

Rhee Lakeside North

Archaeological Excavations at Colne Fen, Earith



Grahame Appleby, Nick Armour
and Christopher Evans

CAMBRIDGE ARCHAEOLOGICAL UNIT
UNIVERSITY OF CAMBRIDGE



Rhee Lakeside North

Archaeological Excavations at Colne Fen, Earith
- 2007 -

**Grahame Appleby, Nick Armour and
Christopher Evans**

With contributions by
Katie Anderson, Emma Beadsmoore, Steve Boreham, Matt Brudenell,
Anne de Vareilles, Krish Seetah and Simon Timberlake

Cambridge Archaeological Unit
UNIVERSITY OF CAMBRIDGE
June 2007
Event No. ECB 2657
Report Number 777

An archaeological excavation was undertaken on behalf of Hanson Aggregates at Colne Fen, Earith (NGR 538400 27730). The fieldwork was commissioned prior to the extension of the current quarry workings and follows previous investigations within the wider landscape. 0.52ha and c. 50m of trial-trenching were excavated targeting specific cropmarks and areas of archaeological features investigated during an earlier evaluation. With the site, north of Rhee Lake and abutting the Langdale Hale complex, the excavation provided evidence for activity dating back to the Mesolithic, including a Bronze Age field boundary and a substantial Iron Age enclosure and roundhouse and the continuation of Romano-British activity from Langdale Hale towards Rhee Lakeside. Evidence for the Rhee Lake palaeochannel was present in the form of a large swathe of alluvial clay, almost entirely devoid of archaeological features.

In early Spring 2007, the Cambridge Archaeological Unit undertook an open-area excavation across 0.52ha ahead of quarrying by Hanson PLC for mineral aggregates at Rhee Lakeside, Earith (NGR 538400 27730; fig. 1). Including c. 50m of trial-trenching (63-5, fig. 2; in addition to those from the earlier evaluation in this area; Patten 2004), this programme of fieldwork provided the final opportunity for archaeological investigation within this landscape and marked the end of more than a decade of fieldwork in Earith quarries by the CAU. Situated immediately south of the earlier excavations at Langdale Hale (Regan & Evans 2000; Regan 2003), the open-area excavation and trial-trenches were located to investigate known archaeological features, principally a series of enclosures, field boundaries and driveways observed on aerial photographs, and specifically targeted a large, apparently Iron Age trapezoidal enclosure.

Of the trial-trenches, that to the west (63) was sited to specifically determine the projected line of a pre-Iron Age boundary crossing the main site. The two southern trenches (64 & 65) were located, along the projected route of the Roman road through the Langdale Hale complex, south towards the Rhee Lake inlet to establish whether it, potentially, either conjoined a timber causeway or ended in docking/jetty facilities. No such evidence was forthcoming and, apart from a single pit in the northernmost (Trench 64), no features whatsoever were apparent; they respectively carried 0.50 and 0.75m depth of peaty topsoil cover upon a clay geology. (Complimentary to this purpose, trenches were also cut on the southern side of the basin; they also essentially yielded negative result; Brudenell & Evans 2007).

The CAU-modified version of the MoLAS recording system was employed throughout, with excavated features assigned individual feature numbers (F#) with cuts and fills assigned individual context numbers ([###]); see Appendix for full descriptions). Trenches and base plans were recorded at 1:50 and sections at 1:10 or 1:20. Levels were surveyed a using Leica GPS system. Bulk

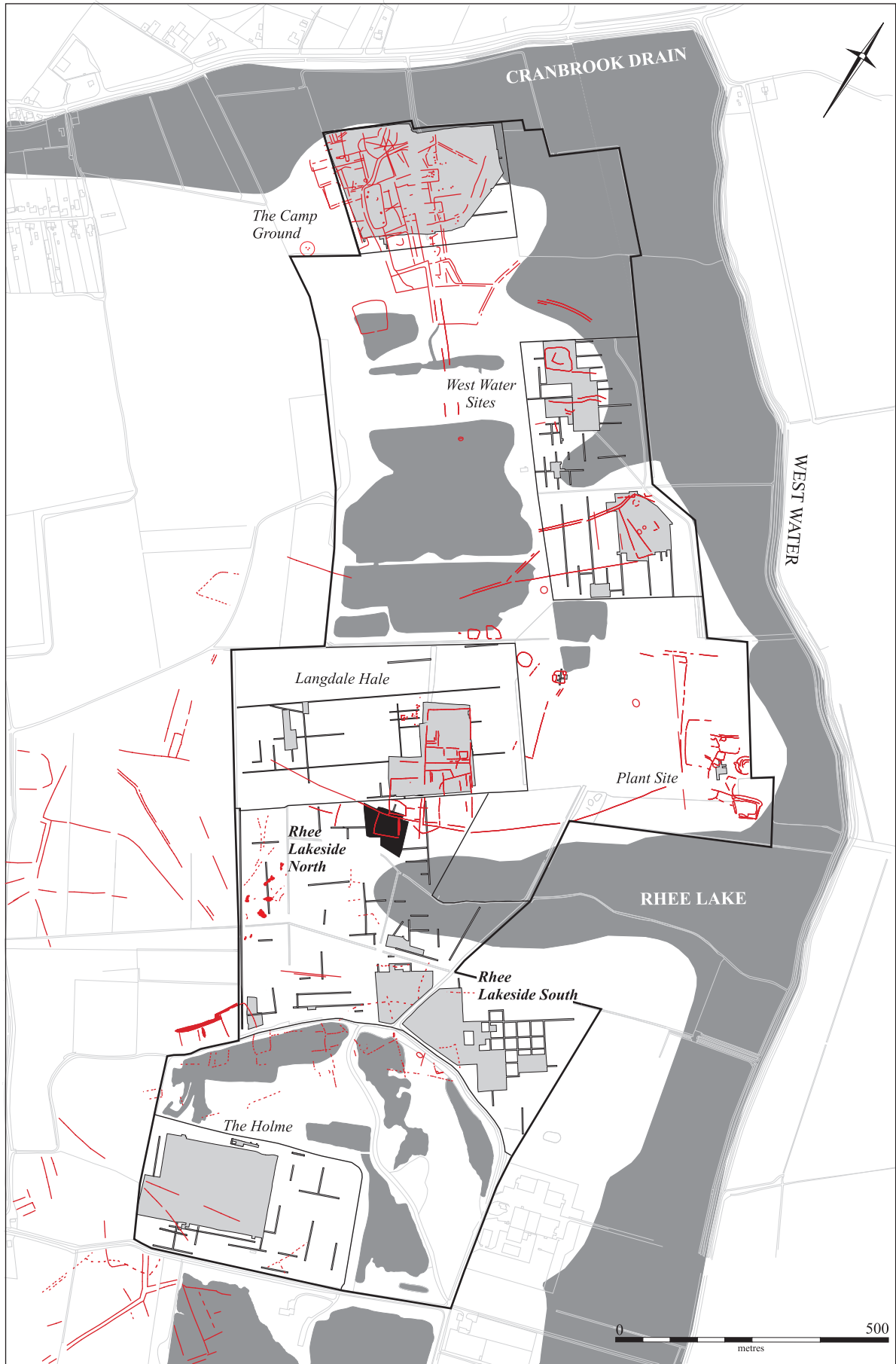


Figure 1. Site Location



Figure 2. The Langdale Hale complex

and monolith samples were taken from specifically selected features for both bulk environmental and pollen analyses.

The only significant variations to 'standard approach' excavation techniques occurred in relationship to digging the Iron Age roundhouse and along the eastern side of that period's main enclosure ditch. Of the latter, following the excavation of metre-segments around its circuit, its mid-eastern side - immediately opposites the doorway to the house and where the highest enclosure-ditch artefact densities was encountered - was targeted for further work. First, a *c.* 5.00m length on either side had its upper fills machined down to the basal deposits, thereupon a metre-square on both sides was 100% sieved (5mm mesh); finally, the remaining basal fills on both were hand-dug. Of the roundhouse, its circuit was first 'standardly' dug in alternate metre-segments; thereafter, the remaining fill segments were all 100% sieved (5mm).

Excavation Results

With the exception of two parallel ditches observed in Trench 63 and a possible feature seen in Trench 64 (these were planned but not excavated), no features were observed in the remaining trial trenches; two trenches had to be abandoned due to rapid flooding. The open area excavation revealed numerous pits and postholes (fig. 3), over 10 boundary or enclosure ditches and a large trapezoidal enclosure, in the centre of which was a eavesdrip gully of a large roundhouse (fig. 4). The quantity and variety of finds retrieved from excavated features was low: 61 flints, 123 sherds of prehistoric pottery (largely of later Iron Age date), 16 sherds of later 2nd – 4th century AD Romano-British pottery, 636 fragments of bone, 94 pieces of desiccated wood and several pieces of metalwork; the latter all being post-Medieval and undiagnostic.

Bronze Age

Bronze Age activity was limited to a small pit, F. 1202, located in the southwest quadrant of the later Iron Age enclosure, and a ditch line (F. 1192/ 1212) and two pits, F. 1211 and F. 1213. Ditch F. 1192, extended for *c.* 50.9m before terminating above, and cutting, pit F. 1211. The latter displayed evidence of possible reveting, with desiccated wood recovered from its middle fills. The stratigraphic relationship between the ditch and pit was ambiguous due to animal disturbance and only clarified following careful cleaning of the section edge after machine-excavation of a 4.5m slot, clearly demonstrating the pit was earlier. Pollen data obtained from the pit also shows it was cut at a time when woodland clearance was taking place, possibly in the Late Neolithic/Early Bronze Age (see Boreham, below), with evidence of surviving nearby wetland woods. The smaller southwestern pit, F. 1213, was cut by ditch F. 1212, itself similarly aligned to F. 1192 and must represent a direct extension of the it. A ditch was revealed in Trench 63,



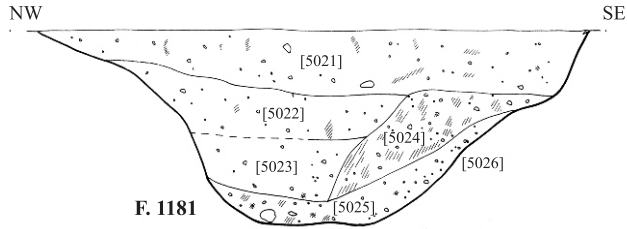
Figure 4. Rhee Lakeside North

c. 30m west of the open area, on the same slightly curving alignment. The less ambiguous nature of the relationship between these two features suggests the ditches post-date the pits. These ditch alignments conform to the Bronze Age field alignment recently investigated nearby, south of Rhee Lake (Brudenell & Evans 2007).

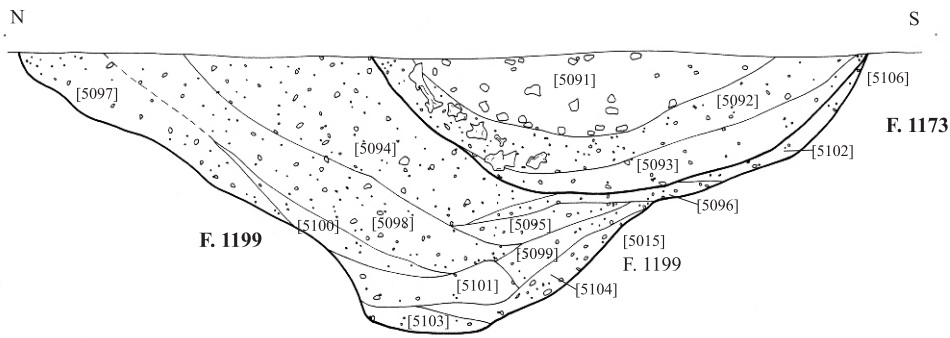
Finds from the features were limited: seven flints and 10 sherds of 'generic' Bronze Age pottery, weighing a total of only 12g recovered from pit F. 1202, and a single sherd and two flints from pit F. 1211, provisionally identified as Late Neolithic/Early Bronze Age. It is, thus, possible that the three pits found in the southwestern zone of the site predate the Middle to later Bronze Age, having gone out of use by the time ditch F. 1192 was dug or, alternatively, these are residual in nature. The latter interpretation certainly has greater credence in light of the widespread, if low-level, later Neolithic and Early Bronze Age activity seen in the wider landscape.

Iron Age

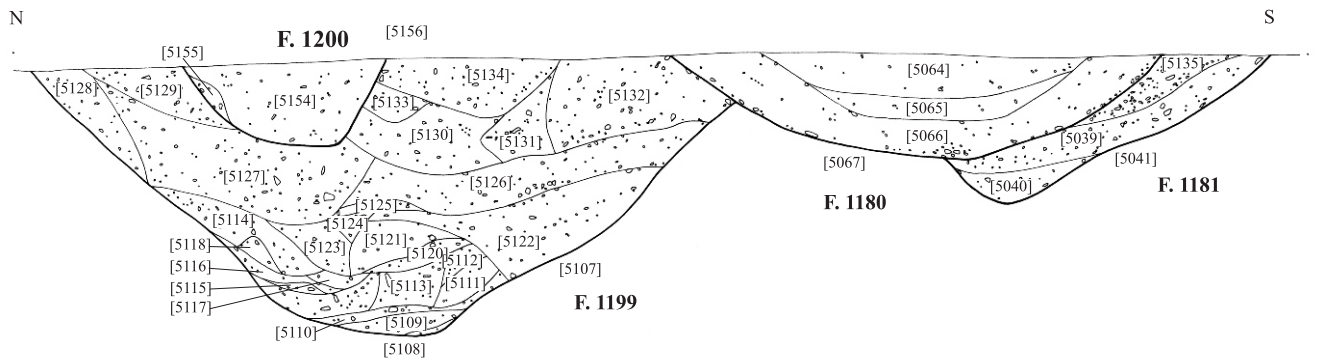
Targeted to investigate the large, trapezoidal enclosure ditch visible on aerial photographs, the open-area excavation revealed a large northeast-southwest oriented ditched enclosure measuring c. 42m by 38m. The ditch (F. 1163, F. 1185 & F. 1199; figs. 4 - 6) varied in width between 2.25m and 3.75m and was 0.59-0.90m deep; the western and southern circuits were investigated during the 2004 evaluation (Trenches 22 & 23; Patten 2004: 13-16 and figs. 6 & 7). Inclosing an area of approximately 1372 square metres, there was no evidence of a bank, although the lower ditch fills indicate slumping of material indicative of possible upcast eroding into the feature. The northern segment of the ditch (F. 1199) was severely disturbed by the Romano-British period entrance-way/gap (F. 1173/76 & F. 1184; fig. 3) at its mid-point; however, the sorting and nature of the fills suggest there may have been an element of deliberate back-filling of this part of the enclosure ditch, with large pebbles and gravels dumped in the basal fills. The silty and well-sorted nature of the fills suggests that, following the silting of F. 1199, settling occurred leading to the formation of a shallow linear depression. A narrow linear, F. 1200, along the same alignment to F. 1199, may represent the final silting of the enclosure ditch and should not be, in all probability, considered a separate feature. Hand- and machine excavation of the eastern, southern and western elements of the enclosure ditch revealed a higher degree of sorting within the different fills indicative of gradual silting, although one possible re-cut was observed on the eastern side (see fig. 6). Interestingly, pollen analysis taken from the eastern ditch suggests that it was subject to prolonged periods of deep standing water within its profile (see Boreham, below). 55 sherds of later Iron Age pottery were recovered from the enclosure ditch, 34 from eastern-located segment (Slot 50) following sieving and machine-excavation and sorting. This was excavated immediately opposite and close to three postholes (F. 1187-89). The relationship between these three postholes and the ditch is unclear; no artefacts were recovered from the postholes. However, sealed by a thin layer



Iron Age ditch



Iron Age enclosure ditch

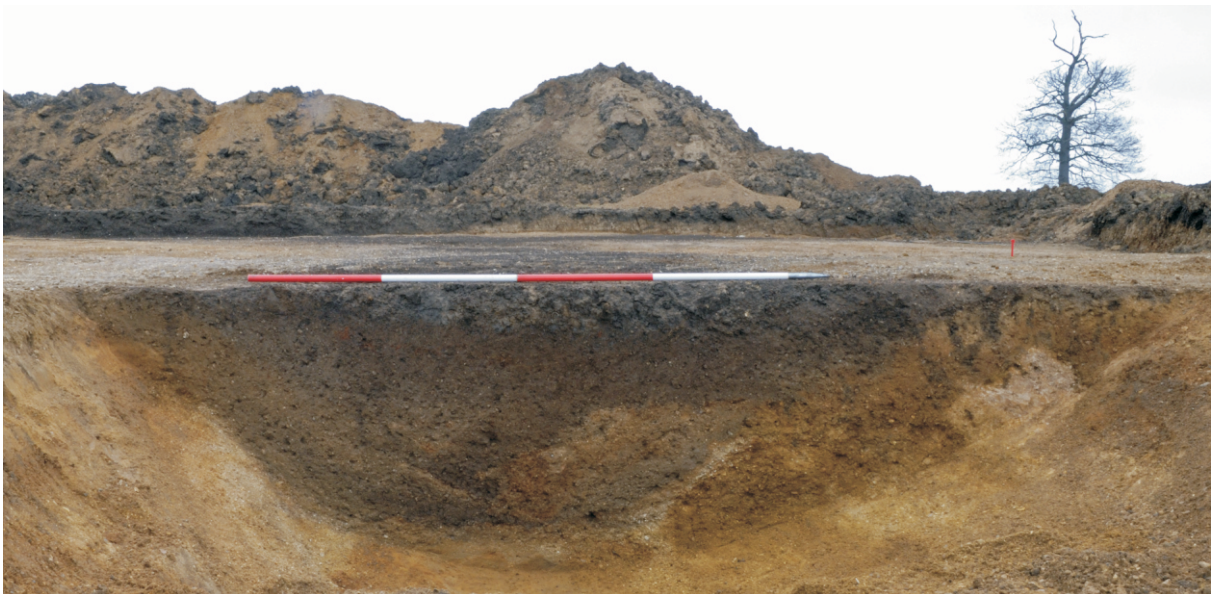


Iron Age enclosure ditch and Romano-British field boundaries

Figure 5. Selected sections from Iron Age ditches



Section across F. 1173 (Secondary Roman) and F. 1199 (Iron Age enclosure ditch)



Section across F. 1185 Iron Age enclosure ditch

Figure 6.

of silty clay alluvium, similar to that also encountered during excavations of the Camp Ground (Regan 2004), and the proximity of these postholes to the boundary suggests these were contemporary with the enclosure ditch. A further two sherds of later Iron Age pottery were recovered from the remaining segments excavated across the enclosure ditch. In addition, seven flints and a quantity of bone were also recovered, the former most likely residual. Excavation of the southwest corner of the enclosure ditch, cut by Romano-British ditches F. 1162 and F. 1170, revealed a distinct 'shallowing' of the western portion of the northeast-southwest oriented length of the ditch. The depth of the ditch encountered here may indicate the presence of an entranceway into the enclosure.

Intersecting the northeast corner of the enclosure ditch were two ditches, F. 1179 and F. 1181. The former, oriented approximately east-west, was narrow (0.53m wide) and shallow (0.25m deep), with silty sand fills. Assigned to the Iron Age, the later Iron Age pottery sherds recovered from F. 1179 may be residual and, thus, the ditch may be Romano-British in origin. Ditch F. 1181, oriented northeast-southwest, measuring 1.94m wide and 0.68m deep (fig. 5), was a substantial feature from which 22 sherds (127g) of mid to later Iron Age pottery were recovered; its function is unclear, but it possibly connected the enclosure to a smaller northern compound.

Centrally located within the enclosure was a large eavesgully (F. 1172; fig. 7), forming the only apparent structure. Measuring *c.* 15m in diameter and enclosing an area of *c.* 181 square metres, with an eastward oriented entrance, this configuration is seen in several roundhouses excavated at the Site I, Colne Fen, situated *c.* 600m east of the site (Evans *et al.* forthcoming) and at the Rhee Lakeside South Site (Brudenell & Evans 2007). Excavated and environmentally sampled in alternate slots, the eavesgully was revealed to be a shallow, 'U'-shaped feature, measuring 0.36-0.60m across and 0.09-0.16m in depth. Only seven sherds of later Iron Age pottery, 45 bone fragments and eight, most likely residual, flints were recovered from its circuit, with a marginal bias in bone distribution towards the northern terminal. The low number of finds and shallow nature of the eavesgully suggests that the structure was relatively short-lived, an interpretation supported by the paucity of environmental evidence. The planet remains did, however, demonstrate the exploitation of wheat in the wider environs; evidence for the exploitation of free-threshing wheat (see de Vareilles, below) as opposed to the more common spelt wheat was also recovered during the excavations at Langdale Hale (Regan 2003: 14), located immediately to the northeast of the site. Although lacking suitable diagnostic finds, the large oval postholes, F. 1208/F. 1209 and F. 1210, set within the central area of the entrance are probable structural features relating to the roundhouse, possibly porch posts; both contained traces of post-pipes and fragments of wood were recovered from the latter. Seven smaller postholes (F. 1190-91, F. 1193-96 & F. 1197) within the interior of the roundhouse may also be related to the structure; however, this attribution cannot be confirmed. Despite the short period of the

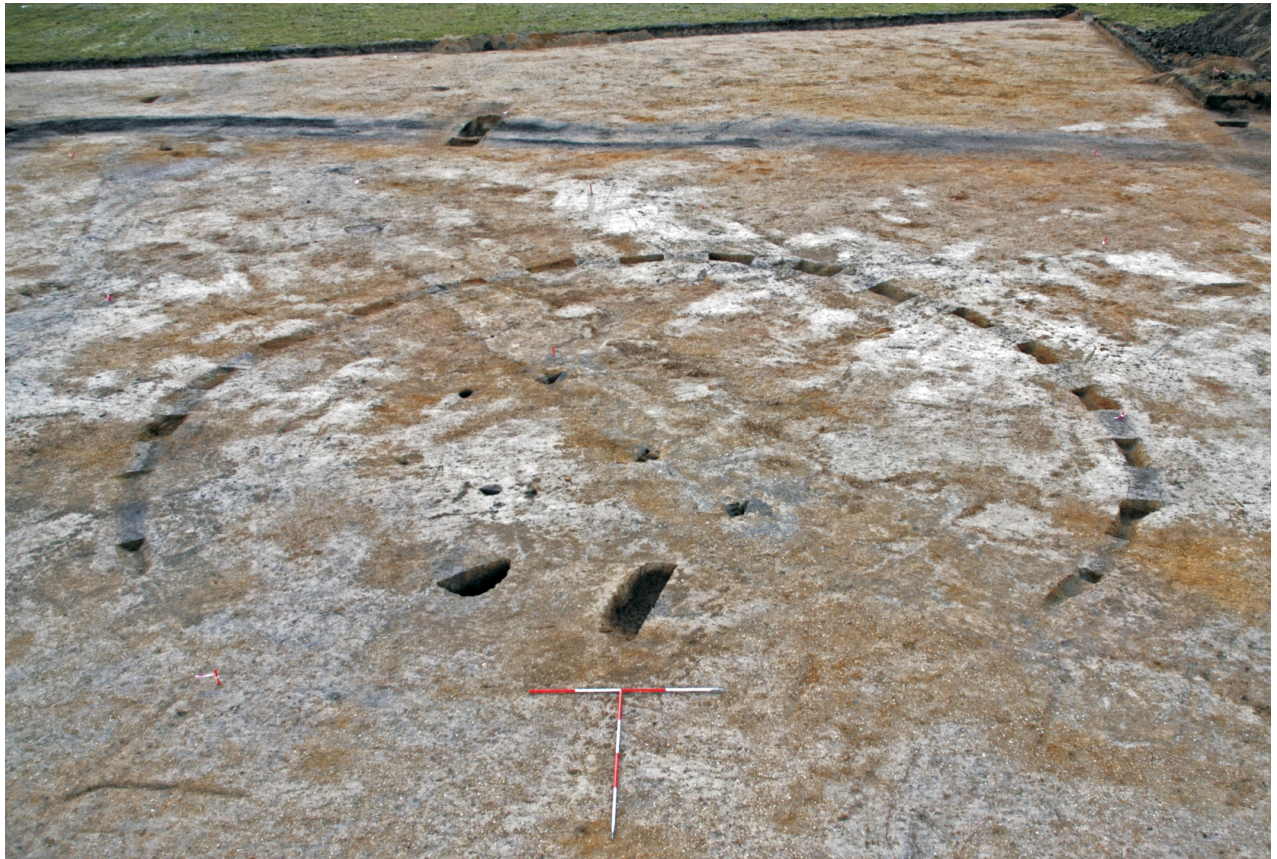


Figure 7. Iron Age Roundhouse (F.1172)

the slightly curving, north-south oriented ditch F. 1165 (possibly seen in Trench 24 of the evaluation; Patten 2004: 52). 1.70m wide and 0.75m deep, the northern terminal butt-ended with the contemporary F. 1164. Extending for 23.8m, the ditch drops towards Rhee Lake, crossing the geological boundary between the higher sands and gravel and the lower lacustrine alluvial clay (see fig. 3). It would have acted as a water conduit or drain, emptying into the inlet; the basal fill of gravel and grey orange mottled silty sand attest to waterlain deposits sealed by an organic rich clay (back-eddying?) and later peat. Pollen analysis of the fills from the southern terminal was inconclusive due to poor preservation (see Boreham, below), probably due to numerous changes in watertable levels from the Roman-British period onwards; drainage of Rhee Lake during the Roman-British period is inferred due to rapid formation of iron-pan dated to the period (Boreham forthcoming). The lack of contemporary pits/wells at Rhee Lakeside North also contrasts with the relatively high number associated with the ditch alignments excavated at Langdale Hale (Regan 2003), reflecting the lack of settlement activity within this immediate area.

The low density and type of finds (16 sherds of pottery, 292 fragments of bone, a piece of tile and three residual flints) recovered from these features attests to the site falling outside of the main settlement focus in an area of primarily stock enclosures or paddocks.

Unphased

Excluding features probably associated with the roundhouse (F. 1208/F. 1209, F. 1210), 22 features could not be confidently assigned to a specific period. Of these, ditch F. 1183 shows a similar morphology and fills to ditches attributed to the Iron Age or Romano-British periods and is possibly the southern return of ditch F. 1179. Located on the eastern edge of the site were a large shallow pit/well F. 1168, 3.35-3.45m in diameter and 0.24m deep, and a shallow narrow liner F. 1169. The relationship between these features was unclear, but the finer brown silt of the pit suggests this feature post-dates the grey clayey silt-filled linear. Neither feature yielded finds. Straddling the Bronze Age ditch was an arc of six postholes or small pits (east to west: F. 1204, F. 1206, F. 1203, F. 1205, and F. 1215). An association or contemporaneity between these features cannot be demonstrated, with Bronze Age pit F. 1202 'interrupting' the arc and F. 1203 containing three sherds of probable later Bronze Age/Early Iron Age pottery. Five pits (east to west: F. 1207, F. 1160; F. 1161, F. 1167 & F. 1198) varied in size (0.6-2.60m wide and between 0.10m and 0.55m deep). Finds from these were limited to two flints and 103 bone fragments. Cut by the Iron Age enclosure and Romano-British ditches was an irregular feature, F. 1166. Oriented approximately north-south, this was severely truncated and may be natural in origin, although containing four flints.

Located within the area defined by the roundhouse eavesdrip gully were six possible postholes (F. 1190-91 & F. 1194-97). Four sherds of pottery were recovered from F. 1193 and also F. 1195, two from each feature. Dated to the later Iron Age, those recovered from F. 1193 are probably residual as this feature has been interpreted as a tree-throw. Nonetheless, the remaining features all display near-vertical sides, were circular in shape and varied in width from 0.15m to 0.50m and were between 0.05-0.23m deep. These thus may be structural elements associated with roundhouse, an

attribution in keeping with similar association seen in other roundhouses. Three isolated small pits or postholes were located in the extreme northwest (F. 1178 & F. 1182) and western edge (F. 1177) of the site.

Material Culture

Flint Emma Beadsmoore

A total of 61 (326g) flints were recovered from the site, 59 (313g) of which are worked and unburnt, whilst two (14g) are worked and burnt. The material is listed by type and feature/context in Table 1. The flint includes chronologically diagnostic material from the later Mesolithic through to the Early Bronze Age. However, the majority of the material was residual in later features, providing evidence for earlier phases of activity that pre-dated the features at the site.

Three later Mesolithic microliths were recovered from F. 1172 SL22. The microliths are small geometric forms, which started to emerge in England after c.8500 BP and are characteristic of the later Mesolithic (Barton & Roberts 2004). Two bladelet fragments were found in the same context and are likely to be broadly contemporary. The flints were residual in a later feature. Another potentially later Mesolithic, residual bladelet was recovered from F. 1212.

Tentative evidence for earlier Neolithic activity was supplied by material recovered from F. 1163, whilst features F. 1163, F. 1184, F. 1206, F. 1212 and F. 1215 yielded occasional, characteristically Neolithic flints. However, the majority of the flints were residual; the only exceptions are the flakes recovered from F. 1206 and F. 1215, which were potentially broadly contemporary with the features.

Evidence for Late Neolithic activity is supplied by a transverse arrowhead and irregular core recovered from F. 1211, whilst F. 1202 yielded potentially Late Neolithic/Early Bronze Age material; a retouched flake and a flake blank that could have been broadly contemporary with the feature. A second arrowhead provides evidence for Beaker/Early Bronze Age activity at the site; a barbed and tanged arrowhead was recovered from F. 1210 as well as a potentially Late Neolithic/Early Bronze Age scraper.

Feature	Type													Totals			
	chip/chunk	primary flake	secondary flake	tertiary flake	secondary blade	tertiary blade	core rejuvenation flake	irregular core	multiple platform core	barbed and tanged arrowhead	transverse arrowhead	microlith	miscellaneous scraper		miscellaneous retouched flake	edge used flake	serrated blade
1163 [4097]			1														1
1163 [4945]			1														1
1163 [4949]			1														1
1163 [4970]			1												1		2
1163 [4971]			1	1												1	3

of the material was average, with a relatively high mean sherd weight of 12.9g. This figure masks the fact that 60% of the sherds were under 4cm in diameter (classified as small), whilst only 4% were over 8cm in diameter (classified as large). As with other Colne Fen sites, the pottery had partly suffered from iron panning and leaching out of calcareous inclusions. All sherds weighing under 1g (crumbs) were excluded from the analysis.

The assemblage was dominated by shell and sand tempered fabrics, typical of those found in other Middle/Later Iron Age assemblages from Colne Fen. By weight, 47% of sherds had shell and quartz-sand inclusion, 23% contained only shell, 18% had a mixture of shell, sand and limestone inclusions, and 9% contained just sand. The remaining sherds in the assemblage had crushed burnt-flint inclusions, and are likely to be of Late Bronze Age/Early Iron Age date. These were recovered from post-holes F.1182, F.1178, and F.1203, with a single grog-tempered sherd deriving from F.1191. Based on the total number of different rims and bases, the assemblage represents a minimum of 10 vessels (5 rims, 5 bases). Three of the rims belonged to slack-shouldered jars with direct-rounded lips (Hill & Horne 2003 Type A), whilst a fourth rim belonged to a slack-shouldered jar with out-turned neck (Hill & Horn Type D). These four diagnostic sherds represent just 5% of the assemblage by sherd count or 18% by weight (86g).

Decoration was absent from the assemblage, through 10 sherds (238g) had randomly scored lines characteristic of the East Midlands Scored Ware tradition (representing 12.9% of the assemblage by sherd count, or 23.8% by weight). Scoring was confined to fabrics with just shell or those with both shell and quartz-sand; the sherds tending to be much thicker than the plainwares, with a high MSW of 23.8g. The largest assemblage derived from enclosure ditch F.1163/F.1185/F.1199, which contained eight of the 10 vessels recovered (Table 2). The two remaining vessels were found in the central roundhouse, most pottery deriving from the entrance and internal post-holes rather than the eaves gully.

	Feature no.	No. sherds	Weight (g)	MSW	No./weight Scored	% small	% medium	% large
Enclosure ditch	F.1163, F.1185, F.1199	33	706	21.4	5/163	42	48	<1
Eaves-gully	F.1172	5	36	7.2	2/19	60	40	-
Roundhouse post-holes	F.1193, F.1195, F.1209, F.1210	10	82	8.2	2/36	70	30	-
Other ditches	F.1179, F.1181	23	130	5.7	1/20	78	22	-
Residual	F.1180, F.1184	3	27	9.0	-	33	66	-

Table 2: Quantification of Middle/Later Iron Age pottery from the site's principle components

The dating of the Rhee Lakeside North assemblage is problematic. On typological grounds the handmade pottery belongs to the East Midlands Scored Ware tradition, which in this region, has a long currency spanning the mid 4th/3rd century BC to the mid 1st century AD. Closer dating within this bracket can be difficult. However, during the late 1st century BC and early 1st century AD, a new set of wheel-turned ceramics began to be made alongside the traditional handmade forms, albeit in relatively low frequencies (for the most part under 20%, though figures from the Plant

Site are much higher - See Webley in Evans forthcoming). The occurrence of these wheel-turned forms in an otherwise handmade assemblage is an indication of a date late in the Iron Age sequence. By this logic, it could be assumed that the Rhee Lakeside North assemblage pre-dates the late 1st century BC, as it contains only handmade pottery. Unfortunately, in this case, such a straightforward equation cannot be justified, as the assemblage/sample size is simply too small to be confident that no wheel-turned pottery was 'missed' - the outcome being that the assemblage is assigned a wide dating bracket. At present it is difficult to estimate how much pottery is required to overcome this problem. Whilst factors such as date, site function, status and depositional practice, are likely to affect the frequency of wheel turned-sherds on a site, one should expect to identify *some* wheel-turned pottery from a late assemblage of c.150-300 sherds plus.

Despite attempts to obtain more pottery by increasing the size of the excavated sample, the enclosure appears to have contained very little material detritus - both ceramic and otherwise- as did the roundhouse. This is uncharacteristic of later Iron Age sites, which usually produce an abundance of finds (especially on Late Iron Age 'conquest' period sites). The apparent 'ceramic poverty' may imply that the occupation of this Rhee Lakeside North enclosure was short lived; perhaps only lasting no longer than a single generation. Intriguingly a similar pattern is also emerging from the Rhee Lakeside South (Brudenell 2007)

Roman Pottery and Tile Katie Anderson

The site yielded a total of 16 sherds of Roman pottery weighing 276g, and representing 0.86 EVEs. All of the pottery was examined and details of fabric, form and date were recorded along with any other information deemed important. The assemblage comprised small- to medium-sized sherds, with varying levels of abrasion, with most of the material coming from Roman features, with the exception of two sherds that were recovered from the surface of the earlier enclosures. The pottery ranged in date from the 2nd-4th century AD and the majority of sherds were recovered from the northern part of the site, with the exception of one intrusive Pakenham colour-coated sherd from F. 1163. Sandy greywares were the most commonly occurring fabric types, although there were also two Nene Valley colour-coats from a pedestal bowl (3rd-4th century AD) from F. 1173, and two sherds from an Eastern Gaulish Dragendorff 36 dish (late 2nd 3rd century AD). There is not enough material to be able to make any statements about the assemblage; however, it is broadly comparable to the material recovered from the Langdale Hale excavation (Monteil forthcoming).

One piece of Roman floor tile was also recovered from F. 1173, weighing 19g.

Worked Stone Simon Timberlake & Grahame Appleby

A single piece of quernstone was recovered:

<018> [4961] F. 1173. Fragment from the edge of the upper stone of a rotary quern; weight 1426g. The fragment preserves the external rim and tapers from 40mm on its out edge to 32mm. The under surface is concave and fairly heavily worn with evidence for a slight rim around the circumference of the underside surface with no traces of chasing. The surviving rim arc suggests the complete stone would have had a diameter of c. 400mm. This places it at the lower end of the quern stones recovered

from nearby at Langdale Hale (Appleby forthcoming, Haywood forthcoming). Of fairly typical Roman millstone lithology, composed of Millstone Grit (Upper Carboniferous); the facies is of a pebbly sandstone/gritstone with a medium grained matrix and angular/sub-angular clasts of vein quartz and quartz-veined shale plus some more rounded gravel-size clasts of quartz schist and gneiss. A fairly mature gritstone with a low feldspar content. Most likely quarry source for this is North Derbyshire/South Yorkshire. A concretion of iron hydroxide (goethite or limonite) coating the quern suggests that the broken fragment was found lying within an iron pan horizon, perhaps within the base of a feature under conditions of impeded drainage. The heavy concretion on the underside suggests that this may have been lying concave surface uppermost.

Other Finds Grahame Appleby

These were limited to nine fragments of undiagnostic burnt clay (total weight: 68g), 53 pieces of charcoal (total weight 19g. 14 and 27 pieces each from ditch sieved-squares, A and B, respectively), eight nail fragments (31g), two horseshoe fragments (87g) and a domed copper alloy stud (2g). All of the metalwork is post-Medieval, recovered as surface finds.

A single sherd of Early Neolithic pottery (catalogue number <183>; Knight pers.comm), weighing 18g, was recovered as an unstratified surface find.

Environmental and Economic Studies

Faunal Remains Krish Seetah

A small assemblage of bone was recorded from the site of Rhee Lakeside North, Earith. The assemblage represented a continuation of archaeological investigation in the adjacent landscape and builds on zooarchaeological research executed by Higbee (2000, 2004 & 2005). The focus of the previous reports has been the Roman period (2004, 2005); although Roman levels were investigated, the majority of the assemblage came from Iron Age features, representing a useful comparison with the later material. The assemblage consisted of 636 fragments, of which 235 were identifiable (37%). This total figure was stratified by phase (Table 3) as follows: Bronze Age, 11%; Iron Age, 46%; Roman Period, 27% (split into Secondary Roman: 24% and Primary Roman: 3%). The remaining 16% was unphased material. A further division was made to investigate the Iron Age 'House' (F. 1172).

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) with diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Aging of the assemblage employed a combination of Grant's (1982) tooth wear stages and fusion of proximal and distal epiphyses (Silver 1969). Metrical analysis followed von den Driesch (1976). Elements from sheep and goats were distinguished, where possible, based on criteria established for the post-cranial skeleton by Boessneck (1969) and teeth by Payne (1985) and Halstead *et al* (2002). Identification of the assemblage was undertaken with the aid of

Schimd (1972) and reference material from the Cambridge Archaeological Unit and the Grahame Clark Zooarchaeology Lab, Dept. of Archaeology, Cambridge. Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded. Avian remains were studied with the aid of Cohen and Serjeantson (1996).

Species (NISP)	Bronze Age	Iron Age	Secondary Roman	Primary Roman
COW	30	45	45	2
HORSE	3	9	4	
PIG	3	25	1	
SHEEP/GOAT	6	26	5	2
DOG			11	
UNID	28	187	89	12

Table 3: Species frequency (NISP) per phase

The majority of the assemblage was hand collected, although samples of sieved material were also retrieved. The majority of the material exhibited preservation that ranged from ‘Moderate’ to ‘Poor’ indicating that weathering and other erosive damage had occurred to a significant proportion of the bone. This is usually most detrimental when analysing taphonomic modifications such as butchery, or attempting to decipher the taphonomic history of particular bones. However, in this instance this did not seem to pose a particular problem as the main bulk of the sample fell within a ‘Moderate’ category with surface modifications clearly evident. Weathering and other erosive soil conditions can also adversely affect the more porous elements or parts thereof, such as the epiphyses, or juvenile bone.

Species Representation

The medium- to large-sized mammalian assemblage was not representative of British fauna with only the domesticates evident: cow, horse, sheep/goat and dog (small mammal and bird evidence ad discussed below). No wild fauna were recorded whatsoever; although this was a relatively small assemblage, the total dearth of non-domesticates is surprising.

Of the domestic animals recovered cattle were by far the most abundant both within the context of NISP counts (131) and MNI with at least eight individuals recorded for the assemblage as a whole. Sheep (NISP: 44) and pig (NISP: 33) both had MNI counts of four individual animals with horse (NISP: 16) and dog (NISP: 11) registering a minimum of two individuals.

Cattle - The cattle assemblage was represented by the majority of carcass portions, although there was a predominance of proximal elements with distal extremities underrepresented. These elements, which include the phalanges and metapodials, are composed of dense osseous material and usually show good preservation. Therefore, despite the overall preservation of the site being noted as ‘Moderate’ this is unlikely to have accounted for the relative deficiency in these elements. We cannot rule out that this pattern of element representation may be indicative of preferential consumption of meatier units of the carcass, with a corresponding bias potentially resultant from only specific elements being brought to the site. However, this is unlikely to be the case. The occurrence of skull and mandibular elements would indicate that whole animals were transported to the site ‘on the hoof’ and processed as needed. Furthermore, the butchery evidence from one metatarsal (distal portion of the hind limb) indicated skinning / disarticulation, supporting the hypothesis that animals were brought in as livestock to the site. The relative under representation of limb extremities could then be indicative of these elements forming the basis of other ‘crafts’ such as bone working and therefore becoming increasingly dispersed away from the site.

The elements of the forequarter are better represented than the hindquarter, although this is as likely to have been a product of recovery bias or simply that there are more recordable upper limb elements than lower.

Although cattle bones are occasionally secondary to ovicaprid, particularly on Iron Age sites, this was not the case at Rhee Lakeside North. Cattle elements accounted for more identifiable bones than all the other species combined. Evidently, cattle were the most significant economic species on the site and were the main providers of meat. The age range, derived from teeth and fusion data (though only seven mandibles were present and therefore the results are ambiguous) would indicate the presence of both young and old animals. This would suggest that individuals were kept for traction (although the oldest age range termed 'senile' was not evident). This pays testament to the multipurpose nature of this species and its diverse role within an economic setting.

Ovicaprids - The ovicaprid portion of the assemblage was once again composed of all main carcass units, with an equal distribution of hind and forelimb elements. Again, it would appear that animals were raised on site and killed once they were 'surplus to requirements'. Although in general it is difficult to distinguish between sheep and goats, for some elements this is far more straightforward, the horn cores being a particularly good example. At least two definite sheep horn cores were recovered, as noted from the cross section and overall shape of the bones, and this, in the absence of any definite goat elements might be taken to suggest that the assemblage was in fact composed predominantly of sheep, rather than goat. Furthermore, at least three juvenile mandibles were recovered from this assemblage as evidenced by the presence of the fourth deciduous premolar. This particular tooth is usually a good diagnostic indicator of whether the mandible is derived from a sheep or goat (cf. Payne 1985 and in particular Halstead *et al.* 2002); in all cases the mandibles were from juvenile sheep. As with cattle, the individual animals fell within a wide age range from juvenile to adult on the site; however, again duplicating the pattern seen in cattle, no 'senile' individuals were present. Sheep would also have been used as a multipurpose animal, for wool, milk and meat.

Pig - The occurrence of pig in numbers compared with ovicaprids (*caveat*: small sample size of this assemblage) is surprising. Furthermore, as with the aforementioned species above, the general age range of animals encompassed both juvenile and adult individuals. The apparent comparable occurrence of pig with the more anticipated incidence of ovicaprids has been suggested to indicate an element of Romanisation from later levels at Earith (Higbee 2004); however this would not have been the situation for this particular assemblage. If pigs were favoured for meat one might anticipate a greater proportion of juvenile culling. In the absence of this mortality profile it is unlikely that pigs were sty-raised and probably foraged within local woodland, taking advantage of free nutrition, particularly mast. The small sample size precludes any comment about the potential indications of site status from the presence of pig.

Dogs and horse - Little can be said regarding the presence of canid and equids on the site as the element frequency was unrepresentative. All the canid bones came from cranial portions and it would appear that the individual animal was relatively robust. Furthermore, the presence of dogs is evidenced from gnawing damage on cattle, horse and ovicaprid bones; though this occurred in small numbers.

The Iron Age 'House'

A selection of bone was recorded from the Iron Age roundhouse (F. 1172). The assemblage contained a majority of ovicaprid bones; however, as the whole collection from this feature consisted of only 45 individual bones, it was not suitable for further analysis. One point to note was that this feature contained the only small mammal bone for the assemblage: a mandible from *microtus sp.*

Butchery and Pathology

The evidence for butchery was minimal and predominately affect cattle bones (nine indications of butchery were recorded on cow elements) with one ovicaprid astragalus showing cut marks that indicated disarticulation activity. Although the butchery evidence was minimal, and it would be a mistake to over analyse the data, in all instances the butchery was carried out with knives without any indications of cleaver marks. Overwhelmingly, the butchery was performed with fine bladed implements (as opposed to large blades) which would correspond with the more general pattern of butchery noted from the Iron Age (Maltby 1985). Overall, the butchery pattern indicated processes associated with gross dismemberment at sites of natural disarticulation, the joints. One set of cut marks

did give clues as to the mode of processing. Knife cuts to the ventral surface of the atlas indicate that at least the decapitation process took place whilst the animal was on the ground.

Two indications of pathology were evident, the first indicative of dental decay in a horse mandible. Although the teeth themselves were absent, the alveolus showed a marked degree of re-absorption with one area in particular, around the fourth premolar, showing the greatest degree of degenerative damage. A bird tarsometatarsus, tentatively identified as a juvenile Crane (*Grus grus*) showed a peculiar bone growth, although this did not conform to any pathology the author is aware of. Where pathological changes occur these usually affect a portion of the bone and are localised, in this instance the pathology started at the distal part of the bone and *progressively* developed along the bone. At the proximal end the pathology was extensive and resulted in the same morphological changes as one might expect from inflammatory, infectious bone disease.

Birds and Small Mammal

As mentioned above, this was an impoverished assemblage in terms of the range of species present with only the aforementioned Crane tarsometatarsus and a small mammal evidenced from a mandible, which from the teeth present, was identified as *microtus sp.*

It would be inappropriate to over analyse an assemblage of this size, especially as there was insufficient data to plot mortality profiles or attain metrical estimates. However, the general reliance on cattle has previously been noted for this period (Hambleton 1999), despite the traditional view that sheep were the favoured species in the Iron Age (King 1978). The small suite of butchery marks also fit the general model of Iron Age practices and implement signatures (Maltby 1985).

Environmental Samples Anne de Vareilles

Four of the nine bulk soil samples taken on site were processed using an Ankara-type flotation machine at the Cambridge Archaeological Unit. The flots were collected in 300µm meshes and the remaining heavy residues washed over a 1mm mesh. The flots were dried indoors and scanned for the presence of charred plant macro remains and other ecofacts. The heavy residues remain to be sorted. Sorting and identification of macro remains were carried out under a low power binocular microscope. Identifications were made using the reference collection of the George Pitt-Rivers Laboratory, McDonald Institute, University of Cambridge. Floral nomenclature follows Stace (1997). All environmental remains are listed in Table 4.

All plant remains preserved through carbonisation, their condition is average. Intrusive rootlets and modern seeds, present in all samples, are indicative of bioturbation through which small ecofacts may have been lost and/or displaced.

The four samples were all taken from the Iron Age roundhouse. Most of the charcoal and all other charred plant remains were found in Slot 1, at the southern end of the ring-gully; only a trace of charcoal was found in the other three samples.

Sample number		250	252	253	254
Feature		F. 1172 Round House Gully			
Context		4693	4999	5033	5037
Slot number		1	15	25	33
Phase / Date		Possibly Iron Age			
Sample volume – litres		10	8	14	12
Flot fraction examined		1/1	1/1	1/1	1/1

Cereal chaff					
<i>Triticum</i> sp. glume base	Wheat glume base	1			
Wild Plant Seeds					
<i>Chenopodium</i> sp.	Goosefoot	5, +M	+ M	+ M	- M
<i>Rumex acetosella</i>	Sheep's Sorrel	3			
<i>Sambucus nigra</i>	Elder	1			
Large Poaceae fragments	Large wild grass seed	4			
Poaceae fragments	Wild or cultivated grass	2			
Indeterminate wild seed		1			
Charcoal					
>4 mm		++			
2 – 4 mm		+++		-	-
<2 mm		+++	-	+	-
Vitrified		-	-	-	

Table 4: Environmental Remains from the Bulk Soil Samples. Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++>' >50 items; M = modern (intrusive)

Very little environmental evidence was found, nevertheless a pattern is visible in the spatial distribution of deposits. The predominant presence of plant remains in the entranceways of structures has been recorded at other pre-historic round-houses, as for example at Whittlesey (Ballantyne 2000), Greetham (Vareilles 2006) and Earith (de Vareilles 2007). Though there is no conclusive interpretation for such a pattern, it may simply reflect the regular passing of peoples and goods. This interesting phenomenon should be kept in mind when sampling circular structures.

Pollen Analysis Steve Boreham

This report presents the results of pollen analyses from twelve samples of sediment taken from three archaeological features (F. 1185, F. 1211 & F. 1165).

The NW facing section of F. 1185, the main Iron Age ditch at the site, was sampled using two 30cm long monolith tins (263 & 262) and one 50cm long monolith (261). Between them, these tins recovered six different contexts from the feature, which were prepared for pollen analysis. The basal part of the sequence (context 298) comprised silty sand with charcoal and was sampled for pollen at 3cm in monolith 263. Stratigraphically above this in the section, a silty clay unit (context 5293) was sampled for pollen at 8cm in monolith 262. It appears that the next unit in the sequence was context 5295, which was sampled for pollen at 12cm in monolith 263. Above this was a silty sand unit filling an apparent re-cut (context 5289), which was sampled for pollen at 12cm in monolith 262. Overlying this was context 5288 sampled for pollen at 29cm, and context 5287, sampled for pollen at 45cm in monolith 261.

A section in F. 1211, a later Bronze Age pit, was sampled using a single 30cm monolith (260). The basal sample was taken for pollen at 7cm (context 5249), and above this from 13cm (context 5243) & 20cm (context 5247). Material from the top of the monolith (context 5240) was not taken for pollen analysis because it was too oxidised and sandy.

The SE facing section of F. 1165, a presumed Roman ditch, was sampled using a single 30cm long monolith tin (259). The basal part of the sequence (context 5145) was sampled for pollen at 3cm. Above this, material filling a re-cut was sampled at 13cm (context 5143) and 24cm (context 5142).

The twelve samples were prepared using the standard hydrofluoric acid technique, and counted for pollen using a high-power stereo microscope. The percentage pollen data from these 12 samples is presented in Table 5.

Pollen Analyses

There was a large variation in the pollen concentration from these samples with values between <1068 and 77,262 grains per ml. The preservation of the fossil pollen grains (palynomorphs) was rather variable, and in some samples, pollen counting was hampered by the presence of finely divided organic debris and microcharcoal. Counts from single slides reached main sums of 100 grains for eight samples, and three exceeded counts of 200 grains. The statistically desirable total of 300 pollen grains was not achieved for in these assessment counts, although in many cases additional counting of more slides could easily reach that figure. Therefore care should be taken in the interpretation of these pollen assessment results.

F. 1185 NW-facing Section (Iron Age ditch)

The basal sample from 3cm 263 (context 5298) produced a pollen signal dominated by grass (Poaceae) (25.4%) and Asteraceae (Lactuceae) (19.0%), with thistles (*Cirsium*) (6.3%), sedges (Cyperaceae) (5.6%) and a range of herbs including the soil disturbance indicator strapwort plantain (*Plantago lanceolata*) (1.4%). Arboreal taxa were represented by hazel (*Corylus*) (3.5%), and birch (*Betula*), pine (*Pinus*), alder (*Alnus*), privet (*Ligustrum*), box (*Buxus*), and juniper (*Juniperus*) (all 0.7%). Fern spores were significant in this sample (together 16.2%) and the obligate aquatic water milfoil (*Myriophyllum*) was also present. The sample from 8cm 262 (context 5293) was also dominated by grass (26.9%) and Asteraceae (Lactuceae) (24.1%), with a similar range of herbs including sedges (7.4%) and the cabbage family (Brassicaceae) (6.5%). Arboreal taxa were represented by alder and hazel (both 1.9%) and birch and pine (both 0.9%). Cereal pollen was present in this sample (2.8%). Fern spores together reached 10.1%, and aquatic taxa were represented by bur-reed (*Sparganium*) (22%), reedmace (*Typha latifolia*) and white water-lily (*Nymphaea*). This sample contained an abundance of microcharcoal.

The sample from 12cm 263 (context 5295) showed a similar pollen assemblage, dominated by grass (31.6%) and Asteraceae (Lactuceae) (23.9%), with herbs including the fat hen family (Chenopodiaceae) (6.2%) and strapwort plantain (4.8%). Arboreal taxa present were hazel, alder birch and privet. Cereal pollen was present in this sample (1.4%). Fern spores together reached 11%, and aquatic taxa were represented by bur-reed (*Sparganium*) and reedmace (*Typha latifolia*). This sample also contained a large amount of microcharcoal. The sample from 12cm 262 (context 5289) was again dominated by grass (39.2%) and Asteraceae (Lactuceae) (23.5%), with herbs including the fat hen family (Chenopodiaceae) (4.9%). Arboreal taxa were limited to alder and hazel. Cereal pollen was present at 1%, and fern spores together reached 19.6%.

The sample from 29cm 261 (context 5288) was also dominated by grass (Poaceae) (36.8%) and Asteraceae (Lactuceae) (27.2%), with a range of herbs including the fat hen family (Chenopodiaceae) and buttercup (*Ranunculus*) (both 4.4%). Arboreal pollen was restricted to honeysuckle (*Lonicera*) and maple (*Acer*). Cereal pollen was present in this sample (0.9%). Fern spores together reached 9.7% and aquatic plants were represented by bur-reed (3.4%). The final sample from 45cm 261 (context 5287) was dominated by Asteraceae (Lactuceae) (33.3%) and fern spores (together 33.3%), with grass (15.8%) and a range of herbs. Arboreal taxa were represented by hazel and pine (both 1.8%), and aquatic plants included bur-reed and sphagnum moss (both 1.7%).

The prevalence of Asteraceae (Lactuceae) and fern spores in this sequence strongly suggests that the palynomorphs have been affected by post-depositional oxidation processes in the soil. The top-most sample (45cm 261) (context 5287) seems to have been particularly affected. This sequence appears to a record a meadow environment with some soil disturbance and arable activity. There are some riparian (bankside) and tall herb elements, and several arable taxa. Fragments of wet woodland and hazel scrub are suggested. Deep water nearby is indicated by water-lily and water milfoil, whilst sedges and bur-red hint at a fringe of emergent aquatic vegetation.

F. 1211 (Late Bronze Age pit)

The basal sample from 7cm 260 (context 5249) was dominated by grass (32.5%), with hazel (*Corylus*) (15.8%) and a range of herbs including Asteraceae (Lactuceae) (9.2%) and strapwort plantain (4.1%). Other arboreal taxa included alder (7.9%), pine and birch. Cereal pollen was present at 0.3%. The polypody fern (*Polypodium*), an indicator of woodland, was present at 1.7%, and other fern spores together reached 11.7%. Aquatic plants included bur-reed and sphagnum moss. The sample from 13cm 260 (context 5243) was dominated by grass (26.4%), with hazel (*Corylus*) (10.6%) and Asteraceae (Lactuceae) (11%). A range of herbs including strapwort plantain (7.3%) was also counted, and cereal pollen was present at 0.4%. Arboreal taxa included alder (8.5%), birch (4.5%) and ash (*Fraxinus*). Fern spores together reached 9.5% and aquatic plants were represented by bur-reed (2%). The sample from 20cm 260 (context 5247) was dominated by hazel (23.3%) and grass (21.1%), with alder (13.5%) and a range of herbs including Asteraceae (Lactuceae) (6.8%). Cereal pollen was present at 1.5%, and the polypody fern (*Polypodium*), was present at 1.5%. Other fern spores reached 4.5% and aquatic plants were represented by bur-reed (3.6%).

The samples from this sequence appear to represent grassland or meadow with some soil disturbance and a little arable activity, but with appreciable areas of hazel woodland (perhaps coppice) and wet alder woodland nearby. Only emergent aquatics (and aquatic moss) are represented, so it appears that water bodies or pools were shallow at this time.

F. 1165 SE-facing Section (presumed Roman ditch)

The basal sample from 3cm 259 (context 5154) was completely barren. Unfortunately, the next sample from 13cm 259 (context 5143) produced a very low main pollen sum. The sample was dominated by hazel (29.4%) with alder and grass (both 17.9%). Notably, the pollen of lime (*Tilia*) was also recorded. The final sample from this sequence (24cm 259 (context 5142)) also contained very little pollen. It was dominated by fern spores (together 58.1%), but also contained arboreal pollen including lime (12.9%), pine (9.7%), oak (*Quercus*) and hazel (both 6.5%).

It appears that most of the pollen from this sequence has been badly affected by soil processes. With such small main pollen sums it is hard to draw reliable conclusions, but it does appear that at least two samples indicate woodland with hazel, lime and oak. Cereal pollen was not detected in the samples.

The pollen assemblages from these three sequences show rather different pollen assemblages. Despite the apparent association with the Roman period, it is tempting to refer the hazel, lime and oak woodland suggested from the F. 1165 SE facing section sequence to the late Mesolithic or early Neolithic interval. However, the preservation and concentration of palynomorphs is so poor that it is hard to reach a firm conclusion in this respect.

The hazel-alder-grass dominated assemblages of the sequence from F. 1211, are not those of a typical post-clearance landscape. The persistent presence of hazel (up to 23%) indicates shrubby woodland nearby (perhaps managed coppice). The occurrence of alder infers local areas of wet woodland nearby, although the pollen of obligate aquatic plants, such as bur-reed, was not especially common. The abundance of grass and range of herbs suggests meadow or pasture. Although the disturbance indicator, strapwort plantain was present in almost every sample, cereal pollen was rather infrequent, suggesting that any arable activity was small-scale and some distance from the site. The pollen assemblage is difficult to date, but is more typical of the late Neolithic or early Bronze Age environment, where there was incomplete clearance of the wooded landscape, and arable activity was sporadic, rather than the suggested association with the later Bronze Age. However, it is entirely possible that patches of hazel scrub or coppice persisted within an ostensibly tree-less environment in the late Bronze Age.

The sequence from the F. 1185 NW facing section was clearly affected by post-depositional oxidation of the palynomorphs. However, the post-clearance signal of meadow and grassland, with soil disturbance and arable activity remains evident. Local scrub, wet woodland and hedgerows are also indicated, and there is also a suggestion of deeper water from the early part of the sequence. The Iron Age date of this ditch sequence is entirely compatible with the pollen assemblages, although this type of landscape existed from late Bronze Age times, through the Iron Age and into the Romano-British period.

It appears that the three features described here record a range of palaeoenvironments and could potentially span the late Mesolithic through to the Bronze Age, Iron Age or Roman periods. However, caution must be applied to make sure that pollen assessment data are not over-interpreted.

Pollen Analysis

Percentage Pollen Data	F. 1185 (Iron Age ditch)						F. 1211 (late Bronze Age pit)			F. 1165 (Roman ditch)		
Sample number	263	263	262	262	261	261	260	260	260	259	259	259
	5298	5295	5293	5289	5288	5287	5249	5243	5247	5154	5143	5142
Trees & Shrubs	3cm	12cm	8cm	12cm	29cm	45cm	7cm	13cm	20cm	3cm	13cm	24cm
<i>Betula</i>	0.7	0.5	0.9	0.0	0.0	0.0	0.3	4.5	0.8		0.0	0.0
<i>Pinus</i>	0.7	0.0	0.0	0.0	0.0	1.8	1.4	0.0	0.0		0.0	9.7
<i>Ulmus</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8		0.0	0.0
<i>Quercus</i>	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.8		0.0	6.5
<i>Tilia</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		5.9	12.9
<i>Alnus</i>	0.7	0.5	1.9	1.0	0.0	0.0	7.9	8.5	13.5		17.6	0.0
<i>Fraxinus</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0		0.0	0.0
<i>Acer</i>	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0		0.0	0.0
<i>Corylus</i>	3.5	1.0	1.9	2.0	0.0	1.8	15.8	10.6	23.3		29.4	6.5
<i>Ligustrum</i>	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
<i>Buxus</i>	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
<i>Lonicera</i>	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0		0.0	0.0
<i>Juniperus</i>	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Herbs												
Poaceae	25.4	31.6	26.9	39.2	36.8	15.8	32.5	26.4	21.1		17.6	3.2
Cereals	0.0	1.4	2.8	1.0	0.9	0.0	0.3	0.4	1.5		0.0	0.0
Cyperaceae	5.6	1.0	7.4	2.9	1.8	1.8	1.7	0.8	3.0		0.0	0.0
Asteraceae (Asteroidea/Cardueae) undif.	2.1	1.4	0.0	0.0	2.6	0.0	2.4	2.8	0.8		0.0	0.0
<i>Centaurea nigra</i> type	0.7	0.0	0.0	0.0	0.0	0.0	0.3	1.2	1.5		0.0	0.0
Asteraceae (Lactuceae) undif.	19.0	23.9	24.1	23.5	27.2	33.3	9.2	11.0	6.8		5.9	3.2
<i>Artemisia</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0		0.0	0.0
Caryophyllaceae	2.1	4.3	0.9	0.0	3.5	1.8	2.1	1.2	5.3		0.0	0.0
Chenopodiaceae	3.5	6.2	1.9	4.9	4.4	1.8	3.1	3.3	4.5		0.0	0.0
<i>Cirsium</i>	6.3	1.0	2.8	1.0	0.0	0.0	0.0	1.6	1.5		0.0	0.0
Brassicaceae	2.8	1.9	6.5	1.0	2.6	1.8	0.7	1.2	2.3		0.0	0.0
<i>Filipendula</i>	0.7	1.4	1.9	2.0	0.9	0.0	0.3	0.0	0.0	Barren	0.0	0.0
<i>Heracleum</i> type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0		0.0	0.0

Lamiaceae	0.7	0.5	0.9	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Fabaceae	0.0	1.0	0.0	0.0	0.0	0.0	0.3	1.2	0.0	0.0	0.0	0.0
<i>Lotus</i> type	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.8	0.0	0.0	0.0
<i>Plantago lanceolata</i> type	1.4	4.8	0.9	1.0	0.9	1.8	4.1	7.3	0.8	0.0	0.0	0.0
<i>Ranunculus</i> type	1.4	2.4	4.6	0.0	4.4	0.0	1.7	0.8	3.0	5.9	0.0	0.0
<i>Malva</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
<i>Rumex</i>	0.7	0.5	0.9	0.0	0.0	0.0	0.7	0.4	0.8	0.0	0.0	0.0
Saxifragaceae	0.0	0.5	0.0	0.0	0.9	0.0	0.3	0.4	0.0	0.0	0.0	0.0
<i>Thalictrum</i>	0.0	1.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Apiaceae (Umbelliferae)	1.4	0.5	0.9	0.0	0.0	1.8	0.0	0.8	0.0	0.0	0.0	0.0
<i>Urtica</i>	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Pulmonaria</i>	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Liliaceae	2.1	0.0	0.0	0.0	0.0	3.5	0.3	0.0	0.0	0.0	0.0	0.0
<i>Veronica</i>	0.0	0.5	0.0	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Lower plants												
<i>Polypodium</i>	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	1.5	5.9	0.0	0.0
Pteropsida (monolete) undif.	12.7	7.7	8.3	16.7	7.9	29.8	11.0	8.9	4.5	11.8	45.2	0.0
Pteropsida (trilete) undif.	3.5	3.3	2.8	2.9	1.8	3.5	0.7	1.6	0.0	0.0	12.9	0.0
Aquatics												
<i>Myriophyllum alt</i>	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Sparganium</i> type	0.0	1.4	22.0	1.9	3.4	1.7	1.0	2.0	3.6	0.0	8.8	0.0
<i>Nymphaea</i>	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Typha latifolia</i>	0.0	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Sphagnum</i>	0.0	0.0	0.0	0.0	0.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0
Sum trees	2.1	1.0	3.7	1.0	0.9	1.8	9.6	13.4	15.8	23.5	29.0	0.0
Sum shrubs	5.6	1.4	1.9	2.0	1.8	1.8	15.8	10.6	23.3	29.4	6.5	0.0
Sum herbs	76.1	86.6	83.3	77.5	87.7	63.2	61.3	65.4	54.9	29.4	6.5	0.0
Sum spores	16.2	11.0	11.1	19.6	9.6	33.3	13.4	10.6	6.0	17.6	58.1	0.0
Main Sum	142	209	108	102	114	57	292	246	133	17	31	0.0
Concentration (grains per ml)	22976	48520	25630	38902	16677	18446	49496	77266	41774	<1068	10086	11415

Table 5: Pollen data

Discussion - *Bronze Age*

Despite the limited number and variety of finds, it is possible to assign the majority of features variously to the Bronze Age, later Iron Age, or the Romano-British period (fig. 8). Only a single sherd of Neolithic pottery was recovered as a surface find and further attests to the 'ephemeral' nature of Neolithic activity in this area and this was also true of the Rhee Lakeside South site (Brudenell & Evans 2007). Certainly, Late Neolithic/Early Bronze Age activity is represented by the cremations, flint and pottery recovered at the Camp Ground to the north (the cremations at Langdale Hale are assumed to be Neolithic or Bronze Age, but this attribution is uncertain; Regan 2003: 10). Of the 61 flints recovered from Rhee Lakeside North, only 13 were recovered from features securely dated to the Bronze Age or earlier, possibly forming a cluster in the southwest area of the site. Although, this clustering may be a statistical product of the excavation strategy, the pollen data does suggest that the pits in this area, and possibly those along the fen-edge, date to the Late Neolithic or Early Bronze Age, if not earlier. The microliths recovered from the roundhouse (see Beadsmoore, above) reflect the benefits of the implemented sieving policy and, although these are residual, they do attest to a Mesolithic presence in the landscape.

It should be noted, along with the recovery of the microliths, that both later Neolithic and earlier Bronze Age arrowheads were present (transverse and barbed-and-tanged, respectively) among the site's only 60 flints in total, could well attest to the occurrence of hunting pursuits along the inlet's margins.

The substantial east-west oriented Bronze Age ditch, F. 1192, exposed over a relatively short length, may continue westward, 'emerging' from beneath the Iron Age enclosure as F. 1212 and running west to Trench 63. The slight curvature of this ditch most probably reflects a formalisation of the field boundaries, respecting and following the edge of the inlet. What is particularly noteworthy is that the orientation of the F. 1192/1212 ditch-line - aside from following the near-generic region-wide alignment of the period - essentially is that of the western Rhee Lakeside South system (Brudenell & Evans 2007).

Iron Age

The large Iron Age enclosure dominates the exposed archaeology of the site (fig. 8). Superficially similar to the arrangement seen in the northern enclosure at Site I, and the Phase 2 enclosure, with truncated penannular eaves-ring, at Site IV (Regan 2003), it seems a very formal arrangement with its large, roundhouse eavesgully located centrally within the square enclosure-compound. Unlike the roundhouses excavated at Site IV, this gully was not truncated and was preserved as a large, 'open-C' setting, a feature of several similar roundhouses of the Langdale Hale/Rhee Lakeside environs. Dated by spatial association with the enclosure ditch, this is attributed to the

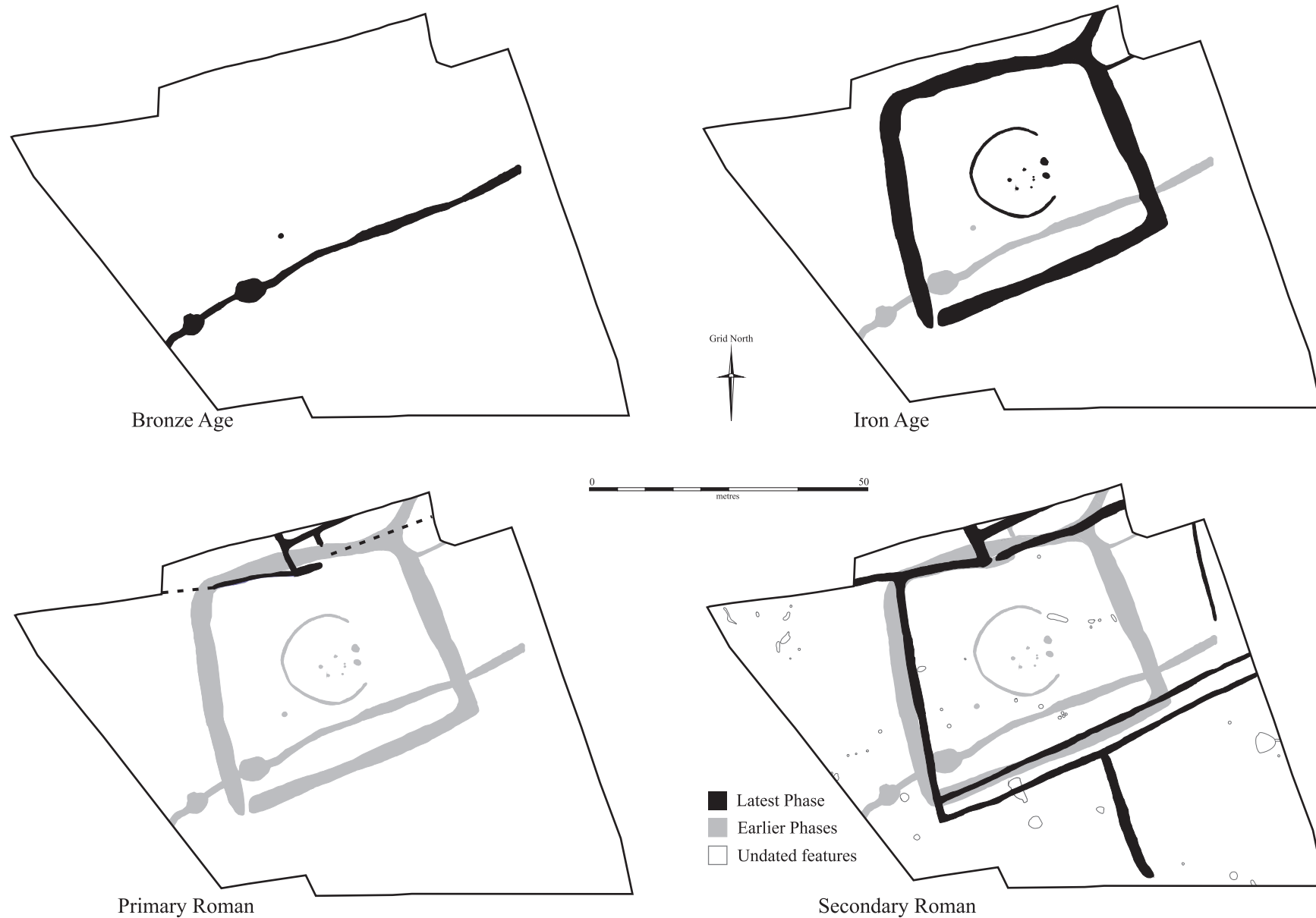


Figure 8. Phase plans

later Iron Age on the basis of its pottery (see Brudenell, above). However, only seven sherds of pottery and 47 fragments of bone were retrieved from the excavation of its entire circuit. This paucity of material is common to other Iron Age compounds investigated during the course of fieldwork within the quarry and is difficult to account for. Nonetheless, two possible explanations can be offered, at least in this case. Firstly, given its plan-layout, the eavesgully's terminals were somewhat removed from the entrance of the roundhouse and, thus, fell outside of its potential 'doorway-toss' discard zone. Secondly, occupation of the roundhouse was of short duration before it fell out of use. There is, for example, little environmental evidence to support occupation of significant duration, although it does demonstrate the processing of grain, a clearly domestic activity (see de Vareilles, above). Given this, and the 'pristine' quality of the enclosure and its central house (i.e. little apparent re-cutting), it is difficult to imagine them lasting for more than 10-50 years. Neither of these explanations is exclusive, but may, in fact, be mutually supportive. Interestingly, the two, very large postholes situated at the mid-point between the terminals of the eavesgully provide coherence to the interpretation of a roundhouse, marking two entrance- or porch-way uprights, with smaller postholes within the ring adding to the building's structural integrity. Unfortunately, none of these features can be firmly attributed to the later Iron Age and the association is purely spatial; an insignificant quantity of undiagnostic burnt clay was recovered from the eavesgully.

The enclosure ditch is, in itself, unremarkable, conforming in morphology to square compound-type Iron Age enclosures seen in the immediate environs and also others in southeast Britain and, particularly, the Midlands (Cunliffe 1974; Evans & Hodder 2006). Most probably had an internal upcast bank, the quantity of finds from the ditch was relatively low. However, there is a distinct bias in their distribution towards the eastern side of the enclosure (24 sherds of pottery and 240 fragments of bone from totals of 33 sherds and 257 fragments), even when excavation-sample bias is taken into consideration, and this is possibly further reflected in the 22 sherds of pottery retrieved from the ditch that intersects with the enclosure ditch at its northeastern corner (F. 1181; see below). Of particular note, is the pollen data from the eastern ditch (see Boreham, above). This clearly shows that water accumulated to a considerable depth within the ditch for a sufficiently long period, enabling aquatic plant species to establish. The implication of this is that the ditch became waterlogged (possibly flooded), a process that may have contributed to the abandonment of the enclosure and its roundhouse.

While the square compound-enclosure was clearly a/the major focus of activity here at this time, it is crucial that we recognise that two contemporary ditches (F. 1179 & 1181) respectively extended east and northeast from the 'square'. This implies that there may well have been another conjoining Iron Age enclosure immediately to the northeast. Whether this second compound was for household settlement *per se* or only stock - or, indeed, if it was of



Figure 9. Rhee Lakeside - The Iron Age Enclosures

structure's existence, and the 'slight-ness' of its below-ground evidence, it is one of the largest prehistoric roundhouses known within the region.

Romano-British

Features attributed to the early Romano-British period are confined to a continuation of the paddocks and fieldsystem excavated at Langdale Hale (Regan 2003) and exposed in Trench 23 of the earlier evaluation (see Patten 2004: 51). These include four ditches, F. 1174, F. 1176, F. 1184 and F. 1189, forming a square-shaped control- or pinch-point between the smaller paddocks to the north and a large area immediately to the south. Probably constructed during the early Roman period, these may have exploited surviving elements of the previous Iron Age enclosure system, possibly surviving as low banks and shallow depressions. Interestingly, ditch F. 1184, oriented east-west, was severely truncated by F. 1173 and F. 1180, but where it survived a 'V'-shaped profile was revealed, indicative of a double-ditch arrangement. Truncated and re-cut by parallel ditches F. 1175, F. 1180 and by east-west to north-south oriented ditch, F. 1173, this entrance underwent a later reconfiguration, with a distinct narrowing the gap linking the southern paddock to the 3.5m wide droveway formed by ditches F. 1175 and F. 1180. The northernmost of these two ditches, F. 1175, re-cut and maintained the earlier alignment of F. 1174. The droveway ditches were relatively shallow, measuring between 0.38m and 0.46m in depth; however, the southern ditch, F. 1180, was wider than F. 1175 (1.65m vs. 1.2m). Only F. 1175 contained a sealing layer of peat and alluvial silt, suggesting this remained a distinct feature into the later Roman and Early Medieval period when increasing wetness led to flooding of the area and peat formation.

Measuring between 1.25m and 1.85m wide and between 0.25m and 0.5m in depth, ditch F. 1173 delineated the southwest corner of a further enclosure; only five sherds of Romano-British pottery was recovered from it, in addition to a small quantity of bone, a fragment of millstone grit rotary quern and a tile fragment. Intersected by a north-south oriented ditch, F. 1171, this later feature denotes the southwestern limit of the enclosure system investigated here; the ditch was shallow (0.24m wide) and narrow (0.75m across), and lacked any finds. Similar in width and depth to F. 1173, the ditch was on the same alignment and slightly cut the interior edge of the Iron Age enclosure. An earlier, discrete north-south oriented ditch, F. 1170, also cut the Iron Age ditch and was in turn, cut by F. 1171. This earlier ditch may thus represent the western limit of the early Romano-British fieldsystem

Bisecting the site northwest to southwest were two parallel shallow (0.14-0.30m deep) ditches, F. 1162 and F. 1164. Linked to the western boundary ditch F. 1171, both measured approximately 1.0m wide and were separated by 5.6m. Superficially similar to F. 1175 and F. 1180 to the north, the shallow nature, orientation, location and clear association of these southern ditches suggests they formed a series of linked banks and ditches. Similar parallel ditch arrangements are clearly observable on aerial photographs with examples excavated during earlier excavations at Sites III and IV, Colne Fen (Regan 2000: 20). The function of these parallel ditches is unclear, but their close proximity to the fen-edge suggests they may have been constructed as a part of a catchwater system (both ditches were capped by a distinct blocky clayey peat indicative of waterlogging), as well as functioning as effective stock enclosures. This interpretation for the rationale behind the construction of these ditches is supported by

circular or sub-square form - cannot, however, be established given the information at hand.

Finally, returning to themes raised in the *Lakeside South* report (Brudenell & Evans 2007), it is imperative that we consider this north-side 'square' as being part of a distinct Rhee Inlet-side 'community'. Its plan form and pottery-type association essentially matches that of the two square compounds settings, A and C, along the crest of the terrace south of the inlet (fig. 9). Admittedly, the western of these, Enclosure C, involving the aligned/conjoined compounding of three such square enclosures (perhaps as a representation of direct generational affinity/'off-spring'), and the eastern square of this grouping is substantially larger than any of the others - perhaps being an expression of relative status. Nevertheless, with all sharing a square enclosure-form and having Scored Ware pottery assemblages, the three main enclosure settings certainly seem related. That, moreover, they all only saw little artefact deposition and limited enclosure recutting (and no obvious roundhouse succession; i.e. seem similarly 'pristine'), would suggest that they were all short-lived. Perhaps they mark an 'arrival' in the landscape, of an extended family/kinship 'community', during the second half of the last century BC; for whatever reason, this 'settling' may not have lasted more than 50 years.

Romano-British

The Romano-British period is characterised by two phases (fig. 8). The primary phase consisted of four (possibly banked) ditches towards the north of the site. Extrapolation shows these are part of the paddock or outfield-system associated with Langdale Hale and that can be clearly seen on aerial photographs as cropmarks. It is highly likely that the boundaries were cut along and into the upper profile of the Iron Age compound ditch, which certainly survived into Roman times as an earthwork depression. The four ditches form a small square sub-enclosure with at least one gap in the southeast corner, implying that this was a gate or entrance-way, possibly for stock control, attached to the small unexcavated enclosure immediately to the north.

The second phase of activity is characterised by the laying-out of further boundary ditches, most probably during the Hadrianic period as evinced by the main Langdale Hale sequence (Evans *et al.* forthcoming), resulting in a reconfiguration of the entrance to provide a central access point to a new southern paddock. Also part of the Langdale Hale system, the east-west oriented double-ditches may have been cut, not only to form the new enclosure, but also as an embanked, flood-defence scheme; the pollen data from ditch F. 1165 is actually suggestive of a more 'prehistoric' environment (see Boreham, above), but it is more probable that it was specifically cut as a drain during the 2nd century AD, at the same time as the upslope catchwaters. Increasing basal water levels and flooding from the mid 3rd century onward led to the formation of peat in several ditches, coincidentally sealing the few diagnostically 3rd-4th century pottery sherds retrieved (see Anderson, above) and probably contributed to the site's subsequent abandonment. The paucity of finds from all features attributed to the Roman period obviously reflects that its settlement *per se* then actually lay upon the crown of the terrace proper and did not extend downslope along the inlet's sides.

ACKNOWLEDGEMENTS

The CAU remains grateful for the continuing support and co-operation of all the Hanson team, particularly in this case, Hilton Law and Ian Briggs. Illustrations were provided by Andrew Hall and Jane Matthews and on-site digital surveying was carried out by Donald Horne.

Appendix: Feature Descriptions

F. 1160 – Pit, measuring 2.60m x 2.40m and 0.13m deep. Cut [4900] was sub circular in plan and irregular in profile. Single fill [4901] was a compacted mid grey-brown sandy clay with occasional charcoal and gravel. Contained no finds. Possibly a natural feature.

F. 1161 – Posthole, measuring 0.60m diameter and 0.10m deep. Cut [4902] was sub circular in plan and ‘U’-shaped in profile. Single fill [4903] was a mid to dark brown sandy clay with occasional charcoal and gravel. Contained no finds.

F. 1162 – Ditch, sampled in three slots: 38, 39 and 43. This was a narrow feature measuring 31.00m overall, aligned ENE-WSW and cutting the main enclosure ditch F. 1163. Slot 38; cut [4968], width 1.02m, depth 0.15m with a wide, flat-based profile, filled by [4967], a black-brown peaty silt-clay. Slot 39; cut [4905], 0.65m wide and 0.14m deep with a bowl-shaped profile, filled by [4904], a black-brown peaty silt-clay. Slot 43; cut [5063], 0.62m wide, 0.18m deep, with a rounded profile, filled by [5062], a black-brown peaty silt-clay.

F. 1163/F. 1185 – Enclosure Ditch, excavated in four slots: 36, 37, 38 and 39. The enclosure ditch was trapezoidal in shape with a NW-SE orientation, measuring 42.6m E-W and 38.3m N-S and enclosing an area of *c.* 1370m². The ditch varied in width between 2.25m and 3.75m and between 0.59m and 0.90m in depth. Slot 36 located on western side of enclosure ditch: cut [4938], with steep concave eastern side, very steep western side with gently sloping flat to concave base, filled by [4939-4950], primarily grey to greyish brown silty sand and orangey sands and gravel, with layers of mid grey clayey sand. Three pieces of bone and flint were recovered. Cut by later Romano-British ditches F. 1170 and F. 1171. Slot 37 located in SW corner of enclosure ditch: cut [5285] with sharp break of slope and steep concave sides with a break of slope to steep straight sides to a slightly uneven concave base. Fills, [5274-5284] consisted of mid brown silty to yellow/white or mid to pale grey sands. Slot 50, located on the eastern side of the enclosure, cut [5055], fills [5042-5054] and cut [5301], fills [5286-5300] was capped by a peat deposit. Possessing steep sides and a concave base, fills comprised principally of mid brown to grey silty sands and pale to mid greyish brown sandy or clayey silt that slumped into the ditch, possibly from internal bank material. Reddish brown patches and iron panning observed. Two sieved squares, A and B, produced, respectively, eight bone fragments and one flint, and four sherds of later Iron Age pottery, 120 fragments of bone, 27 pieces of charcoal, 56 fragments of desiccated wood and four pieces of burnt clay (daub?). The ditch was machine-excavated at this point to determine the original eastern dimensions of the enclosure ditch and to retrieve further finds (three flints, 11 pottery sherds, 73 bone fragments, two pieces of burnt clay and a single burnt flint). Finds from the enclosure ditch included: six pieces of burnt clay, one burnt flint, 266 fragments of bone, 27 pieces of charcoal, 14 flints, two metalwork surface finds (post-Medieval; undiagnostic), 36 sherds of later Iron Age pottery, two sherds of Romano-British pottery, 10 pieces of burnt stone and 60 fragments of desiccated wood.

F. 1164 – Ditch, sampled in four slots: 37, 40, 41 and 42. A shallow linear feature measuring 30.00m overall, aligned ENE-WSW and running parallel to ditch F. 1162 at a distance of approximately 4.00m. Slot 37; cut [5273], *c.* 3.60m wide with steep straight sides with sharp break of slope to a flat base. Fills [5271] and [5272], dark brown slightly clayey silt and mid brown slightly sandy silt. Cutting enclosure ditch F. 1163 and possibly F. 1162. Appears to truncate F. 1165 in slot 41 and may be represented as re-cut [5146] in slot 62. Slot 40; cut [4930], 0.65m wide and 0.14m deep with a bowl-shaped profile, filled by [4929], a mid brown gravelly deposit overlain by [4928], a dark brown peaty silt-clay. Worked flint recovered from [4929]. Slot 41; cut [4920] measured 1.00m wide, 0.30m deep, with a rounded profile, filled by [4919]/[4922], a mid brown clayey silt and overlain by [4918]/[4921], a dark greyish brown clay silt with rare gravel inclusions. Same enclosure F. 1170.

F. 1165 – Ditch, NNW-SSE alignment, recut once. Two slots excavated; 41 and 62. Butt ended beneath F. 1164 which appears to cut it in slot 41, and seems to have followed F. 1165 south as re-cut [5146]. Butt-ends near southern edge of excavation, sampled as slot 62. Slot 41; cut [4927], steep sides leading to a rounded base filled by [4923], [4924], 4925] and [4926]. Slot 62; primary cut [5147] measured 1.70m wide and 0.75m deep with a flat base rising to steep sides through rounded breaks of slope. This was filled by an original fill of pale grey, orange mottled clay-silt [5144] and basal gravel [5145]. Re-cut [5146] had steep convex sides leading to a narrow flat base and measured 1.55m in width and 0.61m deep. Three fills; [5141], [5142] and [5143] were based around organic peat growth and

alleviation. A pollen column sample (<259>) was taken through fills [5142] – [5145]. Animal bone from [4142].

F. 1166 – Discarded. Sampled variation in natural gravels.

F. 1167 – Pit, fills [4931-2], cut [4933]. Fill a dark brown/black sand capping soft, redeposited gravel. Sub circular in plan, diameter 1.30m, depth 0.40m with a rounded profile. No finds.

F. 1168 – Pit, irregular/sub-circular in plan, 3.42m x 3.14m and 0.24m deep; cut [4935] shallow sides leading to a wide flat base, profile. Fill [4934], a fine dark brown silt. No finds.

F. 1169 – Gully, E-W alignment, fill [4936], cut [4937]. Fill a mid grey clay-silt. Seemingly cut by F. 1168. Width 0.36m, depth 0.05m with a very shallow, rounded profile. Very insubstantial, may be natural, no finds.

F. 1170 (same as F. 1164) – Ditch, NW-SE alignment. Slot 36; cut [4951], steep side with sharp break of slope to a flat base. Fills [4952-4954], light yellow sand, moderately dark grey silt sand and light brownish grey sand, recut by ditch F. 1171. No finds.

F. 1171 – Ditch, NW-SE alignment. Slot 36: cut [4955], 0.75m wide, 0.24m deep with steep straight to concave sides with break of slope to flat base. Fills [4956-4958], dark brown peat sealing a dark grey sand, over a light brownish grey sand. Parallel between F. 1163 and F. 1170, cutting the latter. No finds. Same enclosure feature as ditch F. 1164.

F. 1172 – Ring gully, axial alignment 20° West of North, 16.80m in diameter. Fully excavated in 35 slots of 1.00m length (nos. 1-35); odd numbers were excavated and recorded, even numbers sieved for finds (5mm mesh). Samples for environmental floatation analysis taken from slots: 1 <250>, 5 <251>, 15 <252>, 25 <253> and 33 <254>. The southern arc (slots 1-17) was less deep, measuring an average of 0.39m width and 0.07m depth. The northern arc (slots 19-35) measured an average of 0.42m width and 0.16m depth. The fills were consistently the same within each slot and consisted of a dark brown slightly silty sand with occasional gravel inclusions.

Slot No.	Context	Cut/Fill	Slot No.	Context	Cut/Fill	Slot No.	Context	Cut/Fill
1	4959	C	13	4997	F	25	5033	F
1	4963	F	13	4998	C	25	5034	C
3	4960	C	15	4999	F	27	5035	F
3	4964	F	15	5000	C	27	5036	C
5	4965	F	17	5001	F	29	5150	F
5	4966	C	17	5002	C	29	5151	C
7	4979	F	19	5003	F	31	5152	F
7	4980	C	19	5004	C	31	5153	C
9	4981	F	21	5005	F	33	5037	F
9	4982	C	21	5006	C	33	5038	C
11	4995	F	23	5148	F	35	5072	F
11	4996	C	23	5149	C	35	5073	C

F. 1173 – Ditch, ESE-WSW alignment, turning through 110° onto a NNW-SSE alignment. Excavated in four slots: 51, 52, 53 and 60. Measured 30.5m where seen and between *c.* 1.25m and 1.85m wide and between 0.25m and 0.5m in depth, with relatively steep concave sides and ‘U’-shaped profile. Slot 51: cut [4962], fill [4961] mid brown silty sand, with 10 fragments of bone, a single sherd of *tegulae* and fragment of worn rotary quern. Slot 52: cut [5106], fills [5091-5093], dark brown mottled peat sealing a dark brown, bone rich, silty sand, with mottled iron staining and a mid to dark brown basal silt. Finds included 159 fragments of bone and five sherds of Romano-British pottery; cuts F. 1184 and F. 1199. Slot 53, close to the northern limit of excavation: cuts [5016, 5020], fills [5015, 5019], both a greyish brown clayey silt. Finds include two fragments of bone; cuts F. 1174, F. 1175, and F. 1176. Slot 60: cut [5259], fills [5257, 5258], reddish brown grey mottled peaty clay and mid brownish red

sandy clay with heavy iron-panning, with no finds and cutting F. 1184, F. 1199/F. 1200. The ditch forms a significant later Romano-British enclosure ditch and part of the possible entrance-way to a droveway and further unexposed northern enclosure of the same period.

F. 1174 – Ditch, excavated in slots 53 and 54. Appears to be the same as N-S aligned ditch F. 1176 in slot 53 to the west and is truncated along its southern side by F. 1175. Slot 54; cut [4991] measured 0.65m wide by 0.34m deep and was ‘U’-shaped in profile, aligned E-W, and was exposed for 10.00m until obscured by the northern limit of excavation. Fills [4989] and [4990] were based upon silting episodes with a component of eroded sand and gravel. Animal bone from [4989].

F. 1175 – Ditch, excavated in slots 53 and 54. Probably the same phase as ditch F. 1173 seen in slot 53 to the west and truncated F. 1174 along its northern edge. Slot 54; cut [4994] measured 1.20m wide by 0.38m deep and was ‘U’-shaped in profile, aligned E-W, and was exposed for 15.00m until obscured by the northern limit of excavation. Fill [4993] was based upon silting with a component of eroded sand and gravel capped by [4992], a dark brown peat and alluvial silt based deposit. Pottery from [4993].

F. 1176 – Ditch, excavated in slots 53 and 60. Seen for approximately 7.00m before being obscured by northern limit of excavation. N-S aligned and probably spatially respected F. 1184 to the south, but no stratigraphic relationship due to truncation by F. 1173. Slot 53; cut [5014] had a broad ‘U’-shaped profile and measured 2.30m wide and 0.45m deep. It was filled by [5013], a friable orange-brown silty sand which produced potsherds, animal bone, and worked flint.

F. 1177 – Posthole, fill [4985], cut[4986]. Fill a compact brown-grey sand with frequent gravel. Circular in plan, 0.26m x 0.24m and 0.20m deep, with a ‘U’-shaped profile.

F. 1178 – Posthole, fill [4987], cut[4988]. Fill a mid brown, fine silty sand with moderate gravel. Sub circular in plan, 0.40m x 0.34m and 0.13m deep, with a ‘U’-shaped profile.

F. 1179 – Ditch, aligned ENE – WSW and measured 6.00m long by 0.53m wide and 0.23m deep. Slot 58; cut [5009] had steep concave sides leading to a rounded base through gradual breaks of slope. Fill [5007] contained one potsherd and some animal bone, fill [5008] represented an episode of primary natural slumping.

F. 1180 – Ditch, aligned ENE – WSW, butt-ended to the west and obscured by the eastern limit of excavation. Excavated in slots 57 and 59. Measured 24.00m in length with a ‘U’-shaped profile. Slot 57; [5012] measured 1.87m wide by 0.52m deep, fills [5010] and [5011], potsherds and bone recovered. Slot 59; cut [5067] measured 1.70m wide and 0.37m deep, fills [5064], [5065] and [5066]. Animal bone.

F. 1181 – Ditch, aligned NE - SW and measuring approximately 5.00m long, northern end obscured by limit of excavation, southern end joins F. 1199. Slot 56; cut [5026] measured 1.00m wide and 0.68m deep, steep sided profile leading to rounded base, fills [5022], [5023], [5023], [5024] and [5025] predominantly based around a silty sand matrix. Potsherds and animal bone recovered from [5022] and [5024].

F. 1182 – Posthole, fills [5027-8, 5031], cut [5032]. Fill a pale to mid grey-brown silty sand with occasional gravel. Elongated in plan, 0.75m x 0.49m and 0.21m deep, with a wide bowl-shaped profile.

F. 1183 – Ditch, NNW-SSE alignment, 17.80 length, northern end obscured by northern limit of excavation, southern end terminates. Slot 61; cut [5030]. was linear, 0.66m wide and 0.18m deep, with a rounded profile, fill [5029] a dark brown/black sandy silt.

F. 1184 – Ditch, ENE-WSW alignment. Excavated in slot 59, F. 1184 measured 20m where exposed, 1.65m in width and 0.46m deep. Cut [5041], fills {[5039-5040, 5139]. With straight steep sides and ‘V’-shaped ‘ankle-breaker’ profiles, fills consisted of mid grey sandy silt and mid brownish greyish orange, slightly silty sand with frequent gravel and iron-panning between basal boundary and [5040]. Truncates F. 1176, truncated by F. 1173 and F. 1180. A single later Iron Age pottery sherd, three fragments of bone and two flints were recovered.

F. 1186 – Posthole, fill [5056], cut[5057]. Fill a mid grey-brown slightly silty sand with occasional gravel. One of three adjoining postholes on edge of enclosure ditch F. 1185. Unclear but probably sub circular in plan, width unknown, 0.45m deep, with a ‘U’-shaped profile.

F. 1187 – Posthole, fill [5058], cut[5059]. Fill a mid grey-brown slightly silty sand with occasional gravel. One of three adjoining postholes on edge of enclosure ditch F. 1185. Unclear but probably sub circular in plan, width unknown, 0.45m deep, with a ‘U’-shaped profile.

F. 1188 – Posthole, fill [5060], cut[5061]. Fill a mid grey-brown slightly silty sand with occasional gravel. One of three adjoining postholes on edge of enclosure ditch F. 1185. Unclear but probably sub circular in plan, width unknown, 0.30m deep, with a ‘U’-shaped profile.

F. 1189 – Ditch, aligned NNW-SSE exposed for approximately 3m; truncated to the north by F. 1175 and to the south truncates F. 1199. Slot 55; cut [5201] had a ‘V’-shaped profile measuring 0.91m wide by 0.33m deep. Single fill [5200] a mid brown sandy silt, some animal bone recovered.

F. 1190 – Posthole, fill [5068], cut [5069]. Fill a soft, dark brown silty sand with occasional gravel. Sub circular in plan, diameter 0.30m and 0.07m deep, with a shallow, rounded profile.

F. 1191 – Posthole, fill [5070], cut [5071]. Fill a soft, dark brown silty sand with occasional gravel. Sub circular in plan, diameter 0.30m and 0.10m deep, with a shallow, rounded profile.

F. 1192 – Ditch, measured 52.00m in length and aligned ENE-WSW. Excavated in five slots; 44, 45, 46, 47, 48. Slots 44, 45 and 46 revealed consistent primary cut profiles of moderately steep sides leading to flat base through gradual breaks of slope. These measured between 1.60m - 1.90m and the depths between 0.35m - 0.48m. All slots displayed the profile of a secondary re-cut with convex sides leading to a narrow rounded base through gradual breaks of slope. Slots 47 and 48 represent only the re-cut ditch, suggesting the primary flat-based ditch terminated between slots 46 and 47. Western end interrelated with F. 1211, a large pit or well, probably contemporary, eastern end terminated 4.00m short of eastern limit of excavation. Slot 44; Cut [5238], fills, [5234], [5235], [5236] and [5238]. Slot 45; cut [5079], fills [5076], [5077] and [5078]. Slot 46; cut [5173], fills [5170], [5171] and [5172]. Slot 47; cut [5169], fills [5166], [5167] and [5168]. Slot 48; cut [5244], fills, [5239], [5240], [5241], [5242] and [5243].

F. 1193 – Pit, fill [5080], cut [5081]. Fill a reddish-brown silty sand with occasional gravel and charcoal. Elongated and irregular in plan, 0.70m x 0.35m and 0.20m deep, with an irregular, ‘U’-shaped profile.

F. 1194 – Pit, fill [5082], cut [5083]. Fill a soft, dark brown silty sand with moderate gravel. Sub circular/irregular in plan, diameter 0.50m and max. 0.12m deep, with a very irregular profile.

F. 1195 – Pit, fills [5084-5], cut [5086]. Fill a dark brown peat capping soft, mid brown silty sand with occasional gravel. Sub circular in plan, diameter 0.35m and 0.23m deep, with a ‘U’-shaped profile.

F. 1196 – Pit, fill [5087], cut [5088]. Fill a soft, mid brown silty sand with occasional gravel. Sub circular in plan, diameter 0.40m and 0.40m deep, with a stepped, ‘V’-shaped profile.

F. 1197 – Posthole, fill [5089], cut [5090]. Fill a soft, dark brown silty sand with occasional gravel. Small and sub circular in plan, diameter 0.20m and 0.10m deep, with an irregular cut and shallow, rounded profile.

F. 1198 – Pit, fills [5136-9], cut [5140]. Fill a mid to dark grey sandy clay-silt with moderate gravel and occasional charcoal bottoming onto a thin gravel lens, overlying a mid-dark grey sandy clay-silt and basal redeposited gravel. Sub circular in plan, diameter 1.50m and 0.55m deep, with an asymmetrical, flat-based ‘V’-shaped profile.

F. 1199 – Ditch, Ditch, ENE-WSW alignment. Excavated in four slots 52, 55, 59 and 60. Forming the northern circuit of the Iron Age enclosure, F. 1199 was truncated at its mid point by later Iron Age re-cutting and Romano-British boundary/droveway ditches; the latter forming a possible entrance. Slot 52

cut [5105], 3.0m wide, 0.96m in depth with steep concave slope on southern side with sharp break of slope to less steep concave edge and convex break of slope to a flat base. Northern slope initially concave with gradual change to steep convex and further short near vertical slope to right-angled break to the base. Fills [5094-5104]. Cut by the later Romano-British ditch F. 1173. Slot 55: cut [5206], 0.53m wide, 0.38m in depth with steep northern slope and 'U'-shaped base. Fills [5204-05]. Cut by ditches F. 1200 and F. 1189. Slot 59: cut [5107] with steep straight sides and sharp break of slope to a flat base, 2.38m wide and 0.96m deep. Fills [5108-5134]. Slot 60; not fully excavated: cut [5270], depth c. 1.15m. Steep straight sides with gradual break of slope to a flat base. Fills [5252-69]. Cut by ditch F. 1173. Finds include 18 fragments of bone, a single flint, and a sherd of pottery recovered from the surface.

F. 1200 – Ditch, ENE-WSW alignment. Excavated in two slots 55 and 59. Slot 55: cut [5203], 0.28m wide and 0.14m in depth, re-cutting ditch F. 1199 and cut by NW-SE ditch F. 1189. Fill [5202], was a mid brown silty sand. Single sherd of Romano-British pottery recovered. Slot 59: cut [5155], 0.72m wide and 0.30m in depth, with near vertical side on southern edge, steep and concave on northern side, with a flat sloping base. Re-cuts F. 1199. No finds.

F. 1201 – Posthole, fill [5161], cut [5162]. Fill a soft, dark brown silty sand with occasional gravel. Sub circular in plan, diameter 0.20m and 0.24m deep, with a 'V'-shaped profile.

F. 1202 – Pit, fills [5163-4], cut [5165]. Fill a soft, mid brown silty sand overlying pale brown sandy clay. Sub circular in plan, diameter 1.00m and 0.25m deep, with a wide, uneven profile.

F. 1203 – Pit, fill [5174], cut [5175]. Fill a soft, mid grey-brown silty sand with occasional gravel. Sub circular in plan, diameter 0.70m and 0.10m deep, with a shallow, rounded profile.

F. 1204 – Pit, fill [5176], cut [5177]. Fill a soft, dark grey-brown silty sand with occasional gravel and charcoal. Sub circular in plan, diameter 0.40m and 0.15m deep, with a 'U'-shaped profile.

F. 1205 – Posthole, fill [5178], cut [5179]. Fill a soft, pale grey-brown silty sand with occasional gravel. Sub circular in plan, diameter 0.44m and 0.16m deep, with a rounded profile.

F. 1206 – Posthole, fill [5180], cut [5181]. Fill a soft, mid grey-brown silty sand with occasional gravel. Sub circular in plan, diameter 0.40m and 0.13m deep, with a rounded 'V'-shaped profile.

F. 1207 – Pit, fills [5182-3], cut [5184]. Fill a soft, mid grey-brown peaty sand overlying pale yellow-grey silty sand. Sub circular in plan, diameter 1.10m and 0.22m deep, with a wide, uneven profile.

F. 1208 – Posthole, fills [5185-7], cut [5188]. Fills consist of a post pipe of dark black/brown silty sand surrounded by pale orange-brown silty sand and a sand base. The feature is cut by F. 1209. Sub circular in plan, 1.42m x 1.21m and 0.30m deep, with an uneven, 'U'-shaped profile.

F. 1209 – Posthole, fill [5189], cut [5190]. Fill a dark grey-black silty sand with charcoal flecks. Cut into the top of F. 1208. Sub circular in plan, diameter 0.40m and 0.28m deep, with a 'U'-shaped profile.

F. 1210 – Posthole, fills [5191-8], cut [5199]. Fills [5192], [5195] and [5197] formed the same layer, a dark grey-brown sandy silt, possibly disturbed in the centre by a post-pipe, [5194], a mid to dark grey-brown sandy silt with some chunks of once waterlogged wood surviving. [5193], [5196] and [5198] formed the same basal layer, centrally disturbed by the post pipe. Oval in plan, 1.21m x 1.05m and 0.75m deep, with a 'U'-shaped profile.

F. 1211 – Pit, cut [5256], fills 5243, 5245-5255]. Large oval pit/well measuring c. 5.34m x 4.10m and 0.80m in depth. Cut on its western side by ditch F. 1171, the pit is partially bisected and cut by the western terminal of ditch F. 1192. The precise relationship between the pit and this ditch are unclear (see F. 1192 above), with fill [5243], although also included here, most probably relating to slumping of material from the ditch as it is similar in nature to the upper ditch fill. Fills were sorted and included orange sand, dark to light grey sandy silts, grey brown clayey silt and redeposited natural. The pit possessed steep, stepped sides with an irregular flat base with concave depressions, possibly representing recuts of the pit/well. The near vertical boundary between fills [5246], [5248] and [5252]

may indicate revetting and deliberate stabilisation and backfilling. Finds recovered include: two pieces of flint, a single burnt flint, 115 pieces of bone, two sherds of prehistoric pottery and dessicated wood.

F. 1212 – Ditch, NE-SW alignment, excavated in on slot, 49, measuring 11.8m where exposed and 1.75m wide and up to 0.48m in depth. Cut by the Iron Age enclosure ditch F. 1163 to its east and cutting pit/well F. 1213 and F. 1214 to at its mid point. Possibly same ditch as F. 1192 located to the east on the same alignment. Cut [5210], with very steep concave sides and concave base, fills [5207,-5209], upper fill mid orangey brown silty sand, extending and terminating 2.8m to the southwest. Seals a dart greyish brown silty sand. Single sherd of pottery and two flints recovered.

F. 1213 – Pit, fills [5211-20], cut [5221]. Large oval pit measuring 3.5m in length, 2.7m wide and 0.85m in depth with steep near vertical sides and concave base, cut on its northern edge by F. 1214 and bisected NE-SW by ditch F. 1212. Fills consisted of mid to dark brownish orange silty sands with varying quantities of gravel, loose mid to whitish orange or ellowish white sands. Lower fills contained decaying wood or vegetation. No finds.

F. 1214 – Pit, fills [5222-25], cut [5225]. Small oval pit 2.2m long by 1.12m wide and 0.49m deep, with undercutting concave slope on northern edge and steep straight side on southern edge with concave base. Cuts pit F. 1213 and cut by ditch F. 1212. Fills consist of mid brown to mid greyish silty sands with occasional small gravel. No finds; possible tree-throw.

F. 1215 – Pit, fills [5227-9], cut [5230]. Fills consist of soft dark grey-brown peaty sand sealing a small amount of clay overlying burnt stones. The pit was lined with c.0.02m of clay. Sub circular in plan, diameter 0.62m and 0.20m deep, with a 'U'-shaped profile.

Bibliography

- Barton, N. and A. Roberts. 2004. The Mesolithic Period in England: Current Perspectives and New Research. In A. Saville (ed.), *Mesolithic Scotland and its Neighbours: The Early Holocene Prehistory of Scotland, its British and Irish Context, and some Northern European Perspectives*. Edinburgh: Society of Antiquaries of Scotland.
- Boessneck, J. 1969. Osteological differences between sheep (*Ovis aries*) and goat (*Capra hircus*) In D. Brothwell and E. S. Higgs (eds.), *Science in Archaeology*, 2nd edition. London: Thames and Hudson: 331-358
- Brudenell, M. and C. Evans 2007. *Rhee Lakeside South: Archaeological Excavations at Colne Fen, Earith* (2006). Cambridge Archaeological Unit Report No. 776
- Cohen, A. and D. Serjeantson. 1996. *A manual for the identification of bird bones from archaeological sites, revised edition*. London: Archetype Publications Ltd
- Cunliffe, B. 1974. *Iron Age Communities in Britain*. 3rd Edition. London: Routledge
- de Vareilles, A. 2007. Environmental Assessment. In M. Brudenell, *Archaeological Excavations at Greetham Quarry, Greetham, Rutland*. Cambridge Archaeological Report No. 742
- de Vareilles, A. 2007. Environmental Assessment. In M. Brudenell, *Excavations at Rhee Lakeside (South), Earith*. Cambridge Archaeological Report No. 776
- Dobney, K. and K. Reilly. 1988. A method for recording archaeological animal bones: the use of diagnostic zones. In *Circaea* 5 (2): 79-96
- Evans, C., S.L. Lucy, G. Appleby & R. Regan. Forthcoming. *Process and History*. Cambridge: McDonald Institute for Archaeological Research
- Grant A., 1982. The use of tooth wear as a guide to the age of domestic animals, in B. Wilson, C. Grigson and S. Payne, (eds.), *Ageing and sexing animal bones from archaeological sites*. British Archaeological Reports British Series 109. Oxford: British Archaeological Reports: 91-108
- Halstead, P., Collins, P., & V. Isaakidou. 2002. Sorting the sheep from the goats: morphological distinctions between the mandibles and mandibular teeth of adult *ovis* and *capra*. In *Journal of Archaeological Science* 29: 545-533
- Hambledon, E. 1999. *Animal husbandry regimes in Iron Age Britain: a comparative study of faunal assemblages from British archaeological sites*. (British Archaeological Reports British Series 282.) Oxford: British Archaeological Reports British
- Higbee, L., 2000. Animal bone. In R. Regan and C. Evans, *Excavations at Colne Fen, Earith: sites III and IV*. Cambridge Archaeological Unit Report No. 398

Higbee, L. forthcoming. The mammal, bird and fish bone from Camp Ground, Colne Fen, Earith, Cambridgeshire, 2001. In C. Evans, S.L. Lucy, G. Appleby & R. Regan, *Process and History*. Cambridge: McDonald Institute for Archaeological Research

Higbee, L. forthcoming. The mammal and bird bone from Langdale Hale, Colne Fen, Earith, Cambridgeshire. In C. Evans, S.L. Lucy, G. Appleby & R. Regan, *Process and History*. Cambridge: McDonald Institute for Archaeological Research

Hill, J. D., and L. Horne. 2003. 'Iron Age and Early Roman Pottery'. In Evans, C. *Power and Island Communities: Excavations at the Wardy Hill Ringwork, Coveney, Ely*. (East Anglian Archaeology Report 103.) Cambridge: Cambridge Archaeological Unit: 145-84.

Maltby, M. 1985. Assessing variations in Iron Age and Roman butchery practices: the need for quantification. In N. J. R. Fieller, D. D. Gilbertson and N. G. A. Ralph, *Palaeobiological investigations: research design, methods and data analysis*. British Archaeological Reports International Series 266. Oxford: British Archaeological Reports: 19-32.

Patten, R. 2004. *The Rhee Lakeside Investigations. An Archaeological Evaluation at Hanson Quarry, Colne Fen, Earith*. Cambridge Archaeological Report No. 644

Payne, S, 1985. Morphological distinction between the mandibular teeth of young sheep *Ovis* and goats *Capra*. In *Journal of Archaeological Science* 12: 139-147

Regan, R. 2003. *An Archaeological Excavation at Colne Fen, Earith. Langdale Hale. Sites V & VI*. Cambridge Archaeological Report No. 537

Regan, R. and C. Evans. 2000. Excavations at Colne Fen, Sites III and IV. Cambridge Archaeological Report No. 398

Schmid, E. 1972. *Atlas of animal bones*. Amstrdam: Elsevier

Silver I. A. 1969. The ageing of domestic animals. In D. Brothwell and E. Higgs E. S. (eds.), *Science in archaeology*, 2nd edition. London: Thames and Hudson: 283-301

Stace, C. 1997. *New Flora of the British Isles*. Cambridge: Cambridge University Press

von den Driesch, A. 1976. A guide to the measurement of animal bones from archaeological sites. In *Peabody Museum Bulletin* 1. Cambridge Mass: Harvard University

Webley, L. Forthcoming. The Iron Age Pottery. In C. Evans, *Excavations at Colne Fen, Earith*.