

Prehistoric activity in the Lea Valley at Ive Farm, Leyton

Shane Maher, Barry Bishop and Jon Cotton

Introduction

Ive Farm, Leyton (Fig 1) in the London Borough of Waltham Forest was subject to an archaeological investigation by Pre-Construct Archaeology (PCA) in 2017. The site is perched on the edge of the relatively flat, fertile and easily drained Taplow Gravel Formation immediately overlooking the Dagenham Brook, and comprised a disused sports field located on the eastern margins of the Lea Valley. The proposed development was to upgrade and provide new sports facilities for the area.

The archaeological fieldwork included an initial phase of evaluation in March 2017, followed by an excavation in May of the same year. Results of the evaluation indicated two trenches of interest which the later excavation targeted (Fig 1).¹

Archaeological investigations at the Oliver Close Estate, which lies to the south-east of the site on the higher ground on the gravel terrace, produced evidence of prehistoric activity dating from the Mesolithic to Iron Age, including an enclosed Late Bronze Age settlement.²

Archaeological Sequence

Phase 1: Natural

The natural geology consisted of alluvial sands, gravels and clays, overlain by deposits of brickearth material, present between 5.74m OD and 5.35m OD. This represented the general slope of the site towards the Dagenham Brook to the west.

Phase 2: Neolithic/Bronze Age (Fig 2)

Two isolated features – a posthole in Area 1 and a shallow linear feature in Area 2 – represented the human activity on site in Phase 2. Two pieces of Neolithic–Bronze Age struck flint, a quantity of burnt stone and a fragment of daub were recovered from the cuts.

Phase 3: Late Bronze Age/Early Iron Age (Figs 2 & 3)

This was by far the most intense period of archaeological activity, with groups of pits and postholes recorded in both Areas 1 and 2. Two of the three Area 1 postholes produced assemblages of LBA–EIA flint-tempered pottery, struck flint fragments and burnt stone.

To the south, pit and posthole groups were seen across Area 2, with the greatest concentration of these in the south-west of the trench forming alignments and defining structures or small enclosures.

In the southern portion of the trench, Posthole Group 1 (PH1) formed the most notable of the alignments. The group measured 8.4m north–south and comprised nine postholes and one pit. Five of the posthole fills contained burnt material including burnt stone and very frequent charcoal, but no signs of burning were seen on the edges of the cuts, suggesting these deposits were placed rather than burnt *in situ*. A number of LBA–EIA sherds of flint-tempered pottery, struck flint and a quantity of burnt stone were present in the fills of the group.

Posthole Group 2 (PH2) was to the immediate west of PH1 and was obviously related to it; together they formed a pattern indicating a structure with an internal subdivision to make two separate rooms or small enclosures. Small quantities of similar LBA–EIA material were present within some of the fills.

To the east and north-east, groups of pits and postholes (PH3, PH4, PH5, PH9) formed a roughly L-shaped pattern, representing the north-west corner of an enclosure, which extended beyond the trench limits and measured in excess of 10m north–south and 5m east–west. These groups of features produced a smaller quantity of LBA–EIA pottery and struck flints,

but a similar quantity of burnt stone.

The terminus of a north-west/south-east ditch [200] was recorded to the north of the enclosure – this contained a number of residual struck flints and one LBA–EIA core-flake. Two posthole groups were associated with the ditch, while PH7 was a group of three undated squared postholes in the base of the ditch and PH6 cut into the ditch fill.

An east–west line of very shallow posthole bases [PH8] measuring 4.8m end to end, was located to the west of the ditch [200], but only produced one fragment of burnt stone. Finally, a series of random pits and postholes, which was located to the south-west of PH8, contained three sherds of flint-tempered LBA–EIA pottery in two of the cuts.

The pottery by Jon Cotton

The site produced a small assemblage of 195 sherds of prehistoric pottery weighing 1823g, which represented a minimum of 50 vessels from 20 separate contexts across Areas 1 and 2. It was sorted by fabric using the system devised for Essex by Nigel Brown³ and adopted by the present writer to record the prehistoric ceramic assemblage from nearby Oliver Close.⁴

Fabric and form

Five main flint-tempered fabric groups – A–E – were identified in hand specimen, dependent on the size, frequency and sorting of the individual clasts of crushed burnt flint added to the clay matrices. Small ferrous pellets were occasionally noted, though these are likely to have occurred naturally within the parent clays. A single sand-tempered sherd, Fabric H, was recorded from subsoil layer [52].

As at Oliver Close, Fabric C was the commonest fabric employed, and comprised nearly 70% of the site total

by both sherd count and weight, though over half of the weight was accounted for by a single sherd group from pit [77]. Fabrics B and D each comprised around 13% of the site assemblage by sherd count, with Fabric B comprising nearly 20% of the whole by weight, though again, well over half of this figure was accounted for by a single sherd group from posthole [69].

Although diagnostic sherds were few, the assemblage appears to have been dominated by plain thin-walled jars (eg Fig 4.1–2) and smaller bowls (eg Fig 4.3) in a range of fabrics that elide from coarse to finer finishes. One sherd from subsoil layer [54] may represent part of a handle stub; other thicker fragments from subsoil layer [52] could belong to perforated slabs though no actual perforations were evident.

Surface treatment and condition

Surface treatment encompassed wiping, smoothing and occasional external burnishing. Decoration was limited to a single sherd belonging to a straight-sided jar in Fabric A from the fill of pit [214] with horizontal tooled lines below the rim (Fig 4.4). One or two of the coarser jars showed evidence

of vertical finger smearing which may also have been decorative in intent.

Most of the assemblage was in a reasonably fresh state, though sherds from several contexts (eg subsoil layer [54], posthole [56] in Area 1 and pit [77] in Area 2, PH3) had been re-fired and were worn and brittle. These do not appear to represent ‘wasters’ (ie vessels that failed during the firing process), but may have resulted from domestic accidents such as house fires, or could have been associated with semi-industrial activity, cooking or the burning of household waste.⁵

Context and distribution

Subsoil layers aside, the pottery was recovered from the fills of pits and postholes: many of which were located within PH1 and PH2 in Area 2. Only three contexts produced more than 10 sherds: posthole [56] in Area 1 (26 sherds), and pits [69] and [77] in Area 2 (14 and 59 sherds, respectively). Eight contexts produced just single sherds. Only four contexts registered more than 100g by weight: these comprised the three features listed above, together with pit [159] in Area 2.

Stratigraphic relationships were few. The single largest ceramic group from

the site, which comprised 57 sherds from a single convex/ovoid-sided jar (Fig 4.2), was recovered from a stratigraphically ‘late’ pit [77], which had truncated postholes [113] and [115] in PH3. Furthermore, the single decorated sherd (Fig 4.4) was also stratigraphically ‘late’ as it lay within pit [214], which had cut into earlier pit [216]. That pit had contained a sherd of undecorated thin-walled bowl (Fig 4.3).

Dating and affinities

Although small and containing only a few diagnostic sherds, the Ive Farm ceramic assemblage can be ascribed to the Late Bronze Age–Early Iron Age horizon with a reasonable degree of confidence. It includes sherds of plain thin-walled convex/ovoid-sided jars and bowls in a range of both coarse and finer fabrics and finishes which conform with elements of Barrett’s Post-Deverel-Rimbury (PDR) ‘Plainware’ assemblages,⁶ the latter now usually assigned to the period c. 1150–800 BC.

Confusingly, PDR ‘Plainware’ assemblages do incorporate the odd decorative trait – often evinced by cabling at rims, for example – although the single worn decorated sherd (Fig 4.4) from pit [214] can probably

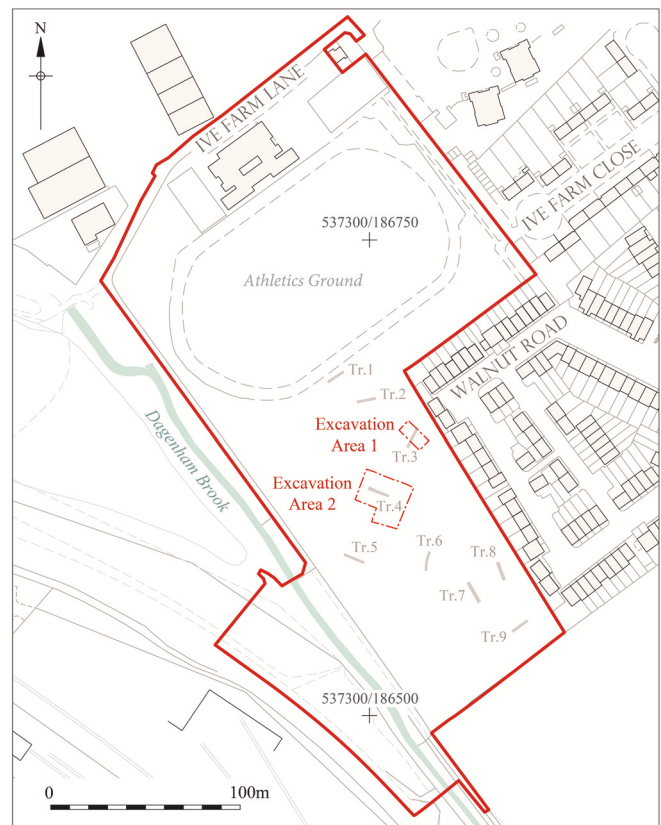


Fig 1: site location and area of excavation

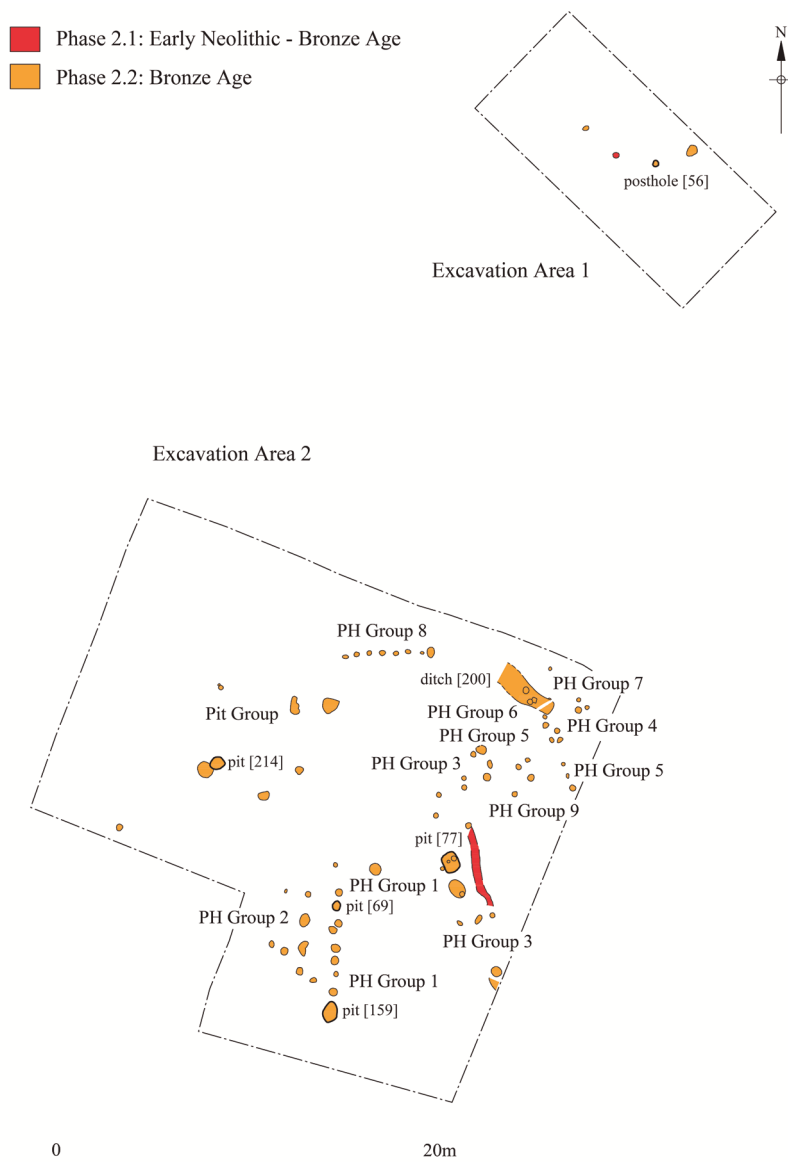


Fig 2: Excavation areas 1 and 2, showing the Early Neolithic and Bronze Age distributions

best be assigned to the succeeding ‘Decorated’ phase of PDR material now often regarded as Early Iron Age⁷ and broadly dated to c. 800–600 BC.

Here it is worth reiterating the stratigraphically ‘late’ nature of the context (and the small size of the ceramic group in question). By the same token, the other stratigraphically ‘late’ context – pit [77] – which contained multiple sherds of plain convex/ovoid-sided jars (Fig 4.2), could represent some sort of earlier closure deposit.

The vessel forms and fabric groups identified are generally comparable to those employed elsewhere in the locality, though each assemblage has its own distinctive character. Published assemblages include those from the Olympic Park,⁸ Dagenham Heathway⁹ and South Hornchurch.¹⁰ However, the

closest, and most immediately relevant, to Ive Farm comprises the assemblage associated with a small ringwork at Oliver Close, only some 350m to the east.¹¹ This, too, was dominated by plain vessels, with only a handful of decorated sherds in demonstrably stratigraphically late contexts.

Lithics by Barry Bishop

A total of 34 pieces of struck flint were recovered during the excavations. The struck flint was manufactured using rounded alluvial flint cobbles that were most probably gathered from the gravel terraces upon which the site is located.

The largest part of the struck flint assemblage came from Area 2, which provided 28 pieces. All but four were recovered from a series of pits and postholes dated to the prehistoric period. The remaining four came from

disturbed sub-soil horizons. Similarly, four of the six pieces from Area 1 came from prehistoric posthole fills and the remaining two from subsoils. Few concentrations were noted, however, with the highest quantity from any individual feature amounting to four pieces.

The assemblage had clearly been manufactured over a long period. The earliest pieces derived from systematic attempts at blade production and could be dated to the Mesolithic or Early Neolithic period. A few other flakes also showed technological traits commonly seen in Neolithic industries, but the bulk of the assemblage could be characterised as a simple core and flake industry, which can be dated to the later prehistoric period and are most typical of later 2nd and early 1st millennium (cal) BC industries.¹² The flakes varied considerably in shape and size, although they tended to be broad and thick and often had wide, markedly obtuse, striking platforms comparable to Martingell’s ‘squat’ flakes.¹³

An exclusive use of hard hammer percussors was indicated by the frequency of pronounced bulbs of percussion with visible, and sometimes multiple, points of percussion. A high proportion of the flakes had cortex covering over half of their dorsal surfaces and nearly all retained some cortex, indicative of both the small size of the raw materials and short knapping sequences.

Four cores were present, all of which are likely to belong to this period of flintworking. These were all rather minimally reduced and produced broad flakes from cortical platforms on alluvial pebbles and small cobbles. None showed any evidence for any pre-shaping, preparation or for attempts at rejuvenation to aid further reduction, and all had been abandoned prior to exhaustion.

Four retouched implements were identified. These had all been irregularly worked and again are most characteristic of later prehistoric industries. They included a minimally retouched conchoidal chunk, which may have been used as a scraping-type tool; a ‘flaked flake’ with bifacial retouch that was probably used for cutting moderately hard materials, such as soft wood, bone or hide; and two

flakes with coarse denticulations cut into their edges.

The assemblage here complemented the wider picture of flint use and prehistoric activity in the area, which demonstrated extensive activity by transient communities during the Mesolithic and Neolithic periods as well as by more sedentary communities in the later prehistoric period. These occurred both along the terrace edges and within the Lea Valley floodplain.¹⁴

Unworked burnt flint

Nearly 1,200 pieces of unworked burnt stone, weighing just over 10kg, were recovered during the excavations. They consisted of fragments of flint and occasional quartzite alluvial pebbles and small cobbles, which had been variably, but mostly very heavily, burnt, to the extent that they had changed colour and become 'fire crazed'.

Many of the postholes in Area 2 contained relatively large quantities, and these may have been either deliberately gathered for use as post-packing or residually incorporated from a surface spread of burnt material that the postholes were cut through. Most of the remainder came from pits or gullies and may represent either the deliberate disposal of hearth waste or further residual deposition.

The large quantity of burnt stone recovered would be most consistent with its deliberate production, rather than from the incidental burning of clasts from ground-set hearths. The deliberate heating of often large quantities of stone has been frequently documented at a number of later prehistoric sites located along the terrace edges in east London, although the purposes that lay behind both its creation and deposition often remain enigmatic. A number of explanations for the creation of substantial quantities of burnt stone have been suggested, perhaps the most favoured being that it was connected with cooking activities.

Other explanations include that they were the residues from saunas, or waste emanating from a variety of industrial processes. At the Royal Docks Community School, for example, large quantities of burnt flint may have been associated with leather production.¹⁵ The ubiquity of large quantities of unworked burnt stone on prehistoric sites of this period indicates that similar

activities were widespread, and it is possible that such production was undertaken intensively, on an almost industrial scale.

Conclusion by Barry Bishop

The excavations at Ive Farm have revealed further evidence relating to the prehistoric development of the Lea Valley. The earliest activity is represented by a quantity of struck flint datable to the Mesolithic or Neolithic periods, which may be associated with a small number of cut features, although no obvious structural plans are evident. While these are difficult to date precisely and give few indications as to the nature of the activities they represent, they do demonstrate longer term visits to the site and add to similar – albeit rather low key and ephemeral – evidence recorded at many other sites along this part of the valley.¹⁶

Taken together the evidence from these sites is suggestive of a fully occupied landscape. Certain locations may have been seen as suitable for longer stays – indications of more intensive or repeated occupation during the Mesolithic at Tottenham Hale have very recently been identified (S Maher pers. comm.), and a series of parallel ditches and an enclosure at Edmonton may represent Neolithic monumental activity.¹⁷

However, overall the evidence from these periods within the Lea Valley

speaks of predominantly mobile communities, with small groups moving up, down and across the valley, making the most of its many and varied resources, but rarely stopping at any one place for any great length of time.

The Bronze Age

Here, as in so many places elsewhere along the Lea Valley, there are indications that a more settled and explicitly agricultural way of life was developing by the latter parts of the Bronze Age. This is marked by the appearance of substantive settlements set within networks of ditched fields and linked by droveways.

At Ive Farm, large numbers of postholes and other features appear to represent a series of structures, including possible residencies and small enclosures. As at many other sites, reconstruction of the site's layout is problematic, but the evidence most likely indicates a small farmstead or series of outbuildings associated with stock pens. These point to a pastoral use, with the pottery recovered indicating that the site was in use at the very end of the Bronze Age.

This accords well with other evidence for a notable expansion, or at least a physical formalisation, of Bronze Age agricultural activity along the gravel terraces lining the Lea Valley and the higher gravels 'islands' within its floodplain – a phenomenon that



Fig 3: excavation of Area 2, looking south, showing the Bronze Age groups

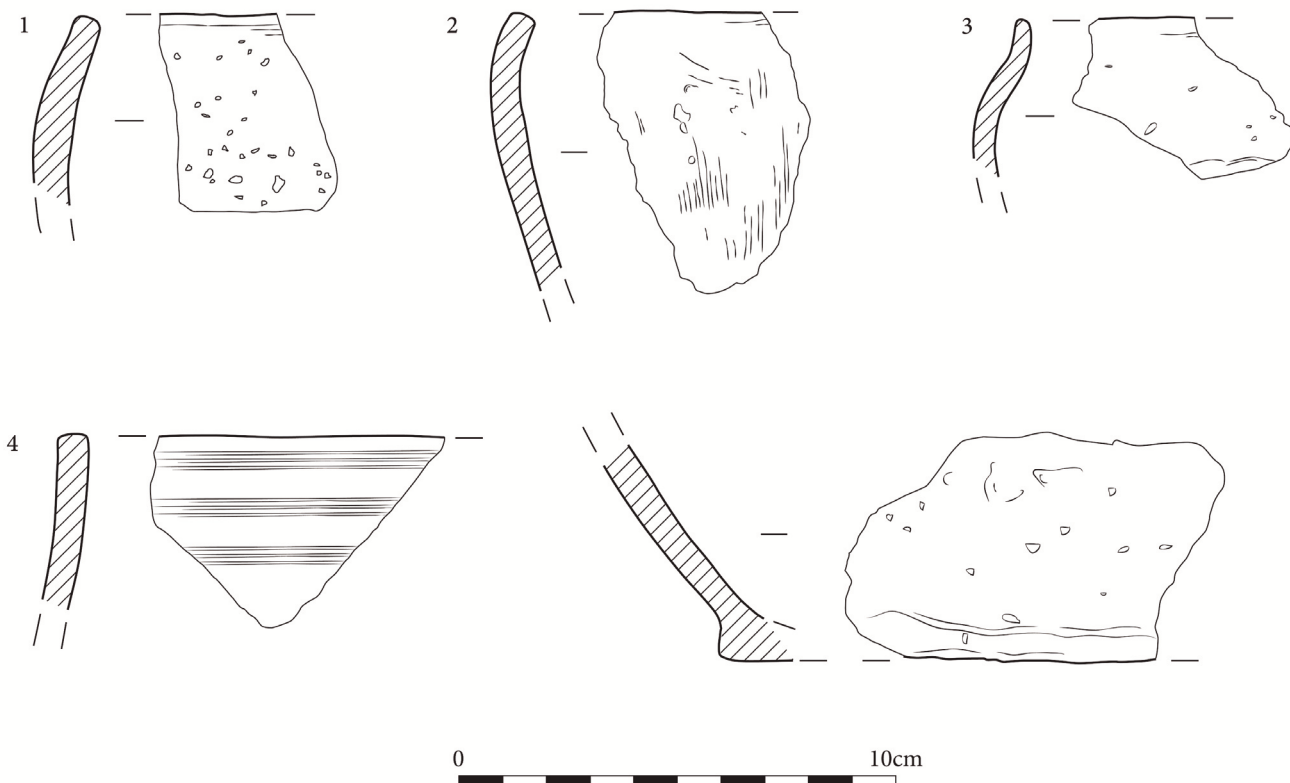


Fig 4: illustrated sherds –

- 1) plain, thin-walled convex/ovoid-sided jar with slight internal bevel at the rim, Fabric B, with heat-spalled exterior. Fill of posthole [56], Area 1;
- 2) multiple sherds (n=57) of a plain, thin-walled convex/ovoid-sided jar with an internally bevelled rim and externally-expanded base, Fabric C. Fill of pit [77], Area 2;
- 3) small, plain, thin-walled bowl with a short upright neck, pointed rim and rounded shoulder, Fabric A. From the fill of pit [216], Area 2;
- 4) thin-walled, straight-sided jar with an upright rim and worn exterior surfaces, decorated with a series of horizontal tooled lines arranged in three sets of three below the rim, Fabric A. From the fill of pit [214], Area 2.

extended throughout the lower Thames and across much of south-eastern Britain.¹⁸

The nearest contemporary site, and one that has produced very similar pottery to Ive Farm, is the ring-work recorded at Oliver Close c. 350m to the east. This comprised a large circular ditched enclosure that held at least one roundhouse and contained a high density of other features, including storage structures, fence-lines, pit clusters and cooking pits, and a rather enigmatic post-defined external ‘arena’.¹⁹

The sheer proximity of the Oliver Close enclosure to Ive Farm, combined with them sharing very similar pottery, suggest a close association between the two and it may be that Ive Farm represents a tenanted farmstead or a satellite farm to the Oliver Close complex. Although of different form, the square enclosure excavated at the Olympics Aquatic Centre c. 2.5km to the south and upon a gravel ‘island’ within the Lea’s floodplain is likely to

represent another example of these complex or ‘aggrandized’ settlements.²⁰

Similar complex enclosed sites have been recorded within many of the newly-developed Bronze Age landscapes of southern Britain and appear to represent significant or nodal points, which may have been instrumental to the ways in which such landscapes operated. It is possible that they represent the abodes of elites who may have been creating, controlling and benefitting from the perceived increase in agricultural production that the new productive systems afforded.²¹

It is also possible they played less of a controlling, and more of a craft production or distributive role. It is certainly the case that many of these enclosures witnessed an array of craft activities, including metalworking, and they appear to be sited to provide easy access to major waterways linking the rest of southern Britain and beyond to the Continent. Yates suggests that their distribution demonstrates the Thames’

estuary’s ‘participation in an increasingly cosmopolitan world’.²²

Although ideas that the later Bronze Age saw the developments of new and powerful ‘chieftain’ or ‘big man’ style social elites can be seen as problematic, it is apparent that, during this time, vast quantities of bronze and other exotic material were being brought into the lower Thames and Lea Valleys. Much of this was eventually disposed of within the rivers themselves.

While it is not necessary to invoke a purely mercantile system of trade, it would seem likely that some form of exchange must have been in operation, and the intensification in agricultural production may offer a clue as to what the other side of this system may have entailed. Unfortunately, due to poor preservation of both animal remains and such indicators as pollen, the precise economies of this new agricultural regime, and particularly the relative importance of pastoral and arable production, are difficult to establish. While it is perhaps likely that

both were being pursued, it has been argued that livestock held a particular importance at many sites.²³

The agricultural regime

At Ive Farm, as at many other contemporary sites, there is little evidence to illuminate the nature of the agricultural regime. However, the range of struck flints present is similar to those found at other sites within the Lea Valley and lower Thames, including at the Royal Docks Community School, where micro-wear analysis suggested that these were predominantly used to scrape, cut and pierce hides.²⁴ Features interpreted as drying racks were also recorded and it was suggested that the site may represent a specialist hide-processing site.

Interestingly, significant quantities of burnt flint were also recovered and it may be that these too were associated with hide preparation. The intensive, almost industrial production of hides may have been an important element in the network of exchange and influence

that enabled so much metalwork to enter the region.²⁵

As with the nearby enclosure at Oliver Close, there is no evidence that the site continued to be occupied after the Late Bronze Age phase, beyond the 8th–9th centuries BC. This apparently complete and seemingly abrupt abandonment of the site for anything other than marginal or low-key agricultural activity, follows a pattern seen across much of the London region.

Nevertheless, not too dissimilar patterns of settlement did continue in some locations; further roundhouses were constructed during the Middle Iron Age at the Olympics Aquatic Centre for example,²⁶ although it seems that increasing flooding within the valley may have affected and perhaps curtailed settlement patterns following the Bronze Age.

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Shane Maher has supervised a number of excavations for PCA, including Moorgate, Barking Town Centre and Holy Family Technology College, Walthamstow.

Jon Cotton was formerly Senior Curator in Prehistory at the Museum of London and is a freelance archaeological consultant, having published extensively on prehistoric sites and pottery.

Barry Bishop has published numerous lithic reports for PCA and other archaeological units across England.

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