EAST ANGLIAN ARCHAEOLOGY

A Roman Maltings at Beck Row, Mildenhall, Suffolk

by Ellen Bales

with contributions by
Sue Anderson, Sarah Bates, Nina Crummy, Val Fryer, Ralph Jackson, Judith Plouviez, Paul Sealey, Cathy Tester, Alexis Willett and Patricia Wiltshire

illustrations by
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Cover illustration
Iron Age copper alloy strainer spout
Photo: R.D. Carr

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Summary

Excavation of a 1.7ha area at Beck Row, Mildenhall, revealed activity spanning the Bronze Age to Roman periods. Early Bronze Age features were few, but indicate settlement in the vicinity. During the Iron Age two circular buildings and a ditched enclosure system were established. By the 1st century AD domestic activity focussed on the south-west corner of the excavated area and clearly extended beyond this. However, a Roman re-alignment and extension of the enclosure system included a large timber aisled building, which was fully rebuilt after burning down and was then abandoned after a second fire in the 3rd century. The building was used for agricultural rather than domestic purposes, possibly as a malt house. The site is viewed in the context of an intensely occupied area along the Fen edge in the Iron Age and Roman period.

Résumé

Les fouilles réalisées à Beck Row sur la commune de Mildenhall ont porté sur une superficie d'environ 1,7ha. Elles ont révélé une activité qui s'étendait de l'âge du bronze à la période romaine. Les traces du début de l'âge du bronze sont peu nombreuses, mais elles indiquent la présence d'une implantation à proximité. Pendant l'âge du fer, trois bâtiments circulaires ainsi qu'une enceinte à fossés furent construits. Au cours du premier siècle apr. J.-C., l'activité domestique s'est concentrée dans la partie sud-ouest de la zone fouillée et a nettement débordé au-delà.

Toutefois, un réalignement se produisit à l'époque romaine ainsi qu'une extension de l'enceinte. Cet ensemble comprenait également un grand bâtiment avec un bas-côté en bois. Le bâtiment fut entièrement reconstruit après sa destruction par le feu puis il fut abandonné après un second incendie au troisième siècle. Le bâtiment était destiné à des activités agricoles plutôt que familiales, et la présence d'une malterie est possible. Le site est considéré comme faisant partie d'une zone où l'activité humaine était intense à la limite du Fen à l'âge du fer et à la période romaine.
(Traduction: Didier Don)

Zusammenfassung

Die Ausgrabung eines 1,7ha großen Areals bei Beck Row, Mildenhall, enthüllte Spuren, die von der Bronze- bis in die Römerzeit hinein reichten. Die Funde aus der frühen Bronzezeit waren zwar gering, deuten jedoch auf eine nahe gelegene Siedlung hin. In der Eisenzeit entstanden drei kreisförmige Gebäude und ein von Gräben umgebener Bereich. Spätestens zu Beginn des 1. Jahrhunderts n. Chr. konzentrierte sich der häusliche Bereich auf die Südwestecke des Grabungsareals sowie, deutlich erkennbar, über dieses Gebiet hinaus.

Bei der Neuausrichtung und Erweiterung der Einhegung in der Römerzeit wurde ein großes Holzgebäude mit Seitenschiffen errichtet, das nach einem Brand vollständig wiederaufgebaut und dann nach einem zweiten Feuer im 3. Jahrhundert aufgegeben wurde. Das Gebäude wurde eher für landwirtschaftliche als für Wohnzwecke genutzt, möglicherweise als Mälzerei. Die Stätte wird im Kontext eines dicht bewohnten Gebiets am Rande der Fen-Region in der Eisen- und Römerzeit betrachtet.
(Übersetzung: Gerlinde Krug)

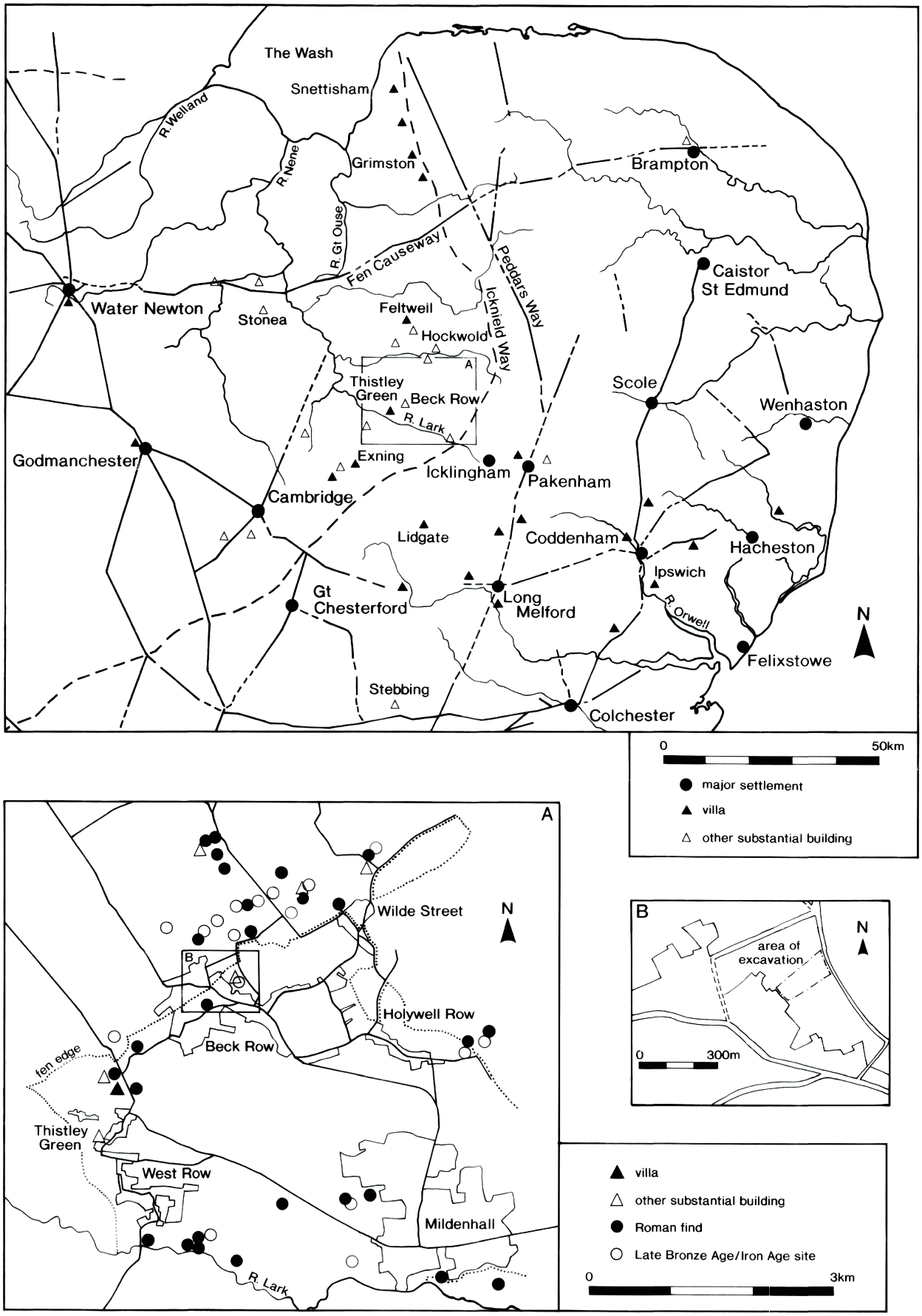


Figure 1 Site location in Roman East Anglia. Map A: Prehistoric and Roman Mildenhall

Chapter 1. Introduction

I. Background

The site lies at TL 688 780 just to the south of the edge of Mildenhall Fen and rises to the southern end from 4m to 5.5m OD (Fig. 1). It is listed in the Suffolk Sites and Monuments Record as MNL 502. The north-western half of the site had been recently cultivated at the time of archaeological evaluation, while the remainder of the site was covered by scrub. The entire site had been under the plough at some time in the past, however, as plough damage was visible in the form of parallel lines running across the subsoil, and, in places, scarring the archaeological features (Plate II). The topography of the site is typical of the Fen margin, a chalk bedrock overlain by layers of windblown sand drift, which is visible from the air as a mottled landscape of peat-filled hollows surrounded by 'islands' of sand, many of which were formed under periglacial conditions (Martin in prep.). The aerial photographs of the site revealed at least five of these hollows within the area covered by the planning applications mentioned below, four of which were examined as part of the excavation (Plate I), and are discussed in this report.

The history of archaeological research along the Mildenhall Fen-edge can be characterised by a handful of excavations on Roman (excavation of a villa at MNL 064 by T.C. Lethbridge; excavations by Col. T.C. Kelly at MNL 075; excavations by S.E. West at MNL 161) and prehistoric sites (Martin and Murphy 1988) in the area and is largely defined by the surface finds recorded in the County Sites and Monuments Record. It is, however, possible to build a reasonably detailed picture of Mildenhall Fen-edge activity from the prehistoric to the late Roman period, which is part of what this report sets out to do.

II. The site and methodology

Towards the end of 1998, two planning applications (F/98/423 and F/98/424) were submitted to construct 120 new housing units on *c*.5 hectares of agricultural land situated to the rear of the Smoke House Inn property, at Beck Row, Mildenhall. In response to these applications, the Suffolk County Council Archaeological Service (SCCAS) Field Team undertook an evaluation of the site, comprising both a desk-top survey and fieldwork in which all open areas of the site were sampled by trenching. It was immediately apparent that the site was within 200m of the dense band of prehistoric and Roman sites located along the edge of the Fens. One site, MNL 201 (finds of prehistoric worked flint and pottery sherds) is marked on the Suffolk Sites and Monuments Record within the immediate area of development and thus there was a high probability of further deposits relating to prehistoric and/or Roman activity on the site. A map search (Newman, in Gill 1998) indicated that the site lay between the area of medieval settlement activity around Beck Row and the Fen edge, and that the area had been under the plough for at least 150 years. The field evaluation, which was directed by David Gill (SCCAS), took place between 3–8 December 1998 and identified a series of Roman period ditch systems, supplemented by a more elemental 16th- to 17th-century ditch system.

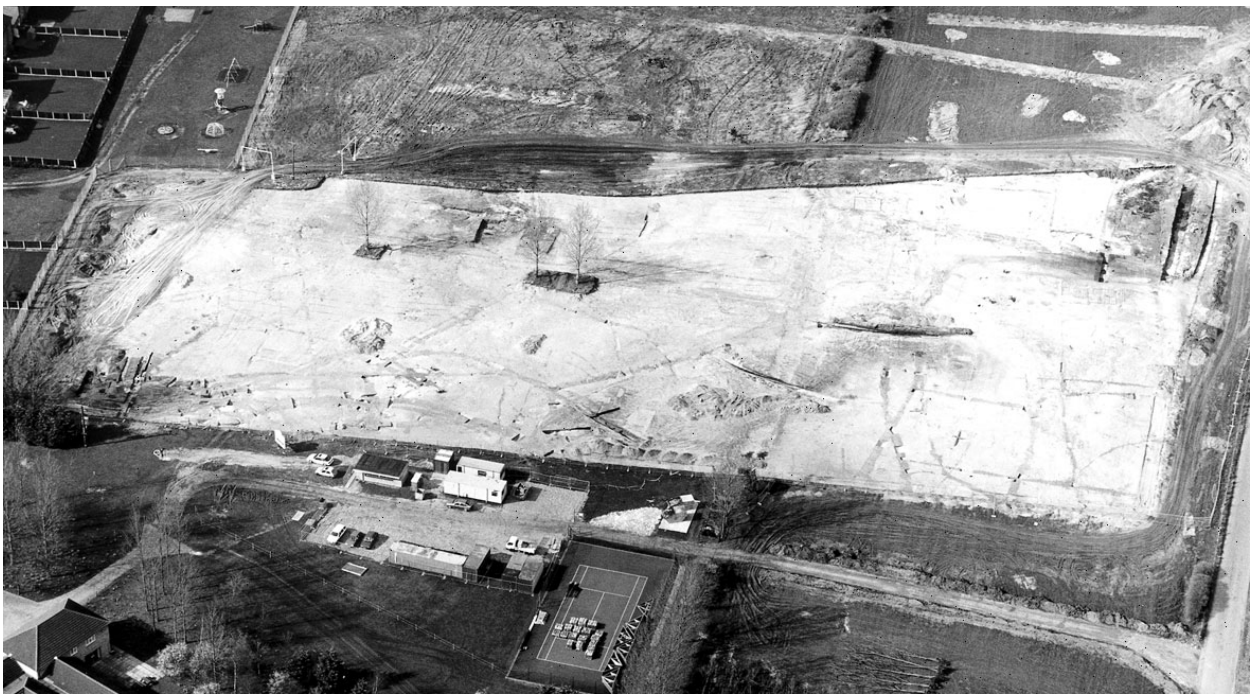


Plate I Aerial view of the site, looking north

Plate II Buildings 1 and 2 pre-excavation, to west

The results from the field evaluation clearly merited further archaeological involvement, and during February and March 1999 an open area excavation of the site took place under the direction of Ellen Bales. A total area of 17,000 square metres of topsoil was stripped by machine under close archaeological supervision, and the site was subjected to systematic metal detector search throughout this process.

The main aims of the excavation were threefold: to examine the peat hollows and determine their relationship with the ditch systems revealed on the site and to reveal their potential for a dated environmental record based on the preserved pollen and macrofossil records; to examine the identified ditch systems in order to characterise their respective types, phasing, dates and potential for environmental evidence; and to examine isolated archaeological deposits or features which related to identifiable phases on the site. It is interesting to note, however, that the results of the evaluation could not have prepared the archaeological team for the true extent and nature of the site, as the majority of the complex ditch system was revealed to the south-west of the area covered by evaluation trenches, and the large aisled building was untouched by evaluation trenches that ran neatly either side of it.

During the excavation, all features which were interpreted as structural were fully excavated. This included the full exposure, cleaning and subsequent excavation by hand of floor surfaces within the Roman structure. Over the excavation area in general, a minimum of 50% of the fills of features such as pits were excavated. It was recommended in the project design that between 10 and 20% of the fills of linear features on the site would be excavated, but, due to the concentration of these features on the site, visible only upon excavation, it was agreed that a representative sample from each of these features would be acceptable, taking into account variations in shape and relationships with other features. Systematic metal detector searches of the excavated area and spoil took place regularly as a formal part of the excavation. The fills of four peat hollows, which were visible after the removal of topsoil on the site, were examined by sectioning the hollows with a machine trench, and by sampling them manually in such a way as to take into account their formation, relationship to other features and the distribution of artefacts within them. The most north-westerly of the peat hollows was not excavated further following the initial machine trench, which revealed that it was filled with modern (post-war) construction debris, and none of the peat had survived. The palynological preservation was not as good as first anticipated, and thus radiocarbon dates were not recommended.

Excavation and post-excavation analysis was funded by Persimmon Homes (Anglia) Ltd. The complete site archive of finds, site records and post-excavation analysis is currently housed at Suffolk County Council Archaeological Service, in Bury St Edmunds.

Chapter 2. The Excavation

I. Phasing summary

The results of the excavation were analysed and the features observed allocated to periods and phases, discussed below. The phasing for the site is as follows:

Period I	Early Bronze Age, 2350 BC to 1501 BC
Period II	Iron Age, 700 BC to mid 1st-century
Period III.1	Late Iron Age to early Roman, 1st to early 2nd century
Period III.2	Roman, mid 1st to mid 3rd century
Period III.3	Roman, 2nd to mid 3rd century
Period IV	Post-medieval, 16th to 17th century

Figure numbers for plans and sections can be found in the context concordance table included as an Appendix to this report.

II. Peat hollows
(Figs. 2, 20)

The three major peat-filled natural hollows (0190, 0195 and 0395) which were investigated as part of the excavation differed in size and in the nature of the accumulated deposits.

The hollow which appears to have been filled first (0395) was situated to the north of the large Roman building. Its extent within the excavation area was approximately 30m by 20m and at its deepest 1.5m. It contained thick layers of peat and a basal sand, and was sampled for palynological analysis (Monolith samples 2, 3 and 4). The palynological evidence from the lower levels of this hollow showed little evidence of arable farming, and as such was seen to be comparable with Bronze Age samples from elsewhere in southern and eastern England. Three flints from this layer were thought to be of earlier prehistoric date. Higher levels in the hollow represented shifting vegetation patterns, caused by more intense human activity in the site during the Iron Age. The uppermost levels proved to be slightly different again, and may have accumulated during the later Iron Age or early Roman period. One ditch feature (0494) ran into this peat hollow, but appeared to cut the layer of peat 0395 and therefore post-dated it, and has been attributed to Period III.2 of the site's history.

The largest of the hollows, 0190, ran diagonally north-south across the centre of the site, and measured approximately 50m by 35m at its widest point and 1.3m at its deepest. It contained a basal grey sand (0441 and 0371), and two thick layers of peat (0440 and 0368) interleaved by a thick layer of natural windblown sand. Monolith samples (5–9) were taken from this peat hollow, and apart from the very basal sediment 0441, which appeared to date from the Middle Bronze Age, the deposits in 0190 accumulated later than those in 0395. The samples taken from the northern end of 0190 included peat layer 0440, which was dated to the later Bronze Age, and the brown silt above it (0190) which appeared to represent activity during the Iron Age, Roman, or even later times. The samples from the southern part of 0190 were similar to those from the north, despite the fact that a ditch feature (0183) was sampled running into the hollow, suggesting that the 'local landscape was relatively stable for a long period' (Wiltshire, this report). It is interesting to note that some of the Iron Age and early Roman major ditch features (0293, 0176, 0313) seemed to avoid hollow 0190, while others ran into it (0182, 0183 and 0249). The only features that ran entirely through the hollow were a Period III.3 ditch (0315) and a post-medieval field boundary, and on the whole the low density of features across the area of the hollow suggests that it may have been relatively wet for a long period of time. Finds from several layers in this hollow included twenty-two sherds of prehistoric to post-medieval pottery, worked and burnt flint, animal bone and shell.

The third peat hollow to be investigated (0195) was smaller, 15m x 10m, shallower, 0.8m, and drier in nature than the others. There was a layer of clay 0232 in the bottom of it, which was cut by a number of pits (0196, 0197 (Monolith sample 1), 0198, 0392 and 0410), which were then filled by a series of layers (0191 sandy silt, 0192 chalky silt and 0193 peaty silt), making up this peat hollow, which was also sampled (Monolith sample 10). The basal clay appeared to date from the Iron Age onwards, and likewise the upper peaty layers appeared to represent the pre-Roman period onwards based on the artefactual evidence. In the same way as 0190, it is clear that the density of features cut into hollow 0195 was much lower than the area around it, suggesting that the hollow had remained relatively waterlogged and that perhaps the pit features were dug to provide water for livestock on the site. This hollow produced a relatively large assemblage of prehistoric and Roman finds, including 138 sherds of pottery, ten fragments of Roman tile, worked and burnt flint, a large group of animal bone (0194), a nail and a late medieval jetton.

III. Period I: Earlier Prehistoric and Bronze Age activity
(Figs 2, 3, 18, 19)

The earliest recognisable phase of human activity was represented by the comparatively large number of patinated flint blades and flakes within the assemblage (thirty-five flakes, two of which were utilised flakes, thirteen blades, and a small borer reworked from a flake), which suggested a Mesolithic component in the vicinity. As these flints were generally surface finds, or within later features as residual items, there are no archaeological features or soil layers which could be directly associated with the Mesolithic period.

It was possible to define an area of ancient land surface; two distinct layers of grey-brown silty sand, 0273 and 0274, only 0.1m in depth, which were situated in a slight hollow, *c.*10m in diameter, perhaps suggesting the reason for their preservation. The layers contained a near-complete beaker vessel (Fig. 22.1) and six other

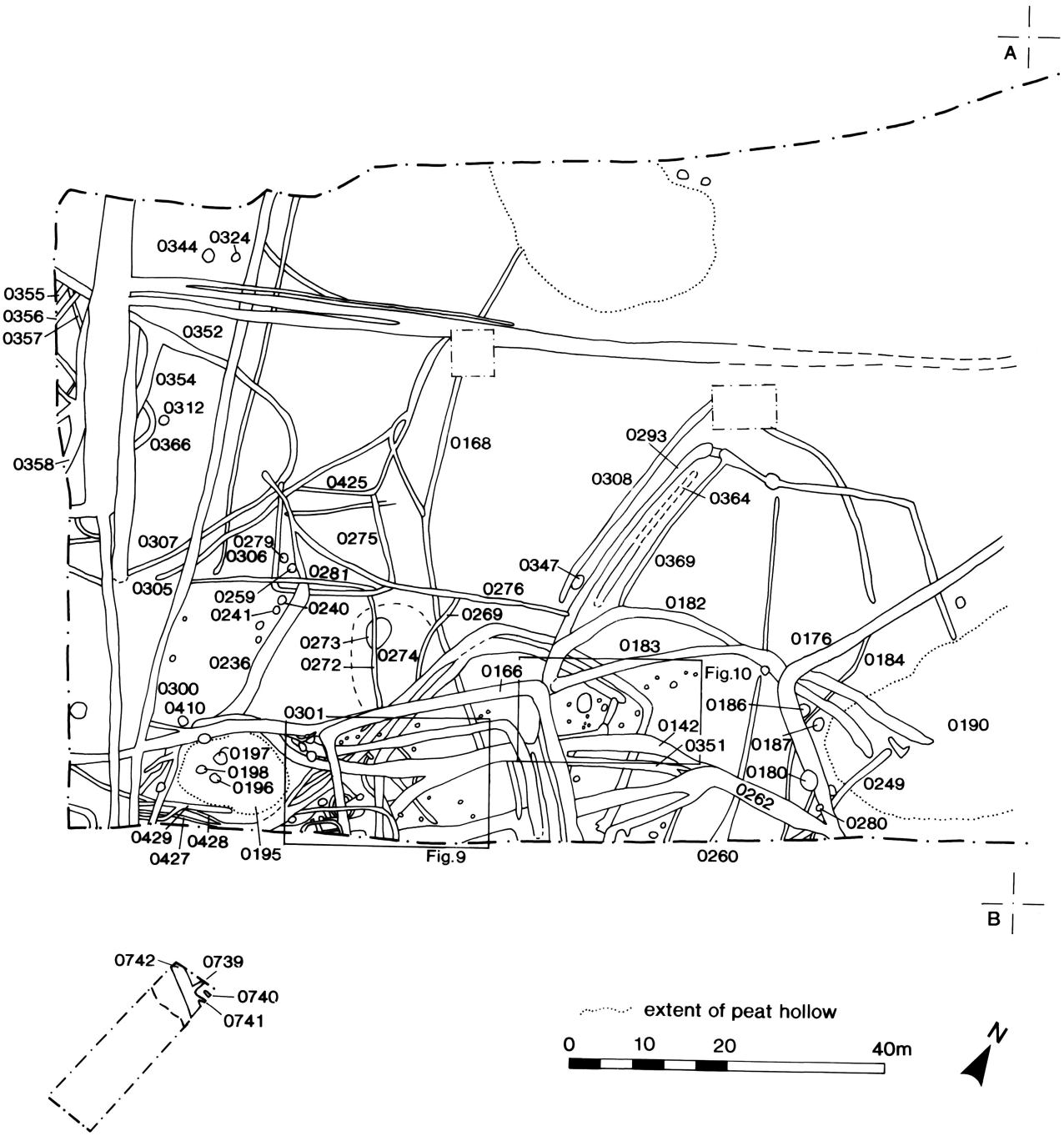
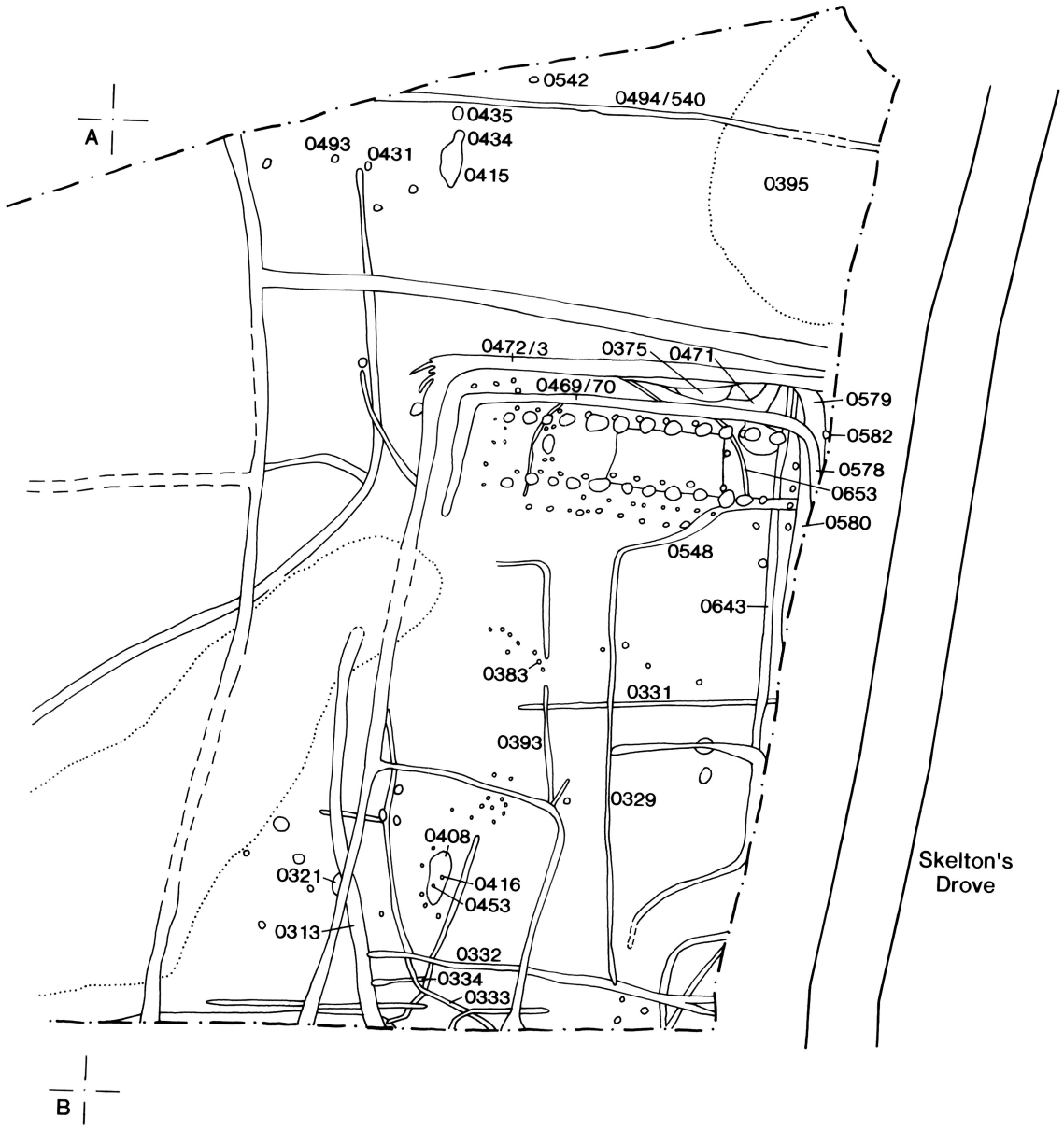


Figure 2 Excavated features


A
B
0542
0494/540
0435
0434
0415
0493
0431
0395
0472/3
0375
0471
0469/70
0579
0582
0578
0653
0580
0548
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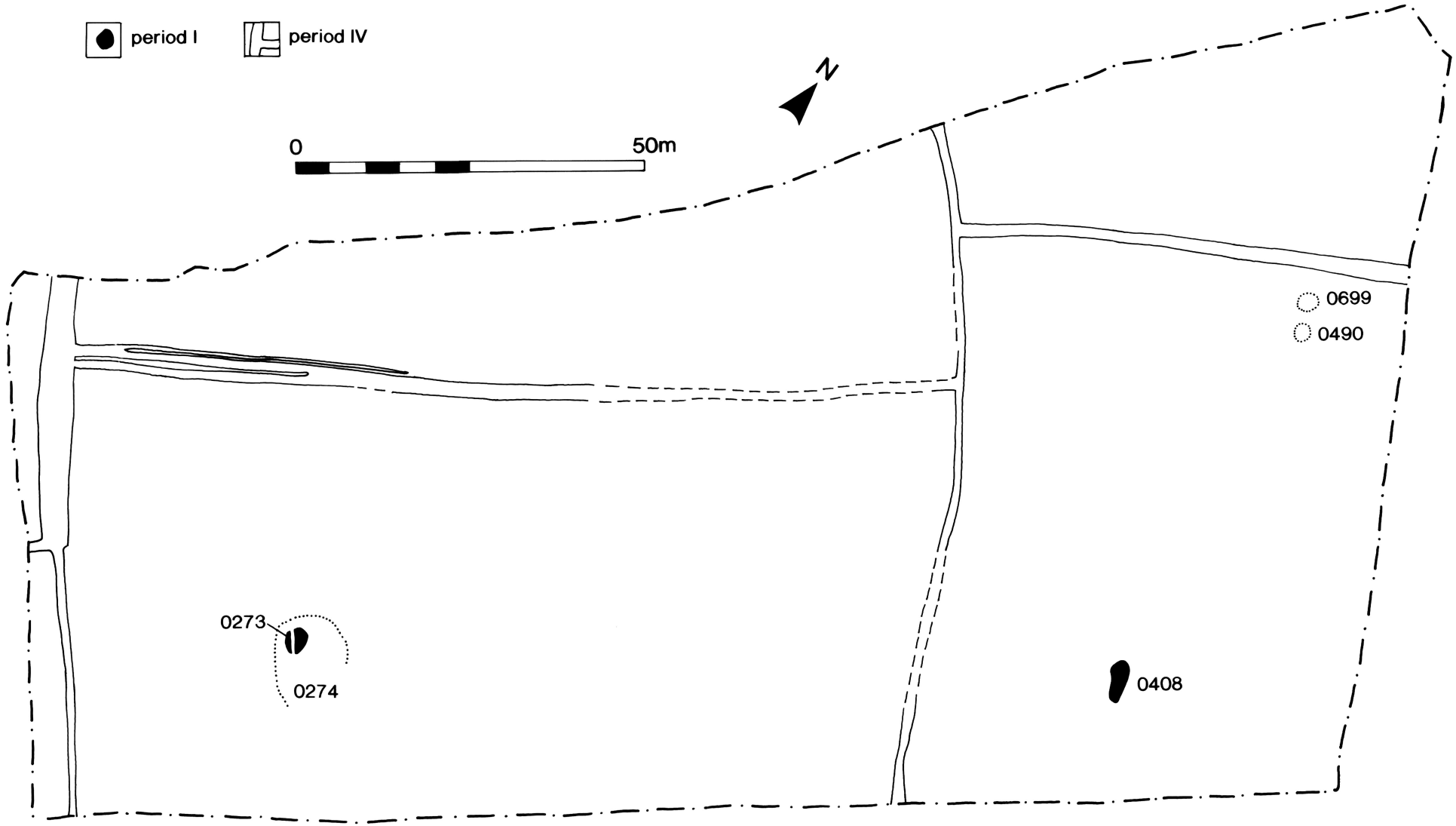

Figure 3 Period I and Period IV features

sherds of Bronze Age pottery, and was therefore dated to the Early Bronze Age. Other finds from the area included several fragments of fired clay, worked and burnt flint, and a very small quantity of animal bone. This suggested a domestic Beaker site, rather than a single burial feature, which seems to be borne out by the presence of three other features which have been included in this period.

A large, shallow pit, 0408, apparently isolated on the eastern side of the site, was cut by two postholes, 0416 and 0453 (both Period II). It contained forty pieces of worked flint, much of it burnt, and the amount and nature of this flint suggested that it may have been contemporary with the feature, not residual. It also contained ten sherds of Bronze Age pottery and a large assemblage of burnt flint. There were several posthole features located around the pit, but none that appeared to form a structure. A further fourteen sherds of Bronze Age pottery, along with worked and burnt flint and animal bone, were found in a pit, 0699, which was excavated beneath the fills of the Roman period ditches to the north of the large Roman structure, some 50m to the north. A second pit in this area, 0490, 1.10m deep and cut by Roman period ditch 0471, did not contain any finds but was dated by palynological evidence to the Early Bronze Age (P. Wiltshire, pers. comm.).

IV. Period II: Iron Age occupation

(Figs 2, 4, 8, 18)

Of the considerable number of pits, ditches and gullies that were dug into the natural sand of the site over the Iron Age and Roman period, thirty features, roughly 10% of the total features excavated, have been attributed to the Iron Age, although not all of these produced datable evidence. It was quite apparent, though, that during this period there was a great deal of activity on the site. There is evidence of at least two probable buildings and two phases of enclosure ditches, as well as various pits and postholes, which have all been included in this period for two reasons. Firstly due to their stratigraphic position, and secondly the fact that they contained pottery which has been identified as clearly prehistoric, and datable to the pre-Roman Iron Age, approximately 70% of which was flint-tempered, the remaining fabrics containing largely sand, sand/organic, shell, grog and silt. The extent and nature of the large enclosure ditches and the two possible structures, and the quantity of pottery, 147 sherds (1052g) directly datable to this period, all contribute to the picture of an established Iron Age site.

The earliest features appeared to be three ring ditches, 0108, 0158 and 0366, which have been interpreted as possible structures. The lack of visible internal postholes suggests that the ring ditches are themselves structural, not simply eaves-drip gullies around structures, although it is possible that internal features have been lost due to extreme truncation by later features. Two of these were in the south-western area of the site (Fig. 8). The smaller of the two ditches, 0108, measured c.4m in diameter and up to 0.3m in width, with a shallow, 0.07m deep, u-shaped profile, and contained one sherd of Iron Age quartz-tempered pottery and a small, intrusive, sherd of Roman greyware, as well as a small quantity of bone and a worked flint. The larger of the two ring ditches in the south-western area, 0158, was *c*.9m in diameter and up to 0.04m deep. It contained nineteen sherds of Iron Age pottery, three worked flints, a large group of animal bone and a fragment of slag.

Ring ditch 0158 was cut by several later ditches, three of which, 0147, 0153 and 0214 were also dated to the Iron Age. The shallowest of these ditches, 0153, 0.25m deep, produced a sherd of flint-tempered pottery. Parallel to 0153 ran a very shallow silt-filled gully, 0140, 0.20m deep, which was largely cut away by later period ditches. The two larger ditches, 0147 and 0214, up to 0.6m in depth, which cut 0158, seemed to form a double-ditched enclosure on a north-south alignment, and both contained pottery of the first half of the 1st century AD. A slightly earlier version of this enclosure was hinted at by the ditch 0144 (Fig. 8), 0.25m deep, which was largely cut away by later ditches. A 0.15m-deep silt-filled ditch or soil layer, 0237, in the vicinity of these ring ditches, contained flint-tempered Iron Age pottery, but it appeared to cut part of ditch 0158.

Within the enclosure was a series of postholes (0443–0447, 0451, 0452, 0481, 0516–0519, 0521, 0522) and a patch of charcoal, grey sand and burnt bone, 0520, which may have been part of a fourth structure and certainly appeared to be related to an occupation area (Fig. 9). At the western end of this group of features a spread of red-stained natural sand, 0442, up to 1.50m wide and 1.2m deep, may also have related to the activity in this area. This feature was sampled as there was no charcoal or red patterning associated with a burned tree hollow or hearth, however no explanation for its coloration that could be tested was suggested (Macphail 1999). The only find was a fragment of burnt flint.

The third possible ring ditch, 0366, was to the west end of the site, and was greater than c.5.0m in internal diameter. It was cut by ditch 0354 (Period III.1). All three ring ditches are comparable to other examples from Suffolk, particularly those excavated at West Stow and Great Bealings (Martin 1999).

The second main ditch system which appeared to be Iron Age, and was certainly aligned in a similar way to ditches 0147 and 0214, was the pair of parallel ditches 0.20m in depth, 0293 and 0308, both containing small quantities of prehistoric pottery, flint and bone. Between these ditches was a very shallow smeared feature which contained a very small sherd of flint-tempered pottery, 0347. To the east of 0293 were two very shallow possible palisade trenches 0364 and 0369, visible only in plan as a grey stain of sand.

Other pits attributed to this period include 0288 (Fig. 8), which contained flint tempered pottery and was cut by the Period III.2 ditch 0301, and five other isolated pits, 0279, 0324, 0415, 0434 and 0493 (Fig. 3), averaging 0.25m deep and up to 1.4m in diameter. Pit 0324 contained a small amount of pottery, one sherd of which is Middle Iron Age in date. Pit 0415 also contained Middle Iron Age pottery, including a burnished flint-tempered jar/bowl and a cabled rim from a finer bowl (Fig. 22.5), together with a relatively large group of bone. Pit 0493 produced ten sherds of flint-tempered pottery from a single vessel.

Another series of features which have been linked with this period due to the presence of flint-tempered pottery are the east-west ditch, 0429, and two gullies, 0427 and 0428, all *c*.0.2m deep and filled with very dark silty sand, in the south-west corner of the site, which drained into peat hollow 0195.

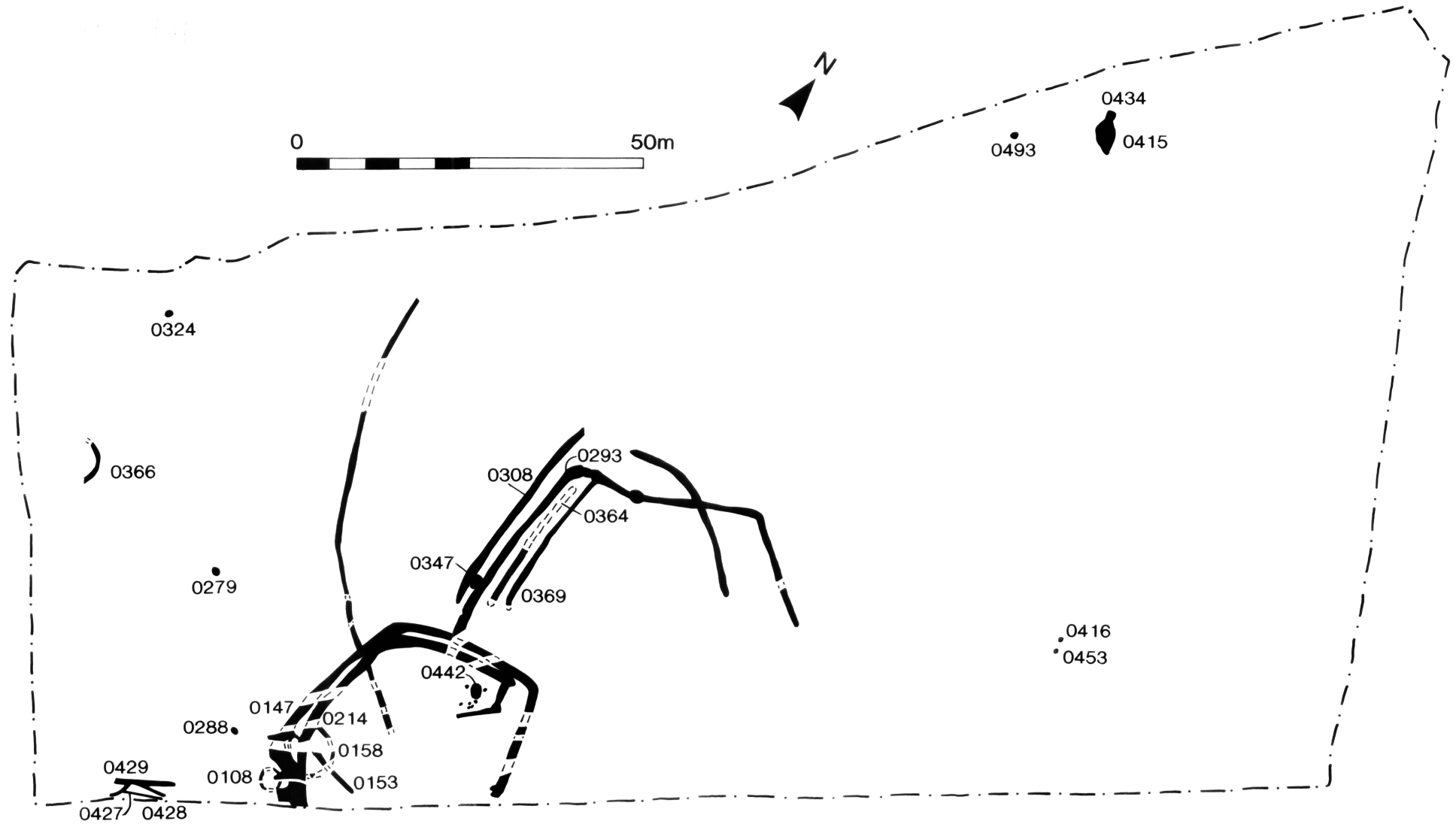

Figure 4 Period II features

V. Period III: Late Iron Age and Roman occupation

(Figs 2, 5–7)

The majority of excavated features could be dated to within the 1st to 3rd centuries AD, and as such related to the late Iron Age and Roman period. For the purposes of this volume, the Iron Age period evidence has been discussed separately, as Period II of the site's history, and the evidence discussed below as Period III.1–III.3 relates largely to the Roman period. It is clear, however, that there was no distinct interruption in the occupation of the site between these two periods. Rather there was a strong element of continuity in the archaeological evidence, the only clear difference being a change in the alignment of the major ditch systems visible on the site, from a north-south alignment during the Iron Age period, visible in the form of enclosure ditches 0147, 0214, 0293 and 0308 and their related features, to a more west-east orientation in the transitional and early Roman period. This alignment changed again in the latest Roman phase on the site, perhaps due to the fact that the ditches respected the position of the large aisled building that they appear to post-date.

The fact that the datable evidence from the site consisted mainly of pottery, which cannot be securely dated to pre- or post-conquest in the 1st century AD, meant it was not possible to use the finds exclusively for dating the earliest phases of this period. In fact the phases within this period were dictated largely by their stratigraphic relationship to the aisled building, as the features within Period III.1 were mainly ditch systems, which would have produced a large number of residual finds, but were clearly earlier than the building. Period III.2 is represented by the first building phase, Building 1, the destruction debris of which must pre-date the second phase of the building, providing a *terminus post quem* for Period III.3. Period III.3 is represented by the second structural phase of the building, Building 2, and by a series of ditches which appears to respect the position of the building and has been attributed to this last phase of Roman activity, as the pottery from both structural phases of the building and the related ditches represents the end of intense activity on the site, and there were no Roman finds which were certainly later than the building.

Period III.1

(Figs 2 and 5)

The earliest phase within the early Roman period has been identified from a series of ditches and related features which pre-date the large aisled buildings of Period III.2 and III.3. These features were clearly visible on the east side of the site, where they had a direct stratigraphic relationship with the building, and have been identified by association on the west side of the site, largely due to their position and alignment. They relate to a series of enclosure ditches, which underwent a number of re-cuts, and the stratigraphic data records the sequence in which these occur. Although re-cutting the ditches caused an adjustment to the alignments and boundaries throughout the Roman period, some respect for the structure of the layout prevailed, particularly in the south-west corner of the site. The dating evidence for a pre-building phase is represented by late Iron Age/early Roman pottery, the quantity and quality of which was not sufficient to draw any more specific conclusions than the stratigraphic evidence will allow, although the former serve to reinforce the latter.

The earliest of these features, then, appeared to be a series of shallow enclosure ditches of varying depth, 0.15 to 0.4m, on the west side of the site, 0132, 0184, 0351, and pits 0133, 0134, 0216, 0239 and 0267 (Fig. 8). These features produced very few artefacts, most of which are of Iron Age or early Roman date, although ditch 0351 contained an early-mid 2nd-century dish. They were cut by slightly larger ditches, up to 0.4m deep, 0142, 0182, 0183, 0249, 0260 and a pit, 0186, 0.35m in depth, which produced finds of Iron Age and late 1st- to early 2nd-century date, cut in turn by a larger ditch system 0176. This latter appeared to be on the same alignment as the earliest of the ditches to the east side of peat hollow 0190, ditch 0313, and both were *c*.0.5m deep and up to 1.60m wide. Ditch system 0176 produced a range of finds, including storage jar fragments, Roman tile and a relatively large group of animal bone.

Ditch 0176 appeared to relate to the position of several pits, 0180, 0280, and 0431, up to 0.8m deep, which were interpreted as possible water pits for stock, due to their proximity to the waterlogged peat hollows 0190 and 0395. There were no finds from 0280 and 0431, but pit 0180 contained late 1st- to early 2nd-century storage jar sherds, Roman tile, animal bone, and lava quern fragments.

To the north, ditch 0313 may have formed the north-eastern side of an enclosure with ditch 0176, leaving a large narrow gap at the north end. It was cut by a pit, 0321, and a shallow *c*.0.25m gully, 0334, which was cut by ditch 0333, which in turn was cut by ditch 0332. The two ditches contained small quantities of Iron Age and Roman pottery. Roughly on the same east-west alignment as 0332, but approximately 30m to the north, ran ditch 0331, and both these ditches were cut by the roughly north-south aligned ditch, 0329. 0329 in turn ran parallel to ditch 0393 for approximately 30m until, at a point *c*.10m south of the site of the building, the two ditches diverge, 0393 heading west for 10m until it became too shallow to be visible, and 0329 travelling north-east, and becoming a deeper ditch altogether, cutting the ditch at right-angles to it, 0643. The deeper end of ditch 0329, numbered 0548, had a shallower off-shoot to the north-west, 0653, but the stratigraphic relationship of this off-shoot was unclear as the ditch was cut extensively by postholes relating to the aisled building. This does, however, suggest that ditch 0548 was the latest in the first phase of Period III, although there are several features in this phase whose position in the stratigraphic sequence is less certain.

Shallow ditches and gullies of varying depth (0269, 0272, 0275, 0305–0307, 0352, 0354–0357 and 0425) to the west side of the site have been included in this phase, as they obviously post-date the Iron Age period ditches in the area, and six of these contained pottery datable to the mid 1st century or later, within the Roman period, although in many cases it is not possible to be certain of their precise date. Ditch 0272 contained a relatively large assemblage of Bronze Age finds, presumably redeposited from the underlying buried soil 0274.

A silt-filled pit, 0170, 0.30m deep and 0.70m in diameter, situated between the two Period II ring ditches, was also included in Period III.1 as the pit contained mid to late 1st-century pottery and cut a Period II soil layer, 0237 (Fig. 8).

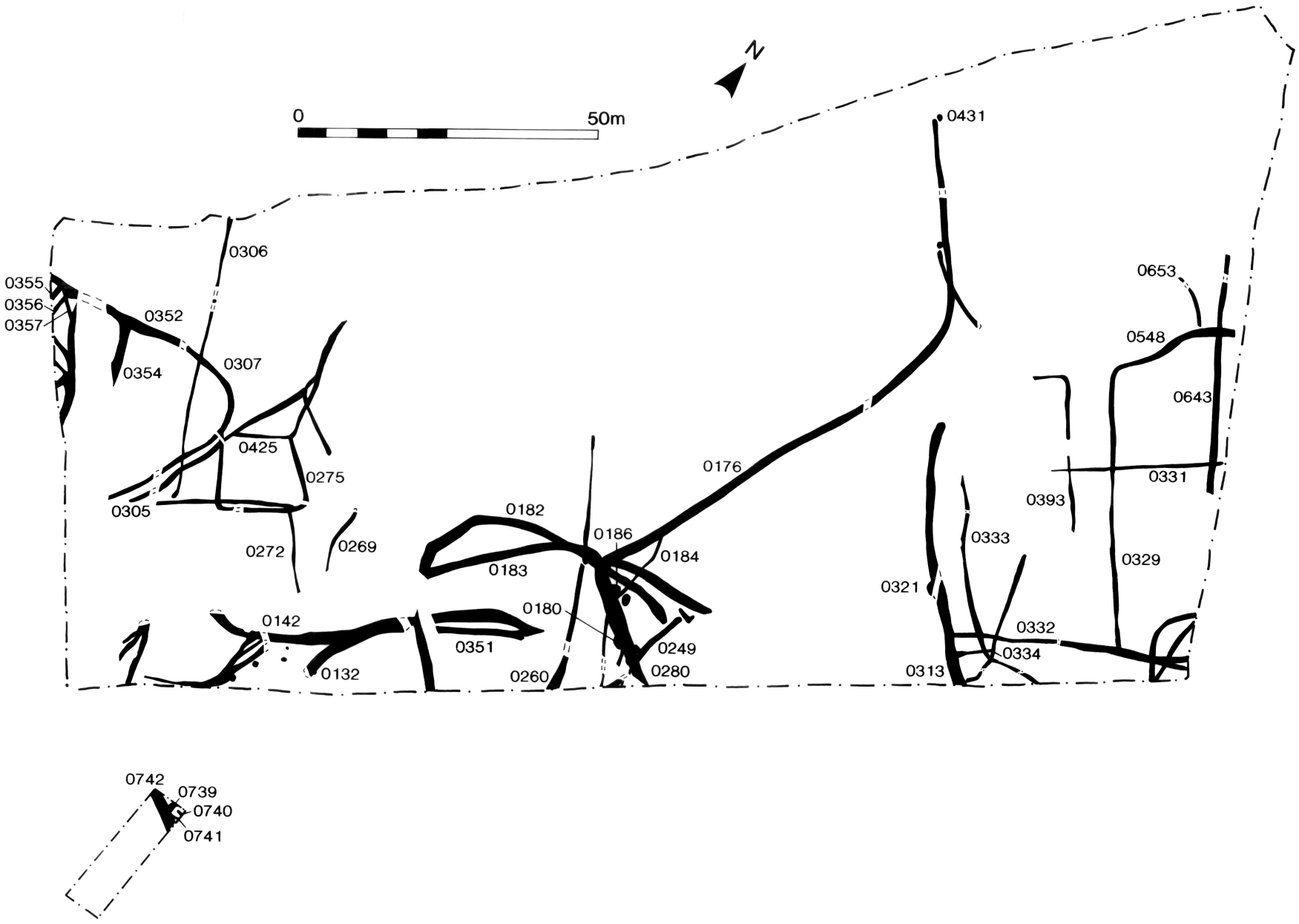

Figure 5 Period III.1 features

The only other features which have been assigned to this period were a group of ditches, 0739–0742, which were excavated during the monitoring of the site access road, and which produced a much finer range of pottery forms than the assemblage from the rest of the site. These features were the furthest of any excavated from the aisled Roman building structure, more than 170m away, and appeared to contain domestic refuse, from a 'settlement' which must be somewhere in the vicinity, although finds other than pottery were few.

Period III.2

(Figs 2 and 6)

This phase relates directly to the first aisled Roman building, Building 1. The features included in this phase were largely postholes, organised in three clear parallel rows running roughly east-west, the northern-most outer aisle, if it existed, having been cut away by disturbance from later ditches running across this area.

The earliest recognisable features situated in proximity to the building, however, did not appear to have a directly structural function. A grey-brown mottled area of discoloured subsoil 0561 (Figs 2 and 6), which contained a potentially significant amount of iron pan staining was tentatively included in this phase as, although it is cut by both Period III.2 and III.3 postholes, it is restricted to the area of the building, and may have been associated with an early phase of this structure, later covered by the Period III.2 chalk floor layer 0658. The reddish iron pan evident throughout this layer, apparently unrelated to natural iron pan formation which occurs at lower levels in the natural sand subsoil, may offer evidence of occupation of the structure, in particular it may be caused by liquid waste from animals, 'if cattle, for example, were stabled in the structure' (Macphail 1999). It should be made clear that this feature may relate to pre-building use of the ground surface, but as it was clearly defined by the postholes belonging to the structural phase it has been assumed that it must belong within the life of the building.

Pit 0585 (Fig. 10), a shallow, charcoal-blackened area, which included a large quantity of charred grain, and for this reason has been associated with the life of the building, seems to be the earliest feature in this phase. It was cut by a gully, 0558, part of the pit 0614, which in turn was cut by a posthole, 0611 (see below), which was directly related to this structural phase. Whereas the charcoal smear of 0585 was very shallow, 0.12m in depth, the pit 0614 was much deeper, 0.6m in depth, and contained two distinct fills, a layer of black peaty material at the top, and a pale sand layer below. The small assemblage of finds from 0614 includes two sherds of early Roman pottery, an iron nail, a small amount of animal bone, and some residual Iron Age pottery and worked and burnt flint.

One other feature in this area has been included in this phase as it also seemed to relate to the life of the building. Ditch 0471 was filled with a dense, 0.20m deep, band of burnt debris including a large quantity of charred wheat fragments, which appeared to represent the deliberate dumping of refuse in an available open feature. This debris may represent an event either during or after the life of Building 1. The pottery from ditch 0471, *c*.0.5m deep, can be dated to the late 2nd or 3rd century AD, which puts it around the time of the life of the building, but no later than

Plate III Posthole 0509 showing postpipe

any of the other Roman pottery from the site. The overlying spread of debris, 0375, produced a large finds assemblage which must relate to the life of the building (even if deposited as part of the destruction and levelling process), including a wide range of pottery (see Tester, this report), several fragments of flanged *tegulae* with signs of burning, a relatively large group of nails, two pieces of slag and some whetstone fragments. This ditch was cut in turn by Period III.3 ditches 0469, 0472 and 0473.

Several features some 150m or more away from the building, in the southern part of the site, have been included in this phase due to their stratigraphic relationship with other features around them. Pit 0259, and shallow gullies 0276 and 0281 (Fig. 6), for instance, were stratigraphically later than the ditches around them, and 0276 contained Roman pottery. Deeper ditches 0124, 0129, 0262 and 0301 (Figs 3 and 9), averaging 0.5m in depth, belonged stratigraphically to this phase, and the first three contained Roman pottery up to the mid 3rd century in date, Roman tile, flint, bone and other finds. Of the seven pit features included in this phase, three, 0240, 0241 and 0271, contained pottery datable from the mid to late 1st century AD. The two isolated pits, 0240 and 0241, each contained five pieces of flint which includes a preponderance of patinated blades or blade-like pieces, indicating activity in the vicinity during an earlier, Mesolithic or early Neolithic period. Pit 0271 also contained a partially complete cow skull.

Building 1 structural evidence: postholes

(Figs 10 and 15, Pl. III and IV)

As mentioned above, Period III.2 included the first identifiable build of a substantial aisled Roman building. Rectangular, with external dimensions of *c*.24m × *c*.10m, this phase of the building was represented by at least thirty-five postholes, along with various chalk and clay layers which made up internal building features. The overall structure of the building comprised two parallel paired lines of postholes, the main inner wall lines, giving the building an internal width of 6m and, after an outer aisle space of *c*.2.2m, a third, southern-most line of postholes, making up an outer wall or lean-to structure. It was not possible to detect any evidence for an outer wall line on the northern side of the building due to the disturbance caused by ditches 0469 and 0470, and thus it

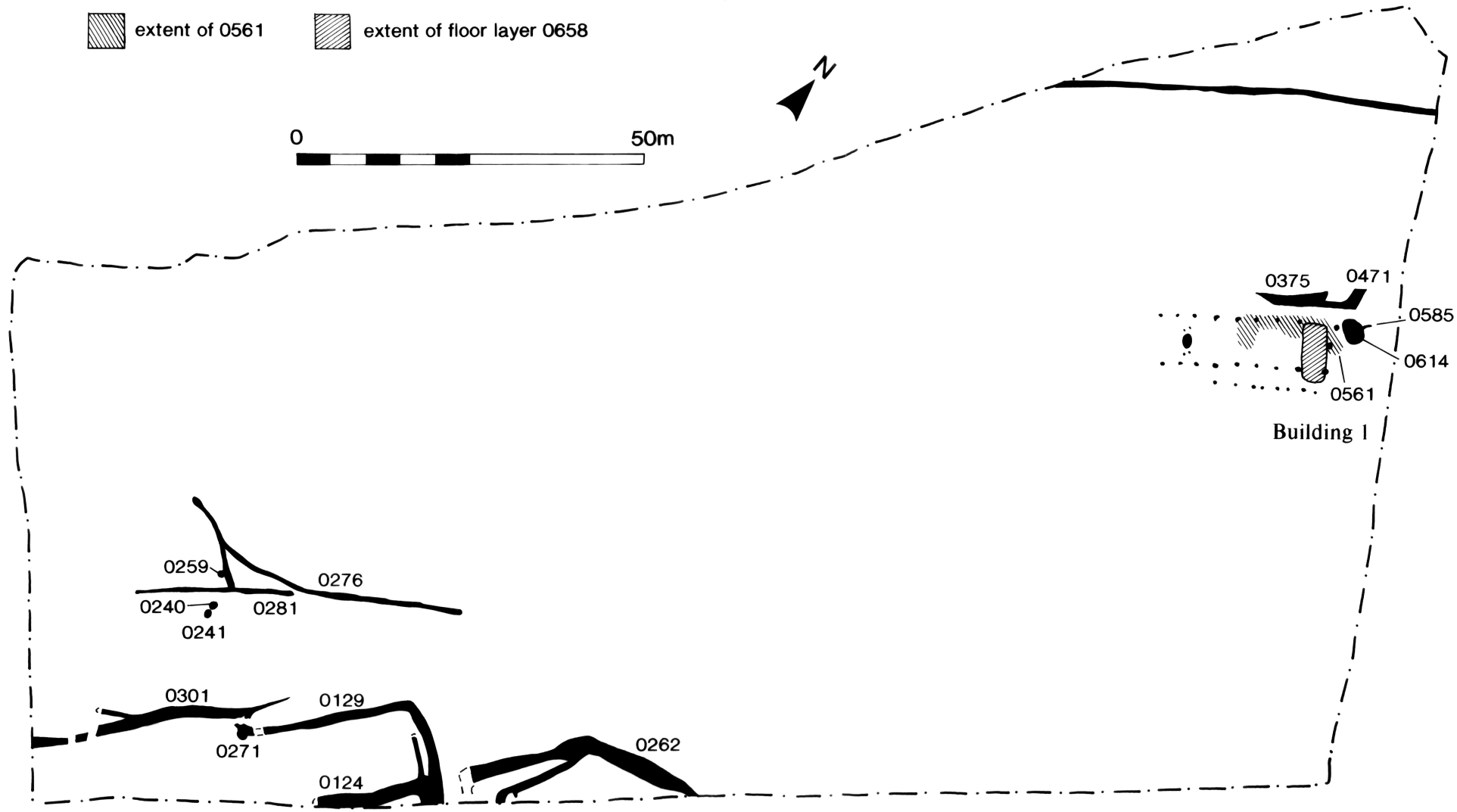

Figure 6 Period III.2 features

Plate IV Posthole 0597 showing charcoal layer

is quite possible that the building had only one wall line on the north side.

Of the thirty-five postholes related to this building phase, sixteen belonged to the two main inner wall lines, which can be divided into eight pairs of postholes opposite each other, one from the northern line paired with one from the southern line (0659 and 0626, 0660 and 0627, 0661 and 0628, 0662 and 0629, 0663 and 0630, 0509 and 0675, 0597 and 0676, 0682 and 0667). These central lines of postholes varied in depth between 0.27 and 0.7m, and in diameter between 0.7 and 1.4m. All were filled with a mixture of grey sand and chalk packing, ten out of sixteen exhibited what appeared on excavation to be a postpipe, and six out of sixteen contained a charcoal element in their fill, four of which had charcoal within the postpipe. The postholes were spaced approximately 2m apart, and as such there was no entrance feature visible along the length of the walls.

The third line of postholes, the southern-most outer wall, consisted of a further eight postholes (0644–0651), which were considerably shallower, between 0.1 and 0.3m in depth, and smaller in diameter, between 0.2 and 0.6m, than the other two lines. They were also filled with grey sand and chalk packing, although with no charcoal inclusions, and only one posthole (0644) exhibited a recognisable postpipe. For the most part these postholes were approximately 1m apart, although the postholes at each end (0644 and 0651) were up to 3m away from their neighbouring postholes, indicating either the presence of a structural feature or, perhaps more likely, poor preservation of these shallow features in an area which has clearly been damaged by the plough.

It is important to note at this stage that the eastern-most posthole in this outer wall, 0644, was on the same alignment as two other postholes to the north, 0666 and 0688, and that together they may have made up an end wall to this structure. Indeed 0666 and 0688 were securely beneath the Period III.3 floor of the building, but the Period III.2 floor 0658 appeared almost to butt up against them, placing them securely within this phase. Both postholes were smaller than those along the inner wall of the building, but slightly larger than the external postholes, at around 0.25m in depth and 0.4m in diameter. Posthole 0587 in Building 2 could have destroyed any pre-existing posthole forming the northern corner of Building 1.

Of the remaining nine postholes which have been included in this phase, seven appear to relate to internal features of the building, and will be discussed below.

Two other postholes, 0611 and 0577 (Fig. 10), have been tentatively included in this phase, although they cannot be securely linked to the same build, and are located at the eastern end of the building. The posthole 0611, 0.3m in depth and 1m in diameter, which cut pit 0614, was possibly the easternmost posthole associated with Building 1. In support of this suggestion, an equivalent posthole, 0577, 0.6m in depth and 1.4m in diameter, was visible at the east end of the inner south wall of Building 1. 0577 was the posthole which cut away the relationship between Period III.1 ditch 0548 and its offshoot, 0653, and in turn was cut by Period III.3 posthole 0574; this stratigraphic relationship is the main reason for the inclusion of these two postholes in this phase. Both have grey sand and chalk packing, with some charcoal in their fills, and although no postpipes were evident they are very similar in nature to the other postholes of the building. The finds from 0611 include several pieces of a millstone (0679), a large fragment of a storage jar, small fragments of animal bone, and several iron nails. 0577 contained three pieces of pottery, including a large sherd of Spanish amphora, and two nails.

Building 1 structural evidence: internal features
(Figs 10 and 11)

As discussed above, there were seven postholes included in Period III.2 which did not appear to relate to the external build of Building 1, but to internal features. Sealed by the Period III.3 floor layer were two postholes 0689 and 0690 (Fig. 10), 0.2m deep and 0.3m in diameter, situated 2m to the west of the Period III.2 floor layer, and perhaps related in some way to this floor.

Approximately 13m further west, 5.5m from the west end of the building, was a shallow, elongated patch of chalk, 0672, 0.2m in depth, 2.6m by 1.0m, surrounded by five postholes, 0513, 0514, 0673, 0674 and 0678, up to 0.3m in depth and in diameter, one of which, 0513, was cut by the Period III.3 posthole 0482. It is this stratigraphic relationship, coupled with the fact that the features are situated in the centre of the main room, that has led to their inclusion in Building 1, and as such the purpose of this feature may have related to the function of Building 1.

The most substantial of the internal features in Building 1 was the floor surface (Fig. 11), situated at the east end of the building (for section see Fig. 14). The floor layer 0658 was rammed chalk 0.2m thick, and was visible over an area of 8m by 5.2m, although it may have been disturbed at a later stage during the life of the building. This chalk was bounded by unfired clay 'walls' (0590, 0657 and 0684) of varying size and thickness, up to 0.25m thick and 0.6m wide, which appeared to form the 'edges' of this floor. The clay was cut along its northern side by a gully, or possible beam slot, 0591, filled with chalk fragment and charcoal 0.50m by 0.20m, which suggested an internal building feature in this area.

Also limited to this floored area, recognised as a spread of material covering these Period III.2 floor layers, and covered by the Period III.3 floor (0374), was a layer of very coarse charcoal and charred wood, 0599, together with a comparatively large number of nails (sixty pieces in

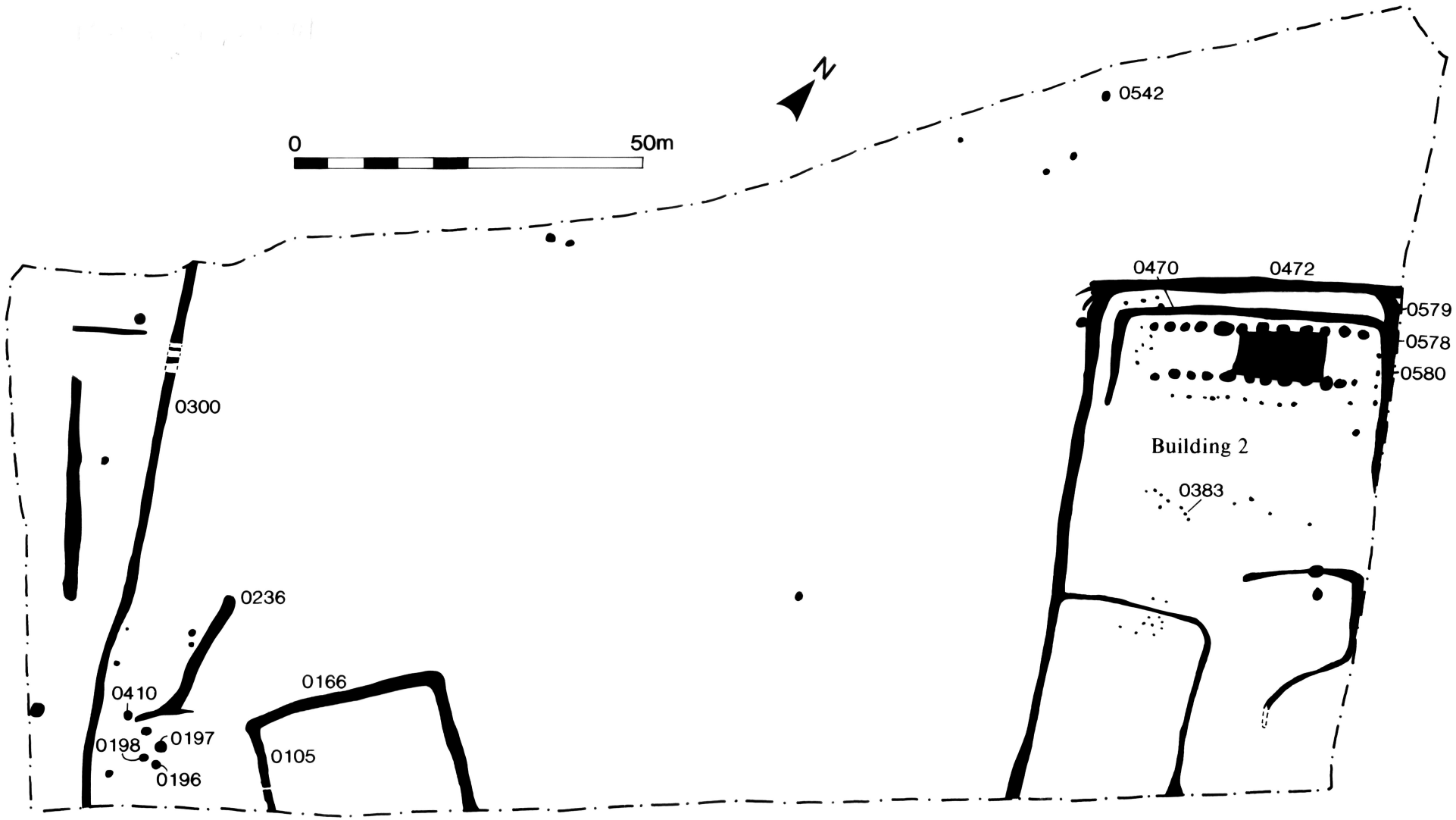

Figure 7 Period III.3 features

total, see Table 1). This suggested that a structural or internal feature had burnt in this area, rather than a hearth or other heat-related feature which would have demonstrated burning over a longer period of time than was evidenced here. This layer may therefore relate to an event at the end of Period III.2, or even after the life of this phase of the building. As it was covered by the Period III.3 floor, it has been included in this phase, as relating to the destruction of all or part of Building 1.

Period III.3

(Figs 2 and 7)

Period III.3 related largely to the second Roman structure, Building 2, with all its structural and internal features discussed below. There were also several ditch features in this area which appeared to relate to the position of the building, and did not continue in use beyond the life of the building.

At the east end of Building 2 a series of ditches which headed to the north, towards peat hollow 0395, have been included in this phase as they respected the position of the building. The earliest of these appeared to be 0579 and 0580 (Fig. 2), up to 0.7m deep, the latest 0578, up to 0.4m deep, which turned a corner, appearing to respect the position of the building and became ditch 0470. This latter ran parallel to ditch 0472, 0.9m deep, which also respected the shape of the building, and the two ditches appeared to be contemporary, as they both exhibited re-cuts (0469 and 0473 respectively). It is clear that 0470 cut the top fill (0375) of ditch 0471 which was open during the life of Building 1, suggesting that it certainly dated from the life of Building 2. It is unclear, however, exactly why the building was enclosed at this point, which suggests that ditch 0471 may have been part of an earlier enclosure, which was re-dug during period III phase 3. There may have been a need to contain livestock in the area, due to the multi-functional nature of the building (Chapter 4, this report), and the sandy nature of the soil meant that ditches would have silted up extremely quickly and would have required re-excavation. There is no evidence to suggest that these ditches continued in use after the destruction of Building 2. Several of the fills produced pottery of mid 2nd-century or later date, along with residual material and a few other finds.

A number of features on the west side of the site have also been included in this phase due to their stratigraphic relationships. Ditches 0105, 0166, 0236 and 0300, averaging 0.6m deep, made up the latest visible phase of the enclosure ditches in this area. They all cut features around them and all contained pottery datable to the Roman period. Ditches 0105 and 0166, *c.*0.7m in depth, made up a large rectangular enclosure, which continued beyond the edge of the excavation, and measured 30m by at least 20m. Both produced relatively large groups of finds, including pottery spanning the late 1st to early 3rd centuries, Roman tile, worked and burnt flint, nails, a fragment of puddingstone quern, a small fragment of blue vessel glass, and a large group of animal bone. Ditches 0236 and 0300 also produced a wide range of artefact types, but in smaller quantities.

Of the thirty-seven pit features which have been assigned to this period, only nine contained pottery datable to the Roman period. Three (0383, 0410 and 0542) contained Iron Age period pottery which was thought to be residual, and they were provisionally included in this phase along with the other Roman period pits. At least four of these pits (0196–0198 and 0410) were cut into the fills of the peat hollow 0195, and as such may have been wells or water pits, but the function of the others cannot be certain.

Building 2 structural evidence: postholes

(Figs 12, 16 and 17, Pl. V and VI)

As mentioned above, Period III.3 included the second substantial Roman building on almost exactly the same site, with postholes positioned very slightly to the south-east of Building 1. Rectangular, with external dimensions of at least 30m by *c.*10m, this phase of the building was represented by a total of forty-nine postholes, along with various internal building features. The overall structure of the building was comprised of two parallel paired lines of postholes, the two main wall lines, giving the building an internal width of 7m, and, after an aisle space of 3m, a third, southernmost line of postholes, making up an outer wall, or lean-to structure. It was not possible to detect any evidence for an outer wall line on the northern side of the building due to the disturbance caused by ditches 0469 and 0470, and the presence of these suggested that the building did not extend further to the north.

Of the forty-nine postholes related to this building phase, twenty-four belong to the two main inner wall lines, which can be divided into twelve pairs of postholes opposite each other, one from the northern line paired with one from the southern line (0458 and 0454, 0477 and 0465, 0482 and 0461, 0487 and 0497, 0523 and 0501, 0560 and 0543, 0505 and 0531, 0551 and 0549, 0567 and 0570, 0587 and 0574, 0535 and 0532, 0559 and 0608). These central lines of postholes generally ranged in depth between 0.4m and 0.85m, and in diameter between 1.2 and 2.2m. All twenty-four of the postholes were filled with a mixture of grey sand and chalk packing, all exhibited what appeared on excavation to be a postpipe, and sixteen contained a charcoal element in their fill, fourteen of which had charcoal within the postpipe. The posts were

Plate V Buildings 1 and 2 post-excavation with floor, looking west

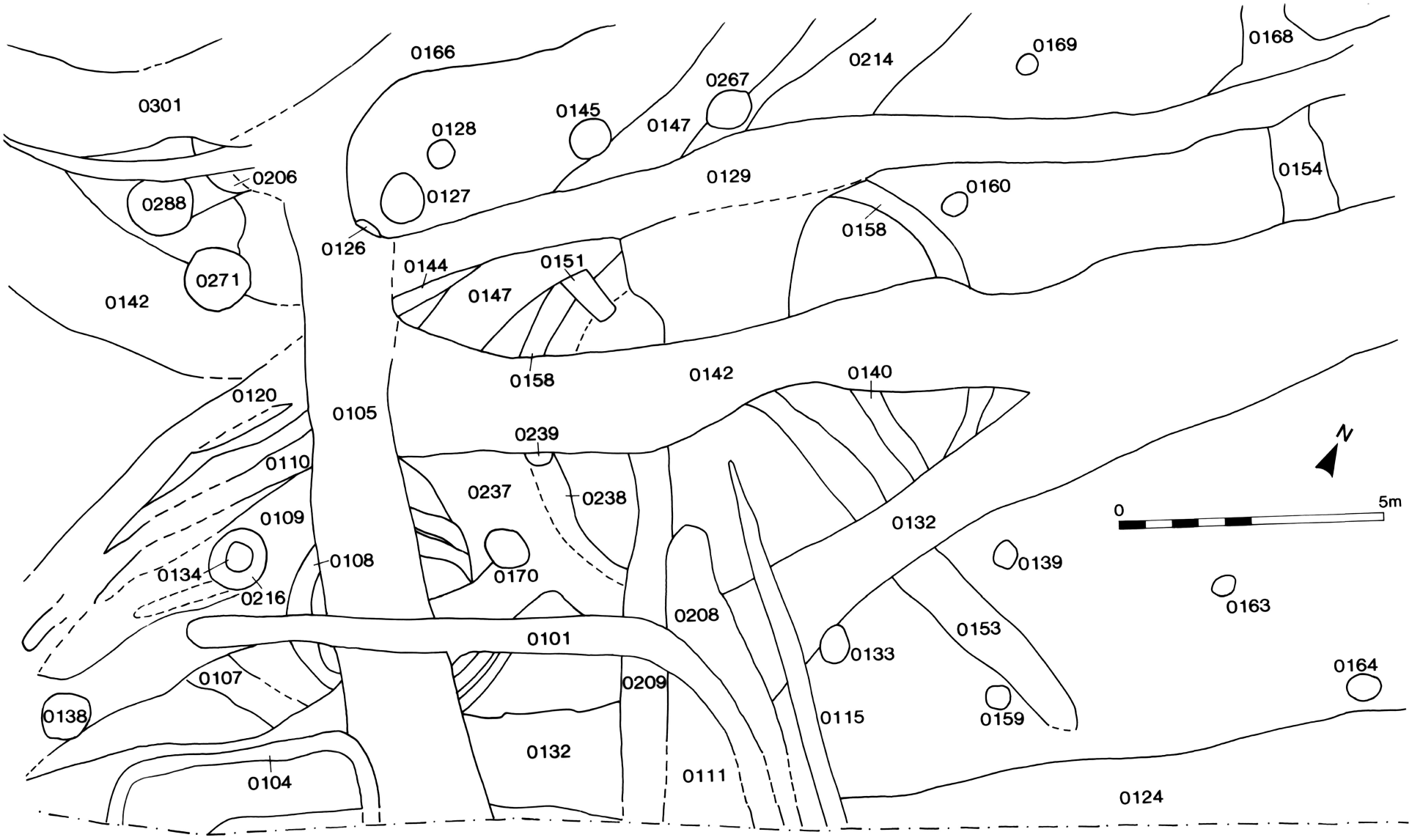

Figure 8 Detail plan of south-west area

Plate VI Buildings 1 and 2 post-excavation without floor, looking west

spaced approximately 2.75 to 3m apart, measured centre to centre.

The southernmost line of postholes consisted of a further twelve postholes (0618, 0619, 0631–0639, 0654), which were considerably shallower, between 0.08 and 0.3m in depth, and smaller in diameter, between 0.2 and 0.7m, than the other two lines. They were also filled with grey sand and chalk packing, although with no charcoal inclusions, and only four postholes exhibited possible postpipes. For the most part these postholes were approximately 2m apart, except for the westernmost two, 0638 and 0639, which had spaces of 6m between each other and the nearest posthole to the east, 0654. In the absence of a clear structural explanation for these spaces it is possible to suggest that this may again represent poor preservation of these shallow features due to plough damage. It is clear, however, that the easternmost posthole in this outer wall, 0639, was on the same alignment as three other postholes to the north, 0640, 0641 and 0642, and that together they may have made up an end wall to this structure — although slightly misaligned. All four postholes were very similar in size, 0.15m deep and up to 0.5m in diameter, and all were filled with dark grey sand, some with occasional chalk flecks. It is this end wall feature, together with the apparent lack of an outer wall on the northern side of the building, that suggests that Building 2 is almost an exact copy of Building 1.

It is interesting to note, though, that Building 2 was larger overall than Building 1 and that there were several other elements to the external build which were different. The two easternmost postholes of the inner walls, 0454 and 0458, were significantly smaller than the others, as were postholes 0543 and 0531 in the southern inner wall. Four fragments of broken millstone were found, two within postholes 0477 and 0501, one within the Period III.3 floor 0374 and one within the possible Period III.2 posthole 0611. This raised the suggestion that the buildings could have been previously associated with milling grain, but that the function changed at the end of the life of Building 1. There was not enough evidence to corroborate this theory, however (see Millstones by C. Tester, this report), or to demonstrate by association that posthole 0611, and thus perhaps also 0577, were related to the post-use phase of Building 1, although they were certainly earlier than Building 2.

There were four postholes to the west of the building (0622–0625) and four to the north-west (0668–0671) which have been included in this phase purely because Building 2 was larger and appeared to contain more features. All these postholes were small and shallow, up to 0.2m deep and 0.4m in diameter, and were filled with grey sand and chalk, two of which also contained some charcoal. The higher incidence of charcoal in the Period III.3 postholes in general was another reason for including these eight postholes in this phase. There were also two possible stake holes 0620 and 0621, which appeared on excavation to be related to posthole 0458 at the west of the building, and may therefore have been involved in the construction or use of Building 2.

Two other possible postholes at the east end of the building have been included in this phase. 0582 (Fig. 12), situated *c.*4m from the end line of postholes (0639–0642), cuts ditch 0579, but is cut by ditch 0578, both of which appear to be contemporary with the building phase, suggesting that 0582 is probably unrelated to the building. The last posthole to be included in this phase, 0655, 0.15m deep and 0.5m in diameter, also contained charcoal and may therefore have been related to Period III.3. It did not appear to be related to the building structure as it was situated 3m to the south of the outer southern line of postholes, and its fill was largely made up of carbonised chaff, suggesting that it may have been used as a refuse pit during the life of the building.

The latest pottery to be recovered from the postholes is dated to the mid-2nd to mid-3rd centuries, but the quantities are all small and much of this group was residual. A few nails were recovered from postholes in this structure, but this class of artefact was significantly less well represented in Building 2 than in Building 1. Other finds include small fragments of animal bone, pieces of wall plaster and mortar, worked flints, and millstone fragments.

Building 2 structural evidence: internal features
(Figs 13 and 14)

Like Building 1, Building 2 also contained an area of rammed chalk floor, 0374, up to 0.27m thick, which entirely covered a number of the Period III.2 postholes and extended as feature 0683 over the destruction layer of Building 1, 0599. The chalk floor covered a larger area than the earlier phase floor (12 by 7.5m), and extended up to half way over the fill of the Period III.3 postholes, apparently to butt up against the inner wall posts of the structure. This chalk floor had been badly damaged by ploughing (Plate II), so its full extent may not have survived, but it too incorporated evidence for internal features. A dark, fine charcoal-filled gully or slot, 0530, up to 1.2m wide and 0.2m deep, ran east-west for c.6m through the centre of the floor surface, away from a patch of burnt material, or possible hearth, 0563, *c.*1.5m in diameter and 0.1m deep. This gully, or possible flue, had at its edge at least one tile, 0600, which seemed to be *in situ*, and a piece of re-used millstone, 0526, which was burnt on its inside edge and therefore also appeared to be *in situ*. The flue 0530 ran into another slot, 0480, 0.6m

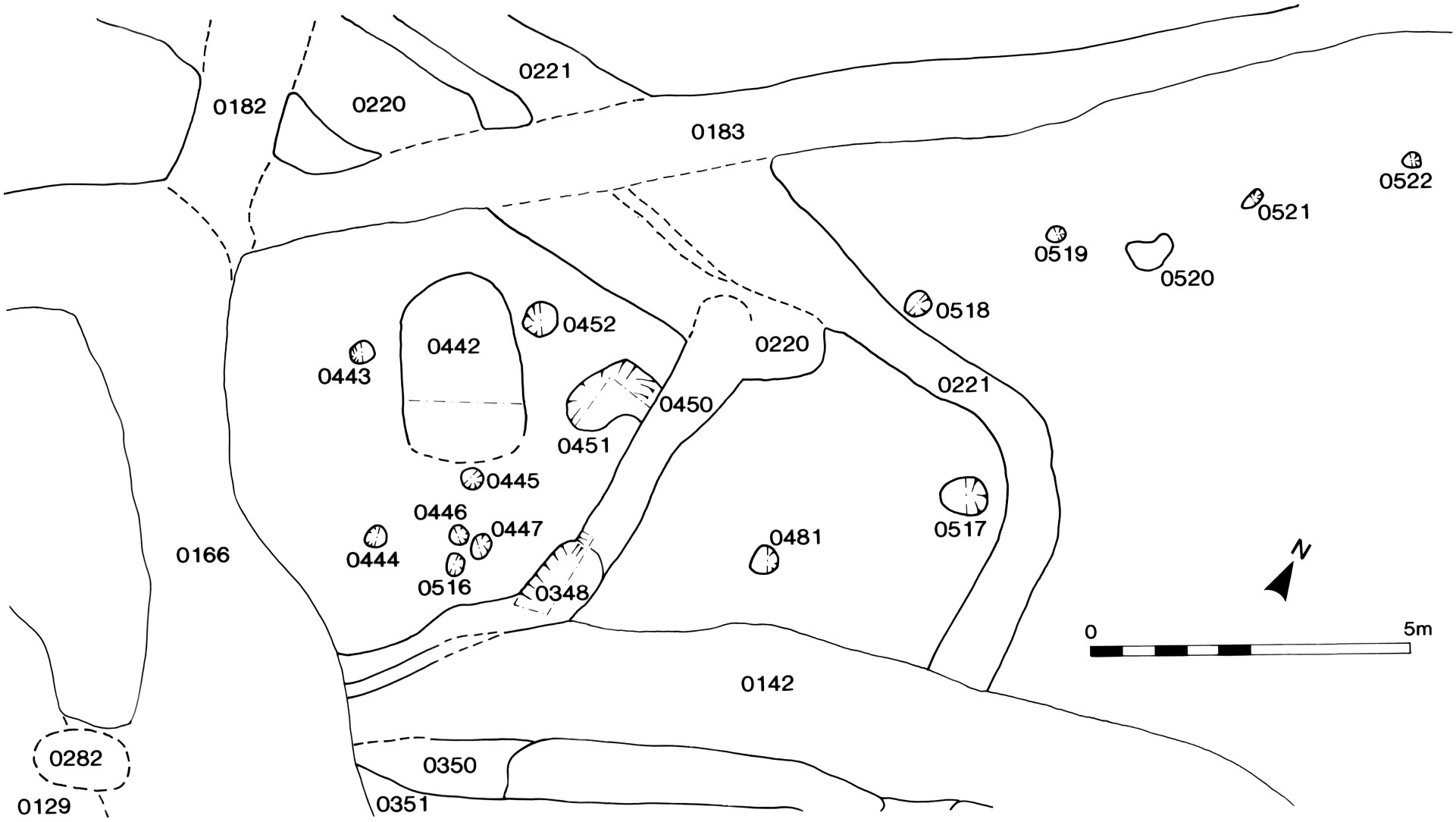

Figure 9 Detail plan of central area

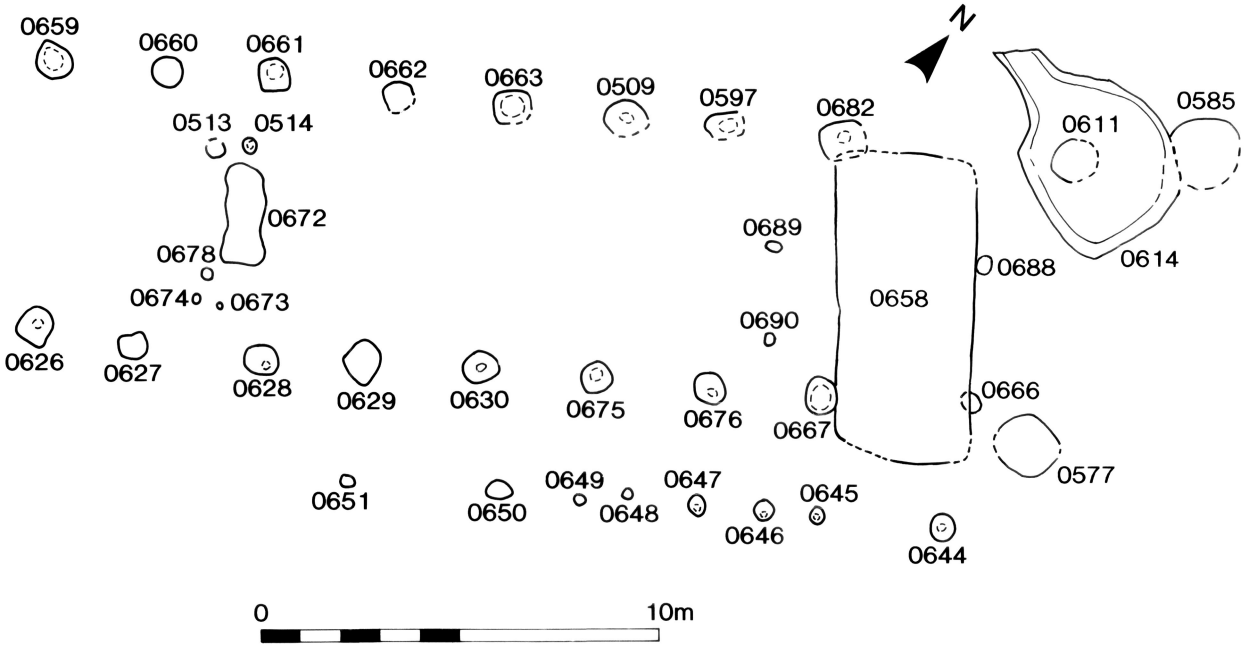

Figure 10 Building 1

wide and 0.10m deep, which skirted *c*.0.50m from the edge of the western half of the chalk floor, and together these features made up a T-shaped gully or flue. Finds from the floor and flue included pottery with a latest date of late 2nd to mid 3rd centuries, fragments of tile and millstone, small fragments of wall plaster, nails, and pieces of animal bone.

VI. Period IV: post-Roman use of the site
(Fig. 3)

Period IV related to post-Roman activity, in particular to a series of field boundary ditches dating to the 16th/17th centuries or later.

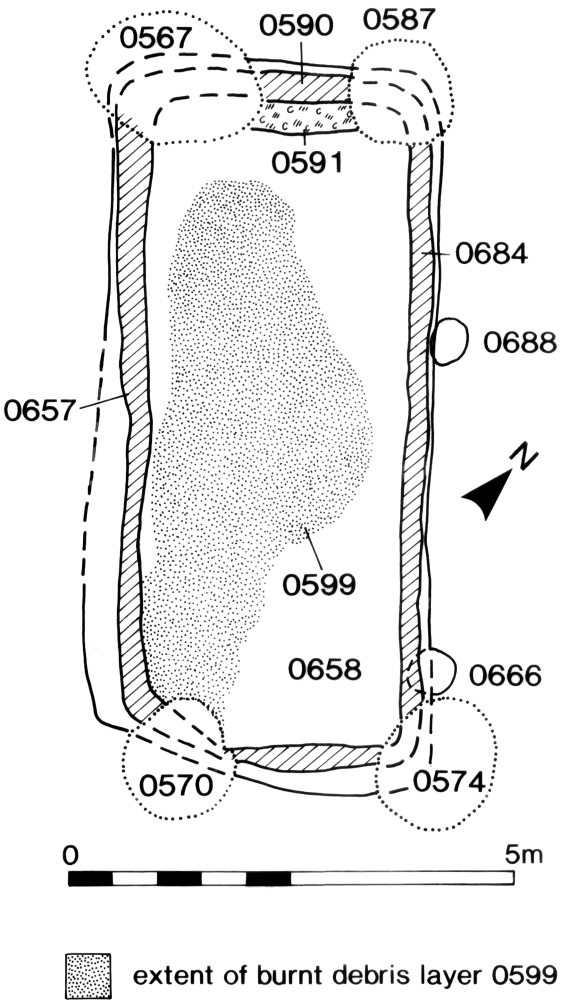

Figure 11 Building 1 internal features

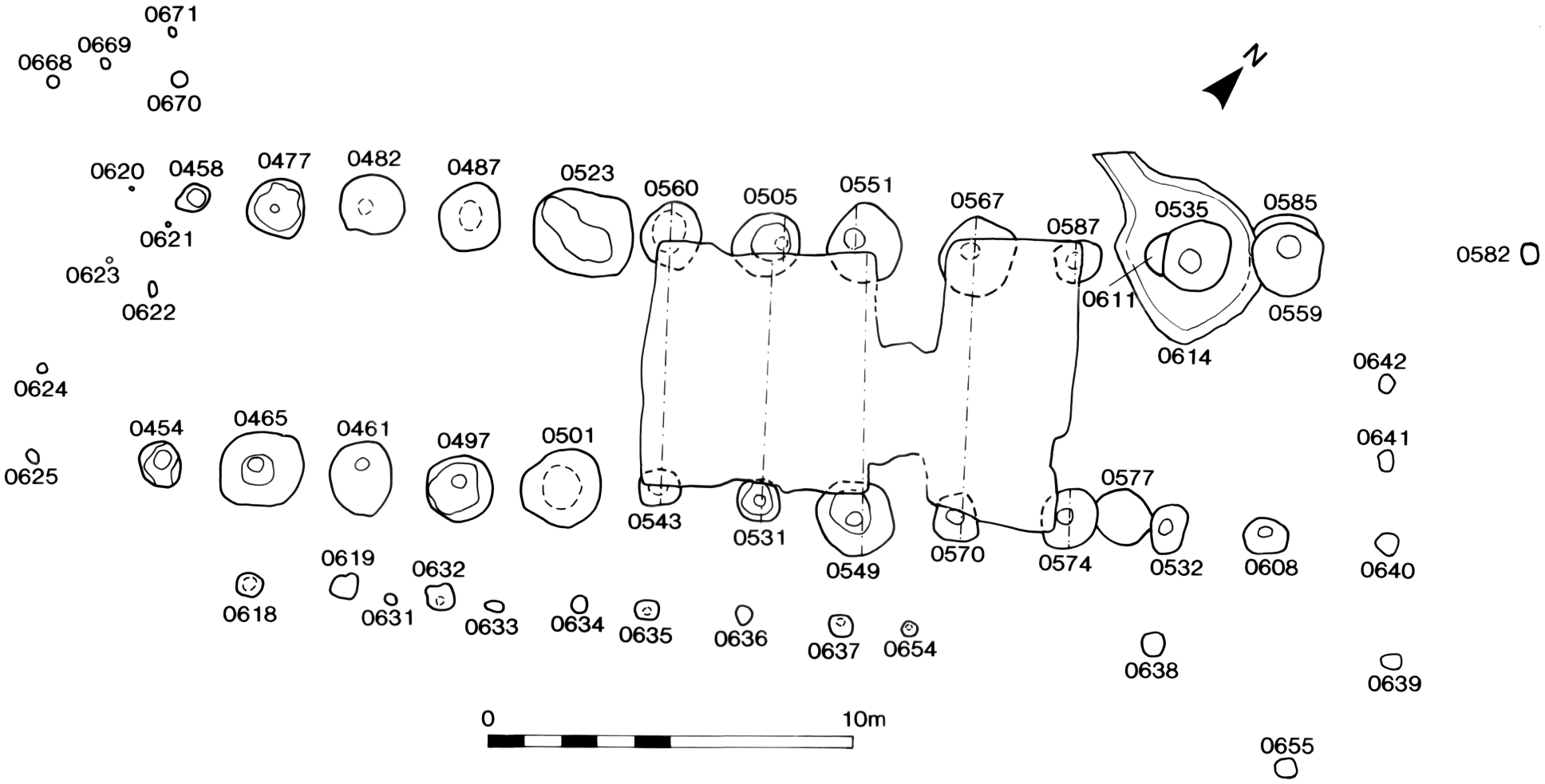

Figure 12 Building 2

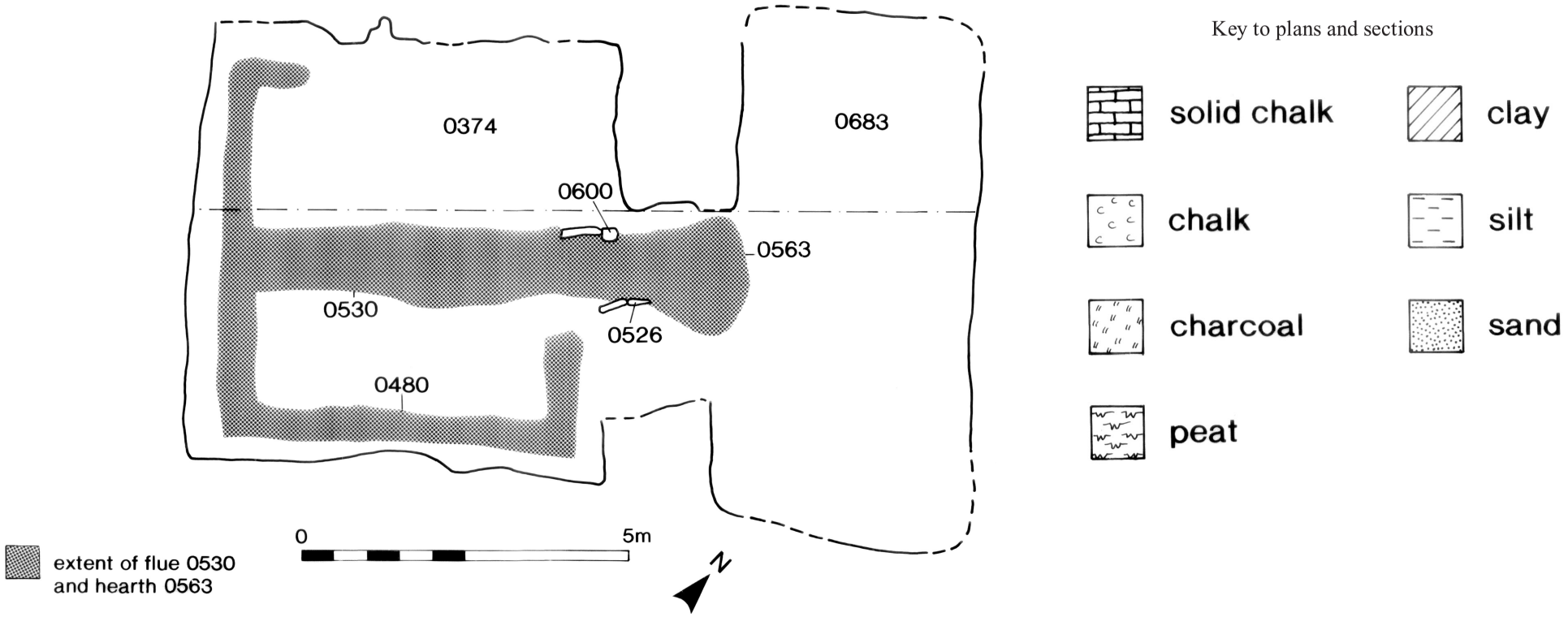

Figure 13 Building 2 internal features

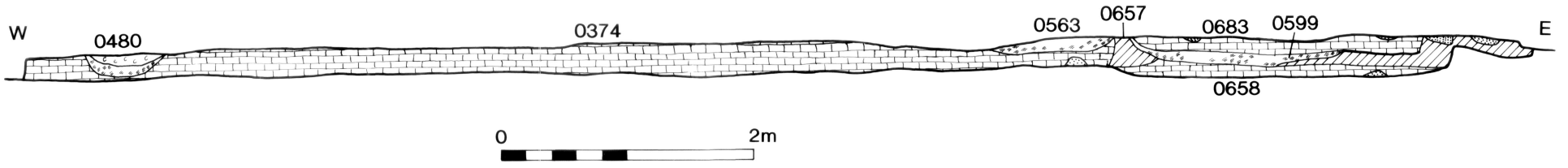

Figure 14 Building 2 floor section

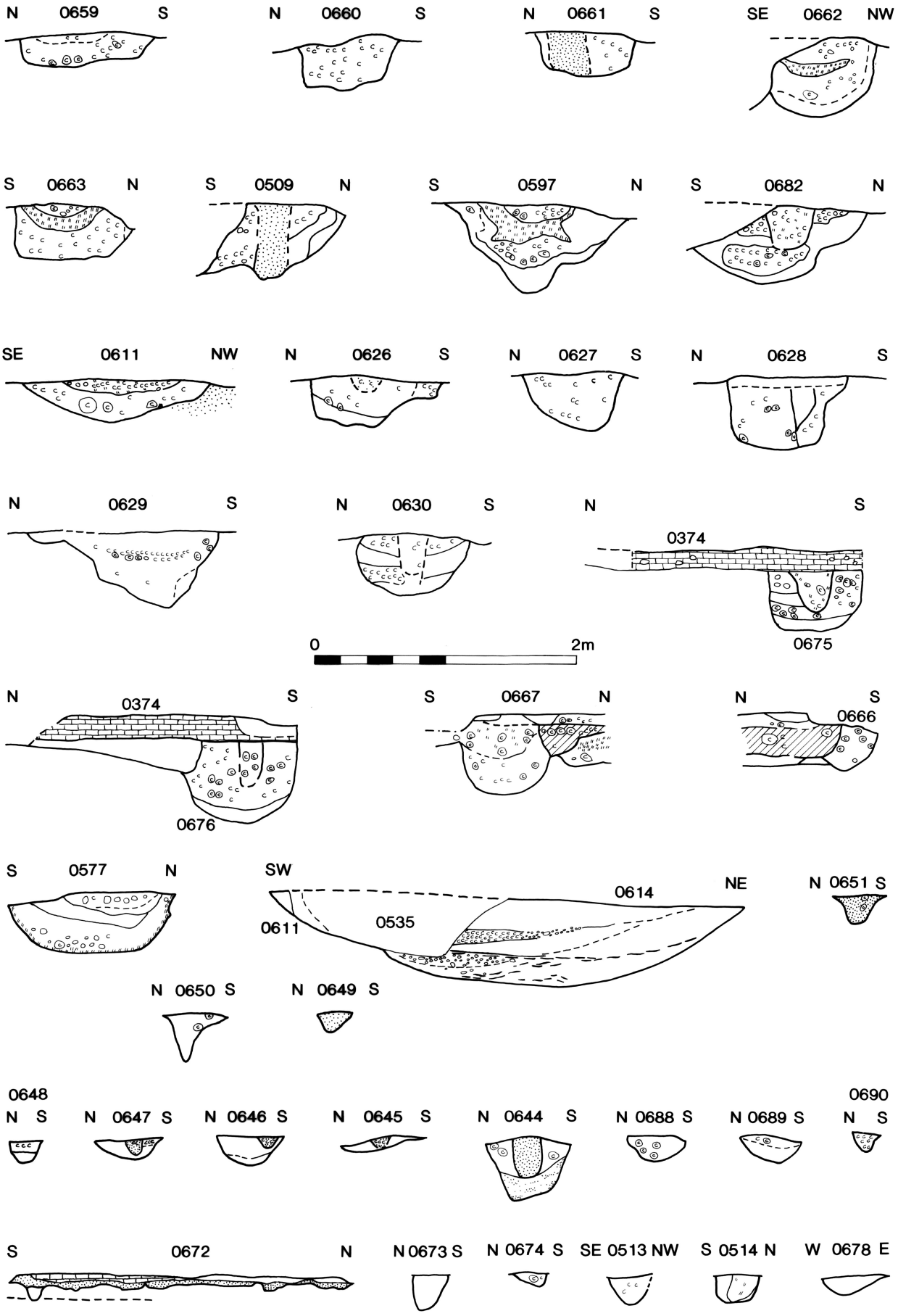

Figure 15 Building 1 posthole sections

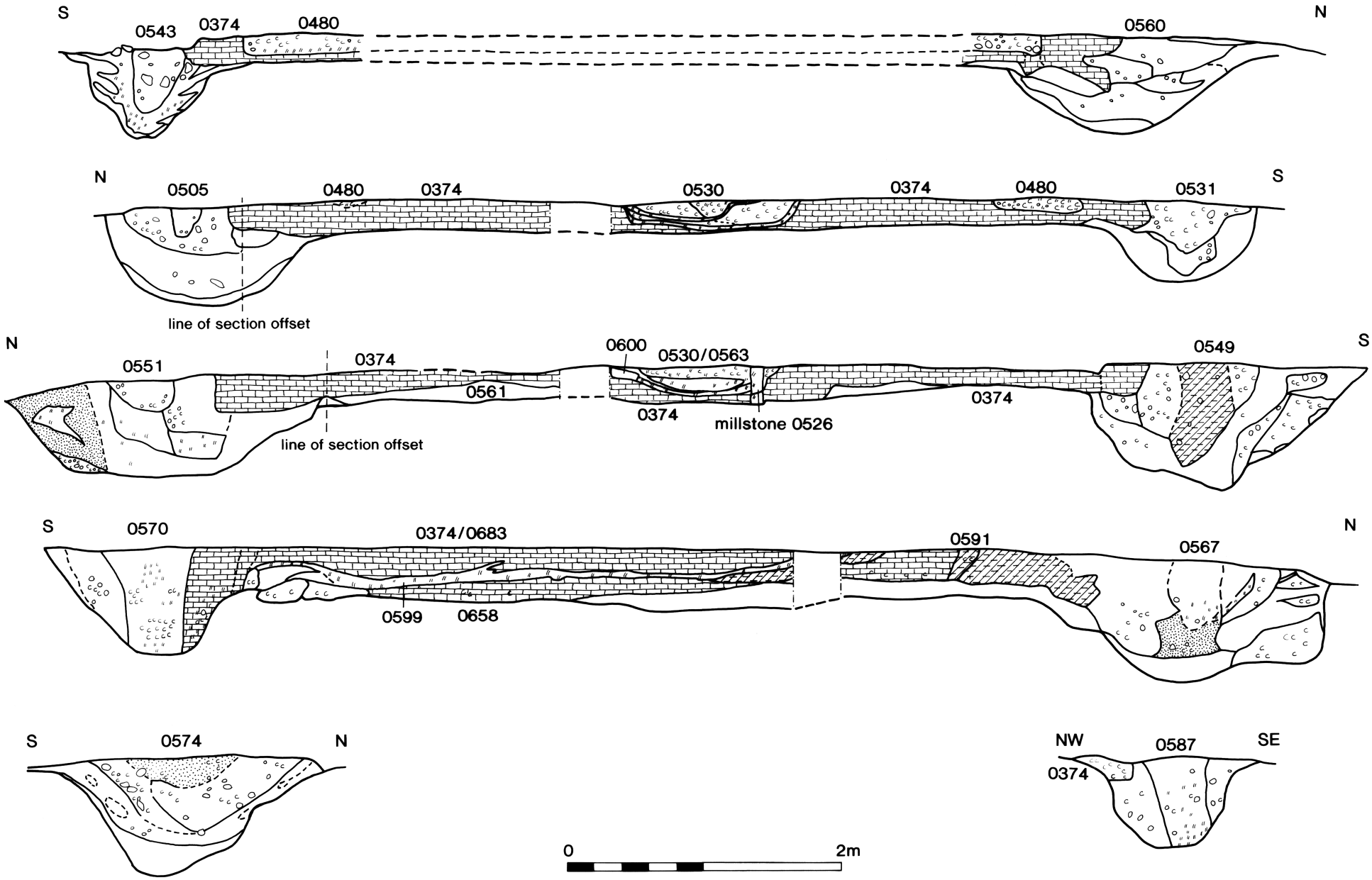

Figure 16 Building 2 posthole and floor sections

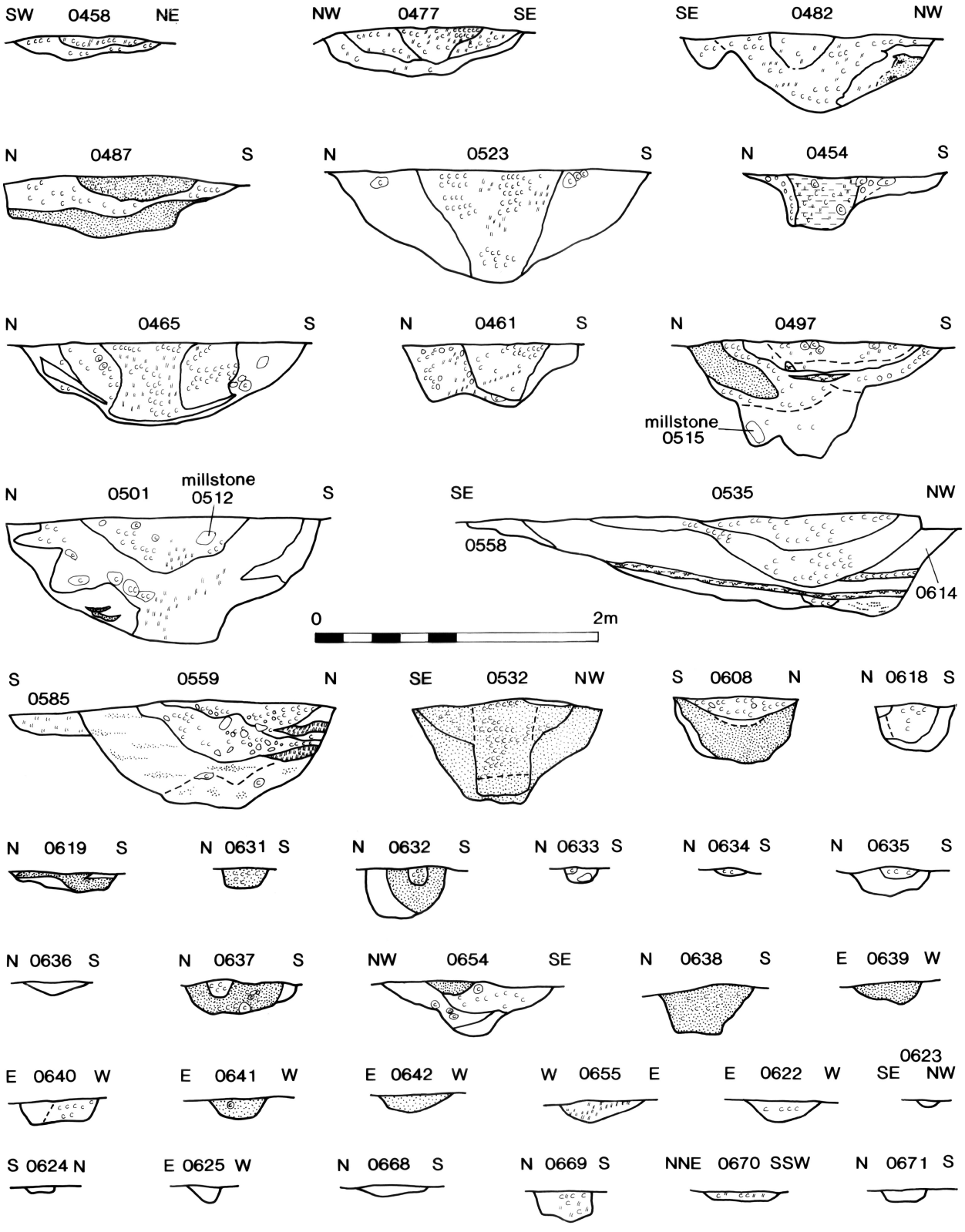

Figure 17 Building 2 posthole sections

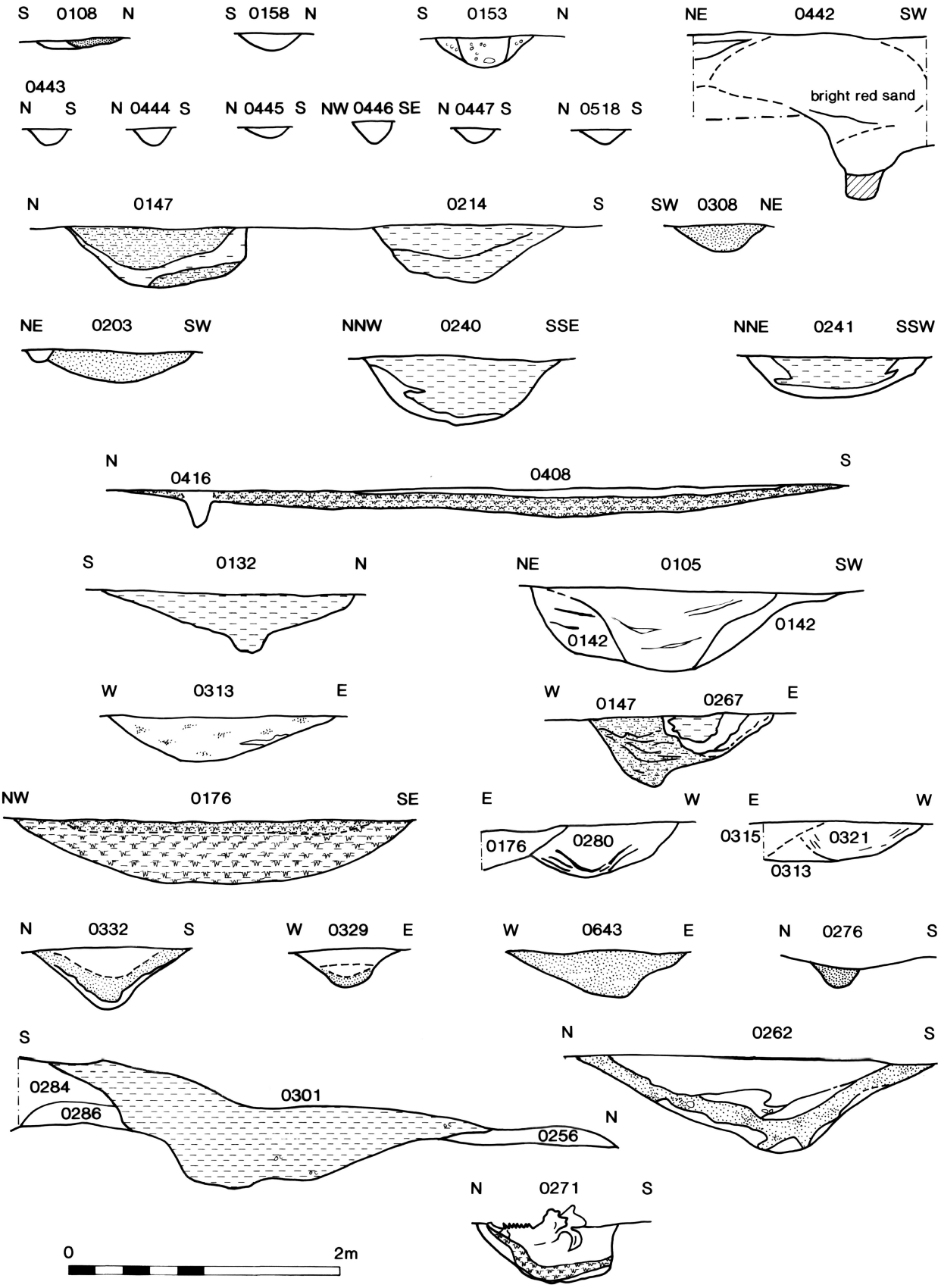

Figure 18 Ditch and pit sections

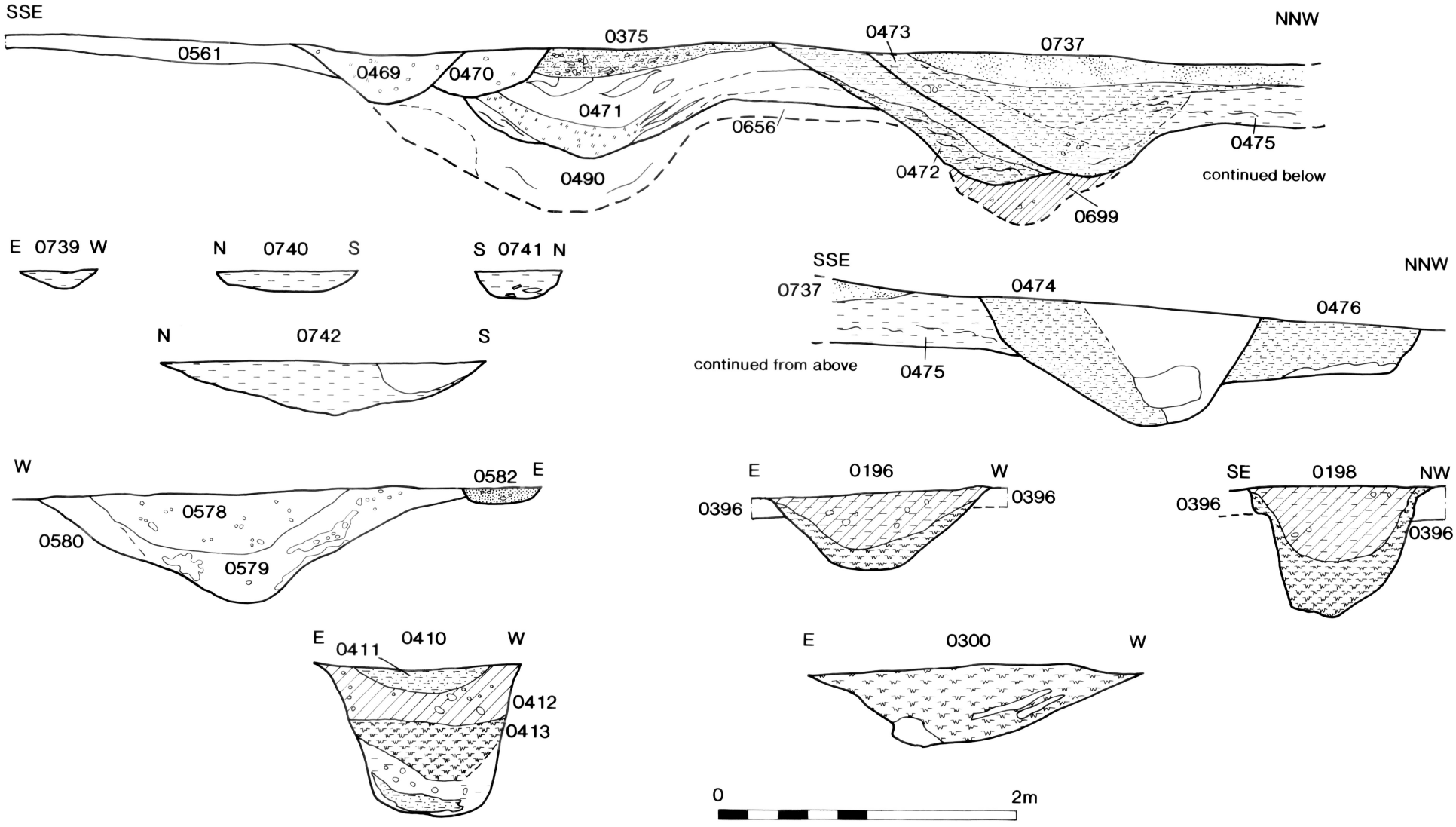

Figure 19 Ditch and pit sections

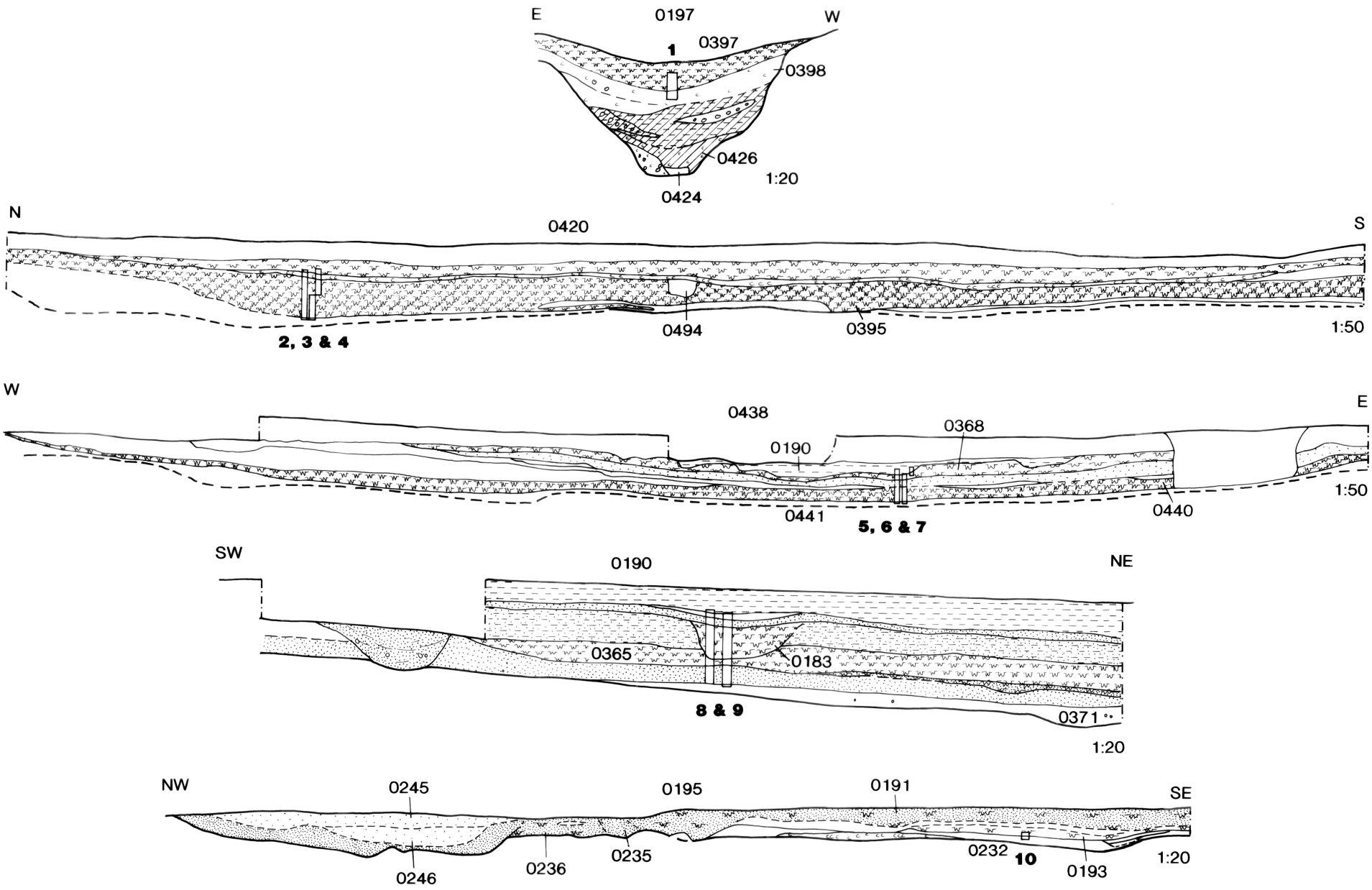

Figure 20 Monolith samples/peat hollow sections

Chapter 3. Specialist Reports

I. The small finds

by Nina Crummy, with Ralph Jackson, Judith Plouviez and Paul R. Sealey

This small assemblage covers a wide date-range from the late Iron Age to post-medieval, though the majority of pieces are Roman. The earliest copper-alloy items are a fragment of a Rosette brooch and a small peg or stud shank made from rolled sheet. Both are types that belong to the late Pre-Roman Iron Age, but may occur in very early Roman contexts. A bone knife handle and a copper-alloy hairpin are early Roman, the former probably pre-Flavian, though the part that might confirm this date is missing, and the latter belonging to the late 1st or 2nd century. A parallel for the hairpin from Colchester is so similar that the pair must have been made by the same hand. The type is widespread in the south-east, with other examples coming from Great Chesterford and Harlow. A bell from an unstratified context is a standard Roman form, with close parallels coming from Winchester and Carlisle. A fragment of a skimmer is of medieval date, and a two-piece cast fitting is probably post-medieval. A lead plaque is also probably post-medieval.

A small group of refrozen lead dribbles and some crumpled lead sheet suggest there may have been small scale lead-working in the area. This type of material occurs on most Roman sites and is generally indicative of building or plumbing work. It is possible that some of these fragments may be post-Roman in date.

There is a scatter of iron nails across the site, with many deriving from postholes as well as ditches (Table 1). All are of Manning's Type 1b, general purpose nails, rather than the large type used for fixing heavy pieces of timber together. One large shank may possibly be an awl. A few of these nails derive from Period II contexts, but they have no features to make them distinguishable from the Period III nails. The majority of Period III nails come from postholes, suggesting that they were in either excavated soil or topsoil used to backfill these features and therefore they predate the construction phases. A large group of nails comes from 0599, the 'destruction' layer between the two floor phases of the Roman building.

The remaining pieces of iron are small fragments, from objects that appear to be post-Roman in date. A large hooked object is of narrow round section at the hooked end, but rectangular in section at the other, and has a short right-angled return at this latter end. A small fragment of a rimmed piece of sheeting appears to be from an iron vessel.

Coins and jettons

by Judith Plouviez

(not illustrated)

The coin assemblage is remarkably small for a thoroughly metal-detected excavation of a Roman site. The Iron Age coin might suggest above-average status and activity during the late Iron Age, although Icenian coins were certainly in circulation up to 60 if not beyond. The Roman issues are unremarkable except for the complete absence of coins minted between 260 and 350; these make up over 55% of the normal British group and almost 70% of the average Roman rural site finds in Suffolk. Although the sample is too small I would suggest from the coins alone that activity on site during the 2nd or early 3rd century ceased during the second half of the 3rd century. There was then some new activity in the very late Roman period which resulted in the loss of the three Valentinian and Theodosian issues.

1. Silver Icenian Boar-Horse type, badly corroded. Obv. boar to right, detail lost. Rev. horse to right, loop with pellets below. Diameter 12.5mm. Weight 0.88 g. Allen (1970) Boar-Horse C type, dated to the early years of the 1st century AD. (SF 1005, 0100).

2. Copper-alloy *as* of Trajan, very corroded and worn especially on the rev. AD 98–117. Weight 10.06g. (0100 unstratified).

3. Copper-alloy *as* of Antoninus Pius, very worn. AD 138–161. Weight 10.36g. (0100 unstratified).

4. Copper-alloy *sestertius* of Marcus Aurelius, indistinct constitutional rev., very worn and corroded. AD 161–180. Weight 21.76 g. (SF 1013, 0100 spoil from building).

5. Copper-alloy *as*, very worn and corroded. 1st or early 2nd century. Weight 8.76g. (SF 1014, 0100 spoil from building).

6. Copper-alloy Ae 3, House of Valentinian, rev. Gloria Romanorum type as LRBC II (Carson *et al*. 1978), 479, very worn. AD 364–378. Weight 2.04g. (SF 1001, 0100 unstratified).

7. Copper-alloy Ae 3, Gratian, rev. Gloria Novi Saeculi type, as LRBC II (Carson *et al*. 1978), 503, corroded. AD 367–375. Weight 2.31g. (0100 unstratified).

8. Copper-alloy Ae 4, House of Theodosius, rev. Salus Reipublicae type as LRBC II (Carson *et al*. 1978), 796. AD 388–402. Weight 1.1g. (0100 unstratified).

9. Ae. Edward VIII penny, 1907. (0100 unstratified).

10. Ae. Jetton. 29.3mm diam., obv. shield of three lys, fake legend?, rev. cross of three strands fleur de lisee, with quatrefoil in centre in a tressure of four arcs, sexfoils in between pellets in the spandrels. French official jetton. L.15th-16th century. (SF 1015, peat hollow 0195).

11. Ae. Jetton. Very worn, *c.*19.3mm diam. Obv. shield with arms and inscription, rev. cross patent with central lys? and inscription. (SF 1003, surface finds 0718).

Dress accessories

(Fig. 21)

12. The upper part of a copper-alloy Rosette brooch, with all the elements of the rosette cast in one (Hawkes and Hull 1947, Type XC). Length 44mm. The pin is missing and the spring and spring-cover damaged. The front of the spring-cover bears a frame formed by three transverse grooves giving two mouldings, with at least two incised lines running down each side. Within this the spring-cover is decorated with a pattern of very fine incised lines radiating out from the rounded head. An iron axial bar remains fixed in the spring. The short curved bow is reeded, as was all that remains of the foot. The open-work plate of the rosette is missing apart from a few scraps of metal. The lunette at the base of the bow is decorated with long raised triangles. On the reverse the upper edge of the back of the rosette rises towards the spring-cover, terminating in straight edge parallel to it. Only a fragment of the upper part of the catchplate survives. Rosettes are a pre-conquest form imported from the continent, with a wide distribution in south-east Britain. They date to the first half of the 1st century AD, with the end-date suggested by Mackreth varying from c.40 (1994, 292), to *c.*45/50 (1995, 974). It seems likely that the trade in these brooches, and in Langton Downs, may have been disrupted by the conquest of 43 AD, any found after that date being survivors in use. None are likely to be found in primary contexts much later than *c.*50 AD. (SF 1006, 0100 unstratified spoil).

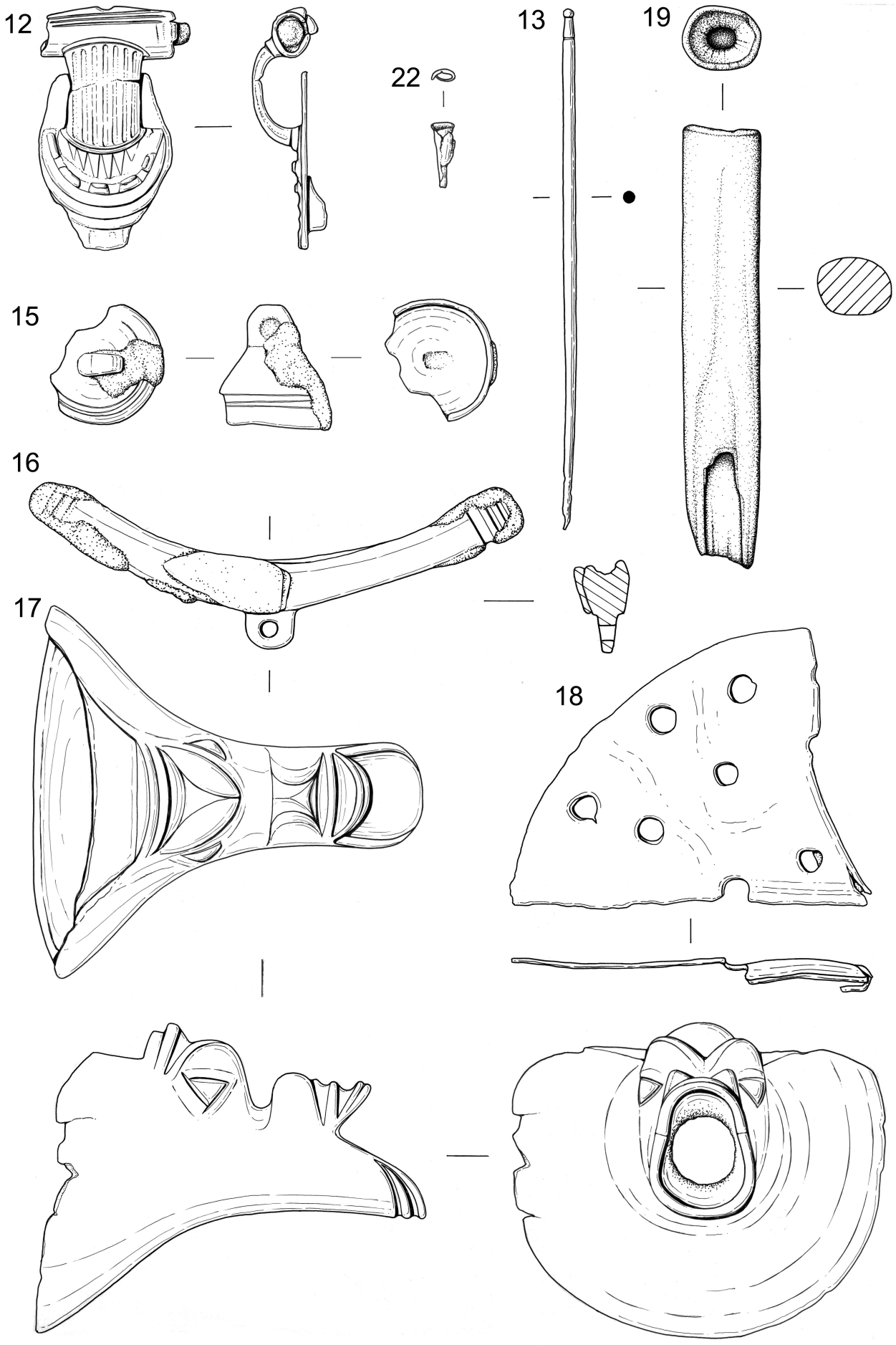

Figure 21 Small finds (1:1)

13. Complete copper-alloy hairpin with a small head consisting of a knob above a short baluster and a groove. The tip is very worn. Length 96mm. This belongs to Cool's Group 3, subtype A, where the decoration is cut into the shank. The sub-type dates to the second half of the 1st century AD into the 2nd. An identical pin was found at Colchester, in late Roman cultivated soil containing much residual 1st- and 2nd- century material (Crummy 1983, fig. 31, 508). The two pins are exactly alike and must have been made by the same hand. Other examples come from the temple at Harlow (France and Gobel 1985, fig. 42, 22–4), and the temple precinct at Great Chesterford (Miller 1996, fig. 20, 127–30). (SF 1019, 0473 subsidence into, or upper fill, of ditch 0472, Period III.3).

14. Burnt fragment of a bone pin/needle shaft, in two pieces. Length 19mm. Probably Roman. SF 1018 (0408 unstratified). Not illustrated.

Religious object

(Fig. 21)

It was believed in the Roman world that noise would drive away evil, and bells were used to this end on *tintinnabuli* in domestic houses (Johns 1982, pls 13–14, figs 52, 54). They also occur at temple sites, where they were used as votive offerings and perhaps also as priestly equipment (Pommeret 2001, 366–9). Bells were sometimes included in children's graves as protective devices, and many have been found set into the mortar of children's tombs in the Roman catacombs (Crummy 1983, fig. 41, 1610/1808; Biddle 1967, fig. 9, 23; Feugère 2002; Nuzzo 2000, 252–3).

15. Fragment of a copper-alloy bell with integral suspension loop. Height 22mm, diameter at base 25.5mm. The clapper is missing. Two incised lines run around the bell, the ends of the lower one overlapping. There is a close parallel from Carlisle, seemingly of precisely the same size but lacking any incised lines (Caruana 1990, fig. 110, 55), and another, with a pair of incised lines high on the shoulder, from a rich Flavian grave at Winchester (Biddle 1967, fig. 9, 23). (SF 1004, 0100 unstratified).

Toilet instruments: the cosmetic grinder (mortar)

by Ralph Jackson

(Fig. 21)

Cosmetic grinders are a distinctively British type (for full discussion see Jackson 1985; 1993, and forthcoming), and their distribution — some 600 are now known — is almost entirely restricted to Britain (for an exception see Jackson and Thuillier 1999). In date, they range from the 1st century BC to the 5th century AD, though the majority appears to belong to the period 2nd to 3rd century AD. They comprise two components, a grooved mortar and a solid rod-like pestle, which are almost invariably provided with a suspension loop, positioned either centrally or at one end. Although most are found as individual components some twenty complete sets have been recorded. Conclusive proof is still lacking, but there is strong circumstantial evidence that these little bronze kits were used for the preparation and application of colouring to the face. There is great variety in size, form and decor, and the larger (mortar) component is often elaborated, especially at the terminals, which may take the form of zoomorphic or ornithomorphic heads, though, as on the present example, moulded knobs are more common. The unequal size of the terminals may have had significance, for it is a recurring trait on a number of mortars.

16. The centre-looped copper-alloy mortar component of a two-piece cosmetic set. The long, slender elliptical bow has a flat keel, low, plain carinated walls and knobbed terminals with neatly-cut mouldings. The smooth, dark brown, slightly tin-enriched surface is extensively overlain with sand-encrusted corrosion products, but where they are absent, notably on the keel, the original fine file-finishing marks are visible. Viewed from above the narrow, relatively shallow, groove the bow tapers from one end to the other, a size differential also reflected in the terminal knobs. The loop is a small D-shaped plate with a tiny, unworn, circular eye. (SF 1016, 0100 unstratified).

Household objects: strainer bowl spout

by Paul. R. Sealey

(Fig. 21)

The Beck Row spout is explained by the pottery and bronze spouted strainer bowls found in south-eastern England from the late 1st century BC (Sealey 1999, 121–2). Pottery versions lasted until the 2nd century AD, but the more elaborate bronze vessels did not survive the Claudio-Neronian period. Nothing survived of the bowl itself or the perforated plate that would have been positioned behind the spout. Beck Row did produce a perforated bronze item, identified as a medieval skimmer (see No. 18). The writer examined the piece with Nina Crummy: we both agreed that its typology was inconsistent with what is known of perforated panels from strainer bowls, and that it was not a fragment of an earlier vessel. The curvature to the rear upper edge of the spout suggests the bowl from which the Beck Row spout has become detached had a diameter of some 200–250mm. It is also apparent from the inner edges of the spout that the profile of its bowl was rounded, unlike the emphatically carinated form of some other strainer bowls. Just such a carinated strainer bowl was found 13km north-east of Beck Row in the Brandon, Suffolk, hoard (Grew 1980, 376; Sealey 1997, 50).

Bronze spouted strainer bowls of late Iron Age and early Roman date have traditionally been thought of as wine strainers (Megaw 1963, 35; 1970, 162). The difficulty with this view is that there are no silver or bronze prototypes from the Roman world that can be cited as the starting point for the series found in Britain. Indeed metal strainer bowls played no significant part in Italian wine services. Moreover there is little direct association of insular strainer bowl and wine amphora in Britain. This is particularly so of strainer bowls like Beck Row that have been found in Icenian country, where wine amphoras are rare or absent altogether in both the late Iron Age and early Roman periods. There were no wine amphoras in context with the Beck Row spout. It is more likely that these vessels catered for a local drink, and that the role of the spouted strainer was to remove vegetable additives when the drink was served (Sealey 1999, 119–24). The best candidate is the so-called Celtic beer attested in texts such as the Vindolanda Tablets, and known in antiquity as *cervesia* (Bowman and Thomas 1983, 91 no.12). Technically the drink was ale because beer was only introduced in the Middle Ages with the advent of hops (Mabey 1996, 64). Study of the residues in a bronze spouted strainer bowl from a *c.*AD 50 grave at Stanway, Essex, by P.E.J. Wiltshire indicated the presence of wormwood, a plant native to Britain and used in historical times to flavour ale and other drinks (P. Crummy, pers. comm.). It also had medicinal uses and that might explain the Stanway strainer, where the associations included a set of surgical instruments (Crummy 1997, 5–7; Jackson 1997).

Associated pottery suggests a late 1st- to early 2nd-century AD date for the context that produced the Beck Row spout, ditch feature 0300. The only directly comparable piece that can be closely dated is the bronze

spouted strainer bowl with fish spout from Felmersham-on-Ouse, Bedfordshire (Watson 1949, pl. 5a–b, 41–2; Kennett 1970; Megaw 1970, 162 no. 276; Jope 2000, 118, 266, pl. 167 e–f). The stamped platters at Felmersham are Claudian and related to products of the nearby kilns at Rushden, Northamptonshire (Rigby 1984). Thompson (1982, 700–1) suggests the other vessels from Felmersham belong to the fifties AD. Another fish spout from near Ingoldisthorpe village (but in Snettisham parish), Norfolk (in Kings Lynn Museum, unpublished, Norfolk SMR 34531) is unstratified and can contribute nothing to the dating of such spouts. Although the chronology of the Beck Row and Felmersham spouts points towards an early Roman date, there is nothing in Roman provincial art like these and the other zoomorphic spouts from Britain (Megaw 1978). The Beck Row, Felmersham and Ingoldisthorpe spouts should be seen as native products created in the decades before the Roman invasion or in the conquest period itself. On this view, the Beck Row spout should be seen as residual from Iron Age or pre-Flavian activity on the site.

As we saw above, the only parallels for the Beck Row spout are the fish head spouts from Felmersham and Ingoldisthorpe. Animals only feature in Iron Age art in Britain from towards the end of the period, from perhaps the 2nd century BC (Stead 1996, 56; Jope 2000, 105). Until the discoveries at Ingoldisthorpe and Beck Row, Felmersham was the only three-dimensional rendering of a fish (Fox 1958, 80).

The Ingoldisthorpe and Felmersham spouts are very similar, and the fish is clearly the same. Watson (1949, 50 n.2) suggested the carp or tench for Felmersham but a better case can be made for the common bream, *Abramis brama* (L.). The diagnostic features are the gaping, fully opened mouth with the large upper lip rising at a greater angle than the perpendicular from a shorter protruding lower jaw. Both spouts have the chunky appearance of an old male fish. The bream is a common freshwater fish in stagnant, still or slow moving waters with muddy or clayey bottoms such as one finds in Norfolk and Bedfordshire; waters answering to that description are to be found at Mildenhall as well. The modelling of the Beck Row spout is at several removes from Felmersham and Ingoldisthorpe: the mouth opens at rather less than a right angle, around the lips there are corrugations, the lower jaw is extended and there is a deep furrow between eyes and mouth. Altogether these give Beck Row a fantastical and startling aspect quite different from the more painstakingly representational spouts of Felmersham and Ingoldisthorpe. Although the bream may have been the ultimate inspiration for Beck Row, the imaginative handling of the subject precludes allocation to a specific species.

Watson argued that the Felmersham discovery had a scrap metal and settlement component, and that it came from the 'floor of a dwelling or workshop'. Jope (2000, 108) too saw Felmersham as an *atelier*. So was this the source of the fish spouts considered here? Watson (1949, 37) reported that the Felmersham finds came from a 'cavity' in the ground at least 60cm deep. But even in 1949 the notion of Iron Age pit dwellings was looking antiquated (Cunliffe 1992, 69–70). Moreover the damage to some of the bronzes that inclined Watson to see the material as scrap is in fact modern (Kennett 1970, 87). Understandably it is now felt that a funerary assemblage better explains this chance discovery (Megaw 1970, 162; 1971, 299; Thompson 1982, 700), and so the precise whereabouts of the workshop behind these curiosities of ancient art remains unlocated. But the Beck Row, Ingoldisthorpe and Felmersham spouts were found around the southern and eastern edges of the Fens, and it is on the Fen margins that we should seek the pre-Roman school of bronze working that created these specialised vessels with their engaging fish spouts.

Although it was found in a late 1st-or early 2nd-century AD ditch, comparanda show the Beck Row spout is workmanship of late Iron Age date or type that was residual in its context. It came from a strainer bowl used to flavour Celtic beer with vegetable additives. Its animal form is related to fish spouts from Felmersham and Ingoldisthorpe. No other such fish spouts are known from Britain and so the likelihood must be that these three examples were created in a workshop that lay on the eastern or southern edges of the Fens. The rarity of fish in pre-Roman art lends the Beck Row piece more than ordinary interest and the exuberance of its casting makes it a significant minor addition to the corpus of Iron Age art from Britain.

17. Strainer bowl spout. The spout is a copper-alloy casting 71mm long, 61mm high and 67mm wide. It weighs 125.4g. A narrow flat ledge marks the point of departure of the spout from the (missing) bowl. In section the spout is sub-circular. Down the spout from the rear ledge, two moulded arcs rise upwards. A pair of prominent brow ridges runs forwards, joining where the spout plunges down into a furrow before rising towards the upper lip. Underneath the eye brows, each eye is shown as a triangular feature with grooves to indicate the junction of the lids. Prominent ridges along and behind the upper lip are flanked by two rounded protuberances. This short upper lip meets the longer lower lip at rather less than a right angle. On the underside of the lower mouth there are two grooves behind the lip, separated by a rib. SF 1007 (0300 ditch, Period III, Period III.3).

Household objects: other

(Fig. 21)

18. Fragment of a copper-alloy skimmer. Surviving dimensions 67 by 51mm. The large size of the holes, as well as their widespread placing, identifies this as medieval. Similar skimmers come from London and Colchester (Egan 1998, figs 125–6; Crummy 1988, fig. 41, 1956). SF 1026 (0473 subsidence into, or upper fill, of ditch 0472, Period III, Period III.3).

19. Fragment of a one-piece bone handle, tapering at one end. Length 79mm, maximum diameter 14mm, width at tapered end 13mm. The tapered end suggests the handle may belong to a group of handles which are waisted at the upper end. While the blade end of the majority of these knife handles is pinched, on this example it is plain, as is that of small handles from Colchester and Mainz (Crummy 1992, fig. 5.36, 1323; Mikler 1997, Taf 47, 5). The series dates in Britain to the Claudio-Neronian period (Greep 1983; Crummy 1983, 107–9; Crummy 1992, 177). SF 1027 (0166 ditch fill, Period III, Period III.3).

20. Small chip of thin self-coloured glass. Form unknown. SF 1021 (0553 post-pipe of posthole 0551, Period III, Period III.3). Not illustrated.

21. Small chip of clear glass. Probably from an open or globular closed vessel. SF 1012 (0282 fill of ditch 0166, Period III, Period III.3). Not illustrated.

Miscellaneous fittings

(Fig. 21)

22. Small copper-alloy peg made by rolling up a piece of sheet metal. Length 12mm. Similar pegs were used to attach copper-alloy decorative sheeting and bosses to a tray or trays in the healer's grave at Stanway, Colchester, dated c.AD 43/4 to 50, suggesting that the technique is native British and belongs to the late Iron Age (Crummy, in prep). (SF 1023, 0577 posthole, Period III.2).

Period	*Context*	*Description*	*No of pieces*	*Description*	*Manning type*	*Lengths of complete nails (mm)*	*Notes*
II	0299	ditch fill	1	?nail	1b		
II	0429	ditch fill	1	nail	1b	65	
III.1	0124	ditch/gully fill	3	2 nails, 1 fragment	1b		
III.1	0228	ditch fill	1	nail	1b	39	
III.2	0172	ditch fill	1	nail	1b	45	
III.2	0276	ditch/gully	1	?nail	1b		
III.2	0375	ditch fill/ destruction debris	7	nails	1b	52	also includes fossil
III.2	0471	ditch fill	4	nails	1b		
III.2	0514	posthole	1	nail	1b	51	
III.2	0557	layer	1	nail	1b	98	
III.2	0577	posthole	2	1 nail, 1 fragment	1b		SF 1023
III.2	0591	cut/gully	2	nails	1b		
III.2	0597	posthole	3	nails	1b		
III.2	0599	layer	60	52 nails, 8 fragments	1b	52, 57, 71	
III.2	0612	?posthole	6	nails	1b	57, 45	
III.2	0613	posthole	3	nails	1b		
III.2	0658	?floor	2	1 nail, 1 fragment	1b		
III.2	0661	posthole	4	nails	1b		
III.2	0662	posthole	5	4 nails, 1 fragment	1b	85 (clenched);	
III.3	0164	posthole	3	nails	1b	46	
III.3	0191	peat hollow	1	nail	1b		
III.3	0282	ditch fill	21	nails	1b	75, 30	
III.3	0282	ditch fill	2	1?nail, 1 fragment,	1b		
III.3	0298	ditch fill	2	nails	1b		
III.3	0376	postpipe	5	nails	1b	64 (clenched)	
III.3	0468	postpipe	1	nail	1b		
III.3	0469	ditch fill	1	nail	1b	28	
III.3	0473	ditch fill	3	2 nails, 1 large nail fragment or awl	1b		
III.3	0480	gully/slot	1	nail	1b		
III.3	0484	posthole	1	nail	1b		long (105 mm), but head missing
III.3	0504	postpipe	9	6 nails, 3 fragments	1b		
III.3	0530	layer in gully/flue	10	nails	1b	82	
III.3	0535	posthole	1	nail	1b		
III.3	0552	posthole	2	nails	1b		
III.3	0553	postpipe	3	nails	1b	57, 60	
III.3	0563	layer, in ?flue	2	nails	1b		
III.3	0566	posthole	1	nail	1b		
III.3	0578	ditch fill	1	nail	1b		
III.3	0579	ditch fill	2	nails	1b		
III.3	0601	postpipe	1	nail	1b		
III.3	0637	posthole	2	nails	1b		
III.3	0686	ditch fill	1	nail	1b		

Table 1 Nail catalogue

23. Copper-alloy ring of irregular section, varying from sub-square to sub-circular. External diameter 29mm, thickness 3.5 to 4mm, height 3.5 to 4 mm. The varying section is to some extent the result of wear. This is probably from a halter or head-collar, or some other piece of harness, and cannot be closely dated as similar rings occur in all periods. SF 1017 (0473 subsidence into, or upper fill, of ditch 0472, Period III, Period III.3). Not illustrated.

24. Two-piece conical copper-alloy fitting. Diameter 28mm, height 17mm. The hollow lower piece has mouldings at top and bottom, and is fitted with a large 'stud' in a central perforation on the upper face. This is also moulded. The top is missing, and may have been of some length. Probably post-medieval. (0100 unstratified). Not illustrated.

Metalworking waste

(not illustrated)

25. Lead dribble. Weight 12g. (0231surface cleaning from ditches 0293 and 0142, Period III, Period III.1).

26. Lead dribble. Weight 12g. (0124 ditch fill, Period III.2).

27. Probably a lead droplet, now very corroded, which has fallen onto and partly enclosed a better-preserved flat oval lead object. The latter appears to have a design on the exposed surface. Maximum dimensions 21 by 13 by 9.5mm. Weight 6g. (0374 floor surface in Building 2, Period III.3).

28. Large fragment of folded and crumpled lead sheet, the edges much abraded. Maximum dimensions 80 by 55 by 34mm. Weight 240g. (SF 1020, 0473 subsidence into, or upper fill, of ditch 0472, Period III.3).

Unidentified

(not illustrated)

29. Rimmed iron sherd, probably from a vessel or pipe. Height 20mm. Post-Roman. (0182 ditch fill, Period III.1).

30. Copper-alloy sheet fragment. 19 by 21mm, 1mm thick. (0250 fill of pit 0180, Period III.1).

31. Small amorphous iron fragment. (0129/0142 ditch fill, Period III.1 or 2).

32. Iron strip, slightly curved on the long axis. Length 78mm, width 12mm. Also a small amorphous iron fragment. (0240 pit fill, Period III.2).

33. Large strip, round in section at one end, where it is bent into a hook, rectangular in section at the other, where there is a short right-angled return. Length 152mm. Probably post-Roman. (0282 fill of ditch 0166, Period III.3).

34. Probably two iron nail shanks corroded together, but possibly part of an object. Length 94mm. At the upper end the two objects lie side by side, rather than joining at a terminal, as would be the case with dividers (1985, pl. 6, A39), and are almost parallel and very close together for most of their length, ruling out identification as the handles of tongs or similar tools (ibid, pl. 2–4). (0494 ditch fill, Period III.2).

35. Small iron strip with right-angled return. Possibly a part of a structural fitting. Length 40mm. (0578 ditch fill, Period III.3).

Nails

(not illustrated)

Table 1 shows the iron nails by context. Nail shanks lacking any part of a head are here numbered among the nails. One large shank from (0472/3) may be an awl rather than a nail.

II. Pottery

by Cathy Tester with Alexis Willett

Introduction

Excavation produced a total of 1944 sherds of pottery weighing 25.979kg. The eve (estimated vessel equivalent) for the Late Iron Age and Roman assemblage based on 157 measurable rims is 21.68. The assemblage ranges in date from the Early Bronze Age to the post-medieval period but it is dominated by Late Iron Age/ Roman wares which account for 85% of its total. Table 2 summarises the total quantities of pottery identified in each ceramic period group. Full quantification can be found in the archive.

Methodology

All of the pottery was quantified by sherd count and weight and the Late Iron Age and Roman wares were also quantified by estimated vessel equivalent (eve).

Hand-made prehistoric wares were classified by their major fabric inclusions and catalogued using a pottery recording system recommended by the Prehistoric Ceramics Research Group (1997). A ×4 magnifying glass was used to identify the fabrics which were classified by their major inclusions and recorded using an alpha-numeric system of fabric codes which is site-specific. The letter prefix in the fabric codes represents the main inclusion. Identification of Beaker material was based on Clarke (1970). Table 3 provides a key to the fabric names and codes used. Details of rim and base forms, decoration or surface treatment and other diagnostic features were noted.

Wheel-made Late Iron Age and Roman wares were classified using the form and fabric type series devised for recording Roman pottery from Pakenham (unpublished) which is standard for Suffolk and it is supplemented by *Camulodunum* (Hawkes and Hull 1947), Going's type series for Chelmsford (1987) and Evans' notes on Horningsea pottery (1991). Wherever possible, 'sherd families' were given separate entries on the database table. Details of rim and base form, decoration and other diagnostic features were noted. A ×10 binocular microscope was used to identify the fabrics. Table 5 provides a key to the fabrics present and lists them by common name followed by the codes used in this report. SCCAS pottery recording forms were used and the results were input onto an Access 97 database table. All percentages are of weight unless otherwise stated.

Identification of late and post-medieval wares follows Jennings (1981).

Ceramic period	*No.*	*% No.*	*Wt./g*	*% Wt.*	*Ave. Wt./g*
EBA	18	0.9	304	1.2	16.8
BA/IA	63	3.2	717	2.8	11.3
IA	344	17.7	2402	9.2	6.98
LIA/Rom	1482	76.2	22003	84.7	14.8
PMed	37	1.9	553	2.1	14.9
Total	1944		25979		13.4

Table 2 Pottery by ceramic period group

Fabric code	*No*	*% No*	*Wt/g*	*%Wt*
G2	18	4.2	304	8.9
Total EBA	*18*	*4.2*	*304*	*8.9*
F3	30	7.0	446	13.0
G1	33	7.8	271	7.9
Total BA/IA	*63*	*14.8*	*717*	*20.9*
F1	137	32.2	951	27.8
F2	174	40.9	1214	35.5
QS1	22	5.2	139	4.1
QS2	11	2.6	98	2.9
Total IA	*344*	*80.9*	*2402*	*70.1*
Totals	425		3423	

Key: F - flint, G - grog and QS - quartz sand; EBA - Early Bronze Age; BA - Bronze Age; IA - Iron Age

Table 3 Prehistoric pottery quantities

Pattern of pottery deposition

Pottery was recovered from a total of 217 contexts in 108 feature groups and thirteen unstratified contexts. The pattern of pottery deposition is typical for rural sites with the majority of the pottery coming from the fills of cut features. The dominance of ditches (62%) is also typical, particularly as most of the pottery is Late Iron Age/Roman. Next, pits accounted for 11.4% of the total assemblage followed by layers (8.2%). The material recovered from the various layers has a higher than average sherd weight than that from features; its better preservation indicating a shorter deposition cycle. In contrast, the pottery from ditches has a lower average weight indicating a longer cycle of deposition probably due to a sequence of recutting. The structural elements of the two buildings (postholes, floors, slots) combined produced 6.7%. The peat hollows produced 7.2% of the pottery and a further 4.2% came from unstratified or surface collections. The condition of the pottery is good with an average sherd size of 13.4g but some of the sherds suffered from adverse post-depositional soil conditions, possibly water-logging, which altered the appearance of the fabric when viewed in section making them difficult to

Feature type	*No.*	*% No.*	*Wt./g*	*% Wt.*	*Ave. Wt./g*
Ditches	225	52.9	1273	37.2	9.3
Layers	29	6.8	444	13.0	15.3
Other	2	0.5	5	0.1	2.5
Peat hollows	51	12.0	577	16.9	11.3
Pits	100	23.5	872	25.5	8.7
Structural	13	3.1	224	6.5	17.2
Unstratified	6	1.4	33	1.0	5.5
Total prehistoric	425		3423		8.1

Table 4 Prehistoric pottery deposition pattern

identify. This data is summarised for prehistoric and Roman pottery in Tables 4 and 6.

Prehistoric pottery

A total of 425 sherds of prehistoric pottery, weighing 3.423kg and representing 13% of the total pottery assemblage, was recovered during the excavation. A summary of the quantification by fabric group is shown in Table 3 and the detailed list by context is available in archive.

Deposition pattern

Prehistoric pottery was recovered from 105 contexts in 68 features or feature groups. Table 4 shows a summary of the quantities by feature type.

The prehistoric pottery came from ditches (37.2%), layers (13%), peat hollows (16.9%), pits (25.5%), structural (6.5%) and other features. However, the majority of the sherds (62% by weight) were found in later-phased features. In all but twenty-nine contexts from eighteen features/groups consisting of nine ditches, six pits and a hollow or layer, the prehistoric pottery was residual or redeposited in later-phased groups. Even where found in features dated to Period II, more than half of the contexts contained only single sherds or small and abraded non-diagnostic bodysherds which could not be said to provide sufficient or reliable dating evidence.

Fabrics

Seven fabric types were identified on the basis of inclusions. They are summarised below with suggested dates which are by no means exclusive and detailed descriptions are in the archive. All fabrics are soft and hand-made.

Code	*Period*	*Description*
F1	IA(?)	Common calcined flint, abundant quartz sand, sparse grog and sparse, sub-angular organic material
F2	IA	Common medium calcined flint and abundant quartz sand
F3	BA/IA	Calcined flint-tempered ware with abundant quartz sand, sparse shell and organic inclusions
G1	BA/IA	Large grog, abundant quartz sand, common organic material and sparse calcined flint
G2	EBA	Common grog pieces, abundant quartz sand and very sparse calcined flint inclusions
QS1	IA	Abundant quartz sand and common organic inclusions
QS2	IA	Abundant quartz sand

Early Bronze Age wares

Beaker fabric G2 has been assigned to the Early Bronze Age. Its major inclusion is common grog with abundant quartz sand and very sparse burnt flint inclusions. Eighteen sherds, accounting for 8.9% of the weight and 4.2% of the total count of the prehistoric pottery assemblage, were identified and represent five decorated fineware vessels.

A substantial proportion of an S-profile, short-necked beaker with a cordoned rim, and a pinched-out base (Fig. 22.1) was recovered from layer 0274. It is decorated in a 'comb-zoned' style (Gibson and Woods 1997, 92) which consists of horizontal rows of comb-impressed rectangles and triangles in bands alternating with narrower undecorated zones. A large base fragment from another fineware beaker, also zone-decorated with bands of incised lines alternating with plain zones was found in pit 0699 (Fig. 22.2). Also found in layer 0274 was a fragment from another beaker (Fig. 22.3) slightly coarser, but still classed as 'fineware' because of the style of decoration which consists of incised horizontal lines and a latticed band. These vessels are similar to beaker material found at other Fen Edge sites near Mildenhall and Lakenheath.

Bronze Age/Iron Age wares

Two fabric groups, one grog-tempered (G1) and one flint-tempered (F3), have been broadly classed as either Bronze Age or Iron Age because the fabrics' characteristics are not exclusive to either period and the division between them is not clear-cut but is represented more by a 'continuum'.

Fabric G1 accounts for 7.8% of the total prehistoric weight and count. Its major inclusions are large grog pieces, abundant quartz sand, common organic material and sparse burnt flint. Forms identified include a Bronze Age 'bucket urn' (Fig. 22.4) from ditch 0308 (fill 0346) and a fragment of a Bronze Age rusticated beaker found in pit 0408. A flat-topped rim fragment was found in layer 0347. Other non-diagnostic plain sherds from at least four other vessels found in layer 0274 and pit 0408 are very typical of Bronze Age fabrics from around the Fens.

Fabric F3 which accounts for 13% of the weight and 7% of the total count of the prehistoric assemblage is burnt flint-tempered with abundant quartz sand, sparse shell and organic inclusions. Three rim sherds were found; one is upright, plain and slightly rolled outwards and the other two are flat topped — one generally upright but with an 'S-profile' and the other a 'cabled rim' (Fig. 22.5) from pit 0415, with finger nail-impressed decoration across the top.

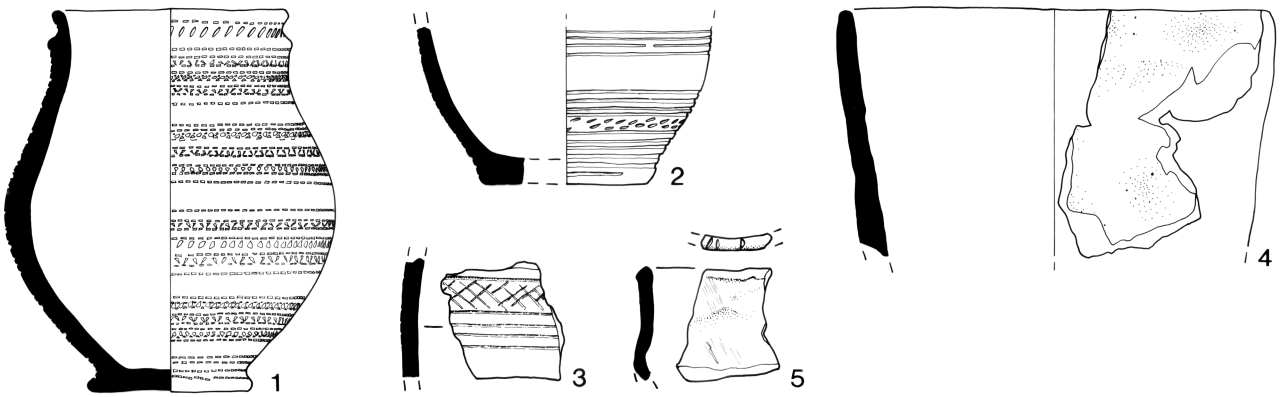

Figure 22 Prehistoric pottery (1:3)

Iron Age wares

The largest proportion of the prehistoric pottery assemblage (70% of the weight and 80% of the total count) was assigned to the Iron Age and flint-tempered fabrics F1 and F2 were the most common fabrics identified.

A total of 137 sherds of fabric F1 which has burnt flint and sand and sparse grog and organic material as its main inclusions was found and very few of them are diagnostic. Three upright rims, all flat-topped, one bevelled with slight beading and two base sherds were recorded within this fabric group. Decoration is also very limited — two sherds have shallow finger tip impressions and one had two small impressed ovals. The rest of the sherds are undecorated and many are small and abraded. Although this fabric group has been assigned an Iron Age date, some sherds have proven to be Bronze Age. The possibility that others may also be earlier — Bronze Age or even Neolithic — cannot be ruled out.

Fabric F2 which has burnt flint and sand as its main inclusions was most commonly identified. A total of 174 sherds were recorded and amongst them are eleven rims which are mainly flat-topped and slightly flaring and upright or slightly everted. One rim is plain and tapering and one is slightly beaded. Decoration is again limited — to a single sherd with vertical incised lines.

Small amounts of the quartz sand fabrics, QS1 and QS2 were also identified. Both fabrics are abundant in quartz sand and fabric QS1 also has common organic inclusions. Twenty-two sherds of fabric QS1 were identified and included one upright plain rim, one base and one bodysherd decorated with two short incised diagonal lines. The rest are plain non-diagnostic bodysherds and nearly all of them are single, small and abraded. Eleven sherds of fabric QS2 were found and none of them are diagnostic. Increasing amounts of sand-tempered fabrics are usually a feature of later Iron Age assemblages and their relative infrequency in this collection must be significant (Martin 1999, 80).

Illustrated vessels

(Fig. 22)

1. Beaker, Fabric G2, Layer 0274, Period I.
2. Beaker, Fabric G2, Pit 0699, Period I.
3. Beaker, Fabric G2, Layer 0274, Period I.
4. Bucket urn, FabricG1, Ditch 0308 (0346), Period II.
5. Bowl, Fabric F3, soot on rim, Pit 0415, Period II.

Late Iron Age and Roman pottery

Introduction

Excavation produced 1482 sherds of wheel-made Late Iron Age and Roman pottery weighing 22.003kg and equalling 84.7% of the total assemblage. The fabric quantities are summarised in Table 5.

The pattern of Late Iron Age and Roman pottery deposition

Late Iron Age and Roman Pottery was found in 166 contexts within 82 stratified features which included ditches, structural features relating to the building, pits, layers, peat hollows and thirteen context groups which were unstratified or from surface collections. The sources of the pottery are summarised in Table 6 which shows that the largest proportion by weight (*c.*83%) comes from the fills of cut features which is typical on rural sites. 67% of the pottery comes from ditches alone which is also typical.

The wares

Thirty Late Iron Age and Roman fabrics or fabric groups were identified in this collection which included local, regional and imported finewares and coarsewares but is dominated by local and regional coarsewares which account for approximately 94% of the Roman assemblage.

Imports are sparse and account for less than 1% of the assemblage. Most common is the samian which comes from South, Central and East Gaulish production centres. The earliest samian is South Gaulish (SA SG) from La Graufesenque but consists only of a few non-diagnostic sherds. Central Gaulish samian (SA CG, SA MV) consists of Trajanic material from Les Martres-de-Veyre represented by dish form Dr 18/31 and Hadrianic or Antonine material from Lezoux which includes dish forms Dr 18/31 and Dr 36, cup form Dr 33 and globular beaker form Dr 72. East Gaulish samian (SA EG) which dates from the late 2nd to mid 3rd century consists of a Dr 33 cup and an uncertain cup form both in Rheinzabern fabric. One very small sherd of Lower Rhineland black-slipped ware (KOLN) was collected from peat hollow 0195. Imported coarsewares consist of a single South Spanish amphora (AA) sherd which was found in Building 1 posthole 0577 and had probably been used as post-packing.

Local and regional finewares also make up a small proportion of the assemblage (2.5% count, 1.3% weight and 1.4% eves) and individually the fabric groups are next to negligible. Two Colchester colour-coated ware (COLC) beakers were found, one is bag-shaped with a cornice rim (type 3.6.2) and the other is of uncertain form. Four Red colour-coated ware (RC) beakers were identified in ditches 0166 and 0471. Their forms are uncertain but all have dark slips and three of them may possibly be Colchester products. West Stow finewares (WSF) came only from ditch 0306 but are all non diagnostic sherds, undecorated except for a very fine external burnish. White finewares (WF) consist of a globular beaker from the topsoil which is possibly from Cherry Hinton, south of Cambridge, but does not have the distinctive barbotine decoration. Grey fineware (GRF) sherds from three vessels were recorded but are not diagnostic. One piece from ditch 0300 has a hole drilled *ante-cocturam* just above the wall/floor junction, perhaps some sort of 'bung hole'

Mortaria deriving from major regional potteries include single examples from Colchester (COLBM), Verulamium (VRMO), Mancetter Hartshill (MHMO), Nene Valley (NVWM) and one unknown but presumed East Anglian product (WXM).

Nene Valley Colour-coated ware (NVC) beaker fragments were also found in four contexts and although they would normally be regarded as a feature of late 3rd century+ assemblages, their presence here in earlier contexts is not impossible since Nene Valley products were being distributed more widely by the late 2nd century and some of their production sites are only 25 miles from Beck Row.

Local and regional coarsewares which make up the bulk of the collection are dominated by four grey ware groups — BSW, GMB, GMG, GX and HOG — which together account for 87% of the total Roman pottery assemblage.

Fabric	*Code*	*No.*	*% No.*	*Wt. /g*	*% Wt.*	*eve*	*% eve*
Amphora	AA	1	0.1	67	0.3		
Black-surfaced wares	BSW	206	13.9	3199	14.5	3.35	15.5
Buff wares	BUF	18	1.2	215	1.0	0.26	1.2
Colchester Buff ware mortaria	COLBM	2	0.1	23	0.1	0.11	0.5
Colchester Colour-coated wares	COLC	2	0.1	4	0.0	0.07	0.3
Early Shell-tempered	ESH	7	0.4	110	0.4		
Grey Micaceous wares (black-surfaced)	GMB	235	15.9	2574	11.7	3.68	17.0
Grey Micaceous wares (grey surfaced)	GMG	209	14.2	2439	11.1	4.98	22..9
Grey Finewares	GRF	9	0.6	61	0.3		
Grog-tempered wares	GROG	17	1.1	205	0.9	0.16	0.7
Sandy Grey wares	GX	306	20.6	3659	16.6	4.96	22.9
Horningsea wares (standard)	HOG	226	15.3	5996	27.3	0.59	2.7
Horningsea wares (black-surfaced)	HOGB	122	8.2	1336	6.1	1.24	5.7
Lower Rhineland black slipped ware	KOLN	1	0.1	1	0.0		
Mancetter-Hartshill mortaria	MHMO	1	0.1	167	0.8	0.08	0.4
Nene Valley Colour-coated wares	NVC	10	0.7	72	0.3		
Nene Valley White mortaria	NVWM	1	0.1	201	0.9	0.17	0.8
Misc. Red Colour-coated wares	RC	7	0.5	15	0.1	0.27	1.2
Miscellaneous Oxidised wares	RX	6	0.4	72	0.3	0.55	2.5
South Gaulish samian	SA SG	3	0.2	5	0.0		
Central Gaulish samian (Les Martres)	SA MV	3	0.2	29	0.1		
Central Gaulish samian (Lezoux)	SA CG	13	0.9	103	0.5	0.32	1.5
East Gaulish samian (Rheinzabern)	SA EG	6	0.4	23	0.1	0.10	0.5
Storage jar fabrics	STOR	6	0.4	171	0.8		
Verulamium-region mortaria	VRMO	2	0.1	140	0.6	0.19	0.9
Verulamium-region white ware	VRW	2	0.1	19	0.1	0.04	0.2
White Colour-coated ware	WC	4	0.3	150	0.7		
White Fineware	WF	1	0.1	6	0.0		
West Stow fineware	WSF	16	1.1	39	0.2		
White-slipped Oxidised ware	WSO	1	0.1	25	0.1	0.23	1.1
Miscellaneous White wares	WX	33	2.2	851	3.9	0.33	1.5
Whiteware mortaria	WXM	4	0.3	26	0.1		
Total late Iron Age and Roman		**1482**		**22003**		**21.68**	

Table 5 Late Iron Age and Roman pottery quantities

Feature type	*No.*	*% No.*	*Wt./g*	*% Wt.*	*eve*	*% eve*	*Ave. wt./g*
Building	104	7.0	1504	6.8	1.66	7.7	14.5
Ditches	1075	72.5	14744	67.1	16.33	75.3	13.7
Layers	66	4.5	1563	7.1	0.91	4.2	23.7
Other	6	0.4	27	0.1	0.07	0.3	4.5
Peat hollows	97	6.5	1180	5.4	1.02	4.7	12.2
Pits	79	5.3	2094	9.5	0.39	1.8	26.5
Unstratified	55	3.7	891	4.0	1.30	6.0	16.2
Total LIA/Roman	1482		22003		21.68		14.8

Table 6 Late Iron Age/Roman pottery deposition pattern

Black-surfaced wares (BSW, 206 sherds, 3.199kg, 3.35 eves) account for 14.5% weight, 13.9% count, and 15.5% eves. This is a broad category that consists of all of the non-micaceous black-surfaced wares from unknown but presumed local sources. In Late Iron Age and early Roman collections it is generally regarded as a transitional 'romanising' fabric with origins in the Late Iron Age but it is also a convenient category for any miscellaneous black-surfaced sherds. Forms identified are beakers, jars, bowls and dishes. Beakers consist of a devolved butt beaker (type 3.13). Jars include uncertain narrow-mouthed jars (type 2), high-shouldered jars (type 4.1) including a Cam 221ab (Fig. 23.6) and cordoned jars (type 5.1) including one that has been modified for re-use as a strainer (Fig. 23.19). Five holes were drilled in its base *post-cocturam* — a practice which was widespread throughout the Late Iron Age and Roman periods. Bowls identified are carinated with out-turned reeded rims (type 6.3) including one with an out-turned hooked or hammerhead rim most like Going's (1987) type C16.5/2 (Fig. 23.12) which is a typologically late (mid 2nd-century) development of the form. A campanulate bowl (type 6.10) and uncertain dish forms were also found.

Grey micaceous wares (GMB and GMG, overall 444 sherds, 5.013kg, 8.66 eves) accounts for 22.8% of the weight, 30.1% of the count and 39.9% of the total eves. It has the largest range of forms and the highest total eves in the Roman pottery assemblage. There are two variants

recorded here, black-surfaced (GMB) and grey-surfaced (GMG). All of the sherds are in the standard GM fabric which has a very uniform grain size with few inclusions except for dazzlingly abundant mica. The identical fabric has been found at other sites in north and north-west Suffolk and seems to suggest a common North Suffolk source. Decoration consists most often of an overall external burnish on closed forms and internal and external burnish on open forms; some of it is very fine. Other decoration is less common consisting of very fine incised horizontal rilling, and burnished and incised wavy lines, bands of lattice, bands of combed lines and panels of barbotine dots.

GMB forms identified include beakers, jars, bowls, dishes and lids. Beakers include a globular beaker (type 3.7), a barbotine dot beaker (type 3.8) and a high-shouldered 'miniature' beaker type 3.10.3 (Fig. 23.15). Jars include uncertain narrow-mouthed jar forms (type 2), high-shouldered jars type 4.1 and a Cam 260b or 'Braughing' jar (Fig. 23.10), round-bodied jars (type 4.5, Fig. 23.22), cordoned jars (type 5.1) and a wide mouthed jar with a reverse-S profile and mid-body groove (type 5.4). Bowls include a carinated bowl with an out-turned grooved rim (type 6.3), 'Gallo-Belgic' cups with concave cordoned walls (type 6.9.2 or Cam 211), a copy of samian form Curle 11 with a high flange (Fig. 23.13) (type 6.14.2) and a bowl with curved sides and a flaring out-turned rim (type 6.15 or Cam 46). Dishes include straight-sided triangular or bead-rimmed type 6.18, straight-sided with grooved, out-turned rims (type 6.19.4), and a Gallo-Belgic platter derivative (type 6.21). An uncertain lid form was also found.

GMG forms identified include beakers, jars, bowls, dishes and lids. Beakers include a globular beaker (type 3.7), a barbotine dot beaker (type 3.8, Fig. 23.7) and a high-shouldered beaker with an out-turned rim (type 3.10). Jars include uncertain narrow-mouthed jar forms (type 2), high-shouldered jars (type 4.1), round-bodied jars (type 4.6, Fig. 23.16), cordoned jars (type 5.2, Fig. 23.11) and a wide-mouthed jar with a reverse-S profile and mid-body groove (type 5.4). Dishes include straight-sided triangular or bead-rimmed (type 6.18), straight-sided with plain upright and grooved, out-turned rims (types 6.19.2 and 6.19.4 respectively), and a Gallo-Belgic platter derivative (type 6.21) (Fig. 23.14). An uncertain lid form was also found.

Because the black-surfaced variant is thought to have been more common than the grey in the early Roman period, it is interesting to note a slightly different range and frequency of form types between the two variants in this collection. Some of the forms that are earlier, such as the concave-sided 'Gallo-Belgic' cups (type 6.9.2), the reeded-rim bowl (type 6.3), the flanged bowl copying samian form Curle 11 (type 6.14.2) and 6.15 bowls, *do* only appear in GMB fabric and some later forms such as the round-bodied jars (types 4.5 and 4.6) which are a mid 2nd-century development occur only once in GMB and more often in GMG. The chronological progression is gradual and many forms occur in both grey and black. The Beck Row assemblage falls somewhere in the middle with GMG and GMB in roughly equal proportions by weight but GMG has the most eves, particularly in Phases 2 and 3.

Miscellaneous Sandy Grey wares (GX, 306 sherds, 3659g, 4.96 eves) is a broad fabric category which includes grey coarsewares from a variety of sources that are presumed to be local or regional and it accounts for 16.6% of the weight, 20.6% of the count and 22.9% of eves in the Roman pottery assemblage. Forms identified are jars, beakers and dishes. Jars include narrow-mouthed jars (type 2.2), high-shouldered jars (type 4.1), plain globular jars (type 4.5, Fig. 23.20) and 4.6 and with stabbed decoration (type 4.9, Fig. 23.17). Also identified were cordoned jars (type 5.1) and a wide-mouthed jar with a reverse-S profile and mid-body groove (type 5.4, Fig. 23.18). Beakers include globular beakers (type 3.7) and high-shouldered beakers with out-turned rims (types 3.10 (Fig. 23.21) and 3.10.1). Dishes include straight-sided triangular or bead-rimmed (type 6.18) and plain straight-sided dishes with a plain upright rim, a grooved upright rim and a grooved out-turned rim (types 6.19.1, 6.19.3 and 6.19.4 respectively).

Horningsea products (HOG, HOGB — 348 sherds, 7.332kg, 1.83 eves) account for 33% of the weight, 23% of the sherds and 8.4% of the total eves in the Roman pottery assemblage. The fabric group is over-represented by weight in this collection because many of the sherds come from large storage jars. There are two variants recorded here, the standard grey (HOG), and black-slipped or black-surfaced (HOGB). Although their differences are superficial, they appear to be deliberate and distinct.

Forms identified are jars and dishes. Jars include bead-rimmed storage jars, Evans types 9–11, in HOG and HOGB (Fig. 23.8), the 'classic' Horningsea cordoned-rim storage jar, type 5.5 or Evans 4–8 (HOG), everted rim cordoned jars, Evans 18–23 (HOGB), beaded everted rim cordoned jars, Evans 24–29, a Cam 228 (Fig. 23.9) with an S-shaped profile and recurved rim and stepped-rim small jars, Evans 36–37 (HOG). Dishes include bead-rimmed dishes type 6.18 (HOGB) and miscellaneous uncertain dish forms (HOG HOGB). It is notable that bead-rimmed straight-sided dishes — classic BB2 forms — occur in the HOGB variant which adds to the growing recognition of BB2 as a 'style' rather than a ware and a product of a variety of centres not necessarily limited to South Essex and Kent. This would be another example of a local grey ware industry copying BB1 and BB2 forms.

The Horningsea kilns are known to have been in production during the 1st century (Hull and Pullinger 2000) but evidence for regional distribution beyond the immediate kiln area is generally regarded as coming from the mid 2nd century onwards and the presence of Horningsea wares in a collection can usually be considered indicative of that date. However, as the kilns are only thirteen miles away from the Beck Row site, they may fall into the category of 'local distributors' and this would explain the typologically early (mid to late 1st- or early 2nd- century) forms such as the Cam 221 and Evans 36–37 in the range of HOG products. This also makes it very difficult to assign anything but a very broad date range to the many less-than-diagnostic sherds. Hopefully, the current state of knowledge about Horningsea wares will soon be improved as a large group of material excavated at Cambridgeshire Car Dyke, Waterbeach in 1999 contained some important kiln groups (J. Evans pers. comm) which will be included in a synthesis of pottery from the Southern Fen-edge and Cambridge (Evans forthcoming).

Other grey coarsewares represent only minor components of the assemblage. Belgic-type Grog-tempered wares (GROG) were found mainly in Period II

and Period III.1 features and some were redeposited in later phases. The examples found appear to be wheel-made and probably belong to the first half of the 1st century AD. Forms could only be broadly identified as large storage jars and jars, including cordoned jars. Contemporary, but never as common as GROG, seven sherds of Early Shell-tempered wares (ESH) were found but no forms identified.

Only a few sherds of Miscellaneous Storage Jar fabrics (STOR) were found — more evidence of their reliance on Horningsea to supply them.

Miscellaneous White wares (WX) was the most common non-grey coarseware fabric found (2.2% count, 3.9% weight and 1.5% eves). Forms identified are flagons, but all are uncertain except for one ring-necked form (type 1.1) with a cupped rim.

Never common outside of London, two Verulamium Region White ware (VRW) vessels were identified. One is a carinated bowl with an out-turned grooved rim (type 6.3) found in the floor surface of Building 2 and the other is an uncertain jar base from ditch 0105.

White-slipped Oxidised ware (WSO) consists of a flagon rim with a cream-white slip which may possibly be a Horningsea product.

Miscellaneous Buff wares (BUF) were found in five features. A possible ring-necked flagon was identified in peat hollow 0195 and a small flagon or flask was unstratified. A type 6.5 bowl decorated with incised

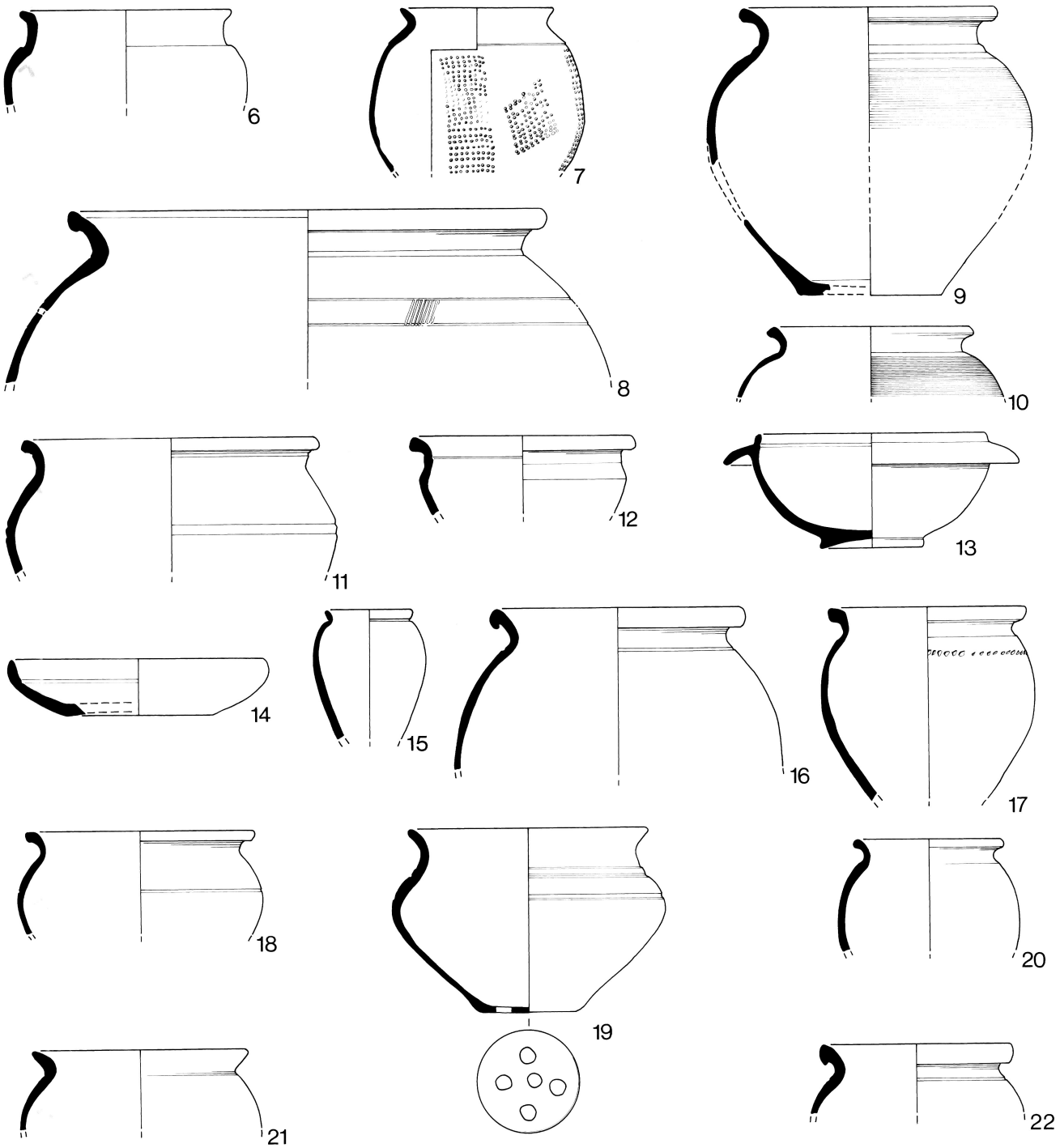

Figure 23 Roman pottery (1:4)

horizontal lines was found in ditch 0332 and may possibly be a West Stow product. Some of the non-diagnostic sherds may also come from West Stow.

A small amount of Miscellaneous Oxidised wares (RX) was recovered. Except for a small flagon from ditch 0472, almost all of the material consists of single, non-diagnostic sherds.

Illustrated vessels
(Fig. 23, 6–22)

6. Jar Cam 221ab, BSW romanising fabric, soot on external rim, Ditch 0147 (0152), Period II
7. Barbotine dot beaker 3.8.2, GMG, Ditch 0739 (0739), Period III.1
8. Storage Jar, Evans 9–11, HOG, patchy black and orange surface, grey core. Ditch 0176 (0181), Period III.1
9. Braughing jar, Cam 228, HOGB, Ditch 0260 (0261), Period III.1
10. Braughing jar, Cam 260b, GMB, Ditch 0306 (0306), Period III.1
11. Cordoned jar 5.2 GMG, Ditch 0305 (0305), Period III.1
12. Carinated bowl 6.3 (C16.5/2), BSW, Ditch 0740 (0740), Period III.1
13. Flanged bowl 6.14.2, Curle 11 copy, GMB slightly metallic sheen, Ditch 0739 (0739), Period III.1
14. Platter 6.21.1, GMG, Ditch 0739 (0739), Period III.1
15. Miniature beaker 3.10, GMB, Ditch 0471 (0375), Period III.2
16. Jar 4.6, GMG, soot under external rim, Ditch 0471 (0375), Period III.2
17. Jar 4.9, GX, warped rim, Ditch 0471 (0375), Period III.2
18. Jar 5.4, GX, Ditch 0471 (0375), Period III.2
19. Strainer/bowl 5.1 (Cam 218), BSW, holes drilled *post cocturam*, flaked, Ditch 0166 (0256), Period III.3
20. Jar 4.5, GX Ditch 0166 (0282), Period III.3
21. Beaker, 3.10 GX over-fired, metallic sheen, Layer 0475, Period III.1
22. Jar 4.6, GMB, Layer 0475, Period III.1

Fabric	*Code*	*No.*	*%No*	*Wt/g*	*% Wt.*
Black Stoneware	BLSW	1	2.7	33	6.0
Border Ware	BORD	1	2.7	7	1.3
English Stoneware	ESW	1	2.7	4	0.7
Glazed Red Earthenware	GRE	19	51.4	343	62.0
Siegburg Stoneware	GSW1	1	2.7	5	0.9
Frechen Stoneware	GSW4	1	2.7	6	1.1
Iron Glazed Blackware	IGBW	3	8.1	38	6.9
Late Medieval and Transitional	LMT	8	21.6	89	16.1
Speckle-glazed Ware	SPEC	1	2.7	6	1.1
West Norfolk Bichrome	WNBC	1	2.7	22	4.0
Total		37		553	

Table 7 Late and post-medieval fabric quantities

Post-medieval pottery
Table 7 shows the quantities of late and post-medieval pottery found. Thirty-seven sherds weighing 553g and representing 2.1% of the total pottery assemblage were collected from nineteen contexts, three of which were unstratified or surface collections, and the rest came from seven stratified features. The pottery was intrusive in four of the stratified contexts (0146, 0258, 0375 and 0471) and the other twelve had post-medieval dates. Ten post-medieval fabrics or fabric groups were identified and Glazed Red Earthenware (GRE) is the most common (62%). Next, are Late Medieval and Transitional wares (LMT) and Iron Glazed Blackware (IGBW). The other seven wares are represented by single sherds.

Pottery by site period and phase

Introduction
Pottery was collected from 217 contexts in 105 features or feature groups including ditches, pits, layers and structural features associated with the building. Table 8 shows the quantities of pottery by site period. The largest group came from Period III — the Late Iron Age and Roman Period — and Periods III.2 and III.3 which contain the two phases of the building account for 68% of the total pottery assemblage. (All percentages are of total weight within Period / Phase assemblages unless otherwise stated.)

Period I — Bronze Age (36 sherds, 534g)
The amount of pottery found in Period I is quite small, it was collected from only three features — a hollow/layer, 0274 and pits 0408 and 0699 — and equals approximately 2% of the site collection. Four Bronze Age fabrics were identified, G1, Beaker fabric G2, flint, sand and grog tempered fabric F1 and flint and sand F2. Intrusive pottery includes early Roman Black-surfaced wares (BSW.).

Hollow/layer 0274 contained a substantial proportion of a fineware beaker (Fig. 22.1) with comb-impressed and incised decoration and a decorated sherd from another fineware beaker (Fig. 22.3). Also found was a thick plain body sherd which is grog-tempered and an intrusive early Roman sherd which probably came from the later ditch (0272) which cut it.

The fill of pit 0408 contained ten sherds of Bronze Age pottery including a sherd from an Early Bronze Age 'rusticated beaker' and other plain sherds from at least three separate vessels in fabrics which are typical around the Fens (E. Martin pers. comm.) A flattened rim, hollowed internally and four bodysherds from one vessel contained shell which had mostly been burnt or leached out leaving abundant voids. A large thick sherd from

Period	*Date*	***No.***	***% No.***	***Wt./g***	***% Wt.***	***eve***	***% eve***
I	Bronze Age	36	1.9	534	2.1	6	0.3
II	Iron Age	147	7.6	1052	4.0	36	1.7
III.1	LIA/Rom (pre bldg)	320	16.5	3806	14.7	439	20.2
III.2	Roman (building 1)	614	31.6	9178	35.5	760	35.1
III.3	Roman (building 2)	662	34.1	8602	33.2	781	37.0
	Total Period III	*1596*	*82.1*	*21586*	*83.1*	*1980*	*91.3*
IV	Post-medieval	10	0.5	147	0.6		
Un	Unphased	155	7.9	2660	10.2	146	6.7
Total		1944		25979		2168	

Table 8 Pottery quantities by site phase

another vessel contained sand and burnt organic material and had carbonised residue on its internal surface.

The fill of pit 0699 contained fourteen sherds of Bronze Age pottery, six of which are F2 plain body sherds and the rest are Early Bronze Age beaker fabric, five from the base of one comb-impressed and incised decorated beaker (Fig. 22.2).

Period II — Iron Age (147 sherds, 1052g)
A small amount of pottery was found in features dated to this period. It equals only 4.1% of the weight and 7.6% of the sherds in the total assemblage but it is four times the weight and twice the count of Period I. Pottery was divided between ditches (61.8% weight, 68% count) and pits (38.1% weight 31.3% count). The average sherd weighed 7.15g.

Approximately one third of the Period II assemblage consists of Bronze Age or Iron Age wares which include flint-tempered fabric F3 (18.2% weight and 14.6% count) and grog-tempered G1 (18% weight and 16.6% count). The majority of the Period II assemblage is the predominantly Iron Age flint-tempered fabrics F1 and F2 which together make up the largest part of this period's assemblage (43.1% weight and 54.7% count.) Sand-tempered wares QS1 and QS2 are very minor components, even in the groups which are dated to the later Iron Age. Only two hand-made sand-tempered sherds were recovered and this is notable because although flint-tempered wares continue throughout the Iron Age, increasing amounts of sand-tempered wares are usually a feature of later Iron Age collections. Their near-absence here may well indicate a gap, or at least confirms that activity was not intensive but dispersed. The small amount of sand-tempered pottery recorded amongst the prehistoric pottery assemblage as a whole may also support this idea.

The latest Iron Age fabrics consist of three wheel-made wares: Grog-tempered wares (GROG), Early shell-tempered wares (ESH) and Black-surfaced wares (BSW) which probably belong to the first half of the 1st century AD and represent the very end of this Period. GROG and ESH are only represented by single sherds but BSW, a 'romanising' fabric, equals 12.4% weight and 7.6% count in the Period II assemblage. Intrusive pottery includes one sherd of Roman micaceous ware (GMB) and two small sherds of GX.

Period III.1 — Roman (pre-building phase, 320 sherds, 3806g, 4.39 eves)
This phase includes contexts that pre-date Buildings 1 and 2 and is thought to cover the Late Iron Age and earliest Roman period until possibly the early or mid 2nd century. It marks the beginning of a more intensive period of activity on this site. The amount of pottery from features assigned to this phase accounts for 16.5% of the weight, 14.7% of the count and 20.2% of the eves in the total assemblage which is three and a half times the weight and twice the count of Period II. Pottery was collected mainly from ditches (75%), pits (12.1%) and layers (11.2%). The average sherd weighs 11.9g.

Period III.1 is dominated by local and regional coarsewares. Grey micaceous wares in the grey (GMG) and black-surfaced (GMB) variants are most frequent (33.7% weight, 28.5% count and 59% of the eves). The proportions of GMB and GMG are about evenly divided in weight and count, but GMG has 36% and GMB 23% of the eves. Nearly as common are Horningsea grey wares in the standard grey (HOG) and black-slipped (HOGB) variants (31.8% weight, 25.6% count and 23% eves). In this phase, HOGB has a higher proportion of the weight (17.1%), count (19.7%) and eves (21%) than HOG has (14.7% / 5.9% / 2%). Black-surfaced wares (BSW) account for 9.6% weight and Miscellaneous Sandy Grey wares (GX) are 5.2%. The rest of the coarseware fabric groups, which include Buff wares (BUF), Early Shell-tempered wares (ESH), Grog-tempered wares (GROG), Miscellaneous Oxidised wares (RX) and Miscellaneous White wares (WX), represent minor components of the pottery supply — most of them equal less than 1% of the total Period III.1 assemblage. The earliest fabrics are GROG and ESH which belong to the first half of the 1st century AD. 'Romanising' fabric BSW is slightly later — from about the second quarter of the 1st century AD. The rest of the wares are 'fully-romanised.' Imports consist of single sherds of South and Central Gaulish samian and regional fineware from West Stow. Redeposited flint-tempered Iron Age pottery accounts for 10.1% of the weight and 22.5% of the count in this phase.

Period III.2 (Building 1, 614 sherds, 9178g, 7.60 eves)
This period includes contexts associated or contemporary with Building 1 and does not have a fixed date as such but is defined stratigraphically by the life and destruction/demolition of Building 1. In Period III.2 the amount of pottery has increased to approximately twice that recovered from the previous phase. Pottery was collected almost entirely from ditches (94%) or the structural and internal features associated with the building (5.1%). The material from ditch 0471, whose deposit is presumed to contain the debris from the destruction/demolition of this building, alone accounts for 76.2%, so in all, features associated with the building make up 81.3% of the phase assemblage. The average sherd size was 14.9g.

The pattern of pottery supply established in Period III.1 continues in this phase. The same four local and regional coarsewares dominate but in different order. By weight, Horningsea wares are most common (45.5%) but over-represented because of the size of the large thick storage jars so commonly identified. They are 26% of the count and only 4.8% of the eves. In this phase the standard grey variant (HOG) has a higher proportion of the weight and count (43.5% and 24.1%) than the black-surfaced variant (HOGB) which has 2% of the weight and count. Sandy Grey wares (GX) come second by weight (21.6%) but have the highest count (29.2%) and eves (45.9%) — a dramatic increase from Period III.1. Grey micaceous wares now come third with 16.9% of the weight, 21.1% of the count and 23.9% of the eves. The proportion of the black-surfaced variant (GMB) to grey (GMG) is divided equally in the weight and count but GMG has the higher proportion of the eves (13.8%). Finally, BSW has fallen in weight to 4.1%, maintained its count at 7.2% and increased its eve to 12.9%. Miscellaneous white wares (WX and WXM) accounted for nearly 5%. All other groups are minor components of the pottery supply, each amounting to far less than 1% of the Period III.2 assemblage. Included are Buff wares (BUF), Grog-tempered wares (GROG), Miscellaneous Oxidised wares (RX) and Miscellaneous Storage Jar fabrics

(STOR). Finewares are local or regional and consist of Colchester and Miscellaneous Colour-coated wares which appear for the first time in this phase. Also new are Nene Valley colour-coated wares which would be rare but not unheard of in mid- or late 2nd- century contexts. Imports consist of Central Gaulish samian from Les Martres-de-Veyre and Lezoux and South Spanish amphora. Redeposited flint-tempered (F1 and F2) and Sand-tempered (QS1 and QS2) prehistoric pottery account for 3.1% of the weight and 6.8% of the count in this phase and four post-medieval sherds are intrusive.

Period III.3 (Building 2, 662 sherds, 8602g, 7.81 eves)
This phase includes contexts associated or contemporary with the second building, and like the previous phase is defined stratigraphically by the life and destruction/demolition of the building and also the end of intensive use of the site. In Period III.3 there is a slight decrease in the amount of pottery by weight from the previous phase but a similar sherd count and eve. Pottery was collected from ditches (45%), pits (20.7%), the structural and internal features associated with the building (15%) and from peat hollow layer 0195 (18%). In addition, the material from adjacent ditches 0469, 0472 and 0473, which are north of the building and presumed to contain debris from its destruction and demolition accounts for 11.5%. So altogether, the features associated with Building 2 account for 26.6% of the phase assemblage which is far less than in the previous phase. This may be due to the subsequent removal of the final deposits by ploughing which caused extensive damage to other features in the building and vicinity. The average sherd size is 12.9g.

Local and regional grey wares are still the most frequent and dominated by the same four main groups. Grey micaceous wares now have close to the highest weight (22.6%) and the highest count (30.8%) and eves (58%). As in the previous phase, the proportion of the black-surfaced variant (GMB) to grey (GMG) is divided equally in weight and count, but again, GMG has the higher proportion of the eves (28.7%). Next, Black-surfaced wares have the highest weight (24.6%), but 17.1% of the count and 17.8% of the eves. These are followed by Horningsea wares which equal 14.8% of the weight, 12.5% of the count and only 5.7% of the eves. In this phase, the proportion of the standard grey variant (HOG) to the black-surfaced variant (HOGB) is evenly divided by count, but HOG has a far higher proportion of weight (10.6%) and eve (3.4%). Finally, Sandy Grey wares (GX) have 10.3% of the Phase weight and count and 8.3% of the eves. All other groups are minor components of the pottery supply, none of them more than 2% and most of them amounting to far less than 1% of the Period III.3 assemblage. Other coarsewares include Miscellaneous White wares, Buff wares, Oxidised wares and Storage Jar fabrics (WX, BUF, RX and STOR) and Early Shell-tempered and Grog-tempered wares (ESH and GROG) which have been redeposited. Local or regional finewares include red and white colour-coated wares (RC and WC). Imported finewares, accounting for less than 1% of the weight and 2.2% of the Phase count include the first and only occurrence of Lower Rhineland black-slipped ware (KOLN) and the range of samian now includes South Gaulish, Central Gaulish from Les Martres-de-Veyre and Lezoux, and East Gaulish from Rheinzabern. The South Gaulish and Les Martres are surely residual, the Lezoux products are mid or late Antonine, and the East Gaulish material which dates from the late 2nd to mid 3rd century makes its first appearance in this phase. Other regional wares include single occurrences of Verulamium-region white wares (VRW and VRMO) and Mancetter-Hartshill mortaria (MHMO) which are mid or late Antonine and only seen in this phase, Nene Valley colour-coated ware (NVC) and also for the first and only time, Nene Valley White ware mortarium (NVWM) which could be late 2nd or 3rd century. Redeposited prehistoric flint-tempered fabrics F1, F2 and F3 and sand-tempered fabrics QS1 and QS2 account for 14% of the weight and 18% of the total pottery count recorded from this phase.

Because of the lack of closely-dated fabrics and forms, particularly the lack of specific dates for the Horningsea ware, and because this phase was mainly distinguished from the previous one by stratigraphy, it was often difficult to see a difference in the dates of the pottery groups from Periods III.2 and III.3. But within the phase assemblages there are certain differences in the fabric and form types which *do* indicate a chronological progression.

Period IV — post-medieval (10 sherds, 147g)
The amount of pottery from features assigned to Period IV is very small because intensive use of the site had ended with Period III. Only three features containing pottery were assigned to this period and they were all field boundary ditches. Four post-medieval fabrics are present — three sherds of Glazed Red Earthenware (GRE), single sherds of Border ware (BORD), Speckled-glazed ware (SPEC) and West Norfolk Bichrome (WNBC). Three sherds of prehistoric fabrics F1 and F2 and Roman fabric GMB were redeposited.

Unphased (155 sherds, 2660g)
The topsoil, surface and unstratified pottery consists of 133 sherds of all periods from prehistoric through to the 19th century. The fabrics represented include prehistoric, Late Iron Age, Roman and post-medieval.

Peat hollow context 0190 was also unphased. It contained 22 sherds weighing 291g ranging from prehistoric to post-medieval. Most of the sherds are late or post-medieval represented by fabrics GRE, GSW1, IGBW and LMT which range in date from the 15th or 16th to 17th centuries.

Discussion
The earliest identified pottery found at Beck Row is Early Bronze Age as indicated by the presence of beaker fineware although no more than five vessels are represented. The beaker pottery comes from one ‘open’ and two ‘closed’ features located at widely-spaced distances from each other on the site. The material has been categorised as ‘domestic’ rather than funerary because it was found in association with burnt and worked flints. The presence of the rusticated beaker is further evidence of a domestic assemblage because they are not found in funerary contexts (Bamford 1982).

Other, less diagnostic and later Bronze Age pottery was also found, but again, a small amount from a limited number of features. Altogether, the small and dispersed quantities suggest that activity during this period was sparse and intermittent.

There is more evidence for Iron Age use of the site or near-vicinity. A significant amount of pottery was found although most of it seems to be non-diagnostic. There are very few rims or identifiable forms and few deposits that could be considered 'primary' or indicative of short cycles of deposition. More than half of it was redeposited in later features. A notable feature of the Iron Age pottery assemblage is the lack of sand-tempered wares because although flint-tempered wares continue throughout the Iron Age, increasing amounts of sand-tempered fabrics are usually a feature of later Iron Age collections (Martin 1999, 80). The small numbers recorded here may well indicate a gap, or at least confirm that activity was not intensive but dispersed on this site even during the later Iron Age.

Activity only intensified during the Late Iron Age (first half of the 1st century AD) and early to middle Roman periods. The pottery evidence suggests that the origin of the site's field system lies in the Late Iron Age, that it was modified in the transitional period between the Late Iron Age and early Roman periods, and remained in use throughout the early to middle Roman period before maintenance ceased, possibly at the beginning of or during the 3rd century — at the same time as the destruction and demolition of Building 2 which marked the end of significant activity in the area covered by this excavation. Unfortunately, the lack of closely-dated pottery makes it impossible to place a more precise date to the end of intense occupation. The latest pottery identified consists of forms or fabrics with long date ranges from the mid or late 2nd to the mid 3rd or beyond. And although one could make the assertion that none of the pottery *has* to be later than the end of the 2nd century, it could not be proven. What can be said with certainty, is that none of the fabrics or forms which are exclusive to the late and latest Roman periods are present in this assemblage even in the topsoil and surface collections.

The Late Iron Age and Roman pottery assemblage reflects the specialised nature of this site where the only intense activity to take place centred around the building. While finds from other areas of the site are modest, the bulk of the pottery came from the features in and adjacent to the building and this might have been shown even more dramatically if the area had not subsequently suffered extensive damage from ploughing. The finds from the adjacent ditches probably represent the debris from the destruction/demolition of the building and are directly related to the agricultural or industrial activities which were carried out there.

Most of the vessels, especially the large storage jars which accounted for such a large proportion of the assemblage, had specific functions which were essentially utilitarian. These sorts of vessels were often isolated from the sort of typological changes which would affect other classes of pottery, such as tablewares, and it makes them difficult to date. It is not surprising that a high proportion of the assemblage weight consists of storage jars, most notably the products of the large scale industry at nearby Horningsea, which provided the site with much of its pottery requirement and nearly all of its large storage jars. Indeed, most of the site's pottery requirements were satisfied locally or within the region which is typical for rural sites of this date.

There is a total absence of post-Roman pottery until the post-medieval period where the presence of small amounts of pottery dating from the 15th or 16th century to the modern period are probably the result of low-level activities such as manuring.

III. Building materials

by Sue Anderson

Ceramic building material (CBM)

A total of 260 fragments of CBM weighing 22.015kg was collected. This was recorded by fabric and form, details of which are available in the site archive. Roman material was the most common in the assemblage, most of which was identified as flanged tegulae and imbrices.

CBM by phase

Table 9 shows the quantities of forms (fragment count) by period.

The majority of Roman tile was collected from the periods associated with the use and demolition of the aisled buildings (Period III.2 and III.3).

One small fragment of Roman tile was collected from ditch 0147 in Period II, and is presumably intrusive.

Fragments of tile from Period III Phase 1 were collected from ditches 0142, 0176 and 0183, and pits 0180 and 0186. There were also some surface finds (0231), from ditches 0293 and 0142, which included a small piece of intrusive post-medieval roof tile. Fragments from 0231 and 0176 showed signs of burning. Pieces of one tile were found in the fills of two ditches (0176, 0183).

Tile from Period III.2 came from ditches 0124, 0129, 0235 (in 0301), 0262 and 0494. Most of these are located at the southern edge of the site and may indicate the presence of a large building to the south of the excavated area. It was also collected from ditch 0471, which probably contained debris from the demolition of Building 1. Some of this material showed evidence for burning.

The southern area also produced quantities of tile in Period III.3, from ditches 0104, 0105, 0166 and 0236, and peat hollow 0195. However, the majority of tile collected from this period was from features in and adjacent to the aisled building (Building 2 and ditches 0469, 0472 and 0473). Many of these fragments showed evidence of burning and could be related either to industrial practices or to the destruction of the building by fire. In particular, several fragments of two tiles were collected from the corn drier flue (0600).

In both phases, the quantity is too small to suggest that the buildings were roofed with tile, although there may have been extensive robbing of the structures following demolition. Pieces collected from Building 2 were largely from the postholes and floor surfaces, indicating secondary use of fragments for packing and hardcore.

Period	*FLT*	*IMB*	*T*	*RT*	*B*	*B?*	*EB*	*UN*
II			1					
III.1	3	2	12	1				3
III.2	66	4	36					5
III.3	15	31	43		2	2		14
IV	1	1	5				2	
peat hollow	2		4				5	

key: FLT - flanged tegula, IMB - imbrex, T -tile, RT - post-medieval roof tile, B - brick, EB - early brick, UN - unidentified

Table 9 CBM forms by period

Period IV tile consisted largely of surface finds, including Roman, medieval and post-medieval CBM. Medieval brick was also found in peat hollow 0190, along with several fragments of Roman tile.

Fired clay
Fired clay which may have been used in structural features was collected from eleven contexts. Six fragments (135g) were grog tempered, four fragments were organic tempered (207g), one piece was chalk tempered (3g), and four pieces were too small to be certain of the inclusions (27g). Fragments of fired clay with flint tempering were probably pieces of loomweight and are discussed with textile working objects.

Only one fragment, a large organic-tempered piece with a smoothed surface from ditch fill 0282, showed any evidence for impressions. One edge was smooth and flat, suggesting that it had been pressed against a squared timber.

Mortar and plaster
Fragments of mortar and plaster were found in ten contexts. Twenty pieces of mortar were found in posthole 0501 (101g), flue feature 0530 (48g), around tile 0600 (94g) and as surface finds 0722 (25g), the latter of post-medieval date. Sixteen fragments of plaster, some with whitewashed or red-painted surfaces, were found in ditch fill 0282 (6g), floor 0374 (4g, red), slot 0480 (4g), 0553 in posthole 0551 (4g, white), posthole 0505 (26g, red), and as surface finds 0717 (236g, white). Most of this material was collected from features associated with Building 2 in Period III.3, much of it from the floor surface, and was presumably brought to the area with other rubble, such as tile, to be used as hardcore. One fragment of plaster (0282) was from ditch 0166 at the southern end of the site. The post-medieval mortar and one fragment of plaster were surface finds of Period IV.

Stone building materials
One fragment of sandstone could have functioned as a tile (0208, Period II), and a possible chalk tile was also found (0561, Period III.1). A piece of post-medieval roof slate was found in surface finds 0722 (Period IV).

Discussion
The CBM recovered from this site is typical of medium to high status Roman buildings. There are roof tiles (flanged tegulae and imbrices), and probably floor and wall tiles in the assemblage. No evidence for hypocausts was found, although some fragments showed signs of burning or sooting on one surface, including some of the roof tiles. This could indicate use in a hypocaust or a hearth, or it could be evidence for a fire.

Whilst some of the building material is associated with the aisled buildings, it seems likely that much of it was reused in non-structural contexts. Roman tile was often employed in hearths and other structural features associated with fire. It may have been recovered from a demolished building, on distribution evidence possibly located beyond the southern edge of the excavated area, for use as hardcore in floors and packing in postholes, but it seems unlikely to have formed a major part of the aisled buildings.

The amount of fired clay recovered is very small and does not indicate the use of wattle and daub for walling. The wall plaster recovered is also unlikely to have been used in the aisled buildings, and its presence in the rammed chalk floor of Building 2, along with fragments of tile and stone, suggests that it reached the site incidentally with other CBM selected for use as hardcore.

The millstone fragments recovered from Building 2 (see below) were used in a similar way to the CBM, suggesting that they too were recovered for this purpose. However, this does not preclude the possibility that their original use may have been connected with Building 1.

IV. Querns and millstones
by Cathy Tester

Introduction
Excavation produced seventy-four quern and millstone fragments. Querns and millstones were found in nineteen contexts in eleven stratified features. The quantities by stone type are summarised in Table 10 and the full details are available in the archive.

Type	*No.*	*Wt./g*
Grit	59	48708
Lava	12	190
Puddingstone	3	3267
Total	74	52165

Table 10 Quern and millstone materials

The assemblage is composed almost entirely of millstone grit, but there were fragments from three puddingstone and three lava querns as well. All recordable dimensions and other details were noted and they were quantified by count and weight.

Puddingstone
Fragments of puddingstone querns were found in three stratified contexts. All were from 'bun-shaped' rotary querns made of Hertfordshire puddingstone.

This type of quern is regarded as a Late Iron Age development, although until recently at Elms Farm, Essex, none had actually been found in Iron Age contexts (H. Major, pers. comm.). At Pakenham, Suffolk, it was possible to infer the use of puddingstone querns up to at least the later 1st century AD, because the site had no Late Iron Age activity but was of military origin with a subsequent civilian settlement during the immediate post-Boudiccan period (Major forthcoming). Because there was a significant Late Iron Age and early Roman component in the site chronology at Beck Row, only the broadest possible date range can be assigned for the use of these querns. All of them were redeposited in Period III.3 ditches 0105, 0166 and 0236 to the south-west of the site, which were modifications of an earlier Iron Age field system.

Rhenish lava
Lava stone fragments were found in two features, a pit and a ditch. The material was in poor condition and there was little information which could be recorded.

The lava fragments were found in Period III.1 and III.2 contexts which were probably no later than 2nd century, and were again located in the southern part of the site.

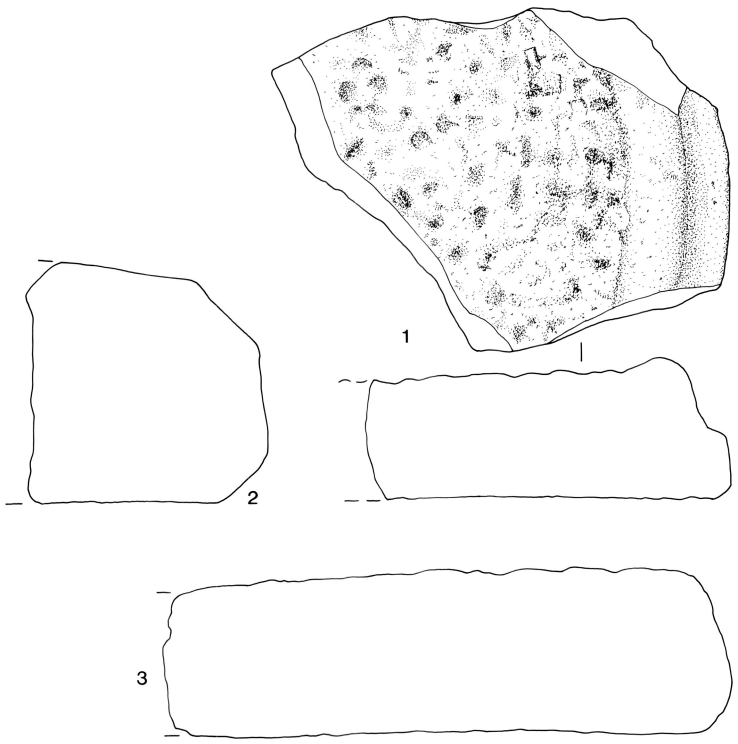

Figure 24 Millstones (1:4)

Millstone grit

The remainder of the querns and millstones are in grit stone, probably Pennine Millstone Grit, and were found in thirteen contexts, all but one associated with the two buildings.

In most cases it was not possible to tell which were from hand-operated quernstones or mechanically -operated millstones. Diameter rather than thickness is the deciding factor and only two stones had measurable external diameters — one quern was 380–400mm (0515 — Fig 24.1.) and one millstone in floor 0374 (0526 — Fig. 24.3.) was c. 850mm. Most of the fragments are from stones of what is considered to be the standard flat-topped gritstone form, but one of them (0515) copies the standard lava form, with a low rounded kerb, but has a step or collar on its edge.

Where measurable, the full thickness of the stones ranged from 69mm to 128mm. Where present, grinding surfaces had radial grooves or were, more often, pecked. Most of them exhibited some degree of wear, which included concentric striations around the outer edge, while non-grinding surfaces were pecked and generally well-finished.

Millstone grit by phase

The majority of the millstone grit was found in phases associated with the use and demolition of the two buildings (Period III.2 and III.3) and came from features which were part of (postholes and floor) or adjacent (ditches) to it. Only one fragment of millstone grit was found in an earlier context (layer 0475, Period III.1) which was cut by ditch 0473 (Period III.3), so the possibility of contamination cannot be ruled out.

Millstone grit from Period III.2 came from a posthole in Building 1 (0611) where it had been re-used as packing, and from ditch 0471 (layers 0375 and 0471) which probably contained debris from the destruction/ demolition of Building 1.

All of the millstone grit from Period III.3, except a very small fragment in ditch 0166, came exclusively from the features associated with Building 2 — floor surface 0374, postholes 0477, 0501, 0535, 0559, and adjacent ditches 0473 and 0579.

It is notable that the largest best preserved pieces were those which were found still *in situ* in the postholes or floor surface of the building. The pieces that were found in the adjacent ditches were more broken up. It is also worth emphasising again that apart from that small piece in ditch 0166, millstone grit was confined solely to the immediate building area. It is possible that their presence on the site had nothing to do with their primary use and that they had in fact been carted from elsewhere for re-use as building material.

Discussion

The Beck Row quernstone assemblage includes three types of stone: millstone grit, Rhenish lava and puddingstone but it contains the highest proportion of millstone grit. Where it has been consistently well-recorded in the region (mainly Essex), lava has been found to be the most common type of stone used for querns during the 1st and 2nd centuries with millstone grit becoming predominant only in the 3rd and 4th centuries when lava supply was interrupted. However, a different pattern of distribution for rural sites has been noted by Major and Buckley (1998) in Chignall, Essex — and also at sites such as the small town at Pakenham in North Suffolk — which are further away from the point of distribution. These and other sites have significant amounts of millstone grit stones in 2nd-century contexts because, apparently, the pattern was never so strictly adhered to or true away from urban centres such as Colchester. The Beck Row site's millstone and quern assemblage fits into the non-urban pattern because it is rural and further away again from the possible point of lava stone distribution, and perhaps better-placed for millstone grit supply.

While the few lava and puddingstone fragments and one millstone fragment were recovered from the southern area, distribution of the millstone grit stones is restricted almost exclusively to the building contexts or adjacent features. The stone found *in situ* obviously represents secondary use as post-packing, and floor surfaces, and that found in the adjacent features had probably served the same purpose before being cleared out with other demolition/destruction debris. There is no evidence that the stone in this assemblage was re-used for any other purpose such as sharpening stones.

The primary use of these querns and millstones must pre-date or be contemporary with the two buildings, but whether they were actually first used in the buildings on this site or carted from elsewhere cannot be proven. The high incidence of Millstone Grit in what are probably 2nd-century contexts at Beck Row may represent one or two job-lots of broken stone which were brought to the site for reuse in contruction and repairs, along with ceramic building materials (see above). This is especially likely in an area like East Anglia where little natural building stone is readily available. The simplest hypothesis, however, is that their cycle of use, breakage and re-use all happened at the same location.

V. Flint
by Sarah Bates

Summary
A total of 261 pieces of struck flint was recovered from the topsoil and from the fills of excavated features which dated from the Bronze Age to the Roman period. Although most of the flint is probably of a later prehistoric date, a few pieces are characteristic of a slightly earlier period. Much of the material was residual in the contexts in which it was found. The assemblage is summarised in Table 11.

Type	*Total (including fragments)*
Core	6
Struck frag.	3
Shatter/chip	2
Flake	207
Blade	16
Spall	4
Scraper	6
Knife	1
Piercer	1
Other tool	1
Retouched piece	5
Utilised piece	9
Total	261

Table 11 Flint

Conclusions
The assemblage consists of a range of material including cores, debitage and retouched or utilised pieces. Although much of the material was found residually, including a number of pieces which are almost certainly of Mesolithic or early Neolithic date, some of the flint seems likely to be contemporary with the features from which it comes. This includes burnt debris from Bronze Age pit 0408, the largest feature assemblage from the site, and sharp knapping debris from Iron Age ditch 0293. Flint on Iron Age sites is often dismissed as residual but it has been argued that this may not always be the case (Martingell 1988). The issue of Iron Age lithics in Norfolk has been discussed by Peter Robins (1996) and more recently, a number of other sites from across southern and eastern England have been considered as demonstrating the continued use of flint into the late prehistoric period (Humphrey and Young 1999). Clearly, at the present site, the presence of Bronze Age features makes the possibility of residuality a real one and similar 'later prehistoric' attributes such as evidence for the use of surface-collected flint and hard hammer technology could apply to later Bronze Age material. However the recovery of numbers of pieces, mostly sharp and with similar patina and cortex suggests that a date contemporary with the Iron Age feature may be more likely.

VI. Miscellaneous finds
by Sue Anderson

Burnt flint
Burnt flint was found in seventy-one contexts. A large group was recovered from Period I pit 0408, which also contained several worked flints and Bronze Age pottery. Otherwise, collections of burnt flint were all small.

Fired clay objects
Fragments of flint-tempered fired clay were found in layer 0274 (Period I). At least one of these has a flat 'base' which curves up to an apparently vertical side, and there is an abraded ?central hole. Thirty-two other pieces (301g) are flint tempered and several have curving sides which suggests that they are bun-shaped objects. It is possible that these fragments could have been used as loomweights, although no parallels are currently known from the Early Bronze Age. At least one piece is very similar to cylindrical loomweights of the Middle and Late Bronze Age. Some surface pieces were found, but none is diagnostic. All fragments were recovered from a group of features in the southern end of the site, two of which are dated to the Early Bronze Age from pottery evidence. Twenty-one fragments from gully 0272 were probably redeposited from hollow 0273, which contained nine fragments. The nearby section of ditches 0269/0270 produced a further two pieces. This spread of finds probably represents domestic waste of the period.

Metalworking debris
Iron slag and vitrified hearth lining fragments were collected from eight contexts. The hearth lining, three small fragments, was found in peat hollow layer 0192 (Period III.3), fill 0220 of ditch 0214 (Period II) and fill 0223 of ditch 0158 (Period II). Slag was found in fill 0155 of ditch 0142 (Period III Phase1), fill 0208 of gully 0214 (Period II), 0274, ditch fill 0375 (Period III.2), and postholes 0597 and 0611 (Building 1, Period III.2). The last two could be heavily corroded iron objects, possibly nails. All pieces are small, and most are undiagnostic. The fragment from 0155 may be fuel ash slag, although it does have some iron content. A piece from 0208 is probably tap slag and may be smelting waste, but the small quantity cannot be taken as evidence that this process was being undertaken on site.

The total quantity of slag does not indicate any intensive metalworking on the site. Lead waste was also found in small quantities and is discussed above (Section I, Small Finds).

Hones and whetstones
Fragments of possible sandstone hones and schist whetstones were found in five contexts (ditch fill 0375 (Period III.3), pit 0392 (Period III.2), field ditch 0474 (Period IV), find 0527 (Period III.3), floor layer 0599 (Period III.2, Building 1).

VII. Animal bone
by Alexis Willett

Introduction
A total of 2042 bone fragments, weighing 69.746kg, was recovered from the Beck Row site. The general condition of the bones was good although many of the surfaces had been affected by bioturbation and were etched by root activity. A few of the bones were very light and crumbly. The majority of this assemblage was fragmentary although a significant number of whole skeletal elements were present. The bones analysed were all hand-collected during the excavation and thus a bias towards the larger skeletal elements and species must be taken into account for this assemblage.

A full methodology and list of data are available in the archive, along with a key to the codes used and the measurement descriptions. References used for identification were Cohen and Serjeantson 1996, Davis 1987, Grant 1982, Hillson 1992 and Schmid 1972. Zooarchaeological quantification methods are a topic of constant debate and little agreement. For the Beck Row site, the numbers of identified specimens (NISP) and the minimum number of individuals (MNI) were calculated for the animal bones in order to estimate the relative frequencies of the various taxa in the assemblage. Although both methods are subject to problems of accuracy, used together they may provide the most useful statistical means of assessing the faunal assemblage of this site.

Results

Table 12 shows the summary of quantification by period, phase and taxa. Sixteen taxon categories were identified, although five of these are broad groupings in order to narrow down the classification of those fragments that were not specifically identifiable. The broad groups can be defined as:

Large mammal	an animal approximately the size of cattle / equid / large deer;
Medium mammal	an animal approximately the size of sheep / pig / small deer;
Small mammal	an animal approximately the size of a cat or smaller;
Deer	the species could not be identified due to a lack of reference material;
Bird	the species could not be identified due to a lack of reference material.

Due to time restraints, no attempt was made to distinguish between sheep and goat bones, except in the case of horns, and equid, hare, crow and duck bones have only been identified to genus, not species. Although the sheep and goat bones were not separated it is probably reasonable to assume that the majority of the bones are from sheep, based on faunal remains assemblages from other sites of these periods.

Assemblage composition

Only small numbers of individuals were identified in this assemblage. Cattle were the dominant taxon and, along with the large mammal category, were present in all phases of the site. Sheep/goats were present from Period II onwards and were also of significance in the economy, especially in Period IV when they become the most abundant taxa (Table 12). The greatest diversity in the taxa is seen in the samples from features dated to Period III.3. The hinterland seems to be have been most exploited during Period III as the wild mammals and birds are primarily from features dated to this time. However, the wild animals do not appear to have formed a consequential part of the economy as only a few bones from these species were present in the assemblage as a whole. The peat hollows only produced bone fragments from cattle, equid, large mammal, sheep/goat and medium mammal in the hand-collected assemblage. These bones may represent cuts of meat brought onto the site rather than animals living there. Period I produced very little animal bone in total and only cattle and large mammal categories are represented.

Although the cattle total only slightly more than the other taxa, they would have been the dominant meat on the

	Period:	*U/S*	*Period I*		*Period II*		*Period III.1*		*Period III.2*		*Period III.3*		*Period IV*		*peat hollows*		*Total*	
Taxa		*NISP*	*NISP*	*MNI*	*NISP*	*MNI*	*NISP*	*MNI*	*NISP*	*MNI*	*NISP*	*MNI*	*NISP*	*MNI*	*NISP*	*MNI*	*NISP*	*MNI*
Cattle	*Bos taurus*	3	1	1	30	2	59	3	44	2	172	7	39	3	2	1	***350***	***19***
Sheep/goat	*Ovis / Capra*	-	-	-	27	2	19	3	14	1	92	6	129	1	9	1	***290***	***14***
Goat	*Capra hircus*	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	***1***	***1***
Pig	*Sus scrofa*	-	-	-	5	2	26	1	5	1	12	1	2	1	-	-	***50***	***6***
Equid	*Equus* sp.	2	-	-	6	1	8	1	12	2	51	2	12	1	3	1	***94***	***8***
Dog	*Canis familiaris*	-	-	-	-	-	2	1	1	1	12	3	3	1	-	-	***18***	***6***
Cat	*Felis catus*	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	***2***	***1***
Red deer	*Cervus elaphus*	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	***2***	***1***
Deer	Cervid	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	***1***	***1***
Hare	*Lepus* sp.	-	-	-	-	-	-	-	-	-	41	2	-	-	-	-	***41***	***2***
Duck	*Anas* sp.	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	***1***	***1***
Carrion crow/rook	*Corvus corone / frugilegus*	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	***2***	***2***
Bird		-	-	*	-	*	1	*	3	*	1	*	-	*	-	*	***5***	*
Large mammal		4	9	*	141	*	120	*	111	*	349	*	68	*	9	*	***811***	*
Medium mammal		-	-	*	63	*	74	*	58	*	149	*	12	*	5	*	***361***	*
Small mammal		-	-	*	-	*	-	*	-	*	13	*	-	*	-	*	***13***	*
Totals		9	10	1	274	9	311	11	249	8	896	23	265	7	28	3		62

Table 12 NISP and MNI by period and taxa Key: - = taxa not present ; * = MNI not calculated

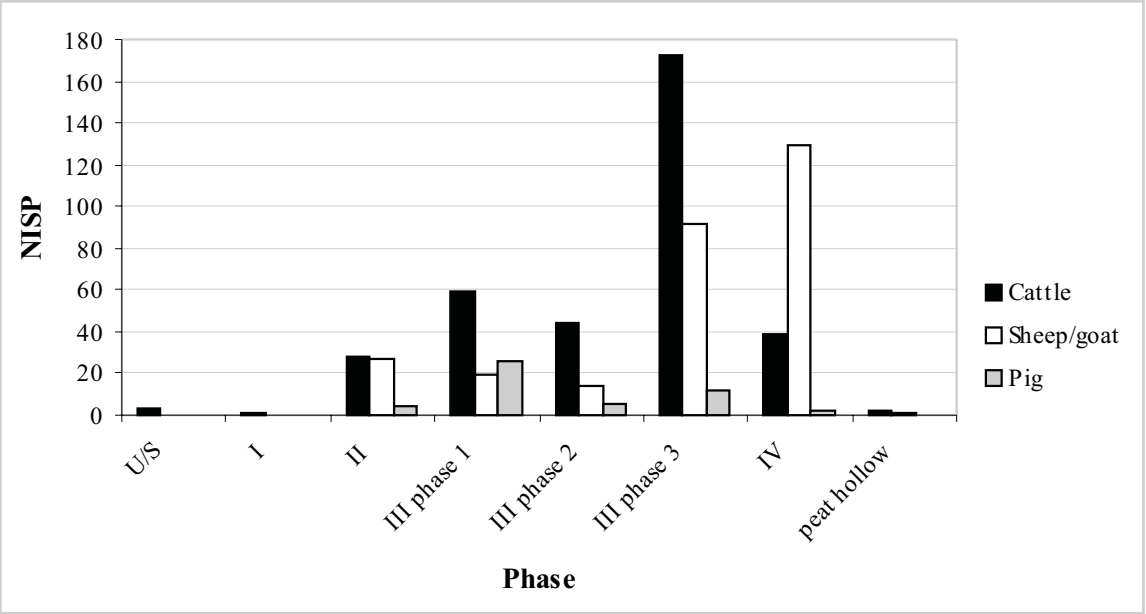

Figure 25 Relative abundance of the major taxa

site, being the largest of the taxa and thus producing the most meat per individual. It is interesting to note the very low numbers of pigs that are represented in this assemblage. The evident lack of the smaller taxa is probably a result of the hand collection recovery process rather than the absence of these species on the site. Very low numbers of individuals from the site overall however, limit the conclusions that may be made about the economy and agricultural preferences.

Element frequency

The frequency of skeletal elements is important information in order to assess taphonomy, butchery, transport, food preparation, disposal habits, nutrition, activity areas, site function and economy and social organisation issues (Reitz and Wing 1999). Patterns of element representation of the various taxa were difficult to ascertain within the assemblage from Beck Row. Preferences for certain cuts of meat or waste material throughout the site's use were not obvious but the relatively low numbers of bones in the overall assemblage hinder conclusions of this kind.

Temporal and spatial analysis

The large majority of the animal bone in this collection was excavated from features dated to Period III.3. Almost all taxon categories are seen in this period and comprise 42.0% of the assemblage number as a whole. The entirety of Period III dominates the faunal remains totals and Periods II and IV produced significantly less material than the sum of the phases in Period III. Very few animal bone fragments were produced by features dated to Period I and the peat hollows. Fig. 25 shows the distribution of the three main taxa by period.

In general, small numbers of animal bone fragments were recovered from many individual features across the site rather than distinct concentrations from a few contexts. The majority of the faunal remains on this site were collected from the ditches. Several of the postholes and layer 0374 within the buildings produced a small amount of animal bone. This area is not significant in terms of the spatial analysis of the animal bones from this site. One interpretation of the building is that it was used to shelter animals at some point in its history. Even if this were accurate, the contexts excavated would not necessarily be expected to produce faunal remains as the animals would probably have been removed for butchering or dispersal even if they died naturally. Another possibility is that the building was used as a maltings. Such a building would be likely to produce a larger proportion of small mammal bones in the assemblage as rodents would have been attracted to the grain. It is possible, however, that such bones did not survive or may not have been recovered during excavation. All the small mammal bones were from one layer of peat hollow 0195, dated to Period III.3, near a group of pits in the south-west corner of the site. Perhaps these pits were used for the storage of food thus attracting the small mammals, or the frequency of their bones is a result of their use of the hollow for water.

Measurements

All measurements were based those of von den Driesch (1976) and full details of the measurements recorded can be seen in the archive. Limited time only allowed for measurements to be taken on those animal bones from the large groups recovered from late Iron Age to Roman contexts 0195 peat hollow layers 0191 and 0192 (Period III.3), layer 0251 (Period III.1), and pit 0271 (Period III.2), and thus the following trends are based on a very small number of individuals.

The equid and sheep measurements show that these taxa at Beck Row were smaller than those found from the prehistoric and Roman features at West Stow in Suffolk (Crabtree 1989a). The West Stow equids, which were like modern ponies rather than horses, and sheep, resembling the modern Soay breed, are comparable in size with other British Iron Age assemblages. The cattle from Beck Row seem to have been a different shape, and thus presumably a different breed, from the prehistoric and Roman cattle at

West Stow as some dimensions were smaller, some were larger and some were very similar. The trend of these measurements implies that the cattle were smaller overall. The cattle at West Stow were similar in size to cattle from Roman Britain in general. It should be noted, however, that no assessment of sex ratios has been made which may affect interpretation of the animals' sizes, along with factors such as the quality of nutrition, living conditions and general health for example.

Age
The epiphyseal fusion data, details of which may be found in the archive, was analysed for the cattle, sheep/goats and pigs in order to estimate their kill-off patterns using domestic mammal age data from Silver (1969). The small amount of data collected showed that cattle seem to have been kept into maturity and thus were considered useful as adults, possibly for dairying rather than being purely utilised for their meat. Most of the sheep/goats appear to have lived to between three and four years of age, again being exploited for their secondary resources, such as wool, in addition to their meat. On the whole, the pigs measured lived beyond about one and a half years but were killed before four years suggesting that they were grown to a substantial size before being killed in order to maximise their quantity of prime meat. No significant differences between the periods/phases were observed.

Damage
A significant number of the animal bones from Beck Row had root-damaged surfaces thus any evidence of gnawing, cut marks or pathology was obscured on these fragments. At least forty of the bone fragments recovered from the excavation showed signs of being exposed to heat. The temperatures involved may be surmised by the colour changes on the bone surfaces. The majority of the bone fragments from Beck Row that were affected by heat had been charred, indicating a relatively low heat carbonising the organic constituents, although there were also eleven calcined fragments, which result from high temperatures oxidising the organic components. According to Reitz and Wing (1999), 'most normal roasting chars' animal bones whereas disposal of the remains in a fire pit, which has a higher temperature, 'might further reduce their organic constituents'.

Cut/chop marks
The majority of the bones in this assemblage had cut and/or chop marks. The presence of both cut and chop marks implies an emphasis on the eventual use of the animals from the site as a material commodity and shows that primary and secondary butchering took place. The carcasses were first hacked / chopped and then the meat further processed resulting in the cuts. The variety in the size, depth, angle and style of the chop and cut marks shows that a range of tools was used on the carcasses. Chop marks are likely to be made by axe, cleaver, and hatchet type tools used to dismember the carcass or to release the marrow from the bone rather than process the meat after cooking. Cut marks are probably made by tools such as knives, possibly during skinning, when disjointing the carcass or when removing meat away from the bone before and after cooking. No evidence of sawing was obvious on the bones in this collection and there was no strong evidence for skinning. It should be borne in mind, however, that skins may be removed from an animal without producing any marks on the underlying bones at all.

The long bones mainly displayed the cut and chop marks and they were primarily seen from cattle, large mammal, pig and medium mammal bones. It is interesting to note that the sheep/goat and hare bones do not seem to show obvious marks which leads one to question whether the cuts were not present or just not seen. The root damage on some of the bone surfaces may have hindered such observations being made. The numbers of bone fragments with cut / chop marks within each period approximately corresponds with the total NISP counts therefore no distinct fluctuations in butchery habits were noted.

Gnaw marks
As it is not only humans that eat meat, any gnaw marks on the bones were noted as evidence of post-depositional activity by other species living on or around the site. At least ninety-six of the bone fragments from this site had been gnawed suggesting that these parts of the carcasses were not buried straight away, as a means of a disposal, and were either lying exposed on the surface for a time or perhaps deliberately given to other animals to eat. They may, alternatively, have been disturbed from their primary burial context and exposed for a time. The irregular grooves and pits on the bone surfaces show that they were gnawed by carnivores, probably canids, rather than rodents. Re-deposition of these bones from their original contexts is thus implied.

Pathology
Only a few bone fragments from the Beck Row site showed signs of pathological changes. Cattle were the taxa primarily affected with only one fragment of sheep/goat showing such change. A range of minor osteological changes can be seen in this collection of faunal remains, from signs of previous gum inflammation to pits resulting from infection. Along with the relative maturity of the animals, this indicates relatively healthy populations that were living on or near the site, or were brought in, who suffered little disease and were well-fed with good living conditions. The relative lack of pathologies such as trauma or nutritional defects further suggests healthy, well-treated animals.

The site in context
During the Iron Age in Britain cattle and sheep were the most common domestic mammals while pigs, horses and dogs were less abundant. The livestock tended to be small breeds, where modern equivalent examples might be the Soay breed of sheep and large ponies rather than horses. The Celts apparently considered it unlawful to eat hares (Laing 1979) and hunting and gathering only played a small part in the economy (Adkins and Adkins 1982). Although there were some changes in agriculture and land use during the Late Iron Age / early Roman period, a general continuity was apparent. As the Roman era progressed pigs became increasingly more popular and a significant decline in the preference for sheep occurred, yet rural areas often continued Iron Age agricultural traditions. Evidence from rural Roman sites suggests that their economy was based on mixed farming, with pigs and cattle as the predominant livestock (King 1978), although the environment, on a local level, caused some variation

on this trend. An example of such variation is highlighted by Darvill (1987, 144): 'the mainstay of the subsistence base seems to have been grazing cattle and sheep on the rich fen-edge pastures'.

At West Stow the animal bone data from the Iron Age and Roman phases showed that the economy moved from being dominated by cattle, with very few wild mammals and birds, to having a significantly increased proportion of sheep and pigs (Crabtree 1989b). The sheep would have been suited to the Breckland environment and pigs reproduce rapidly with large litters thus proving a popular livestock choice. Weeting Farm, Norfolk, a Romano-British farmyard site, appears to have been based on a mixed farming economy where cattle were the primary domestic animal and the proportion of sheep decreased through time (Gregory 1996). Further afield at the Iron Age and Roman settlement at Tort Hill West, Cambridgeshire, no significant differences between the late Iron Age and the Roman period, in terms of the variety and sizes of the taxa, were observed (Albarella 1997a). At the Iron Age Fen edge site of Outgang Road, Market Deeping, Lincolnshire, the limited age data suggests that cattle were also utilised for dairying and traction and no obvious differences in animal use through the phases could be seen (Albarella 1997b).

At Beck Row it seems that pastoral activity, as part of a mixed farming economy, was taking place throughout much of the site's use with small numbers of domestic animals probably being corralled there. Pastoral enclosures, 'small rectangular ditched enclosures which may have been used for the control of livestock', continued in use in Britain from the Bronze Age (Adkins and Adkins 1982). Such activity would fit the pattern of ditches and the animal bone evidence found at the site. On the Fens' low-lying ground it is probable that the land would have become very wet on a regular basis thus limiting its suitability for arable farming, and therefore an emphasis on a pastoral regime was likely to have been more practical. During the Roman era, the Cambridgeshire fenland also saw a mixed cattle and arable economy where the damp environment was less conducive to sheep-rearing but the areas of wet and dry pasture were suited to cattle. Many cattle products from the area were supplied to the Roman army across Britain but the cereals were grown on a small-scale for local consumption (Browne 1977).

When placed in the national context, the patterns of agriculture through time at Beck Row appear to have followed Iron Age traditions with the primary importance of cattle and relative lack of wild animals and the small breeds. The increase in agricultural activity follows the rural Roman pattern but there is no significant rise in the proportion of pigs within this limited group. The regional sites of West Stow and Weeting show similar taxa preferences and Tort Hill West and Outgang Road also demonstrate the general lack of change in agricultural tradition from the late Iron Age to Roman phases.

Summary and discussion

This faunal remains assemblage is too small to interpret accurately the palaeoeconomic status of the site at Beck Row. Broad suggestions may, however, be useful when considering the animal bones alongside the other forms of evidence from the site. This assemblage is important within the archaeological record as not only are faunal remains assemblages from rural Roman sites in East Anglia limited, those that span the Iron Age–Roman transition need further attention in order to 'assess the extent to which the conquest affected patterns of production' (Murphy 2000). Such paucity in the archaeological record has led Albarella (1997a) to comment; 'any new contribution from such sites, even from small assemblages … is most welcome'.

Cattle appear to have been a major focus in terms of animal husbandry throughout the whole of this site's use. Sheep/goat, equid and pig seem to have had a less important role with the wild mammals and birds only comprising a brief supplement to the economy within Period III. This pattern is similar to other Iron Age rural sites with a slight rise in taxa quantity and range during the Roman phases. The animal bones from Beck Row appear to illustrate increased agricultural activity as the Roman period progresses but the style and traditions seem essentially to be a continuation of Iron Age practices.

VIII. Charred plant macrofossils and other remains

by Val Fryer

Introduction

An extensive series of samples for the extraction of macrobotanical remains was taken from across the excavated area. Forty-eight samples from the immediate vicinity of the Roman buildings were selected for assessment and of these, sixteen were recommended for full quantitative analysis.

Botanical evidence for the use of barns and/or similar structures such as granaries in the Roman period is extremely rare in the Eastern region, this being only the third example studied. A building with internal ovens, almost certainly used for parching malt and/or drying grain for storage, was excavated at Rectory Farm, Godmanchester (Murphy in prep.) and a further small structure at Great Holts Farm, Boreham, Essex (Murphy *et al*. 2000) was used for the storage of cereals and pulses. In both cases the buildings were destroyed by fire. Given this restricted data set, the aims of the current study were:

to determine the range of activities which may have occurred within the building;

to ascertain whether there was any evidence for the spatial distribution of activities within the structure;

to determine the range of crops stored/processed in the structure and their relative importance;

to ascertain whether the range of activities or materials changed between the two buildings;

to provide information about the local agrarian economy.

Methods

The samples were processed by manual water flotation/washover, collecting the flots in a 500 micron mesh sieve. Large or very productive samples were sub-sampled as appropriate. The dried flots (or fractions thereof) were sorted under a binocular microscope at low power (×16 magnification). The plant macrofossils and other remains identified are listed on Tables 13–16, in which counts of cereal grains refer to whole grains or embryo ends. Identifications were made by comparison with modern reference material. Nomenclature follows Stace (1997). Preservation of the material was solely by charring with the exception of a single mineral replaced sedge fruit (sample 10). Modern contaminants including fibrous roots, seeds/fruits and arthropods were present at a very low density in most samples.

Sample No./Context	*91/0136*
Cereals	
Avena sp. (grains)	2cf
(awn frags.)	3fg
Cereal indet. (grains)	26
Hordeum sp. (grains)	24
Secale cereale L. (grains)	4cf
Triticum sp. (grains)	51+4cf
(spikelet bases)	2
T. cf *dicoccum* Schubl. (glume bases)	2cf
T. spelta L. (glume bases)	1
Herbs	
Atriplex sp.	28
Chenopodium album L.	82
C. ficifolium Smith	5
Chenopodiaceae indet.	2 xxxtf
Fallopia convolvulus (L.)A.Love	4tf
Fumaria officinalis L.	1
Galium aparine L.	55 xxfg
Hyoscyamus niger L.	84
Lepidium sp.	9cf
Small Poaceae indet.	1
Large Poaceae indet.	2
Polygonum aviculare L.	1
Reseda sp.	1
Rumex sp.	30
Silene sp.	3
Sinapis sp.	1tf
Stellaria sp.	2
Thlaspi arvense L.	3fg
Wetland plants	
Carex sp.	13
Eleocharis sp.	16
Other plant macrofossils	
Charcoal <2mm	xx
Charred root/rhizome/stem	xx
Ericaceae indet. (stem)	9fg
Indeterminate grass/straw culm nodes	3
Indeterminate seeds	6
Other material	
Bone	xx xxb
Fish bone	x
Small mammal/amphibian bone	xb
Sample volume (litres)	8
Volume of flot (litres)	0.2
% flot sorted	50%

Table 13 Charred plant macrofossils and other remains from Period II

Key to Tables
x = 1 – 10 specimens xx = 10 – 100 specimens xxx = 100+ specimens fg = fragment tf = testa fragments b = burnt coty = cotyledon ss = sub-sample

Plant macrofossils
Cereal grains/chaff and seeds of common segetal weed species are present at varying densities in all samples. Preservation of the macrofossils is generally moderate to good. However, the malting/drying processes have frequently altered the physical appearance of the grains. In a large number of cases the entire embryo end is missing and, less frequently, germination has resulted in grains with very concave or crumpled profiles. As a result of this and the puffing of some grains due to prolonged exposure to high temperatures, some specimens could not be specifically identified.

Cereals
Wheat (*Triticum* sp.) is the main crop represented and grains are present in all but sample 60. The grains are predominantly of the elongated 'drop' form typical of spelt (*T. spelta*) but short rounded hexaploid-type forms (*T. aestivum/compactum* (bread wheat) type) were also noted. Six of the samples studied contain complete or near complete spelt wheat spikelets with the grains still tightly enclosed within the glumes. Such finds are extremely rare as any parching/charring makes the spikelet extremely brittle and fragile. Wheat chaff, principally comprising double keeled spelt glume bases, is abundant throughout. However, very rare specimens of emmer (*T. dicoccum*) glume bases with only one prominent keel were recovered from samples 8, 81 and 91 and bread-wheat type rachis nodes with attached internode fragments but no glume bases were noted in samples 26, 75 and 78.

Barley (*Hordeum* sp.) grains were also recovered from all but sample 60, although at a lower density than the wheat. Asymmetrical lateral grains of six-row barley (*H. vulgare*) are present in samples 8, 26 and 27. Barley chaff is rare but rachis nodes were noted in thirteen samples.

Oat (*Avena* sp.) grains and chaff are very rare although awn fragments were noted at a low density in ten samples. A single wild oat (*A. fatua*) floret base with a diagnostic 'sucker mouth' basal abscission scar was found in sample 19.

Rye (*Secale cereale*) was extremely rare but is represented in four samples by poorly preserved sharply keeled grains with blunted apices and elongated embryos, and by possible rachis nodes with poorly defined rachis segments.

Cereal sprout fragments were noted at varying densities in all but sample 91. Barley and wheat grains with attached sprouts were also recorded along with rare specimens of germinated weed seeds.

Wild flora
Seeds/fruits of common segetal weed species were recovered, generally at a low to moderate density, from all samples. Taxa noted include *Agrostemma githago* (corn cockle), *Atriplex* sp. (orache), *Bromus* sp. (brome), *Chenopodium album* (fat hen), *Fallopia convolvulus* (black bindweed), *Galium aparine* (goosegrass), *Rumex* sp. (dock), *Tripleurospermum inodorum* (scentless mayweed) and *Vicia/Lathyrus* sp. (vetch/vetchling). Sample 91 (Table 13), from a context which pre-dates the building, also contains seeds of ruderal species, most notably *Hyoscyamus niger* (henbane), a plant associated with disturbed ground in manure rich farmyards. It is suggested that this sample may be indicative of the burning of small quantities of both crop processing and farmyard waste.

It is perhaps of note that most of the seeds recovered from the assemblages are either of similar size to the grains, for example the corn cockle, brome, black bindweed and the larger vetches, or would originally have been incorporated into the assemblages as intact capitulae (seed heads). Indeed, two seed capsule heads were found in sample 77. Although these larger macrofossils most probably appear in the assemblages as part of the cereal processing debris which would have been used as fuel for

Sample No. / Context	*26/0577*	*27/0599*	*75/0677*	*77/0471*	*78/0662*	*81/0597*	*83/0375*
Cereals							
Avena sp. (grains)	1		2cf	48	3cf	1cf	3
(awn frags.)	2fg	9fg				1fg	
(floret base)		3					
Cereal indet. (grains)	19	54	19	15	16	38	29
(grains fragments)	x					xx	
(basal rachis nodes)		15	3	12	12	2	1
(sprout frags.)	12	42	28	138	60	18	22
(detached embryos)	2		9		54		4
(rachis internode frags.)				xx			
(awn frags.)				xxx			
Hordeum sp. (grains)	36	228	49	6	113	97	5+6cf
(grain fragments)	x		x		xx	x	
(rachis nodes)	9	15	4	42	18	7	5
Hordeum/Secale cereale rachis nodes				3			
Hordeum vulgare L. (grains)	3cf	9cf					
Secale cereale L. (grains)	2cf				1cf		
(rachis nodes)					3cf		
Triticum sp. (grains)	84	1062	153	30	311	195	26
(grain fragments)	x		xx		xxx	xxx	
(glume bases)	47	138	36	582	44	26	162
(spikelet bases)	52	408	61	426	100	60	111
(rachis internodes)	27	138	21	513	35	13	43
T. spelta L. (glume bases)	220	702	141	1626	319	146	361
(spikelet forks)	6	39	10	18	15	13	1
(spiklelets/spikelet frags.)		6	6		12+12fg	7	
T. aestivum/compactum type (rachis nodes)	1+3cf		2cf		1cf		
Herbs							
Agrostemma githago L.		1+1tf	1				
Anthemis cotula L.	1cf						
Atriplex sp.				4			1
Brassicaceae indet.				1			
Bromus sp.	2cf	6		3			
Centaurea sp.				1			
Chenopodium album L.	1			1	1		2
C. ficifolium Smith				4			
Chenopodiaceae indet.	1			1			
Fabaceae indet.				1			
Fallopia convolvulus (L.)A.Love	1	3+6tf	2tf	1		1tf	3tf
Galium aparine L.	1	1fg	2				
Medicago/Trifolium/Lotus sp.		3		4	2		
Plantago lanceolata L.					1		
Small Poaceae indet.		1		2cf		1cf	
Large Poaceae indet.		6	1	1	1	1fg	
Polygonum aviculare L.				1			
Polygonaceae indet.	1		2			2	
Prunella vulgaris L.							1
Rumex sp.	3	18+6tf	1	6	8	3+1fg	2
Raphanus raphanistrum L. (stem frag.)				1cf			
Sinapis sp.				1cf			
Tripleurospermum inodorum (L.)Schultz-Bip.	1	66	2	13	1		1
Vicia/Lathyrus sp.	2	12+21coty	3+4coty	1coty	10+3coty	4+8coty	1+3coty
Wetland plants							
Carex sp.				1cf			
Cladium mariscus (L.)Pohl				1			1
Other plant macrofossils							
Charcoal <2mm	xxx	xxx	xxx		xxx	xxx	xx
Charcoal >2mm		xx	x		xx	xx	
Charred root/rhizome/stem	x						
Burnt concretions incl. grain, chaff etc.						xxx	
Indeterminate grass/straw culm nodes	3		2			7	3
Indeterminate inflorescence frags.	x	xx	x	xxx			x
Indeterminate seeds		9			3	2	4
Indeterminate seed capsule caps				2			
Other material							
Black porous ‘cokey’ material			x				xxx
Black tarry material				x			
Bone	x xb						x
Fish bone						x	
Small mammal/amphibian bone	x		x				
White chalky concretions			xxx				
Sample volume (litres)	10	5ss	5	5ss	5ss	5ss	5
Volume of flot (litres)	0.2	2	0.1	1.2	1.5	1	0.1
% flot sorted	50%	6. 25%	50%	6. 25%	6 .25%	6 .25%	50%

Table 14 Charred plant macrofossils and other remains from Building 1, Period III.2

Sample No. / Context	*8/0461*	*28/0601*	*60/0655*
Cereals			
Avena sp. (grain frags.)	x		
(awn frags.)	4fg		6fg
Cereal indet. (grains)	90	22	4
(basal rachis nodes)	4		4
(sprout frags.)	108	196	140
(detached embryos)	14	4	
(rachis internode frags.)			xxx
Hordeum sp. (grains)	76	22	
(grain frags.)	xx		
(rachis nodes)	14		10
(rachis internodes)	8cf	4cffg	
H. vulgare L. (grains)	4cf		
Secale cereale L. (grains)		1cf	
Triticum sp. (grains)	202	26	
(grain frags.)	xxx	x	
(glume bases)	66	164	602
(spikelet bases)	210	70	134
(rachis internodes)	50	22	232
T. dicoccum Schubl. (glume bases)	6cf	3cf	
T. spelta L. (glume bases)	656	428	878
(spikelet forks)	34		
(spikelets/spikelet frags.)	14		
Herbs			
Agrostemma githago L.	10	2	2tf
Asteraceae indet.	2		
Bromus sp.	4fg	1cffg	
Chenopodium album L.	2		2
Chenopodiaceae indet.	4fg	4	
Plantago lanceolata L.	1		
Small Poaceae indet.	6		
Large Poaceae indet.	1fg		
Polygonum aviculare L.	4		2tfcf
Polygonaceae indet.		1tf	
Rumex sp.	12	2	2
Silene sp.	6+5fg	2	
Tripleurospermum inodorum (L.)Schultz-Bip	2		
Wetland plants			
Cladium mariscus (L.)Pohl	1		
Eleocharis sp.	2fg		
Other plant macrofossils			
Charcoal <2mm	xxx	xxx	xxx
Charcoal >2mm	xx	xx	
Ericaceae indet (stem)	x		
Indeterminate ?catkin frag.	1		
Indeterminate grass/straw culm node	2		
Indeterminate inflorescence frags.	xx	x	xxx
Indeterminate seeds	4		8
Other material			
Bone	x	x xb	
Small mammal/amphibian bone	x	x	
Sample Volume (litres)	10	10	5ss
Volume of flot (litres)	0.4	0.1	0.5
% flot sorted	50%	50%	6 .25%

Table 15 Charred plant macrofossils and other remains from Building 2, Period III.3

the malting/drying process, they may also be relicts of the original segetal assemblage. Because of their size, neither the seeds or the seed heads would have been removed from the grain during winnowing and could only have been separated by hand picking in the latter stages of processing. Although it is unlikely that many contaminants would have remained with the grain to reach the malting process, the very large quantities of material which would have been processed in a structure of this size inevitably meant that a few seeds would have been missed. It should be noted, therefore, that the composition of the weed assemblage is very likely biased, with large weed seeds being over represented in the samples.

Rare seeds/fruits of wetland species including *Carex* sp. (sedge), *Cladium mariscus* (saw sedge) and *Eleocharis* sp. (spike rush) were recorded in seven samples. Given the very low density of macrofossils, it is not known whether these are indicative of cereal production on damp marginal soils or the importation of material on to the site for use as bedding, thatching materials or kindling for the malting process.

Other plant macrofossils

Charcoal fragments are common or abundant in all but samples 20 and 77. Other plant macrofossils include fragments of charred root, rhizome or stem including heather (Ericaceae indet.) stem, grass or straw culm nodes and indeterminate inflorescence and awn fragments. Sample 81 contained common burnt concretions into which cereal grains and chaff were incorporated.

Other material

The fragments of black porous 'cokey' material and black tarry material are probably the residues of the combustion of organic materials, including cereal grains, at very high temperatures. Small mammal bones, including burnt specimens, and other bone fragments were noted in ten samples and rare fish bones are also present.

Sample composition

Both the archaeological and the plant macrofossil evidence from the Beck Row structure appear to indicate that the building probably served as a barn/granary with ancillary uses associated with grain processing. Internal features, including a chalk floor with possible flues and/or hearths, which are associated with the second phase (Period III.3) of the structure, probably indicate that the parching, drying and/or malting of grain may have been conducted within this barn, as at Godmanchester (see above). The plant macrofossil assemblages certainly appear to support this hypothesis. Features from both the first and second phases of the structure contained numerous sprout fragments, grains with attached sprouts and germinated grains with marked concave profiles, all of which are indicative of malting. The predominance of wheat and barley grains suggest that these were the principal cereals involved although sprouted oat and rye grains were also noted.

However, in all but two cases (sample 10 from the 'malting' floor and sample 91 from a pre-structure ditch fill) cereal chaff elements form the principal component of the assemblages. Wheat glume base : grain ratios vary from 1.6:1 (sample 27 from layer 0599 beneath malting floor) to 125:1 (sample 20 from a flue in the malting floor). Sample 60 from the fill of post-hole/pit (0655) contains no

Sample No. / Context	*10/0480*	*19/0527*	*20/0563*
Cereals			
Avena sp. (grains)	1		
(awn frags.)		16fg	2fg
A. fatua L. (floret base)		3	
Cereal indet. (grains)	36	18	4
(grain frags.)	xx		
(basal rachis nodes)		3	1
(sprout frags.)	8	39	128
(rachis internode frags.)			x
Hordeum sp. (grains)	39	4	4
(rachis nodes)		8	1
Hordeum/Secale cereale (rachis node)		3	
Triticum sp. (grains)	79	12	10
(glume bases)	10	326	478
(spikelet bases)	14	150	147
(rachis internode frags.)	2	129	79
T. spelta L. (glume bases)	13	532	478
(spikelet forks)		6	
(spikelets/spikelet frags.)	1		
Herbs			
Atriplex sp.	2		
Bromus sp.	3		2
Chenopodium album L.	1cf		
C. ficifolium Smith			5
Chenopodiaceae indet.		1	2tf
Fabaceae indet.	1fg		
Fallopia convolvulus (L.)A.Love			2
Galium aparine L.	2fg		
Large Poaceae indet.	1		
Polygonum aviculare L.			1cf
Rumex sp.		8	4+1tf
Silene sp.			1
Sinapis sp.			1tf
Tripleurospermum inodorum (L.)Schultz-Bip	1		
Vicia/Lathyrus sp.	2		
Wetland plants			
Carex sp.	1m		
Cladium mariscus (L.)Pohl	1		
Eleocharis sp.	1		
Juncus sp.		1	
Other plant macrofossils			
Charcoal <2mm	xx	xxx	
Charcoal >2mm	x		
Indeterminate culm nodes		2	
Indeterminate inflorescence frags.	x		
Indeterminate seeds	1		1
Other material			
Black porous 'cokey' material	x		xx
Soil concretions	xx		
Small mammal/amphibian bone	x	xb	x
Sample volume (litres)	10	2	10
Volume of flot (litres)	0.4	0.1	0.6
% flot sorted	100%	50%	6 .25%

Table 16 Charred plant macrofossils and other remains from contexts associated with the use of the malting floor in Building 2, Period III.3

identifiable wheat or barley grains but has a density of 5952 chaff elements per litre of soil sampled. The highest density of chaff appears in sample 77 (from ditch 0471 to the north of the structure) where approximately 10,310 chaff elements, principally spelt glume bases, were recorded per litre of soil. This deposit may be derived from the cleaning out of the heating ducts/flues, with waste material being dumped in an available open feature. Samples from the second phase of the structure (Period III.3) appear to have a slightly higher glume base : grain ratio than the samples from Period III.2, although this may reflect the increased size and capacity of the building rather than any change of use.

It appears likely, therefore, that the assemblages are primarily derived from either fuel residues or stored fuel, the latter also being burnt in the fires which destroyed the buildings. The use of cereal chaff as a fuel source was common practice in Roman Britain. Contemporary parallels associated with cereal malting are known from, for example, Stebbing Green, Essex (Murphy 1989) and Culver Street, Colchester (Murphy 1992).

Spatial distribution and taphonomy

Historical evidence for the use of large barns (T. Williamson, Centre of East Anglian Studies, pers. comm.) suggests that they were multi-functional buildings used for crop processing, storage, the sheltering of animals and as a convenient large covered space for numerous other agricultural and pastoral activities. It is reasonable to assume that this model also applies to Roman structures of this type. However, although it was hoped that analysis of these samples may indicate how different areas of the structure may have been used, the taphonomy of the assemblages appears very complex and the material is difficult to interpret.

It would appear that a principal function of the Beck Row barn was the malting of wheat and barley. Malting is an essential prerequisite of the using of grain for brewing and initially involves the soaking of the grain to stimulate germination. Once sprouted, the grain is slowly turned and dried until the malting process is completed. In structures like Beck Row, drying was facilitated by under-floor ducts or open hearths/ovens using chaff as fuel. The drying process, therefore, presented an extreme fire hazard. Smouldering chaff could come into contact with the grain, the carbohydrate in which would burn very freely. Add to this a wooden structure, possibly with a thatched roof, and catastrophic fires were inevitable.

The fires which destroyed the Beck Row buildings, and the subsequent levelling of the site, removal of the remaining timber uprights and re-digging of post-holes mean that all the assemblages recovered are probably derived from a mixture of material including malting/drying waste, prime grain deposits and processing waste used as fuel. Therefore, with the exception of the malting floor, it is not possible to demonstrate any zonal use of the building.

Conclusions

In summary, although the building at Beck Row probably served as a multi-functional building, the malting and drying of grain, principally wheat and barley, were of prime importance. The main component of most of the assemblages analysed appears to be fuel residues from the drying and malting processes. As is usual in Roman

contexts, this fuel is largely derived from spelt wheat processing waste. Although spelt chaff was traded as fuel, it is reasonable to assume that a high percentage of the material present is derived from local agriculture, indicating that cereals were largely being produced on the local dry soils. The development of marginal damp soils for cereal production may be indicated by the presence of fruits of wetland species including sedge and spike-rush. Similar evidence for agricultural expansion is known from other contemporary sites.

The Beck Row building appears to have been destroyed by a catastrophic fire, rebuilt and then destroyed again. As a result of this and the subsequent re-working of the contexts during rebuilding, the taphonomy of the assemblages is very complex. With the exception of the malting floor, it is not possible to speculate about the spatial use of the structures.

IX. Palynological assessment of peat-filled hollows

by Patricia E.J. Wiltshire

Introduction

In addition to a wealth of artefactual evidence for occupation over a long period of time, archaeological investigation of deposits at Beck Row in 1999 revealed a series of naturally-formed peaty hollows. Sediments from these features were assessed for palynological potential and the results form the basis for this report.

A large number of detailed palynological investigations has been conducted in East Anglia, including those of Waller (1994). However, he principally concentrated on sites to the north and west of the Suffolk fen edge where long sequences of polleniferous deposits are to be found. Other workers (Bennett 1983; Bennett *et al*. 1990) have also exploited the long sequences of polleniferous sediment from lakes in the region, but sampling sites tend to have been situated away from centres of prehistoric activity. They have, therefore, only limited value in demonstrating the immediate effects of human activity on landscape and vegetation.

Since Beck Row lies on the south-eastern fen edge, many of the classic palynological studies may be considered to be of limited value in understanding ancient environment conditions in this part of Suffolk. However, the site is located fairly near to a number of previously excavated archaeological settlements where analysis of soils and sediments from on-site features and/or nearby riverine deposits has yielded a considerable body of information about ancient landscape and land use. These include Staunch Meadow, Brandon (Wiltshire 1990), Peacekeeper Park, RAF Lakenheath (Wiltshire 1997); Feltwell Anchor (23650 FWL) (Bates and Wiltshire 2000); and High Fen Drove, Northwold (23680 NWD) (Wiltshire 2004; Crowson *et al*. 2000). The deposits at Beck Row provide an opportunity to enhance our knowledge of landscape heterogeneity through time in this area of East Anglia.

The site at Beck Row was situated on the boundary between two distinct soil types. To the north, humic-alluvial gleys over glaciofluvial drift dominated, while to the south, there were brown calcareous earths developed over chalky drift and chalk (Macphail 1999). Palynological investigation was carried out on fills of three hollows; these had accumulated a variety of sediments including chalky drift, sands, and peat. A typical sedimentary sequence within the features is given in Macphail (1999). The hollows were characterised by various archaeological features cut within them, and the excavator decided to investigate a range of these by obtaining monoliths of sediment directly from cut sections. This approach of obtaining several cores from a single feature is valuable for reducing background 'noise' in palynological data.

When several sequences of a series of contemporaneous sediments are obtained in relatively close proximity, any palynological difference between them probably reflects true spatial variation in vegetation in the immediate vicinity of the sampling site during the period of sediment accumulation. The differences between the sequences, in representation and apparent abundance of some taxa, are probably reflections of relatively small differences in the community composition. These differences emphasise the need for a multi-sampling approach in palynological analysis. When single cores of sediment are analysed, erroneous interpretation can be made of relatively small-scale events. These include, for example, the occurrence of a single flower falling into the sediment and exaggerating the importance of a specific taxon. The greater the number of cores taken at a location, the greater will be the signal to noise in the data and, wherever possible, a strategy of multi-core sampling is always to be recommended.

Sample descriptions

(Fig 20)

The thicknesses of peat varied within each peat hollow; some monolith samples were obtained from the side of the hollows while others were from within features cut into the peat hollows.

Peat hollow 0190

Monoliths 8 and 9 were duplicates taken from the fill of a ditch that had been cut into the peat hollow. The base of both cut through layers 0371 (grey sand), then upwards through 0365 (peat), 0183 (ditch fill), and 0190 (brown silt).

Monoliths 5, 6, and 7 were taken from a section of the peat hollow (0438) and cut through layers 0441 (grey sand), 0440 (peat), and an upper brown silt (0190). Monolith 7 consisted of a complete sequence through the fills while 5 and 6 were taken as overlapping samples (5 being the upper).

Peat hollow 0195

Monolith 1 was taken from a section of pit (0197) that had been cut into the hollow and sampled layers 0398 (grey/brown silt) at the base and 0397 (peat) above.

Monolith 10 was taken from a section of the peat hollow, well away from Monolith 1. It sampled layers 0232 (sand/clay) at the base, and 0193 (peat) at the top.

Peat hollow 0395 (Trench 0420)

Monoliths 2, 3, and 4 were taken from Trench 0420 that cut through Peat Hollow 0395. Monolith 4 sampled the whole sequence while Monoliths 2 and 3 were overlapped, with Monolith 2 being the upper. They cut through the basal grey sand, then layer 0395 (peat), and the overlying brown silt. Only the upper part of Monolith 4 was processed for palynological investigation.

Methods

Sediments in monolith tins were subsampled, with sampling resolution being appropriate to the size of the tin. To enhance resolution, each subsample consisted of 2.0g of sediment taken over a depth of 0.5cm. Standard preparation procedures were used (Dimbleby 1985). Every sample was acetolysed and treated with hydrofluoric acid. Samples were lightly stained with 0.5% safranine and mounted in glycerol jelly. Markers for absolute counting were not added to the preparation. Identification was aided by published palynological keys and modern reference material.

Slides were scanned with a Zeiss phase contrast microscope at x400 and x1000 magnification. A minimum of ten traverses of each preparation were scanned and all palynomorphs encountered were identified and recorded. Detailed counting was not carried out. Where specific palynomorphs were relatively abundant, they are recorded by '++' or '+++'. Palynological nomenclature follows that of Bennett *et al.* (1994), Moore *et al.* (1991), and botanical nomenclature follows Stace (1991). Cereal-type pollen refers to all Poaceae grains >40 µm with annulus diameters >8 µm (Anderson 1979; Edwards 1989). It must be noted that 'microscopic charcoal' refers to all fragments of charred and burnt organic material found in the pollen slide, and not necessarily to charcoal *sensu strictu*.

Results and discussion

The results are shown in Tables 17–20. In every sample in every feature, palynomorph abundance was too low for further analysis to be feasible. The preservation was also relatively poor with many pollen grains and spores being pitted, thinned, and crumpled. However, it was sufficiently good to allow a broad picture of the vegetation prevailing in and around the site during the periods of sediment accumulation. In view of the lack of feasibility of detailed analysis, the results of this assessment are viewed in more detail than would normally be expected of an initial examination.

Feature 0190: Peat hollow

Monoliths 5, 6, and 7 (Table 17) were taken from the same sedimentary sequence within the largest peat hollow (section 0438, Fig. 20). In essence, the overlapping Monoliths 5 and 6 represent a duplicate of Monolith 7, so that the two sequences might be taken to span the same time period. Monoliths 5 and 6 span the complete range of sediments while, in Monolith 7, the basal grey sand was not included. Since the same sediments were sampled in both sequences, it would seem appropriate to describe the combined palynological results for each horizon rather than treat each sequence separately.

Basal grey sand (0441)

This is represented by a single subsample (58 cm in Monolith 6: see Table 17). The abundance of algal cells indicates that these deposits were damp, and might even have been waterlogged from time to time (possibly seasonally). However, there is no palynological evidence for any substantial depth of standing water prevailing in the hollow.

The presence of microscopic charcoal might attest to human activity in the area but there is little doubt that the immediate vicinity was dominated by mixed woodland and ferns. The most abundant woody plant was *Tilia* (lime) although *Alnus* (alder), *Corylus*-type (c.f. hazel), and *Pinus* (pine) were present in the catchment. *Salix* (willow) was also growing nearby, and this might indicate a degree of dampness of the local soil. Monolete fern spores (Pteropsida monolete indet.) and *Pteridium* (bracken) were also abundant and the woodland floor was probably dominated by ferns. The presence of bracken suggests that areas of the woodland floor had well-drained, acidic soils outside the immediate confines of the hollow.

Lime trees and ferns create dense shade and this is probably the reason for the paucity of herbaceous plants in the record. However, there must have been some degree of open, better illuminated ground in the vicinity to account for the presence of Poaceae (grasses), *Plantago lanceolata* (ribwort plantain), and Lactuceae (dandelion-like plants). *Ophioglossum* (adder's tongue fern) was also present and this plant is characteristic of damp meadow and pasture today. It is possible, therefore, that people and/or grazing animals had created glades within the woodland.

It is difficult to ascribe a chronology to this horizon although the palynomorph assemblage is similar to those found in deposits in East Anglia which date from the Middle Bronze Age.

Peat (0440)

This horizon is represented by subsamples at depths between 12cm and 44cm in Monoliths 5 and 6, and depths between 24cm and 48cm in Monolith 7. Peat can accumulate over both circum-neutral and acidic deposits if microbial activity is inhibited by low redox potential. This frequently occurs when soils and sediments become subjected to prolonged water logging. Standing water is indicated by the presence of *Apium*-type (fool's water cress), *Lemna* (duckweed), *Lythrum* (loosestrife), *Batrachium*-type *Ranunculus* (e.g. water crowfoot), *Sparganium*-type (bur-reed), and *Typha latifolia* (greater reedmace). Wet soils in the vicinity of the hollow are indicated by Cyperaceae (sedges), *Filipendula* (meadow sweet), and *Valeriana* (valerian). The presence of *Sphagnum* moss also suggests wet and acidic conditions. Although the feature was wet and probably contained standing water throughout its life, the abundance of algal spores suggests that it was prone to periodic drying. Many green algae such as *Spirogyra* are stimulated to produce spores under desiccation stress (Round 1981).

The greater abundance of microscopic charcoal in the peat suggests more intense human activity in the vicinity during the period of sediment accumulation. Furthermore, the higher species richness and abundance of herbaceous plants (including the aquatics and wetland plants mentioned above), as well as shrubs and trees, suggest that the canopy of the lime canopy had been thinned very considerably.

Woody taxa which were not recorded in the basal deposits included *Betula* (birch), *Quercus* (oak), Rosaceae indet. (e.g. hawthorn), and c.f. *Viburnum lantana* (wayfaring tree). *Calluna* (heather) was also present during the period of peat development. Coupled with the increase in bracken, the presence of heather emphasises relatively high light intensity. These plants are also indicators of relatively well-drained, acidic soils. The higher representation of all ferns, including *Polypodium* (polypody) and adder's tongue, further attests to better illumination of the woodland floor. The reduction in tree density would also have allowed better pollen dispersal within the system so that a more comprehensive picture of the local and extra-local vegetation is gained.

The palynomorph assemblage recorded in this peat layer is diverse and there is little doubt that fairly extensive open areas had been created locally. Arable agriculture is indicated by cereal-type pollen, and plants which are common weeds of cultivated ground and disturbed soils such as *Papaver* (poppy), *Fallopia convolvulus* (black bindweed), *Polygonum aviculare*-type (e.g. knotweed), Chenopodiaceae (goosefoot family), *Anthemis*-type (e.g. stinking mayweed), *Artemisia* (mugwort), Apiaceae (e.g. hogweed), and *Sinapis*-type (e.g. charlock). Areas of weedy grassland and pasture are suggested by, amongst others, Poaceae (grasses), *Plantago lanceolata* (ribwort plantain), Lactuceae (dandelion-type plants), *Ranunculus*-type (e.g. buttercup), and *Plantago major* (greater plantain). Damp meadow/pasture is indicated by *Succisa* (devil's bit scabious), *Thalictrum* (meadow rue), and adder's tongue fern.

It would seem that people were active in the vicinity of the hollow and had probably been instrumental in removing much of the lime woodland for, at least in part, the purpose of using the land for mixed farming. The fungal spores and hyphae may have been derived from plant material falling into the feature and decomposing *in situ*, but some might also have been flushed in from surrounding soils. *Glomus*-type (vesicular-arbuscular mycorrhizal fungi) are generally found in association with plant roots in bioactive soils where phosphate and nitrogen levels are relatively low. They are certainly unlikely to have been active in waterlogged conditions. It is likely, therefore, that surrounding soils were being washed into the peat accumulating in the hollow. Removal of trees invariably results in changing, and often unstable, hydrological conditions (see Moore 1988). The soils at the site may have become wetter and subjected to erosion as one of the results of removal of lime trees.

The pollen assemblage for the peat deposits resembles that of sites elsewhere in East Anglia which have been demonstrated to be of later Bronze Age date.

Overlying brown silt

This layer is represented by subsamples at 4cm in Monolith 7 and 3cm and 6cm in Monolith 5. Algal and fungal remains are both recorded in this sediment and the presence of sedges and bur-reed suggests wet conditions in the feature. The abundance of *Lemna* (duckweed) at the top of Monolith 5 is an indicator of stagnant water so it may be assumed that the hollow was still wet while it was accumulating the brown silt. Microscopic charcoal in the sediment indicates a continued human

Monoliths	*5*			*6*					*7*				
Depth (cm)	*3*	*6*	*12*	*14*	*24*	*34*	*44*	*58*	*4*	*14*	*24*	*38*	*48*
Fungi													
Total fungi (not Glomus type)	+	+		+		+			+	+++			
Glomus-type (VA Mycorrhiza)	++	+	++		+				+++	++			
Hyphae				+					+	+			
Algae/Cyanobacteria													
Mougeotia	+	+	+++		++	++	++++	+	++	+	++	++	++
Spirogyra			+	+	++	+	+	+	+	++	+++	+++	++
Other algae	++	+++	++++	++++	++++	++++	+++	+++	++	++	++	++	++
Botryococcus			+		+		+			+		+	
Other remains													
Charcoal	++	++	++	++++	+++	++	+	+	++	++++	+++	++	++
Trees/shrubs/climbers													
Alnus			+				+	+	+		+	+	++
Betula		+	+									+	
Corylus-type			+				+	+			+	+	+
Pinus		+	+	+			+	+	+	+	+	+	++
Prunus													
Quercus	+		+		+	+						+	+
Rosaceae indet.					+								
Salix			+				+	+			+		
Tilia						+	+	+++					+
Viburnum lantana (cf)		+	+	+		+			+				
Dwarf shrub													
Calluna					+					+			+
Spore producers													
Riccia (cf)													+
Pteropsida (monolete) indet.	+	+	++	++	+	++	++++	++	++	++	+++	+++	+++
Ophioglossum			+	+			+	+		+		+	+++
Polypodium			+							+			+
Pteridium				+	+	+	++	++	+		++	++	+
Sphagnum			+										+
Crop plants													
Cereal-type					+	+					+	+	
Herbs													
Anthemis-type			+		+	+						+	
Apiaceae			+	+	++	+					+		
Artemisia					+					+	+	+	+
Aster-type	+			+	+					+	+		+
Brassicaceae (Capsella-type)			+									+	
Brassicaceae (Sinapis-type)	+	++	+		+	+	+		+		+		
Caryophyllaceae (Cerastium-type)				+						+	+		+
Caryophyllaceae					+								
Chenopodiaceae	+		+	+	+		+			+	+	+	
Cirsium						+							
Fabaceae			+										
Fallopia convolvulus											+		
Galium-type			+				+			+	++	+	
Lactuceae	++	++	+	++	+	++	+	+	+	+	++	+	+
Papaver							+						
Plantago lanceolata				+		+	+	+		+	+		+
Plantago major						+							
Poaceae	+	+	+	+	+	++	++	+	+		+		+
Polygonum aviculare-type				+	+		+			+	+		
Ranunculus-type	+				+	+					+	+	+
Succisa									+	+			+
Thalictrum						+							
Aquatics and plants of wet soils													
Apiaceae (Apium-type)					+						+		
Cyperaceae	+	+++	++	+	++	+	++		++	+	++	+	
Filipendula			+		+	+					+		
Lemna	++					+							
Lythrum							+						
Ranunculus (Batrachium-type)					+	++							
Sparganium-type	+			+	++		+		+		+	+	
Typha latifolia												+	
Valeriana			+										

Table 17 Pollen samples for 0190 peat hollow: Monoliths 5–7

Monoliths			*8*					*9*		
Depth (cm)	*4*	*14*	*24*	*33*	*46*	*4*	*14*	*24*	*34*	*46*
Fungi										
Total fungi (not Glomus type)	+	+	+			+	+	+		
Glomus-type (VA Mycorrhiza)		++	+				+			+
Algae/Cyanobacteria										
Mougeotia	+	+	++	+		+	+	++	+++	++
Spirogyra	+	+	++	+	+		+	++	+	+
Other algae	+	+++	++		+++	++++	+++	+++	+++	+++
Botryococcus			+				+	+		
Other remains										
Charcoal	+++	+++	+++	++	++++	++	++++	++	+++	++++
Trees/shrubs/climbers										
Alnus				+					+	+
Betula					+	+	+			+
Corylus-type	+			+		+	+		+	+
Pinus			+	+	+	+		+	+	+
Prunus							+			
Quercus			+						+	
Rosaceae indet.						+		+		
Viburnum lantana (cf)	+					+	+			
Dwarf shrub										
Calluna			+	++		+	+	+	++	+
Spore producers										
Riccia (cf)				+	++			+	+	++
Pteropsida (monolete) indet.	+	+	+	+	+	++	++	++	++	++
Ophioglossum		+	+		+					+
Polypodium		+			+					+
Pteridium			+		+				+	+
Sphagnum	+									
Crop plants										
Cereal-type	+			+		+	+	+	+	+
Herbs										
Anthemis-type	+			+						
Apiaceae			+	+						
Artemisia	+			+					+	
Aster-type		+		+		+	+	+		
Brassicaceae (Capsella-type)				+						+
Brassicaceae (Sinapis-type)	+					+	+	+		+
Caryophyllaceae (Cerastium-type)									+	
Centaurea nigra-type						+	+	+		
Chenopodiaceae	+		+	+			+	+	++	+
Cirsium	+						+			
Fallopia convolvulus				+						
Galium-type			+	+		+				
Helianthemum									+	+
Lactuceae	++	+++	++	++	++	++	++	+	+++	+++
Persicaria									+	
Plantago lanceolata	+	+		+		+	+	+	+	+
Poaceae	+		+	++		++	++	+	++	+
Polygonum aviculare-type		+	+	+				+		
Ranunculus-type			+						+	
Sanguisorba minor			+							
Succisa			+						+	
Aquatics and plants of wet soils										
Apiaceae (Apium-type)				+						
Cyperaceae	+++	+		+++	+	+++	+++		+	+
Filipendula	+									
Lemna			+							
Ranunculus (Batrachium-type)					+	+	+			+
Sparganium-type			+					+		
Typha latifolia					+					

Table 18 Pollen samples for 0190 peat hollow: Monoliths 8–9

presence in the vicinity of the feature, and the local landscape appears to have changed considerably since the time represented by the underlying peat deposits.

The only woody plants recorded were alder, pine, oak, and wayfaring tree, and ferns were less frequent. There was no evidence of arable farming and relatively few herbaceous plants were recorded. The pollen assemblage suggests a somewhat impoverished flora locally, with few trees and weedy, though species-poor, grassland forming the dominant vegetation. Microscopic charcoal indicates a continued human presence at the site but the palynological data are too sparse to discern whether the brown silt was deposited in Iron Age, Romano-British, or even later times.

Monoliths 8 and 9 (Table 18) were taken from a section of the peat hollow to the south and west of those described above. The whole sequence was sealed by a brown silt (0130) but, by virtue of a ditch (0183) having been dug through this part of the feature, the underlying stratigraphy was more complex than that from that to the north east section. The ditch itself cut through grey sand (0371) which had an intercalated layer of peat (0368). The sequence for each monolith from the base was thus: grey sand; peat; grey sand; ditch fill; overlying brown silt. Unfortunately, stratigraphic differentiation was unclear in the laboratory, presumably because of sediment oxidation in storage.

Again, Monoliths 8 and 9 might be considered to be duplicates in spatial and temporal terms; any palynological difference between them can be regarded as a function of small-scale spatial heterogeneity in local vegetation and pollen/spore influx. Both sequences might thus be described and interpreted jointly.

In spite of a ditch having been cut through this part of the hollow, the similarity in the palynological assemblage between these monoliths and those from the other side of the feature is striking. It is clear that, at this end of the feature, the palaeosol from the early lime-dominated woodland had been missed in the field sampling. The samples discussed here represent a period after the primaeval lime woodland had been largely cleared.

The abundances of microscopic charcoal, algal cells, and fungal remains were all similar to those on the other side of the feature. There is little doubt that the environment both within and around the environs of the entire hollow was similar throughout its history. This end of the feature was waterlogged and wet often enough to support a similar community of wetland plant to the other end. Also its palynological record reflects a very open local landscape dominated by herb-rich grassland and damp meadow. There were areas of open, disturbed and trampled soils, and there is evidence of arable farming with both cereals and cornfield weeds being represented. It is interesting that although drier, acidic soils are also indicated, it would seem there was more heather and less bracken growing towards this end of the feature than at the other end. More cereal pollen was also deposited at this end of the hollow. Whether this is a true reflection of small-scale community differences, or whether the ditch cut has influenced the pollen record, is rather difficult to ascertain. The variation might be a function of temporal rather than spatial differences between the two ends of the feature.

When the herbaceous records for the two ends of the feature are considered, it is not surprising that the woodland records were also very similar, although there is just a slight indication that the other end of the feature was closer to stands of trees (again this might be a temporal effect).

Monoliths	*1*		*10*		
Depth (cm)	*3*	*10*	*18*	*2*	*7*
Fungi					
Glomus type (VA Mycorrhiza	+				
Algae/Cyanobacteria					
Mougeotia	+	++	+	+	+++
Spirogyra	++	++	++	+	+
Other algae	+++	+++	+++	+++	+++
Botryococcus		+	+	+	+
Other remains					
Charcoal	+	+	+	+++	++
Trees/shrubs/climbers					
Corylus-type	+			+	
Pinus	+	+			+
Quercus	+		+		+
Salix	+				
Dwarf shrub					
Calluna	+	+		+	+
Spore Producers			+		
Riccia (cf)		+			
Pteropsida (monolete) indet.	+	++		++	+++
Ophioglossum		+	+++		+
Polypodium	+	+	++	+	
Pteridium	+	+		+	+
Sphagnum		+	+		
Crop plants			+		
Cereal-type	+			+	+
Herbs					
Apiaceae	+			+	
Artemisia	+	+			
Brassicaceae (Capsella-type)	+	+		+	+
Brassicaceae (Sinapis-type)	+	+		+	+
Caryophyllaceae	+	+	+	+	
Chenopodiaceae	+	+			+
Fabaceae					+
Galium-type	+	+	+	+	+
Helianthemum					+
Hypericum perforatum-type				+	
Lactuceae	+	+	+	++	++
Lamium-type	+		+		
Lotus-type		+			
Plantago lanceolata	+	+			+
Plantago major			+		+
Poaceae	+	+		+	++
Polygonum aviculare		+	+		+
Ranunculus-type	+	+			
Sanguisorba minor		+			
Aquatics and plants of wet soils			+		
Cyperaceae	++	++		+	+++
Filipendula			++		
Iris			+		
Ranunculus (Batrachium type)				+	

Table 19 Pollen samples for 0195 peat hollow: Monoliths 1 and 10

What is surprising, however, is that even though a ditch had been cut through the primary sediment of the hollow, the vegetation record within the subsequent ditch fill was almost indistinguishable from that of the undisturbed sequence at the other end of the feature. It is likely that the local landscape was relatively stable for a long period so that, when the primary fill was dug out, the infill of the newly-cut ditch continued to record exactly the same kind of landscape that had prevailed, and continued to prevail for a long (though indeterminate) period.

Peat hollow 0195

(Table 19)

Monolith 1 was taken from the fill of a pit which had been cut into the hollow. The sample cut through a basal grey/brown silt (0398) and extended up through peaty deposits (0397). Sample 10 was a Kubiena Box sample taken from shallow sediments in the peat hollow; the basal sand/clay (0232) was overlain by a peaty deposit (0193).

Monolith 1: Pit 0197

The subsample at 18cm was taken from the basal silt while the subsamples at 3cm and 10cm were taken from the overlying peaty layer. The pit contained wet sediment throughout its life; algae were abundant throughout the sequence, while *Sphagnum* moss was also present. Other evidence for wet conditions was provided by the pollen from sedges, meadowsweet, and *Iris* (e.g. sweet flag), but it is feasible that these were growing outside the pit and within the hollow itself. However *Iris* and meadowsweet were only found in the basal silt, and sedges only in the peat layer, so the digging of the pit might have had some effect on the *in situ* hydrology.

During the period of silt accumulation, the site seems to have been dominated by weedy grassland/pasture and the only woody plant recorded was oak. It would seem that the area was being exploited intensively, and the absence of pollen of heather, grasses, ribwort plantain, and other herbs might have been due to very intensive local grazing pressures. The silty layer might actually represent the functional period of the feature.

The palynological assemblage in the upper, peaty layer suggests increasing richness in plant communities, with ferns, sedges, and a fairly diverse assemblage of other herbaceous plants colonising, or recovering, within the area. Cereal-type pollen was present and, in addition to oak, heather willow, pine, and hazel were recorded. This might be tentative evidence for a change in land use in the vicinity of the pit, with both woody plants and herbs being less intensively exploited.

It is exceedingly difficult to ascribe a chronology for this feature but its sediments could be recording a period anywhere from Iron Age to Medieval times. It must be stressed, however, that if the record extended to the Romano-British period, higher levels of cereal-type pollen would be expected to have found their way into the features. The results from the macro-remains (Murphy, pers.comm.) suggest that there was a high level of cereal growing/processing/storage at the site. Inevitably, pollen from cereal grains and cereal waste would find its way into the wider environment.

Perhaps, it is prudent to suggest that the uppermost deposits represent the pre-Romano-British landscape.

Kubiena Box 10

The subsample at 7cm was taken from the basal sandy clay (0232) and the one from 2cm represents the peaty layer (0193). At this level of assessment, it is difficult to ascertain any significant environmental variation in relation to the to deposits. However, the sediments were wet and supported algae and sedges. The very abundant microscopic charcoal also suggests that human activity was occurring very close to the feature. Willow, oak, hazel, and heather were the only woody plant recorded but ferns were very abundant locally. Cereal-type pollen was present in both subsamples and there is little doubt that weedy grassland and open, disturbed soils dominated the area.

Although it is very difficult to ascertain a chronology for this feature, the palynological assemblage more closely resembles that found in the upper part of Monolith 1 than the basal sediments. Tentatively, it might be suggested tht these sediments accumulated at about the same time, or even after those at the top of Monolith 1. Again, the period represented could be anything from the Iron Age and beyond.

Peat hollow 0395

(Table 20)

The gross stratigraphy for this hollow was described in identical terms as for that from Peat Hollow 0190. The sample taken by Monolith 4 cut through the entire sequence of basal grey sand, peat (0395) and an overlying brown silt. Monoliths 2 and 3 overlapped and, again, provided a sample of the whole sequence. Monolith 4 was essentially a duplicate of Monoliths 2 and 3. Subsamples were taken from Monoliths 2 and 3 from 4cm down to 94cm. Subsampling of Monolith 4 extended between 8cm and 76cm.

As in the other peat hollows, the plant communities at both sampling sites within the feature seem to have been very similar. However, there were also significant differences, and these are difficult to explain when their proximity is considered. It is possible that the sediments throughout the hollow were not truly homologous, or that for the period of sediment accumulation, their relative positions affected their accessibility. Furthermore, truncation and disturbance may have occurred without leaving obvious traces in the gross stratigraphy. Without more detailed analysis, these problems cannot be resolved by palynological means. It is unfortunate that the paucity of palynomorphs made full analysis unfeasible.

Conditions within this hollow seem to have been very similar to those in the others. There was enough wetness to support diverse populations of green algae and aquatic plants, and the feature was probably fringed with Cyperaceae (sedges). For much of the period represented by these sediments, the area was dominated by mixed, deciduous woodland. Lime seems to have been a prominent member of the woodland community although pine, alder and oak were also well represented. Trees and shrubs which are less tolerant of shading such as hazel, birch, *Fraxinus* (ash), Rosaceae indet. (e.g. hawthorn), wayfaring tree, willow, and *Acer* (field maple) were all growing in the woodland. These, coupled with the relative abundance of heather and the high frequency of light-demanding herbs and ferns, indicates that the woodland canopy was relatively open. It is possible that the whole settlement site was set in a clearing and surrounded by woodland with the more light-demanding plants growing at the woodland edge. On the other hand, the woodland might have been very patchy, and the settlement might have been spread through a series of glades. It is almost impossible to describe the true nature of the landscape in the absence of very detailed analysis of multiple cores.

Whatever the nature of the environs of the site, there is little doubt that herb-rich grassland and pasture, and open soils were present in the vicinity of the hollow. There was also considerable variation in the physico-chemical nature of local soils and this is not surprising when the nature of the parent materials is considered (see Macphail 1999). The presence of waterlogged areas is obvious from the abundance of sedges, other wetland plants, and *Sphagnum* moss. However, drier, acidic soils are indicated by heather and bracken, while patches richer in phosphate (and probably nitrogen) are suggested by the presence of *Urtica* (nettle) and other herbs. When the ecological requirements of many of the plants are considered, compacted, dry soils, and flushed areas of pasture also seem to have been present.

A picture is gained of a floristically rich environment with communities of plants capitalising on the mosaic of conditions which had probably been created by a combination of human and animal activity. There was little evidence of arable farming (cereal-type pollen being found in only two subsamples) and the impression is gained of pasture being an important element in the landscape. The pollen spectra are similar to those found elsewhere in southern and eastern England in the Bronze Age (and most likely the later Bronze Age).

Monoliths	*2*					*3*					*4*							
Depth (cm)	*4*	*14*	*24*	*34*	*46*	*50*	*60*	*70*	*80*	*94*	*8*	*24*	*38*	*42*	*56*	*62*	*74*	*86*
Fungi																		
Total fungi (not Glomus-type)	+	+	+	+	+													
Glomus type (VA Mycorrhiza	+	+	+															+
Hyphae	+	+	+	+	+										+			
Algae/Cyanobacteria																		
Mougeotia	+	+	+	+		+	+	T	+		+	+	+	+	+	+	+	+
Spirogyra	+	+	+	+	+	+	+	o	+		+	+	+	+	+	+	++	+
Other algae	+	++	++	++	+	++	++	o	+	++	+	+	+	+	+	+	++	+
Botryococcus	+	+			+	+	+							+				
Other remains								s										
Charcoal	+	+	+++	+	+			p	+	+								
Trichuris		+						a										
Trees/shrubs/climbers								r										
Acer					+			s										
Alnus				+	+		+	e	+			+	+	+	+	++	+	+
Betula				+	+	+	+		+	++	+		+	+		+		+
Corylus-type				+			+	f	+	++		+		+	+	+	+	+
Fraxinus	+			+				o				+	+			+		
Pinus	+	+	+	+				r	+				+	+	+	+	+	+
Quercus				+	+		+		+	+	+	+	+	+	+	+	+	+
Rosaceae indet.				+				r				+						
Salix				+			+	e				++	+	+	+	++	+	
Tilia				+			+	c	+	++		+		+		+	+	++
Viburnum lantana (cf)								o						+				
Dwarf shrub								r										
Calluna				+	+	++	+	d	+			+	+			+	+	+
Spore Producers								i										
Riccia (cf)								n								+		
Pteropsida (monolete) indet.	+	+	+	++	++	++	++	g	++		+	+	+++	+++	+++	++	++	++
Ophioglossum	+	+		+												+		
Polypodium	+	+			+		+		+	+		+	+	+				+
Pteridium	+	+		+			+				+	+	+	+	+	+	+	+
Sphagnum	+			+													+	+
Crop plants																		
Cereal-type											+				+			
Herbs																		
Anthemis-type											+							
Apiaceae												+						
Artemisia				+														
Aster-type		+									+							
Brassicaceae (Capsella-type)		+										+				+		
Brassicaceae (Sinapis-type)	+	+	+	+		+	+				+	+						
Caryophyllaceae					+						+					+		
Chenopodiaceae	+			+	++							+						
Cirsium		+	+								+		+					
Galium-type				+										+		+		
Lactuceae	++	+	+	+	+	+	+		+		+	+		+	+	+	+	+
Lamium-type				+									+		+			
Papaver				+														
Plantago lanceolata				+	+				+		+	+	+	+	+	+		+
Plantago major														+				+
Poaceae		+	+	+		+	+		+	+	+	+	+	+	+	+	+	+
Polygonum aviculare							+											
Potentilla															+			
Ranunculus-type						+				+	+	+				+		+
Rumex														+		+	+	+
Sanguisorba minor						+											+	
Urtica													+		+	+		
Aquatics and plants of wet soils																		
Cyperaceae	++	+	+	++	++	++	+				+++	++	+++	++	++	+++	+++	+++
Filipendula				+								+						+
Iris												+						
Lythrum														+				
Ranunculus (Batrachium type)																+		
Sparganium-type				+		+											+	+
Valeriana			+	+														

Table 20 Pollen samples for 0395 peat hollow: Monoliths 2–4

When the two sequences are compared, it would appear that the subsample at 8 cm in Monolith 4 is equivalent to subsamples from 4cm to 24cm in Monolith 2. The sediments appear to record marked environmental changes in these upper levels, the most striking of which is the apparent demise of trees and a marked reduction in ferns which, presumably, grew in the understory of the woodland. The only woody plants recorded in the upper sediment were ash, pine, birch, and oak. Shrubs, and even heather, seems to have been removed, or managed in such a way that they were unable to flower. These effects could have been created by felling, coppicing, and pollarding, and over-grazing of the ground flora. It is interesting that grasses were actually less frequent (although this is difficult to demonstrate without detailed pollen counting) while dandelion-type plants increased. This often happens when pasture is intensively grazed; grasses become cropped so close that they fail to flower but less palatable and rosette plants are favoured and might be over-represented. The presence of *Trichuris* eggs (intestinal parasitic nematode worm) suggests herbivores were grazing the site while the great increase microscopic charcoal at 24cm in Monolith 2 attests to greater human pressure at this location.

The changes in the sequence appear abruptly but this could be apparent rather than real, being a function of low sampling resolution. The demise of the woodland and the reduction in overall species richness might have happened more gradually, but high sampling resolution would be necessary for this to be determined. It is tempting to suggest that the shift in vegetation pattern was caused by the impact of Iron Age people exploiting the area. However, the possibility of sediment removal and erosion cannot be discounted. There might be a number of hiatuses in the profile, and the differences between Monolith 4 and Monoliths 2 and 3 might be a function of just such events. The top of Monolith 2 is characterised by relatively abundant microscopic charcoal, and large amounts of fungal remains (the latter are taken to indicate soil disturbance resulting in erosion into the feature). Spore-producing plants were better represented, and the number of other herbaceous taxa was lower. These changes are indicators of more intense human activity at the site.

It is possible that the top of Monolith 4 represents the Iron Age. The upper levels of Monolith 2 provide a slightly different picture and this might be due to some degree of truncation of its sediment. The upper levels could have accumulated in later Iron Age times, or even in the early Romano-British period. However, without absolute or artefactual dating, it is impossible to determine a chronology for the sequence, and interpretation must depend on comparison with other, dated sites.

The complete absence of microscopic charcoal in Monolith 4 is difficult to explain when all the other sediment sequences are considered. The absence of cereal-type pollen in Monoliths 2 and 3 might simply be due to the fact that the sampling site was in an area more favourable for grassland and grazing, although this does not explain the presence of sporadic cereal-type grains in Monolith 4.

In general, the pollen spectra suggest that apart for the very basal sediment in Hollow 0190, the deposits in hollow 0395 accumulated earlier. Although the gross stratigraphies, and physico-chemical and hydrological conditions within each feature, were alike enough for them to have supported very similar *in situ* plant communities, they do not appear to be contemporaneous. Hollow 0190 appears to represent a period of time later than that of hollow 0395.

Concluding remarks

This work has suffered from both a paucity of palynomorphs and any provision for absolute dating. However, there is little doubt that the sparse palynological evidence presented here has provided a picture of changing environment over time. It is clear from the results in Tables 17–20 that the hollows were always wet, at least seasonally. It is also clear that the sediments represent a variety of prehistoric periods. If the hollows were, indeed, natural features, it might be expected that they formed at the same time. It follows, then, that they should contain contemporaneous sediments; but they actually indicate temporal variation. It is possible, therefore, that sediment erosion, wastage, truncation, and removal has occurred to varying degrees. It is unfortunate that the poor preservation of palynomorphs has made detailed analysis unfeasible so that details of sediment history cannot be determined.

In spite of the deficiencies in the data, it has been possible to follow the fate of local vegetation from early (Middle Bronze Age) times through to at least the Iron Age or later. The hollows record continuous human interference in the local landscape ranging from the patchy clearings of the earlier Bronze Age to the extensively cleared and exploited vegetation of the later (though indeterminate) period.

Chapter 4. Discussion

It is quite clear from the archaeological evidence that intermittent activity took place on the site from the Early Bronze Age until late medieval times. It is also clear that this site may prove of great interest in comparison with other Fen-edge sites, particularly in the context of Romano-British settlement.

Period I

The archaeological evidence demonstrated two enigmatic areas of Early Bronze Age activity on opposite sides of the excavation area, which may in fact have been linked. The character of this settlement is undefined, but was probably domestic in nature rather than funerary and is contemporary with extensive activity to the west, at West Row (Martin and Murphy 1988; Martin in prep.) at a time when the peat hollows on the site would have probably been open, or accumulating wet deposits.

If we plot the sites in the area by period, against the historical Fen edge as defined in the Medieval period (Fig. 1), it is immediately clear that the majority of Bronze Age sites are sited further 'into' the Fen, during this period of drier conditions, with the Beck Row occupation site appearing relatively isolated. This may, however, be explained by the lack of thorough excavation in this area, Bronze Age deposits being either covered by layers of windblown sand and agricultural soils or, more often, ploughed away.

Period II

In the pre-Roman Iron Age domestic activity on the site was more extensive in nature, focussed in the southern part of the excavation area. The three possible ring-ditch structures are comparable with penannular ditch buildings found elsewhere in Suffolk and beyond. The smallest (0108), with an internal diameter of only 3.4m, is comparable in size to West Stow building 4 but, as Martin (1999, 69) comments, these small structures may not be buildings. Structure 0158, with internal diameters of between 7.5m and 8.3m, is near to the average size for circular buildings in Suffolk and similar, for example, to the rather oval building 2 at West Stow (Martin 1999, 65 and fig. 3.12). Within this period the site became divided by ditch systems comprising at least two large enclosures which may initially have contained two circular structures, as well as an area of postholes related to feature 0442 which may or may not have represented another structure. Flint and grog-tempered Bronze Age pottery was recovered from at least one pit (0415), and the most intense activity appears to have been during the Late Bronze Age/Early Iron Age, with the lack of sand-tempered wares, usually a feature of later Iron Age collections, suggesting dwindling activity on the site until the mid 1st century AD.

Because of the relative scarcity of pre-Roman artefacts and the complexity of the multiple shallow ditches which were cut and re-cut in the sandy soil, there is some ambiguity about the absolute dates for the circular structures and the first phase of enclosures. Although it is tempting to associate both with the Late Bronze Age/Early Iron Age, there were 1st-century AD sherds from the main enclosure ditch. Penannular ditch structures are also generally found in the middle and later, rather than early, Iron Age when post-built circular houses were the norm (Martin 1999, 68–9).

By the Late Iron Age and into the early Roman period, pre *c*.60 AD, the enclosure ditches were re-aligned, still with the focus of activity in the south-west corner of the site, and the appearance of finds such as the bronze strainer spout, Rosette brooch and silver Icenian coin suggest fairly high status activity in the vicinity.

The local Iron Age sites and find spots demonstrate how site distribution shifted to slightly higher ground, and a greater concentration of sites is visible around the Beck Row area during this period. This pattern continues, and settlement intensifies during the transition and Roman period, so we are able to see a number of comparable sites emerging along the Roman Fen edge.

Period III

Occupation of the site appeared to be uninterrupted from the Late Iron Age into the post-conquest era, and the vast majority of features on the site could be dated to the Roman period. The focus of the site shifted only slightly during this period, even though the major enclosures were re-aligned in the mid-1st century, and a domestic focus is hinted at by the range of pottery forms recovered from the monitored area to the south-west of the main excavation, which suggests continued domestic activity until the mid-3rd century.

Probably around the mid-2nd century a large (*c.*35m overall length) part-aisled timber structure (Building 1) presumed to be a barn or granary was constructed in the north-east corner of the site. It is quite possible that a large barn such as this may have been a multi-functional building, perhaps used initially to shelter animals, as evidenced by discoloration of the subsoil (0561) (Macphail 1999). Excavated evidence together with the plant macrofossil analysis indicated that this building had then been used for the storage and processing of grain. A chalk floor (*c.*3.5m x 8m) for use in grain processing, which included the drying and malting of wheat and barley was constructed but, probably as a consequence of the extreme fire hazard associated with the drying of grain, Building 1 was destroyed by fire.

A second, near-identical building was constructed, virtually within the same footprint (Building 2), and was in use between the mid-2nd and mid-3rd century, after which it appears to have been abandoned, possibly as a result of a second fire. Fragments of millstones found within features related to Building 2 suggest that these items may have been in use on the site previously, perhaps as part of the function of Building 1, and then recycled. Building 2 also contained a second, larger (*c.*12.5m x 8m) 'malting floor' with at least one open hearth/oven and a T-shaped heating duct or flue. The fact that charcoal was

found in postpipe fills from Building 2 suggests that this too was damaged if not destroyed completely by fire. The fire hazard associated with these two buildings may perhaps have determined their location, away from the main focus of domestic settlement to the south-west of the site.

The absence of late 3rd/4th-century material from both the area of the buildings and the 'domestic' area to the south-west of the site is notable, not least because this is certainly not the pattern on some other Mildenhall sites, and the presence of unstratified Valentinian coins indicates very late Roman activity somewhere nearby. The relative paucity of coins and metalwork across the site generally, despite systematic metal-detection, is also in marked contrast to some fen-edge sites, but may imply external control of the site during the Roman period, or simply relate to the fact that the domestic centre of the site was not encountered during this excavation.

Roman sites in the immediate area (Fig. 1) include mainly surface finds so the buildings (if any) are not well defined. The West Row/Thistley Green area has at least one villa type building, excavated by T.C Lethbridge in 1932 which consisted of a 'two-roomed building with hypocaust and external shed' (site MNL 064, Martin in prep), as well as an area of 'chalk floor' seen after ploughing in 1981 (MNL 193). There is a possible tessellated floor at the north end of Holywell Drove (MNL 075) and a possible villa with chalk floors south east of this site (MNL 097 and 160). At Wilde Street, an aisled Roman building on the margin of the site as defined by the finds was excavated by Col. T.C. Kelly and Prof. J.D. Clark in 1962–4 (MNL 248 and 005, Martin in prep). One of the 'very large' postholes excavated contained two fragments of a large millstone grit quernstone, an interesting parallel with Beck Row (Martin in prep.). Several sites along the Fen-edge, such as Leylands Farm, Hockwold, Norfolk, also display indications of timber buildings in the form of chalk floors and occupation debris, and 'it seems probable that there are a very great number of such buildings within this strip of densely-occupied Fen-edge, …and a picture is emerging of a virtually continuous band of Fen-edge settlement, with main and subsidiary roads, many timber structures, masonry buildings at intervals and the occasional temple' (Gurney 1995). The building at Beck Row can be directly compared, in fact, to a plot of cropmarks from Leylands Farm, Hockwold (Gurney 1995, 64), which shows at least seven buildings, with paired lines of postholes, circa 6m wide and up to 20m long. There is also evidence of linked enclosures, similar to the enclosure ditches on the site at Beck Row, implying a system of stock management on both sites.

The aisled building is a common type of structure in Roman Lowland Britain, in both domestic and agricultural contexts. The second phase of building at Exning Roman villa (Webster 1987) saw the construction and use of a large timber building, not dissimilar to that at Beck Row, particularly as it contained two 'ovens' and 'beam slots', and decorated wall plaster, although Exning's subsequent use was clearly domestic. Within Suffolk fairly recently excavated examples include Castle Hill in Ipswich and Pakenham (J. Plouviez, pers. comm.). The latter had evidence of internal arrangements and only one aisle, but was definitely at least partially domestic in function (both unpublished, archives at SCCAS).

It is usually assumed that aisled buildings were walled around the outer edge, but that the main paired posts — whose primary function was to support the roof and sometimes an upper storey — were free-standing, providing a large open space at ground level. However, there were contemporary ditches along the north edge of Building 2, suggesting that the northern line of large posts was the limit in this case. The chalk floors do not extend to the north of this probable wall line. There is no evidence to show whether walls were of wood or wattle and daub, and the clay 'walls' (0590 etc.), perhaps a clay lump structure, seem specifically to enclose the chalk floor area.

The internal features of Building 1 contribute little to understanding its function. The well-defined chalk surface is at one end of, or even in a lean-to outside, the main structure. In Building 2 the chalk 'floor' relates to a heating flue, most likely the base of a corn drier or malting kiln, which occupies the central part of the building. The charred grain evidence from deposits in and around both Buildings 1 and 2 includes sprouted grains, mainly wheat and barley, which again supports the malting interpretation.

An interesting parallel to this is the 'corn drier (144)' excavated at Ingoldisthorpe as part of the Romano-British settlement on the Snettisham Bypass to the north of the Fenland region (Flitcroft 2001, 37). It consisted of a T-shaped flue in a clay base, similar to that at Beck Row, although approximately half the size. It has been interpreted as a malt-drying oven due to the presence of charred sprouted cereal grains, and has been dated to the early to mid 2nd century AD.

A comparable site on the north-west side of the region is Orton Hall Farm, Cambridgeshire (Mackreth 1996), which exhibited not only a millhouse building, but two Roman barns which have been interpreted as possible maltings or brewery buildings, due to the driers which they included. One of the driers, (F159/160) dated to the latest Roman period on the site (375–500), was very similar in appearance, and probably in function, to the flue (0480) excavated in Building 2 at Beck Row. The Orton Hall Farm examples are only half the size of the Beck Row flue, however.

Also to the west in the Fenland region, Rectory Farm, Godmanchester (McAvoy 1999) contained a Roman occupation complex with a date range from the 2nd to the late 4th century. Two excavated aisled buildings (10051 and 10507) contained evidence of ovens that environmental samples have shown were associated with the processing of cereal crops.

Martin Jones, in R. Jones (1991, 22) refers to the work of Reynolds and Langley (1980), which has produced experimental evidence that the function of many so-called 'corn drying ovens' excavated within Roman period structures may be 'for other than drying corn, and involve such processes as malting', a claim which has been corroborated by finds of germinated grain within some of these ovens, for example at Barton Court Farm, Oxon (Robinson and Jones 1986), at Catsgore, Somerset (Hillman 1982), and at Hadleigh and Stuston, Suffolk, and merits further investigation with relation to the building features and carbonised grain evidence at Beck Row. Indeed, the study of carbonised plant macrofossils from the site presents us with further insight into the function of the building, and as there are few excavated sites from the Eastern Region that have offered such an opportunity, we

must look to comparable examples for evidence of malting and malt-drying facilities, which has come from Stebbing Green (Essex), Boxfield Farm (Stevenage), Solesbridge (Chorleywood) and Stuston (Murphy 1989; 1990; 1997, 42).

The areas of preserved peat on the site and their palynological study are of particular interest, as 'palaeobotanical data has been of inestimable value in elucidating aspects of the Romano-British physical environment both on a macroscopic level … as well as throwing considerable light on local environments and … illuminating agrarian regimes and practices down to individual site level' (Going 1997, 38). This is apparent at Beck Row as there appear to be soil erosion episodes visible within the pollen sequence which indeed suggests increased agricultural land use during the later (Roman) period. It is interesting, though, that the pollen record demonstrates that more intensive land use and woodland clearance began to affect the environmental record in the later Bronze Age, and that we can see increasing agricultural impact on the landscape from the later Bronze Age until the Roman period at Beck Row.

Appendix: Context concordance

Ctxt	*Feat*	*Identifier*	*Period*	*Plan*	*Section*
0100	0100	Unstratified finds	IV		
0101	0101	Ditch	III.3	Fig. 8	
0102	0102	Posthole?	III.3		
0103	0103	Animal burial	IV		
0104	0104	Ditch / gully	III.3	Fig. 8	
0105	0105	Ditch	III.3	Fig. 8	Fig. 18
0106	0106	Ditch	III.3		
0107	0107	Ditch / gully	III.2	Fig. 8	
0108	0108	Gully	II	Fig. 8	Fig. 18
0109	0147	Ditch / gully	II	Fig. 8	
0110	0147	Ditch / gully	II	Fig. 8	
0111	0111	Gully	III.3	Fig. 8	
0112	0101	Ditch fill	III.3		
0113	0101	Ditch fill	III.3		
0114	0105	Ditch fill	III.3		
0115	0115	Ditch / gully	III.3	Fig. 8	
0116	0108	Ditch / gully	II		
0117	0108	Gully	II		
0118	0108	Gully	II		
0119	0108	Gully	II		
0120	0144	Ditch / gully	II	Fig. 8	
0121	0142	Ditch / gully	III.1		
0122	0142	Ditch / gully	III.1		
0123	0195	Peat hollow layer	III.3		
0124	0124	Ditch / gully	III.2	Fig. 8	
0125	0125	Ditch / gully	III.3		
0126	0126	Posthole/pit	III.2	Fig. 8	
0127	0127	Pit/posthole	III.3	Fig. 8	
0128	0128	Pit/posthole	III.3	Fig. 8	
0129	0129	Ditch / gully	III.2	Fig. 8, 9	
0130	0158	Ditch / gully	II		
0131	0132	Ditch / gully	III.1		
0132	0132	Ditch	III.1	Fig. 8	Fig. 18
0133	0133	Posthole/pit	III.1	Fig. 8	
0134	0134	Pit	III.1	Fig. 8	
0135	0147	Ditch fill	II		
0136	0147	Ditch fill	II		
0137	0142	Ditch	III.1		
0138	0138	Pit	III.2		
0139	0139	Pit	III.3	Fig. 8	
0140	0140	Ditch / gully	II	Fig. 8	
0141	0158	Ditch / gully	II		
0142	0142	Ditch	III.1	Fig. 2a, 8, 9	
0143	0100	Surface finds	III.2		
0144	0144	Ditch / gully	II	Fig. 8	
0145	0145	Pit/posthole	III.3	Fig. 8	
0146	0129	Ditch	III.2		
0147	0147	Ditch	II	Fig. 8	Fig. 18
0148	0105	Ditch fill	III.3		
0149	0149	Ditch	III.2		
0150	0150	Gully	III.2		
0151	0151	Ditch / gully	II	Fig. 8	
0152	0147	Ditch	II		
0153	0153	Gully	II	Fig. 8	Fig. 18
0154	0154	Ditch	II	Fig. 8	
0155	0142	Ditch	III.1		
0156	0105	Ditch fill	III.3		
0157	0147	Gully	II		
0158	0158	Gully	II	Fig. 8	Fig. 18
0159	0159	Posthole?	III.3	Fig. 8	
0160	0160	Posthole?	III.3	Fig. 8	
0161	0142	Ditch section	III.1		
0162	0132	Ditch section	III.1		
0163	0163	Posthole	III.3	Fig. 8	
0164	0164	Posthole?	III.3	Fig. 8	
0165	0158	Ditch / gully	II		
0166	0166	Ditch / gully	III.3	Fig. 2a, 8, 9	
0167	0214	Ditch / gully	II		
0168	0154	Ditch / gully	II	Fig. 8	
0169	0169	Posthole/pit	III.3	Fig. 8	
0170	0170	Pit	III.1	Fig. 8	
0171	0171	Ditch	III.2		
0172	0129	Ditch	III.2		
0173	0101	Ditch	III.3		
0174	0147	Ditch	II		
0175	0175	Gully?	IV		
0176	0176	Ditch	III.1	Fig. 2a	Fig. 18
0177	0176	Ditch section	III.1		
0178	0176	Ditch section	III.1		
0179	0176	Ditch section	III.1		
0180	0180	Pit	III.1	Fig. 2a	
0181	0176	Ditch	III.1		
0182	0182	Ditch	III.1	Fig. 2a, 9	
0183	0183	Ditch	III.1	Fig. 2a, 9	Fig. 20
0184	0184	Ditch / gully	III.1	Fig. 2a	
0185	0184	Ditch / gully	III.1		
0186	0186	Pit/posthole	III.1	Fig. 2a	
0187	0190	Peat hollow layer	peat hollow	Fig. 2a	
0188	0183	Ditch	III.1		
0189	0182	Ditch	III.1		
0190	0190	Peat hollow	peat hollow	Fig. 2a	Fig. 20
0191	0195	Peat hollow layer	III.3		Fig. 20
0192	0195	Peat hollow layer	III.3		
0193	0195	Peat hollow layer	III.3		Fig. 20
0194	0195	Peat hollow layer	III.3		
0195	0195	Peat hollow	peat hollow	Fig. 2a	Fig. 20
0196	0196	Pit	III.3	Fig. 2a	Fig. 19
0197	0197	Pit/well	III.3	Fig. 2a	Fig. 20
0198	0198	Pit/well	III.3	Fig. 2a	Fig. 19
0199	0199	Ditch section	III.1		
0200	0142	Ditch	III.1		
0201	0142	Ditch	III.1		
0202	0142	Ditch	III.1		
0203	0132	Ditch	III.1		Fig. 18
0204	0105	Ditch	III.3		
0205	0105	Ditch	III.3		
0206	0206	Pit	III.3	Fig. 8	
0207	0166	Ditch	III.3		
0208	0214	Gully	II	Fig. 8	
0209	0214	Gully	II	Fig. 8	
0210	0210	Ditch section	III.2		
0211	0166	Ditch	III.3		
0212	0182	Ditch	III.1		
0213	0183	Ditch	III.1		
0214	0214	Ditch	II	Fig. 8	Fig. 18
0215	0147	Gully	II		
0216	0216	Pit	III.1	Fig. 8	
0217	0217	Ditch Section	III.3		
0218	0142	Ditch	III.1		
0219	0129	Ditch	III.2		
0220	0214	Ditch	II	Fig. 9	
0221	0147	Ditch	II	Fig. 9	
0222	0222	Ditch	III.1		
0223	0158	Ditch	II		
0224	0293	Ditch fill	II		
0225	0293	Ditch	II		
0226	0293	Ditch fill	II		
0227	0227	Gully / layer	II		
0228	0142	Ditch fill	III.1		
0229	0166	Ditch fill	III.3		
0230	0166	Ditch	III.3		
0231	0100	Surface finds	III.1		
0232	0195	Peat hollow layer	peat hollow		Fig. 20
0233	0195	Ditch	peat hollow		
0234	0166	Ditch	III.3		
0235	0235	Ditch	III.2		Fig. 20
0236	0236	Ditch	III.3	Fig. 2a	Fig. 20
0237	0237	Ditch / gully	II	Fig. 8	
0238	0158	Ditch	II	Fig. 8	
0239	0239	Pit?	III.1	Fig. 8	
0240	0240	Pit	III.3	Fig. 2a	Fig. 18
0241	0241	Pit	III.3	Fig. 2a	Fig. 18
0242	0242	Pit	III.3		
0243	0166	Ditch	III.3		
0244	0124	Ditch	III.2		

0245	0246	Pit fill	IV		Fig. 20
0246	0246	Pit	IV		Fig. 20
0247	0236	Ditch fill	III.3		
0248	0248	Pit	III.3		
0249	0249	Ditch	III.1	Fig. 2a	
0250	0180	Pit fill	III.1		
0251	0251	Layer	III.1		
0252	0252	Pit	III.3		
0253	0195	Cleaning layer	IV s		
0254	0254	Peat hollow section	IV		
0255	0166	Ditch	III.3		
0256	0166	Ditch fill / Pot	III.3		Fig. 18
0257	0235	Ditch	III.2		
0258	0258	Ditch	III.2	Fig. 2a	
0259	0259	Pit	III.2		
0260	0260	Ditch	III.1	Fig. 2a	
0261	0255	Ditch fill / Pot	III.1		
0262	0262	Ditch	III.2	Fig. 2a	Fig. 18
0263	0236	Ditch	III.3		
0264	0264	Ditch / gully	IV		
0265	0265	Posthole	III.1		
0266	0147	Ditch	II		
0267	0267	Posthole/pit	III.1	Fig. 8	Fig. 18
0268	0166	Ditch fill	III.3		
0269	0269	Ditch	II	Fig. 2a	
0270	0154	Ditch	II		
0271	0271	Pit	III.2	Fig. 8	Fig. 18
0272	0272	Gully	III.1	Fig. 2a	
0273	0274	Hollow	I	Fig. 2a	
0274	0274	Layer	I	Fig. 2a	
0275	0275	Ditch / gully	III.1	Fig. 2a	
0276	0276	Ditch / gully	III.2	Fig. 2a	Fig. 18
0277	0277	Pit	III.3		
0278	0166	Ditch / gully	III.3		
0279	0279	Pit	II	Fig. 2a	
0280	0280	Pit	III.1	Fig. 2a	Fig. 18
0281	0281	Ditch	III.2	Fig. 2a	
0282	0166	Ditch fill	III.3	Fig. 9	
0283	0166	Ditch fill	III.3		
0284	0284	Ditch fill	III.3		Fig. 18
0285	0235	Ditch	III.2		
0286	0195	Peat hollow layer	peat hollow		Fig. 18
0287	0235	Ditch	III.2		
0288	0288	Pit	II	Fig. 8	
0289	0214	Ditch	II		
0290	0158	Gully	II		
0291	0182	Ditch	III.1		
0292	0182	Ditch	III.1		
0293	0293	Ditch	II	Fig. 2a	
0294	0294	Burrow	IV		
0295	0293	Ditch	II		
0296	0166	Ditch	III.3		
0297	0166	Ditch	III.3		
0298	0166	Ditch fill	III.3		
0299	0147	Ditch	II		
0300	0300	Ditch	III.3	Fig. 2a	Fig. 19
0301	0235	Ditch	III.2	Fig. 2a, 8	Fig. 18
0302	0302	Pit	III.3		
0303	0303	Pit	III.3		
0304	0304	Pit	III.3		
0305	0305	Ditch	III.1	Fig. 2a	
0306	0306	Ditch	III.1	Fig. 2a	
0307	0307	Ditch	III.1	Fig. 2a	
0308	0308	Ditch	II	Fig. 2a	Fig. 18
0309	0309	Ploughmark	IV		
0310	0293	Ditch / gully	II		
0311	0311	Pit	III.3		
0312	0312	Pit/posthole	III.3	Fig. 2a	
0313	0313	Ditch	III.1	Fig. 2b	Fig. 18
0314	0314	Ditch	III.3		
0315	0472	Ditch	III.3		Fig. 18
0316	0316	Ditch	IV		
0317	0293	Ditch section	II		
0318	0313	Ditch	III.1		
0319	0316	Burrow	IV		
0320	0320	Ditch	IV		
0321	0321	Pit	III.1	Fig. 2b	Fig. 18
0322		Section (photo)	III.1		
0323		Section (photo)	III.3		
0324	0324	Pit	II	Fig. 2a	
0325	0311	Pit fill	III.3		
0326	0311	Pit fill	III.3		
0327	0327	Pit	III.1		
0328	0314	Ditch	III.3		
0329	0329	Ditch	III.1	Fig. 2b	Fig. 18
0330	0330	Ditch	III.1		
0331	0331	Ditch	III.1	Fig. 2b	
0332	0332	Ditch	III.1	Fig. 2b	Fig. 18
0333	0333	Ditch	III.1	Fig. 2b	
0334	0334	Ditch / gully	III.1	Fig. 2b	
0335	0335	Ditch / gully	III.1		
0336	0336	Pit	III.1		
0337	0333	Ditch	III.1		
0338	0338	Burrow	IV		
0339	0339	Pit	III.3		
0340	0300	Ditch	III.3		
0341	0330	Ditch	III.1		
0342	0342	Ditch / gully	III.1		
0343	0343	Ditch / gully	III.3		
0344	0344	Pit	III.3	Fig. 2a	
0345	0311	Pit fill	III.3		
0346	0308	Ditch	II		
0347	0347	Layer	II	Fig. 2a	
0348	0214	Ditch	II	Fig. 9	
0349	0142	Ditch	III.1		
0350	0214	Ditch	II	Fig. 9	
0351	0351	Ditch	III.1	Fig. 2a, 9	
0352	0307	Ditch	III.1	Fig. 2a	
0353	0190	Peat hollow layer	peat hollow		
0354	0354	Ditch	III.1	Fig. 2a	
0355	0355	Ditch	III.1	Fig. 2a	
0356	0356	Ditch	III.1	Fig. 2a	
0357	0357	Ditch	III.1	Fig. 2a	
0358	0358	Field boundary	IV	Fig. 2a	
0359	0359	Pit	III.1		
0360	0360	Pit	III.1		
0361	0361	Ditch	III.1		
0362	0293	Ditch fill	II		
0363	0363	Pit	III.3		
0364	0364	Gully	II	Fig. 2a	
0365	0190	Peat hollow layer	peat hollow		Fig. 20
0366	0366	Ditch	II	Fig. 2a	
0367	0176	Ditch	III.1		
0368	0190	Peat hollow layer	peat hollow		Fig. 20
0369	0369	Gully	II	Fig. 2a	
0370	0190	Peat hollow layer	peat hollow		
0371	0190	Peat hollow layer	peat hollow		Fig. 20
0372	0293	Gully ?	II		
0373	0373	Pit	III.3		
0374	0700	Floor layer	III.3	Fig. 13	Fig. 14
0375	0471	Ditch fill	III.2	Fig. 2b	Fig. 19
0376	0700	Postpipe	III.3		
0377	0377	Posthole	III.3		
0378	0378	Posthole	III.3		
0379	0379	Posthole	III.3		
0380	0380	Posthole	III.3		
0381	0381	Posthole	III.3		
0382	0382	Posthole	III.3		
0383	0383	Pit?	III.3	Fig. 2b	
0384	0384	Posthole	III.3		
0385	0385	Ditch	III.1		
0386	0386	Pit	III.3		
0387	0386	Pit fill	III.3		
0388	0386	Pit fill	III.3		
0389	0386	Pit fill	III.3		
0390	0262	Ditch	III.2		
0391	0391	Ditch	III.2		
0392	0392	Pit	III.2		
0393	0393	Ditch	III.1	Fig. 2b	
0394	0394	Ditch	III.1		
0395	0395	Peat hollow	peat hollow		Fig. 20
0396	0195	Peat hollow layer	peat hollow		Fig. 19
0397	0197	Pit fill	III.3		Fig. 20
0398	0197	Pit fill	III.3		Fig. 20
0399	0198	Pit fill	III.3		
0400	0400	Pit	III.3		
0401	0401	Posthole	III.3		
0402	0402	Posthole	III.3		

0403	0403	Posthole	III.3		
0404	0404	Posthole	III.3		
0405	0405	Posthole	III.3		
0406	0406	Posthole	III.3		
0407	0407	Posthole?	III.3		
0408	0408	Pit	I	Fig. 2b	Fig. 18
0409	0409	Pit	III.1		
0410	0410	Pit	III.3	Fig. 2a	Fig. 19
0411	0410	Pit fill	III.3		Fig. 19
0412	0410	Pit fill	III.3		Fig. 19
0413	0410	Pit fill	III.3		Fig. 19
0414	0195	Peat hollow layer	III.3		
0415	0415	Pit	II	Fig. 2b	
0416	0416	Posthole	II	Fig. 2b	Fig. 18
0417	0472	Ditch fill	III.3		
0418	0418	Ditch	III.3		
0419	0176	Ditch	III.1		
0420	0395	Peat hollow section	III.3		Fig. 20
0421	0421	Posthole/pit	III.3		
0422	0422	Ploughmark	IV		
0423	0423	Pit?	III.3		
0424	0197	Finds	III.3		Fig. 20
0425	0425	Ditch	III.1	Fig. 2a	
0426	0197	Pit fill	III.3		Fig. 20
0427	0427	Gully	III.3	Fig. 2a	
0428	0428	Gully	II	Fig. 2a	
0429	0429	Ditch	II	Fig. 2a	
0430	0430	Posthole	III.3		
0431	0431	Pit	III.1	Fig. 2b	
0432	0432	Posthole	III.3		
0433	0433	Posthole	III.3		
0434	0434	Pit	II	Fig. 2b	
0435	0435	Pit	III.3	Fig. 2b	
0436	0436	Pit	III.3		
0437	0437	Ditch	III.1		
0438	0190	Peat hollow section	peat hollow		Fig. 20
0439	0190	Peat hollow layer	peat hollow		
0440	0190	Peat hollow layer	peat hollow		Fig. 20
0441	0190	Peat hollow layer	peat hollow		Fig. 20
0442	0442	Layer	II	Fig. 9	Fig. 18
0443	0442	Posthole	II	Fig. 9	Fig. 18
0444	0442	Posthole	II	Fig. 9	Fig. 18
0445	0442	Posthole	II	Fig. 9	Fig. 18
0446	0442	Posthole	II	Fig. 9	Fig. 18
0447	0442	Posthole	II	Fig. 9	Fig. 18
0448	0448	Layer / feature?	III.1		Fig. 18
0449	0214	Pit	II		
0450	0214	Ditch	II	Fig. 9	
0451	0451	Pit	II	Fig. 9	
0452	0442	Posthole	II	Fig. 9	
0453	0453	Posthole	II	Fig. 2b	
0454	0700	Posthole	III.3	Fig. 12	Fig. 16
0455	0700	Posthole fill	III.3		
0456	0700	Posthole fill	III.3		
0457	0700	Postpipe	III.3		
0458	0700	Posthole	III.3	Fig. 12	Fig. 16
0459	0700	Posthole fill	III.3		
0460	0700	Postpipe	III.3		
0461	0700	Posthole	III.3	Fig. 12	Fig. 16
0462	0700	Posthole fill	III.3		
0463	0700	Posthole fill	III.3		
0464	0700	Postpipe	III.3		
0465	0700	Posthole	III.3	Fig. 12	Fig. 16
0466	0700	Posthole fill	III.3		
0467	0700	Posthole fill	III.3		
0468	0700	Postpipe	III.3		
0469	0469	Ditch	III.3	Fig. 2b	Fig. 19
0470	0469	Ditch	III.3	Fig. 2b	Fig. 19
0471	0471	Ditch	III.2	Fig. 2b	Fig. 19
0472	0472	Ditch	III.3	Fig. 2b	Fig. 19
0473	0473	Ditch	III.3	Fig. 2b	Fig. 19
0474	0474	Boundary ditch	IV		Fig. 19
0475	0475	Layer	III.1		Fig. 19
0476	0475	Layer	III.1		Fig. 19
0477	0700	Posthole	III.3	Fig. 12	Fig. 16
0478	0700	Posthole fill	III.3		
0479	0700	Postpipe	III.3		
0480	0700	Slot	III.3	Fig. 13	Fig. 17
0481	0442	Posthole	II	Fig. 9	
0482	0700	Posthole	III.3	Fig. 12	Fig. 16
0483	0700	Posthole fill	III.3		
0484	0700	Posthole fill	III.3		
0485	0700	Postpipe	III.3		
0486	0486	Ditch / gully	III.1		
0487	0700	Posthole	III.3	Fig. 12	Fig. 16
0488	0700	Posthole fill	III.3		
0489	0700	Posthole fill	III.3		
0490	0490	Pit	I		Fig. 19
0491	0700	Posthole fill	III.3		
0492	0492	Pit	III.3		
0493	0493	Pit	II	Fig. 2b	
0494	0494	Ditch	III.2	Fig. 2b	Fig. 20
0495	0495	Posthole	II		
0496	0496	Pit	III.3		
0497	0700	Posthole	III.3	Fig. 12	Fig. 16
0498	0700	Posthole fill	III.3		
0499	0700	Posthole fill	III.3		
0500	0700	Postpipe	III.3		
0501	0700	Posthole	III.3	Fig. 12	Fig. 16
0502	0700	Posthole fill	III.3		
0503	0700	Posthole fill	III.3		
0504	0700	Postpipe	III.3		
0505	0700	Posthole	III.3	Fig. 12	Fig. 17
0506	0700	Posthole fill	III.3		
0507	0700	Posthole fill	III.3		
0508	0700	Postpipe	III.3		
0509	0701	Posthole	III.2	Fig. 10	Fig. 15
0510	0701	Posthole fill	III.2		
0511	0701	Postpipe	III.2		
0512	0700	Millstone frags	III.3		
0513	0701	Posthole	III.2	Fig. 10	Fig. 15
0514	0701	Posthole	III.2	Fig. 10	Fig. 15
0515	0700	Millstone frags	III.3		
0516	0442	Posthole	II		
0517	0442	Posthole	II	Fig. 9	
0518	0442	Posthole	II	Fig. 9	
0519	0442	Posthole	II	Fig. 9	
0520	0442	Layer	II	Fig. 9	
0521	0442	Posthole	II	Fig. 9	
0522	0442	Posthole	II	Fig. 9	
0523	0700	Posthole	III.3	Fig. 12	Fig. 16
0524	0700	Posthole fill	III.3		
0525	0700	Posthole fill	III.3		
0526	0700	Millstone	III.3	Fig. 13	Fig. 17
0527	0700	Polished stone	III.3		
0528	0528	Pit	III.3		
0529	0528	Pot	III.3		
0530	0700	Floor layer / flue	III.3	Fig. 13	Fig. 17
0531	0700	Posthole	III.3	Fig. 12	Fig. 17
0532	0700	Posthole	III.3	Fig. 12	Fig. 16
0533	0700	Posthole fill	III.3		
0534	0700	Postpipe	III.3		
0535	0700	Posthole	III.3	Fig. 12	Fig. 15, 16
0536	0700	Posthole fill	III.3		
0537	0700	Postpipe	III.3		
0538	0700	Posthole fill	III.3		
0539	0700	Postpipe	III.3		
0540	0494	Ditch	III.2	Fig. 2b	
0541	0541	Pit	III.3		
0542	0542	Pit	III.3		
0543	0700	Posthole	III.3	Fig. 12	Fig. 17
0544	0700	Posthole fill	III.3		
0545	0700	Posthole fill	III.3		
0546	0700	Postpipe	III.3		
0547	0700	Posthole fill	III.3		
0548	0329	Ditch	III.1	Fig. 2b	
0549	0700	Posthole	III.3	Fig. 12	Fig. 17
0550	0700	Posthole fill	III.3		
0551	0700	Posthole	III.3	Fig. 12	Fig. 17
0552	0700	Posthole fill	III.3		
0553	0700	Postpipe	III.3		
0554	0700	Posthole fill	III.3		
0555	0561	Layer	III.1		
0556	0701	Pit fill	III.2		
0557	0701	Pit fill	III.2		
0558	0558	Gully	III.2	Fig. 12	
0559	0700	Posthole	III.3		Fig. 16
0560	0700	Posthole	III.3	Fig. 12	Fig. 17

0561	0561	Layer	III.2	Fig. 2b	Fig. 17, 19
0562	0472	Ditch	III.3		
0563	0700	Floor layer	III.3		Fig. 17
0564	0700	Posthole	III.3		
0565	0700	Posthole fill	III.3		
0566	0700	Posthole fill	III.3		
0567	0700	Posthole	III.3	Fig. 11, 12	Fig. 17
0568	0700	Posthole fill	III.3		
0569	0700	Postpipe	III.3		
0570	0700	Posthole	III.3	Fig. 11, 12	Fig. 17
0571	0700	Posthole fill	III.3		
0572	0700	Posthole fill	III.3		
0573	0700	Postpipe	III.3		
0574	0700	Posthole	III.3	Fig. 11, 12	Fig. 17
0575	0700	Posthole fill	III.3		
0576	0700	Postpipe	III.3		
0577	0701	Posthole	III.2	Fig. 12	Fig. 15
0578	0469	Ditch	III.3	Fig. 2b	Fig. 19
0579	0579	Ditch	III.3	Fig. 2b	Fig. 19
0580	0580	Ditch	III.3	Fig. 2b	Fig. 19
0581	0581	Ditch	III.3		
0582	0582	Posthole	III.3	Fig. 2b	Fig. 19
0583	0700	Posthole fill	III.3		
0584	0700	Postpipe	III.3		
0585	0701 ?	Pit	III.2	Fig. 12	Fig. 16
0586	0586	Baulk	III.3		
0587	0700	Posthole	III.3	Fig. 11, 12	Fig. 17
0588	0700	Posthole fill	III.3		
0589	0700	Postpipe	III.3		
0590	0701	Floor layer	III.2	Fig. 11	
0591	0701	Gully	III.2	Fig. 11	Fig. 17
0592	0701 ?	Posthole?	III.2		
0593	0700	Posthole fill	III.3		
0594	0700	Posthole fill	III.3		
0595	0700	Postpipe	III.3		
0596	0700	Posthole fill	III.3		
0597	0701	Posthole	III.2	Fig. 10	Fig. 15
0598	0701	Posthole fill	III.2		
0599	0701	Floor layer	III.2	Fig. 11	Fig. 17
0600	0700	Tile	III.3	Fig. 13	Fig. 17
0601	0700	Postpipe	III.3		
0602	0700	Posthole fill	III.3		
0603	0700	Posthole fill	III.3		
0604	0701 ?	Posthole fill	III.2		
0605	0701 ?	Posthole fill	III.2		
0606	0701	Posthole fill	III.2		
0607	0701 ?	Posthole fill	III.2		
0608	0700	Posthole	III.3	Fig. 12	Fig. 16
0609	0700	Posthole fill	III.3		
0610	0700	Postpipe	III.3		
0611	0701 ?	Posthole?	III.2	Fig. 12	Fig. 15
0612	0701 ?	Posthole fill	III.2		
0613	0701 ?	Posthole fill	III.2		
0614	0701	Pit	III.2	Fig. 12	Fig. 15
0615	0701 ?	Pit fill	III.2		
0616		Section (photo)	IV		
0617		Section (photo)	IV		
0618	0700	Posthole	III.3	Fig. 12	Fig. 16
0619	0700	Posthole	III.3	Fig. 12	Fig. 16
0620	0700 ?	Stake hole?	III.3	Fig. 12	
0621	0700	Stake hole?	III.3	Fig. 12	
0622	0700	Posthole	III.3	Fig. 12	Fig. 16
0623	0700	Posthole	III.3	Fig. 12	Fig. 16
0624	0700	Posthole	III.3	Fig. 12	Fig. 16
0625	0700	Posthole	III.3	Fig. 12	Fig. 16
0626	0701	Posthole	III.2	Fig. 10	Fig. 15
0627	0701	Posthole	III.2	Fig. 10	Fig. 15
0628	0701	Posthole	III.2	Fig. 10	Fig. 15
0629	0701	Posthole	III.2	Fig. 10	Fig. 15
0630	0701	Posthole	III.2	Fig. 10	Fig. 15
0631	0700	Posthole	III.3	Fig. 12	Fig. 16
0632	0700	Posthole	III.3	Fig. 12	Fig. 16
0633	0700	Posthole	III.3	Fig. 12	Fig. 16
0634	0700	Posthole	III.3	Fig. 12	Fig. 16
0635	0700	Posthole	III.3	Fig. 12	Fig. 16
0636	0700	Posthole	III.3	Fig. 12	Fig. 16
0637	0700	Posthole	III.3	Fig. 12	Fig. 16
0638	0700	Posthole	III.3	Fig. 12	Fig. 16
0639	0700	Posthole	III.3	Fig. 12	Fig. 16
0640	0700	Posthole	III.3	Fig. 12	Fig. 16
0641	0700	Posthole	III.3	Fig. 12	Fig. 16
0642	0700	Posthole	III.3	Fig. 12	Fig. 16
0643	0361	Ditch	III.1	Fig. 2b	Fig. 18
0644	0701	Posthole	III.2	Fig. 10	Fig. 15
0645	0701	Posthole	III.2	Fig. 10	Fig. 15
0646	0701	Posthole	III.2	Fig. 10	Fig. 15
0647	0701	Posthole	III.2	Fig. 10	Fig. 15
0648	0701	Posthole	III.2	Fig. 10	Fig. 15
0649	0701	Posthole	III.2	Fig. 10	Fig. 15
0650	0701	Posthole	III.2	Fig. 10	Fig. 15
0651	0701	Posthole	III.2	Fig. 10	Fig. 15
0652		Posthole?			
0653	0329	Ditch	III.1	Fig. 2b	
0654	0700	Posthole	III.3	Fig. 12	Fig. 16
0655	0700	Posthole	III.3	Fig. 12	Fig. 16
0656		Layer	I		Fig. 19
0657	0701	Floor layer	III.2	Fig. 11	
0658	0701	Floor layer	III.2	Fig. 11	Fig. 17
0659	0701	Posthole	III.2	Fig. 10	Fig. 15
0660	0701	Posthole	III.2	Fig. 10	Fig. 15
0661	0701	Posthole	III.2	Fig. 10	Fig. 15
0662	0701	Posthole	III.2	Fig. 10	Fig. 15
0663	0701	Posthole	III.2	Fig. 10	Fig. 15
0664	0701	Postpipe	III.2		
0665	0665	Ditch / gully	III.3		
0666	0701	Posthole	III.2	Fig. 10	Fig. 15
0667	0701	Posthole	III.2	Fig. 10	Fig. 15
0668	0700 ?	Posthole	III.3	Fig. 12	Fig. 16
0669	0700 ?	Posthole	III.3	Fig. 12	Fig. 16
0670	0700 ?	Posthole	III.3	Fig. 12	Fig. 16
0671	0700 ?	Posthole	III.3	Fig. 12	Fig. 16
0672	0701	Floor layer	III.2	Fig. 10	Fig. 15
0673	0701	Posthole	III.2	Fig. 10	Fig. 15
0674	0701	Posthole	III.2	Fig. 10	Fig. 15
0675	0701	Posthole	III.2	Fig. 10	Fig. 15
0676	0701	Posthole	III.2	Fig. 10	Fig. 15
0677	0701	Postpipe	III.2		
0678	0701	Posthole	III.2	Fig. 10	Fig. 15
0679	0701 ?	Millstone frags	III.2		
0680	0561	Layer	III.1		
0681	0701	Posthole fill	III.2		
0682	0701	Posthole	III.2	Fig. 10	Fig. 15
0683	0700	Floor layer	III.3	Fig. 13	Fig. 17
0684	0701	Floor layer	III.2	Fig. 11	
0685	0685	Pit	III.3		
0686	0473	Ditch	III.3		
0687	0472	Ditch	III.3		
0688	0701	Posthole	III.2	Fig. 10	Fig. 15
0689	0701	Posthole	III.2	Fig. 10	Fig. 15
0690	0701	Posthole	III.2	Fig. 10	Fig. 15
0691	0701	Posthole?	III.2		
0692	0692	Ditch	III.3		
0693	0693	Ditch / gully	III.3		
0694	0694	Ditch	III.3		
0695	0695	Ditch / gully	III.3		
0696	0473	Ditch	III.3		
0697	0472	Ditch / gully	III.3		
0698	0698	Ditch	III.1		
0699	0699	Pit?	I		Fig. 19
0700	0700	Building 2	III.3		
0701	0701	Building 1	III.2		
0702	0100	Surface finds	IV		
0703	0100	Surface finds	IV		
0704	0100	Surface finds	IV		
0705	0100	Surface finds	IV		

0706	0100	Surface finds	IV			
0707	0100	Surface finds	IV			
0708	0100	Surface finds	IV			
0709	0100	Surface finds	IV			
0710	0100	Surface finds	IV			
0711	0100	Surface finds	IV			
0712	0100	Surface finds	IV			
0713	0100	Surface finds	IV			
0714	0100	Surface finds	IV			
0715	0100	Surface finds	IV			
0716	0100	Surface finds	IV			
0717	0100	Surface finds	IV			
0718	0100	Surface finds	IV			
0719	0100	Surface finds	IV			
0720	0100	Surface finds	IV			
0721	0100	Surface finds	IV			
0722	0100	Surface finds	IV			
0723	0100	Surface finds	IV			
0724	0100	Surface finds	IV			
0725	0100	Surface finds	IV			
0726	0100	Surface finds	IV			
0727	0100	Surface finds	IV			
0728	0100	Surface finds	IV			
0729	0100	Surface finds	IV			
0730	0100	Surface finds	IV			
0731	0100	Surface finds	IV			
0732	0100	Surface finds	IV			
0733	0100	Surface finds	IV			
0734	0100	Surface finds	IV			
0735	0100	Unstratified finds	IV			
0736	0100	Surface finds	IV			
0737	0473	Ditch fill	III.3			Fig. 19
0738	0100	Topsoil finds	IV			
0739	0739	Ditch	III.1	Fig. 2a		Fig. 19
0740	0740	Ditch	III.1	Fig. 2a		Fig. 19
0741	0741	Ditch	III.1	Fig. 2a		Fig. 19
0742	0742	Ditch	III.3	Fig. 2a		Fig. 19
0743	0742	Ditch section	III.3			

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