to south-east alignment of at least four postholes, which probably continued beyond the southern limit of excavation (Figs 6 & 10). To the north of this alignment was a further perpendicular group of at least twelve postholes (Alignment 4), which extended from close to the western side of the enclosure ditch towards the north-east corner of the enclosure. It was approximately parallel to the line of Alignment 2 (Fig 6). It appears that the enclosure was partitioned by a number of diagonal fences, presumably to separate different areas of activity. Numerous other postholes (mostly undated) were also recorded, which may have represented further fence alignments or their replacements, though other patterns and alignments were not so clear.

To the west of the eastern entrance, was a group of larger cut features (Fig 6). Although generally lacking in dating evidence, these appear to have been contemporary with the roundhouses, storage structures and posthole alignments and may have defined a distinct zone of activity. Two of the largest features in this group, [512] and [552], were nearly identical in form, being almost perfectly circular in plan and measuring *c.*2.5m in diameter. Each had steeply sloping sides and appeared to be very deep. The former was excavated to a depth of 1.8m, which failed to reach its base. Dating evidence for both was scant, but it is suggested that they were both wells associated with this phase of occupation. However, due to a lack of dating evidence it is impossible to ascertain whether they were in use at the same time, or whether one replaced the other. The nature of the other features in the group is more difficult to determine, again because of a lack of artefactual material. However, the most northerly of the features, pit [722], contained a number of fragments of fired clay blocks of uncertain function (see Rayner below).

Between this group and the southern roundhouses there were three further structural elements that produced con-

temporary small but significant finds assemblages. There was a small oval pit, [462], which contained a quantity of fired

clay blocks (see Rayner below), along with a small assemblage of pottery. Although no diagnostic sherds were present, it could be broadly dated to the Late Bronze Age. This pit was truncated to the east by a small gully, [1785], of indeterminate function. It contained a number of ceramic body sherds, possibly derived from a single vessel and a fragment of a fired clay object. There was another small oval pit, [616], containing a small assemblage of Late Bronze Age/ Early Iron Age pottery, plus fragments of at least four cylindrical weights including one complete example (see Rayner below).

None of the roundhouses have any evidence for encircling penannular drainage gullies, which are usually associated with these types of buildings. The reason for their absence is unclear. These roundhouses had entrances in their eastern quadrant, which was fairly standard (Howell *et al* 2011, 46). The pits associated with this phase of occupation were apparently unlined and therefore are unlikely to have been used for grain storage.

A number of fragments of cylindrical clay weights were recovered in positions which have been interpreted as a 'structured

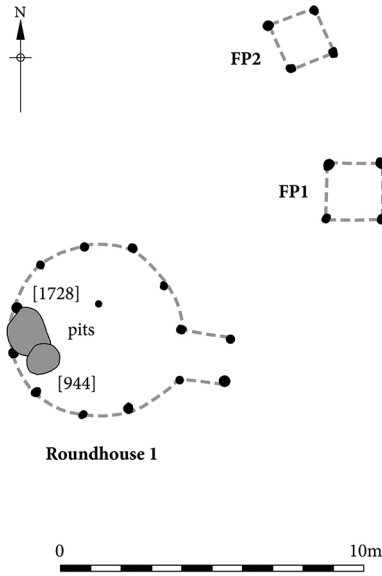


Fig 9. Plan of Roundhouse 1 and four-post structures FP1 and FP2 (for location see Fig 6) (scale 1:250)

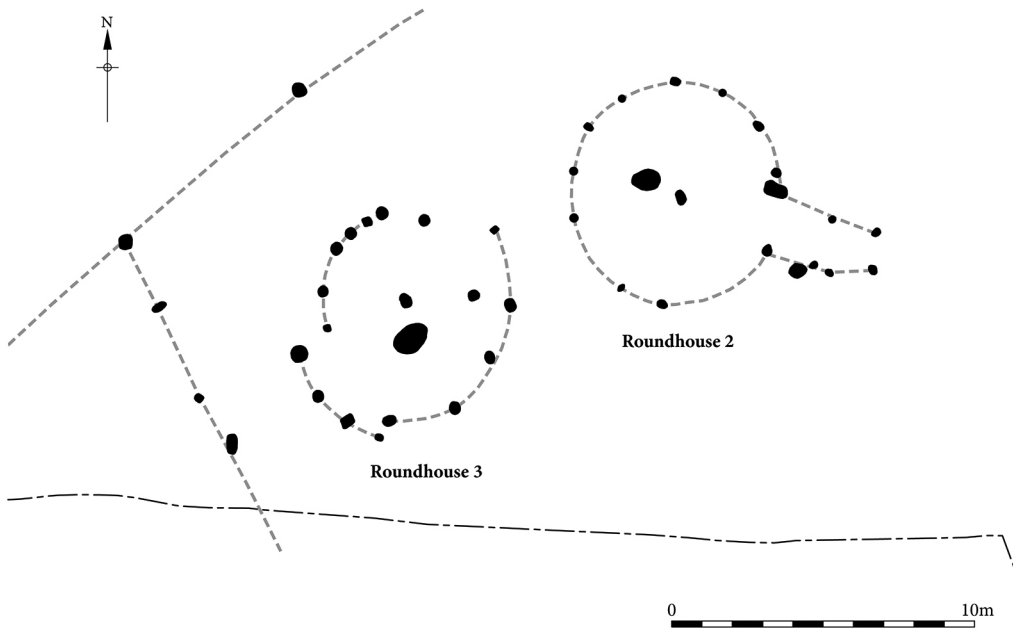


Fig 10. Plan of Roundhouses 2 and 3 (for location see Fig 6) (scale 1:250)

deposit'. This therefore adds to the number of possible deliberately placed deposits distributed across the site during this phase, though there was no obvious pattern in their spatial distribution.

This Late Bronze Age ditched enclosure was probably occupied by a single farmstead perhaps inhabited by one extended family, with domestic and agriculturally related activities being carried out in defined areas. This occupation appears to have been associated with repeatedly replicated ritualised activity represented by placed deposits. Comparisons and contrasts can be made with a number of contemporary sites in Essex, such as Chelmsford, Heybridge, Lofts Farm Great Totham, Mucking North Ring, Springfield and a few east London sites such as Oliver Close in Leyton, Waltham Forest (Bishop & Boyer 2014, see this volume), plus the evidence at the Olympic Aquatics Centre in Stratford (Payne 2011; Powell 2012; see below).

The very low concentration of the charred plant macrofossil remains on site was disappointing. A small quantity of fragmented charred cereal grains (*Hordeum/Triticum* indet) was present as were bedstraw (*Galium* sp) seeds, the latter representing an arable weed, which may have been removed during grain processing along with the chaff and straw and subsequently used as tinder. As evidence of modern root activity recent seed material was found in these same deposits; these charred seeds may represent intrusive later material discovered within the Late Bronze Age deposits (Green *et al* 2005).

### Roman activity

One sherd of early Roman pottery and six of late Roman date, plus a small quantity of Roman ceramic building material were found in various residual contexts (see Rayner below), but no Roman features were identified on site. Possibly, Roman activity was limited to arable farming with the finds resulting from the manuring of fields with midden deposits.

### Saxon activity (c.AD 420–1066)

The site was reused in Saxon times and two phases of activity were recognised. The first

phase comprised the founding of a small Early Saxon settlement, followed by the establishment of a field system of either Middle or Late Saxon date.

#### *Early Saxon activity (c.AD 420–650)*

A little more than a millennium after the abandonment of the Late Bronze Age settlement, during the Early Saxon period, the site was reoccupied. A settlement was present but it was less clearly defined than the prehistoric ditched enclosure. Instead, the Saxon occupation comprised a number of scattered structures arranged in a relatively random pattern across the wider spatial area (Fig 11). The Early Saxon ceramics are dated to the 5th to mid to late 6th century AD. The impression is that most of the activity on site probably took place during the 6th century AD (see Jarrett below).

Many of the features attributed to the Saxon phase were poorly defined and their date was only determined during post-excavation analysis, when a range of structural elements containing Early Saxon pottery were identified. Subsequently a number of features of Saxon date were identified. At least three are thought to be sunken-featured buildings (SFBs). The first of these (SFB1) (Fig 11) comprised a shallow, sub-rectangular feature, [1670], measuring almost 3m north-south by 2.5m east-west. It had a flat base and had been backfilled with a great deal of burnt material. This fill contained the largest single assemblage of Saxon pottery from the site, and included fragments of at least ten vessels, mostly in a chaff-tempered fabric, dating to the 6th century AD (see Jarrett below). A quantity of burnt flint and charcoal was also recovered and it appears that much of this derived from the burning down of a wooden structure with a suspended floor. The relatively large quantity of pottery present was probably derived from several vessels sitting on the wooden floor when the SFB burnt down, which then fell into the void below as the timbers collapsed.

A second possible SFB (SFB2) was located on the eastern side of the excavation area, and extended beyond the eastern edge of excavation so that its full dimensions could not be discerned, although it was larger than SFB1 (Fig 11). It measured at least

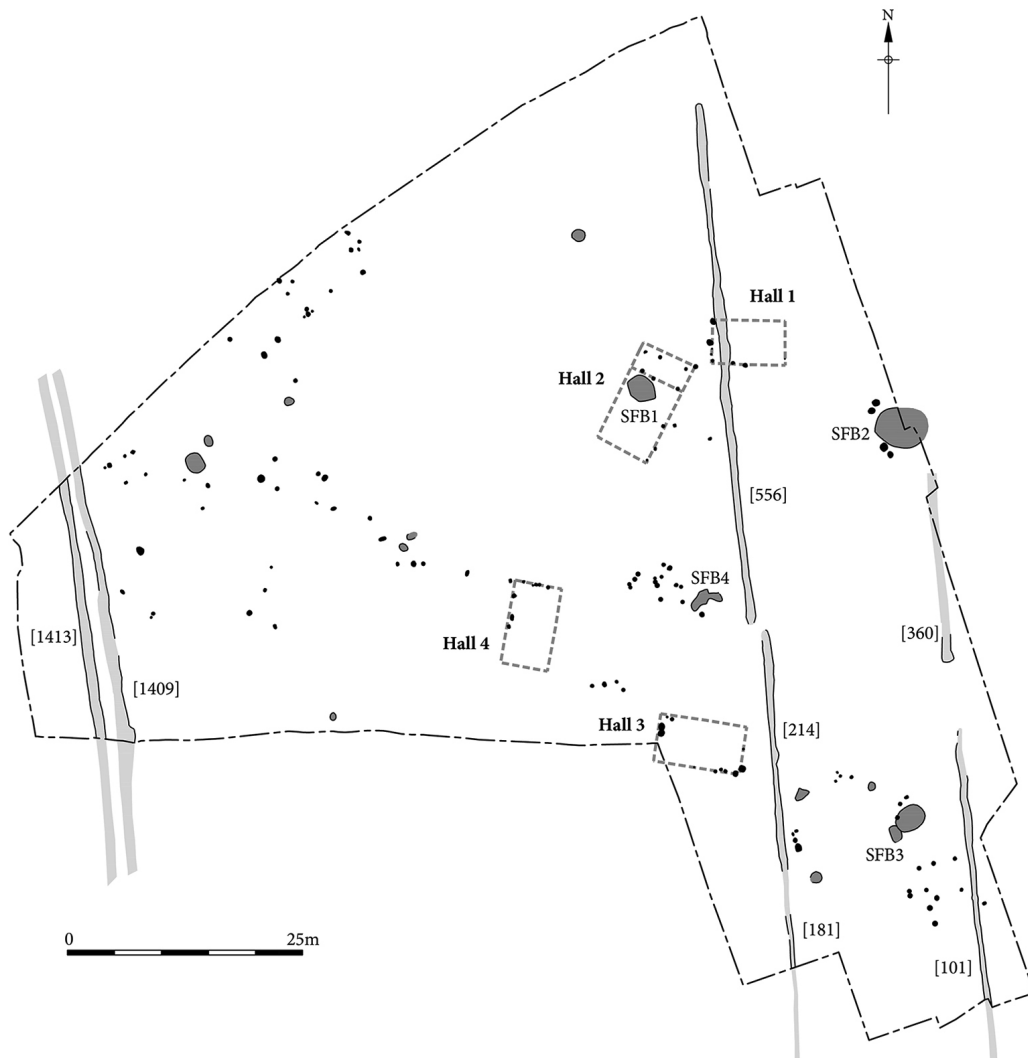


Fig 11. The Saxon buildings and other features, showing their found and conjectured extents (scale 1:800)

5m north–south by 3m east–west and was up to 0.78m deep with very steeply sloping sides and a flattish base. Pairs of postholes located to the north-west and south-west of the SFB appeared to be parts of a timber superstructure. Unlike SFB1 it looks as if it was abandoned and was backfilled over a period of time. Small quantities of Roman material were recovered from all associated deposits as well as from one of the external postholes. A small quantity of Saxon pot also came from a contemporary nearby pit.

A third possible SFB (SFB3) was positioned close to the south-eastern corner of the

excavation (Fig 11), though its form remains a little unclear as it truncated the backfilled Late Bronze Age enclosure ditch and an apparently earlier Saxon feature. This SFB comprised a sub-circular element, [202], measuring 3.40m east–west by 2.50m north–south and it was 0.62m deep. It had steeply sloping sides and a flattish base. Its single fill included some residual late Roman pottery (a sherd of Oxford red/brown colour-coated ware) and a small quantity of Saxon pottery, contemporary with that from the other two SFBs. The fill of a posthole cut into the edge of the SFB also contained Early Saxon

pottery, but it was unclear whether this was a contemporary or later feature. This SFB apparently post-dated a smaller, sub-rectangular pit, [221], the primary fill of which contained Saxon pottery. It is possible that this pit represents an earlier, but very poorly defined, SFB with overall dimensions of *c.*4.5m by 2.8m, aligned north-east to south-west.

A further large irregular cut comprising a depression, [468], measuring *c.*3.4m east-west by 1.8m north-south probably represents a fourth badly truncated SFB (SFB4) (Fig 11). A single sherd of chaff-tempered Saxon pottery was recovered from its fill.

In addition there were a number of Saxon post-built structures, the ground plans of which remain uncertain. In the near vicinity of SFB1 there were two possible rectangular post-built arrangements, which may have been hall-type buildings. The first of these (Hall 1) was located immediately north-east of SFB1 and was made up of eight postholes, which appeared to represent the western end and southern side of an east-west aligned rectangular structure (Fig 11). This would have measured at least 8m in length by 4.5m in width. Although no Saxon finds were recovered from any of the postholes, their layout and proximity to SFB1 suggests a probable Saxon date. A second nearby possible rectangular building (Hall 2) occupied the same area as SFB1, suggesting it either pre- or post-dated this structure (Fig 11). A lack of stratigraphic relationships did not permit the connection between these two Saxon buildings to be determined. Hall 2 consisted of ten postholes, forming the eastern and northern sides of a north-east to south-west aligned rectangular structure, a little over 10m long and 5m wide with an internal division. Again, none of its components produced any direct dating evidence, but its form and position suggest a probable Saxon date.

Running across a broad swathe of the excavation area were various pits and postholes, which appeared to be Saxon in date. These included sections of fence lines as well as elements of more substantial structures (Fig 11). A short distance to the south of SFB3 was a group of 11 postholes arranged in a broadly square configuration. These may represent a further post-built structure, though again

there was no dating evidence. Their layout and position suggest these were Saxon rather than later prehistoric. Immediately north of SFB3 was a short posthole alignment which extended for *c.*8m. An additional north-west to south-east aligned group of postholes was noted to the west of SFB3.

Two pits to the north-west and south-west of SFB3 contained Roman material. Whilst these may have been of Roman date, the residual nature of the other Roman finds from the site suggests that these two features were of Saxon date. A little less than 17m north-west of SFB3 was a third possible building (Hall 3). This consisted of at least eleven pits and postholes, which suggest an east to west aligned rectangular building, *c.*9m long by 4m wide. A further group of postholes a short distance to the north-west suggests a subsidiary structure. One of these postholes, [522], contained a single sherd of igneous-tempered Saxon pottery. A further 10m to the north-west was an additional rectangular arrangement of nine postholes, which appears to represent another post-built building (Hall 4), measuring at least *c.*5.4m north to south by 4.8m east to west (Fig 11). Posthole [498] in the north-west corner of the group contained Saxon pottery. A group of 15 apparently randomly arranged postholes in the immediate vicinity of depression [468] may represent one or more small structures. One of these cuts, [844], produced a single sherd of chaff-tempered Saxon pottery.

To the north-west of Hall 4 was a scattered linear cluster of features, two of which contained Saxon material (Fig 11). The easternmost feature, [1391], was described as an area of root disturbance, which included an abraded sherd of Saxon chaff-tempered pottery. The westernmost one, [1395], produced three sherds of chaff-tempered pottery, along with a single Roman sherd. South of this group of features an arrangement of four postholes may represent another rectangular structure, again no Saxon material was in evidence, though Roman material was recovered from one of them, [1405].

Towards the north-western end of this cluster two other features produced finds of Saxon date. Pit [1495] was oval in plan, measuring 2.20m north-south by 1.80m east-west and 0.62m deep. It had a concave



profile, so its form and dimensions argue against it being another SFB. A short distance to the north, pit [1507] was much smaller but produced three sherds of Saxon chaff-tempered pottery. A third feature to the north also contained Saxon material: pit [1419] was oval, a little more than 1m in diameter and just 0.13m deep. Its fill contained a great deal of burnt material, probably hearth rake out debris, and included a single sherd of chaff-tempered Saxon pottery. A number of postholes and stakeholes to the north of this may have related to one or more post-built structures, though these could not be dated because of a lack of artefactual evidence. The location of these features beyond the Late Bronze Age enclosure suggests that they are more likely to be of Saxon than prehistoric date. Further postholes to the west of the enclosure may represent additional Saxon structures; again these were poorly dated and defined.

Another feature containing material dated as Saxon was located towards the north side of the site and cut into the Late Bronze Age enclosure ditch, [894]. This was an isolated oval pit, [1885], which contained along with a small quantity of possible prehistoric and Roman material part of the rim of a sand-tempered Saxon jar. Given that this sherd had probably not travelled far prior to deposition, it suggests that Saxon activity extended this far north.

Early Saxon plant remains consisted of a few grains of charred barley (*cf. Hordeum* sp) recognised in pit fills. While these grains may represent material derived from crops cultivated during the Saxon period, it is possible that they are intrusive due to the presence of recent seed material and modern root activity (Green *et al* 2005).

#### *Later Saxon activity (c.AD 650–1066)*

A small number of other features are attributed to a later phase of Saxon activity, this being dominated by a series of north–south aligned linear ditches (Fig 11). The most prominent of these ditches, [214] and [556], were probably elements of the same north–south aligned boundary; the latter contained a small quantity of Early Saxon pottery (see Jarrett below). Lying a little less than 20m east of ditch [214] was a parallel cut,

[101], that also contained a small assemblage of Early Saxon pottery (see Jarrett below). This ditch may have continued to the north as [360], though only the southern terminus of this heavily truncated feature survived. These parallel ditches demarcated a north–south aligned area, which may have served as a wide driveway located between fields situated to the east and west.

Towards the western side of the excavation were two closely spaced parallel linear ditches, [1413] and [1409] (Fig 11). The only finds from these features were burnt flints and a single fragment of Roman brick. These ditches are interpreted as field boundaries and elements of the same system recorded to the east. It is probable that all of these elements formed part of a new field system that developed during the Middle to Late Saxon period. Although the eastern ditches contained Early Saxon pottery, this material was probably derived from the earlier settlement which the ditches cut through. As the western ditches were located further from the dense area of settlement, the lack of Saxon material here is not surprising. It is likely that this field system was part of a planned landscape that developed in south Essex during the Middle or Late Saxon period (Rippon 1991). Previously it has been suggested that such landscapes were of prehistoric origin (*ibid*, 58), but the dating of the features at Dagenham Heathway supports Rippon's suggestion that these regularly laid out field systems may be of much more recent origin.

## THE LITHIC EVIDENCE

*Barry J Bishop*

Although the assemblage is small, there are indications to suggest it had been produced over a long period. The earliest pieces consist of a small collection of systematically produced blades and a blade core, products of a knapping strategy most characteristic of Mesolithic or Early Neolithic industries. No truly diagnostic pieces are present amongst this material, the only retouched implement was a burnt serrated flake fragment with blade-like dorsal scars, recovered from the Late Bronze Age enclosure ditch. One of the more notable pieces from the excavations is

a symmetrical hollow-based arrowhead, also from the enclosure ditch (Fig 12, 1). This is an uncommon implement, accounting for only 0.2% of all of the arrowheads examined by Green in his seminal survey (1980), and none were identified as coming from the Lower Thames Valley (Green 1980, 146). However, a remarkably similar example has been recovered from excavations at the Royal Docks Community School in Newham,

c.9km upstream from Dagenham (MoLAS 1998, 26). The location and nature of the retouch on the Dagenham specimen suggests that it most closely resembles variants of the oblique transverse arrowhead type, sharing many similarities but differing primarily in its symmetry and by having all margins retouched (*cf* Green 1984, 31). There are very few radiocarbon dates associated with hollow-based arrowheads; those that are available

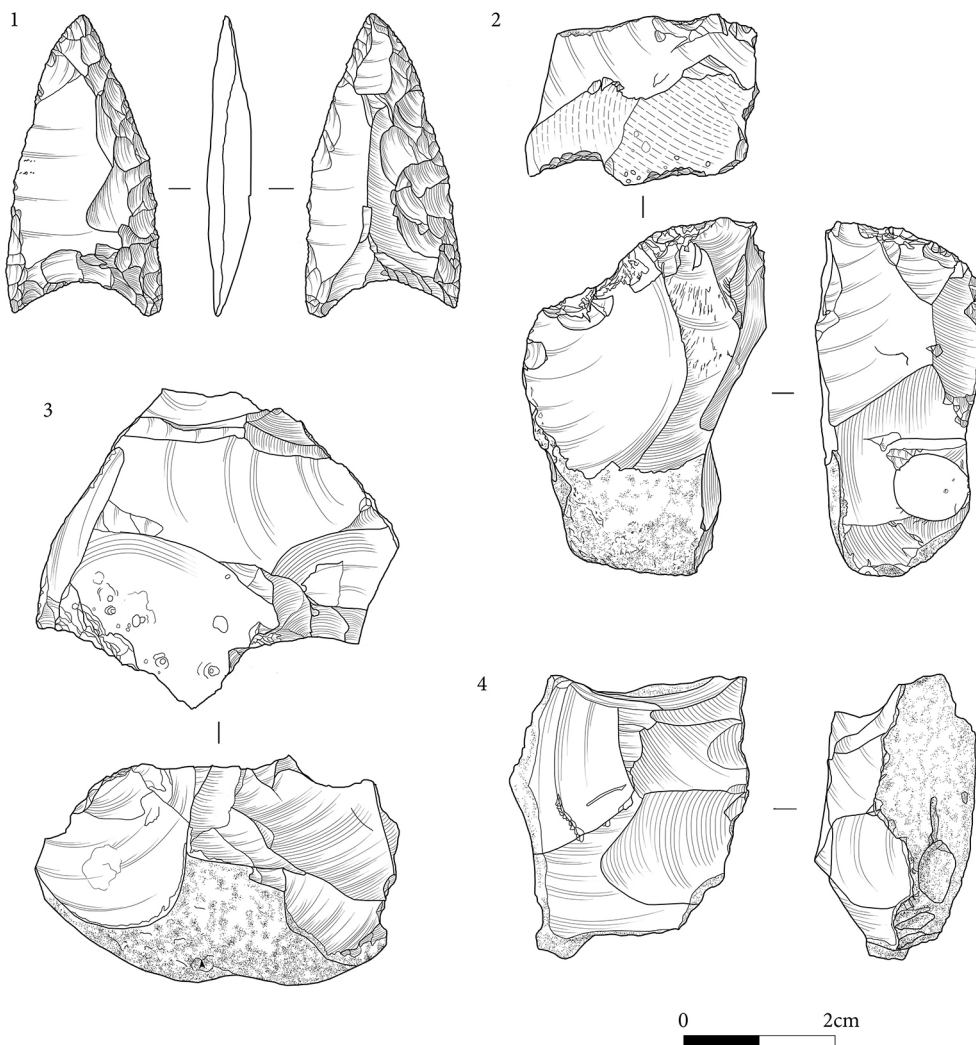


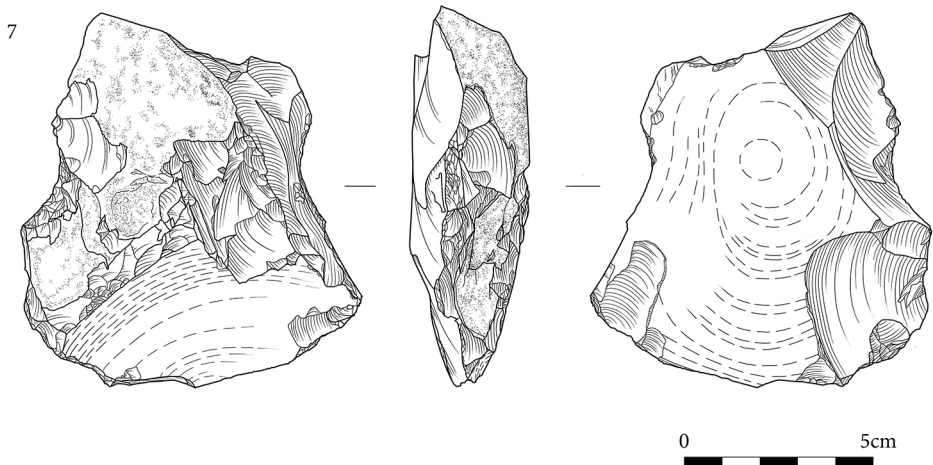
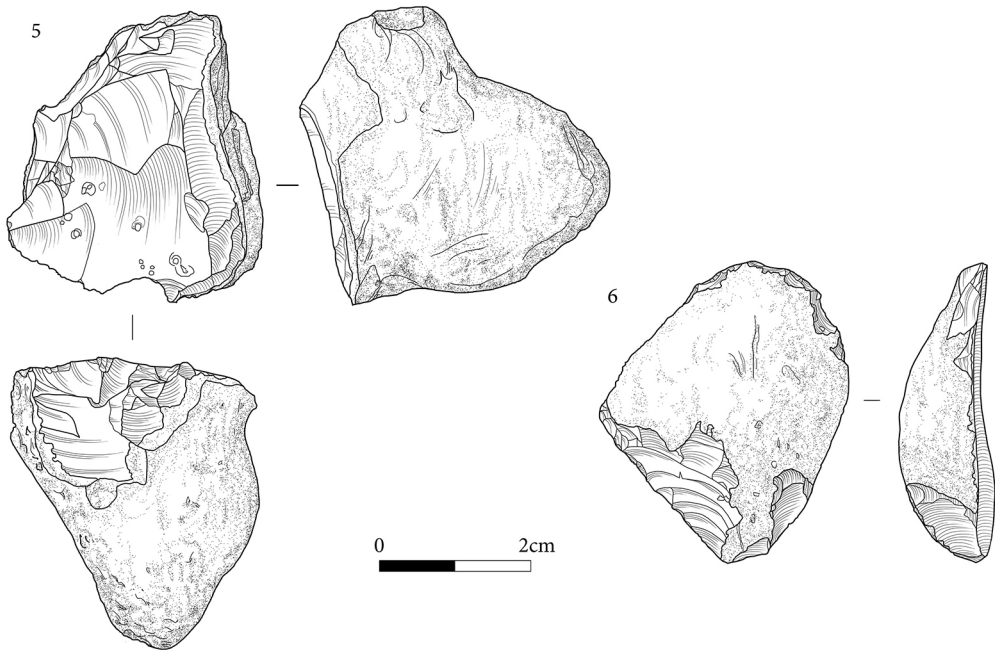
Fig 12 (above and facing). Dagenham Heathway struck flints. KEY: 1. Symmetrical hollow-based arrowhead [1960]; Minimally reduced cores, with a handful of flakes removed from one or two randomly aligned striking platforms, 2. [1649], 3. [459], 4. [196] and 5. [1829]; 6. Thick, cortical and minimally retouched scraper [196]; 7. Thermal spall with wide notches cut into opposite sides and flakes removed from around its margins [1933] (scale 1:1, except no. 7 scale 1:2)

suggest they are either Later Neolithic or Early Bronze Age in date, supporting the notion that they may indeed be related to the transverse forms (Green 1980).

While the small collection of blades and the arrowhead demonstrate that the site was visited over a long period, the small quantities and scattered distribution of material is suggestive of ephemeral use by transient communities prior to the Late Bronze Age.

### The Late Bronze Age assemblage

The bulk of the assemblage consists of broad, thick flakes and irregularly reduced cores. Precise attribution is problematic, but it is most characteristic of flint-working traditions dating from between the Middle Bronze Age and the Iron Age (*cf* Brown 1991; Herne 1991; Young & Humphrey 1999; Humphrey 2003). The knapping



strategies consist of an ad hoc and expedient approach to obtain serviceable edges, either from broad thick flakes or on the 'cores' themselves. This assemblage is dominated by thick 'squat' flakes with unmodified wide and obtuse striking platforms (*cf* Martingell 1990). There were numerous primary flakes present and most of the useable ones retain significant quantities of cortex, indicative of short knapping sequences. The cores are mostly minimally reduced, with a handful of flakes removed from only one or two randomly aligned striking platforms (Fig 12, 2–5). A few have been more extensively reduced but, again, platform preparation is minimal or non-existent and usually only a few flakes were removed from any particular surface. The retouched implements that can be associated with this group include a thick, cortical and minimally retouched scraper recovered from the enclosure ditch (Fig 12, 6). Of interest is a large thermal spall recovered from a Late Bronze Age pit. It has wide notches cut into opposite sides and a series of flakes removed from around its margins (Fig 12, 7). It resembled a very crudely flaked 'waisted' axe in appearance, although there were no indications, such as from edge damage, that it had been used as such. It shares similarities with other crude bifacially flaked tools of uncertain function (*eg* Clark 1936, fig 10.6; Gardiner 1987, fig 5, 13).

This collection of rather crudely produced struck flint was most likely manufactured during the latter parts of the 2nd millennium BC or early parts of the 1st millennium BC and, therefore, may well have been contemporary with the Late Bronze Age settlement and enclosure. However, pieces were only recovered in small numbers from any individual context, and no concentrations were present that could reflect sustained knapping activity. Instead, it probably demonstrates the occasional and opportunistic use of flint, discarded shortly after use into the enclosure ditch or recovered as general waste. This may not be surprising, as flint working during this period is usually considered to have been opportunistic, with flint probably only being knapped when needed, used with a specific purpose in mind and readily discarded. The only evidence for possible locations of flint

working consists of three small flakes from pit [472] that appear to have been struck from the same nodule, although these did not refit (Fig 4). These may indicate that flint working was conducted close by, some of the resulting debris becoming incorporated into the pit. Late Bronze Age hearth/fire pit [944] produced two unburnt flakes, one of which showed damage consistent with having been utilised for cutting or scraping, and a core. This recalls the small assemblage of struck flint recovered from a comparable Late Bronze Age fire pit at an enclosure at Oliver Close in Leyton which, taken together, indicate that some flint-using activities were conducted beside the fire (Bishop 2006b, 128).

Of the 45 pieces recovered from Late Bronze Age contexts, 24 came from the fills of the enclosure ditch. No particular concentrations were noted, however, and there is no compelling evidence that any of this material had been deliberately deposited into the ditch. The material instead appears to represent the casual discard of unwanted (and sharp!) debris. Similar patterns of use and discard have been noted at the contemporary enclosure at Oliver Close (Bishop 2006b). A possible exception to this may have been the arrowhead that was recovered from the backfill of the enclosure ditch (Fig 12, 1). At other comparable sites, some artefacts, including antique items, occasionally appear to have been deliberately placed within significant points within settlements and field systems (*eg* McLaren 2009), although in this case the presence of the arrowhead may more convincingly be explained as incidental, residual deposition. The only evidence for the reuse of flint consisted of a core and core fragment recovered from Saxon posthole [460]. Whilst it is not suggested that they were manufactured during this period, they may have been selected as suitable for post-packing.

### Burnt flint

Just over 6.5kg of unworked burnt flint fragments were recovered. The only indications of burnt flint found *in situ* consisted of small quantities from both Late Bronze Age pit [944] and Saxon SFB1 [1670].

The largest quantity, totalling just over

3kg, came from various fills of the Late Bronze Age enclosure ditch, it being scattered unevenly and present mostly in small discrete clusters, typically of around 150–400g in weight. This patterning suggests the dumping of the residues of hearth waste, potentially from individual episodes of use. Whether this represents casual dumping of unwanted debris or a more meaningful disposal of metaphorically charged material is a matter open for debate (McLaren 2009). In contrast to the enclosure ditch, the earlier field boundary ditches produced relatively little burnt flint overall, although contexts [1929] and [1930] were notable in that they contained just over 400g of very heavily and uniformly heat modified flint. Although still not particularly high quantities, the heavy and consistent burning of this flint, in contrast to the variably burnt material recovered from all other contexts, is suggestive of deliberate burning, such as may have been produced during a variety of cooking or craft activities (*eg* Buckley 1990; Hodder & Barfield 1991). This material suggests that there was a contemporary settlement nearby.

Small quantities of burnt flint were present in tree-throw hollows [1030] and [1047] and suggest either that these may have been utilised for shelter or that they formed after occupation at the site had commenced, with the flint becoming residually introduced. Saxon SFB2 [198] also produced relatively large quantities, consisting of nearly 800g, which may indicate that the residues from hearths were dumped into it when it was being backfilled. A further possibility is that, as the SFB appears to have truncated the Late Bronze Age enclosure ditch, the burnt flint may have been derived from the earlier feature.

Much of the remaining burnt flint was recovered from the Late Bronze Age post-holes and pits. This material was probably ‘background’ waste lying around the settlement. Some features contained sufficiently large quantities to suggest that it may have been deliberately incorporated, perhaps, given the often large size of the burnt fragments as post-packing. Again, a ceremonial placement of the burnt flint, perhaps associated with foundation rituals, cannot be discounted, although this is difficult to substantiate. The only other con-

text to produce significant quantities was Late Bronze Age pit [544], which produced just over 0.5kg, and probably indicates either its use as a hearth or a receptacle for depositing hearth waste, possibly having derived from Roundhouse 2.

## **PREHISTORIC AND ROMAN POTTERY AND OTHER CERAMIC OBJECTS**

*Louise Rayner*

### **Introduction**

The pre-Saxon pottery assemblage comprises a total of 1,308 sherds (20,223g), of which 1,301 are prehistoric and seven are Roman. The prehistoric assemblage is composed predominately of Later Bronze Age material, a period for which the ceramic sequence in this region is reasonably well understood. Material from other prehistoric periods is largely absent, although a few sherds may be of slightly earlier Middle Bronze Age date and a single probable Late Neolithic Grooved Ware sherd was also present.

### **Methodology**

The assemblage was recorded in line with the recommendations of the Prehistoric Ceramic Research Group (2010) and for the Roman pottery according to the guidelines of the Museum of London Archive, on pro-forma sheets and transferred to a digital data file. Each sherd was examined to identify the fabric, and where possible the vessel form; decoration and surface treatments were also recorded, along with sherd count, weight, state (abrasion, burnt, sooting, residue) and general comments. The complete lists of the Roman pottery codes cited including details and date ranges are available from the London Archaeological Archive and Research Centre (LAARC).<sup>1</sup>

### **Condition**

The condition of the assemblage is good to moderate based on the level of abrasion evident. A few contexts contained large sherds in good condition, although few vessels are represented by more than single sherds. Pottery was recovered from 157 stratified contexts. Of these, 52 contained

only single sherds, 77 up to ten sherds, 14 contained up to 20 sherds, ten contained up to 50 sherds and five contained over 50 sherds. The highest count from a single context was 81 sherds. The seven Roman sherds came from six contexts, and in several instances were alongside Saxon and residual prehistoric pottery. The average sherd weight for the assemblage is 15g; the median weight which may be more indicative of sherd condition is 9g.

### Neolithic

A single sherd in context [1845] with a light vesicular fabric and three impressed lines of decoration is probably from a Late Neolithic Grooved Ware vessel (c.3200–c.2000 BC). Unfortunately it was recovered from a posthole that post-dated the backfilling of the Late Bronze Age enclosure ditch.

### Late Bronze Age

#### *Fabrics*

The prehistoric assemblage has been divided into 11 fabric groups on the basis of inclusion type, size and density. The vast majority of the pottery is flint-tempered, accounting for 85% of the total assemblage. This pattern is common across the region and given the longevity of flint temper use throughout much of the prehistoric period poses some difficulties with identification and dating, where diagnostic sherds are absent. Other inclusion types represented include shell, grog and organics alongside a small quantity of sandy wares. The use of these alongside and in some cases with flint temper appears to represent diversification in fabric types, dating to the Later Bronze Age/Early Iron Age period. The presence of iron oxides was also used to define different fabric types. These appear to occur naturally in the brickearth and clays sourced for pottery manufacture in the Thames Valley and are also common in pottery of similar date in west London and the surrounding area.

In the vicinity, the fabric types represented here find parallels with the much larger, but broadly contemporary, assemblage from South Hornchurch, where eight of the ten fabrics identified were flint-tempered (Harrison 2000, 337). The Hornchurch

assemblage also contained sandy and quartz-with-flint fabrics and although shell-tempered wares are not identified they may be present, recorded as ‘platy voids’ (fabrics I & J; *ibid*). Carbonised residues on sherds of shell-with-flint fabric (SHFL) from west London have been radiocarbon dated, indicating this fabric was in use by the first half of the 8th century cal BC (Elsden *et al* in prep). Unfortunately none of the SHFL sherds in this assemblage are diagnostic, and therefore the applicability of this dating here is uncertain.

#### *Vessel forms*

The assemblage contains examples of both coarse and fine ware vessels and all vessel classes as defined by Barrett (1980) are present: Class I, coarse jars; Class II, fine jars; Class III, coarse bowls; Class IV, fine bowls; and Class V, cups (Barrett 1980, 302–3). The majority of sherds could not be assigned to specific forms, but the form classes that could be identified are discussed.

There is clear correlation between some fabric types and vessel forms. Fabric FLIN4 is associated exclusively with bowls where diagnostic, and fabric FLIN5 appears to have been used predominately for fine ware bowls, cups and thin-walled jars. In contrast, fabrics FLIN1 and FLIN3 appear to have been used exclusively for coarse ware jars; fabric FLIN2 is also primarily associated with jars, although a few sherds from coarse ware bowls are also in this fabric. Diagnostic sherds in the other fabrics are too few to detect any patterns in use.

#### *Coarse ware jars (Class I)*

##### Shouldered jars (P1–P9)

The majority of diagnostic jar sherds can be broadly classified as shouldered jars, although these are mainly slack- or round-shouldered rather than strongly carinated (Fig 13). The rims are almost exclusively simple everted or upright forms. These jars find parallels in the assemblages from other Late Bronze Age settlement sites in Essex such as the enclosures at North Ring, Mucking (Bond 1988), and Springfield Lyons (Buckley & Hedges 1987) as well as more broadly within the Lower Thames Valley.

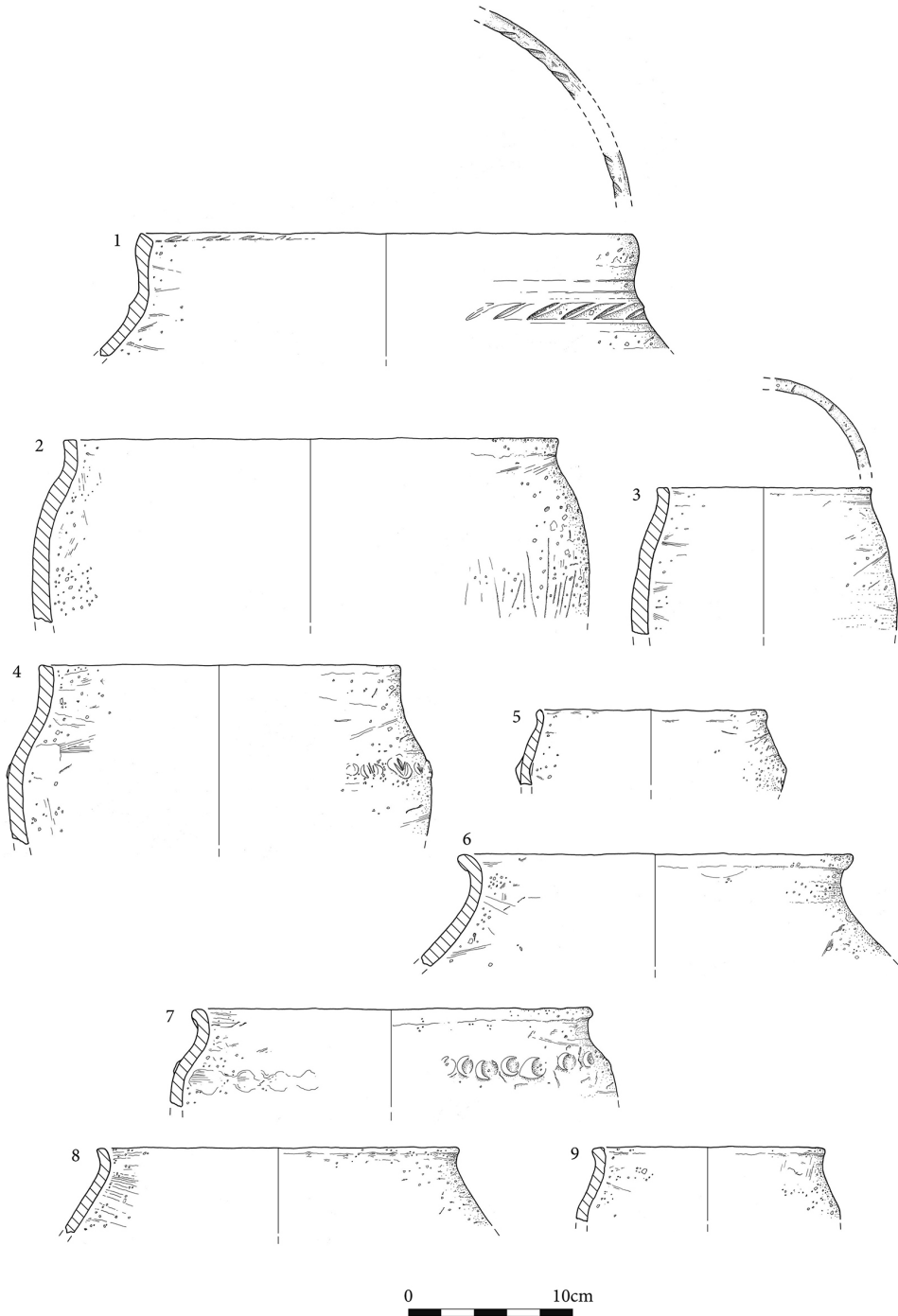


Fig 13. Late Bronze Age coarse ware shouldered jars. Key: 1. Shouldered jar with everted rim, cordon at neck with impressed oblique lines [1673]; 2. Slack-shouldered jar, plain everted rim [157]; 3. Slack-shoulder jar, short upright neck [31]; 4. Shouldered bipartite jar, fingertip-impressed row on shoulder [1931]; 5. Slack-shouldered jar, simple upright rim, applied boss [1931]; 6. Shouldered jar, upright neck and folded-over bead rim [1931]; 7. Strongly shouldered jar, deeply impressed fingertip row on shoulder, moulded rim, folded [1960]; 8. Shouldered jar with everted rim [1960]; 9. Shouldered jar with flat-topped rim [1960]

A jar with an applied boss may be of earlier date as the use of applied bosses is well evidenced in Deverel-Rimbury assemblages in Essex including North Shoebury (N R Brown 1995, 78); the shouldered form of P5 is somewhat developed in comparison to the bucket-shaped urns on which these occur, however, perhaps indicating a slightly later date.

- P1 Large shouldered jar with everted rim, slight cordon at neck with impressed oblique lines (FLIN3; [1673] & U/S conjoining) (Fig 13, 1)
- P2 Slack-shouldered jar, plain everted rim (FLIN1; [157]) (Fig 13, 2)
- P3 Slack-shouldered jar, short upright neck (FLIN3; [31]) (Fig 13, 3)
- P4 Round-shouldered bipartite jar with fingertip/nail-impressed row on shoulder (FLIN3; [1931]) (Fig 13, 4)
- P5 Slack-shouldered jar with simple upright rim; applied boss on shoulder (FLIN3; [1931]) (Fig 13, 5)
- P6 Shouldered jar with upright neck and folded over rim to form bead (FLIN3; [1931]) (Fig 13, 6)
- P7 Strongly shouldered jar with deeply impressed fingertip row on shoulder; crudely moulded rim, folded over (FLIN3; [1960]) (Fig 13, 7)
- P8 Shouldered jar with everted rim (FLIN3; [1960]) (Fig 13, 8)
- P9 Shouldered jar with flat-topped rim (FLIN3; [1960]) (Fig 13, 9)

#### Straight-sided jars/urns (P10–P13)

Amongst the coarse wares, there are simple, upright rims from straight-sided vessels. These have much in common with the Deverel-Rimbury urns of the mid to late 2nd millennium BC but are also present in later assemblages at Mill Hill, Deal in Kent (Champion 1980, 236, fig 6), Mucking (Jones & Bond 1980, 476, figs 14 & 15) and Carshalton, Surrey (Adkins & Needham 1985, 30, fig 5, no. 18) so it is possible that these are contemporary with the bulk of the 'plainware' assemblage. The concave jar/urn P13 with a perforation below the rim is a stronger candidate for an earlier date with ready parallels in the North Shoebury Middle Bronze Age assemblage (N R Brown 1995, 79, fig 62, nos 26 & 27). Example P10 has a slightly tapered plain rim (FLIN3; [471]), while P11 has a roughly folded over

plain rim (FLIN3; [471]). Example P12 is slightly inturning with an internal bevel to the rim (FLIN3; [471]), and P13 comprises a concave jar/urn with flat rim and perforation, possibly being a Deverel-Rimbury type (FLIN1; [1692]).

#### *Fine ware jars (Class II)*

Fine ware jars occur less frequently but are present, with two examples found in context [346].

#### *Coarse ware bowls (Class III) (P14 & P15)*

Coarse ware bowls are difficult to identify amongst body sherds so are likely to be under-represented. Larger fragments evidence both rounded and carinated types such as P14 and P15. The large portion of P15 is similar to examples from North Rings, Mucking (Bond 1988, 33, fig 23, no. 98). Example P14 consists of a large carinated bowl with a double fingertip impression row on the carination; it has sooting on the interior under the rim and carbonised residue on the interior (FLIN3; [1640]). Example P15 comprises a round-shouldered bowl with short upright rim and it has an intact profile to the base (FLIN3; [1672]).

#### *Fine ware bowls (Class IV) (P16–P25)*

Fine ware bowls are well represented although all are undecorated. There is variety in the profiles, although most can be classified as bipartite and therefore substantiate a Late Bronze Age date. Characteristic examples include the following: P16, a shouldered bowl with a long slightly everted rim and polished surfaces, [647]; P17, comprising a bipartite shouldered bowl, with burnished surfaces and a tall rim above the shoulder (QUFL; [905]); and P18, a bipartite shoulder bowl with burnished surfaces and a short rim above shoulder (FLIN4; [1992]). Example P19 is a round-shouldered bowl with a short rim and burnished surfaces (IOFL1; U/S), while P20 comprises a bipartite bowl which is strongly carinated with a short inturned section above the angled body (FLIN2; [1613]). Example P21 comprises a low-shouldered bowl with a simple out-turned rim and smoothed surfaces (FLIN2; [1930]). Example P22 is an open hemispherical bowl



with smoothed surfaces (FLIN4; [1960]). Example P23 comprises a small thin-walled bowl, with an inturning rim and smoothed surfaces (FLIN5; [1960]). Example P24 is a shouldered bowl which is concave above the carination and has polished surfaces (FLIN5; [1960]), while P25 is a shouldered bowl with a low carination (FLIN5; [1960]).

#### *Cups (Class V) (P26)*

A number of sherds are probably from fine ware cups based on their diameter and wall thickness. These include small rim sherds in [1304] and [1960] and the intact lower portion of a carinated cup with a small omphalos base, P26 (FLIN5; [1635]).

#### *Miscellaneous (P27–P31)*

The handles comprise the two types identified.

Two fragments of lugged handles were recovered, both with oval sections and one which evidences the means of attachment of such handles. Example P28 is a lug handle (FLIN4; [1993]) readily paralleled in other Late Bronze Age assemblages and appears to have been used in pairs on jars, probably for suspension during cooking. Similar examples can be seen in the assemblages from North Ring, Mucking, and South Hornchurch (Bond 1988, 30, fig 21, nos 23 & 24; Harrison 2000, 340, fig 13, no. 9). A third handle of more unusual form which has a flat, rectangular section, P27, is present. Example P29 comprises a body sherd with a row of deep, large fingertip impressions (FLIN3; [159]), P30 is a shoulder sherd with a fingertip-impressed applied cordon (FLIN1; [132]) and P31 a body sherd with deep fingertip impressions on an applied cordon (FLIN3; [1304]).

#### *Decoration and manufacture*

Decoration, where it occurs on jar forms, predominantly comprises fingertip or fingernail impressions. This is typically in rows of single impressions on the shoulder (P29) and/or along the rim edge or interior, but an example of double impressions is also present on the carinated bowl P14. This decoration is typical of a Late Bronze Age and Late Bronze Age/Early Iron Age transitional

‘decorated’ assemblage as defined by Barrett (1980). Impressed oblique lines occur on a rim and applied cordons on three sherds (*eg* see P1).

Two examples of applied cordons with fingertip impressions (P30 & P31) may derive from Middle Bronze Age Deverel-Rimbury vessels, which commonly feature such cordons but also continue in use in Late Bronze Age post-Deverel-Rimbury assemblages. Examples were also found in the South Hornchurch assemblage as well as more widely afield in Late Bronze Age groups from North Shoebury (N R Brown 1995, 82, fig 64, no. 64). A single example with a perforation below the rim, P13, may also indicate a Middle Bronze Age Deverel-Rimbury component here, and a rim sherd with a single boss may similarly fall into this category, P5 (Fig 13, 5).

Several sherds evidence methods of manufacture where they have broken along coil joins. One example in context [61] indicates wide, flat straps were used to build up the vessel rather than rounded ‘sausage’-shaped coils. Also common in this assemblage are the characteristic jar bases with coarse flint-gritted undersides, which occur in ten contexts. The presence of dense flint grits on the underside of jar bases is a common feature of Late Bronze Age assemblages, presumably where pots were stood on layers of crushed flint to keep them off the ground whilst drying.

#### **Discussion**

Analysis of the pottery by stratigraphic phase was undertaken to explore changes and continuity in fabric and form use. Some patterns are apparent, reflective of chronological development within the assemblages. Significant deposits were also examined in an attempt to identify episodes of particular activity or functionally specific areas.

#### *Early Holocene naturally formed features and woodland clearance*

Three sherds were recovered from tree-throw or probable tree-throw features assigned to this phase. All are single body sherds: two in flint-tempered fabric (FLIN3) and one in a sandy fabric (QU1). There is nothing to

suggest these sherds relate to this phase of activity and all appear to be intrusive, derived from the Later Bronze Age settlement.

#### *Late Bronze Age activity*

The regional ceramic sequence for this period is characterised by simple, 'plain' ware assemblages of early post-Deverel-Rimbury date (*c.*1150–*c.*800 BC) increasingly giving way to 'decorated' wares (*c.*800–600 BC) of the Late Bronze Age/Early Iron Age transitional period (Barrett 1980; Needham 1996). Characteristics of both these traditions are evident in this assemblage.

The earlier phase assemblage came from a range of features including postholes, pits and field ditches. Of most significance is the lack of any decorated vessels amongst the pottery. Both fine and coarse ware vessels are present and include 'developed' forms such as everted rimmed jars and bipartite bowls (*eg* P16 & P17), typical of 'plainware' assemblages of early post-Deverel-Rimbury date (Needham 1996, 136). This phase also produced material with Deverel-Rimbury traits (P10–P13), which may be residual from otherwise unrecognised Middle Bronze Age activity, or indicate the continuity of such vessels within the post-Deverel-Rimbury 'plain ware' assemblage.

In contrast, the pottery recovered from features associated with the later settlement phase includes decorated vessels including P1 (Fig 13, 1), P4 (Fig 13, 4) and P14. This suggests that this phase, or at least some of the activity, may be placed in the 8th–6th centuries BC, characterised by 'decorated' assemblages. The small individual group sizes makes distributional analysis problematic, but the secondary and tertiary fills of the main enclosure ditch certainly account for many of the most clearly definable 'decorated' assemblages, perhaps suggesting the ditch was being infilled during this period.

Elements such as the flint-gritted bases are present in the assemblages from both phases which is concurrent with evidence elsewhere, where they have been found with both 'plain' and 'decorated' groups. Analysis of the relative proportions of the main flint-tempered fabrics (FLIN1, FLIN2, FLIN3) in each phase are of interest; percentages by both sherd count and weight were examined

to counteract bias in the quantification caused by differential breakage patterns between forms. Fabrics FLIN4 and FLIN5 account for a larger proportion of the assemblage in the later phase than in the earlier one. These are both fabrics largely associated with fine wares, suggesting an increased quantity of fine ware vessels in use within the settlement enclosure. Whether this is a reflection of chronological or functional variation is not clear and both factors may be relevant.

What is also apparent is that IOFL1 and IOFL2 are predominately fabrics associated with later phase features, although small quantities of IOFL1 were recovered in the earlier phase.

#### **Significant Late Bronze Age deposits**

##### *Pits [616] and [462] with loom weights/ clay objects*

Neither of the pits with substantial clay object assemblages produced significant pottery groups. Pit [616] held a small, largely undiagnostic assemblage from [615]. The presence of carbonised residue on the interior surface of a base sherd suggests some of this material derives from domestic cooking vessels. Equally, fill [461] from pit [462] produced a small assemblage of undiagnostic flint-tempered body sherds.

##### *Alignment 1*

Of this group only posthole [1726] produced pottery; a large fragment of a coarse ware jar base came from [1724] (Fig 4). This vessel may have been deposited or placed in the pit in a more complete state, with plough truncation having resulted in only the base plate surviving. The vessel was clearly of some size, with a base diameter of approximately 170mm, which may indicate a storage-sized jar set into the ground. Although a large vessel, the wall thickness does not suggest it is a Middle Bronze Age type urn, which are often recovered from truncated cremation burials. Base sherds from a second coarse ware jar were recovered from the above fill, [1725], presumably accumulating when the feature had gone out of use.

A second similar feature with associated jar fragments was identified (posthole [1101]).

They are frequent on Late Bronze Age sites throughout the south-east. The purpose of the jars is unclear; they may simply have been for storage.

The vessel found here, pot [1698], also appears to have been intentionally placed in cut [1101]. The vessel (FLIN1) is a large coarse ware jar, although as only the lower wall body sherds survive the form cannot be closely classified. The vessel was clearly hand-built by coil and had broken along the join of the lowest coil to the base. The base plate is almost complete with a diameter of c.200mm. Again this pot is reminiscent of a truncated cremation burial, but no burnt bone was found.

*Slot 15: [1642], [1640]; enclosure ditch [1305]*

From [1642], the natural silting of enclosure ditch [1305] in Slot 15, a complete perforated clay slab, <SF11>, was recovered. Although discovered in fragments it appears that this slab was intact when deposited (Fig 14). It is described and discussed below.

From the same slot came a large fragment of decorated coarse ware bowl, P14. This was found in the same layer as an intact ceramic spindle whorl, <SF2> (Fig 15). It may be significant that these intact objects were

recovered from the enclosure ditch sections close to the entrance.

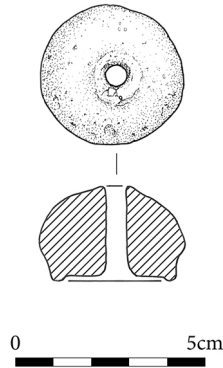


Fig 15. Late Bronze Age ceramic spindle whorl <SF2> from [1640] (scale 1:2)

*Pit [1672]*

This pit, cut into field ditch [894] at the end of the earlier phase or during the subsequent one (Fig 4), contained a large portion of a round-shouldered coarse ware bowl, P15.

**Roman pottery**

The Roman pottery was represented by seven residual sherds, of which six were late Roman colour-coated and other regional wares. Where identifiable these include products from the Oxfordshire kilns such as Oxford red/brown colour-coated ware (OXRC) and Oxford white-coated ware (OXWC) ([201], [220]). There was little evidence of earlier Roman activity with the exception of one sherd of Highgate C ware (HWC) [255], which is likely to date to the early 2nd century AD.

**Late Bronze Age fired clay objects**

*Perforated clay slabs*

Aside from the complete example recovered from [1642] (enclosure ditch [1305]) only two other fragments of perforated clay slab were recovered: from pit [544] (associated with Roundhouse 2) and [1960], also a fill within enclosure ditch [1305]. This would suggest that these objects relate to activity associated with the enclosed settlement.

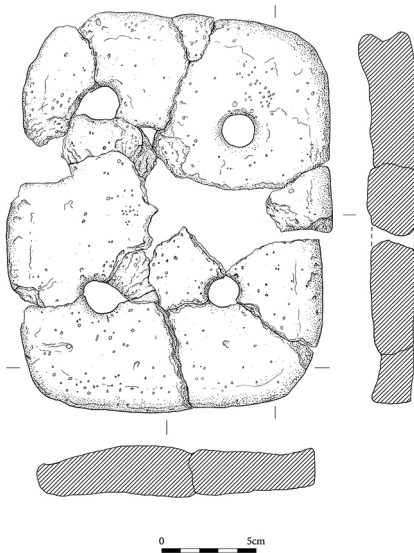


Fig 14. Late Bronze Age complete perforated clay slab <SF11> from [1642] (scale 1:4)

Although the recovery of a complete slab is extremely rare, the scarcity of other fragments is equally surprising; however, the quantity recovered from other Late Bronze Age sites varies. The North Ring at Mucking produced 16,140g (Bond 1988, 39), the enclosure at South Hornchurch produced 58 fragments (612g) (Harrison 2000, 344), while 50 fragments came from Springfield Lyons and 19 fragments were found at Queen Mary's Hospital, Carshalton (Adkins & Needham 1985, 35, fig 13). None came from the enclosure at the Oliver Close Estate (Cotton 2006; Bishop & Boyer 2014, see this volume) and only two fragments were recovered at Runnymede Bridge, Surrey (Longley 1980, 32). Fragments of slabs are much more common than complete examples (Champion 2014, 282). The large group found at North Ring, Mucking, stands out, but not a single complete example was present in this assemblage (Bond 1988, 39).

The complete slab, <SF11> (Fig 14), from Dagenham Heathway appears to be a large variant (200mm x 165mm, thickness 15–20mm), although comparison is difficult when most published examples are fragmentary. It has a deep groove on two adjoining sides and five circular perforations. A large segment from the North Ring enclosure at Mucking is estimated as having originally measured 160mm by 110mm and 15mm thick (Bond 1988, 39, fig 27, no. 1). Examples from Carshalton are cited as measuring 330mm x 190mm (Field & Needham 1986, 140).

#### *Context and distribution*

The complete slab and one other fragment were both recovered from fills of the enclosure ditch, [1305]. A second fragment was recovered from a small pit, [544], associated with Roundhouse 2.

At North Ring, Mucking, fragments of clay slab were also recovered from the secondary fills of the enclosure ditch and, with the exception of one pit, were absent from the interior, which was taken to indicate a non-domestic function. The secondary fills of the later phase of the North Ring at Mucking have been radiocarbon dated to c.1000–700 cal BC (Bond 1988, 8). At South Hornchurch, the fragments were associated with small enclosures and one structure (Harrison

2000, 344). At the Springfield Lyons enclosure the distribution of the fragments was limited to the enclosure ditch and an area of 10m diameter within the enclosure (Major 1987, 11).

#### *Discussion*

The distribution and function of these perforated clay slabs or plates has been discussed twice by Champion (1980; 2014). They have now been discovered at over 70 sites in the Lower Thames Valley, but there are less than ten complete or nearly complete examples including that from Dagenham Heathway (Champion 2014, table 1, 282). The function of these objects is uncertain, but there is general agreement that they 'were meant to allow the passage of air for some purpose'. A reoccurring association of these objects with burnt material suggests 'that they were used in some sort of oven or furnace, but at lower temperature than required for metal or ceramics ... the most likely suggestion would seem to be for cooking' (*ibid*, 289), perhaps for baking bread. Baking food in ovens was a technological innovation during the Late Bronze Age. As many of these slabs are found at 'ringworks and other aggrandised enclosures' which are often interpreted as either the residences of a social elite or places where communal social functions were held, perhaps bread production was associated with feasting at these sites (*ibid*, 292).

#### **Ceramic spindle whorl**

##### <2> [1640] *Spindle whorl*

The only spindle whorl found (Fig 15) was made in a sandy, fine flint-tempered fabric (diameter 35mm, height 20mm, hole diameter 7mm). Ceramic spindle whorls, though not common, are known from similar Late Bronze Age enclosure settlements. Two examples were recovered from the South Hornchurch enclosure and two from the North Ring at Mucking (Bond 1988, 37, fig 26, nos 1 & 2). The domed shape with flat base is less common on Bronze Age sites than biconical examples such as those from Runnymede Bridge (Longley 1980, 31–2, fig 17, nos 52 & 53).

### Ceramic weights

Cylindrical and pyramidal weights are widely recognised components of the material culture of Later Bronze Age settlements. They are generally interpreted as loom weights (Barford & Major 1992, 118). Both types were recovered during the excavations (Fig 16), although the cylindrical weights are more numerous, predominately due to their presence in pit [616], which appears to be a 'structured' deposit.

Although commonly associated with Mid-

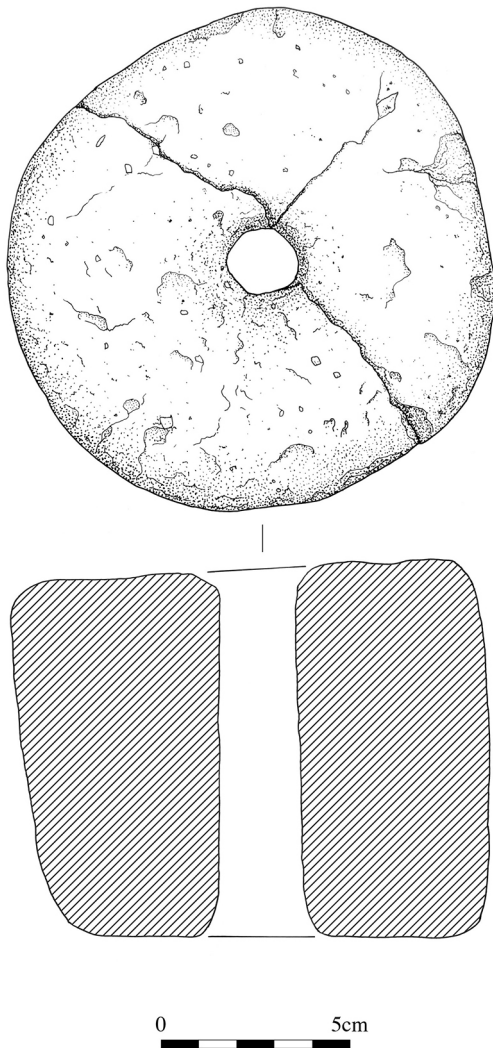


Fig 16. Late Bronze Age cylindrical weight <3> from [616] (scale 1:2)

dle Bronze Age Deverel-Rimbury pottery, cylindrical weights also occur with early 1st millennium BC post-Deverel-Rimbury plain wares as at Queen Mary's Hospital, Carshalton (Adkins & Needham 1985, 38), Kingston Hill (Field & Needham 1986, 139–40), both in Surrey, and at North Shoebury and Mucking in Essex, amongst others (Barford & Major 1992, 119). The pyramidal weights are also usually associated with Late Bronze Age material. Unfortunately the small pottery group associated with the cylindrical weights in [616] was not particularly diagnostic.

Detailed examination of the cylindrical weight fragments from pit [616], including fabric analysis, indicated six weights are probably represented, although due to the fragmentary nature and similarity of fabrics it may be that as few as four or more, rather than six, are present. The intact example, <3>, provides useful data on the original weight of such objects, and at 2,174g it is at the upper end of the range; the best-preserved example from the Late Bronze Age settlement at Knights Farm, Berkshire, weighed 900g, and two more fragmentary examples weighed over 1,000g and 1,200g (Bradley *et al* 1980, 275, fig 37). Barford and Major suggest that although weights of up to 3kg (estimated) are recorded, the average weight was around 1kg (1992, 117).

Amongst the others from pit [616], weight <4A> has a distinctly square cross section and is comparable to an example from Mucking, which is described as a 'sub-pyramidal form with vertical perforation', perhaps indicative of 'a period of stylistic fluidity' between the horizontally perforated pyramidal and axially perforated cylindrical weight types (Bond 1988, 37–8, fig 26, no. 11). It may be that <4A> represents a similar 'stylistic fluidity' between the two forms.

Also of note is a single fragment of a cylindrical weight from [1727] (possibly derived from activity in Roundhouse 1), which has stabbed decoration around the perforation. A loom weight from Rook Hall in Essex similarly has the stabbed impressions from a five-toothed comb which has been interpreted as suggestive of an association between these weights and weaving combs (Barford & Major 1992, 117).

Only one fragment of a pyramidal weight could be positively identified, although it

is always possible more are represented amongst the fragmentary pieces with angled flat surfaces. The example recorded from [1304] (upper fill of enclosure ditch [1305]) is squat with a square cross section; although the top of the weight is missing, the inner surface of the perforation confirms it was horizontally pierced. It was associated with Late Bronze Age pottery, comparable to examples from Mucking and Springfield Lyons (Barford & Major 1992, 119).

A single fragment of a probably bun-shaped weight came from [1962]. It is in poor condition with damaged surfaces, so its form is uncertain. Weights of this type are predominately Saxon in date (Cowie & Blackmore 2008, 148–9, 195–6), although a small bun-shaped example was recovered from the North Ring at Mucking (Bond 1988, 38, fig 26, no. 3); however, this example is also cited as possibly Saxon and was stratigraphically late in a pit (*ibid.*, 39). The recovery of this fragment from ditch [1305] here suggests it is Bronze Age in date and either confirms the use of this form in this period, or possibly that this fragment relates to a more typical Bronze Age form such as the upper part of a pyramidal weight. However, as this context was in part excavated by machine, it is possible that it was derived from an unrecognised Saxon feature that cut the ditch.

### *Fabrics*

All of the weights were manufactured in a similar clay fabric and although two fabrics have been defined, fabric B is simply a sandier version of fabric A. Both contain large stone and burnt flint inclusions suggesting limited cleaning and preparation of the clay used.

Fabric A: hard, rare sub-angular quartz, mostly 0.5–1.0mm; rare flint inclusions up to 4mm; mostly oxidised.

Fabric B: hard, sparse to moderate sub-angular quartz, mostly 0.5–1.0mm; rare flint inclusions up to 4mm; mostly oxidised.

### **Ceramic blocks**

The other objects identified amongst the fired clay assemblage are rectangular ceramic blocks (Fig 17). These occurred in a number

of contexts and were often very fragmentary with only flat surfaces and occasionally edges surviving. Enough more complete fragments including some intact block ends were recovered to enable the object shape to be confirmed and complete measurements taken. Full details of all fragments are contained in the site archive, but the more complete examples are discussed below.

The largest groups were recovered from pits [722], [462] and [1728]. These produced a number of examples of block ends, and measurements suggest they were produced in two sizes. The first is roughly square in cross section with width measurements in the range of 46–51mm. The second is more rectangular with widths of up to 72mm. Interestingly, both types seem to have a depth in the range of 41–44mm. No examples survived intact enough to obtain their full original length and few conjoining pieces could be identified, even amongst the largest assemblages. Only one case was identified with what could possibly be described as a piercing, but the position and execution of this makes it unclear how purposeful this would have been (block B4). The piercing was made from the end of the block and cut through to the upper surface. It was very roughly executed and serves no obvious purpose, indicating it was probably not deliberate; the absence of similar features on any of the other block fragments supports this.

The ceramic blocks occur predominately in two fabric types: fabrics C and D. Fabric D is sandier than fabric C but otherwise similar; both fabric types are finer than fabrics A and B used to make the weights. The block fragments produced in fabric C had smoother surviving surfaces, perhaps reflective of the less granular fabric but these also appear to be associated with sharper, more angular edges. Several fragments in fabric D had more rounded edges which may indicate they relate to a slightly different form, but this was impossible to ascertain with the surviving pieces.

Fabric C: soft, powdery fabric; silty matrix; few other inclusions visible, very rare burnt flint inclusions up to 2.0mm.

Fabric D: soft, powdery fabric; sparse sub-angular quartz inclusions (up to 1.0mm) in

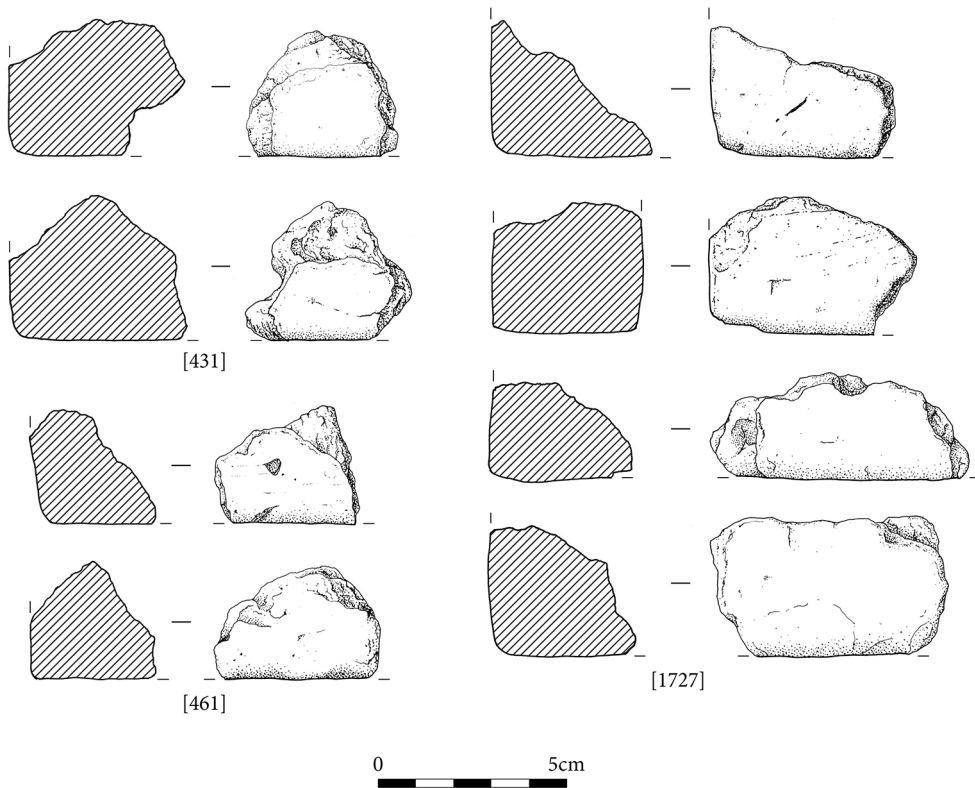


Fig 17. Selective examples of Late Bronze Age rectangular ceramic blocks from pit fills [431], [461] and [1727] (scale 1:2)

silty matrix; rare burnt flint inclusions up to 3.0mm.

Two of the key assemblages of ceramic blocks were recovered from pits associated with Roundhouse 1. Although the blocks are fairly hard and appear to be fired, few of the fragments from these assemblages show signs of prolonged heating or burning. The question of function is therefore intriguing and is further hampered by the lack of comparable assemblages from other Late Bronze Age settlements. Extensive survey of other published Late Bronze Age settlement sites, which in many other ways find comparison with the enclosure at Dagenham, has had limited success. A single possible parallel is illustrated from Mucking, described as a rectangular block (British Museum 1984) but this object does not feature in the publication (Bond 1988) so no other details are known. Some similar Late Iron Age or early Roman finds are known

from a farmstead at Hunts Hill in Upminster (Essex), where they are described as 'fired clay bars' (Howell *et al* 2011, 69–71).

These blocks are quite similar to the clay objects, often labelled 'Belgic bricks'. These 'bricks' are usually found in Later Iron Age or Roman contexts, however, and the dimensions of published groups, such as those from Dragonby in Lincolnshire, do suggest these are 'slabs' rather than 'blocks', with thicknesses in the range of 10–15mm. 'Belgic bricks' are often interpreted as kiln furniture (Barford 1996, 329), but there is no direct evidence for such a function of the blocks recovered from this site. These blocks may have functioned as oven or fire bricks, although none are particularly burnt, sooted or show signs of prolonged heating.

Brown, in her discussion of Iron Age triangular clay objects from Danebury in Hampshire, reminds us that in primitive societies objects are likely to have been multi-

functional and reused for purposes other than their original manufacture (L. Brown 1995, 64). Evidence for the use of clay blocks or bricks to line ovens or contain bonfires has been identified (*ibid*). The absence of perforations in the blocks recovered from this site suggests that they served a different function to the perforated slabs discussed earlier. There is also no evidence to suggest these blocks were used in salt production and their fabrics are not comparable to briquetage vessels.

### Distribution of ceramic objects

The context and distribution of the perforated clay slabs and spindle whorl have been discussed above and given the low quantities are not further included in this distribution study. Although the function of the cylindrical weights is generally interpreted as loom weights, the function of the ceramic blocks is unclear. In order to explore any possible relationship between the two types of objects their distribution was examined.

The deposition of at least four cylindrical weights in pit [616] can possibly be described as a 'structured' deposit, although they were associated with only a small amount of pottery and a single fragment of block end. As one of the weights survives intact, it can be suggested that at least one of the objects was deposited whilst still usable and probably several others which have subsequently become damaged and fragmented. This deliberate deposition of functioning objects is presumably symbolic and it should be noted that within historic Essex a number of sites have produced features with multiple examples such as Braintree (5), Rook Hall (2) and South Ockendon (13) (Barford & Major 1992, 119). This may reflect their use in groups as part of 'domestic' daily life.

The features associated with Roundhouse 1 included sub-circular pit [1728]. The secondary fill of this feature contained a single fragment of cylindrical weight alongside an assemblage of 14 ceramic block fragments. The primary fill produced a further block fragment with distinctive rounded edges, alongside two smaller pieces. Only four pottery sherds were recovered.

Truncating pit [1728] was a second, [944],

where from the uppermost fill the best-preserved assemblage of blocks from the site was recovered. Examples in both size ranges are present with a total of 62 fragments recovered, including eight intact end pieces. No fragments of weights were present in this pit, perhaps suggesting there is no functional association. Both these features are of interest as they were located very close to two of the postholes used in the construction of Roundhouse 1, [1787] and [2001], and pit [1728] in particular would have been very close to the wall of the structure. Although the two pits clearly post-dated the structure it is suggested that the fragments within them may have come from the wall or very close to it.

Aside from these features, the distribution of the ceramic blocks, where more than a couple of fragments occur, is largely restricted to pits including those within feature alignments running across the enclosure. Pit [722] produced a small assemblage of 22 fragments and some of these are quite laminated in texture perhaps due to burning. Two further pits with small collections of block fragments were situated in the north-eastern corner of the enclosure: [1796] and [1756].

The significance of the aligned features containing the ceramic blocks is difficult to interpret especially given the lack of understanding of the function of the objects. However, if the distribution is related to purposeful patterns of deposition and behaviour then these areas, or the demarcation between areas within the enclosure that the alignments provided, may have been regularly visited with the activities or events including the small groups of material being periodically deposited.

Features with placed deposits have been increasingly recognised on Bronze Age settlement sites, which Needham describes as 'deposits of material goods, or the remains of food, animals or humans, in contexts which suggest their deliberate placing to non-utilitarian ends' (1992, 61). At Mucking a single, intact cylindrical weight was positioned upright in a pit (Barford 1988, 49) and at North Shoebury and Runnymede a series of features containing pottery, animal bones and other finds were interpreted as 'structured deposits' (Needham 1992, 62; Brown & Lavender 1994, 10).



## SAXON POTTERY

Chris Jarrett

### Introduction

A small but important group of Early Saxon pottery was found, with a total of 85 sherds, weighing 1,926g. The condition of the pottery is largely fragmentary, but the vast majority of sherds are not abraded and a number of forms are recognisable, whilst a chaff-tempered ware plate or baking dish is of special note (Fig 18). This material has been classified according to the Museum of London's system (Blackmore 2008). The classification system allows for variations within a fabric group. Colours are described using the Munsell soil colour chart and diagram 7.5YR.

Feature SFB1 produced the largest group of Saxon pottery. Chaff-tempered wares are the most numerous totalling 30 sherds, representing some ten vessels and weighing 1,188g. In this pottery type small bowls are present in CHAF and CHFS and a sub-

biconical jar was identified in CHFSRQ+FL as well as fragments of a baking dish. Sand-tempered wares are represented by single sherds representing an example of a rounded jar in ESANAO as well as ESANC and ESANH and one sherd in sandstone-tempered ware fabric ESSTM. Two vessels have external sooting, the biconical jar and a sherd of CHFS.

### The Early Saxon pottery types and their forms

#### *Organic-tempered wares*

CHAF: chaff-tempered ware; London clay or brickearth matrix. This ware has chaff as the main temper and few other inclusions occur in the brickearth or London clay matrix. It accounts for four sherds (24g), but only one form could be identified comprising a burnished small bowl with a simple rim. Small bowls and cups may have been used as lamps, but no examples of these forms found in the assemblage show internal evidence of burning or heating.

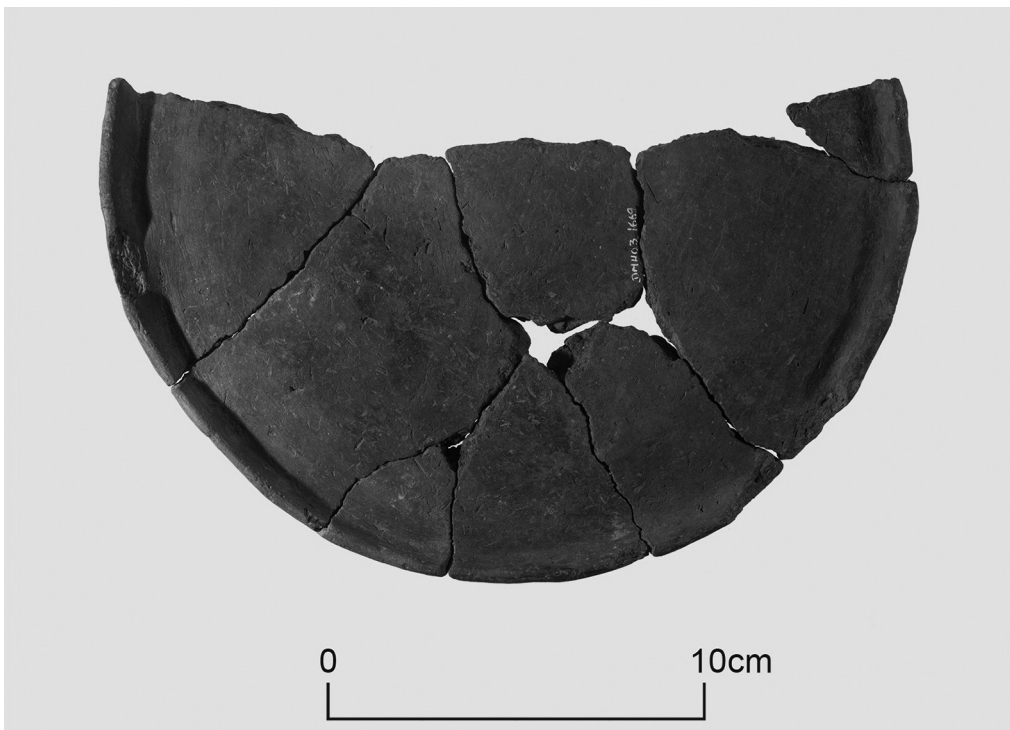


Fig 18. Saxon chaff-tempered ware plate or baking dish [1660]

CHFS: chaff-tempered ware with moderate to abundant sand (up to 1mm) and fine grits. This ware is represented by 27 sherds weighing 335g, and identifiable forms include a small rounded bowl with a simple inturned rim and wiped surfaces of a variable fired colour. Three jars in this fabric include examples with a simple, bevelled rim and a beaded form.

CHFSRQ+FL: chaff-tempered ware with rounded quartz and flint. Rounded quartz is a feature of Essex Early Saxon pottery (L Blackmore, pers comm) and frequent large rounded quartz was added to the clay. There are 12 sherds of this ware present (711g), all from the same biconical jar. It has an upright simple rim with a rounded top and the body carination is approximately at the middle of the vessel. It was externally sooted and so used for cooking food or heating liquids.

CHSF: chaff-tempered ware, fine with sparse chaff in a silty matrix with a groundmass of fine sand. The nine sherds weighing 180g are not diagnostic and therefore the forms are uncertain, but surfaces are wiped or burnished. One sherd contains a small chalk fragment and another has possible calcareous conclusions, two sherds possibly being non-local as the matrix is neither brickearth nor London clay.

CHSFQ: chaff-tempered ware similar to CHSF but additionally there are large sandstone quartz particles up to 2mm and sparse white and red flint inclusions of up to 2.5mm. Only one form is recorded in this fabric with large fragments of a plate or baking dish with a short upright, simple rim and undulating base (seven sherds, 276g). This rather rare form is known elsewhere, but the example here has a more elaborate rim treatment than the simple disc shapes recorded at Mucking. There, this form is in heavily chaff-tempered wares, which it is argued has greater thermal shock resistance, but one example also has a pinched surface (Hamerow 1993, 210, 215, fig 98.5, fig 103.13). The Dagenham Heathway plate or baking dish may have been deliberately tempered with large sandstone and flint fragments to give it greater thermal shock resistance also. Hamerow (1993, 40, 54) made the comparison of these baking plates to contemporary sandstone griddles

from Vallhagar, Sweden (Stenberger 1955, 843). The Dagenham plate has a diameter of 220mm, and so is slightly larger than the Mucking examples and smaller than the average 250–300mm diameter of the Vallhagar sandstone griddles.

ESBOA: bone-tempered ware with organic matter. A single body sherd is recorded (32g). The sherd has a very fine sandy matrix and its inclusions consist of sparse to moderate angular, flat fragments of white-, blue- and grey-coloured bone, ranging in size from flecks to 1mm, with sparse rose-coloured, sub-rounded quartzite up to 3mm. The black- to brown-coloured organic matter is moderate in frequency, up to 1mm in size and often has voids on the surface. Possible burnt out cereal grain impressions are present on the external surface which are up to 4.5mm in size. The external surface is dark greyish brown in colour and internally it is very dark grey, while the surfaces are wiped. Bone-tempered Early Saxon fabrics appear to be a phenomenon of the Thames Valley and have been found on domestic sites at Prospect Park, Harmondsworth and Kingston (Laidlaw & Mephram 1996; Blackmore 2008) and in Essex, possibly at Mucking (Hamerow 1993, 27) and Orsett (L Blackmore, pers comm). As a temper it has also been noted in the East Anglian funerary urns at Spong Hill, fabric group X (Brisbane 1994).

#### *Sand-tempered wares*

ESANAC or ESCALC FINE:<sup>2</sup> sand-tempered, abundant fine to medium quartz sand (up to 1mm) and sparse very fine flint with fine calcareous material. The one sherd (18g) in this fabric comes from a small rounded jar with a simple everted rim. It is mostly oxidised with a reddish yellow colour throughout, except for where an intermittent grey core can be observed.

ESANACO or ESCALCO FINE:<sup>3</sup> sand-tempered with abundant very fine to medium quartz sand (up to 1mm) and sparse very fine flint with sparse organic and calcareous inclusions. The one sherd in this fabric weighed 11g and contained sparse angular calcareous material, up to 0.25mm, beside sparse but large burnt out organic inclusions.

The sherd represents a rounded jar with a simple rim and a negligible neck.

ESANAO: sand-tempered with abundant very fine to medium quartz sand (up to 1mm) and sparse very fine flint with sparse organic inclusions. A single simple, upright rim sherd from a jar is present (7g). The firing of the vessel had resulted in irregular colouring with a variable light brown to black external surface and oxidised orange to light brown internal surface.

ESANBC or ESCALC FINE: sand-tempered brickearth with sparse to moderate medium sand and sparse fine flint with fine calcareous matter. There are two small sherds with burnished surfaces in this ware (7g).

ESANC: sand-tempered brickearth, coarser than fabrics EASANA and ESANB. A single sherd is present (15g) from an unknown form with a brown red external surface, light grey core and grey inner surface and shows evidence of wiped surfaces.

ESANCO: coarse sand-tempered brickearth with organic material. The inclusions consist of moderate, sub-angular grey quartz up to 0.5mm, with sparse chaff. There are three sherds weighing 139g of uncertain form, but a single large sagging base may be from a jar-shaped vessel. Most sherds have either burnished or wiped, uneven external surfaces.

ESANCCO or ESCALCO COAR: as ESANCO but with calcareous material up to 1mm and sparse, large fragments of chaff. The single sherd (30g) is from the base of a vessel and is reduced in colour with rough surfaces.

ESANDO: fine sand-tempered ware with sparse organic matter and scattered rounded quartz up to 0.7mm. The fabric is very similar to CHFS, but has more sand than organic content. A single sherd (7g) with burnished surfaces is present from an uncertain form with an internal black residue.

ESANH: greensand ware. A single sherd weighing 8g is present with burnished surfaces. The inclusions consist of abundant, irregular, rounded greensand of up to 0.5mm and sparse fine organic material. The sherd is reduced to a very dark grey

colour throughout, except for a dark brown external surface.

ESANHC:<sup>4</sup> sandy ware with shelly limestone. Fragments of a jar are present with a gently rounded body profile, a slightly everted rim and burnished surfaces, more so externally on the rim, neck and shoulder. The fabric is represented by two conjoining sherds weighing 40g. Inclusions in the fabric consist of ill-sorted sub-rounded shelly limestone ranging in size from flecks to 2mm and is vesiculated on the surfaces, abundant ill-sorted, clear, grey and occasionally rose-coloured quartz, ranging in size between 0.2mm to 0.7mm is also present, as are sparse fragments of sub-rounded quartzite, up to 4mm and rare burnt out organic fragments. The vessel had been fired to a very dark grey reduced colour.

#### *Grog-tempered ware*

ESGR: grog-tempered ware. The fabric matrix is fine and slightly micaceous, whilst the inclusions consist of abundant, angular red grog of up to 2.5mm, sparse, sub-rounded grey quartz, up to 0.5mm and sparse organic inclusions. The fabric is reduced with dark grey surfaces and a very dark grey margin. Two body sherds from the same vessel were recorded weighing 18g. These were from an uncertain, but probably closed form with surfaces showing very little evidence of finishing.

#### *Sandstone-tempered wares*

ESGSB: with abundant greensand quartz. A small body sherd (2g) is present with the greensand being angular, sometimes cemented together and up to 0.7mm in size.

ESSTB: fine sandstone-tempered ware. The inclusions consist mostly of moderate to abundant fairly well-sorted fine sandstone, less than 0.03mm with very occasional larger quartz inclusions up to 0.05mm. There are also burnt out sparse organic streaks present. A single sherd (4g) from a flared cup with an everted rim and flattened top is present. Its core and surfaces are dark grey with light yellowish brown margins.

ESSTC: coarse sandstone-tempered ware

with large quartz grits. There are three sherds of this ware (26g), all body sherds with wiped surfaces. The fabric contains sparse ill-sorted sandstone grains mostly less than 0.02mm, but occasional larger particles are up to 0.5mm in size. These could possibly be Millstone Grit from the Lower Carboniferous Sandstone, the nearest outcrop being in Derbyshire, but an unknown source perhaps on the edge of the Thames basin is possible (Blackmore & Vince 2008). Very sparse linear organic material is noted and the sherds are mostly reduced to a very dark grey colour, except for one sherd with a reddish yellow external surface.

ESSTD: abundant, evenly sized sandstone-tempered ware. A single reduced sherd (10g) is present.

ESSTM: mixed sandstone-tempered ware. This fabric group can vary in its coarseness. Here it is micaceous, with a mixture of sparse 'sugary' particles up to 0.7mm and larger, and sub-angular sandstone (possibly Lower Carboniferous Sandstone) fragments of up to 1mm. Two sherds (12g) were found which may be from the same vessel. Both are thin-walled and have an internal black-burnished surface; one has a brown external surface and the other a reddish yellow one.

#### *Igneous-tempered wares*

ESIG: igneous-tempered ware. A single sherd with a rusticated (pinched) pink to brown external surface and burnished internal very dark brown surface was identified. Inclusions consist of abundant, ill-sorted sub-rounded, red and grey quartz/quartzite up to 3mm, occasional rounded red clay pellets up to 2mm and moderate angular grey quartz (possibly Millstone Grit) up to 2mm. Igneous inclusions are sparse, silver, flat concoidal particles, less than 2mm in size. The sherd weighs 14g. Igneous Saxon fabrics are usually attributed to the Charnwood Forest area of Leicestershire. However, glacial erratics might have been exploited as a source of temper.

#### **Dating of the assemblage**

The temporal changes in Saxon pottery are problematical and not helped by its

handmade nature. Domestic assemblages have been studied in lesser detail than cremation urns, which have their own intrinsic characteristics. The dating of Early Saxon pottery is subject to much debate, and despite the controversy surrounding Myres's (1977) chronology of Early Saxon ceramic forms, decoration and their Continental origins it has to be broadly accepted until new research demonstrates otherwise. The Early Saxon pottery from Dagenham Heathway contains a wide range of fabric types, which is thought to be typical of 5th-century AD assemblages and apparently reflects the migration of settlers from the Continent (Andrews 1996a; Laidlaw & Mephram 1996).

The absence of faceted carinated bowls and coarse slipping (*schlikung*) of vessels from the Dagenham Heathway assemblage may be characteristic of a mid 5th- to early 6th-century AD date (Dark 2000, 86–7). Biconical forms are first found in the 5th century AD, but the jar shape identified could equally be from the 6th century AD. One sherd, an igneous-tempered ware, is rusticated with a pinched surface that may indicate the presence of small-scale 5th-century AD activity, but it could equally be contemporary with the plain, undecorated pottery assemblage, which is perhaps more indicative of a 6th-century AD date. Rims of vessels tended to become shorter and more upright, over the 5th–7th centuries AD, and most vessels here have fairly short rims and are predominantly upright, although the latter could equally be a regional idiosyncrasy. The fabric types aid in the dating, with chaff-tempered wares being found in small numbers until c.AD 500 when they increase in frequency and become dominant by the late 6th century AD. In *Lundenwic* they notably decline by the mid 8th century AD, but their disappearance may possibly be later elsewhere (Blackmore & Vince 2008). Sandstone-tempered wares appear to be a characteristic of Early Saxon activity and in *Lundenwic* they are rare and are associated with the earliest period of the settlement, if not pre-dating it. The production of sandstone-tempered wares may have ceased by the 7th century AD, if not earlier (Blackmore 2008). Bone-tempered wares are known from 5th-century AD contexts and their latest occurrence is from *Lundenwic*, dated to the late 6th and early 7th

century AD. The evidence for Dagenham's Early Saxon pottery assemblage therefore suggests a 5th- to mid to late 6th-century AD date, perhaps with the bulk of the activity pertaining to the 6th century AD.

### **The pottery assemblage in relation to other Early Saxon sites in south-west Essex and north-east London**

The pottery from Dagenham Heathway is an important addition to the sparse artefactual evidence for Early Saxon settlement in south-west Essex and north-east London. During the Early Saxon period this area appeared to have been largely devoid of both settlements and cemetery sites when the evidence was discussed in the late 20th century by Margaret and Tom Jones (M U Jones 1980; W T Jones 1980), but more recent archaeological fieldwork is filling in these gaps. The present distribution of Early Saxon settlement in the London Boroughs of Barking and Dagenham, Havering, Newham, Redbridge and Waltham Forest indicates a riverine and gravel terrace association (mostly on the lower gravel terraces). However, these areas have been subject to fairly extensive archaeological investigation, and Early Saxon material is usually found on reoccupied prehistoric and Roman sites. It is strange that the post-Roman period has not been detected further inland from the Thames, on sites such as at Fairlop Quarry and King George V Hospital, Newbury Park (Hülka 2006) where Roman and prehistoric activity was recorded. In fact, the northern areas of all the north-east London boroughs generally lack find-spots for the Early Saxon period.

Most of the Early Saxon pottery from north-east London has only been assessed and not published in detail. Therefore, analytical dating evidence is not yet available. The most westerly site which has produced Early Saxon pottery is Oliver Close, Leyton. Here Early Saxon pottery was recovered from features post-dating a Bronze Age ring ditch (Lawrence 1996; Bishop & Boyer 2014). The site is located above the River Lea on the Quaternary Taplow Gravel Terrace. The majority of the other sites in the study area are located on the Kempton Park Gravel Terrace, which would almost certainly have

provided good agricultural land. In Newham there is one location at East Ham Memorial Hospital, Shrewsbury Road E7, where Saxon pottery was recovered from a feature of natural origin (Maloney & Holroyd 2004, 78). One other stray find of note is from the Forest Gate area of Newham. This comprised a late 6th- or early 7th-century AD gold cone, made in two parts joined by cabled gold wire, with garnet and lapis lazuli inlay (W T Jones 1980, 91). It has been suggested that this item is evidence for a cemetery in the vicinity, though W T Jones considered this doubtful. As the London to Colchester Roman road runs through this area, a traveller may have lost or deliberately buried this item.

Located at a crossing over the River Roding, Barking, was the location for an important monastic house established in c.AD 666 (Fowler 1907, 115), and excavations here have produced important Middle and Late Saxon archaeological sequences and ceramic assemblages (Redknapp 1991; 1992; MacGowan 1996; Vince 2002). Around the town a small number of excavations have produced pottery either pre-dating or contemporary with the Saxon abbey: residual 7th-century AD pottery was found at St Anne's Road Gascoigne Estate and residual Saxon pottery was found at Salisbury Avenue, some distance from the abbey and later medieval town (Greenwood *et al* 1997, 31; Maloney & Holroyd 2004, 62). To the north of the abbey and located on the eastern bank of the River Roding on a knoll is the defended Iron Age settlement of Uphall Camp. Saxon activity within Uphall Camp is represented by a small number of pits containing sand- and grass-vegetable-tempered pottery (Greenwood 2001, 216, fig 11). Dagenham is first recorded in a Barking Abbey charter of AD 685–694 or 690–693 (Sawyer 1968, no. 1171). It developed into a medieval village (discussed earlier), but excavations around the medieval parish church of St Peter and St Paul have failed to uncover Saxon archaeology. Between the Rivers Roding and Ingrebourne are two, possibly three, sites which have produced finds of Saxon pottery. Firstly, at Goresbrook Fields, Goresbrook Road four early Roman cremation burials were found (Greenwood & Maloney 1996, 11). Secondly, Dagenham Heathway has produced one of the larger assemblages

of Early Saxon pottery (outside of Barking Abbey) in the five north-eastern London boroughs. Thirdly, at Marks Warren Farm on Chadwell Heath, situated on the Black Park River Terrace Gravel, prehistoric and Roman deposits were excavated (Greenwood *et al* 2006, 37–9). Gravel extraction on the west side of Whalebone Lane North in 1936 destroyed a Roman cemetery located at TQ 484 897. Complete and fragmentary Roman ceramic funerary vessels, plus prehistoric, medieval and post-medieval ceramics were recovered during gravel extraction and are now curated at Valence House Museum, Dagenham. Only one Early Saxon jar rim was noted in this assemblage (Greenwood & Jarrett 1993). This sherd, with grey brown surfaces and a sparse sand, grog and mica fabric, has an everted rim and short neck with horizontal incised lines banding a row of segmented circle stamps. This style of decoration indicates a probable 5th-century AD date. This type of stamp has a distribution which is limited to the northern Thames shore and has parallels at Mucking where it is found on bossed burial urns (D Briscoe, pers comm). Similar stamps with incised lines also occur on pottery in *grubenhäuser* at Mucking (Hamerow 1993, 268, GH 149.12).

One site in Havering located to the west of the Ingrebourne River at the LESSA Sports Ground, Rainham Road, South Hornchurch, Rainham, should be mentioned. The upper fill of a field ditch of either Late Iron Age or early Roman date and the backfill of a well both produced late Roman and Early Saxon pottery, an indication of nearby Saxon occupation and the continued use of the field system into the 5th or the 6th centuries AD (Maloney & Holroyd 1999, 13). To the north of this site at Hornchurch Bus Garage on Boyne Hill Terrace, a sherd of possible Saxon date was recorded (Greenwood & Maloney 1996, 11). On the east side of the Ingrebourne is Rainham, which possessed a church before 1086 as it is referred to in the Domesday Survey (Howell *et al* 2011, 93). Early Saxon pottery has been found at two sites around Rainham, firstly in the form of a residual sherd at 128–152 Wennington Road and further east of the village at South Hall Farm (Greenwood & Maloney 1996, 11). To the north of Rainham gravel digging in 1937 at Gerpin's Lane (on the Lynch Hill

Gravel Terrace) destroyed a 6th- or 7th-century AD Saxon cemetery. The artefacts recovered included six shield bosses and seven spearheads indicating a minimum of six warrior graves. The presence of a gold coin pendant of Mauricius Tiberius, minted at Marseilles (AD 582–602) and two extremely rare glass drinking horns suggests there was at least one high-status male burial, while the presence of a girdle-hanger confirms that at least one woman was buried here (Evison 1955; Howell *et al* 2011, 91–2). The pottery includes handmade wares, one complete with comb point decoration (perhaps dating to after c.AD 500) and a wheel-thrown vessel with roller stamping must be a Continental import dated to after c.AD 625 (Evison 1955, fig 7; 1979). The settlement probably associated with this cemetery has been excavated close by at Berwick Ponds Farm, Rainham, where Roman fields contained an Early Saxon agrarian settlement containing at least eight sunken-featured buildings, which are dated to the 5th to 7th centuries AD (Howell *et al* 2011, 95). A Later Saxon settlement may have been present within a different area of the site (Maloney & Holroyd 2003, 43).

At Hunts Hill Farm, Upminster, Early Saxon pottery included a largely intact rounded jar which was found in one of the probable inhumation burials (Howell *et al* 2011, 93–4). Nearby at Whitehall Wood, Aveley in Thurrock (Essex), there is also evidence of Early Saxon activity. At Manor Farm, North Ockendon, Havering (Essex), a small number of sherds of Early Saxon pottery was discovered (Howell *et al* 2011, 89–90).

Beyond the five north-east London boroughs, Early Saxon settlements and cemeteries in south Essex tend to be located close to the Thames, such as at Orsett, West Tilbury, Chadwell St Mary and at Mucking, whilst other contemporary Essex sites appear to be either close to the North Sea coast or have a riverine distribution (M U Jones 1980, 82, fig 35; W T Jones 1980, 87, fig 37; Lavender 1998).

## Discussion

Though the Early Saxon pottery from Dagenham Heathway clearly was not produced on the site itself or within the immediate vicinity, the fabrics represented at Dagenham

Heathway constitute mostly relatively local wares. Clay sources for pottery production were readily available in south-west Essex and north-east London. The river valleys of the Lea, Roding, Beam and Ingrebourne contain alluvial clays, whilst 'brickearths' overlie large areas of the gravel terraces. London Clay outcrops on the higher ground within the north-eastern London boroughs. To date, few medieval or post-medieval pottery production sites have been identified in the five north-east London boroughs. There was a mid 18th-century New Canton Porcelain works at Bow which used non-local Cornish clays for its output and the 19th-century brick kiln at Folly Lane, Walthamstow which made tiles, flowerpots and pottery, not necessarily using entirely local clay. Post-medieval brick and tile making is fairly extensively documented in the area using brickearths, and in the Ilford area the Roding Silts were also used to manufacture bricks.

Most of the chaff-tempered pottery from the site appears to be derived from a single clay source with a range of tempers added which may therefore represent one industry. For example, the biconical jar fabric had flint added to it, whereas the baking dish fabric had flint and sandstone added to increase its thermal shock resistance. Vince (1990, 99) postulated that the chaff-tempered wares found in *Lundenwic* were made in south-west Essex, but thin section and chemical testing of sherds suggests that there may have been several regional sources for chaff-tempered pottery in the Lower Thames Valley. Furthermore, similarities are seen between some, but not all chaff-tempered wares studied at Barking and *Lundenwic* (Blackmore & Vince 2008). Other fabric types might indicate that some pottery was made further afield. The calcareous material found in some wares was not necessarily chalk, which does outcrop in south-east Essex in the Grays area. It could be micrite formed either from a limestone mud or calcareous algae that can be found in Tertiary clays in the Thames Valley, such as in Southwark and Greenwich (Vince & Jenner 1991, 62). Some of the greensand and sandstone-tempered wares may indicate a source in the Thames Valley, but the ESSTC fabric may have been produced on the periphery of the Thames Basin (Blackmore & Vince 2008). Two sherds

of Roman pottery were recovered from Early Saxon features. Whether this represents curation of these sherds or not is uncertain. At West Stow in Suffolk, Heybridge in Essex and less conclusively at Mucking there does appear to have been some selective collecting of Roman pottery by the Saxons (Going 1993, 71–2).

## CONCLUSIONS

### A prelude to the agricultural landscape

The earliest evidence of human activity at Dagenham Heathway dates to the late Mesolithic or Early Neolithic and consists of a small number of flint artefacts that suggest the site was temporarily or seasonally used. The excavations demonstrated that there were trees present on site prior to its agricultural development. The trees probably consisted of a temperate mixed forest of mainly oak and elm, but with significant amounts of lime and alder (Howell *et al* 2011, 22). Woodland clearance to facilitate agriculture probably began locally during the Neolithic; this process is evinced by the find of a cache of charred emmer wheat grains and chaff at the site of Woolwich Manor Way, radiocarbon dated to 3770–3630 cal BC<sup>5</sup> (Stafford *et al* 2012, 124, 251–4). These developments continued into the Bronze Age, with for instance cereal pollen identified in Middle to Late Bronze Age sequences on sites along the line of the A13 in east London (*ibid.*, 125). Pollen analysis in the east London area indicates that significant woodland clearance took place during the Middle Bronze Age (*c.*1500–*c.*1000 BC) (Scaife 1991; 1994). Elsewhere in the Lower Thames Valley extensive clearance of woodland and the establishment of agricultural landscapes had taken place by the late 2nd millennium BC (Guttmann & Last 2000, 351; Howell *et al* 2011, 38). Sites lying close to the estuary such as Mucking, North Shoebury and Mar Dyke (Essex) had been cleared and were being farmed by about 1500 BC (Bond 1988; Wymer & Brown 1995; Murphy 1996). Given the location of the Dagenham Heathway site, albeit a little further upstream, it appears likely that initial agricultural exploitation would have taken place here too by the Middle Bronze Age.

### **The earlier Late Bronze Age agricultural landscape (c.1000–c.700 BC)**

At Dagenham Heathway a network of ditched fields probably connected with pastoralism was established by the beginning of the Late Bronze Age (Fig 4). It included what appears to be a droveway intended to control livestock movements. However, the ditches themselves are unlikely to have been large enough to have prevented animals from crossing, but with an associated bank created from the cast up material and a hedge planted along the bank an effective stock-proof barrier would have been established (Pryor 2006, 83–7). The ditches need not even have remained an important element of the boundary for very long as, once developed, a hedged bank would have constituted the stock-proof barrier. It is probable, therefore, that once excavated such ditches would not have needed recutting and could have been allowed to naturally silt up (*ibid*). Similar areas of ditched fields are known elsewhere in the Thames Valley (Yates 2001).

### **The later Late Bronze Age and Early Iron Age enclosed settlement (c.800–c.500 BC)**

Concerning the eastern counties it has been stated that:

In the later Bronze Age a range of enclosed settlements were created alongside the widespread continuance of unenclosed settlements. Both kinds of site were often integrated into field systems. Examination of the inter-relationships between settlements, together with variation and transformations in settlement types, offers considerable potential to explore the social changes taking place (Brown & Murphy 2000, 10).

During the later Late Bronze Age at Dagenham Heathway an enclosed settlement was established within the earlier field system (Fig 6). The enclosed settlement at Dagenham Heathway is not as easy to categorise as a monument type. In some ways it resembles a type of site in eastern England known as a ‘Springfield style enclosure’, as defined by the English Heritage Monument Protection Programme.<sup>6</sup> Such monuments tend to be located on hilltop or spur locations, and they are broadly circular in plan, comprising

a ditch with internal box rampart with one or more entrance causeways. Their location on low prominences suggests that visibility may have been a significant factor in their positioning (Howell *et al* 2011, 42). They generally cover less than one hectare in area and include domestic settlement, but also have evidence of agricultural and some industrial activity, particularly metal working. Examples in the area of the Lower Thames Valley and estuary include those at Carshalton (Adkins & Needham 1985), Mucking (Jones & Bond 1980; Bond 1988) and examples identified a short distance upstream of Dagenham Heathway at Leyton (Bishop 2006a) and another on the east bank of the River Lea in the area of the 2012 Olympic Park. Further examples in Essex include the type site at Springfield Lyons, Chelmsford (Buckley & Hedges 1987; Buckley 1988; Brown 2001). Although the Dagenham Heathway site conforms to this class of monument in some respects, such as size and location, comprising an enclosure ditch with two entrances and seems to have contained a single farmstead, it differs in a number of others. The Dagenham Heathway enclosure is sub-square rather than circular in plan; it is potentially of a slightly later date than most Springfield style enclosures (these have a restricted 10th- to 8th-century BC date); and it has exhibited no evidence of metal working. According to the monument definitions the Dagenham Heathway site cannot be classified as a Springfield style enclosure, although it could be a later variant of this type of monument and it may be similar in some respects to the Oliver Close enclosure (Bishop & Boyer 2014).

The site shares a number of characteristics with another broad type identified elsewhere in Essex, though not generally along the Thames Valley. These enclosures tend to be sub-square to sub-rectangular in plan, with either single or double ditches and generally have a single entrance. They generally cover an area less than 0.25 hectares, contain a small number of internal domestic buildings and have evidence of agricultural activity. Such examples include Lofts Farm at Great Totham (Brown 1988) and Broomfield at Chelmsford (Atkinson 1995). Brück (2007, 25–6) sees this type of settlement essentially similar to enclosed occupation sites of the



preceding Middle Bronze Age. Later enclosures such as the one at Stansted Airport (Brooks & Bedwin 1989; Havis & Brooks 2004) also exhibit similar characteristics. Again, the Dagenham Heathway site differs from Lofts Farm and Broomfield examples, being significantly larger than these, though it has more in common with the Middle Iron Age enclosure at Stansted. However, prehistoric monuments cannot be classified following very rigid definitions, and until further examples are recorded the Dagenham Heathway enclosed settlement is probably best understood as an amalgam of at least two other monument types. The site appears to have been relatively short-lived, and although it may still have been occupied during the Late Bronze Age/Early Iron Age transitional period it does not appear to have survived into the Iron Age proper (see Rayner above).

#### **Early Saxon settlement and landscape development (c.AD 420–650)**

Following the apparent abandonment of the prehistoric settlement, there was little evidence of activity on the site for upwards of a millennium, apart from a scatter of Roman material, which may reflect evidence for the manuring of fields. The site was not reoccupied again until the Early Saxon period and the associated pottery suggests that the bulk of the activity dates to the 6th century AD (see Jarrett above). The Early Saxon settlement apparently consisted of one or more adjoining farmsteads, represented by four hall-type buildings (Fig 11). The lifespan of these timber structures is uncertain, but as the homes of medieval peasant farmers appear to have been fairly durable (Grenville 1997, 123–9), it seems likely that these Saxon buildings could have been in use for 75 to 100 years after which time the basal portion of their earth-fast timber posts would have rotted away. The largest (Hall 2) might have been the principal dwelling, while the smaller structures could have served as dwellings or possibly barns or byres. The four or possibly five sunken-floored buildings were probably storehouses or workshops. The fairly random postholes may represent livestock pens, fence lines or temporary structures, similar to the

buildings identified by Howell *et al* (2011, 94). Contemporary sites in the Middle and Lower Thames Valley include Mucking, less than 20km to the south-east (M U Jones 1980; Hamerow 1993), and Harmondsworth, 45km to the west (Andrews 1996b, 109; Cowie & Blackmore 2008, 36).

Saxon activity in the area did not cease with the abandonment of the settlement; it was superseded during either the Middle and/or Later Saxon period by the establishment of a series of ditched fields (Fig 11). It is likely that these new fields were part of an extensive restructuring of the rural landscape of south Essex during the Middle or Late Saxon period (Rippon 1991). The most likely reason for the abandonment of the Early Saxon settlement was as part of a transition from dispersed to nucleated rural settlement which occurred after c.AD 850 for economic and social reasons (Howell *et al* 2011, 98).

The archaeological work at Dagenham Heathway has added an important new element to our understanding of later prehistoric and Saxon activity in north-east London and south-west Essex. The Late Bronze Age material has contributed to the substantial body of evidence for human activity for this period along the Lower Thames Valley and its Essex hinterland. However, while a number of the findings from the Dagenham Heathway site have parallels elsewhere, the site data have raised more questions than they have answered. Whilst sites of comparable date along with similar cultural assemblages are known, there are aspects of Dagenham Heathway that set it apart from those other examples. The layout of the earlier Late Bronze Age field system is mirrored at numerous other locations. While the subsequent imposition of a small settlement upon the pre-existing agricultural landscape also has its parallels. However, the nature of the enclosed settlement enclosure is quite unusual and does not fit into any one particular class of previously defined Late Bronze Age monument. The finds assemblage too, whilst containing objects recognisable from contemporary sites, is also different. Evidence of metal working, for example, so often identified on small enclosed settlements of this date in this region was noticeably absent. The

site produced a number of unusual fired clay blocks of uncertain function, which are rarely found in contemporary assemblages (see Rayner above). Whilst it is unlikely that the site is unique it has demonstrated the complexity of Late Bronze Age agrarian society in south Essex and the Lower Thames Valley by revealing a monument type and aspects of material culture not previously identified in this locality. At the moment this site must be seen as one piece of an incomplete jigsaw that will only be completed by future archaeological interventions.

### ACKNOWLEDGEMENTS

Pre-Construct Archaeology Ltd would like to thank Bellway Homes (Essex) for funding the project, Duncan Hawkins of CgMs Consulting for commissioning the work and Nick Truckle of English Heritage for monitoring the fieldwork on behalf of the London Borough of Barking and Dagenham. The authors would like to thank David Divers for managing the fieldwork project, Lorraine Darton for managing the post-excavation project and Frank Meddens for managing and editing the publication. Thanks are also due to the excavation staff: Richard Archer, Sharon Aylward, Ryszard Bartkowiak, Tony Baxter, Ken Bazley, Mike Bazley, Tim Bradley, Pete Cardiff, Tim Carew, Helen Clough, Gary Evans, Val Griggs, Ireneo Grosso, Alexis Haslam, Neil Hawkins, Stuart Holden, Karl Hülka, Mark Ingram, Douglas Killock, James Langthorne, Shane Maher, Roddy Mattinson, Denise Mulligan, Chris Pickard, Ashley Pooley, Ellie Sayer, Jo Taylor, Aidan Turner, Tiziana Vitali, Justin Wiles and Elliott Wragg, and to Guy Seddon who supervised the site in the absence of Fiona. Thanks to the volunteer metal detectorists John Lumsden and Jim Loughlin, to Tim Carew for surveying and Maggie Cox for the site photography. Thanks to all the finds specialists for their individual contributions during the assessment and publication phases, to Lisa Lonsdale for technical support during the fieldwork phase, to Adrian Nash, Victoria Osborn and Hayley Baxter for the illustrations and CAD work. Last but not least thanks to Bruce Watson for his comments on an earlier version of this paper.

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### NOTES

- <sup>1</sup> LAARC, [www.mola.org.uk/resource-library](http://www.mola.org.uk/resource-library) (accessed 7 April 2015).
- <sup>2</sup> Denotes that the fabric could have been given a general ESCALC code: sandy ware with non-specific calcareous inclusions or voids.
- <sup>3</sup> Denotes that the fabric could have been given a general ESCALC code: sandy ware with non-specific calcareous inclusions or voids.
- <sup>4</sup> Denotes that the fabric could have been given a general ESCALC code: sandy ware with non-specific calcareous inclusions or voids.
- <sup>5</sup> SUERC-24597, 4890±35 BP.
- <sup>6</sup> [www.eng-h.gov.uk/mpp/mppa.htm](http://www.eng-h.gov.uk/mpp/mppa.htm) (accessed 2 February 2015).

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