

Chapter 3. Excavations South of the Waveney (Suffolk Sites SUS 005 and OKY 005; Areas 6, 7 and 8)

by Andrew Tester and David Gill

I. Summary

Lithic finds indicate a Mesolithic presence south of the Waveney while Neolithic pottery and flint recovered from natural hollows on the edge of the floodplain suggest settlement nearby. An isolated roundhouse in Area 6 was of indeterminate prehistoric date but a field system to the south of the excavation dates from at least the Early Iron Age, as does a burial in Area 7. A somewhat clearer picture of later prehistoric change was recorded in the pollen evidence recovered from a palaeochannel of the River Waveney in Area 8; this indicated large-scale forest clearance during the Middle Bronze Age. A causeway, indicated by post alignments through the palaeochannel and probably leading to a ford over the river, may pre-date both the Roman settlement and the Roman road.

While a crop-mark feature in Area 6 once suggested to be a Roman marching camp was shown to be prehistoric, metal-detected coins suggested an early military presence. The main north-to-south road passing between the 1993–4 excavation areas may have been built in the wake of the Roman army, which came through Scole after

the Boudican rebellion. A haphazard development of 'native'-style roundhouses in Area 8 preceded the introduction of more regular east–west property divisions along the edge of the floodplain in the 2nd century. An enclosure in Area 7 is thought to have marked the southern limit of the settlement. In Area 6, concentrated activity was limited to a Roman maltings and probable brewery which was established alongside a leat across a loop in the Waveney during the 2nd century. The industrial complex appears to have had mixed fortunes, as it survived barely a century from the later 2nd to the mid–later 3rd century before being abandoned after repeated flooding. A small enclosure indicates reversion to agriculture before the end of the Roman settlement.

In Areas 7 and 8 an abundance of finds, particularly from an extensive Dark Earth deposit, and at least one new building all suggest increasing activity into the 4th century. However, there was a marked decline in coin-loss during the third quarter of the 4th century (pre-dating the decline recorded in Areas 1–4 to the north of the Waveney), although the latest Roman issues were still present, albeit in reduced numbers.

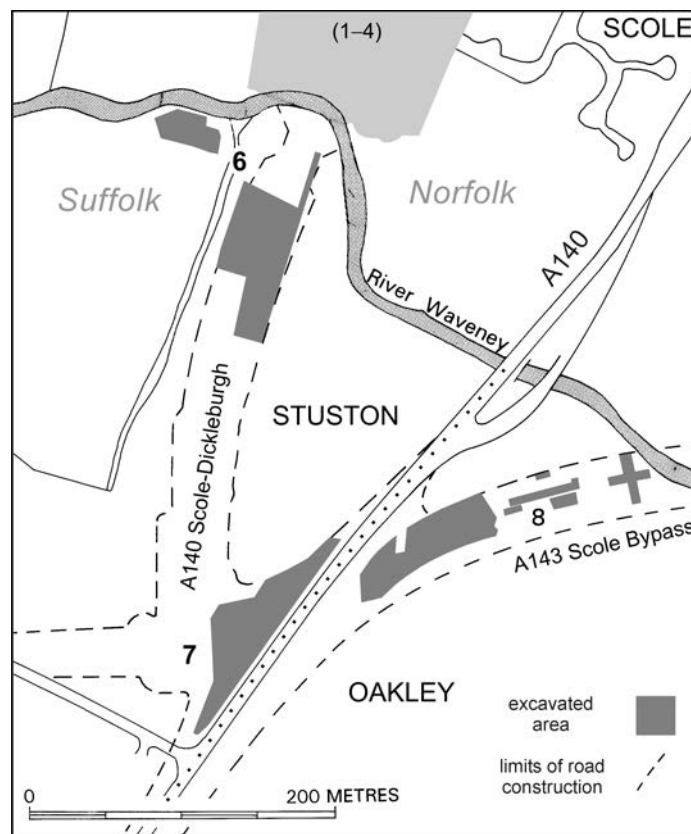


Figure 3.1 Plan showing locations of Areas 6, 7 and 8

Despite the disappearance of the settlement itself from the archaeological record, the Oakley causeway was reinstated and the palynological evidence suggested there was no hiatus in land management.

II. Introduction

(Plate 3.1; Fig. 3.1)

This chapter of the report is a period-ordered account of the main results of all the excavations undertaken south of the Waveney by Suffolk County Council Archaeological Service in 1993–4. Work at Stuston Areas 6 and 7 took place in advance of construction of the A140 Scole–Dickleburgh Improvement during 1993 and early 1994, and was funded by the Highways Agency. Excavation of Area 8, immediately to the east in Oakley parish, followed in the spring and summer of 1994 in connection with the A143 Scole Bypass, and was funded by Norfolk County Council.

The results of preliminary survey and trench evaluation, which are summarised below, helped determine which specific locations south of the Waveney were chosen for area excavation. While evaluation proved successful in locating significant concentrations of Roman activity, represented by extensive, artefact-rich

soil layers as well as by cut features and their fills, near the southern limit of the Roman settlement, the excavations still yielded some surprising results. The maltings complex adjacent to the Waveney in the northern part of Area 6 was unexpected, while a prominent and well-known ‘Roman’ crop-mark in the southern part of the same area was in fact of later prehistoric date.

Archaeological background

(Plate 3.2; Figs 1.2, 3.1 and 3.2)

The finding of fragments of a single Roman cremation was recorded by Basil Brown in 1954, but this cannot be located precisely other than that it lay in the general area to the west of Area 7. A Roman road surface was found at the same time.

The north side of a rectilinear crop-mark enclosure, with a round ‘playing-card’ north-west corner and a clavicular entrance, was identified by Derek Edwards as a ‘probable’ marching camp (Edwards 1977). This feature was the most prominent element in a series of linear crop-marks recorded in the field. The identification of a possible marching camp close to an important river crossing occasioned little surprise. Camps have been identified elsewhere in Suffolk at the Small Towns of Pakenham (to the west) and Coddenham (to the south,

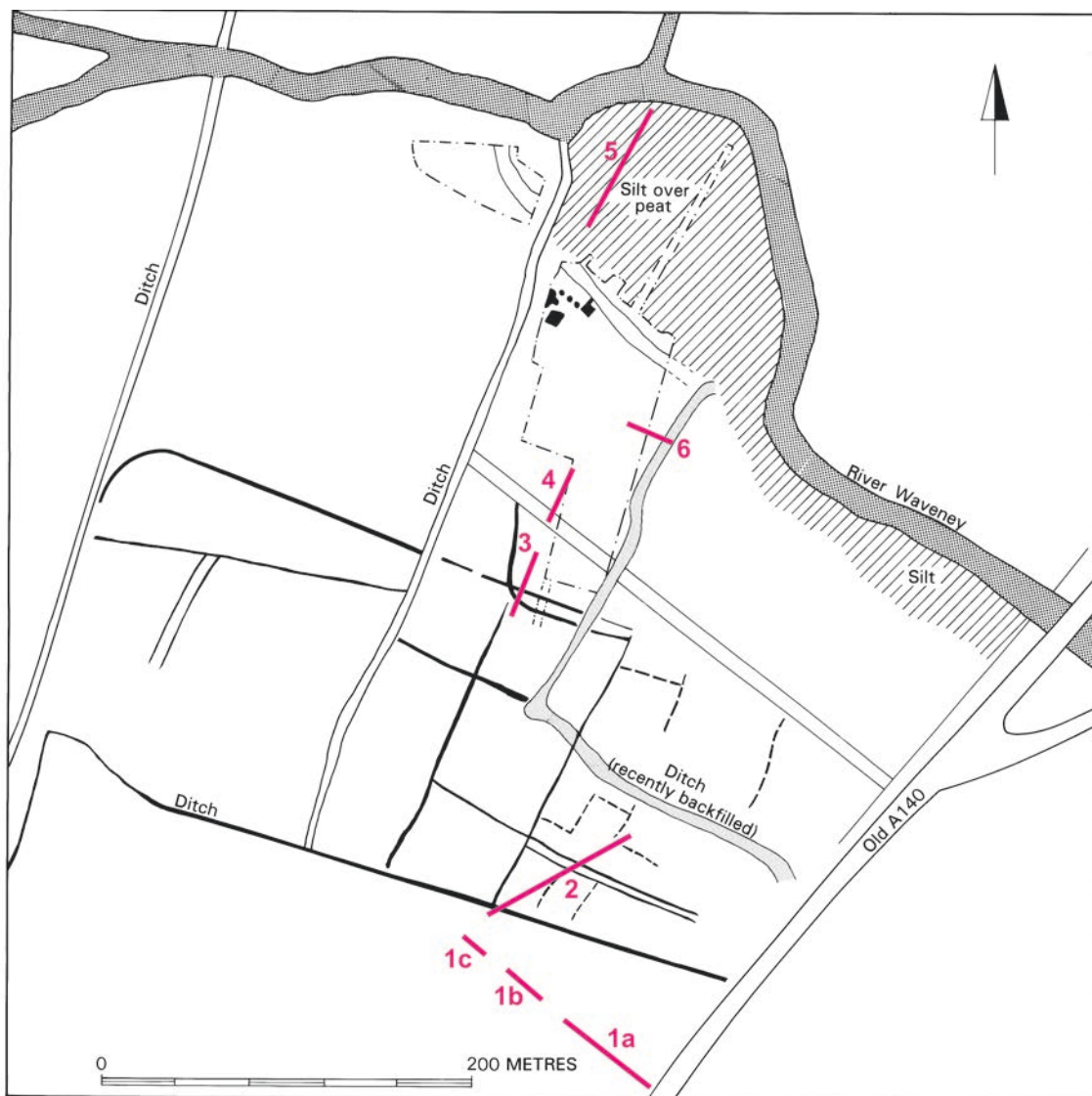
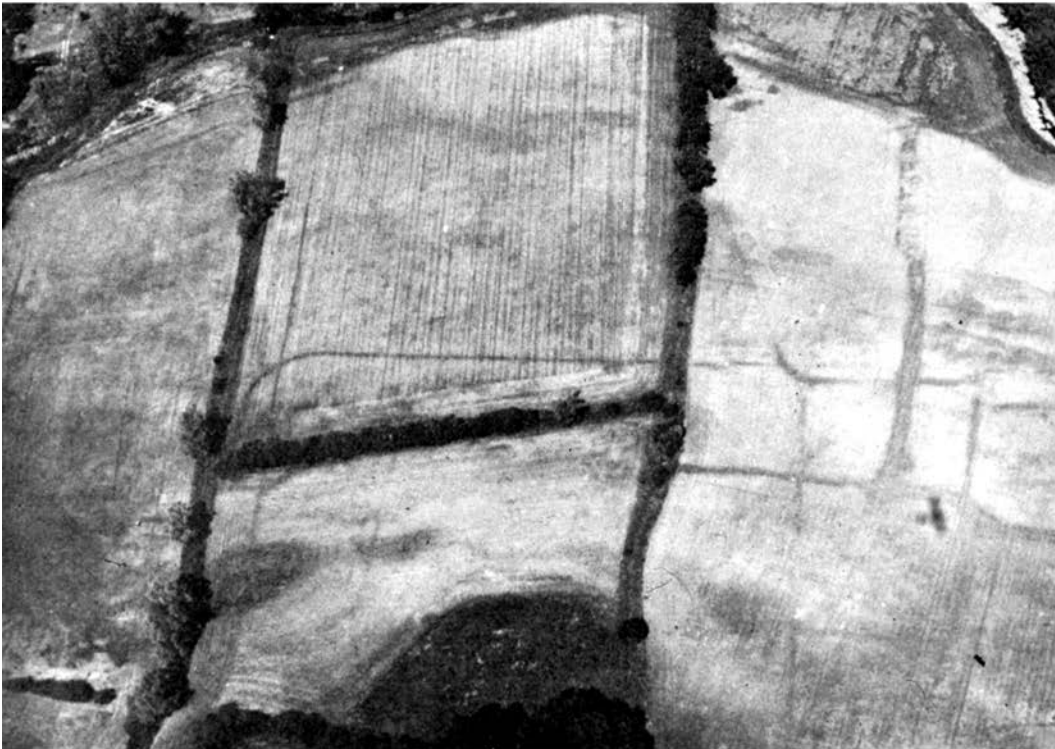


Figure 3.2 Area 6 and environs: plan showing evaluation Trenches 1–6 (pink) and crop-marks (black)



a



b

Plate 3.2 Area 6, crop-marks of 'marching camp' photographed by Derek Edwards, 29 June 1976:
a – looking east, towards the old line of the A140 (TM1478/G/AFA6)
b – looking north (TM1478/J/AFA7)

where there appear to have been at least two: Plouviez 1995, 87). A concentration of Claudian coins was recovered in what would have been the interior of this enclosure during a metal detector survey by Keith Rackham and recorded by Tony Gregory in 1979–80.

Site evaluation
(Figs 3.1–3.5)

Area 6
(Figs 3.2 and 3.3)
During 1992 and early in 1993 two separate evaluations were carried out (Tester and Emery 1992, Penn and Tester 1993). The entire field south of the Waveney to be crossed by the A140 Bypass was fieldwalked and a gridded metal-detecting survey was carried out on the proposed road

line. This was followed by a sequence of hand-dug and (finally) machine-cut trenches.

The results of this work were considered in association with earlier work, notably a metal-detecting survey carried out by K. Rackham of Diss, and recorded by Tony Gregory, in 1979–80 (*Previous investigations*, Chapter 1: Fig. 1.2, 23). The fieldwalking identified pottery concentrations along the eastern side of the field. These were observed c. 60m from the southern end of the field and continued northwards uninterrupted to the river. A second, lower, concentration, was associated with a slight rise in the ploughed field a little to the east of Area 6. The results of the 1979–80 metal-detector survey tended to corroborate the pottery distribution, particularly with respect to the eastern side of the field.

The 1992 trial-trenching programme was intended to elaborate on the fieldwalking results and examine the network of linear crop-marks, most notably the possible marching camp and Roman road. The first trenches were hand-excavated to minimise crop damage, and inevitably

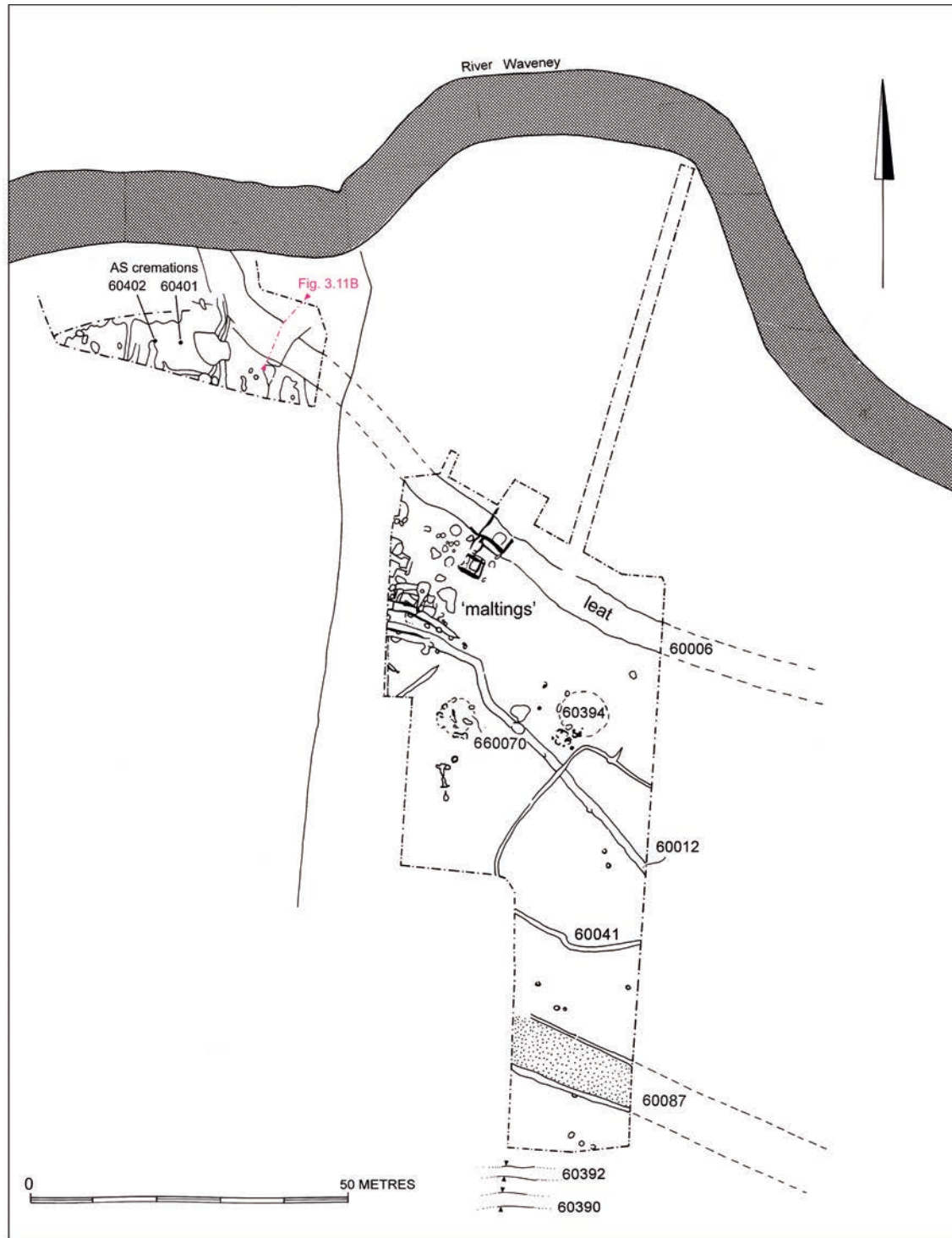


Figure 3.3 Area 6: plan showing location of principal features

this limited the scope of the work. Four trenches across the lower part of the field were sited to intercept a north-to-south ditch, known to have been backfilled since the Second World War, close to the leat and two east-to-west aligned ditches, and to expose sections across both the putative marching camp ditch and the Roman road. The (presumably ploughed-out) roadside ditches could not be seen. Most of the remaining features were filled with peat, and there were no diagnostic finds. Since the water table when the peat was formed must have been similar to that of today, and the ditches (including the 'marching camp' ditch) were similar in alignment to those filled in subsequently, it was suggested that they were all close in date and *no earlier* than the medieval period. (Prehistoric radiocarbon dates retrieved from samples of peat have proved these suggestions spectacularly wrong: p.115.) The modern field-edge avoided the prominent meander at the north end of the field, which was overgrown with nettles. Samples from a machine-dug trench through a well-preserved sequence of peats indicated high potential for palynological analysis (Wiltshire 1995).

Three sections were hand-excavated close to the A140, in the eventual vicinity of Area 7. The latter area saw further machine trenching which established the likely extent of archaeological features of interest, and the density of finds which might be expected. Largely on the basis of these surveys, it was agreed in the Project Design that two areas deserved open-area excavation. While the roadside strip (Area 7) was considered to have the greatest potential, the possibility of waterlogged deposits prompted an exploratory excavation close to the river (Area 6). This latter intervention led to the discovery of the leat and 'maltings', both of them unexpected finds.

Area 7
(Fig. 3.1)

The most significant recent work in the area to the west of the A140 was the 1979–80 metal-detector survey by K. Rackham (above), which recovered over 200 coins from a 'belt' alongside the road. The evaluation fieldwalking and metal-detecting revealed concentrations of both pottery and coins from the area immediately west of the A140, extending south from the river crossing as far as a point *c.* 60m from the southern end of the field in which Areas 6 and 7 were eventually sited. A significant part of the second survey targeted the roadside area; a series of east-to-west trial trenches highlighted an area of 'dark soil' which appeared to survive largely intact beneath the modern ploughsoil, with evidence of ditches and other features beneath (Tester and Emery 1992). Roadside trenching further to the south through the Scole plantation, opposite the Old Bury Road, produced no evidence for Roman settlement and suggested that this area lay beyond the settlement limits.

Excavation at Area 7 was intended to characterise the extent and nature of roadside settlement on the outskirts of Scole, with particular emphasis on the recording of the 'dark soil' deposits. Similar soils had also been identified at Hacheston and Pakenham, two other major Roman Small Towns in Suffolk to see excavation in recent years (Blagg, Plouviez and Tester 2004). It was felt that spatial analysis of the material collected from a 'Dark Earth' in a rural context might shed significant light on this little-understood phenomenon.

Area 8
(Figs 3.1, 3.4 and 3.5)

The field at Oakley to the east of the A140 offered even greater potential for study than its neighbour due to its almost uninterrupted history as pasture. While the raised course of a possible east-to-west road had been noted there by Thrower (Chapter 1) nothing was seen of it during the excavations reported on here, and it seems likely that this was a post-medieval feature. In 1976 Andrew Rogerson observed Roman finds in animal disturbances, while Roman pottery has been recovered from dredgings at various points along the river. The most significant local discovery, however, was that of a possible Roman temple site about 200m from the A140 in the field adjoining the excavation area (Fig. 1.2).

In 1993 trial trenches were excavated along the proposed line of the new A143 between the A140 and the river (Boulter 1993). Close to the road these revealed a dark soil similar to that seen on the other side of the A140 in Area 7; a second, darker, soil containing fewer finds was encountered closer to the river. Subsoil features, mainly Roman ditches, underlay the dark soil, and the whole area was sealed by a fine grey silt/clay flood deposit. The evaluation confirmed that the field had not been ploughed in recent times, and that Roman remains with a high potential for organic survival lay in the path of the new road. Peat deposits close to the river were also identified for future palaeoenvironmental analysis. Of particular interest were a series of plough lines at the northern end of the field; although sealed by the clay, these cut the dark soil while apparently respecting a Roman ditch.

Following the Area 8 excavations, a geophysical survey of the field by Geophysical Surveys of Bradford (report 95/117, in archive) investigated the areas shown in Fig. 3.4. A gradiometer survey of both fields was carried out, along with a resistivity survey over Area B. A greyscale display of the gradiometer survey is shown in Fig. 3.5. The gradiometer results suggested that occupation did not extend far beyond the 1994 excavation area. The ditches flanking the road remain visible over a distance of *c.* 60m, before terminating. A strong ditch-type anomaly to the east of the site presumably represented some kind of boundary. High readings from the resistance survey in Area B may



Figure 3.4 Area 8: extent of geophysical surveying

represent elements of building foundations, although the lack of a coherent set of anomalies prevents a clear interpretation.

Detailed appraisal of the contour plan, in conjunction with this survey, made clear that a palaeochannel of the River Waveney intercepted the Oakley road at the very point where the ditches seemed to disappear. Uncertainties over the relationship between the putative temple site (Chapter 1), the east-to-west Oakley road and the palaeochannel are brought into focus here. If the road had continued across the palaeochannel, would it have shown in the survey if the flanking ditches had been filled with sterile sand or peat? (This question is made more pertinent by the failure of a large infilled drainage ditch, known to have existed towards the north-west edge of the plot, to reveal itself in the survey.)

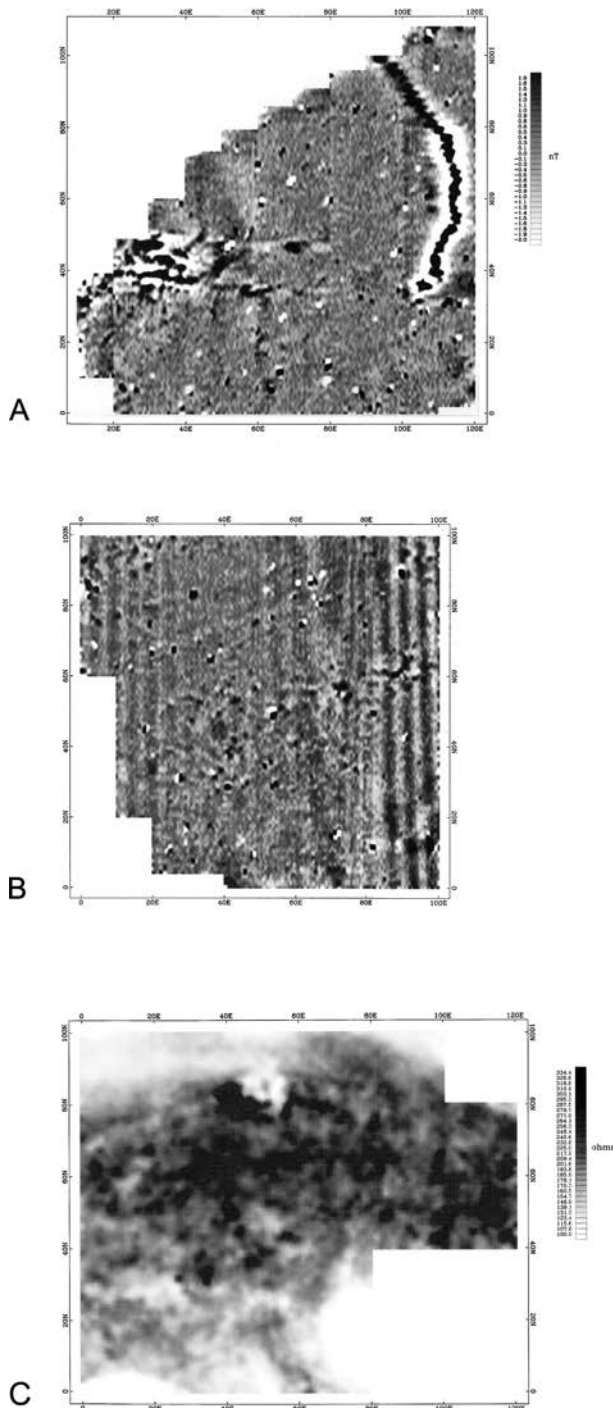


Figure 3.5 Area 8: results of geophysical survey: A – Area A gradiometer data; B – Area B gradiometer data; C – Area B resistance data

Method

Area 6

Approximately 3000m² of ploughsoil was removed by machine, beginning at the northern edge of the cultivated field. The main excavation area was 40m wide and followed the footprint of the new road. A 20m-wide southward extension targeted the Roman trackway which was so prominent on the aerial photographs.

It was clear at once that a large Roman ditch (later identified as a leat) lay at the north end of the site. In fact there appeared at first to be a second parallel ditch to the north of this, the two ‘features’ being separated by a band of bright orange sand. It transpired that the second ‘ditch’ marked the edge of the river-edge peat, with the orange sand a remnant of a bank upcast from the leat. Extending south from the leat were various bands of grey silt which, although fairly homogeneous, were quite distinct from the ploughsoil. These were patchy and thinned towards the south, exposing various gleyed sands beneath. The silt was largely removed by hoeing to the edge of the leat. Exposed surfaces were cleaned by hoeing, prior to planning at a scale of 1:50 (or larger) using standard SAU film sheets covering each 20m square. Sections were drawn at scales of either 1:20 or 1:10 as appropriate. Standard SAU single context recording was used throughout. All exposed features were excavated.

Excavation was generally comprehensive. Structures **60116** and **60008** were totally excavated, and all other discrete features were half-sectioned at the very least. Only in the case of ditches **60012** and **60041** was a sample of less than 50% excavated. Following the initial discoveries within the leat, further sections were dug by machine in quest of structural evidence. This resulted in its near-total excavation, albeit largely by machine. All areas, including the spoilheaps, were metal-detected. Topsoil stripping at the conclusion of formal excavations was also subject to metal-detecting wherever circumstances and Health and Safety considerations would allow. Scientific sampling was carried out by, and in consultation with, Peter Murphy, Patricia Wiltshire and Richard Macphail.

Area 7

The excavations began with the machine removal of 2500m² of topsoil, its depth varying between *c.* 0.3m at the very north end of the site and 0.5m at the south end. The machine spoil and the exposed surfaces were metal-detected (the finds being recorded two-dimensionally and by context), before being hoe-cleaned and planned. It became clear that modern ploughing had penetrated deeper than the results of the evaluation had suggested; over the southern half of the site a natural surface of sand, gravel and (in places) boulder clay was exposed directly by machining. Prominent surviving features were the large north-to-south ditch **70047** and the Dark Earth deposit identified during the evaluation, which occupied an area of *c.* 400m² in the centre of the site.

Excavation commenced with the division of the dark soil into a series of 2.5m squares. (This division was also applied to two grid squares over a feature interpreted as a Roman quarry pit at the south end of the site, and six squares containing dark soil towards the northern tip of the site.) A sequence of eight squares, which stretched from west to east across the main body of dark soil, was examined by dry-sieving through a 1cm mesh, the remainder being excavated by trowel and shovel. All soils were closely metal-detected. Recovery of animal bone was difficult due to its friability, but in this respect the shovelling was probably little more destructive than the dry sieving. An attempt was made to remove the 2.5m squares in vertical spits, and this is reflected in the numbering system, but practical difficulties limited the effectiveness of this approach. First, it was difficult to establish a common depth of spit between a disparate group of excavators. Second — and perhaps more importantly — undulations in the profile of the ground beneath led to variations in depth between adjoining squares.

Following the removal of the Dark Earth, the features exposed beneath it were excavated. With the exception of ditch **70047** (and those which preceded it) and the Roman quarry pit **70076** at the south end of the site, at least 50% of all feature fills was removed. Once recording had finished, many remaining fills were hurriedly excavated by shovel in order to recover finds. A series of irregular-shaped pockets of grey and pink sand, interpreted as natural features utilised in prehistory, were only sample-excavated. Since the majority of the fill from roadside ditch **70047** was clearly post-medieval, only a single section was wholly excavated by hand; several machine-cut sections characterised the entire length of this ditch near the end of the excavation. Similarly, during the last week of excavations a machine bucket-wide trench was run the length of the site, slightly to the west of **70047** and parallel with it. This confirmed that many unexplained shapes in the ‘natural’ sand were periglacial features and not in fact related to Roman quarrying, which had been considered as a possibility up until then. These late

interventions were mostly recorded in note and photographic form and do not appear on any of the published plans.

Area 8

Fieldwork began in May 1994 when 2450m² of topsoil was stripped from the A143 road corridor between the eastern edge of the A140 and the limits of the Waveney peat; in total, this comprised 46% of the bypass's length to the south of the river. A series of trenches was positioned closer to the river to explore the extent of the peat, and used to collect environmental samples. The discovery of a timber causeway, however, prompted expansion of the trenches and eventually 330m² within the peat was explored.

Machining was undertaken in two stages to allow for thorough metal-detecting of the topsoil, both *in situ* and as spoil. After initial de-turfing a temporary grid was established to record the position of finds before topsoil was removed to the top of the stratified archaeological layers. The evaluation had shown that beneath the topsoil an alluvial clay/silt overlay all Roman deposits, and it was hoped that collection of finds from the topsoil would help date the flood event. Although a number of Roman metal objects were found in the topsoil, no archaeological features were encountered until the removal of the flood-deposited layer.

The Dark Earth, similar to that identified in Area 7, was sealed below the flood-deposited silt. It covered all of the cut features but was thickest in the western half of the site. Excavation methods comparable to those in Area 7 were used. At the west end of the area, along the A140 frontage, a 282m² block (40% of the site area) was removed by hand. The finds were collected on a 2.5m grid, and a 9% sample of these squares were sieved through a 1cm mesh in a band across the width of the site in order to assess recovery rates. The soil depth within the gridded area varied from 5cm to 30cm; at its deepest it was removed in a series of 5–10cm spits. Metal-detecting accompanied both the sieving and hand-collection. Those areas of the Dark Earth outside the gridded area (west of grid line 630) were removed either by machine or shovel, and the finds collected under broader area context units. All these soils were equally well metal-detected, making the distribution plots of metal finds across Area 8 comparable. Beneath the Dark Earth there was little surviving vertical stratigraphy apart from isolated thin surface spreads. All features were sampled, with 100% of the wells and structural features, 50% of pits and 30% of linear features being excavated. In some cases, however, these percentages were exceeded with the aid of voluntary labour.

Beyond the main excavation area a machine trench was excavated through a peat-filled channel close to the Waveney for environmental sampling. Several radiocarbon dates established a chronology for the development of the peat, against which a column of pollen, macrofossil and soil micromorphology samples could be analysed. Selected features from the main site were also sampled. Environmental sampling was co-ordinated by Peter Murphy, who carried out analyses along with Patricia Wiltshire and Richard Macphail (Chapter 9).

Phasing

The overall project phasing scheme is set out in Chapter 1. Phase subdivisions within the spans of individual chronological Periods have been restricted to the Roman era (Periods 3–5), due to the paucity of attributable prehistoric finds.

The concordance table (Table 1.1) summarises the detailed phasing scheme applied to Areas 7 and 8. It is immediately clear that there are similarities throughout the Roman period. It will be argued that boundary developments on either side of the Roman road occurred in tandem, and the combined phase figures for Areas 7 and 8 give a summary picture of events at some time between the dates presented. Despite close spatial correspondences, however, the dating sequences remain difficult to pin down. The very few well-stratified contexts, on either side of the Roman road, tended to lack finds, and large open features and the ubiquitous dark soil produced most of the artefacts. This problem is compounded by the tiny percentage of coins recovered from sealed contexts, and has led to reliance on the pottery for dating. (Despite the lack of stratigraphy to provide chronological definition to the coin evidence, artefact distribution patterns and coin sequences hold clear

implications for both the phasing and morphology of the site.) These factors account for the broad date-ranges applied to the phase divisions, and there are undoubtedly chronological overlaps between individual features.

III. Periods 1 and 2: pre-Roman features and finds

(Plate 3.2; Figs 3.3–3.9)

Area 6

(Plate 3.2; Figs 3.2, 3.3, 3.6 and 3.7)

While a wide distribution of struck flint indicated prehistoric occupation of the valley floor, few pre-Roman features were identified. A grey sand spread produced an exceptional quantity of flint and a circle of post-holes described a pre-Roman building. Radiocarbon dates from ditches to the south of the main excavation suggest they formed part of a prehistoric field system.

Ditched enclosures

Monitoring of contractors' soil stripping following the formal excavation revealed two parallel ditches that may be clearly identified with the crop-marks of the suggested Roman marching camp (60392) and with a length of an extinct ditch system (60390). While there were no finds from the small sections cut through each ditch, samples of peat were recovered from both fills and radiocarbon dates obtained as follows:

Sample 383 (context 60392): 390–100 cal. BC (GU-4833; 2180±50BP)

Sample 386 (context 60390): 790–400 cal. BC (GU-4834; 2440±50BP).

Peat had clearly accumulated at the bottom of ditch 60390, while the upper fill was composed of interleaved layers of sand. This suggests that peat formed in the base of a wet ditch prior to the accumulation of silts above. By contrast, the peat within 60392 was a thin band which was mixed with various sand layers; this suggests the ditch may have been drier initially. The upper fill was a homogeneous deposit of grey sand, suggesting deliberate backfilling.

The radiocarbon dates challenge previous ideas about both ditch networks (p.113). The earlier of the two ditches (60390), with a suggested Late Bronze Age–Early Iron Age date range, was apparently part of a complex system of rectangular field units, only a small area of which may be seen on the aerial photographs. The sampled section of ditch was aligned east-south-east to west-south-west, and ran over *c.* 40m. To the east it terminated in a ditch which ran at right-angles, with a further ditch running parallel to the south, thereby creating a staggered junction. The western end appears to have rounded a corner before turning slightly to the west of north and fading (presumably due to a lack of peat in the fill, making it invisible from the air) towards the Waveney. The system as a whole is not symmetrical, with adjoining units apparently slightly staggered. This suggests an evolving field pattern rather than a single development. While ditch 60390 appears to fall stratigraphically between the ditches which connect into it at either end, over-interpretation of the aerial photographs must be avoided. When considering the radiocarbon dates from ditch 30690, we must consider what event the sampled deposit represents. The peat growth may correspond with a rise in the water table; alternatively it may simply reflect a failure to maintain the ditch, thereby dating the decline rather than the inception of this network.

The evidence suggests that a complex network of ditches had developed by the Late Iron Age, and this must be considered in the light of Williamson's theories on 'co-axial' field systems (Williamson 1988).

Structure 60070

(Figs 3.3, 3.6 and 3.7)

Seven out of eleven ?post-holes described the circumference of a roundhouse 6m in diameter. Most were 0.2m–0.3m deep, although a few 'post-holes' may have been rabbit disturbances. It was sealed by a composite grey silt deposit, probably laid down during several episodes of flooding. The small number of struck flints recovered from the post-holes is consistent with a residual 'background' level and is therefore of little use in dating the building. The presence of only a few scraps of pottery suggests a pre-Roman date, however, especially when compared with the suggested Roman roundhouse 60394 (Period 4), which produced a comparatively large collection.

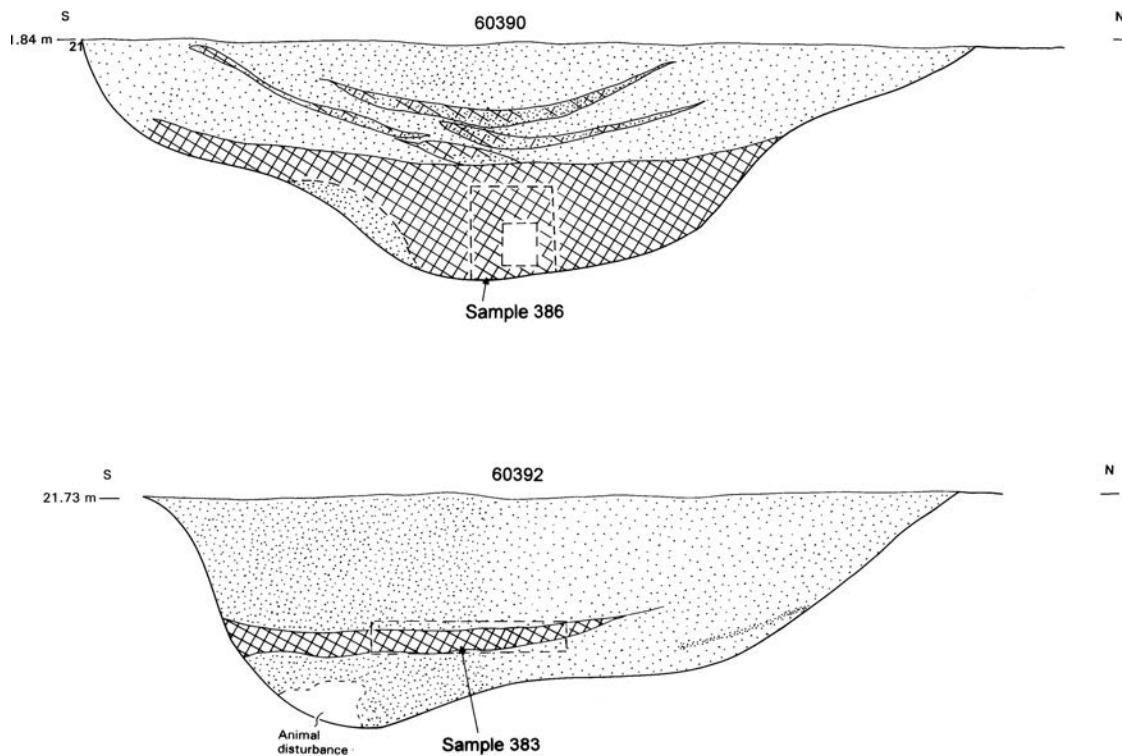


Figure 3.6 Area 6: sections through Iron Age ditches **60390** and **60392** (see Fig. 3.3 for location)

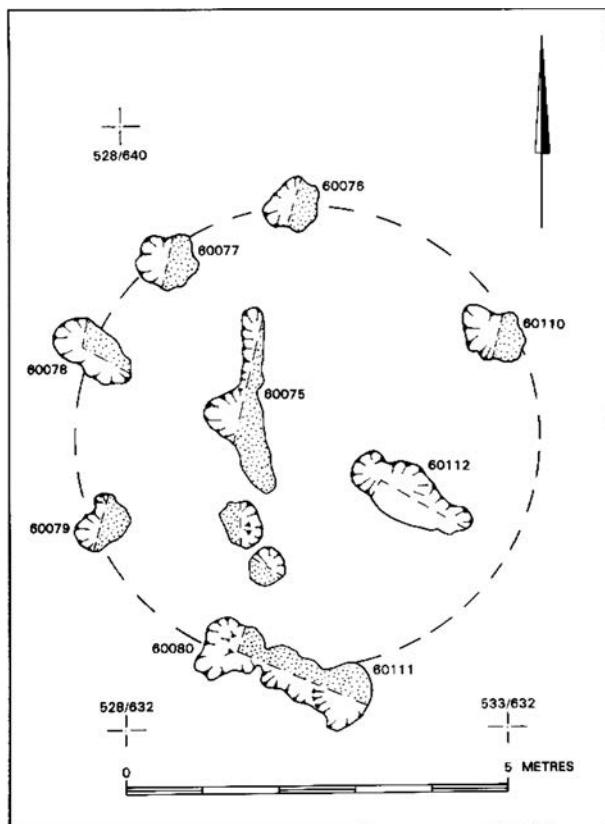


Figure 3.7 Area 6: plan of Iron Age structure **60070**

Artefacts

Altogether 745 pieces of struck flint (617 flakes 98 blades 17 scrapers and 13 cores) were recovered from Area 6, only fourteen of which were patinated. A very pale grey sand fill of a broad irregular hollow produced 72 flint flakes, one scraper and nineteen blades. Only 3.3kg of burnt flint was recovered, although this undoubtedly under-represents the total seen on the site. The high number of blades suggests a large Mesolithic component (Edward Martin, *pers comm.*). A Late Neolithic transverse arrowhead was found in Phase 4 ditch **60012**.

Areas 7 and 8

(Plate 3.3; Figs 3.8 and 3.9)

The prehistoric environmental background to these sites has been provided by study of the peat-filled Oakley palaeochannel (Area 8). This feature probably began as a meander of the Waveney; when the flow of water ceased, however, it became a stagnant backwater accumulating sediment and peat. It was not until the post-Roman period that arable farming became dominant nearby.

The Area 8 excavations produced only limited evidence for prehistoric occupation. A cluster of possible features was recorded around one wide, amorphous 'pit'. Another large sub-rectangular hollow that extended below palaeochannel peat deposits in the south-east corner of the site may have been utilised in prehistoric times. Charcoal and burnt flint within these features may indicate the use of natural hollows for shelter. Most flint from Area 8 dated to the later Neolithic and Early Bronze Age although there was a significant Mesolithic component, with three tools dated to this period. No prehistoric pottery was found.

Extensive palynological sampling in the Waveney palaeochannel, calibrated by radiocarbon dates, recorded changes to the landscape from the Early Bronze Age to Late Saxon times. The results are presented by Wiltshire in Chapter 9. Microscopic charcoal and changes in the pollen profile suggest that woodland clearance had created open conditions by the Late Bronze Age. It appears that pasture predominated throughout prehistory, with a very gradual increase in cereal cultivation during the Iron Age.

Area 7 produced considerably more flint (675 pieces) and a small quantity of Neolithic pottery. Finds were most numerous among the sand-filled 'natural' hollows, which saw only limited excavation. Possible prehistoric features were sparse. However, one burial (**70471**) was exposed in a test section close to a Roman roadside ditch **70377**

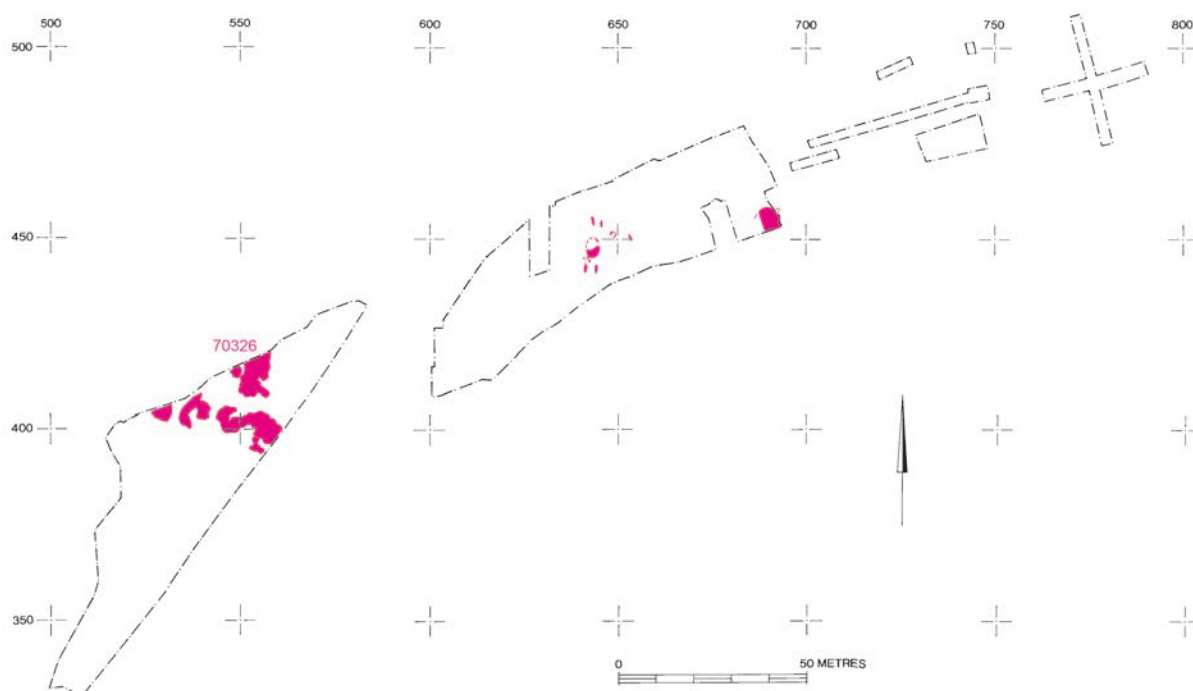


Figure 3.8 Areas 7 and 8: natural and Period 1 (prehistoric) features

(Plate 3.3, Fig. 3.16). The burial lay within a wide shallow pit only 0.35m deep. It contained the truncated upper part of an older adult male skeleton, aligned north-west to south-east and lying on its left side. The right elbow was extended, and was raised level with the skull by the unevenness of the base of the pit; the arm was flexed back towards the head. The remains of the left arm were extended by the left side. The upper fill of the hollow had been removed by a later slot, and its eastern side by a sequence of later ditches. There were signs of arthritis in the spine; jaw abscesses probably reflect age rather than susceptibility to illness. A major trauma, probably crushing, sometime in the past had broken several ribs, although these had subsequently healed (McKinley, Chapter 9). The juxtaposition of this burial with one of Roman date suggested an association. However, the seemingly casual nature of the interment and a lack of positive dating evidence led to a decision to seek a radiocarbon date (SUERC-6756: 2555±BP, 810–540BC). A second oval pit had been cut away by a Roman ditch, while amorphous hollow 70326, which appeared to have preserved a series of palaeosol deposits of Roman and earlier date, also produced eleven sherds of prehistoric pottery, eight of them Neolithic pieces of Mildenhall and plain bowl. There were few other features, even including those that may have formed naturally, while the abundance of flint flakes might reflect the intensive sieving of Dark Earth deposits.

Discussion

Nature and intensity of occupation

Apart from the background scatter of patinated Mesolithic flint, no occupation evidence from this period could be identified, although other material may be concealed at depth in valley sediments. The Neolithic pottery from the natural hollows in Area 7 indicates episodes of occupation in the 4th millennium BC. These hollows, like other 'features' excavated in Area 8, also produced burnt flint.

Bronze Age environmental evidence from the Oakley palaeochannel suggests that dense woodland cover, dominated by lime, was changing to woodland with a higher proportion of oak and hazel, probably reflecting human intervention. A dramatic decline in tree pollen, suggestive of widespread woodland clearance, occurred in the Middle Bronze Age. A subsequent partial recovery



Plate 3.3 Area 7, truncated burial 70471, looking south-east

of woodland, combined with only limited evidence for cereals, would be consistent with the land having been exploited as pasture in later prehistory (Wiltshire, Chapter 9). A palstave fragment recovered from the Dark Earth was an isolated metal find of this period.

Positive identification of later prehistoric features in Area 6 was inhibited by the shortage of pottery, but a number of the isolated 'post-holes' filled with pale (rather than mid-grey) sand probably pre-dated the Roman settlement. Roundhouse 60070 (Area 6) is exceptional among the pre-Roman features in having clear form and character, unlike its fragmentary (Roman) neighbour 60394.

This area of Scole may have been exploited seasonally during the millennia before the Roman conquest. Alternatively, there may have been episodes of more permanent settlement further south, on the edge of the flood plain. The quantities of pottery and flint recovered from limited excavation in Area 7 suggested that there

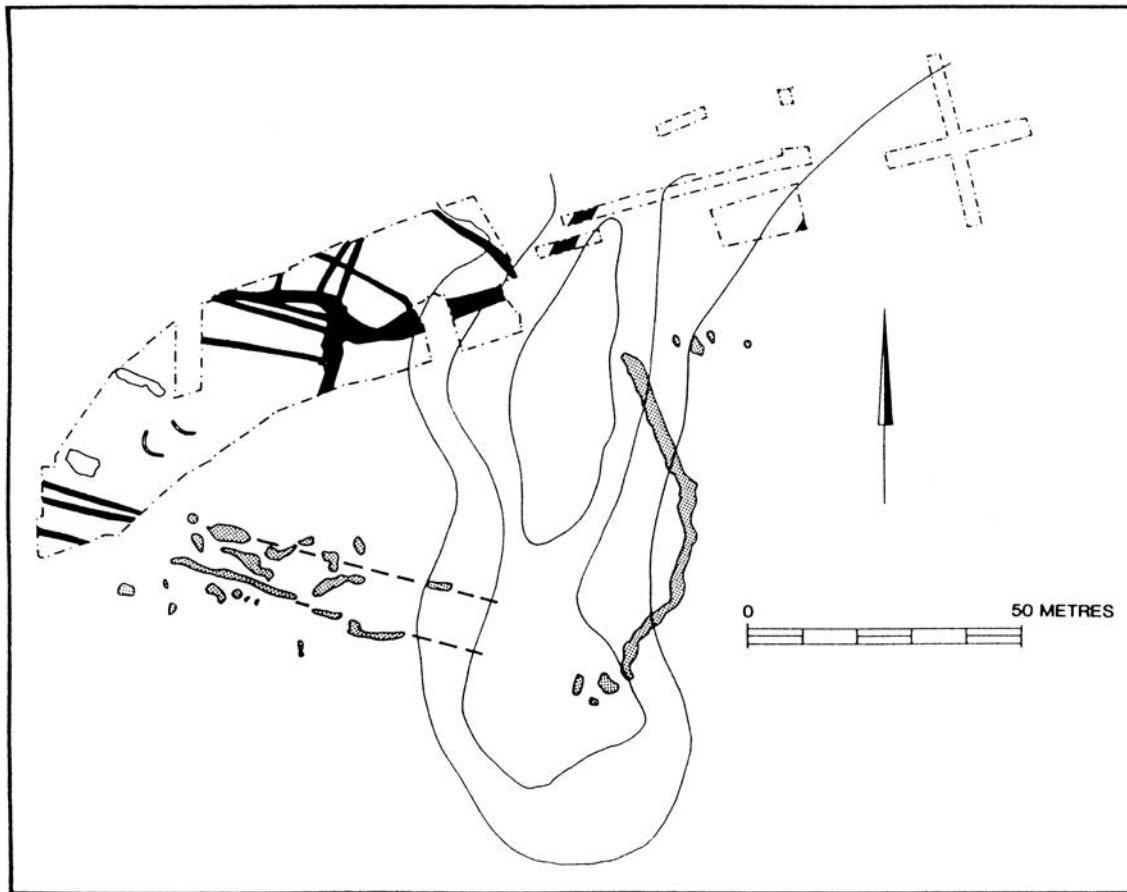


Figure 3.9 Area 8: outline of principal features and of the Waveney palaeochannel

may have been periods of relatively intense earlier prehistoric activity. It is difficult to evaluate the significance of Late Bronze Age/Early Iron Age burial 70471. Dispersed burials in low numbers make meaningful population studies difficult but the radiocarbon date allows it to be considered alongside others from a 'non specific' tradition of apparently 'casual' burials from this time (Wilson 1981).

Fieldwalking survey prior to the excavation suggested heavy dispersion of prehistoric evidence. Orange sand exposed by ploughing to the south and west of Area 6 marked a truncated eminence in the flood plain, and a recently-dispersed scatter of burnt flint nearby represented prehistoric activity. If this pattern was repeated, with valley-floor occupation concentrated on high spots, this would have led to poor survival of evidence in this landscape zone generally. The many flint artefacts among the fieldwalking finds from the land between the Old Bury Road (former A143) and the Waveney should be seen in this light.

No pre-Roman plough-lines were observed on the valley floor, but we may assume this rich agricultural land was exploited either for pasture or cultivation. In terms of prehistoric farming, there is no reason to suppose that the excavation areas are anything other than typical of this part of the Waveney Valley.

Prehistoric land-divisions

Williamson has postulated the survival of a prehistoric landscape in the Scole-Dickleburgh area (Williamson 1988, 419–31), suggesting that a 'co-axial' field system

underlay the Roman, medieval and post-medieval fields in the claylands of north-east Suffolk and south Norfolk. A key point here is the apparent conflict between the alignment of this system and that of the Roman Pye Road, which appears to have been superimposed on a pattern of extensive parallel linear boundaries. Williamson's proposed layout disregards most topographical features excepting the major river valleys, from which the boundaries appear to emanate. With reference to examples elsewhere in Britain (Fleming 1984, 17) he suggests the system could have originated as early as the Neolithic period, but a Later Iron Age date, on the basis of environmental evidence for deforestation from Diss Mere, seems more plausible.

It is tempting to suggest an association between this field system and the excavated evidence from the valley floor in the light of the Iron Age radiocarbon date from the fill of ditch 60390, although the linear features examined here cannot be physically linked to Williamson's system. Edward Martin, however, suggests that there is an inherent contradiction between this picture of a seemingly organised arable landscape, and the relatively unstructured settlement evidence recorded to date from Suffolk. Although the evidence available from the heavy clay-lands of north-west Suffolk is limited it appears that settlements tended to be open, with few, insubstantial boundaries (Martin 1999). Access to water may have been the principal factor determining settlement distribution (Martin 1988b; 1993; 1999). While palynological evidence from the Oakley palaeochannel suggests some arable crops were grown from the Middle Bronze Age onward, intensive

cultivation probably did not occur close to the site until the post-Roman period (Wiltshire, Chapter 9).

It seems likely that any prehistoric field system evolved piecemeal, and discerning any *original* function or purpose is therefore problematic. Martin suggests that the co-axial routes relate to the river pattern and probably developed ‘for stock management in a largely pastoral economy’ (Martin 1999). This suggested evolution — from a simple linear division of the land to a sophisticated arable landscape — would appear to reconcile the apparently conflicting results of settlement and cartographic analysis. A detailed map study of the Scole area has now been undertaken as part of the Historic Fields of East Anglia Project (Martin and Satchell 2008). A casual comparison between the alignment of the field system seen from the air and the old A140 show they were not wholly dissimilar, and that both approach the river more or less at right-angles. No evidence from the ditches in Area 6 shed any light on the Iron Age economy and no prehistoric plough marks were recorded on any of the sites south of the Waveney. Even if they had been, however, it would be unwise to draw conclusions about the adjacent landscape of the claylands from the atypical land area along the valley floor.

IV. Periods 3–5: the Roman settlement

Period 3 (mid 1st–mid 2nd century)

(Plates 3.4–3.7; Figs 3.3, 3.10–3.16)

The earliest likely indicators of Roman activity in Area 6 were two parallel ditches marking an east-to-west road or trackway within the flood-plain of the river. A leat across a loop in the river may also have been created at this time. A

series of 1st-century features in Area 8, including round structures, may conceivably have been linked with the construction of the Roman road and with a Roman military — and possibly civilian — presence at Scole in the mid–later 1st century AD.

Area 6

Road 60087

(Fig. 3.3)

On aerial photographs, two parallel ditches could be seen running westward from the route of the main Roman road over a distance of at least 200m. The road itself had been severely eroded by ploughing since the mid-1970s, when the photographs were taken. The two side-ditches (60087 and 60092) were up to 0.22m deep and 1m wide, although in places they were barely visible after stripping. The width of the road varied between 7m and 8m. While no evidence of metalling was recorded, either between the ditches or within their fills, we cannot be certain that the road was never surfaced since only the basal ditch fills had survived truncation.

The small collection of pottery indicated a possible infilling date as early as the 2nd century AD. The finds were all from the lower fills, however, and may provide a misleadingly early indication of date.

Leat 60006

(Plate 3.4; Figs 3.3, 3.10 and 3.11)

A leat had been excavated across a prominent meander in the Waveney. The new cut followed the natural rising sand edge and excluded a marshy area with peat which led down to the river. To maintain the structure of the leat the upcast had been used to raise the bank on the (lower) river side. The leat itself would have been 148m long from west to east, compared with a distance of *c.* 205m by way of the present Waveney meander.

Two sections were hand-excavated; one of these was partly sieved for artefacts, and was substantially expanded following the discovery of structural timbers inside the leat. Before the end of the excavation the channel was emptied by machine. While no further timbers were found, this confirmed that the drawn sections were representative of its fill in general terms. The lack of finds within the main fill was most striking.

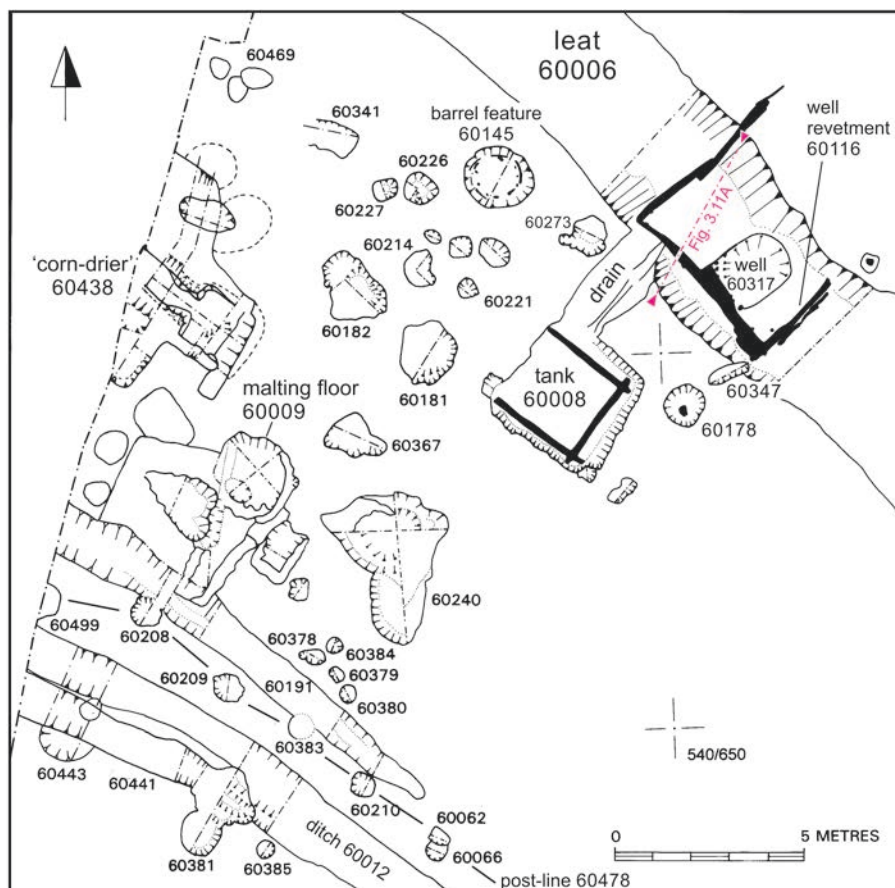


Figure 3.10 Area 6: overall plan of the leat and maltings complex



a



b

Plate 3.4 Area 6, leat **60006** and well **60317**
a – machine-cut south-east facing section across leat **60006**
b – primary well **60317** in base of the main excavated leat section, looking west

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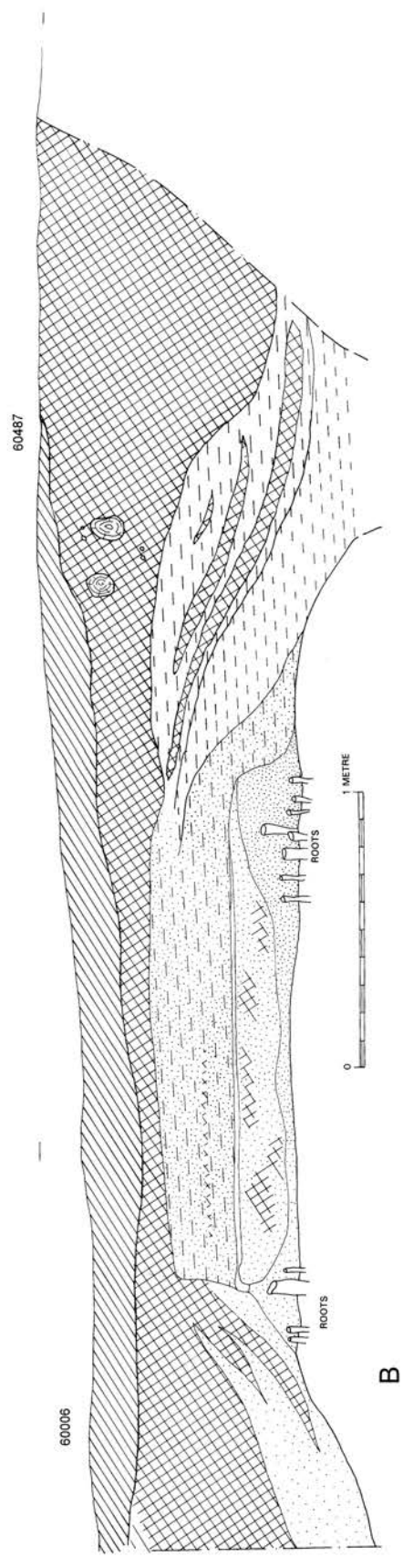
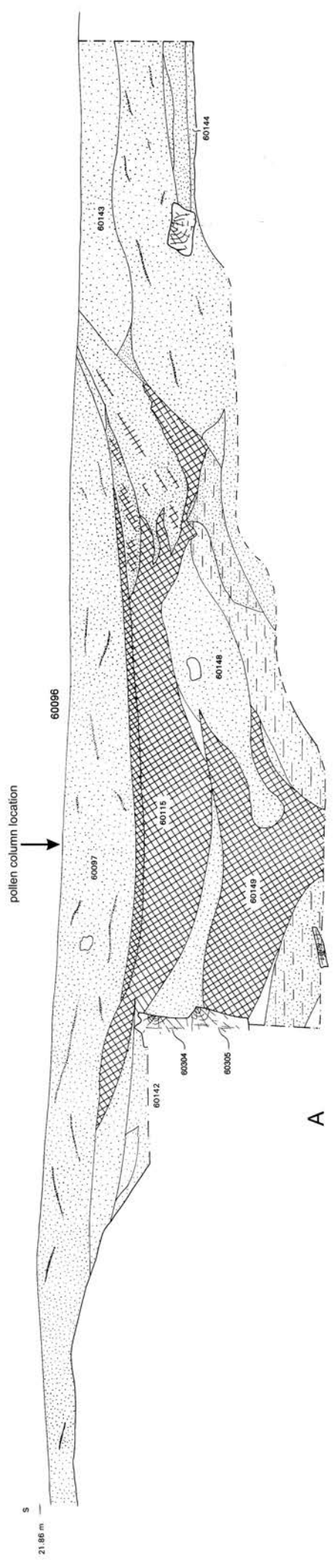


Figure 3.11 Area 6: leat/well sections:
 A – box 60116, south-east facing section across revetment and infill; B – section across leat at junction with the River Waveney

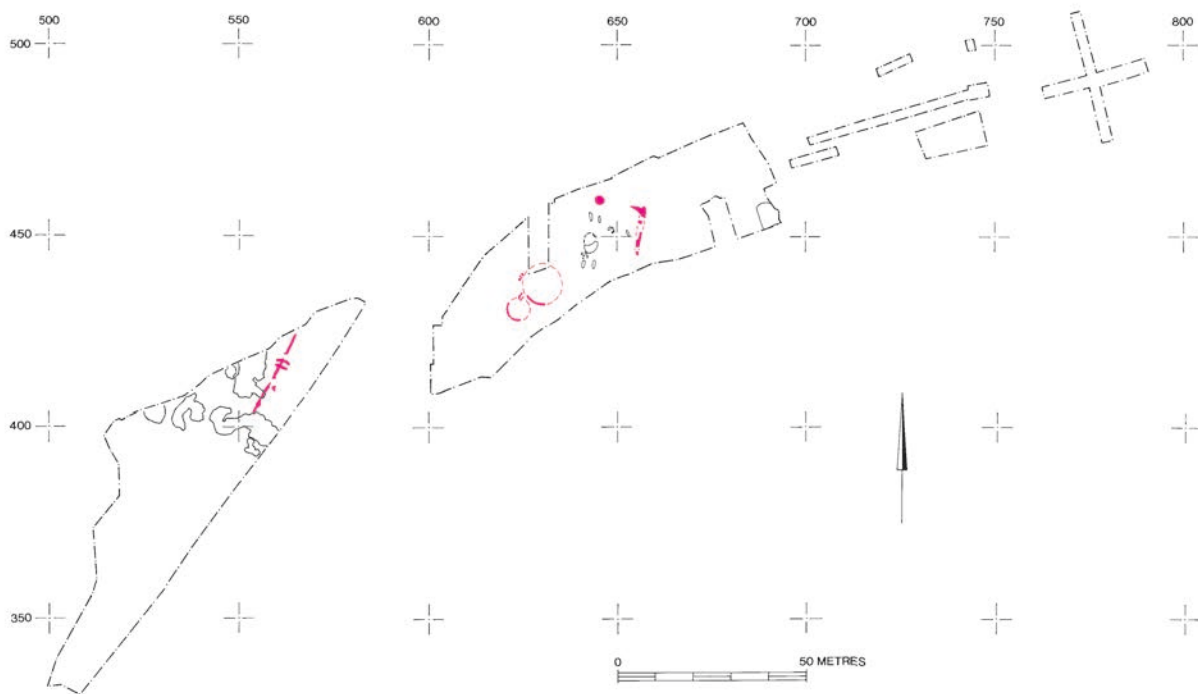


Figure 3.12 Areas 7 and 8: Period 3 plan

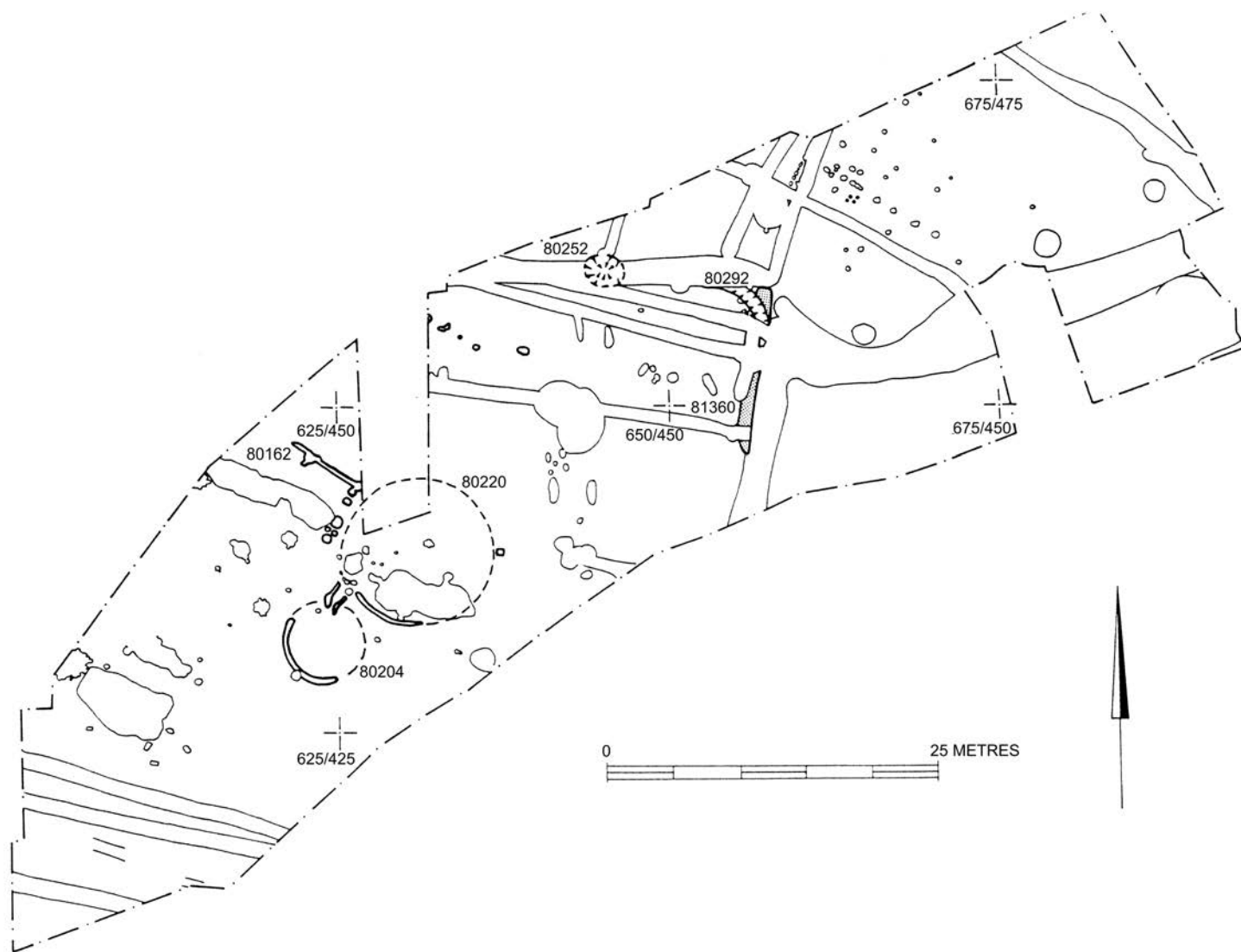


Figure 3.13 Area 8: plan showing Phase 2 features

Although no representative profile of the primary leat has survived it was probably *c.* 2.5m wide and 1m deep. In three (disparate) drawn sections the surviving fill from this phase was a homogeneous grey sand. This was probably the result of deliberate backfilling, which would have prevented a more natural banded accumulation of silt layers. The two distinct phases of the leat were only separate over a short distance close to the access from the river (Fig. 3.11).

A section was excavated through the peat between the leat and the Waveney. No full environmental analysis of these deposits was carried out, but a palynological assessment of the peat was carried out as part of the 1992 evaluation (Wiltshire 1995, in archive). This showed a marked similarity to the eventual fully-recorded section from Area 8 (Wiltshire, Chapter 9) — in particular, a band of khaki brown clay/silt which sealed the Roman site can be traced across both areas.

Only five small sherds of pottery were recovered from the primary fill; these were of burnished grey ware, suggesting an early 2nd–mid 3rd-century date. Since these deposits appear to have been earlier than a timber with a dendrochronological date of AD <162 (below), however, a date within the first half of the 2nd century would seem more likely.

Areas 7 and 8

Mid 1st–early 2nd century: Phase 2 (Area 8)/Phase A (Area 7)
(Plates 3.5–3.7; Figs 3.12–3.16)

Two circular structures interpreted as roundhouses, a well and a sequence of ditches originated in this period, and the buildings appear to have remained in use into the 2nd century AD.

Evidence for settlement intensification also began to show in fills of the Area 8 Waveney palaeochannel dating to this period. The sequence for this feature is presented for the entire Roman period, since detailed phasing is unrealistic.

There was nothing to indicate that settlement had yet extended as far south as Area 7 during the 1st century AD. The proximity of the Roman road was represented by a rather insubstantial roadside ditch and by the truncation of the topsoil, an event almost certainly linked to road construction. One burial and a cremation may indicate settlement close by.

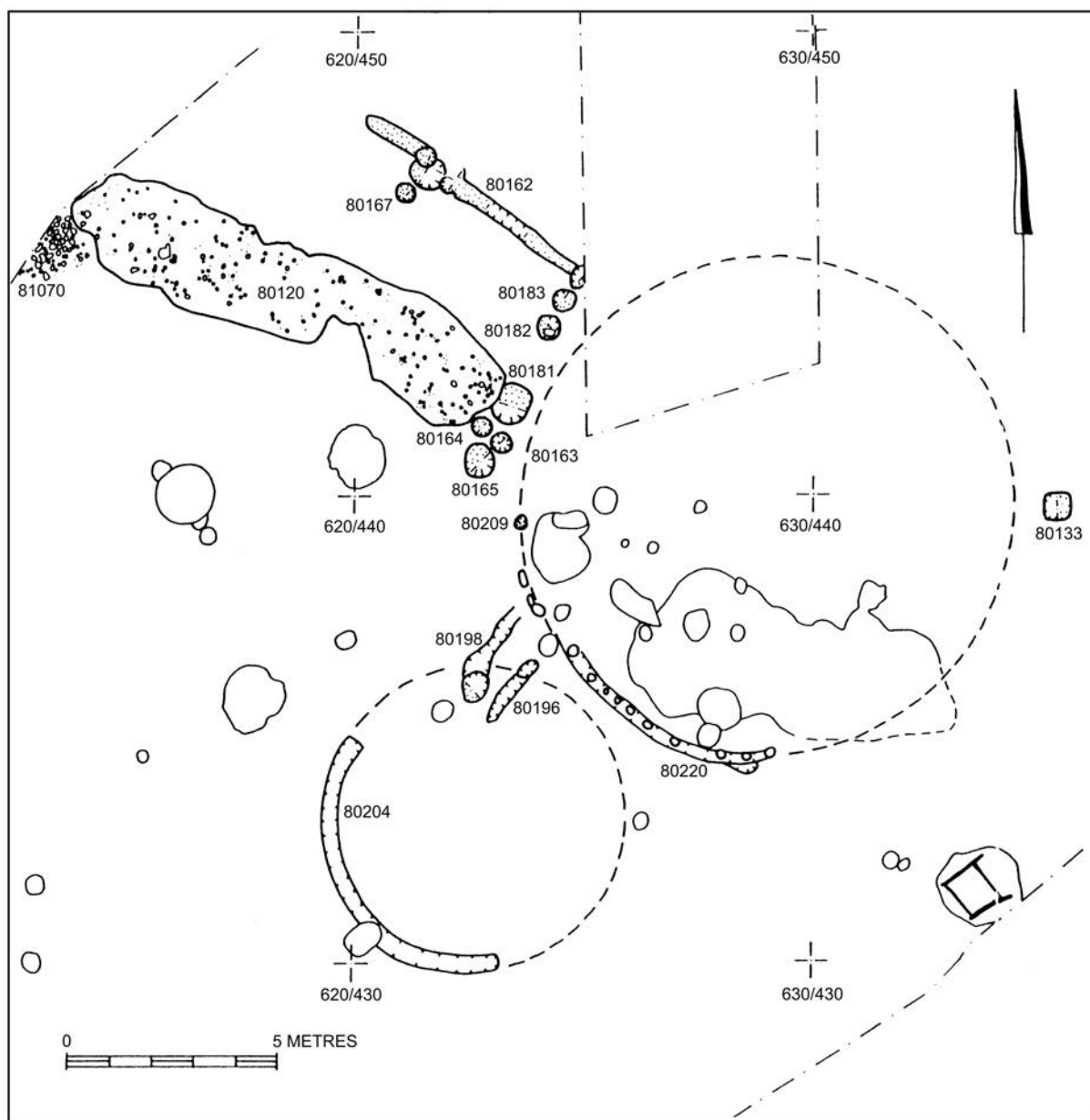


Figure 3.14 Area 8 Phase 2: plan of structures 80204 and 80220



Plate 3.5 Oakley Area 8, general view of excavation, looking south-west. The old line of the A140 (and thus that of the main Roman road) is visible in the background

Phase 2 (Area 8)

Roundhouses

(Plate 3.6; Figs 3.12–3.14)

Roundhouse 80204 was clearly defined by a shallow, flat-bottomed slot 30cm wide and 5–10cm deep, describing a little less than half a circle. This terminated in squared ends, probably indicating the opposing entrances; if continued, the circuit would have had a diameter of *c.* 5.5m. No post-settings were seen within the slot, which was filled with pale grey sand. A silt containing charcoal and green/brown mineralised deposits extending beyond the north end of the slot may have been an occupation or destruction deposit. A localised, compacted fine clay/silt within the structure probably represents a floor, but soil analyses (Macphail *et al.*, Chapter 9) did not aid interpretation. No pottery was

clearly linked with the structure. The overlying silt layer included Central Gaulish samian of Hadrianic or early Antonine date, which would date the end of the accumulation no earlier than the mid 2nd century.

Roundhouse 80220, less than 1m north-east of **80204**, was a much larger building of *c.* 10.5m diameter. It was represented by a narrow curving slot 30cm wide and *c.* 10cm deep, with a series of small post- or stake-holes lying 30–50cm apart in the base. The entire slot was filled with a brown clay silt. Its surviving length faded at either end, but three post-holes continued the projected line of the curve. Two irregular slots, **80198** and **80196**, extending south-westwards from the wall line were similar to **80220** and were probably contemporary. This building was set back from the Roman road frontage, but was connected with it *via* a metallated path, **80120**. A spread of densely packed large flints, **80170**,

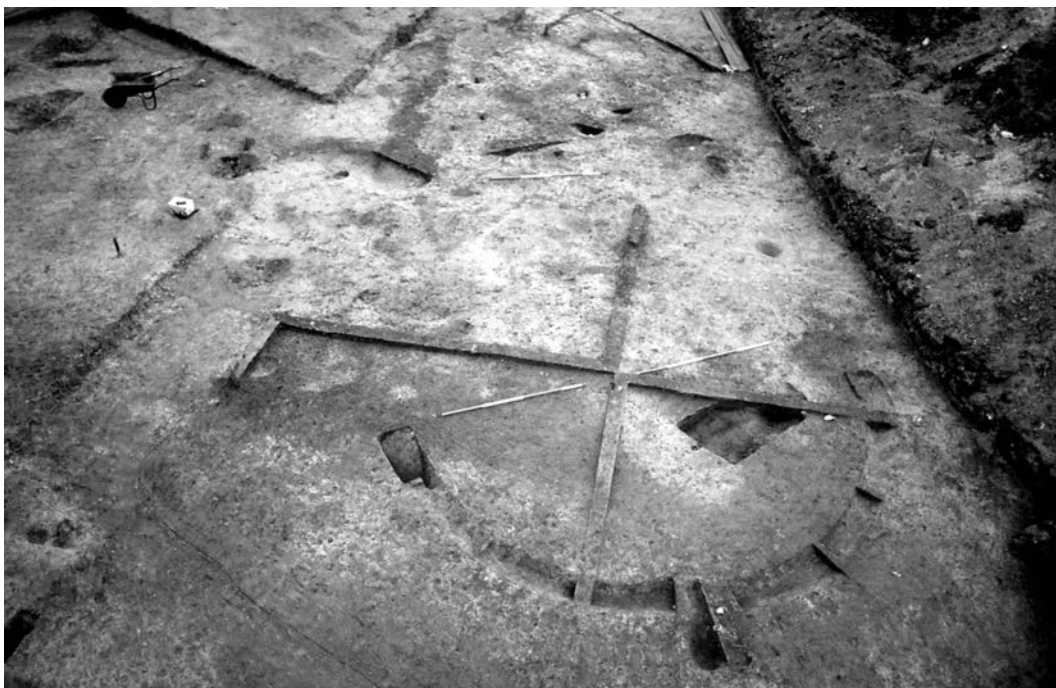


Plate 3.6 Area 8, structure **80220** excavated, looking north-west



Plate 3.7 Area 8, wicker lining in well 80252

probably lay close to the junction of road and path, and was similar to the flint patch 80112 which linked later building 80104/81356 (?Phases 5/6) to the road.

An adjacent group of structural features comprised a line of post-holes set at right-angles to a narrow gully, 80162. Path 80120 overlay part of this group, suggesting that they may represent an earlier phase of activity, but their location implies links with the roundhouse. Perhaps they formed part of an entrance structure linked with the path.

Little may be said regarding the specific functions of these buildings, but it is possible that 80204 was an ancillary structure to its neighbour; the latter's associated features, notably the path, might suggest higher status or a longer duration of use.

Well 80252

(Plate 3.7; Figs 3.13 and 3.15)

A slightly conical circular shaft of c. 0.7m diameter, supported by a woven wicker lining, had been sunk from near the bottom of a large pit, the peat basal fills of which suggested that it had once been a water-hole. The top of the well had been cut away by later ditch 81324 and 80243 and

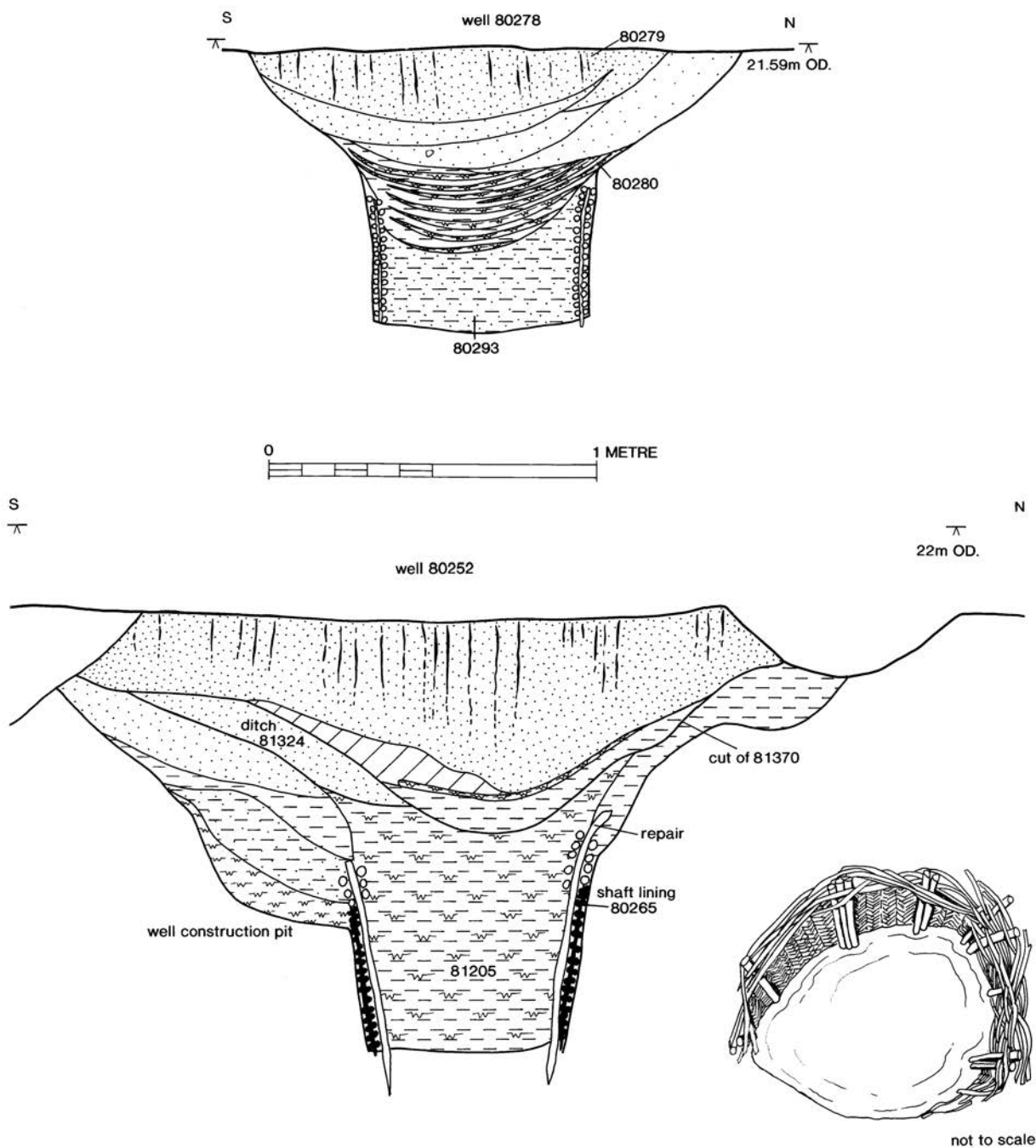


Figure 3.15 Area 8 Phase 2: sections through wells 80252 and 80278

only the lowest 0.7m of the lining survived. The well's total depth below subsoil level would have been c. 1.3m, the bottom lying at 20.4m OD. The upper lining had been repaired, the rebuilt section being fitted within the original lining and the vertical members pushed into the sand at the bottom. The original lining was finely made, with a dense weave of slender round wood horizontals around vertical flat laths; a depth of c. 0.35m (approximately 60% of the circumference) survived to be recorded. The repair was less well constructed, and used thicker roundwood stems. The top of the repaired section had rotted and only the bottom 0.22m remained; the vertical sails were in pairs, and were long enough to pass down the inner face of the first phase lining and be pressed into the silt at the bottom of the well.

The shaft was filled with homogeneous dark peaty silt. There were no datable finds either from the backfill of the construction pit or from the fill of the well, the latter producing only a single object, a crudely fashioned wooden peg or stopper. The linings may not have been

effective at holding back fine silt particles, perhaps resulting in a short life for the well.

Ditched boundaries

(Fig. 3.13)

North-to-south ditch **81360** was the earliest feature in a complex stratigraphic sequence, its course partly obscured by several later cuts. It was filled with a fine, white silt sand which had been laid down in a series of thin laminations, making it appear unlike any other ditch fill on the site. It produced no finds, but a sherd of Iron Age pottery collected from ditch **80292** may have originated within **81360**. The absence of finds suggests it was marginal to any occupation and incidental to the network of ditches which followed. Indeed, it is only the location of this feature which tentatively places it in Phase 2, and it may in fact have had a pre-Roman origin.

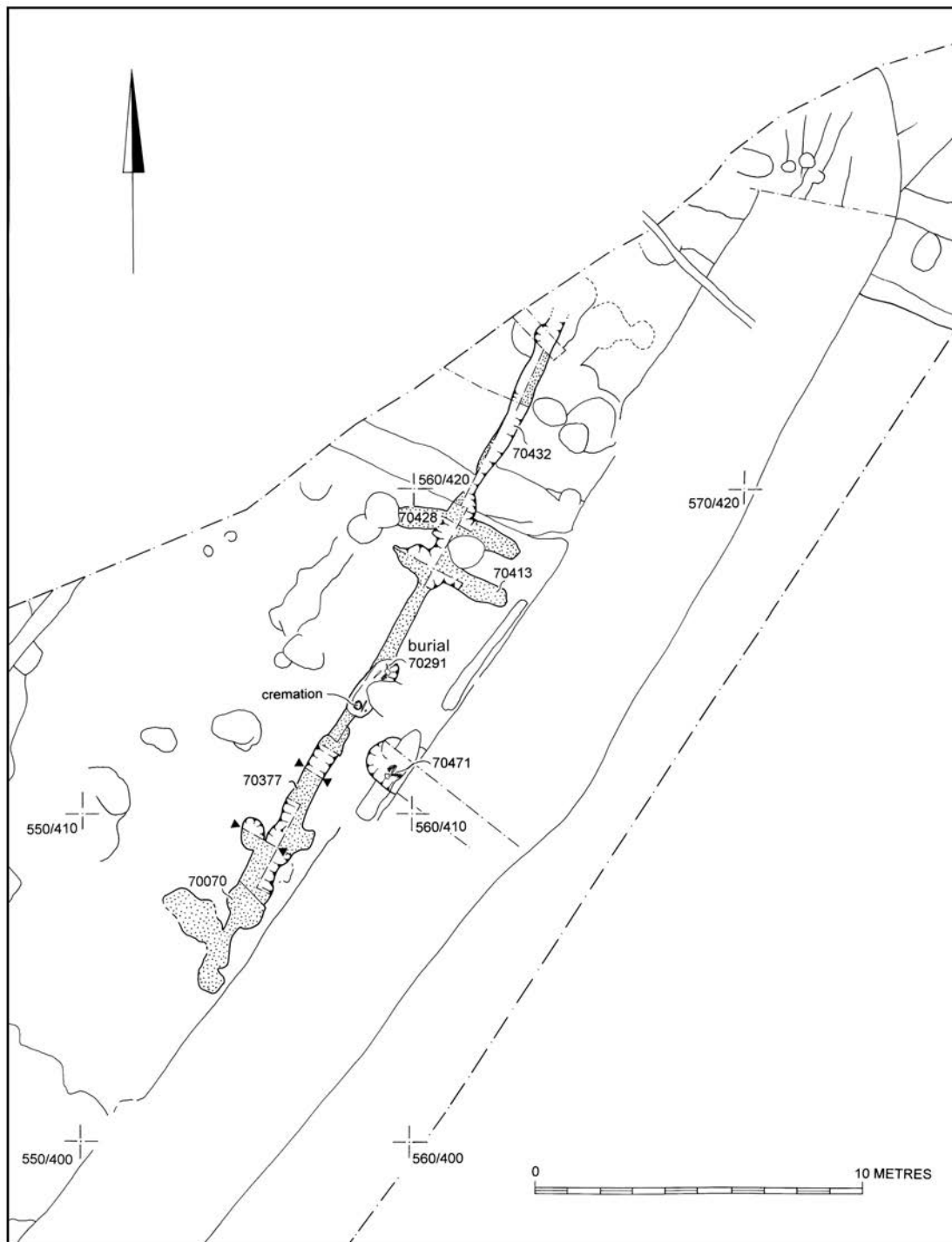


Figure 3.16 Area 7 Phase A: plan

Later ditch **80292** described a curving, right-angled corner, cutting the north end of ditch **81360**. The corner pre-dated an entrance to the later enclosure from Phase 4 and was presumably removed by major boundary ditch **81357**. It is interpreted as a first attempt to define a rectilinear enclosure projecting east from the Roman road, but its primacy in the sequence is not entirely certain.

The palaeochannel and causeway

A full palynological analysis of these deposits appears in Chapter 9 (Wiltshire). It suggests that while the channel was still periodically wet during the Iron Age the peat surface was often dry for prolonged periods. Willow and alder probably grew alongside the channel, but by the beginning of the Roman period it had been reduced to a (?) damp hollow, with most of its depth filled by peat growth. Evidence suggesting the onset of settlement activity included the appearance of a silty sand over the peat, while pollen types suggest a rise in water levels. The silt/sand may simply have resulted from ditch excavation intended to improve local drainage, or have been the consequence of these works nearby. A radiocarbon date taken from immediately below the sand was 110 BC–AD 70 (OxA 6119; 2015±35 BP).

An assessment of the evidence for a causeway route adjoining the palaeochannel is included in the account of Period 6 (p.199) and in the concluding Discussion. It is sufficient here to draw attention to the radiocarbon date from the earliest of three stake alignments (100 BC–AD 130: OxA 5980; 1965±50 BP) driven into sand alongside a possible ditch, and to a layer of ‘trample’ suggesting there may have been an early Roman or Late Iron Age crossing of the river.

Phase A (Area 7)

(Fig. 3.16)

Truncation of the topsoil

Following the excavation of the Dark Earth and (in places) other accumulated Roman soils, it became apparent that no pre-Roman soil or podzol were present. This was particularly noticeable where natural gravel and clay appeared abruptly below the Dark Earth, but also where natural hollows had become infilled with grey and pink sand. This absence probably indicates a major soil truncation event, an interpretation supported by the contrasting evidence from Area 8, to the east of the main road, where the buried podzol had survived undisturbed and was continuous beneath the Dark Earth. This truncation probably indicates levelling works during the construction of the Roman road. Truncation undoubtedly pre-dated the mid 2nd century, when the earliest pottery above the natural deposits began to appear. Coins also started to accumulate in the 1st century, which suggests that truncation took place at a relatively early date.

The Roman road

The many coins from the area interpreted as military issues (Davies, Chapter 7) suggested that the main north-to-south road which passed between Areas 7 and 8 was used by the Roman army in the years before AD 70, maybe in the aftermath of the Boudican rebellion.

During the course of the excavation in Area 7, a local farmworker familiar with this field since the Second World War described a layer of heavy gravel and flints encountered when ploughing close to the hedge at the north end of the field. This may indicate that the Roman road alignment lay a little to the west of the present one.

Road evidence from the present excavations was restricted to a truncated mixed gravel deposit visible in section in the northern part of Area 7 (**70364**, Phase C, late 2nd–mid 3rd century). This was only 0.3m deep and 1m long, having been cut on its eastern side by a modern field ditch and by an ancient gravel-filled ditch to the west. The suggested road gravel was quite distinct from the banded ‘natural’ gravel and sand below, although there was no cobbling or obvious compacted surface and no dating evidence. Other characteristics of the road, including minor changes in its course, are considered with succeeding Phases, but these conclusions are based on its apparent effects rather than on any observed physical remains.

The western roadside ditch **70377** (Fig. 3.16), recorded in the northern part of Area 7 as a very insubstantial feature, was aligned on a north-east to south-west axis. It became shallower towards the south and may once have continued beyond the limit observed in plan. Its very pale grey sand fill was similar to that of some of the natural hollows in this area. Two short lengths of parallel ditch intercepted it at right-angles, but were filled with identical deposits. Although virtually the entire length of **70377** was emptied by shovel in an attempt to recover datable artefacts only 0.17kg of intrusive pottery (from the Dark Earth) was found. It is phased by its position at the base of the Area 7 stratigraphic sequence.

Burials

(Fig. 3.16)

The burial of an elderly woman, **70291**, had been inserted lengthways into the fill of roadside ditch **70377**. The body was lying prone with its head to the north; the right arm was extended beneath the skull, with the left arm flexed by the left side. A cremation, **70241**, had been deposited at the foot of the grave. There was no discernible difference in the fill between the cremation and the burial, although the skeleton was probably disturbed when the pot was buried since the left femur (which should have lain beneath the pot) was missing. The burial had also been cut by a large post-hole of Phase D.

Late 1st–mid 2nd century: Phase 3 (Area 8)

(Figs 3.17–3.20)

During this period a succession of open ditches divided up the north-eastern half of the Oakley site yet coexisted with a longer-lived east-to-west boundary. Three sub-phases represented changes to the layout. The frequent replacement of minor boundaries is explained by the peat and water-sorted silts throughout their fills, which suggest they lay very close to the water table. Evidence from the palaeochannel suggests a rise in the water table at this time, concurrent with an accumulation of sand which may have represented the use of spoil from the ditches to consolidate wet ground.

While the large roundhouse continued through this phase, its smaller neighbour probably went out of use. There were few features within the eastern enclosure to suggest it saw occupation, although pottery, animal bone and other debris was common within the fills of the later Phase 3 features. Dwellings along the road frontage, beyond the western limit of the excavation area, could also have generated this material. Phase 2 well **80252** was cut by a ditch, but was replaced by a well of similar design.

This phase was the earliest to produce pottery in any quantity (6.40kg). The material was collected from the upper infilling layers of the ditches, with the majority of the finds (81%) coming from two ditches, **80243** and **80168**, which lay stratigraphically towards the end of the Phase 3 sequence. All the identified forms, from **80243** and those ditches from the early part of the phase, have late 1st- or early 2nd-century dates, with little difference between the assemblages except in volume. The Central Gaulish samian dish 18/31 from ditch **80168** (Phase 3.3) would date the infilling of this feature to no earlier than the Hadrianic or early Antonine (c. AD 125–150) periods. The absence of any of the forms that had emerged by the mid 2nd century may indicate that infilling — and with it the close of Phase 3 — had already occurred by this period. This is very close to the date suggested for Phase 4 ditch **80225**, which cut it, and suggests continuity across the phases. Virtually all finds came from ditch fills. The presumption that the well, post-hole group **81367** and the continuation of the roundhouse belong within this phase rests on these features’ spatial relationships with the ditches.

Phase 3.1

Well 80278

(Figs 3.15, 3.18 and 3.19)

The well was 0.84m deep from the subsoil level, with its base at 20.73m OD. The sub-square shaft, with flattened sides and rounded corners, measured 0.65m across. It had a wicker lining similar to that of the first phase of well **80252** — a fine weave of slender round hazel horizontals around vertical laths, of which those sampled were of oak. The bottom 0.40m of the well’s depth was lined with wicker. There was no sign that the structure had extended any higher than the surviving remains, suggesting that only the parts of the well below the water table were lined. There were 24 vertical sails, with a gap of about 0.06m between

each, and 50 rows of horizontals to make up the lining. The sails extended below the level of the weave by 10cm; the well was 0.04m deeper than the bottom of the sails, leaving up to 0.14m at the base of the shaft unlined. The original depth was probably completely lined, with the extended sail pressed into the sand at the well base. The well's depth may have been increased beyond the limit of lining by the cleaning-out of accumulated silt.

The sides of the well at the bottom were vertical, while its upper part opened out into the wider pit. The well was filled to the top of its lining with a fine grey silt, below thin alternating laminations of peat and fine

white silt. These layers produced no finds. The pit above the shaft was filled with sand. Palynological samples of the sediment from the base of the well suggest it may have been only seasonally wet while in use but that it infilled quickly after abandonment (Wiltshire, Chapter 9).

The well was separated from the only building within the excavated area at this time, roundhouse *80220*, by ditches. It probably did not serve it, despite proximity to its entrance. An associated building could have stood beyond the excavated area. The well may, however, have been used to water animals.

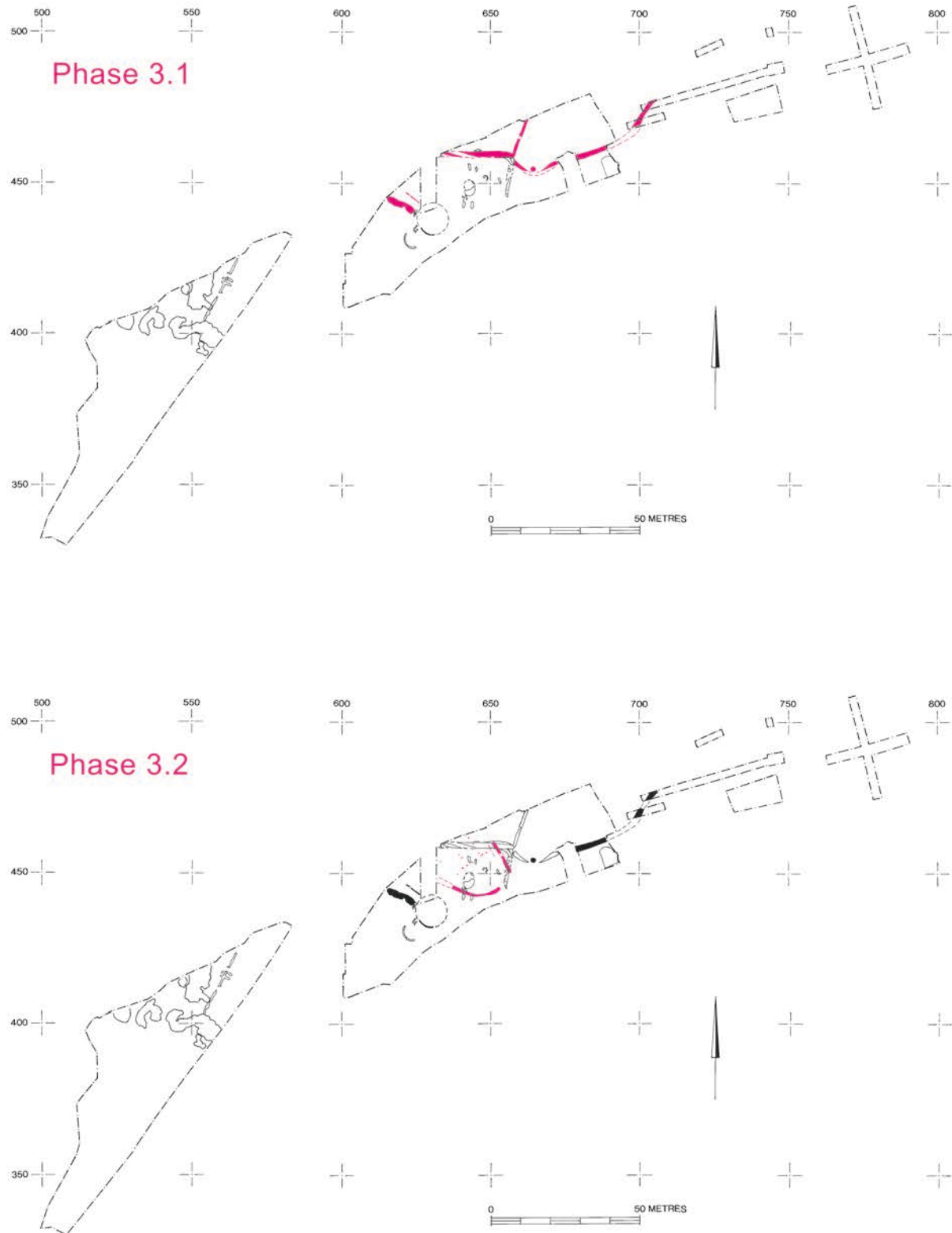


Figure 3.17 Area 8 Phase 3: plans. Features in solid black may have persisted in use/remained open from previous phases

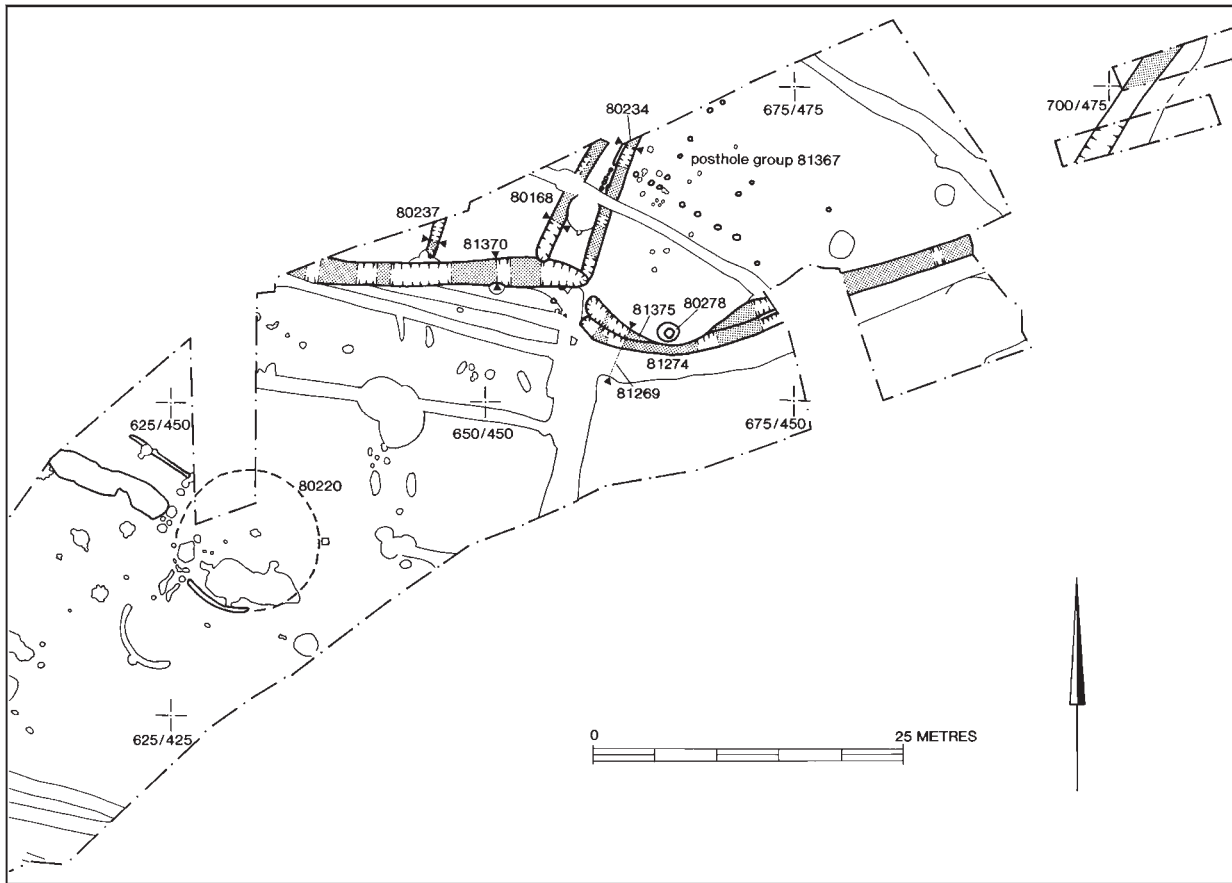


Figure 3.18 Area 8 Phases 3.1 and 3.2: plan

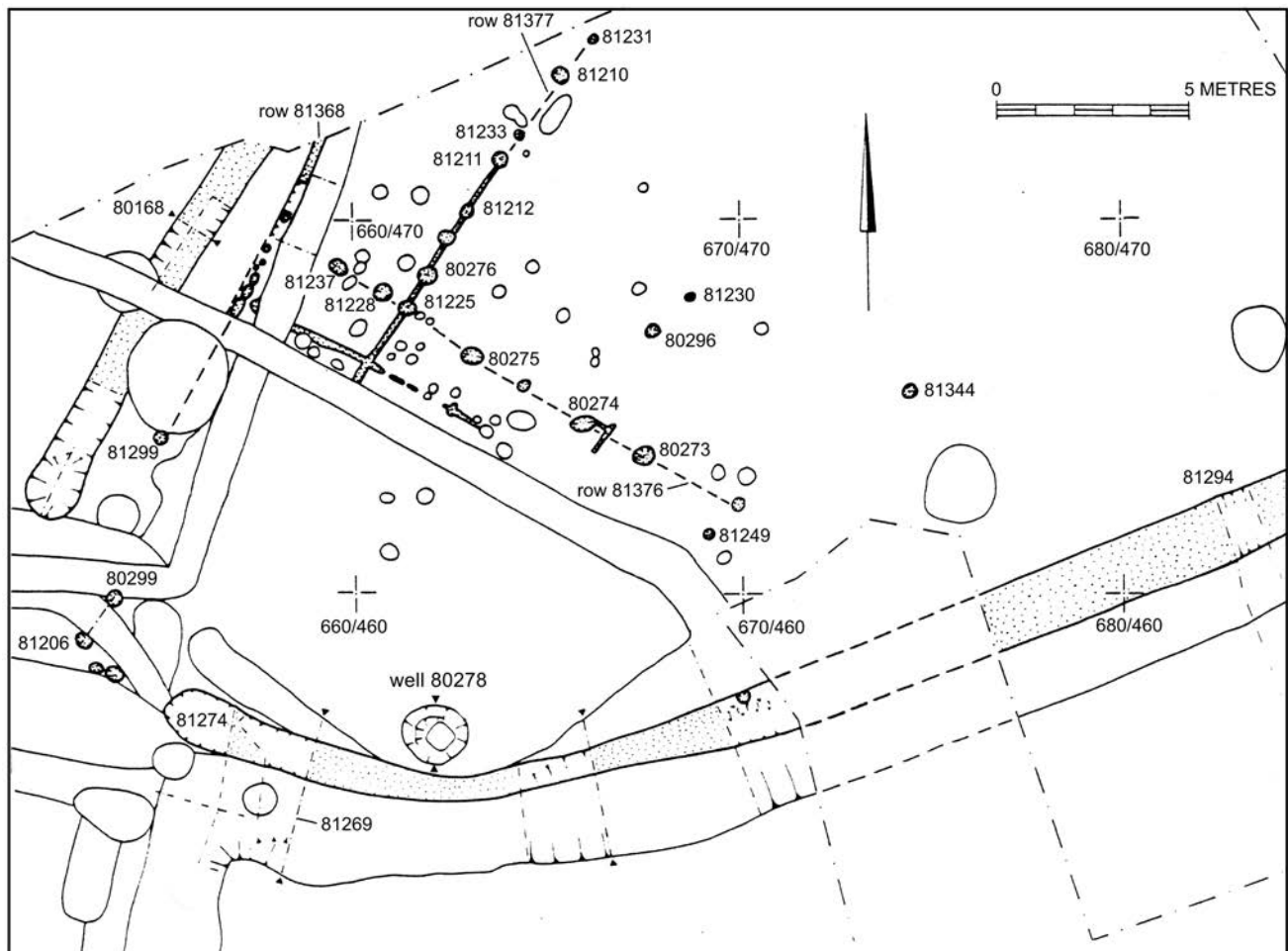


Figure 3.19 Area 8 Phase 3: plan of features in central/eastern area

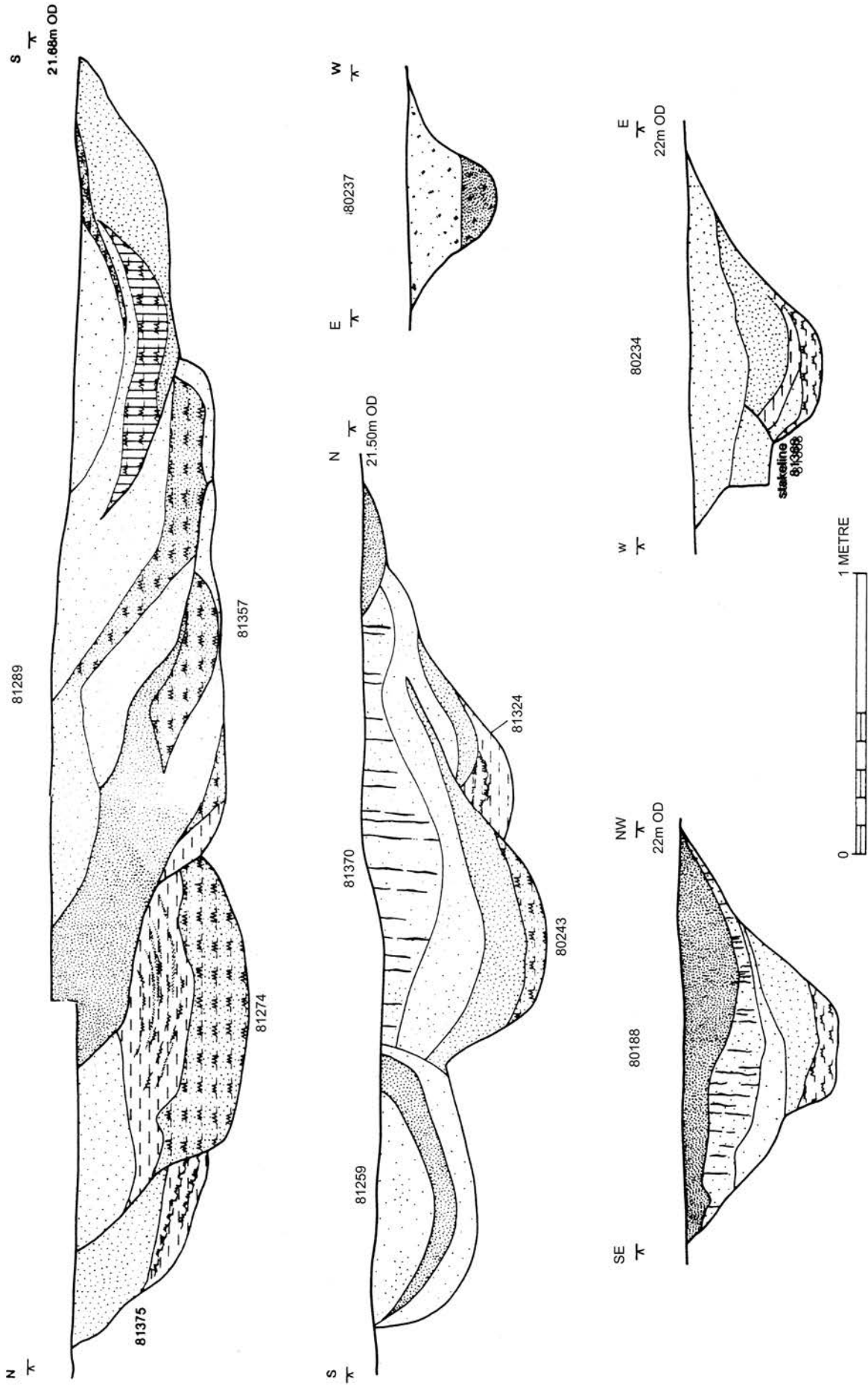


Figure 3.20 Area 8 Phase 3: ditch sections

Ditched boundaries

(Fig. 3.18 and 3.20)

Two large east-to-west ditches were cut with an entrance gap *c.* 2m wide. The more westerly of the two ditches, **81324**, had sliced through the top of well **80252**, which had been replaced by well **80278**. The probable entrance was rather skewed towards the south; the second ditch, **81375**, detoured south of the new well before it continued eastwards, presumably emptying into the Waveney palaeochannel. Peat had formed in the lower fill of both ditches; that within **81375** was interleaved with silt, suggesting periodic flooding in the eastern field. The upper deposits in both resembled backfill. In stratigraphic terms these features occur early in the Phase 3 sequence, but their fills produced little useful dating evidence.

Phase 3.2

(Figs 3.18–3.20)

During this phase the boundaries from Phase 3.1 were reinstated, and further subdivisions created in the northern enclosure by the addition of parallel ditches projecting to the north-east. The entrance between the earlier enclosures was maintained, which suggests continuing access between building **80220** and the north-easterly enclosure, including well **80278**.

East-to-west ditch **81324** was re-cut, following a similar course before turning through *c.* 90° and creating a subdivision within the northernmost enclosure. Re-cut **80243** was 0.7m deep, with the northern arm **80234** a little shallower at 0.5m. Both contained peat interleaved with silt at their bases, but were eventually backfilled with grey sand. This new enclosure suggested by ditch **80234** was further divided by a parallel ditch, **80237**. Under 5m of its length was exposed. Although shallower than **80234** it was much steeper-sided; the absence of peat from its fill suggests it may have been a palisade trench rather than an open ditch.

A diverse pottery assemblage of *c.* 4.5kg from ditch **80243** suggesting backfilling no later than the early 2nd century. The large average sherd size indicates rapid deposition, and large parts of several vessels were recovered. Most pottery from the primary and backfill layers dated from the late 1st or early 2nd centuries. A straight-sided dish with a thickened triangular rim is conventionally datable to the mid 2nd century onward, although the form was also found in a Trajanic–Hadrianic context at Scole in 1973 (Rogerson 1977, 180 no. 79). (It is possible that the finds in the segment from which this sherd came were mixed with those from an adjacent later pit.) The entire available length of ditch **80237** was excavated, producing only *c.* 0.15kg of pottery. The presence of the two wide-mouthed jars suggested infilling in the late 1st or early 2nd century. It had also been cut by a small pit which produced a little 2nd-century pottery.

Ditch **80234** had been cut by a post-line, **81368**. A small layer of clay in the uppermost fill of **80234** hints at occupation close by, but contained only 0.36kg of pottery (eight sherds), including a fragment of storage jar which was probably no later than Neronian in date. Ditch **81274**, a near-precise re-cut of ditch **81375**, probably functioned as a drain through this phase and the next, eventually filling with coarse peat overlain by various silt deposits. The very sparse pottery was of late 1st–early 2nd-century date.

Phase 3.3

(Fig. 3.19 and 3.20)

Ditches

Ditch **80243**, the western length of the major east-to-west boundary, and ditch **80237** were both filled in. Ditch **80234** was replaced by **80168** to the west. Ditch **81274** remained open, however, and together with **80168** maintained the enclosure at the eastern end of the site. The entrance between the enclosures was enlarged and enhanced. A series of post-hole alignments (**81367**) may represent animal penning in the northern enclosure; well **80278** probably continued in use.

Ditch **80168**, was 0.55m deep and had an uneven profile suggesting that its sides, in wet sand, were subject to collapse. The orientation shifted from the previous phase to align more closely with the Roman road. The north end of the ditch was overlaid by a layer of burnt sand and charcoal, **80206**. This spread had all but disappeared, possibly becoming incorporated into the Dark Earth by post-Roman ploughing, and only survived where it had slumped into the tops of underlying features. Extensive sample excavation produced 0.8kg of pottery, all from the post-use backfill. A poppy beaker and cordoned jar are late 1st-century to early Hadrianic in date, but a Central Gaulish samian dish dates to the Hadrianic or early Antonine period (*c.* AD 125–150). Although this is not a large group, the absence of any mid-2nd-century forms suggest that infilling had already occurred by the latter date. This suggests it was very close in date to Phase 4 ditch **80225**, which cut it.

Minor fences and enclosures **81367**

(Figs 3.18 and 3.19)

Numerous post-holes and an intermittent slot were exposed by removal of buried soil within the north-eastern enclosure. These formed four lines, at least two of them contemporaneous. Post-line **81368** ran parallel to ditch **80168**, and featured close-set but intermittent stakes in a shallow trench; it cut ditch **80234** from Phase 3.2. Also recorded were east-to-west alignment **81376** (post-holes) and an intermittent slot immediately to its south, and post-and-slot feature **81377** which ran at right-angles to it. These features were probably only the truncated remains of what was clearly a complex network of features, some of them perhaps seasonal or *ad hoc*. They have been interpreted as stock enclosures or pens.

Period 4 (mid 2nd–late 3rd century AD)

Area 6: the ‘maltings’ complex

(Plates 3.4, 3.8–3.10; Figs 3.10, 3.21–3.38)

Most activity recorded in Area 6 belonged to this Period. A single industry was represented in various phases, encompassing all stages of what has been interpreted as a maltings and brewery complex. Evidence for successive stages of the process include a possible grain-steeping tank, a ‘corn-drier’, and a complex clay construction interpreted as a simple malting floor. The canalised leat had eventually silted up, despite elaborate attempts to maintain the water supply involving a timber revetment within the channel. While an early timber structure beneath the revetment may have been associated with a 2nd-century water mill, the evidence for this is largely circumstantial.

Introduction

(Figs 3.10, 3.21)

The account that follows first describes — in four phases — a complex series of structures, and the relationship between a possible sequence of grain-steeping tanks and the Waveney leat. This is effectively a history of decline. The open channel of the leat could not be maintained against occasional flooding, and gave way to a muddy pool. Its abandonment signified an ultimate failure to control the river, and possibly the impact of a rising water table as well.

Features of *Phase 1A* included the open leat **60006**, a post-hole structure **60178** which spanned it, and a possible well-like structure, **60317**, within it. A wooden tank, **60008**, was connected to the leat *via* a drain (**60250**). All these features are regarded as being contemporary with the leat. In *Phase 1B* a revetment, **60116**, was an *ad hoc* addition, built to counter a perceived weakness in the short section of bank between the wooden tank and the leat. It was also an attempt at extending the life of the leat, and was the last construction associated with *Phase 1*. *Phase 2* includes a second version of tank **60008**. This was built in a more elevated position, with a drain extending (*via* a wooden pipe) over the revetment **60116**. Although built while the leat was still open, the revetment was maintained as a well after the leat had become clogged with silt. For how long this continued is uncertain. *Phases 3 and 4* of the steeping tank post-dated the currency of the leat, but the well may have continued to supply water until the whole area was abandoned.

Period 4 features that do not appear to have been integral to the complex itself are considered separately at the end of this account. Summary information on selected groups of pottery has been integrated into the text. Summary comments on the dating of features not selected for detailed pottery analysis are based on the primary spot dating.

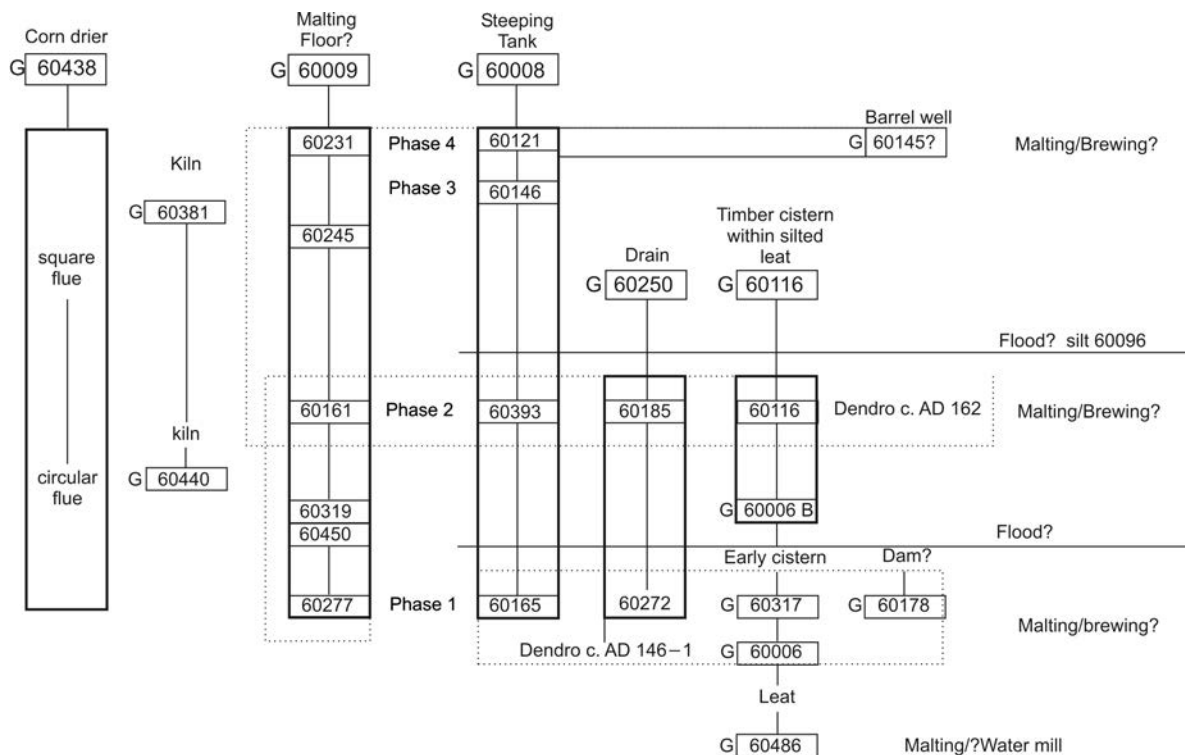


Figure 3.21 Area 6: simplified matrix showing main elements in 'maltings'/tank complex

Phase 1A

Leat 60006

(Plate 3.4; Fig. 3.22)

The Period 3 leat was re-cut along the same course as before. The only divergence between the two phases occurred at the western access from the river (above). The upcast from the new cut was used to raise the bank on the north side. This may indeed have been the justification for the work; if so, it would suggest that the two features were close to each other in date.

Well 60317

(Plate 3.4; Fig. 3.23)

This was represented by two short horizontal planks, and up to eight truncated stakes, which survived in waterlogged conditions beneath later structure 60116. Of the two planks, 60349 made up 1.3m of the length of a revetment while 60348 abutted against it at right-angles. The latter timber was a complete re-used stave 0.86m long from a tub about 1m in diameter. Two stakes further to the east and a cut in the face of the leat suggested that the original revetment was 2.2m long, but a deepening — or possibly a scouring — of the leat, set in the angle between the planks, was 1.6m square. Any stakes that once outlined the original shape of the structure would have left no trace if they had been withdrawn. Since the whole barrel stave only stretched to the middle of the leat, however, it might suggest that the completed structure did the same.

The well is hard to associate chronologically with other events. Perhaps it had been truncated when the Period 4 leat cutting was made. Alternatively, it may have been a response to the silting of the second cut, and thus a direct forerunner of revetment structure 60116 (below). It is also possible, however, that it was earlier and contemporary with the possible water-mill or dam structure 60178, with which it coincided.

Structure 60178

(Fig. 3.23)

A pair of post-holes on either side of the leat, 6.4m apart, contained the stumps of two flat-bottomed posts. A shallow cut (60347) into the south bank of the leat may have been related to these features. Although the spatial relationship between these posts and the eastern end of well 60317 suggested some connection between them, this could not be demonstrated, nor was it clear with which phase of the leat they were associated.

Crucial information about this feature has been destroyed due to its elevated position over the leat. It may even have been dismantled in antiquity, or swept away by floodwater. It may have represented anything

from a simple device to draw water from the leat to an attempt to regulate the flow within the channel. In the former case, a bucket suspended centrally over the leat could have been used with the aid of a simple winch. If the beam spanning the leat was at an appropriate height, the bucket could have been manipulated by hand to fill the adjoining tank. Simple carpentry on top of the posts could have produced a structure capable of withstanding the purely vertical stresses to which this device would be subjected.

Alternatively, the posts may have been remnants either of a dam across the leat to regulate the flow of water by means of a sluice-gate, or of a water-mill, perhaps associated with well 60317. This possibility is discussed more fully in the concluding Discussion (p.195).

Grain-steeping tank 60008 and drain 60250

(Plates 3.8 and 3.9; Figs 3.24–3.26)

The primary phase of structure 60008 (60165) and drain 60250 was contemporary with the open leat 60006, and lay 2.5m to its south.

Timber structure 60165 had been founded in a pit 2.9m square and 0.9m deep. A bed of clay up to 0.2m thick supported a 2.8m-square timber frame, three sides of which survived *in situ*. The timbers were 0.3m in diameter and made from straight-grained trees, which had been hewn into rectangular baulks (0.17 x 0.14m in cross-section: Fig. 3.24). Felling cuts were seen on the ends of two of the beams. The timbers were joined with saddle lap joints at each end, with a central stub mortise hole 0.05m square cut through the lap in the upper beam and part of the way through the laps in the lower beam. The two lower beams had been rebated to a depth of 40mm along their length inside the lap joints — over half the width of the top — to hold a plank flooring. No nail holes were seen in this rebate. The truncated remains of two post-holes, 60164 and 60176, may have held buttress timbers. A third timber, 60271, was set 1.5m from southern corner and may have performed the same function.

Structure 60165's sturdy build is explained by the 3m-long outflow channel 60250 linking it to the open leat, which confirmed that it had once held liquid. There was a drop of 0.7m between the lip of the channel, which was level with the probable floor of 60165, and the entrance to the leat. A flat piece of timber (60272), resting lengthways along the channel, presumably reduced the erosion caused by any sudden outflow of liquid over the natural sand. Orange/red concretions formed around sand in the base and sides of the channel proved to be composed of iron, almost certainly precipitated by the frequent passage of liquid (Macphail, Chapter 9).

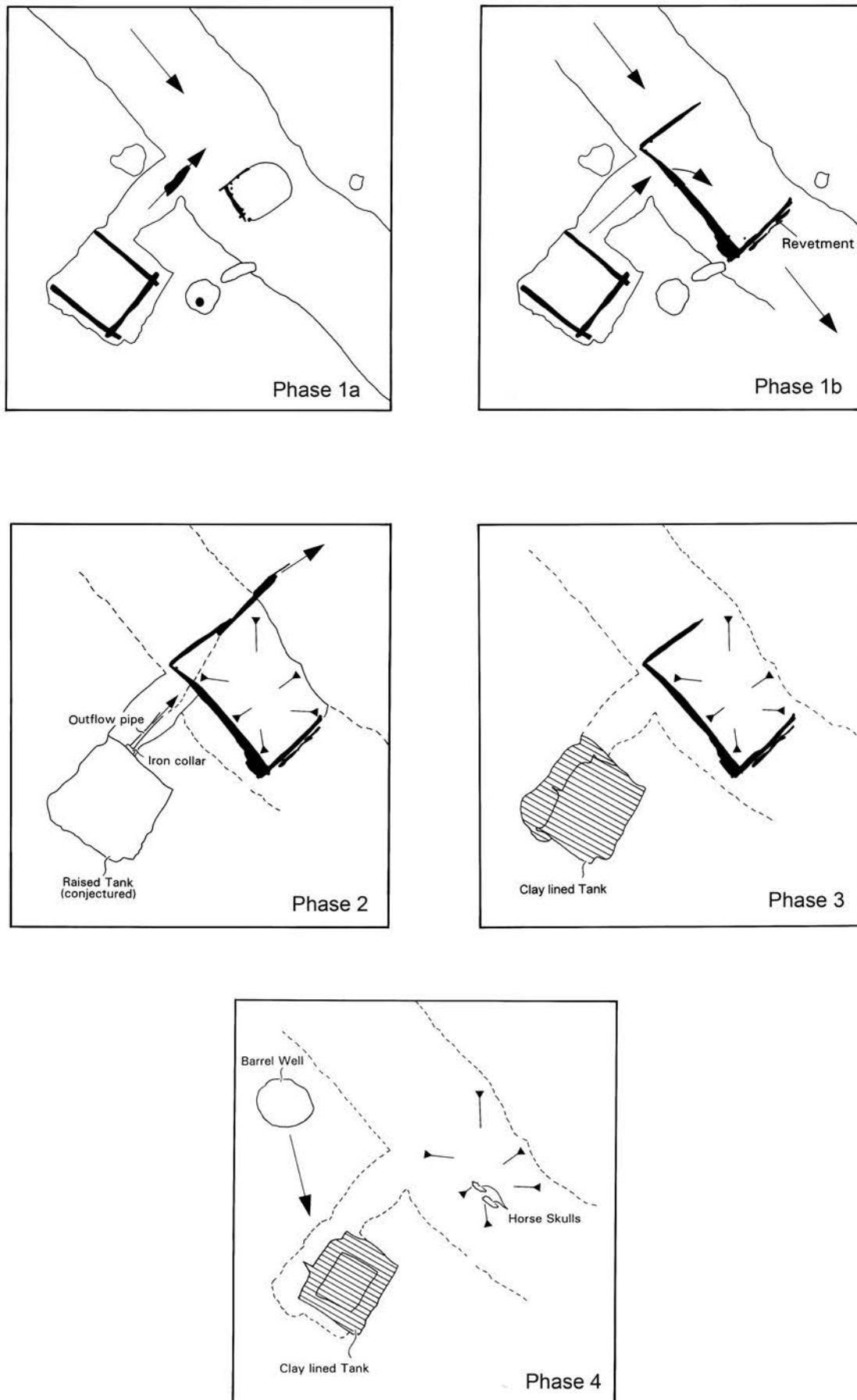


Figure 3.22 Area 6: interpretative plan showing development of tank/well complex; arrows indicate presumed direction of main water flow



a



b

Plate 3.8 Area 6, well and tank complex under excavation: a – general view from the north-east, showing steeping tank **60008** (upper centre) and well structure **60116** linked by drain **60250** (inset: iron collar **60254**)
 b – general view from the east



a



b

Plate 3.9 Area 6, grain-steeping tank 60008: a – Phase 1, looking north, showing primary timber structure 60165; b – Phase 4, looking north-west, showing clay lining

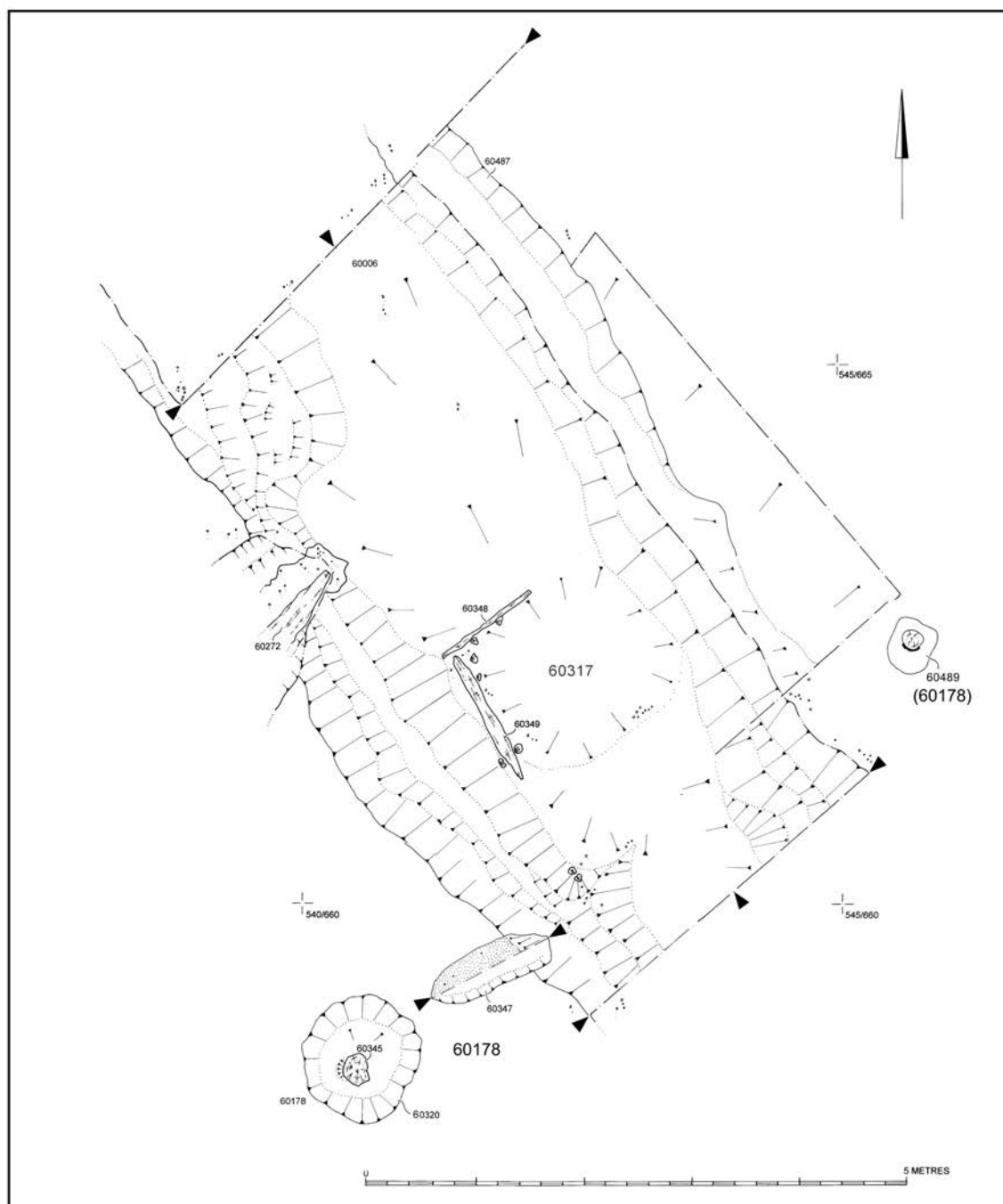


Figure 3.23 Area 6: plan of 'well' 60317 and post-hole structure 60178

Phase 1B

Revetment 60116 (Figs 3.26–3.30)

During Phase 1B a major timber revetment was constructed within the leat. Although originally intended simply to support the fragile bank between the timber tank and the leat, it was later used as the basis for a makeshift well to maintain a water supply within the rapidly silting channel.

This structure had three sides. Three substantial horizontal timbers, 60303, 60304 and 60305, formed the south-west face of the revetment. While the uppermost timber had mostly decayed, the lower two — a matching pair of gable-end roof timbers — were largely intact (Fig. 3.29). The timbers to the east and west spanning the leat were less substantial and were not set as deep. On the south-eastern side two matching jack rafters (60323 and 60324: Fig. 3.30) for a hipped roof, 3.08m and 3.10m long respectively, formed the main baulks. Below these lesser timbers had been inserted and fixed in place by stakes driven in from either side (Fig. 3.26). The positioning of stakes both inside and outside the south-eastern wall shows that the leat was still open when

60116 was built. The north-western supports lacked the lower, less substantial, woodwork. It appears that an attempt was made to dam the water flowing from west to east, presumably to provide sufficient depth to fill a bucket. In section (Fig. 3.27) the silted outflow channel from the steeping tank can be seen running beneath the wood.

The longitudinal section in Fig. 3.28 shows the final stratigraphic location of the box. The leat was largely filled with silt; while there was some peat around the outside, it was mostly filled with bands of grey silt. Within the box formed by 60116 silt had seeped in around the base, but the main fill was peat. This suggests that whereas the leat infilled naturally, the revetment interior had been cleaned out before it was eventually abandoned. The function of this feature may have changed through time. Its primary purpose was probably as a revetment, preventing the sand baulk between 60008 and the leat collapsing or simply eroding away while water was drawn — probably by hand — from the open leat to fill adjacent tank 60008. As the channel became choked with silt the supply of river water was replaced by groundwater, however, and the revetment became a well. It is striking how most (although not all) of the stakes supporting this structure were on its

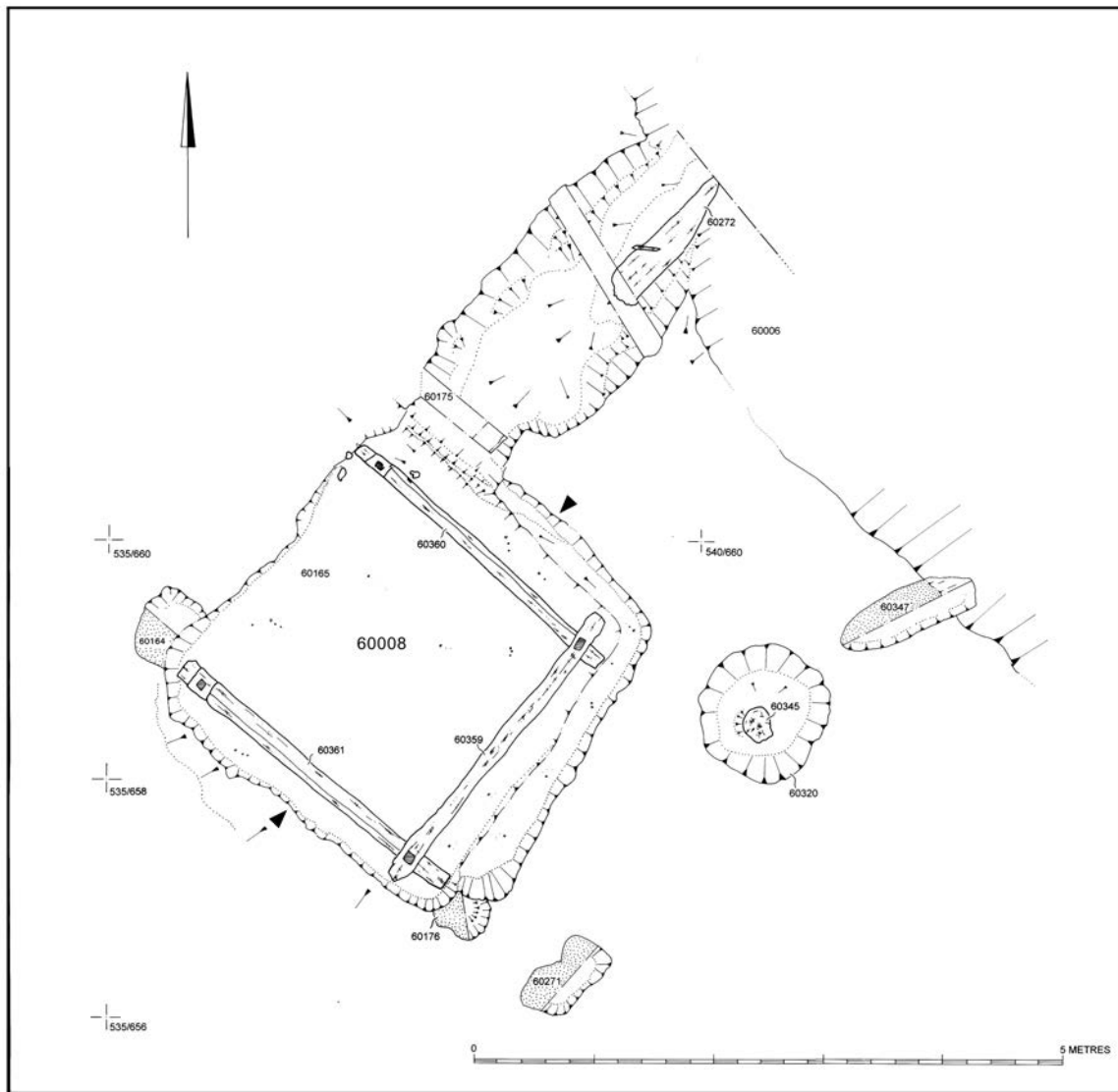


Figure 3.24 Area 6: plan of tank **60008** Phase 1, primary wooden structure with drain **60250** etc.

inside, indicating a need to resist external pressure. Despite the quality of some of the wood used the structure appears crude and hurriedly fashioned, and technically the woodworking falls well short of that seen in the wells recorded throughout the settlement (Darrah, Chapter 8).

Phase 1 dating

Dendrochronological analysis of timber **60272** has provided the most secure dating both for drain **60250** and Phase 1 in general. The complete sequence was dated 31 BC–AD 146. The sample included some sapwood but was not obviously complete to the edge of the bark, and it is likely that the parent tree was felled between AD 146 and AD 188. If green oak had been used, this range would probably include the construction date of the drain and accompanying features (Tyers and Groves, Chapter 8).

Only 1.06kg of pottery (98 sherds) was recovered altogether from the remains of tank **60008**, while pottery from Phase 1 contexts came only from the post-holes and pits interpreted as supports for **60165**. A single sherd of samian has a late 2nd- to early 3rd-century spot date, but the grey wares are only broadly datable to the mid 2nd–mid 3rd centuries AD.

Phase 2

(Figs 3.11, 3.24–6)

While Phase 1 had been associated with the open leat, by Phase 2 both the leat and the open drain **60250** had largely silted up, probably quite rapidly. Features assigned to this stage included clay feature **60393** within the Phase 1

structure **60165**, drain **60185**, and a well within the Phase 1 revetment **60116**.

Features and deposits

Timber structure **60165** was dismantled, although only one of the four base timbers was salvaged, suggesting the others had already begun to rot. The level of the pit base was then raised by at least 0.25m with the addition of yellow clay **60393**. There is little evidence for any superstructure associated with this phase, however, since it was truncated when clay for Phase 3 was laid down. The lack of evidence for any associated buttresses suggested it had stood quite low to the ground, and possibly level with the outflow pipe discussed below. The later (Phase 3: Fig. 3.31) cut had also severed its connection with pipe-drain **60185**, which had been built within the earlier outflow channel **60250**. This drain consisted of a wooden pipe which had been set in clay and secured to the steeping tank **60393** by means of an iron collar, **60254** (sf 68059; Plate 3.8). The pipe was subsequently removed but the collar was left *in situ*. Iron concretions around the collar left impressions of the missing wood, and the presence of the collar in itself provides clear evidence that a wooden pipe had existed. The new pipe was intended to raise the height of the drain, particularly where it entered the leat.

A wooden drain, **60144**, ran across the top of the western side of the revetment (Fig. 3.26). The most important of four timbers surviving *in situ*, **60302**, had been fashioned from a 1.9m-long square baulk cut from a large oak tree, which had been hollowed out creating a ‘u’-shaped cross-section. The channel measured roughly 0.075m x 0.100m; the top of the ‘u’ may originally have been sealed by a flat plank which had not survived. The remaining three timbers comprised two base planks and

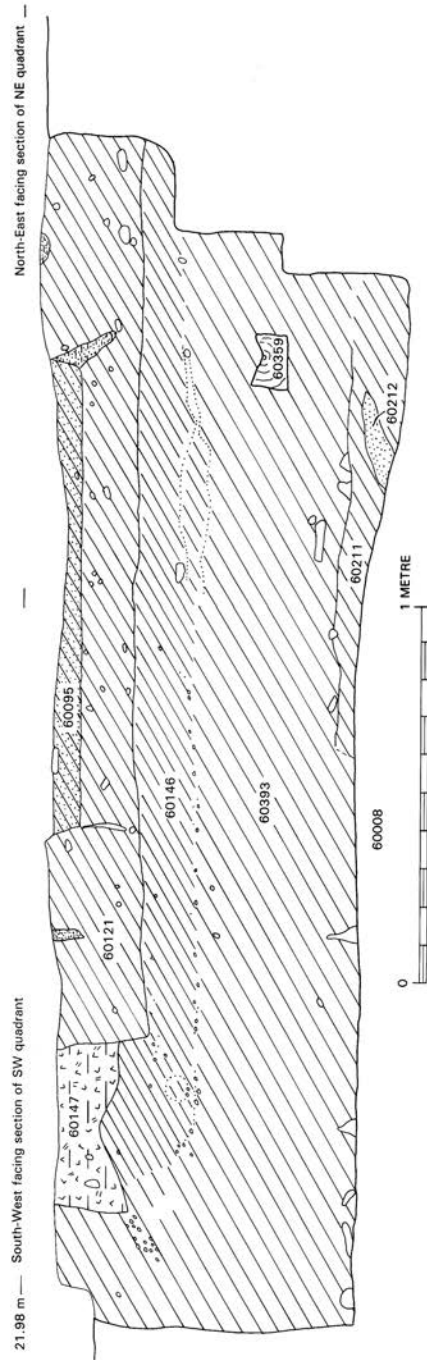
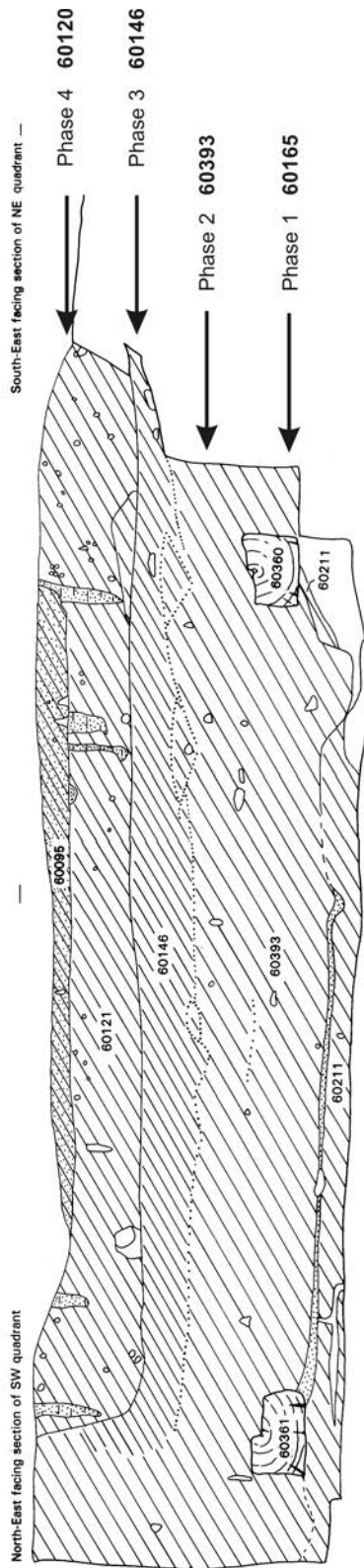


Figure 3.25 Area 6: tank 60008, north-east and south-west facing sections

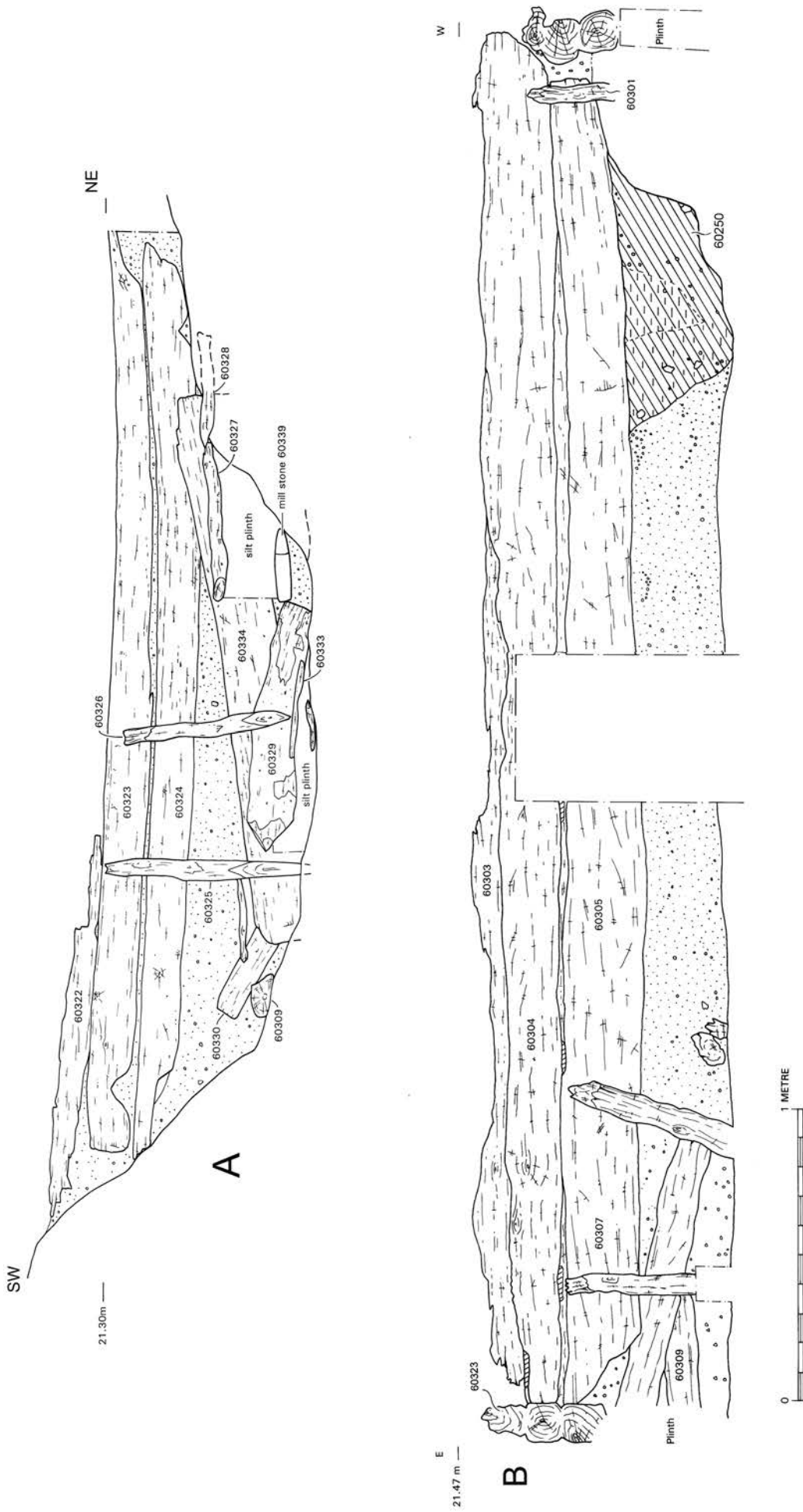
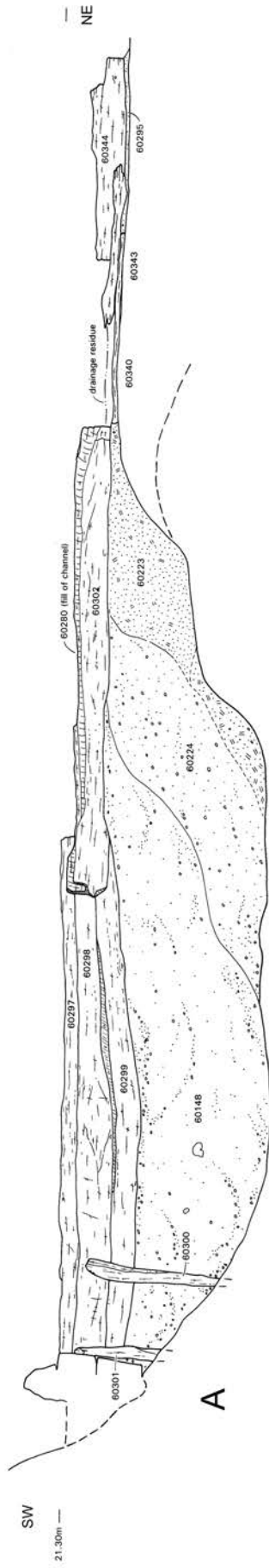
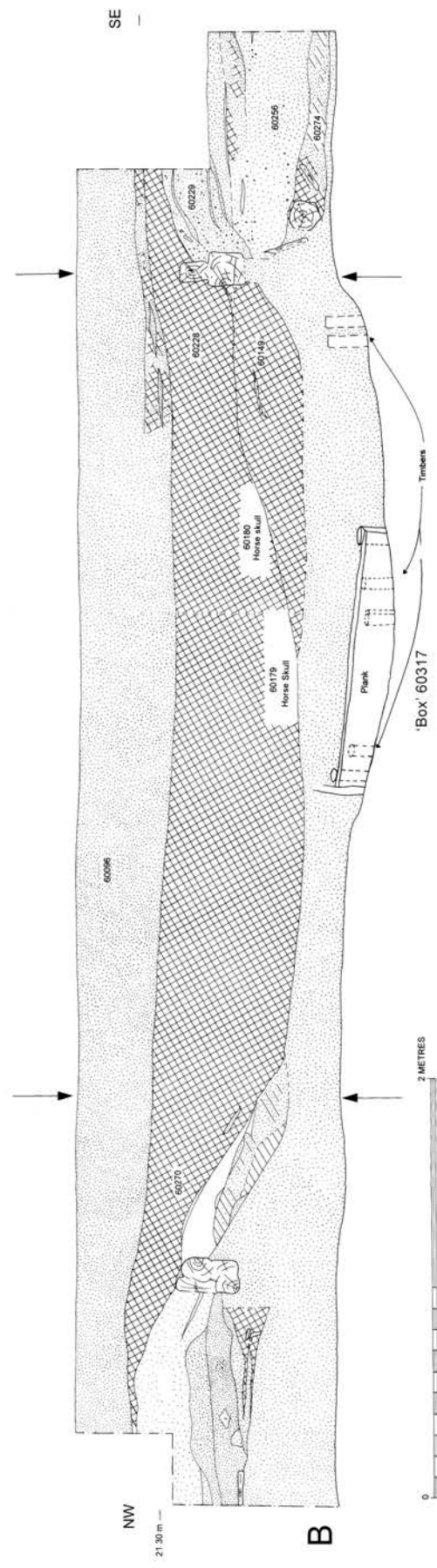


Figure 3.27 Area 6: elevations of timbers on south-east (A) and south-west (B) sides of box revetment 60116



0 1 METRE



0 2 METRES

Figure 3.28 Area 6: elevation of north-west side of box revetment **60116** (A); south-west-facing longitudinal section across deposits within box (B)

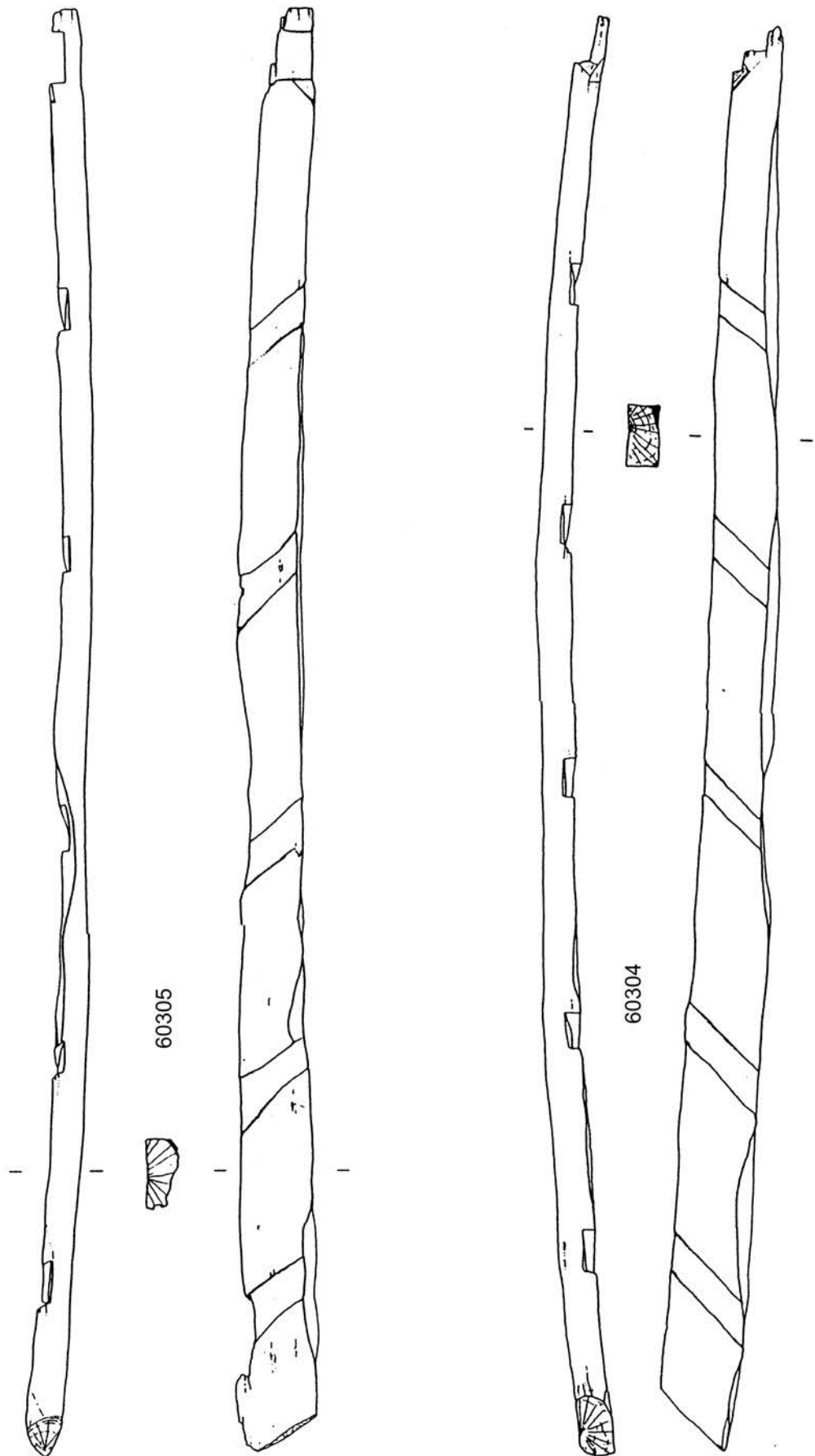


Figure 3.29 Area 6: principal rafters re-used in box revetment **60116**. Scale 1:20

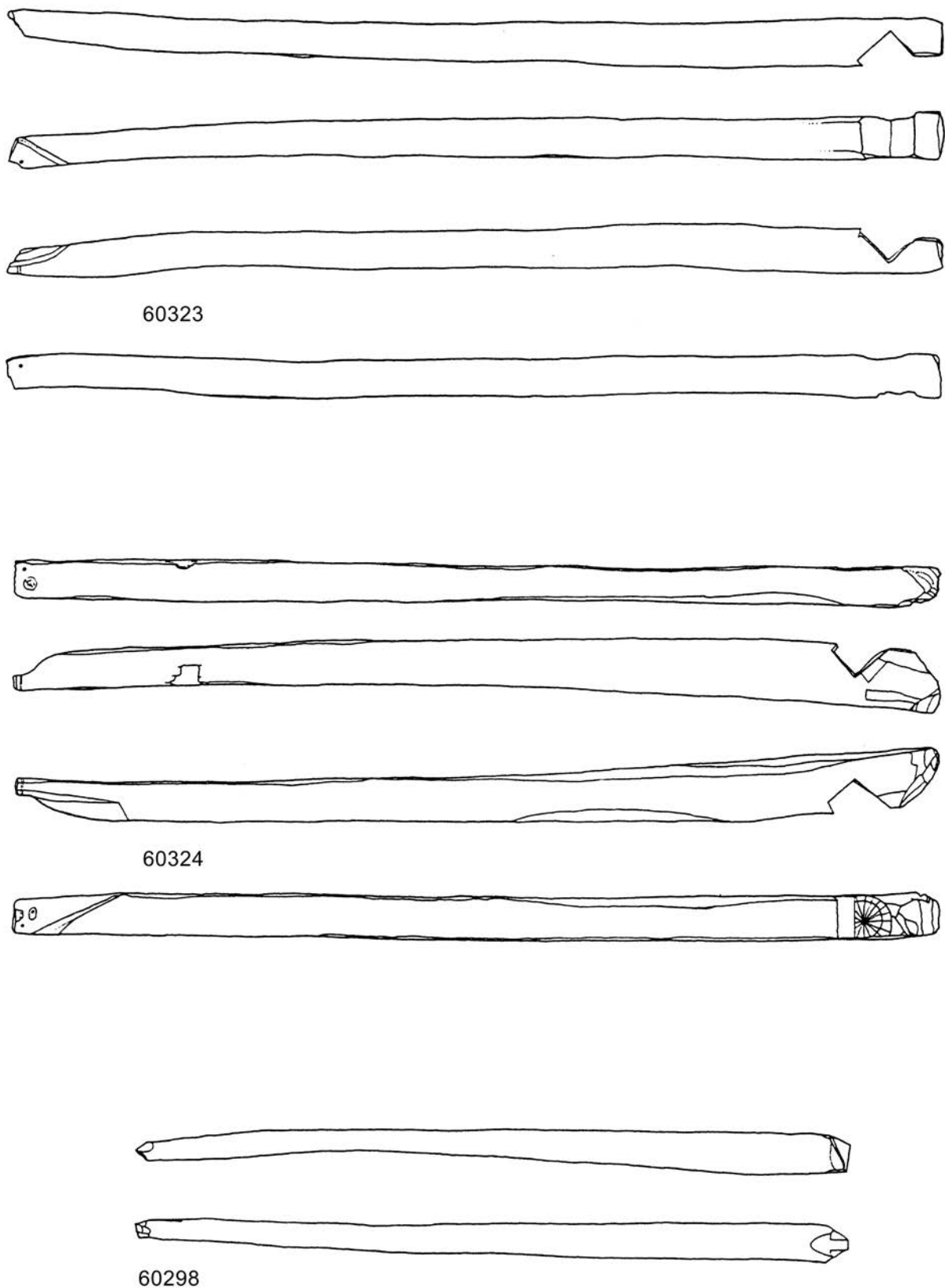


Figure 3.30 Area 6: jack rafters (60323/4) and common rafter (60298) re-used in box revetment 60016. Scale 1:20

the only aquatic flora recorded was *R. Sceleratus*. This suggests a dense growth of water plants in nutrient-rich ground, presumably following the abandonment of 60116.

The pollen assessment showed that floating aquatics and plants characteristic of stagnant ditches and open wet soil were growing in and around the leat, and there was evidence of standing water. A gap in the pollen record probably represents episodes of flooding. Hopes that this

column would record changes in the local vegetation were compromised by its position within revetment 60116, however, ensuring that at least some of the fill had been disturbed during cleaning after the greater part of the leat had already silted up. However, the upper fill of the column within 60116 was continuous with that of the main leat. Heathland vegetation evidence was common throughout the sequence, as were cereal pollens and crop weeds. Woody pollen was only common in the

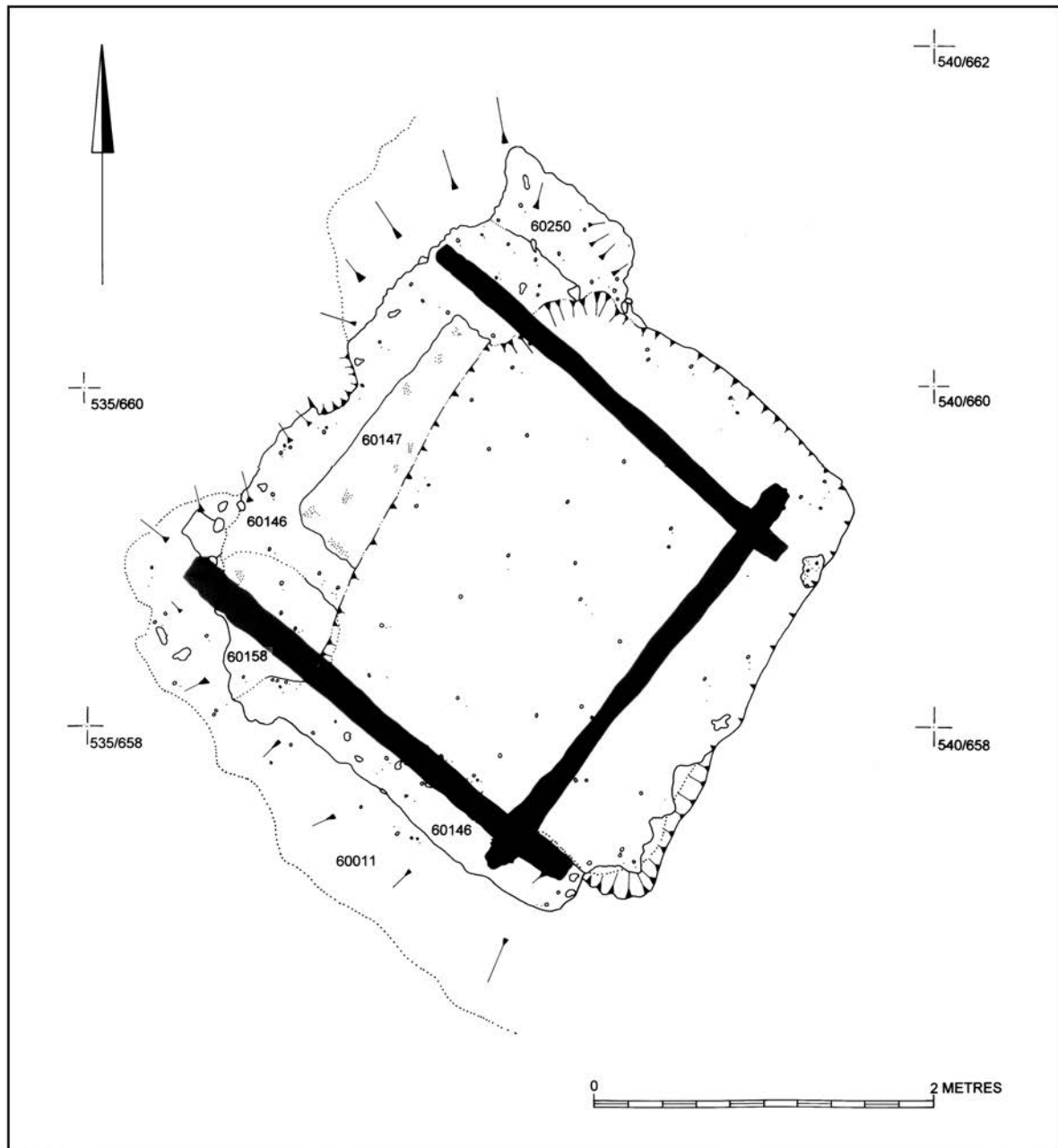


Figure 3.31 Area 6: plan of tank 60008, Phase 3; location of timbers in black

lower fills, and was not abundant overall. There was far less tree pollen generally than was found within Phase 4 'barrel' feature 60145 (below). This is striking, particularly as they were relatively close in date, but may be due to post-depositional factors (Wiltshire, Chapter 9).

Phase 2 dating

While there was no pottery from the Phase 2 deposits (60393) within 60008, it clearly post-dated the main infilling of the leat and was contemporary with wooden drain 60144. Most pottery from the leat was Watisfield or Fine Grog grey ware. Oxidised coarse ware and mortarium (from Colchester or Ellingham) and Hadrianic and Antonine samian were also recovered. The lack of colour coats emphasises the pre-3rd-century date. Only a limited range of vessel forms was seen.

A dendrochronological date was recovered from three overlapping wood samples within drain 60302, a sequence of 98 tree-rings being dated AD 55–152. As no sapwood was present it implies a felling date after AD 162 (Tyers and Groves, Chapter 8). It is uncertain, however, whether this represents the primary or a secondary use of the drain, particularly as the wood is so close in date to sample 60272 from the previous phase.

Phase 3

(Figs 3.25, 3.26 and 3.31)

After at least one episode of flooding a new raised tank, 60146, was built as part of 60008 while tank 60393 was abandoned, along with the buried pipe 60185. The well within the old revetment probably remained in use, however.

A fresh deposit of clay sealed tank 60393, completing the infilling of the original hole into which Phase 1 tank 60165 had been set and raising the feature up to the level of the base of the modern ploughsoil (Fig. 3.25). There was a contrast in colour between the earlier (yellow) and the newer (green) clay; otherwise only an intermittent lens of grey silt separated the two stages. The new clay had itself been truncated by the final phase of development, but there was sufficient remaining to establish an almost-square shape measuring 3m x 3.05m. Set within it was a trough, 60147, about 1.55m long on its only surviving side. Judging from the width of the clay border the unknown dimension was a little larger, perhaps over 2m. It was flat-bottomed and had sheer sides 0.2m deep. The surfaces both of this phase and of the clay from the next phase had been cut by modern plough furrows, however, and any clay

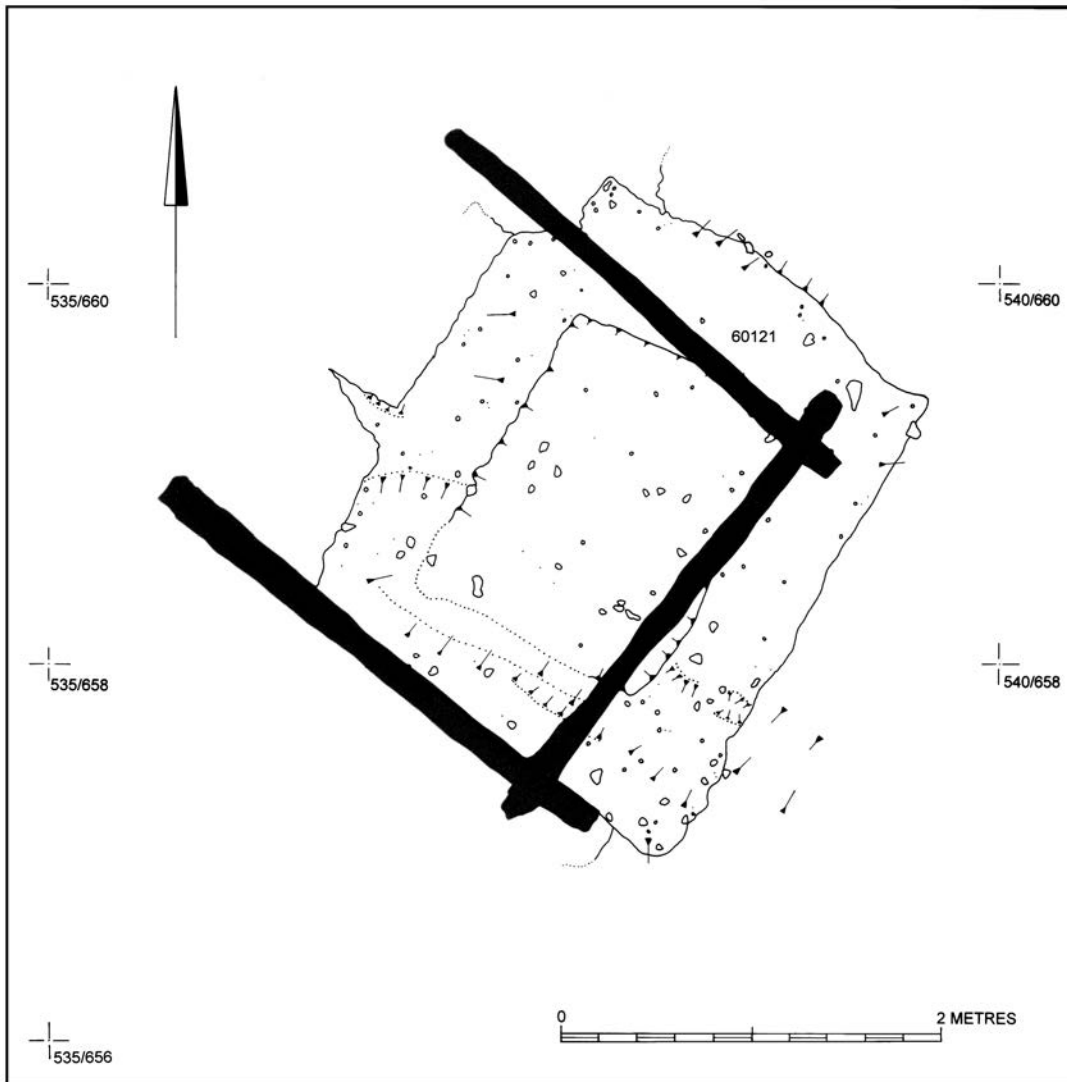


Figure 3.32 Area 6: plan of tank **60008**, Phase 4; location of timbers in black

superstructure may have stood proud of the ground surface. A shallow indent at the south-west corner of the clay surround may have marked the position of a surface post. Given the evidence for the earlier structures, and the surviving outline, the trough was probably the remainder of a rectangular tank. The clay may have supported a wooden lining and (as with the earlier wooden drain) have helped contain any leaks.

Phase 1 drain **60250** had been sealed by the new clay from Phase 3, but a layer of silt separated the structure of the drain from the overlying clay. This may be the only direct evidence for a single episode of flooding similar to those that had already clogged the leat. Over the leat itself this layer had merged with many others, and only the small area which was sealed by clay **60146** was stratigraphically distinct. This silt amounted to little more than a smear.

Beyond the iron collar (sf **68059**) the Phase 2 timber drain **60144** was deliberately removed. The timing of the final abandonment of the well within Phase 1 **60116** is uncertain, but it probably survived at least one major flooding episode with the help of re-excavation. There was clearly a continuing need for clean water in this area until all industrial activity stopped (below). The well was finally abandoned, however, rather than being overwhelmed by flooding. This was made clear by the deposition of two horse skulls, **60179** and **60180**, lying side-by-side on top of grey sand layer **60149** (Fig. 3.26). They were discovered in the base of peat deposit **60115** which had probably grown over them very quickly. The skulls were probably a ritual closing deposit (p.198); they certainly coincide with the last use of this feature, and may signify a conscious decision either to abandon the area or seek a water supply elsewhere. Only one of the skulls, **60179**, was recovered in good condition. The wear on the incisors suggests the animal was 6–8 years old and their size suggest it was male. Skull **60180** was badly fragmented

but the presence of vestigial canines suggests it was female (Baker, Chapter 9).

Pottery from the fill of trough **60147** — a fairly open context — was broadly datable to the 3rd century, with the exception of a single sherd of red colour coat. All the grey ware displayed forms in common circulation by the later part of the 2nd century.

Phase 4

Within tank sequence **60008** clay structure **60120** replaced **60146**, which was partly removed, and a new block of clay set in position (Plate 3.9). It measured 2.9m x 2.4m, with a central trough 1.7m x 1.4m in area. The base of the new trough was only marginally higher than its predecessor, extending 0.1m below the excavation surface. The dark silty infill appeared to be a natural riverine deposit. Pottery from this phase consisted of grey ware and a sherd of Hadrianic–Antonine samian.

Barrel-lined feature **60145** (Figs 3.33)

This feature, and adjacent post-hole **60273**, lay to the north of **60008**. The post-hole was 0.9m wide and 0.4m deep, and contained the impression of a post c. 0.1m across. Set close to the angle of the leat and the drain, it may represent a dwarf support post linked to one of the later stages of the drain.

Barrel feature **60145** consisted of a circular pit c. 1.4m in diameter which dropped vertically to a ledge at 0.65m; below this level the pit

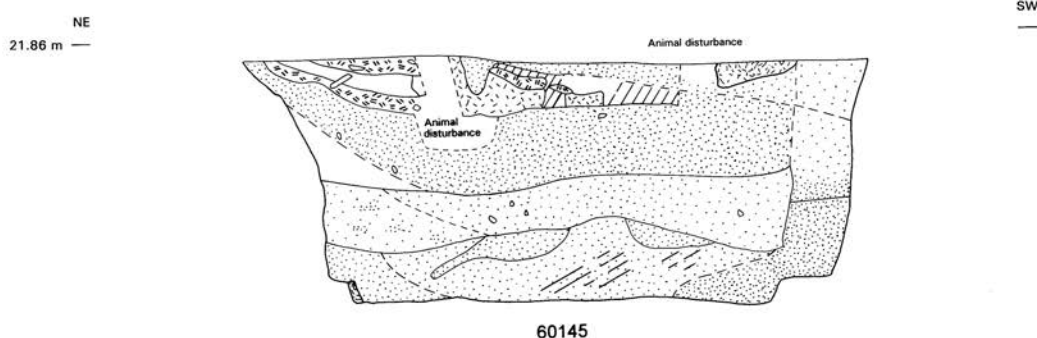
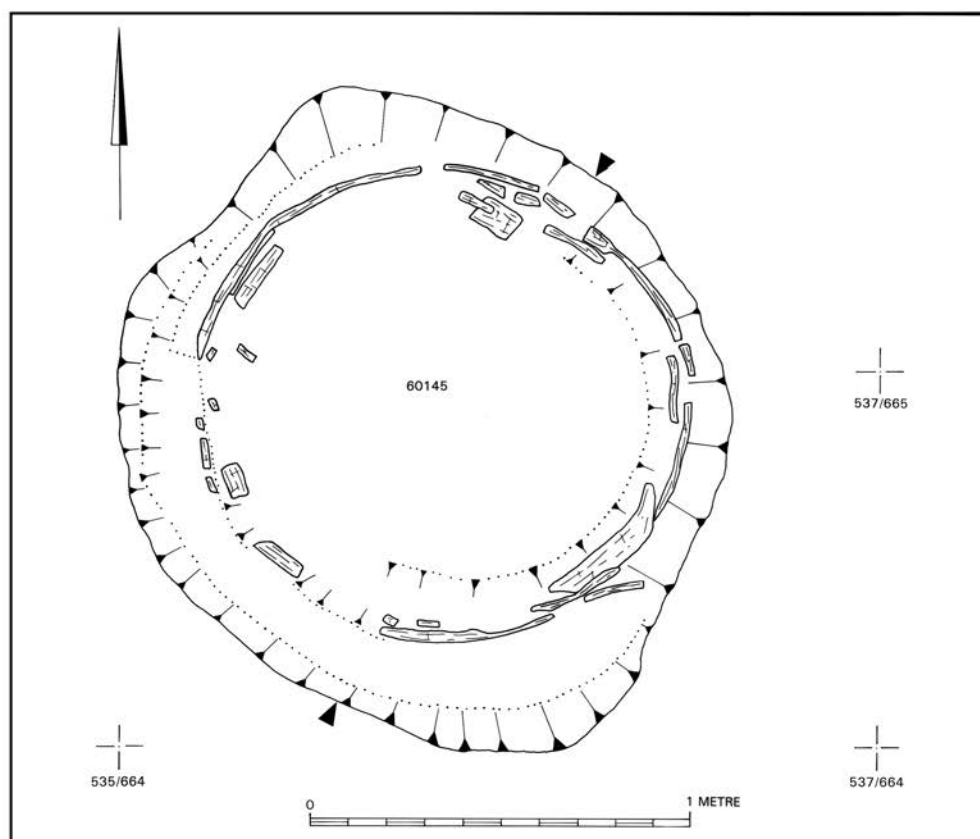


Figure 3.33 Area 6, plan and section of barrel feature **60145**

narrowed to 1.1m, before stepping down a further 0.05m to a flat bottom. The waterlogged base contained fragmentary wood remains, the most complete forming a ring around the bottom of the pit with the fibrous grain aligned horizontally. There was sufficient material overall to identify this as the base of a barrel, with the lowest hoops made of (?) bark and partly surviving. Although little wood survived, its shape could be seen in profile in the pit fill, which suggests it rotted *in situ*. The bulk of the pit contained various orange and grey sands, but a woody, coarse charcoal with clay had slumped into the top.

Six pollen samples were examined (Wiltshire, Chapter 9). The uppermost fill contained very high levels of charcoal whereas there was relatively little from the lower samples; this suggests the surrounding surface saw the dumping of charred waste when the feature's life was over (above). Cereal growing/processing was evident throughout the fill. The abundance of tree and ling pollen contrasted with results from the leat. There was no evidence that this feature had ever contained open water although the sediments were obviously damp, or compacted enough to prevent full aeration.

Although possibly a barrel well, **60145** was only 0.7m deep and the water table would need to have been virtually at the working surface to allow buckets to be immersed. (Barrel well **80136** from Area 8 (Phase 5) was of similar depth but had been sunk into a pit, and its total depth was *c.* 1.5m.) The absolute base of the barrel was only at 21.16m OD — this is a relatively high level when compared with that of the leat (Discussion: Fig. 3.76), even allowing for a possible rise in the water table during the 3rd century (below). Alternatively it may simply have been a urinal; a similar explanation has been offered for a post-medieval barrel excavated alongside the Anglo-Saxon mill complex at Tamworth (Rahtz and Meeson 1992).

Hollows and pits (Fig. 3.10)

An assortment of small, irregular, shallow features lay within a band about 2.5m wide running parallel to the leat, and extended over the *c.* 12m distance from **60008** to the western baulk. They were generally no more than 0.2m deep. Perhaps they were wear or erosion marks caused by some

repetitive industrial activity which had probably involved water (red iron-staining was in evidence); industrial equipment of some kind may have stood here. A tiny amount of pottery was dated to the 2nd century.

A group of ten pits, **60480**, varied in shape and size but displayed some similar characteristics. Their widths ranged from 2m to 0.95m and their depths from 0.80m to 0.41m — 0.5m seemed a typical depth, and groundwater sometimes limited thorough excavation. Their fills resembled those of the 'post-holes' above, typically being light grey and red sand (with little organic content) with small amounts of clay (fired or unfired, often in smears as if deposited in suspension), ash and charcoal. The sands' 'red' hue was probably caused by iron-staining. Finds were conspicuously absent, and it was clear these pits had not contained domestic waste. There appears to have been two distinct groupings. An alignment of four regular pits, two of them (**60181**, **60182**) excavated and one of them cut by 'corn-drier' **60438**, lay c. 6m south-west of the leat, while another cluster further to the south around malting floor **60009** (below) included **60457**, **60458**, **60459**, **60375**, **60362** and **60244**.

The pits may have been soakaways — the leat and tank **60008** attest to an industrial process involving much water. While water is used in brewing and for sprouting grain during malting, it could have been used for rinsing and cleaning too. The linear series of pits between the 'corn-drier' **60438** and **60008** suggest some specific stage in processing, identified in a similar manner to the irregular 'post-hole' hollows lying between them and the leat (above). The cluster around malting floor **60009** (below) appears to have culminated in pit **60386**, which cut through the primary clay structure but carefully avoided the latest phase with which it was perhaps associated. The small collection of pottery from these pits suggests a 2nd–3rd-century date range.

'Corn-drier' **60438** (Plate 3.10; Figs 3.34 and 3.35)

This was only partly uncovered during the second phase of fieldwork in 1994, and much of it survives (hopefully) undisturbed beneath the western site limits. The feature was founded on a 6m-wide pit which, where visible, was rectangular in shape. A 2.5m-wide stoke-pit projected 1.75m into the site area. The main pit was 0.65m deep, dropping to 0.9m under the flue and in the stoke-pit. The main body of the ?drier had been filled with fresh clay, while the stoke-pit had both a clay lining and base. Unusually, perhaps, the base of the stoke-pit was at the same level as the body of the kiln. Having been lined with clay it had been hardened by firing, and was thereby preserved. While this may have provided a useful working surface it also gave structural support for the original kiln flue, and this was probably its intended function.

The profile of the primary central hearth was oval, with overhanging walls, and it probably formed a continuous clay tunnel. The top of the flue must have collapsed in antiquity, however, because it had been repaired and the sides made square with additional clay, creating a more familiar, rectangular-profiled flue form. The abandonment fill of the flue and the edge of the stoke-pit mostly comprised clay. This including both hearth-lining material and unburned clay, which presumably came from the collapse or demolition of the kiln which stood proud. Unfortunately the course of the chamber cannot be safely predicted since it lay beyond the excavation limits. The profile of the early flue narrowed from 1.2m at its widest to 1m where it exited the site. This need not be a significant indicator of the length or shape of the flue, however. It must have been over 3m long given the width of the surrounding clay apron, and may well have divided to form one of a number of shapes, the most common being a simple 'T'. There was no evidence for any overlying structure, but the use of ground beams would have left little or no trace.

Soil samples taken from the stoke-pit and flue were subject to full macrofossil analysis (Fryer and Murphy, Chapter 9). Cereal grains and chaff displayed a high chaff-to-grain ratio, and refired charcoal was present in all samples analysed. *Triticum spelta* (spelt wheat) was the predominant cereal, with possibly poorly preserved glume bases of *T. dicoccum* (emmer) also occurring. The predominance of spelt with some barley, a high chaff-to-grain ratio and the presence of some sprouted grains and sprout/detached embryo fragments probably indicates malting.

The small amount of pottery found in the stoke-pit could only be dated unspecifically to the Roman period. While a shallow 'pit' cutting the surface of this feature was spot-dated to the 3rd–4th centuries, its fill was a grey silt ?flood deposit which probably post-dates all occupation in this area.

Malting floor **60009** (Figs 3.36–3.38)

This complex feature was excavated in three stages. Only a small part was exposed on the western edge of the 1993 site — this prompted a hand-dug extension, but the complex was not fully exposed until 1994 when Area 6 was extended westward. While excavation necessitated a complex sectioning scheme (Fig. 3.36) the results give a fairly clear

picture of the sequence of the feature, and are best understood with reference to the phase drawings.

The primary feature was a 4m-square pit, 0.6m deep. (The upcast from this pit sealed the top of pit **60457**, which must have been earlier.) This was then given a clay base, **60342**, 0.05–0.10m thick. Onto this was laid a second deposit of clay, **60156**, which was moulded to form a series of troughs of differing shapes and sizes. These were neither interconnected nor stratigraphically related and it is possible, given their arrangement, that trough **60277** preceded **60450**, **60319** and **60161**. Each trough had been arranged to make it accessible from at least one side, however, and it seems more likely that they were contemporary than otherwise. Presumably to make efficient use of the available clay, the northern edge of the pit had been partly backfilled with sand (**60346**) once the structure was complete. Trough **60161** extended northward beyond the original pit but its clay walling was continuous with that from the main feature, probably indicating a change in design during initial construction rather than a subsequent extension. The four troughs varied in shape but all were about 0.4m deep, although the extension encompassed by **60161** may have been a little shallower. Trough **60450** had almost-vertical sides, whereas **60161** and **60277** were shallower. Again, this might indicate that the sequence of construction had caused **60450** to be a little cramped, rather than being a functional adaptation. Only traces of trough **60319** survived as it had been largely removed to the south-west by ditch **60191**.

After a period of use, troughs **60277** and **60450** (and probably **60319** also) were sealed with yellow clay **60471**. While this probably represents one event this need not have been the case, and the troughs may have gone out of use sequentially. A clay infill has also been identified within **60161** (layer **60170**), which was fire-reddened and white in places. Although there was ash and charcoal beneath the clay, this probably represents the re-use of previously burnt material. This interpretation rests partly upon the homogeneous nature and fairly even firing of the clay, which contrasted with the unfired surfaces both in the basal clay in **60161** and the other troughs. It may represent an attempt to re-surface the entire feature — not only was the clay different but it did not entirely fill the central trough, as the clay within the other tanks did. Perhaps trough **60277** was re-used, or there was simply no concern about the appearance of the re-surfacing. A plug of clay, **60358**, inserted into a part of the northern wall of **60161** has been interpreted as a repair. It was rather globular in shape, however, and may have been the clay base for a post-hole similar to those in post-line **60478** to the south.

The latest phases of the feature's use are represented by two troughs, **60245** and **60231**. The former was constructed on the eastern side of **60161**, incorporating part of the earlier clay walling into its structure. It was shallower than the others and had no central clay base, although this may have eroded away. Its north side had been removed by a later pit, **60362**.

The last trough in the sequence, **60231**, had been cut into the existing clay backfill of troughs **60277** and **60450**. Its central chamber was mostly filled with a dark silt, which appeared to be a natural deposit. It is interesting to note a lack of the burnt material so common in its predecessors from the fill. This was identical to the silty upper fill of the adjoining ditch **60191**, suggesting they were abandoned together. It also suggests that use of the corn-drier, and other activities producing burnt waste material, had ceased by this time. Adjoining the last of the troughs was a pit, **60386**, which had been dug through the base of trough **60161**. Its fill had a high clay content, which probably came from the truncated chamber, but was otherwise no different to that within the many pits which surrounded this feature.

The trough sides were not burnt, although some burnt clay — probably re-used — was associated with **60161**. Evidence of burning, in the form of clay, charcoal or ash, was seen in the fills of most of the troughs, however. Two soil sections were examined by Richard Macphail, from contexts **60279** (not illustrated) and **60275**. Section (Fig. 3.37, section 1) was banded and containing mixed cereal ash residues, possible herbivore dung and burnt peat mixed with sand and wood charcoal. At the base of the sample section, sand and charcoal was mixed with calcareous cereal ash residues, buried peat and silty clay. A thin layer of clay overlay this stratigraphy. While there was strong iron-staining this could have been the result of gleying rather of than industrial activity, given the level of the features relative to the river (Macphail, Chapter 9).

Samples from these fills were also examined for plant macrofossils. The majority produced charred cereals, with some associated weed seeds. The main crop represented was spelt, with some probable emmer, barley and wild/cultivated oats. 'Sprouts' from germinated cereal grains were fairly consistently present. No positive relationship could be established between this material and the troughs, however, and it is likely that it represented waste cleared out from the adjoining corn-drier **60438** (Fryer and Murphy, Chapter 9).

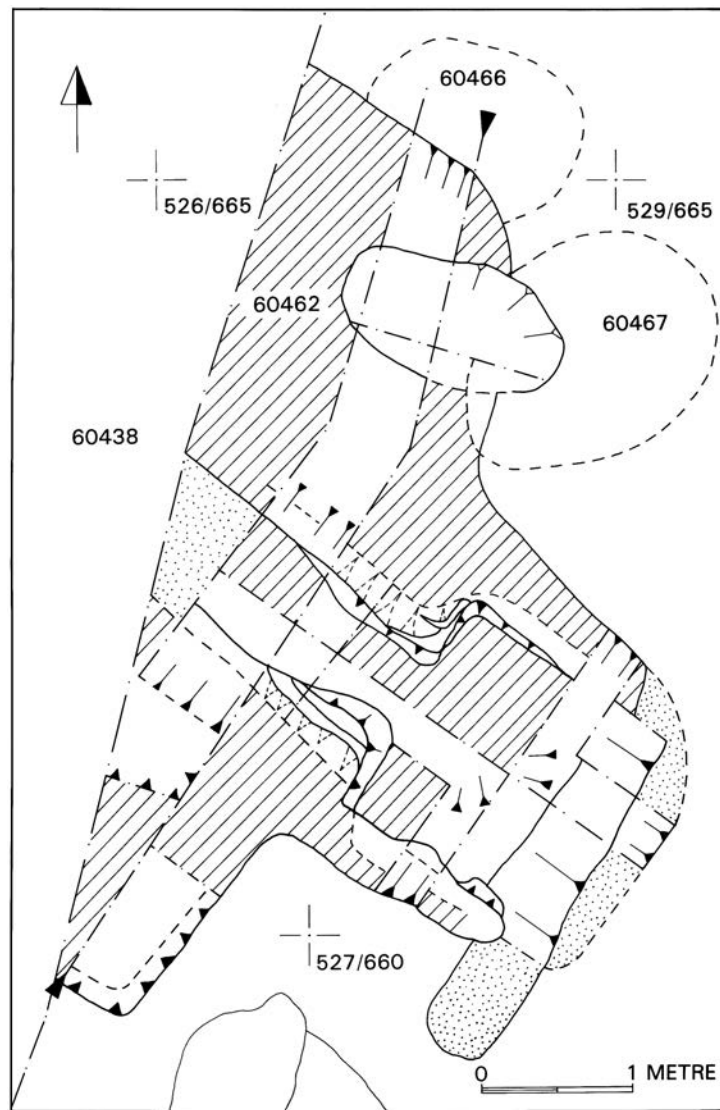


Figure 3.34 Area 6: plan of corn-drier **60438**



Plate 3.10 Area 6, corn drier **60438**, looking north-west

Altogether 4.267kg of pottery (445 sherds) was recovered from **60009**. Pottery was retrieved from most layers. The few fine sherds combine with the diagnostic grey ware forms to suggest a disuse date in the third quarter of the 3rd century. The absence of Shell Tempered Reduced Ware and Oxfordshire Colour Coat products suggest that backfilling of these features was complete before the end of the 3rd century AD.

Five possible post-holes were clustered to the east of the malting floor, three of them sealed by sand that was possibly upcast from **60009**'s excavation.

Linear features south and west of the maltings

(Figs 3.3, 3.10 and 3.38)

Three linear features marked the edge of this industrial complex. Post-line **60478** and ditch **60191** were actually components of the complex itself, while ditch **60012**, including at least three separate cuts **60382**, **60441** and **60444**, was a more extensive boundary feature.

The components of post-line **60478** lay 2.2–3m apart and were 0.10–0.56m deep, tending to be in shallower towards the east. All were clay-packed, and timber impressions were observed in several. Post-hole **60209** contained a rectangular plank stain *c.* 0.2m long, while **60449** was similar, with a measurable width of 0.07m. They are best interpreted as a fence, which was probably joined to **60009**. This could have shielded the latter feature from a south-westerly wind and (probably more significantly) the fire risk from the ovens immediately to the south (below).

A relatively late feature running parallel to the fence, ditch **60191** extended for a similar distance onto the site. This ditch sloped visibly towards the western baulk, suggesting a function as a drain rather than a simple boundary. Its fill was identical to that of clay trough **60231**, perhaps making it one of the last open features in this area. While it cut the post-packing from the adjoining fence **60478** the two features may have coexisted. It did cut elements of malting floor **60009** itself, including trough **60319** and part of **60161**. If this had been intended to remove surface water, it could indicate increasing difficulties with the river over time. Its fills contained 2nd- and 3rd-century pottery.

Ditch **60191** need not have drained directly into the river. Closer to the leat, in the field to the west, were recorded three north-to-south ditches which may possibly have been related to it (Fig. 3.3). One of these stopped short of the leat, perhaps indicating the latter feature was seen as a possible source of contamination. Whatever the reason, the situation had changed by the time a subsequent ditch was cut, as this emptied directly into the leat. The leat and the connected ditches silted up at the same time, whereas ditch **60191** is thought to have remained open until the area was abandoned — based on fill type and its stratigraphic position. Regular cleaning may have prolonged the life of this feature, however, and could disguise an earlier origin.

Ditch **60012** ran parallel to the fence line and drainage ditch, and to the south. Where these latter features ended it detoured to the south of building **60394**; thereafter it angled south-eastward away from the river. This 'new' route appeared to define the southern edge of an area immediately to the east of Area 6 where relatively high concentrations of pottery were identified during fieldwalking (Tester in Emery 1992). It may have been a boundary feature drawn up to separate areas of settlement close to the river from the agricultural land beyond. It varied considerably in width, was up to 0.4m deep, and was largely filled with pale grey sand. A collection of 0.88kg of pottery (147 sherds) included small quantities of Red Reduced Ware and a little 2nd-century samian, and probably dates to the mid-2nd to mid-3rd centuries. Ditch **60012**'s variable width probably indicated repeated cleaning. A distinct parallel replacement, **60441**, in the vicinity of malting floor **60009**, might have been cut to provide more working space around the latter feature.

Ovens **60443** and **60381**

(Figs 3.38)

Two ovens were separated from the main working area by the sequence of linear features described above. The earliest, **60443**, had been truncated by both ditches **60012** and **60441** and cut by a clay-packed post-hole **60442**. While the oven was poorly preserved, it had probably been *c.* 1.5m wide and 2.5m long. The south end was bowl-shaped and was 0.3m deep, deepening to 0.4m where it was cut by ditch **60012**. It is unclear whether there had ever been a specific stoke-pit. Its fill was an orange brown sand over a continuous layer of coarse woody charcoal; in turn this overlay a burnt, pinky-purple sand.

The second oven, **60381**, probably replaced **60443**; while it cut ditch **60012** it was itself cut by ditch **60441**. The oven chamber and stoke-pit were clearly separated, the former being 1m wide and 1.25m long but only 0.12m deep, deepening to 0.25m into the stoke-pit. A dense layer of charcoal, presumably fuel debris, lay under a grey and orange sand with charcoal flecks at the north end of the stoke-pit. The natural sand beneath

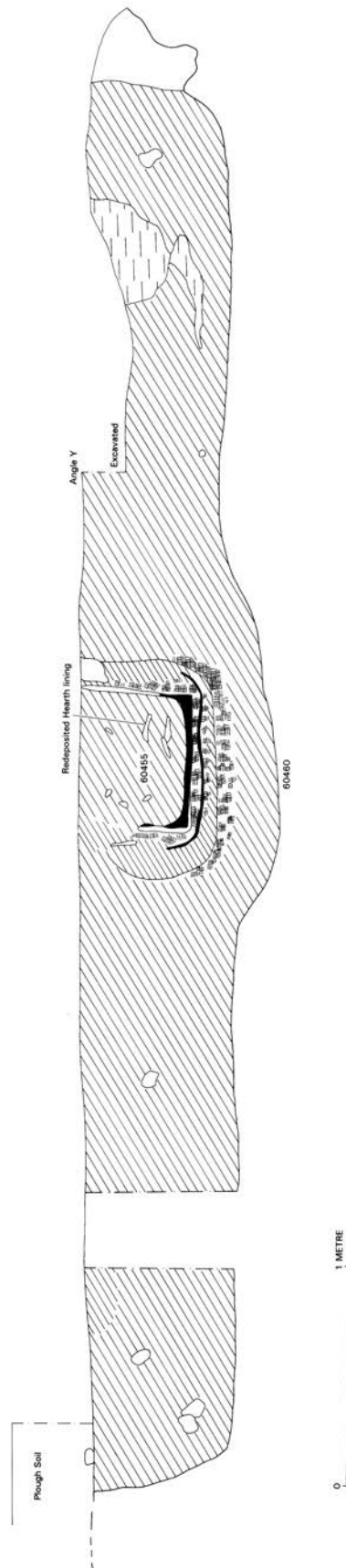


Figure 3.35 Area 6: west-facing section through corn-drier **60438**

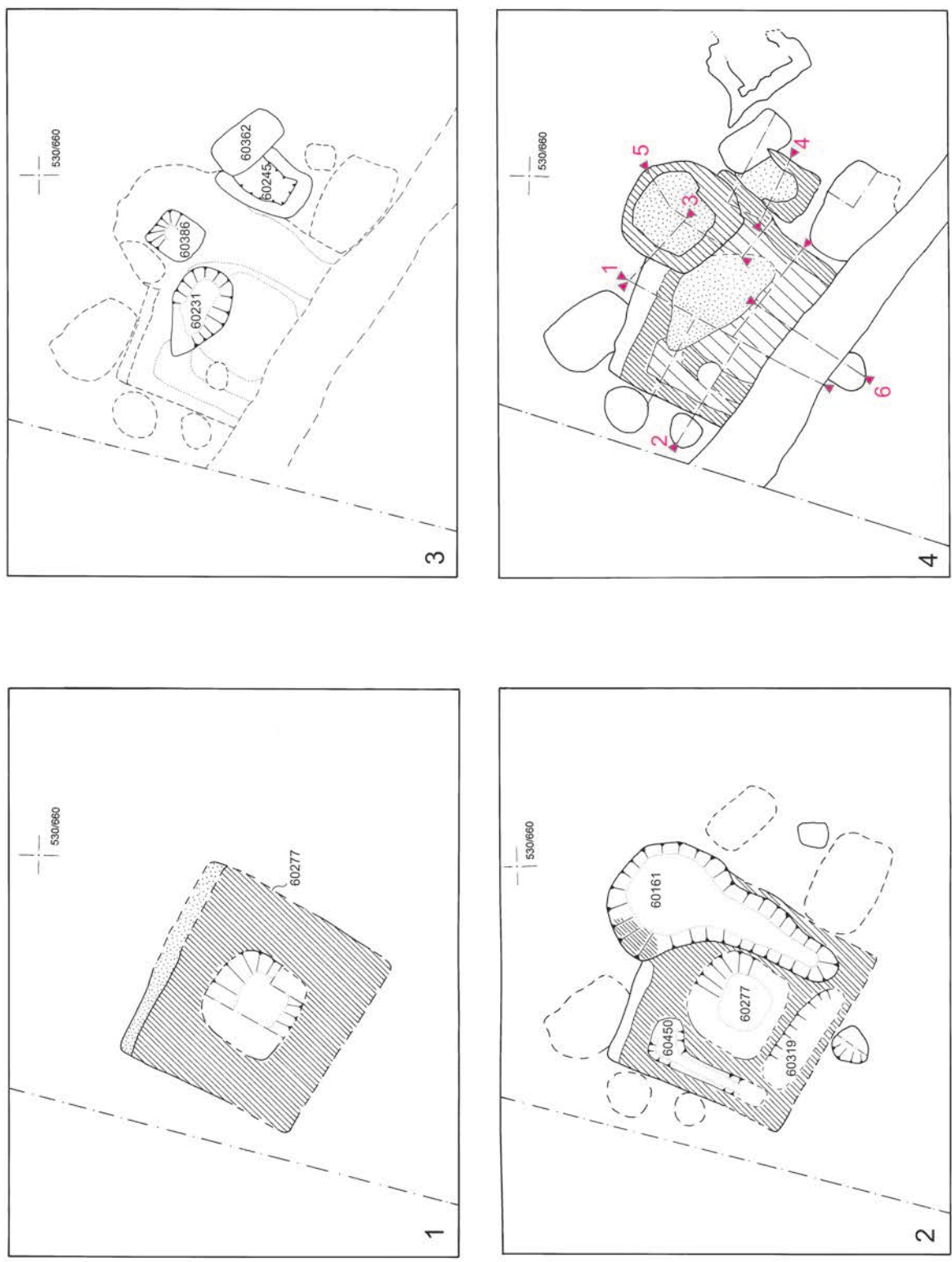


Figure 3.36 Area 6: plans illustrating sequential development of matting floor 60009 (4 showing location of sections)

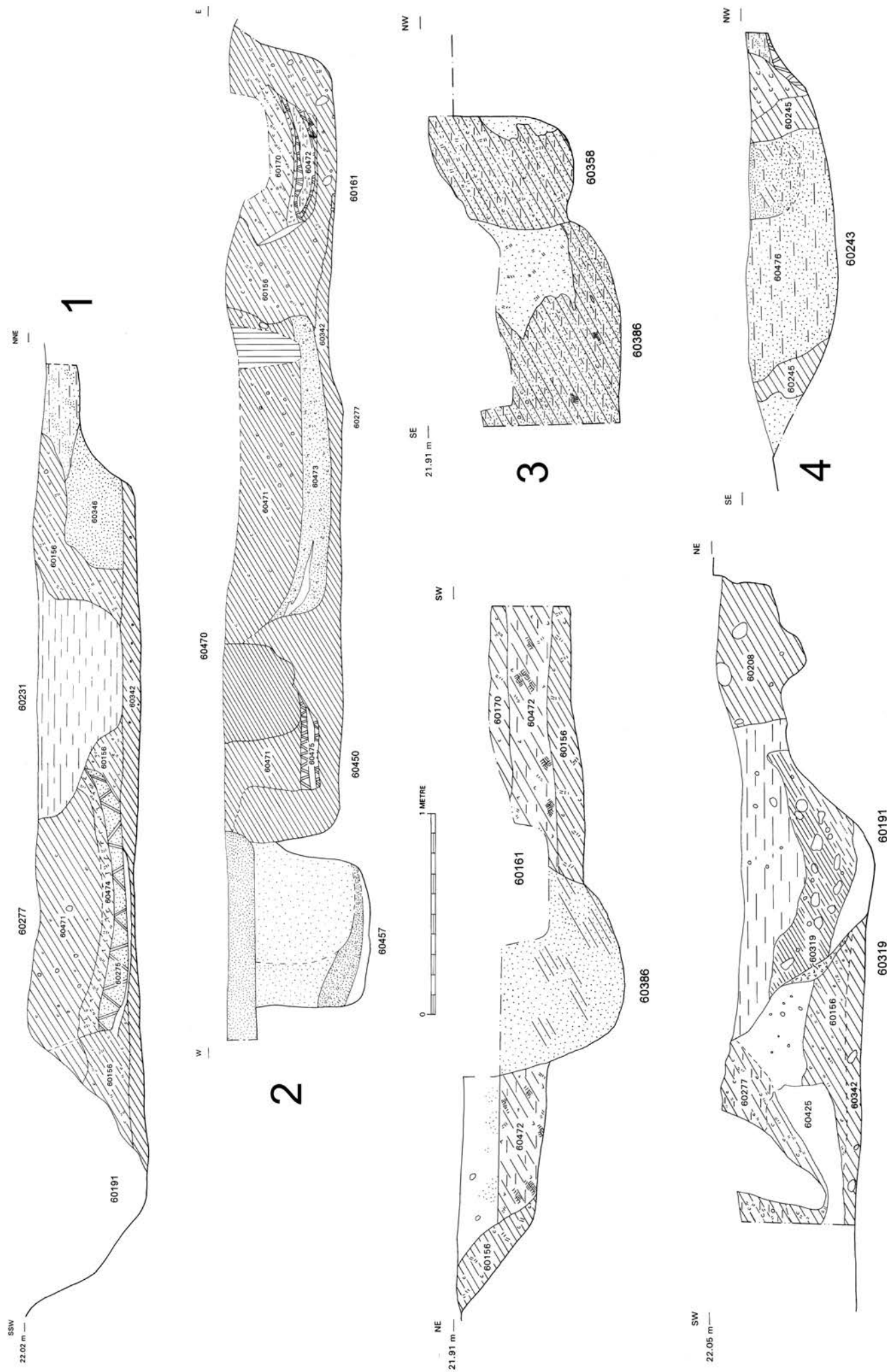


Figure 3.37 Area 6: section across malting floor complex 60009

the bowl was heavily fire-reddened. Aligning across the mouth of the oven were two flimsy post impressions (60477 and 60488), while another post-hole (60385) lay 1m to the east. A corresponding soil-mark to the west was not excavated. These features, all containing a coarse charcoal fill, were probably remnants of a screen or canopy attached to the oven.

While these features were undoubtedly related to the maltings complex further interpretation is difficult, due partly to the lack of superstructural evidence. They do not resemble either the channel- or 'T'-shaped hearths which are familiar from many Roman sites, or the clay constructions often associated with kilns. Possible interpretations are considered in the concluding Discussion (p.195).

Roundhouse 60394
(Figs 3.3)

An assorted collection of post-holes, stake-holes and pits *c.* 25m to the east of the maltings was interpreted as a heavily truncated building. Five or possibly six post-holes may have outlined the western part of a roundhouse with a diameter of *c.* 7m. A palimpsest of post-holes and stake-holes to the south-south-east of the circle may indicate the position of an entrance that had seen constant repair. Two pits were associated with this structure.

The manner in which Phase 4 boundary ditch 60012 appeared to respect this structure is of significance in phasing this building, although it is felt that the ditch probably continued along the same course after the building had been abandoned. The small collection of 0.44kg of pottery (145 sherds), spot-dated to the mid-late 2nd century AD, included a single sherd of Central Gaulish samian bowl dated to the Antonine period.

Areas 7 and 8

Mid to late 2nd century: Phase 4 (Area 8)/Phase B (Area 7)
(Fig. 3.39)

The layout of Area 8 was transformed after the mid 2nd century by its division into a number of regular plots. The preceding layout was largely ignored, except where difficulties of drainage imposed conformity with the previous layout. A series of sub-rectangular plots of approximately equal size were defined by ditches, set at approximate right-angles to the main road, which fed into the large open ditch which continued to be maintained at the rear of the property. The absence of the peat fills that characterised the fills of the open phases of the earlier ditches suggests that the site may have become drier. The most southerly parcel of land appears to have been twice the size of the other plots. While this could reflect constraints on the size of the enclosures close to the bridge, equally it may have been due to the presence of the Phase 2 roundhouse 80220, which lay within it. While the lack of other features and finds of the period was striking these areas were almost certainly 'backlands' behind the road frontage, which itself remained unexplored. The

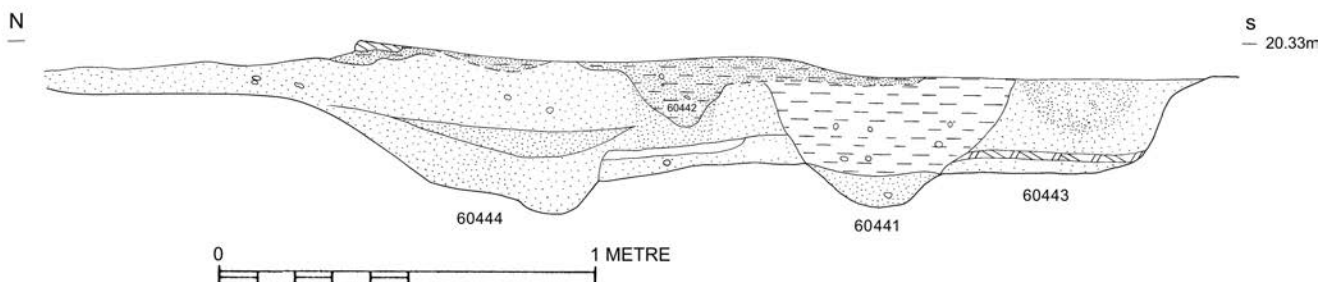
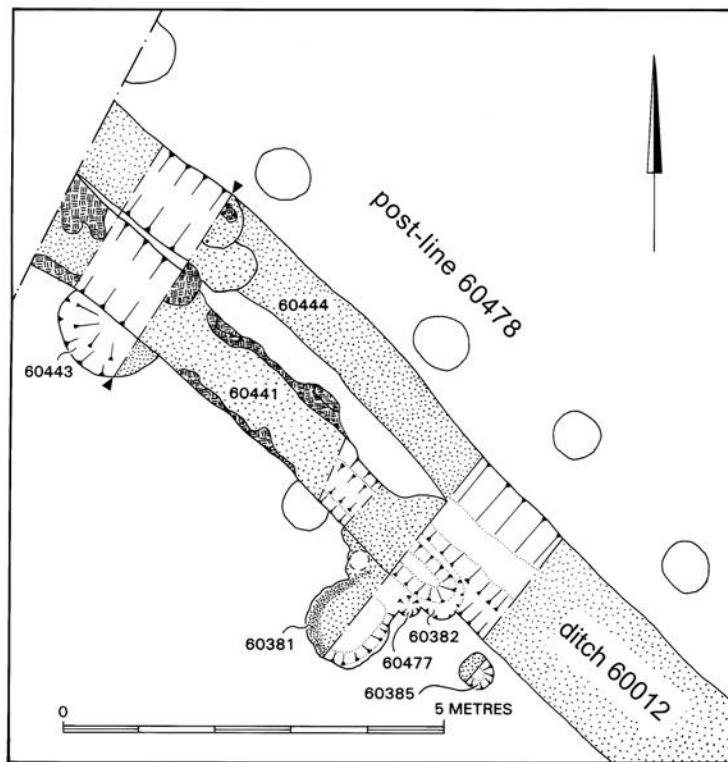


Figure 3.38 Area 6: linear features to the south of malting floor complex 60009, plan and section

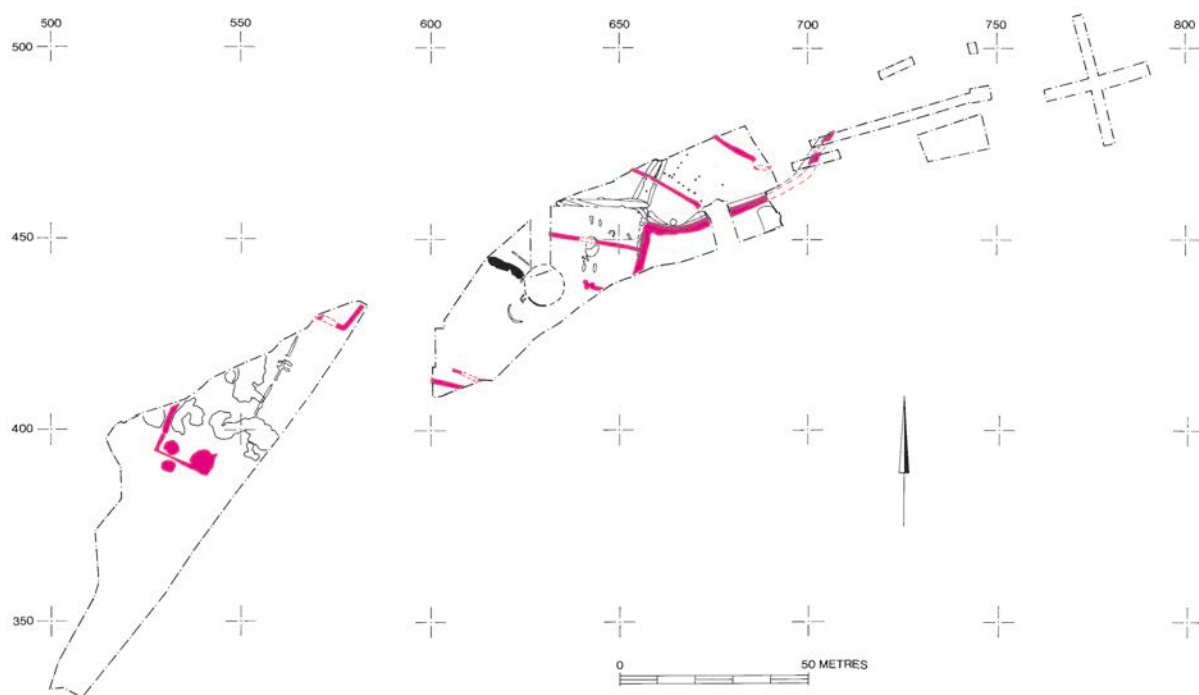


Figure 3.39 Areas 7 and 8: Period 4 plan, Phase B/Phase 4

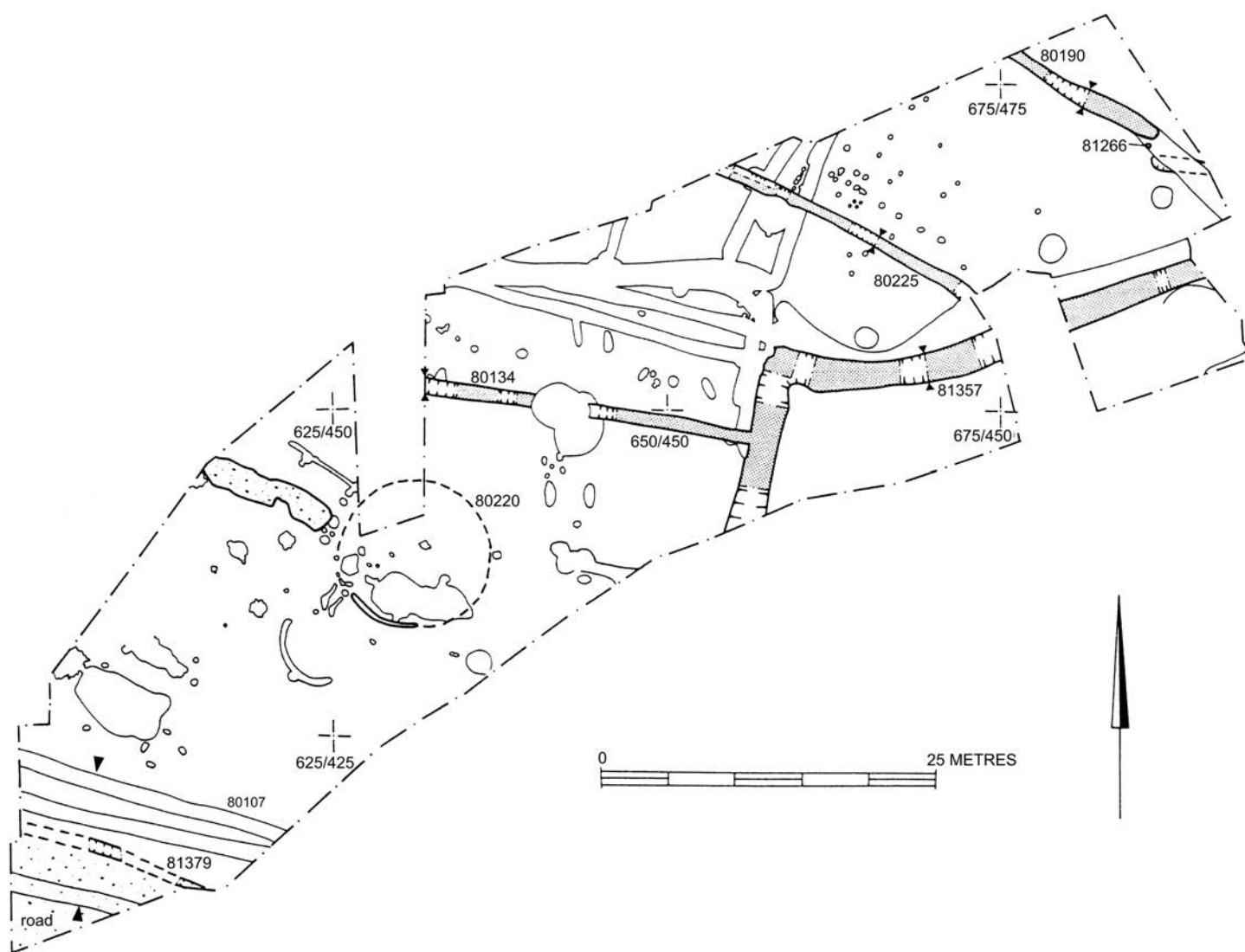


Figure 3.40 Area 8 Phase 4: plan

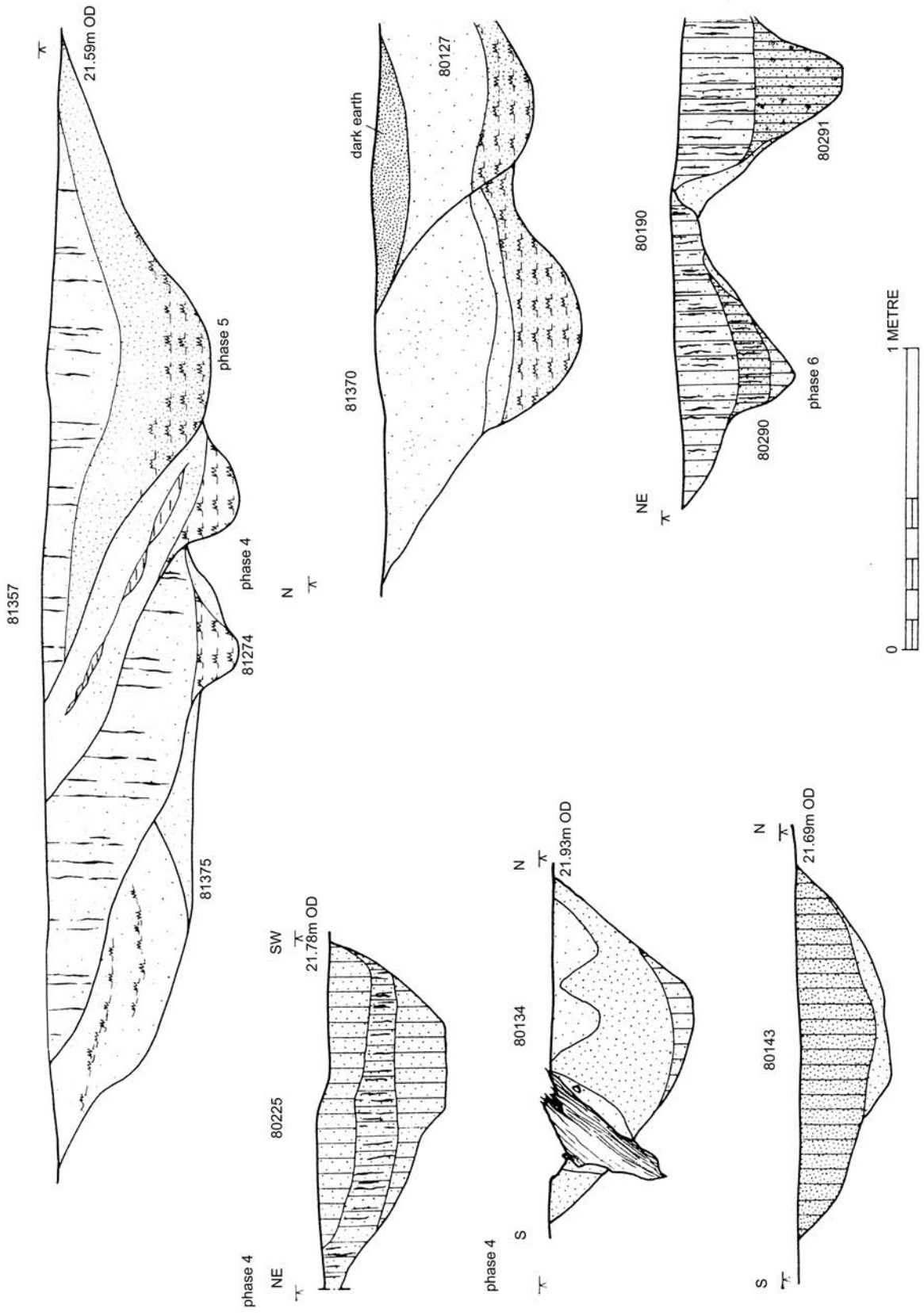


Figure 3.41 Area 8 Phase 4: ditches **80134** and **80225**, sections

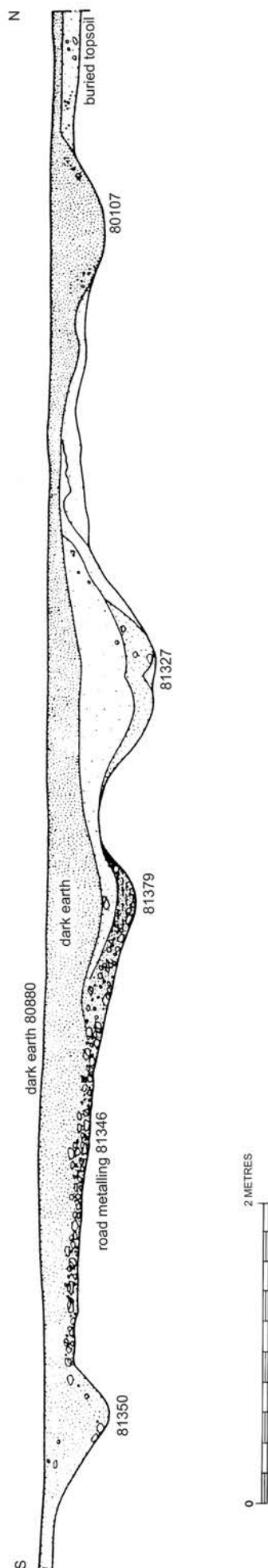


Figure 3.42 Area 8: east-facing section across road 81346

southernmost ditch marked the northern edge of a 'new' east-to-west road that followed the edge of the floodplain.

In Area 7 a gated-and-ditched enclosure, which was provided with a well, was established. The first of a series of three ditches, marking the southern limit of the settlement up to the end of the Roman period, was dug. A pit and an accumulation of rubbish were interpreted as evidence for habitation, although no building plans were recognised.

Phase 4 (Area 8)

(Figs 3.40–3.42)

Dating for this phase rests on the pottery from enclosure ditches 80225 and 80134, which were short-lived features that were infilled in a single event at the end of the phase. The presence of most of a globular medium-mouthed jar in 80225 means that the infilling of this ditch must post-date *c.* AD 125–150 (Hadrianic or early Antonine), and the near-completeness of the vessel also suggests rapid deposition. The backfill layers in ditch 80134 contained only two identifiable forms, but one dish (type 6.18) suggests an initial infilling no earlier than the mid 2nd century. The later (slumped) fills in 80134 contained no forms or fabrics associated with the late 2nd or early 3rd centuries.

The side road is assigned to this phase on the basis of its strong spatial relationship with the plot divisions, while its introduction fits with the 'sea-change' of formalisation in the area that Phase 4 heralds. While there were no sealed contexts producing finds the phasing is consistent with the concentrated coin pattern in the Dark Earth over the road, which began with coins of Hadrian and continued through to the 4th century (Fig. 3.66).

The ditch pattern corresponds with that in Area 7, to the west of the main north-to-south road, which starts in the mid 2nd century (below).

East-to-west road 81346 (Phase 4)

(Figs 3.39, 3.40 and 3.42)

The 'new' road extended eastward at right-angles from the main Roman road at the south-western end of Area 8. The geophysical survey of the Oakley field as a whole (pp113–14) traced the road to the edge of the palaeochannel and possibly beyond; it may have provided access to the putative temple *c.* 200m further to the east. A 16m length was exposed and a machine-cut section sited across it. The road was flanked by ditches. Much of the road make-up, of closely-packed medium-sized flints and gravelly sand, survived.

The road was established when the restructuring of the land divisions took place during Phase 4 and continued until the end of the occupation, by which time it may have deteriorated into little more than a track. Initially the northern edge was marked by ditch 81379; metalling from the surface had slumped into this ditch. The road bed was slightly sunken so that the road surface was at the level of the surface of the subsoil; where sectioned it sloped from south to north. While the southern edge of the road first appeared to be bordered by ditch 81350, the true edge lay to the south of the excavated area. No finds were associated with the first phase of the road.

Enclosure ditches

(Figs 3.40 and 3.41)

A series of enclosures that probably projected eastwards from the main Roman road was defined by three features, ditches 80134, 80225 and 80190. The most northerly, 80190, displayed a prolonged and complex sequence of alterations, yielded possible evidence for a gated entrance (post-hole 81266) in its earliest phase, and seems to have been clearly visible beyond the site limits to the east in the geophysical survey results. A curving linear feature, from the field south of 81357, may be projected as a continuation of 80190. This suggests that it continued into Phase 6 and was extended after 81357 had been infilled. Ditch 80225, marking the southern edge of this enclosure, sometimes resembled a palisade trench but became less steep-sided to the east. The third ditch, 80134 to the south, extended to enter the southern arm of drainage ditch 81357. It appeared to have been deliberately backfilled, containing a single layer of pale grey sand with charcoal flecks. The overlying dark soil 80800 had slumped into the top of this ditch and was probably the source of the majority of finds. While 80225 and 80134 were backfilled at the end of Phase 4, 80190 continued through into the later phases.

The pottery from all three ditches was analysed in depth. Ditch 80190 produced *c.* 1.9kg of pottery (106 sherds), much of it Flavian–Trajanic but with some Antonine material. Imports included amphora and Central and South Gaulish samian, including a form Dr 29 bowl with motifs shared by a number of potters from La Graufesenque. One of the two Central Gaulish samian cups in form Dr 33 is stamped by

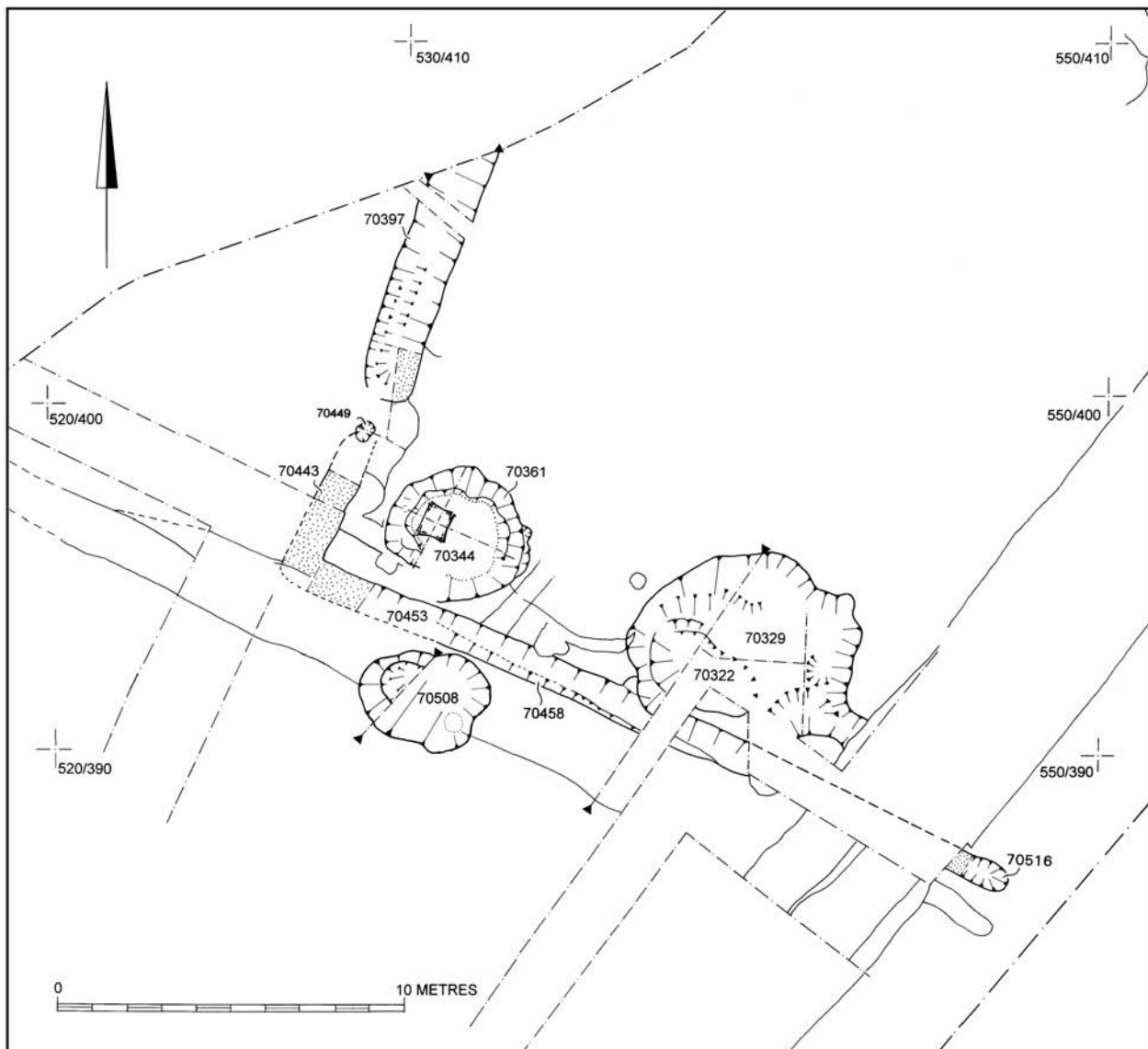


Figure 3.43 Area 7 Phase B: plan

Mansuetus ii 2a of Lezoux and may be dated *c.* AD 160–190. This, and the presence of a beaker and a straight-sided dish, suggest infilling no earlier than the late 2nd century — no 3rd-century material was found. Pottery from ditch **80225** suggests infilling no earlier than *c.* AD 125–150 (Hadrianic or early Antonine); a near-complete jar suggests rapid deposition. That from ditch **80134** indicates that initial backfilling took place no earlier than the mid 2nd century; the later fills contained some late 1st-century vessels, but most identifiable material belonged to the mid 2nd century, with Hadrianic or early Antonine samian. The accumulation was probably complete by the end of the 2nd century.

?Drainage ditch **81357** represented yet another re-definition of the boundary established during Phase 3. The southern course of the ditch now turned through 90° towards the south, and may have been extended to meet the edge of the east-to-west road **81346** — a suggestion supported by the geophysical evidence. Yellow sand upcast at its eastern end suggested a slight bank on the settlement side which may have provided flood protection. One excavated segment showed a series of re-cuts, indicating that the line of the ditch moved slightly southward during cleaning. Frequent re-cutting was probably made necessary by the waterlogged condition of the ground.

A small collection of pottery from a primary and post-use infill included a miniature beaker — a variant of type 3.10 — and a straight-sided dish (type 6.18), dating the primary filling of the ditch to no earlier than the mid 2nd century. Sherds from the upper fill included a piece of a decorated samian bowl form (Dr 37) in the style of Silvio/X-10 of Les Martres-de-Veyre, dated *c.* AD 125–140 (which had joining

sherds in the Dark Earth grid squares **80869** and **80915**, *c.* 30m away); Pakenham colour-coated beaker in the upper backfill probably dates this accumulation to the mid 3rd century.

Phase B (Area 7) (Figs 3.43–3.46)

Enclosure ditches (Figs 3.43 and 3.44)

Ditches 70458 and **70397** formed the southern end of an enclosure with one edge fronting onto the main road, while ditch **70347** (Fig. 3.39) was interpreted as its northern return. (Most of the west side of this land unit lay beyond the excavation edge.) The southern element of this feature (as ditch **70443**) terminated in a flint-packed post-hole **70449** which may have marked the southern side of a 1m-wide gated entrance. These ditches were relatively slight, varying between 0.45m and 0.65m in depth. Ditch **70347**, recorded in the northern corner of Area 7, may have been the returning ditch marking the northern limit of the enclosure; this turned northward through a further right-angle so as to run parallel with the main Roman road. Unfortunately this association between **70397** and **70347** cannot be proven beyond doubt due to the constraints of the excavated area. Perhaps hedges had once reinforced these insubstantial boundaries. The ditch fills produced little pottery; that from the primary deposit in ditch **70397** included grey wares, amphora and a medium-mouthed jar all consistent with a late 1st–late 2nd-century range.

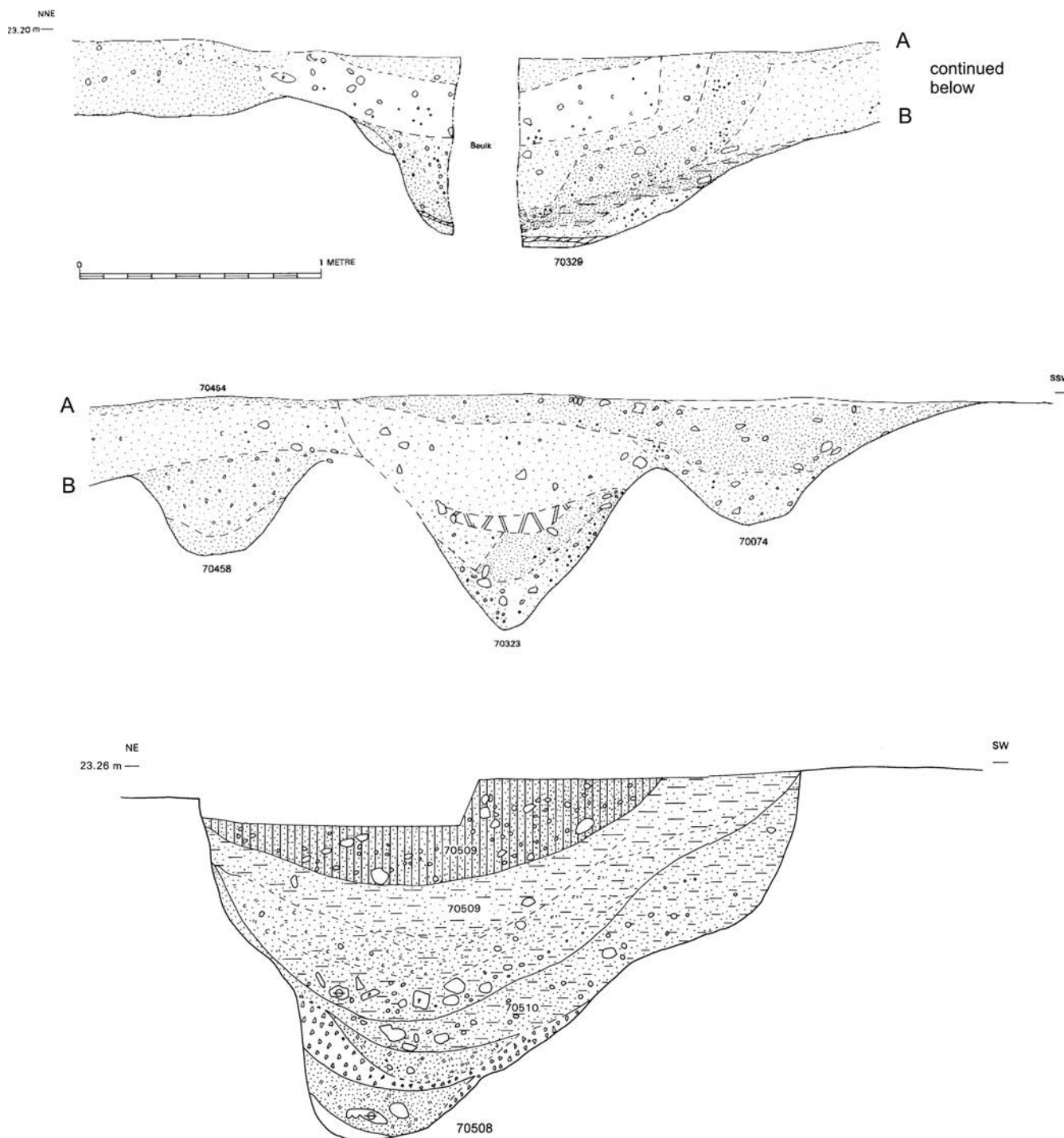


Figure 3.44 Area 7 Phase B: ditch sections

Pits

(Figs 3.43 and 3.44)

Pit 70508 was c. 2m wide and 1.2m deep but its upper fills had been removed by later ditching. The general fill was a mixture of gravel and sand with silt, grey sand and charcoal towards the base. Pottery weighing 4.4kg was found; most distinct vessel forms were medium-mouthed jars with short necks and rolled rims or simple everted rims, while wide-mouthed jars are also common. Unusually, very few dishes were recovered, while several sherds from lids and cheese-presses were retrieved. No late Roman vessel types were recovered, and a late 2nd–mid/late 3rd-century assemblage date is suggested.

Pit 70329, to the north of the boundary, was entirely different. It comprised a circular hollow 6m across; a 3m-long deepened trough at the south end, 70322, was aligned parallel to the boundary. The gravelly fill gave no indication as to the pit's function. Perhaps it was an abandoned

well excavation; sinking a shaft may have been curtailed by the mobile fine gravels encountered at depth. Alternatively, it may have been a shallow quarry pit. The pit was cut by the reinstated boundary ditch 70323 during Phase C. Altogether 2.27kg of pottery was collected. While the earliest fills contained undatable grey wares the deposit above contained fresh Trajanic samian (AD 98–117) and a fragment of Nene Valley Colour Coat. The sequence developed with Antonine samian and a fragment of Pakenham Colour Coat, while the latest fill contained 4th-century fabrics. The pottery probably accumulated from the early–mid 2nd century, with the feature receiving a narrow range of discarded vessel types before being sealed by the Dark Earth layer 70086. The restricted range of vessel types from the main fill may have originated from a single source — perhaps a building, possibly domestic or even commercial in character, occupying the enclosure, although the evidence for one is circumstantial (*Discussion*, p.192).

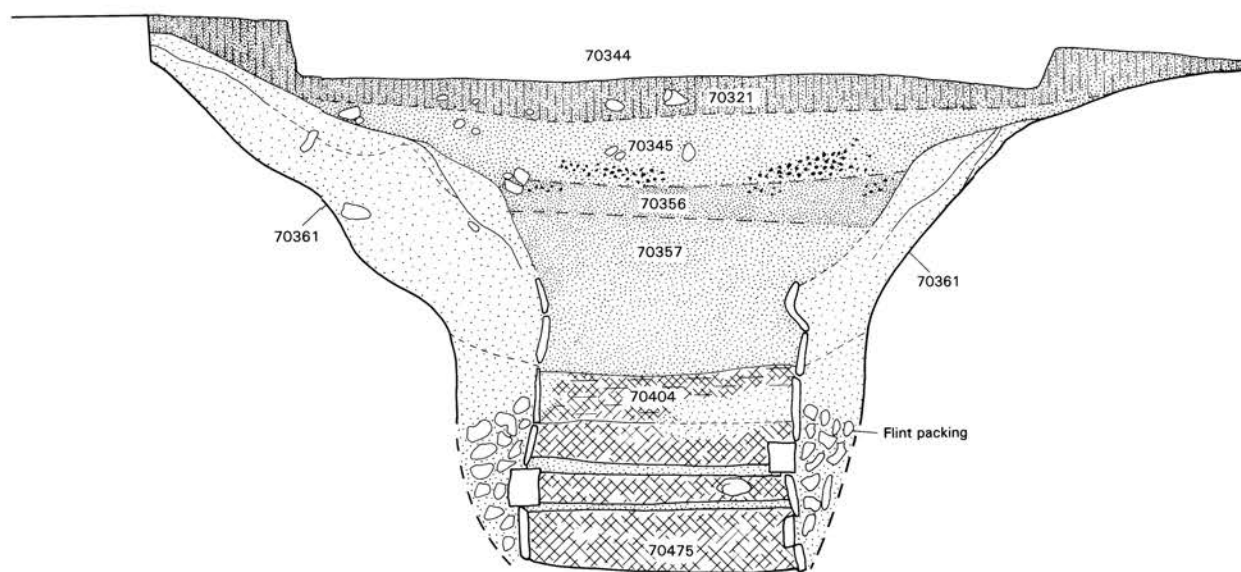
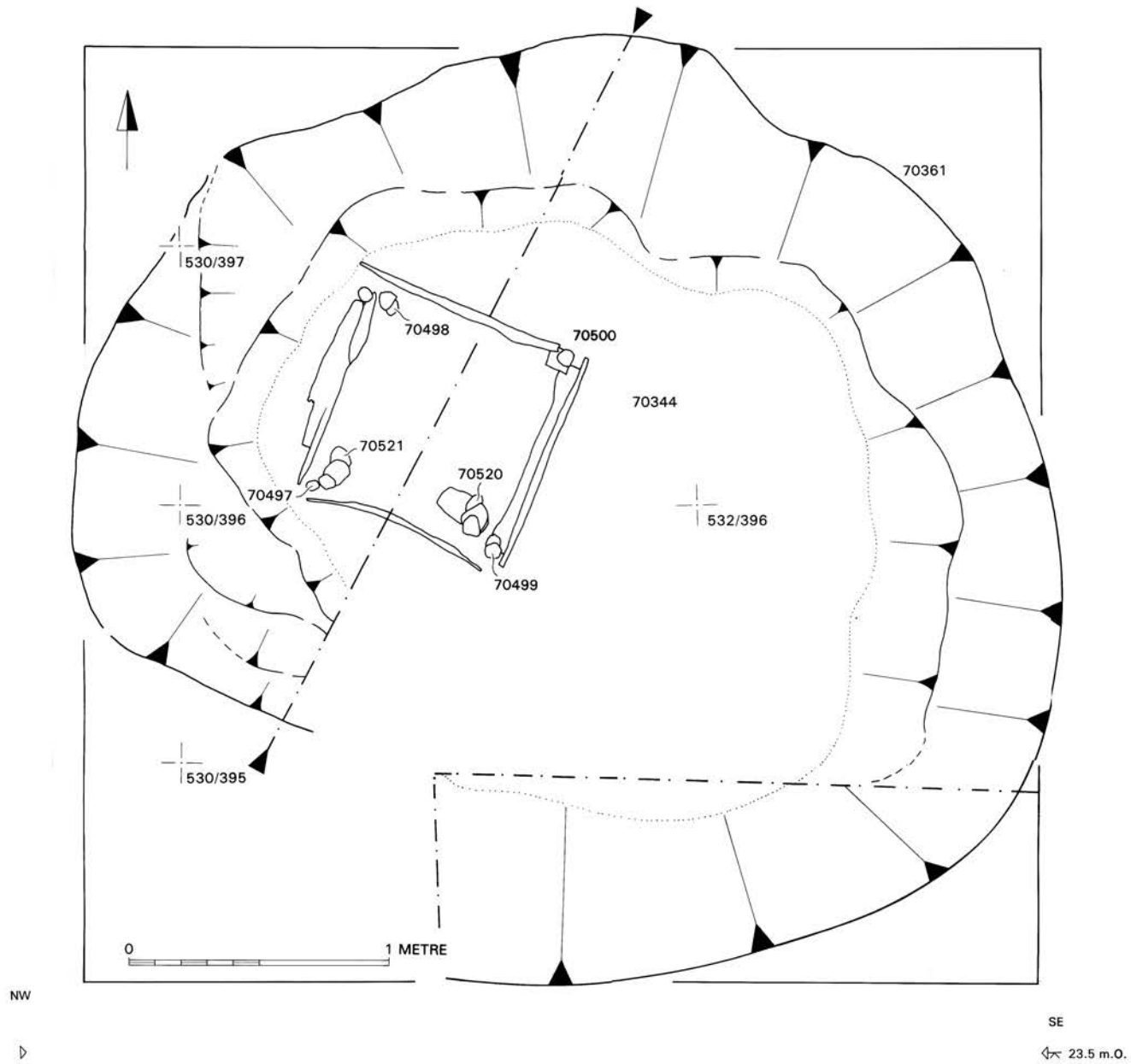
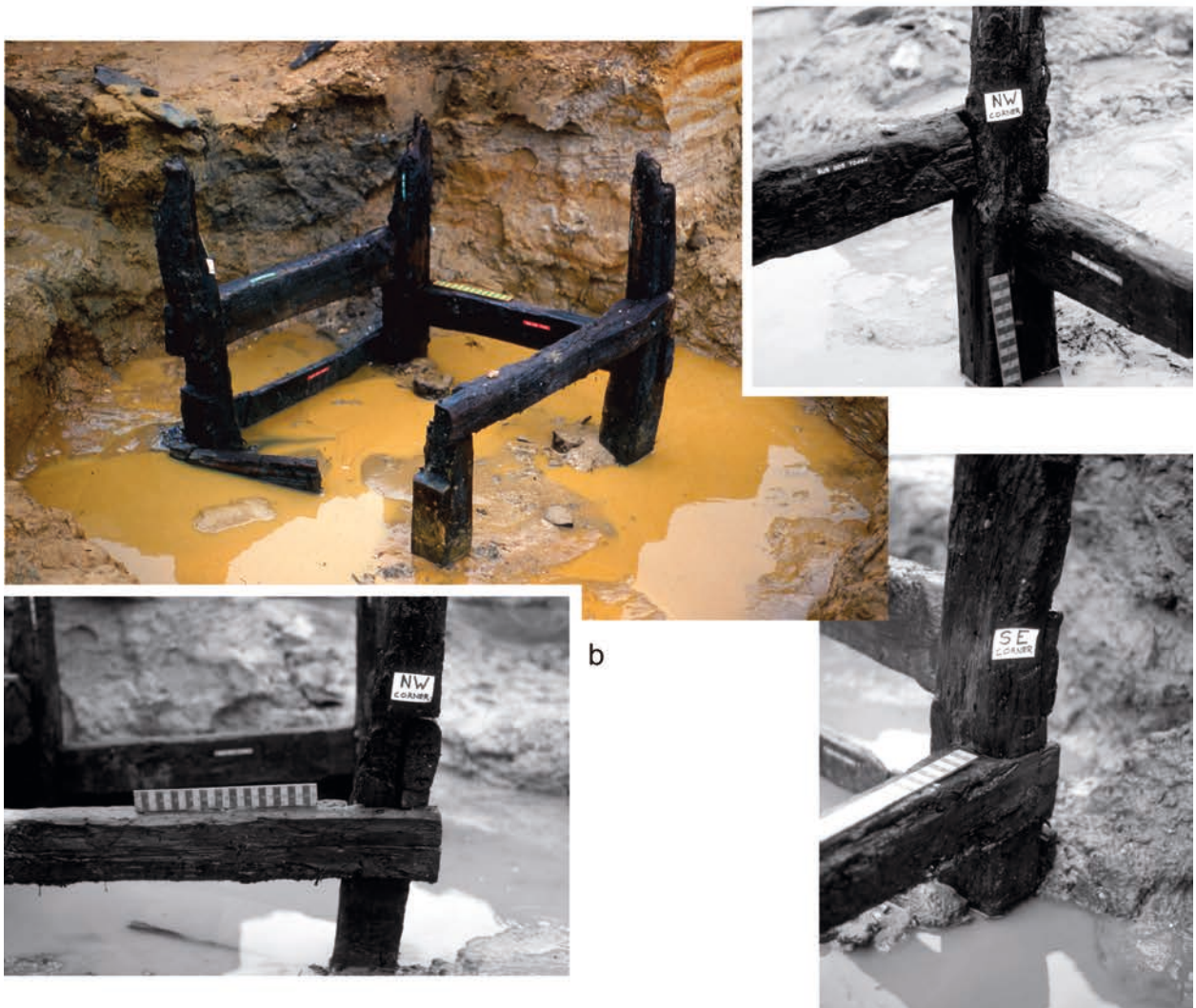


Figure 3.45 Area 7 Phase B: well 70344, plan and section



a



b

Plate 3.11 Area 7, well 70344 : a – fill of pit 70361 removed to expose shaft lining;
 b – the timber frame partially exposed by machine excavation; insets show constructional details

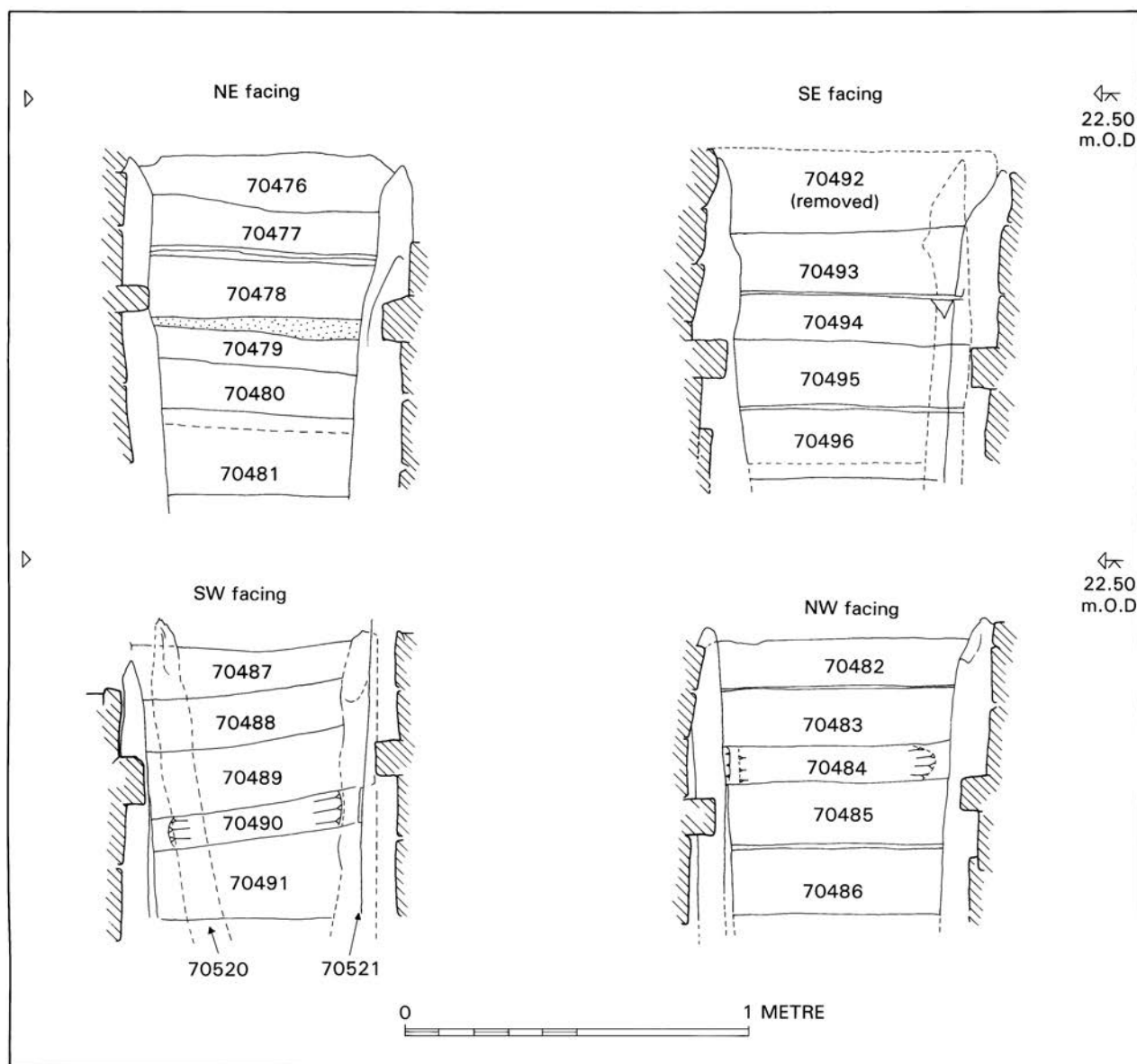


Figure 3.46 Area 7 Phase B: elevations of well 70344

Well 70344

(Plate 3.11; Figs 3.45 and 3.46)

This had been sunk in the south-west corner of the new enclosure and lay 2.5m equidistant between the enclosure ditches to south and west. A large, almost circular, pit 4m across was excavated to form a sunken 'platform' c. 1m below the stripped surface. Below this level a shaft was sunk and a prefabricated frame inserted. The total depth of the original frame was c. 1.8m, although only the 1m depth below the construction pit has survived. The well base was exposed by machine at 21.0m OD. This deep excavation also uncovered a belt of large flints surrounding the wood. While these may have helped to stabilise the structure, their primary role was probably as a water filter. Presumably they were inserted around the sides of the lining from above, and rammed home to encourage them to displace the liquid sand.

This well echoed the more typical 'Scole-type' wells north of the river yet remained distinct from them. It consisted of four corner-posts with sawn laps, into which the curved braces were nailed. The plank cladding used a combination of tangentially-split oak planks and re-used oak furniture boards nailed behind the corner posts. The re-used boards had dovetailed laps, while the cleft planks were thin tangential sections of a young oak tree. All of the planks had either been thinned or countersunk in order that that nails less than 50mm long could be used. Most of the re-used planking was from a single structure and several segments were still joined together (Darrah, Chapter 8). They originated from larger trees than the freshly-cut wood, and had almost certainly been sawn. The re-used planks had weathered surfaces, but also bore

fresh adze marks which matched those on the freshly-felled timbers used in the well. This indicated that the timber was weathered before it was used in the well, and must have been seasoned.

Samples recovered for palynological analysis from the lower fill of the well proved sterile, probably because fluctuation in the water table had led to occasional aeration of the fill and accelerated decomposition of pollen (Wiltshire, in archive). Fragments of probable shoe leather retrieved from the base of the well were lost during conservation.

Altogether the well contexts produced 3.43kg of pottery. The construction cut contained 2nd-century samian, early Grog grey ware and Nar Valley and Wattisfield grey wares, as well as mid-2nd-century 'dog dishes'. The well may have been opened in the early 2nd century and finally backfilled in the late 3rd century AD.

Phase 5 (Area 8, mid-late 2nd to early-mid 3rd century)/
Phase C (Area 7, late 2nd-mid 3rd century)
(Figs 3.47-3.54)

The Area 8 property divisions established in Phase 4 were altered, the middle plot being removed and incorporated into the two adjacent properties. This was done by cutting a new ditch through the centre of the old property and filling the ditches on either side. The other boundaries, marked by ditches, were maintained through re-digging

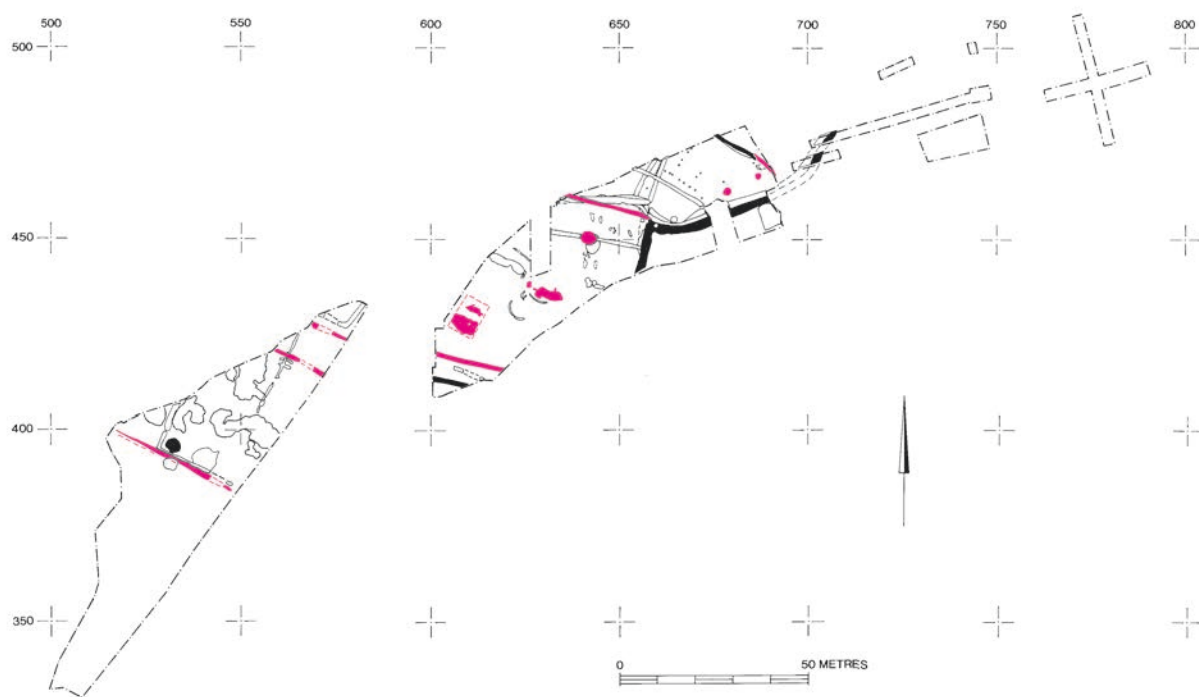


Figure 3.47 Areas 7 and 8: Period 4 plan, Phase C/Phase 5

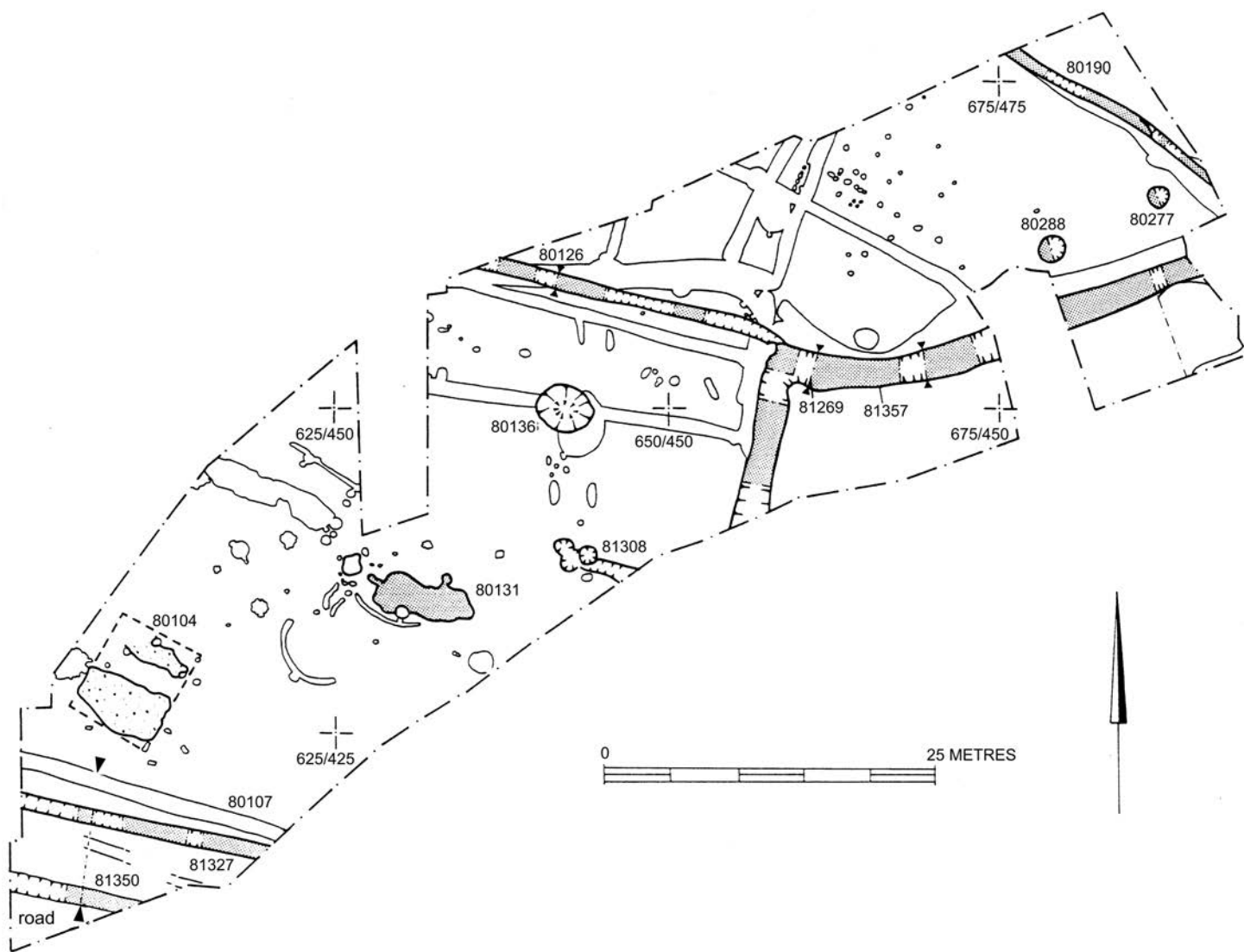


Figure 3.48 Area 8: plan of Phase 5 features

and two new ditches were cut alongside road **81346**. Occupation debris, which had slumped into the top of ditches from earlier phases, provided evidence of occupation along the frontage of this east-to-west road. A structure of uncertain plan and function, identified by a deposit of charcoal and clay, occupied the site of roundhouse **80204** and confirmed the abandonment of this latter building. A further building had been raised in the angle between the Roman road and the side road. Other evidence, including a new well and a cluster of pits at the eastern edge of the site, suggested a general increase in activity.

A new east-to-west road was recorded at the north end of Area 7. The enclosure ditches in this area from the previous phase were infilled, and the southern boundary

ditch was reinstated and extended westward. The well continued in use but may have been infilled towards the end of Phase C, along with a shallow pit which had been inserted into the main backfill. A 'Dark Earth' also began to form during this period.

Phase 5 (Area 8)
(Figs 3.42, 3.47–3.53)

Phasing

The pottery suggests that Phases 4 and 5 were close in date. While the Phase 4 ditches could not have been infilled any earlier than c. AD 125–150 (Hadrianic or early Antonine), the samian from the construction pit of well **80136** (sunk in the infilled Phase 4 ditch **80134**) is dated to the early–mid Antonine period by decorated and stamped pieces. The well construction layers contained no late 2nd-century or early 3rd-century material. The floor of building **80104** sealed what had been an open deposit after c. AD 150–160, but the absence of any later

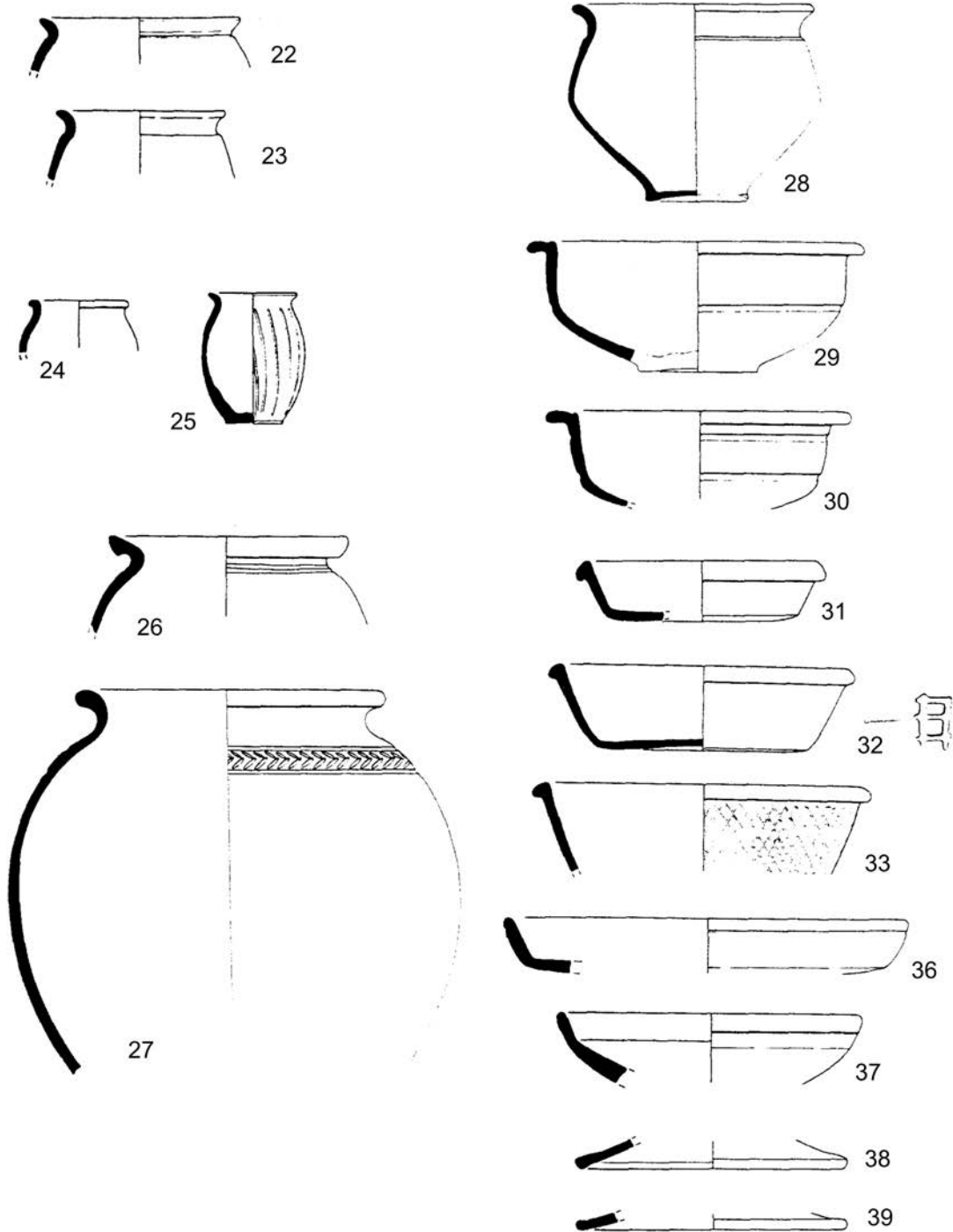


Figure 3.49 Selected pottery from ditch **80126** (see Chapter 6 for catalogue descriptions). Scale 1:4

fabrics and forms — no later Antonine samian, nor any late 2nd–early 3rd-century colour-coated beakers — suggests that the building was standing before the end of the 2nd century.

The latest samian from ditch **80126** is mid-Antonine with no late East Gaulish fabrics and no colour-coated wares, suggesting infilling by the late 2nd century. All but two of the identified vessels (type 3.7 and Curle 11) cannot be dated earlier than the mid 2nd century. The roughcast beakers could be late 2nd- or early 3rd-century; the Nar Valley grey ware is late 2nd- to late 3rd-century and the East Gaulish samian may be late 2nd- to mid-3rd-century. Along with the absence of any later 3rd-century fabrics or forms, this evidence suggests a possible latest date in the mid 3rd century for this feature group.

Road **81346**

(Figs 3.42, 3.47 and 3.48)

Ditches **81350** and **81327** represented a re-establishment of the secondary road **81346** further to the north. While apparently it was now *c.* 4.5m wide, the metalling was not extended to fill this widened corridor. The main fill of ditch **81327** was a pale, coarse gritty sand similar to that in the road make-up. Apparently it had been cleaned out at least once. Only one of these second-phase roadside ditches contained closely-datable ceramic forms, all but two of the identified vessels dating to no earlier than the mid 2nd century. Roughcast beakers, Nar Valley grey ware and East Gaulish samian might date to the late 2nd–late 3rd centuries; a mid-3rd-century range is suggested for the group.

Enclosure ditches

(Figs 3.47–3.49)

Ditch 80126 had similar dimensions to those it replaced; at its east end it drained into ditch **81357**, which had been cleaned out. A peat basal fill was overlain by a grey brown silt with clay — this upper fill distinguished it from the earlier ditches, which had been backfilled with grey topsoil. Most of the exposed length of this ditch was excavated and it produced 5.55kg of pottery, fabrics including amphora and a significant amount of White Wares, which included flagon and mortarium fabrics. There was a significant amount of samian, which was the only fine ware.

At least fifty vessels were represented in the pottery assemblage (Chapter 6; Fig. 3.49). The primary fill contained wide-mouthed jar forms, suggesting initial infilling in the late 1st or early 2nd centuries. While the backfill layers contained a number of late 1st- or early 2nd-century forms, high-shouldered beakers, globular medium-mouthed jars and straight-sided dishes suggest a date no earlier than the mid 2nd century. No specifically Antonine samian forms were identified, the most closely datable pieces being Hadrianic or early Antonine pieces which went out of production soon after the mid 2nd century, and a bowl in the style of Butrio-Attianus of *c.* AD 125–140. The latest samian is all mid-Antonine, with no late East Gaulish fabrics; the absence of colour-coated wares suggests infilling by the late 2nd century. The slump or subsidence layers contained pottery similar to that in the backfill layers, with nothing to date the end of the accumulation beyond the early 3rd century.

The east-to-west road shifted northward, as indicated by the excavation of roadside ditches **81350** and **81327**, the earlier ditch **81379** having been infilled with road metalling beneath grey sand. The new road was *c.* 4.5m wide. The top of ditch **81327** was filled with a coarse gritty sand similar to that spread over the worn parts of the earlier road. The lower fill was a finer dark grey sand; the feature had clearly been

re-cut. All but two of the identified pottery vessels from **81327** (type 3.7 and Curle 11) can be dated no earlier than the mid 2nd century. This, along with the absence of later 3rd-century fabrics or forms, suggests a mid-3rd-century end-date for this feature group.

Shallow circular pits **80277** and **80288**, immediately to the north of east-to-west drainage ditch **81357** may have been dug as water pits. Both were cut by plough marks from Phase 7, and **80277** contained mid to late Antonine samian, providing a *terminus post quem*.

?Industrial activity

(Fig. 3.50)

A thin but fairly extensive horizon of charcoally sand with burnt clay and large flints, layer **80131**, occupied much of the site of Phase 2 roundhouse **80220**. Some peripheral areas had been removed by the evaluation trenching but associated features **80179**, **81362** and **80109**, which contained this material in their fills, give an indication of its likely extent. The layer was elongated, orientated east-to-west, and had filled shallow undulations in the subsoil surface. A narrow strip of coarse, white sand with burnt and unburnt clay, and iron pan running along each edge, may indicate a repetitive activity involving water. The charcoal was at its most dense alongside the clay material. While the sand strip and areas of clay suggest that layer **80131** was an *in situ* deposit the subsoil beneath **80131** was unburnt, implying that the burning had not occurred at ground level.

Removal of **80131** revealed a group of small post-/stake-holes and shallow pits. Structure **81363** has been conjectured from seven small post-holes and two small (?) pits, all containing the distinctive charcoal with burnt clay fragments seen in the deposit above. The post-holes were all rounded in profile, with a diameter of *c.* 0.2m and *c.* 0.15m deep. No soil-marks indicated the positions of posts, which suggested they had been extracted when the structure was demolished. Although they were closely set they did not form a coherent plan, but merely indicated the structure's location. The pits were effectively shallow hollows. The feature fills suggest either that the layer **80131** was contemporary with the posts, or that the posts had cut through the layer.

Almost all the *c.* 1.8kg of pottery from structure **81363** came from two deposits. A high proportion of identified tableware might be partly explained by the fact that more than half of the forms are samian, a type which may be identified from small sherds. The uniformly low average sherd size may indicate intense activity and high traffic levels around the structure. All of the identified forms and fabrics are consistent with a late 2nd-century date, the most closely datable samian forms being Hadrianic or early Antonine. An East Gaulish sherd from Trier might date to the later 2nd–mid 3rd centuries, but the absence of any forms specific to the 3rd century or later suggests an accumulation end-date no later than the late 2nd or early 3rd centuries.

Adjacent to structure **81363** but beyond the likely extent of any building here were three circular clay pads, **80179**, **80109** and **81362**, which had been consolidated with large packed flints. While **81362** was in poor condition, and could have been little more than a simple hearth, the others displayed a common and more structured form. Each consisted of a circular patch of large flints, 1.0–1.4m in diameter. These were densely packed, laid in a single course and covered by a layer of yellow clay. The flints appeared to sit upon the subsoil surface rather than within a cut, although **80109** lay within a slight hollow. The clay showed signs of some burning, although this was not intense and had caused only a slight reddening to the surface. Clay pad **81362** was more amorphous,

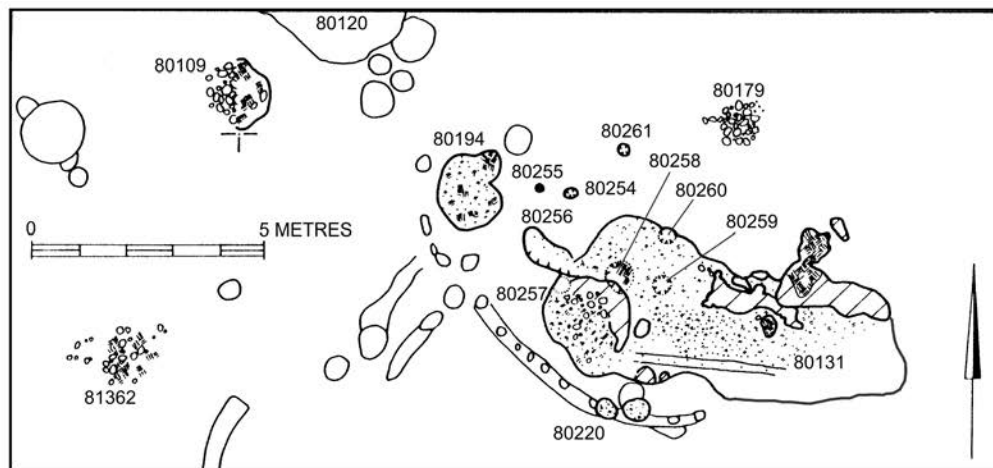


Figure 3.50 Area 8 Phase 5: plan of layer **80131** and associated features forming structure **81363**

being made up of lightly fired clay amongst a loose collection of flints. A surrounding spread of charcoal may have emanated from its use.

This evidence allows several interpretations. An archaeologically 'invisible' sill-beam construction might have replaced an ageing and unfashionable roundhouse, but no clear ground plan emerges. If the remains are viewed in the light of a shift in the main settlement focus in this part of the settlement towards the north-to-south roadside, it may have been a backyard area used for industrial activities. The complex matrix of the clay suggests it had been re-used, but there is sufficient evidence from adjoining features to indicate that it was generated locally. While the charcoal was not analysed, debris from ironworking, which occurred around buildings **80104** (Phase 5) and **81356** (Phase 6), was conspicuously absent, although slag was recovered from pit group **81308** (below). The hard surfaces and the ash and charcoal could indicate a range of activities — both bleaching and dyeing, for example, make use of charcoal, firm surfaces and water.

A group of small shallow pits and a narrow steep-sided trench at the south-east edge of the site, **81308**, also produced evidence of burning. The pits were shallow and filled with black charcoal and sand. The east-to-west linear component terminated in a butt-end at the pits and had been cut by the latest of them; it was filled with dark grey sand, along with burnt clay and flint and ironworking slag. Being situated between spread **80131** and well **80136**, which was also backfilled with charcoal and burnt clay, it may have related to these features. Total excavation yielded pottery weighing 6.099kg, the average sherd size and the recovery of large proportions of individual vessels indicating rapid deposition. The identified forms may all have been contemporary, and most of them fit within the early–mid 2nd century. A Central Gaulish samian dish is Hadrianic or early Antonine. All in all it resembles a typical mid-2nd-century assemblage, with older forms (*e.g.* globular beakers) progressively replaced by new ones (poppy beakers). New forms (*e.g.* high-shouldered pots with burnished line or lattice decoration; globular or round-bodied medium-mouthed jars) have become established, and out-number but have not replaced wide-mouthed jars forms. The 'new' straight-sided dish form (type 6.18) emerged to replace the Gallo-Belgic platter derivatives. The medium-mouthed jars had clearly been used for cooking. The presence of a single waster did not necessarily imply an undiscovered kiln nearby, but this is a possibility; indeed, this group lay at the limits of excavation.

Well **80136** (Fig. 3.51)

In the centre of Area 8, this had been built within a circular pit 3.8m in diameter. The total depth of the well was only 1.5m (20.38m OD) but the modern water table was not far below the surface here. The well pit cut Phase 4 enclosure ditch **80134**. The shaft, which had been sunk directly over the centre of the ditch, was slightly offset within the eastern part of the pit and had been lined with re-used barrel staves.

The well shaft and the base of the pit had been backfilled with black, charcoal-rich occupation debris. Any hopes of recognising primary fills relating to the 'open' phase were thwarted by the persistent groundwater, which turned the lower shaft fills into slurry. Overlying the immediate post-use backfill **80145** was a horizon of green/grey clay with a recorded 'organic content', which may indicate the level to which the well was first filled. Subsequent slumping would have created a shallow — and probably wet — hollow, within which vegetation probably flourished. The thick uppermost fill of the well resembled the overlying Dark Earth.

The lining was made up of 22 vertical barrel staves, the bottoms of some of which had been sharpened and pushed into the ground. Some were complete — this, along with flat horizontal plank **81507**, found *in situ* across the top edge of the shaft on the southern side, suggested that the shaft lining had survived to its full height. The lengths of the staves used varied from *c.* 0.95m to 0.70m so the top edge was uneven, assuming the water did not rise above the top of the shortest stave. This would indicate an absolute level no higher than 21.08m OD for the water surface during this phase. The shaft, originally circular, had deformed into an ovoid shape (2.1m x 1.4m) as pressure from the surrounding soil had flattened the north side.

The structure was not simply a bottomless barrel lowered into a hole, as not all the staves were set the same way round. Analysis by Darrah (Chapter 8) showed that they came from several vessels. They were joined and braced around the eastern side of the structure by fragments of curving wooden straps; although these had peg-holes, they had been nailed to the inner face. One (**81503**) was fastened close to the lip of the shaft, another (**81504**) near the bottom. The upper band was supported at one point by a square-sectioned stake, **81525**, which had been wedged under the strap as an internal diagonal prop. The partial collapse resulted in the edges of some of the staves overlapping, while gaps opened between others. Additional verticals had been placed to bolster the northern side where strap **81504** passed through the lining. The added

support timbers were not barrel staves but an assortment of posts, slats and planks. The space behind the lining of the well had been packed with an occupation debris deposit, **80249**. On the southern side three stakes driven into this packing had been cut off level with the top of the lining; horizontal plank **81507** had been placed over these stakes. This could have served as an access platform. The well was roughly constructed, which may suggest that it supplied stock or industry, and was quite unlike the finely manufactured timber wells seen elsewhere at Scole.

Palynological samples yielded pinnules of bracken, perhaps derived from litter or bedding, as well as the taxa usually associated with weedy grassland (Wiltshire, Chapter 9).

The lower fill produced 1.38kg of pottery, with a relatively high proportion of samian. Most of the coarse forms such as beakers and dishes were no earlier than the Hadrianic or early Antonine (*c.* AD 125–150) periods. The samian is mostly Antonine, with decorated and stamped pieces dated more closely to the early and middle periods. These layers contained no fabrics or forms associated with the late 2nd century or early 3rd centuries, no colour-coated beakers and no later 3rd–4th-century material. The assemblage probably dates to no later than the late 2nd century. 1.77kg came from the upper 'slump' fill. While there is little difference in date between the primary and final fill assemblages of the construction pit, their *compositions* differ — that from the construction fill is dominated by co-existing form types with a concentration of Flavian–Trajanic globular beakers with simple everted rims (type 3.7 — five examples), while there are seven possible examples of beaker 3.10. The two final backfill layers contained more residual material (about a third of the vessels identified being late 1st–early 2nd-century forms).

Structure **80104**

(Figs 3.52 and 3.53)

The distinctive sub-rectangular sand layer **80140** represented a building in the south-west part of Area 8, *c.* 5m north of the east-to-west road frontage in this period. It was apparently *c.* 6m wide and at least 7m long, of which an area measuring 6m x 4m was identified by the 0.04m-thick sand layer; it may have rested on sill beams. While it was aligned end-on to the side road, gravel ?path **80112** could have connected it to the main north-to-south road. There is some ambiguity here since a subsequent building occupying this site, **81356**, was oriented towards the main road; the shift in alignment between the two phases of building might reflect the increasing importance of the main road relative to the side road.

The sand floor was compacted. While it first appeared that hammerscale from ironworking was present, soil analysis suggests that this was actually vivianite; it is not clear how this was deposited (Macphail, Chapter 9). Both the small finds (Cowgill, Chapter 8; Seeley, Chapter 7) and the Dark Earth evidence (below, pp178–9) from the locality indicate ironworking, but no structures associated with this industry were found *in situ*. The lack of secure stratification has hindered pottery analysis. A Central Gaulish samian cup of a type that persisted in circulation until the end of the Roman period was excavated from floor layer **80104**.

Phase C (Area 7) (Fig. 3.54)

Southern boundary area

The timespan over which the Phase C developments unfolded is not clear but it appears that the southern boundary ditch **70458**, from the previous phase, was soon in need of reinstatement after being cut away by Phase B pit **70329**. The new boundary, ditch **70323**, was both wider and deeper (0.95m) than its predecessor. It also extended westward beyond the rear of the old enclosure, which went out of use. The west side of the enclosure may simply have shifted further in that direction, but the excavation limits prevented study. During the excavation of the bottom of this ditch a concentration of snail shells was recovered. Identified as *Anisus Leucostoma*, these are associated with shaded damp sites — perhaps the ditch had been shaded by a hedge (Fryer and Murphy, Chapter 9). Altogether 2.55kg of pottery was retrieved from this ditch. The primary fills are dated to the late 2nd–early 3rd centuries AD and the secondary fills (producing over half the assemblage) to the early–mid 3rd century, while the upper fills contained some intrusive 4th-century pieces from the overlying Dark Earth.

Well **70344** remained in use, and was repaired at least once. A basal layer of accumulated dark peaty silt indicated a period of abandonment before backfilling with a grey/brown silt during the later 3rd century. Pit **70363**, 3m wide and 0.7m deep, was inserted slightly off-centre into the backfill of the well. Although its fill resembled that of the well, its edges were quite distinct. A small pottery assemblage suggested a similar date to that from the backfill of the well, and included at least one pottery cross-join. The pit's function is unknown, but the similarity of its fill and contents with the backfill of the well probably indicates a short life.

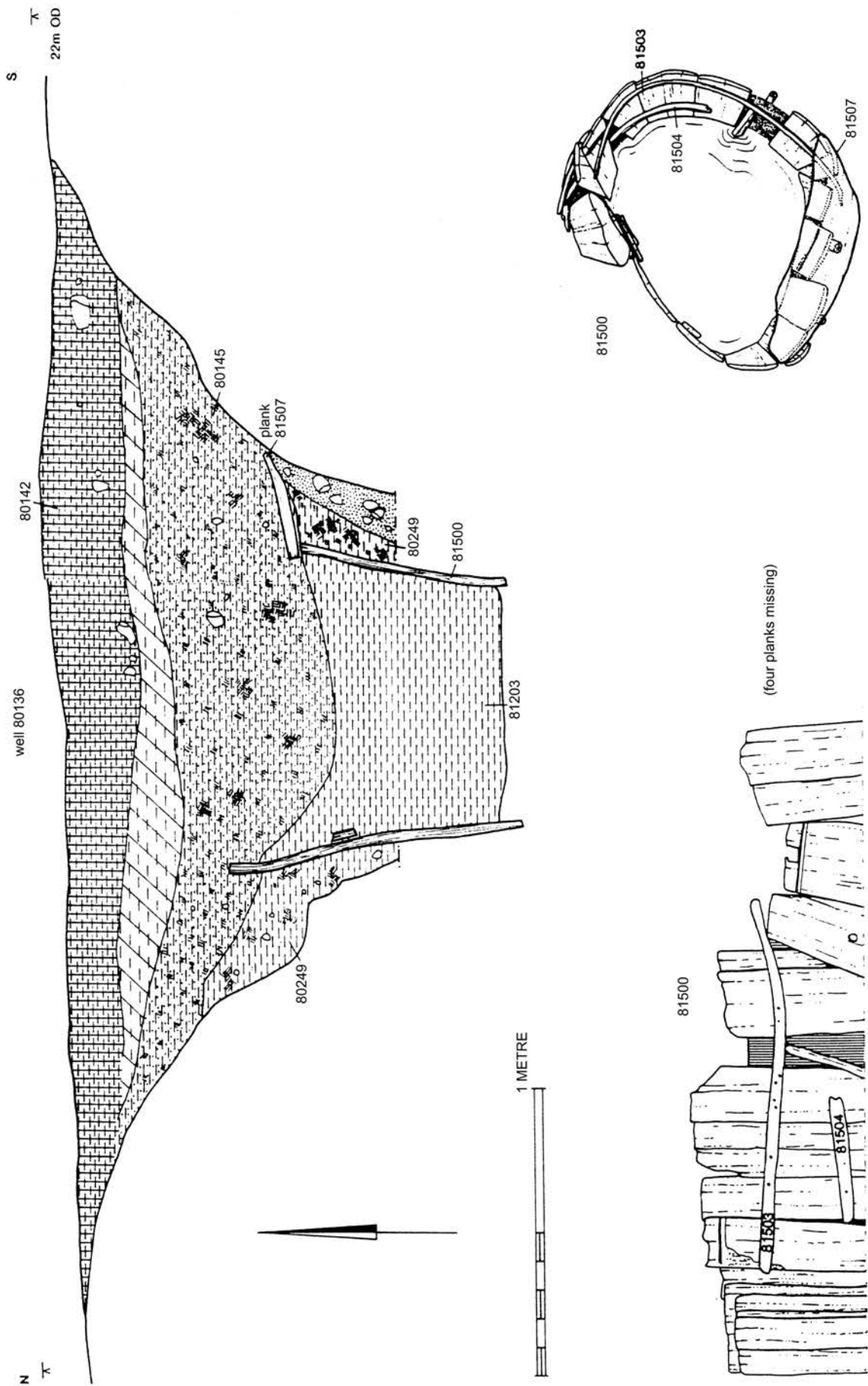


Figure 3.51 Area 8 Phase 5: well **80136**, section and elevation

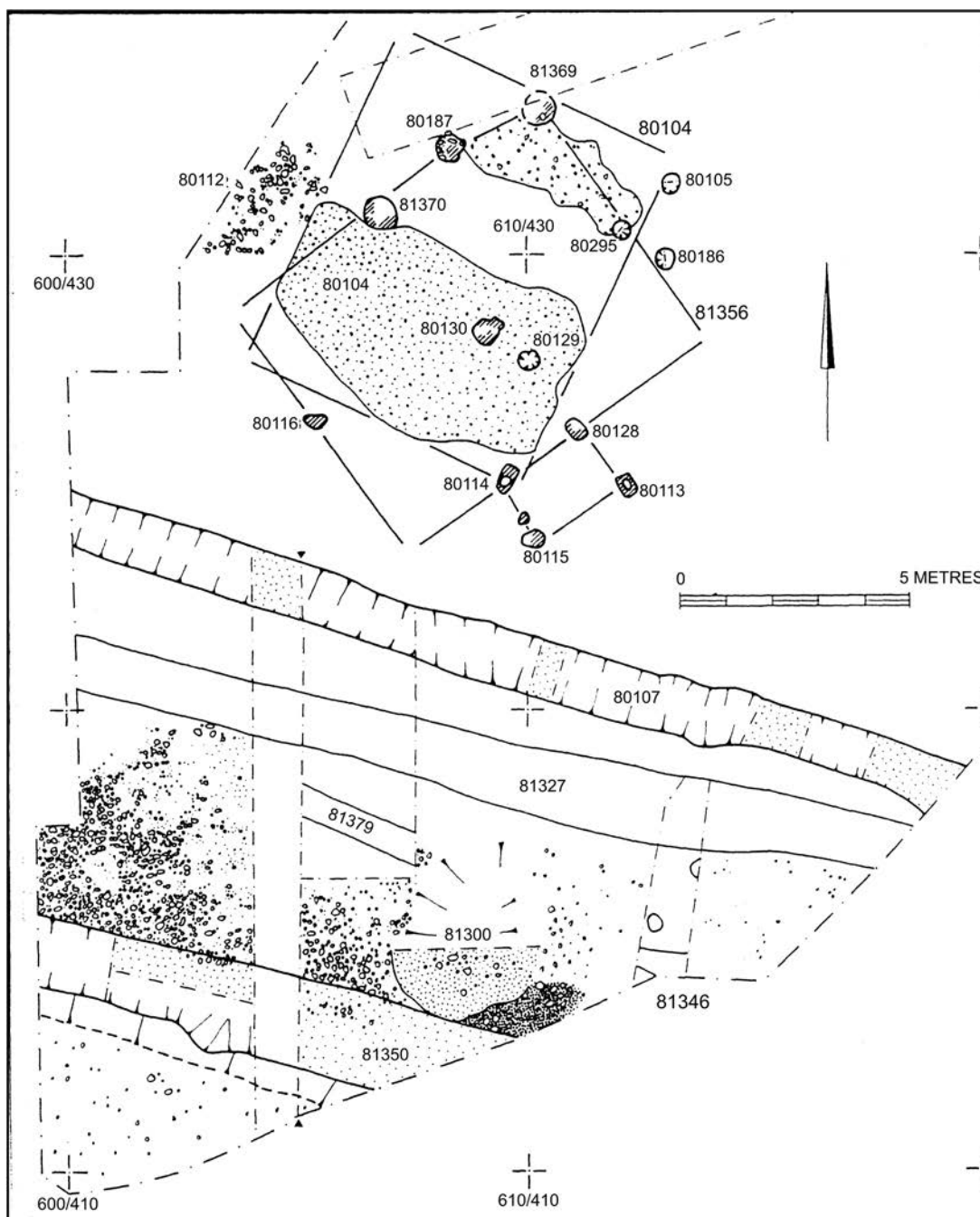


Figure 3.52 Area 8 Phase 5: plan of structure **80104** and associated features

East-to-west road 70246
(Fig. 3.54)

The line of the road at the northern end of Area 7 was identifiable more easily from its flanking ditches than its cobbled surface, which was very poor. Individual flint cobbles were of up to 0.12m but they were only laid in a single course. None survived east of the later north-to-south ditch **70047**, probably due to recent ploughing. The cobbles that survived further to the west had probably been afforded some protection by the overlying Dark Earth layer (Phase D, below). While the poor condition of the metalling could have resulted from degradation, during use or soon after, it might have represented only *ad hoc* repairs to a rough track. Flanking ditches **70250** and **70268** were 8m apart and spanned the north end of the site, apparently continuing to both west and east. They were 1.1m wide, 0.25–0.5m deep, and contained a silty grey brown fill, although the very top dark fill of **70268** was indistinguishable from the overlying dark soil **70093**.

The 1.45kg assemblage of pottery from ditch **70250** contained no diagnostic 4th-century fabrics or forms, and is generally consistent with a late 2nd–mid-3rd-century date. Ditch **70268** produced a much larger

collection of pottery (12.58kg). Its primary fill yielded fabrics and forms consistent with a mid-2nd–mid-3rd-century date, including a rilled Nar Valley Reduced Ware sherd (although a joining piece was also retrieved from one of the upper fills), a mid-2nd-century carinated bowl in a Wattisfield grey ware fabric, and common mid-century forms such as ‘dog dishes’ and jars with simple everted rims. Later fills contained Oxford Ware, 4th-century Nene Valley wide-mouthed forms and Shell Tempered Reduced Ware jars. Altogether, the assemblage suggests a ditch that was open in the mid 2nd–3rd centuries, but had fallen into disuse by the middle of the 4th century AD. The apparent discrepancy in the terminal dates for the flanking ditches probably indicates continued maintenance of **70268**, perhaps reflecting the proximity of Phase D structure **70525** (Phase D, below), dating to the 3rd century.

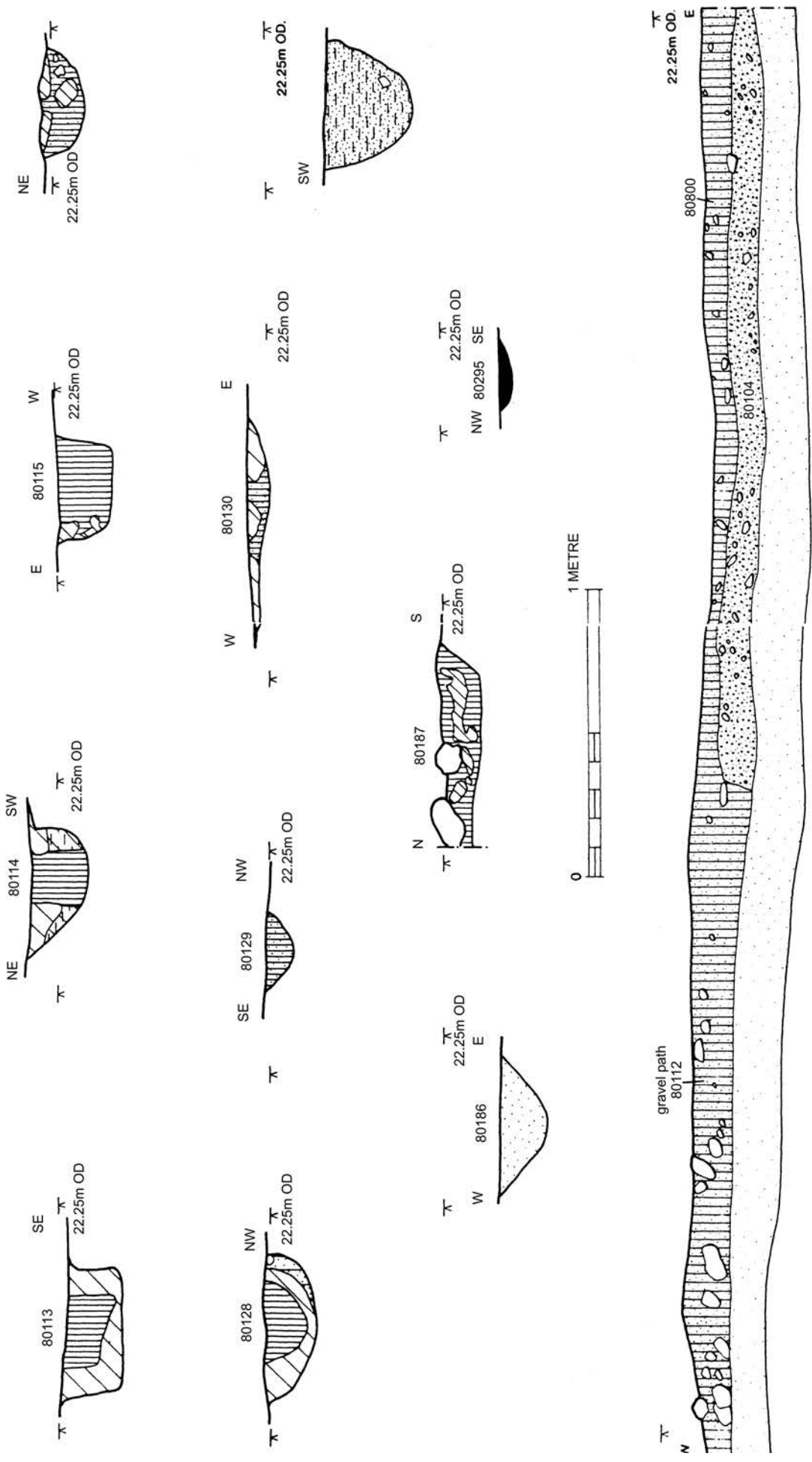


Figure 3.53 Area 8 Phase 5: sections through structure 80104 and associated features

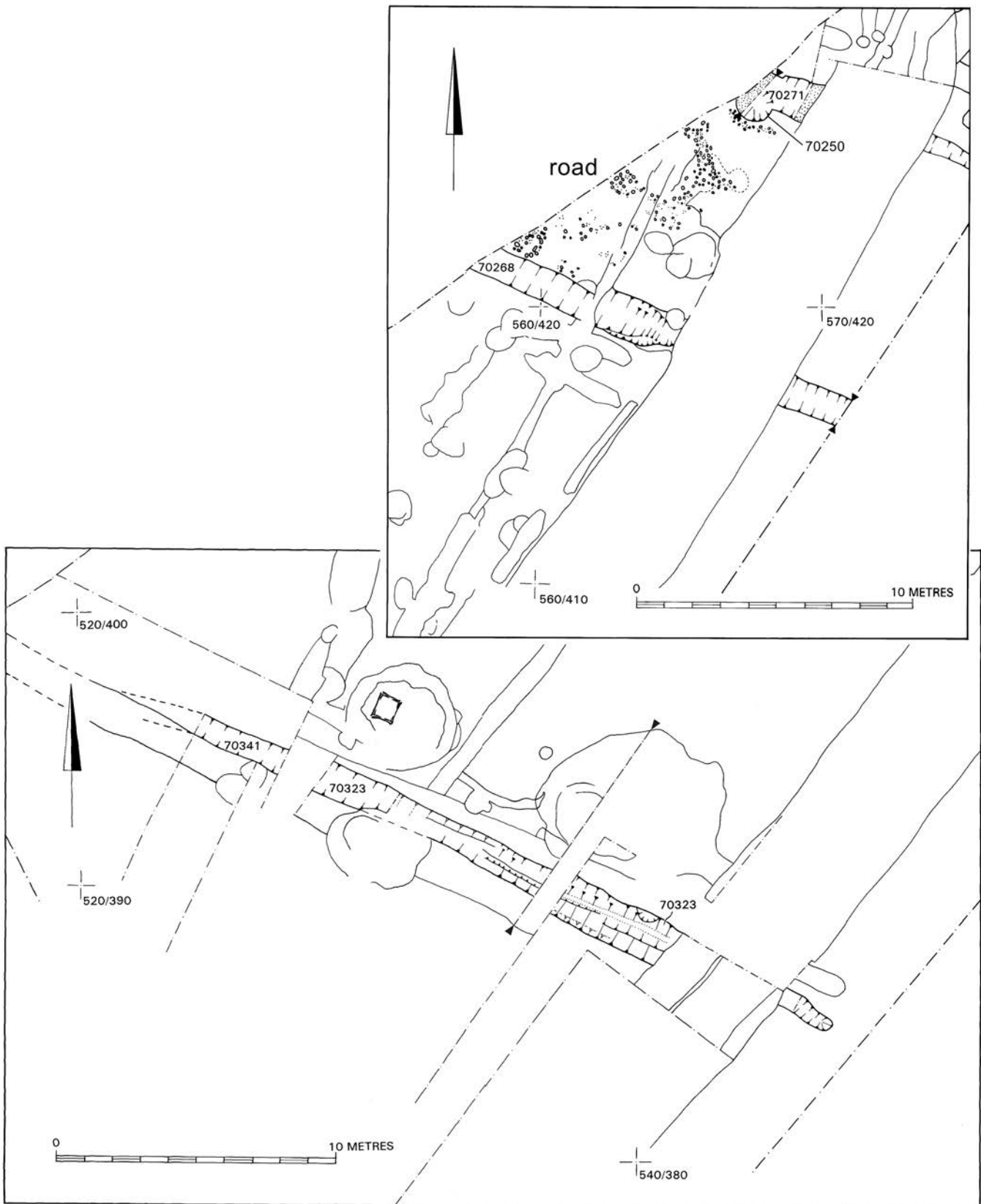


Figure 3.54 Area 7 Phase C: plan of features in southern and northern areas

Phase 6 (Area 8, 3rd century)/Phase D (Area 7, mid-late 3rd century)
(Figs 3.55–3.63)

Building **80104** in the south-west corner of Area 8 was replaced and a square, plank-lined well was constructed a little to the east, although the Phase 5 barrel well may have continued in use. The boundaries of the enclosure in which they stood, which appeared to have been a specialised industrial area, were re-established. Hearth linings, metalworking slag and scrap iron were found at the southern end of the enclosure and in a range of features. Iron slag had been used to augment/repair the road surface; in one small area the flints had been bonded by vitrified sand, perhaps indicating nearby smithing. The area may have become drier, since the major east-to-west dyke was now filled in. Its line may have been perpetuated by a fence. The final cutting of the most south-westerly plot boundary extended as far as the side-road or track.

This period saw the earliest clear evidence of structures in Area 7 (**70525**), while a north-to-south roadside ditch encroached upon the side-road established during Phase C. The southern settlement boundary ditch here was re-dug for the last time, and Dark Earth accumulated inside the enclosure and within a quarry pit at the south end of the site.

Open features of this phase in Area 8 were filled with Dark Earth, which also overlay the surface of the side road. The fill of the barrel well had settled before the Dark Earth formed above it. Fresh timber was probably used for the planks in well **80271**, and a dendrochronological date from one of them (**81565**) suggests that its parent tree had been felled in AD 153–198.

Phase 6 (Area 8) (Figs 3.56 and 3.57)

Phasing

Building phases **80104** and **81356** are dated from the mid-2nd to at least the late 3rd centuries. Pottery from layer **80110**, which was sealed beneath **80104**, suggested a date after the mid 2nd century for their construction. The concentration of slag and iron objects with hammerscale is interpreted as evidence for smithing within the final enclosure, with the building(s) directly associated with this industry (Cowgill, Chapter 8; Seeley, Chapter 7). In consequence, it is argued that the latest building continued to be occupied as long as smithing was taking place. Substantial features containing metalworking debris included enclosure ditches **80126** and **80283**, whose infills are dated ceramically to the late 2nd–3rd centuries.

Dating the abandonment of the latest building is difficult. Ironworking debris was recovered from the Dark Earth and occupation might therefore have continued into the 4th century, yet the Dark Earth appeared as a blanket layer over the site of the building. This stratigraphic problem is examined in the Dark Earth section towards the end of this chapter (pp178–9).

East–west road

The latest ditch in the road sequence, **80107**, was only 0.3m deep and 1.3m wide and was filled with dark soil. This ditch, whose line was indicated by a linear concentration of finds in the overlying Dark Earth, lay some distance to the north of the surviving road surface. It may have represented a boundary between the thoroughfare and the property to the north, rather than a roadside drain. Perhaps by the time it had been created the road had declined into an informal track. It was infilled late in the duration of Phase 6, just prior to the end of occupation at the site.

The metalling was flintiest along the southern side of the road, the north side perhaps having been repaired with gravelly sand. Much ironworking slag was collected from the surface of the road and particularly from a charcoal-filled hollow, **81300** (Fig 3.52). In some areas the flints were bonded by a concretion interpreted as vitrified sand, a by-product of smithing. This material might have originated next to the road and have been disposed of casually over its surface, but probably did not represent planned repair.

Shallow late ditch **80107** produced little pottery; material from the overlying Dark Earth included beakers in a variety of forms and fabrics, a Central Gaulish samian plainware bowl, a straight-sided triangular-rimmed dish, and two mortaria, one in East Gaulish samian form. Much of this may have been deposited by the middle of the 3rd century, despite the later date associated with the Dark Earth.

Ditch **80143**

(Fig. 3.56)

Ditch **80143**, the final phase of the east-to-west boundary ditch crossing the middle of Area 8, was only 0.4m deep, and sloped gently towards infilled ditch **81357**. An oval hollow at the eastern end may have been related to drainage. Black sand at the western end of the ditch contained the only finds: a collection of 1.15kg of pottery featured eight different fabrics, including a fragment of Horningsea grey ware. Finewares include significant amounts of red colour-coated fabrics, Nene Valley colour coat, and a very large proportion of samian, which is also the only import. White ware fabrics include Nene Valley material. A samian Dr 37 bowl (in the style of Butrio-Attianus: Dickinson, Chapter 6, samian no. 2) had joining sherds in well group **80136** and ditch group **80126** (top layers); Dr 31 was represented by three different vessels, one of them stamped (no. 22 on Dickinson's stamp list, unidentifiable 1 V). Most of the vessels from post-use infill layers appeared no earlier than the mid 2nd century; a variety of diagnostic fabrics and forms, along with the absence of other late 3rd- and 4th-century material, suggest a mid-late 3rd-century end-date for infilling.

Building **81356**

(Figs 3.56)

A group of nine small post-holes or pads loosely defined a rectangle at a contrasting angle to that of the surface associated with Phase 5 building **80104**. The six post-holes and three post-pads all shared a distinctive yellow clay fill, sometimes surrounding a central post-pipe. The most substantial post-holes formed a rectangular porch of 2m x 1.7m, presumably to the south-east of a main cell which measured 8m x 6.5m. This latter element seemed less substantial, represented by five shallow clay pads. It is assumed that earthfast posts were unnecessary due to the innate strength of the building, and the main structure may have featured sill-beams. The deeper porch post-holes are reminiscent of roundhouse building technology (Reynolds 1995).

Although the porch faced obliquely towards the east-to-west side road, the building's alignment related more clearly to the main Roman road. A spread of flints along its north-west side was interpreted as a path leading from the main road. These had been set into the top of the Roman topsoil, beneath which was buried a bronze bell containing melon beads (s.f. 85374). Its position beneath a possible threshold suggests it may have been of ritual significance (Seeley, Chapter 7). It is unclear whether gravel path **80112** was primarily associated with this building or with its predecessor. It may have served both, although there is no physical evidence for an entrance on the western side of **81356**.

Well **80271**

(Plate 3.12; Fig. 3.57)

Despite its square shaft lined with horizontal planks, this well differed from the typical 'Scole-type' in that the lining planks were simply butted together, there being no internal frame. The shaft was 0.9m square. The top was discovered c. 0.4m below the level of the surrounding subsoil, and the base was estimated to lie at 20.3m OD, making the feature c. 1.6m deep. The east and west sides of the lining had been butted up against, and inside, the north and south sides so that they acted as braces, with the planks simply wedged in place. The lack of support on the east and west sides had resulted in a partial collapse; two posts driven vertically into the south-west and south-east corners were braced by a connecting diagonal timber.

The lining had been pressed against one side of the oversized pit and secured in place with a mixture of clay and chalk. This mix also appeared around the base of the well, and was probably both a structural support and a filter to prevent sand clogging the inside of the well. The shaft was filled with a homogeneous fine dark grey silt, which represented both the primary silting and immediate post-use backfilling. A complete cow skeleton lay above the top of the shaft lining. This was articulated but had been cut in two, the hind quarters having been detached in order to fit the carcass in (Plate 3.12; Baker, Chapter 9). The head and neck lay over and beyond the south edge of the well lining, suggesting that this was the top of the shaft and that the well was, or had been, opened out at this level on the south side. The cow was sealed beneath a thick capping of yellow clay which had slumped into the shaft as the carcass decomposed. The hollow thus created was filled with material from overlying layers. A dendrochronological date from lining plank **81565** suggests felling in AD 153–198 (Tyers and Groves, Chapter 8). The timbers in this structure

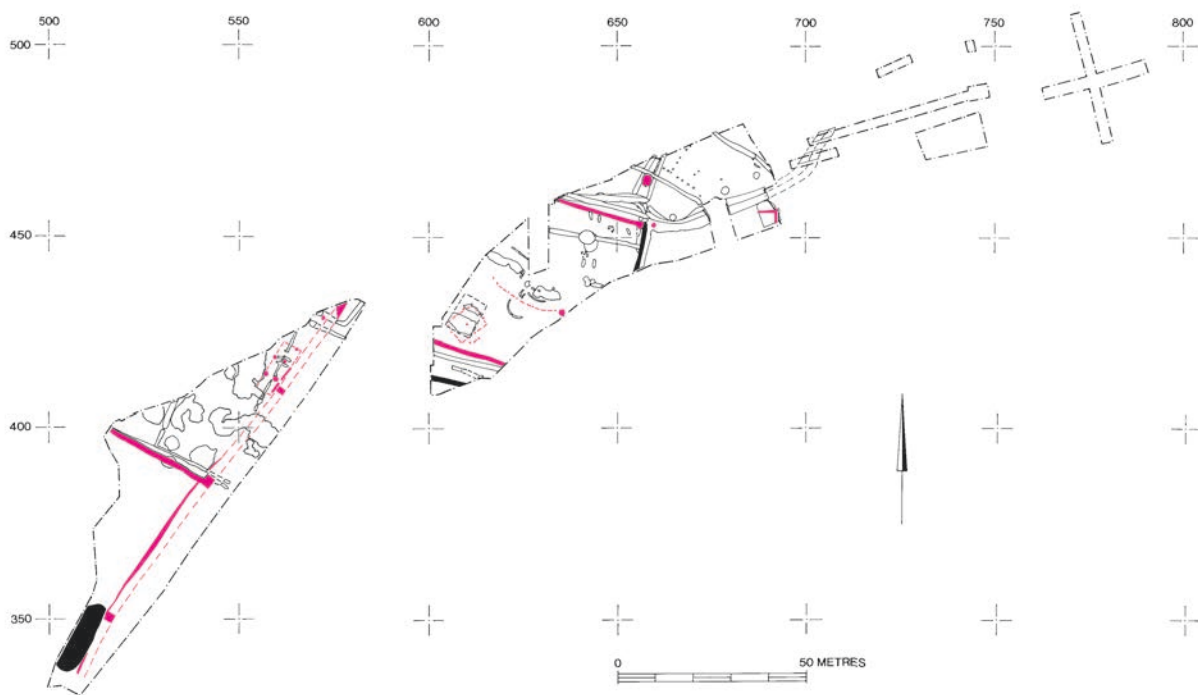


Figure 3.55 Areas 7 and 8: Period 4 plan, Phase D/Phase 6

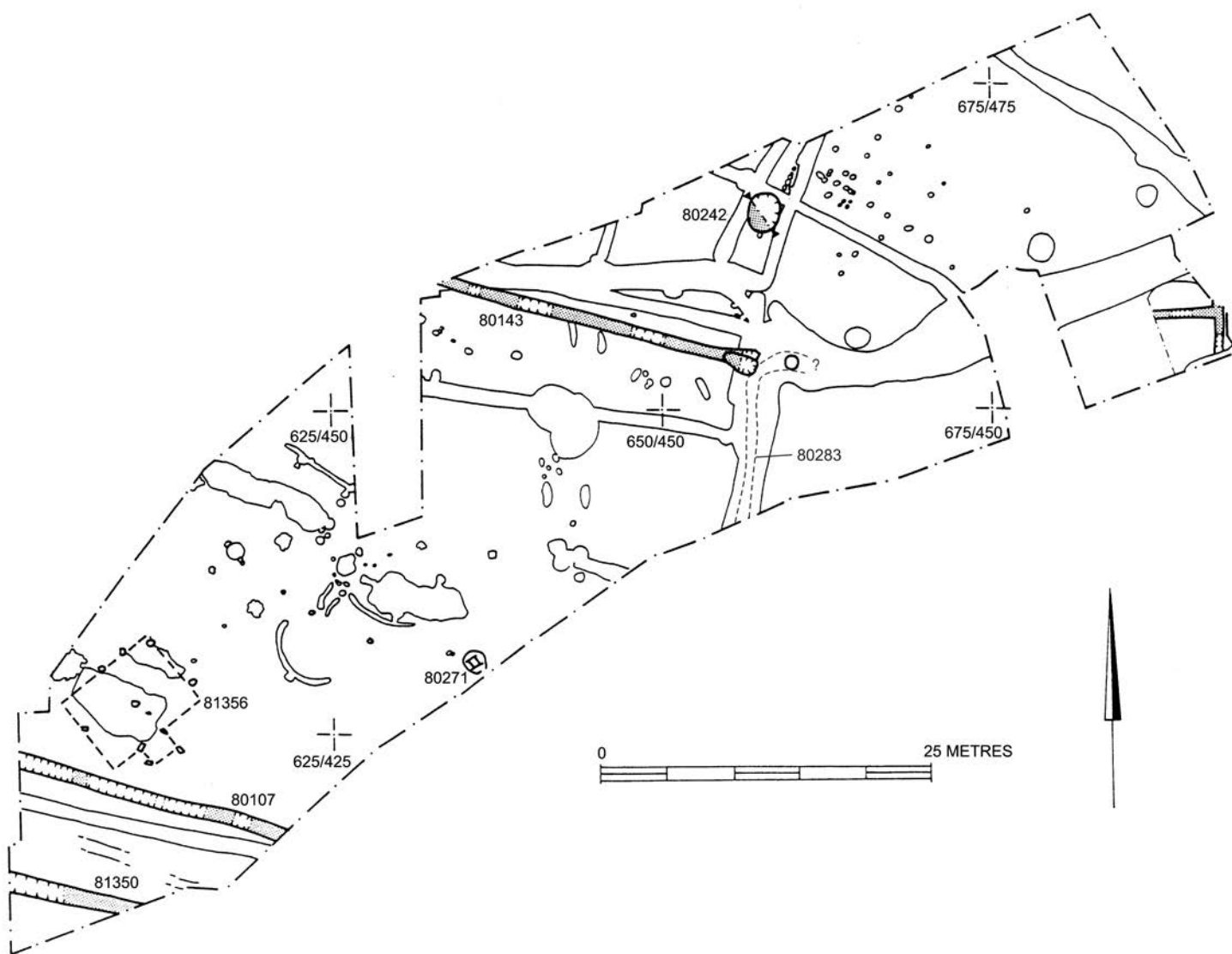


Figure 3.56 Area 8: plan of Phase 6 features

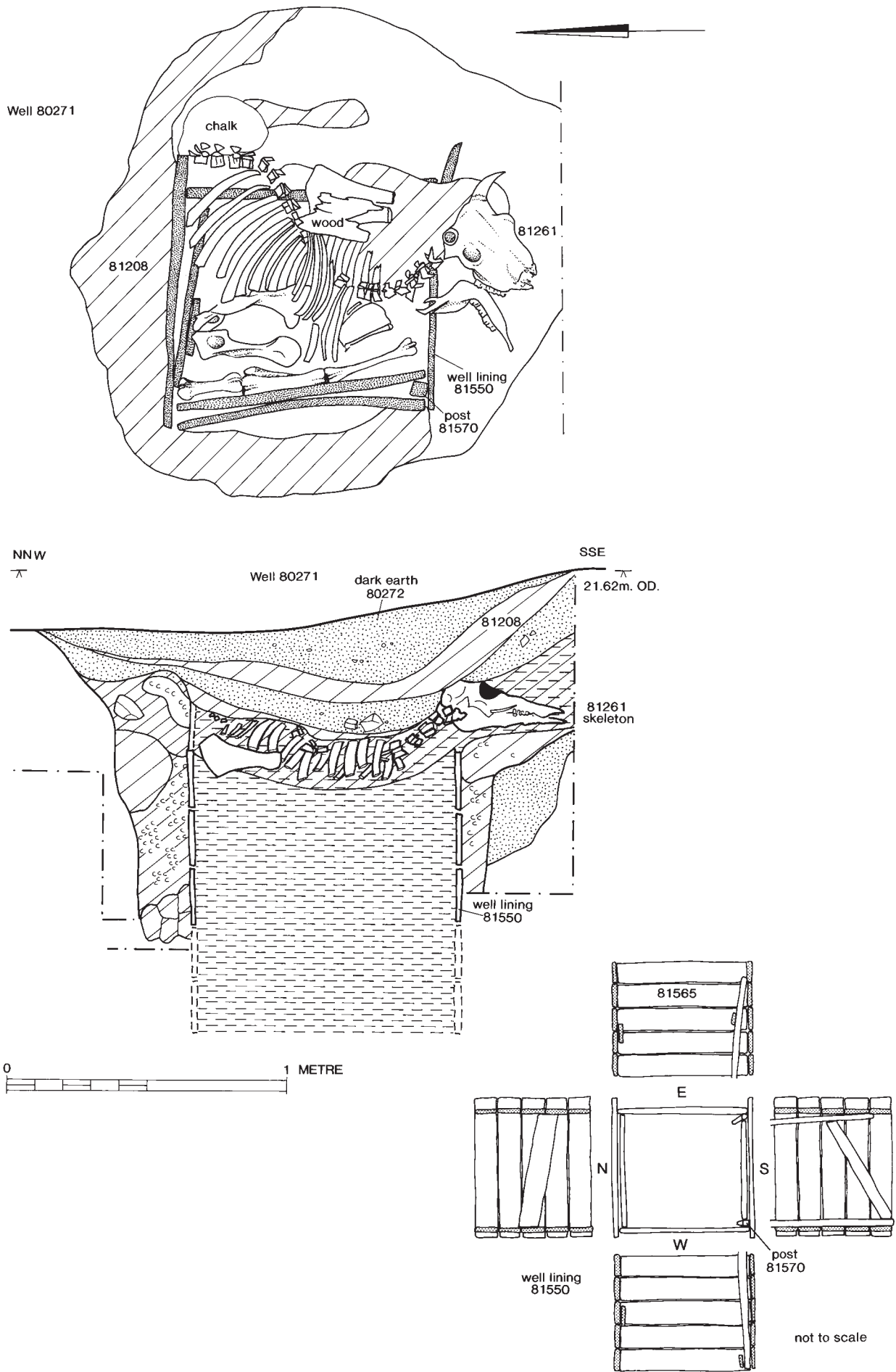


Figure 3.57 Area 8 Phase 6: well 80271, plan, section and elevations



Plate 3.12 Area 8, cow skeleton in top of shaft of well 80271

were re-used, however, and it is suggested that the well's use began either very late in the 2nd century or early in the 3rd.

Pottery was sparse. Only one identifiable form was recovered from the earliest well disuse layer, a plain-rimmed, straight-sided dish commonly dated from the mid 2nd century onward. Pottery assemblages from the pit and the top of the shaft have broadly the same date-range, beginning around the mid 2nd century. The clay layer, which sealed the cow in the top of the shaft, included a late 3rd–4th-century shell-tempered sherd. It is not clear from this how long the well was actually in use and it can only be dated to a broad period between the late 2nd and the end of the 3rd century. It was sealed by the Dark Earth from Phase 7.

Three other shallow pits, of varying dimensions, appear to have remained open features for some time and may have functioned as water holes.

Phase D (Area 7)
(Figs 3.58–3.62)

Ditches 70074 and 70523
(Figs 3.58 and 3.61)

Ditch 70074 was the latest feature in the southern boundary sequence. It was very shallow at the western site limit but increased in depth to the east, and was 0.5m deep where it terminated in roadside ditch **70523**. The lower fill had been cut by this north-to-south ditch, foreshortening the previous boundary by at least 3m — presumably this was a response to changes in the configuration of the Roman road. Its gritty sand basal fill contrasted with an upper fill of Dark Earth.

Ditches 70523 and 70046 (two cuts of the same ditch), roadside features recorded beneath the western edge of more recent ditch **70047**, were observed intermittently running almost the entire length of Area 7. The main ditch was up to 2m wide with an excavated depth of 0.7m, but the unevenness at the base provided clear evidence of re-cutting. Ditch

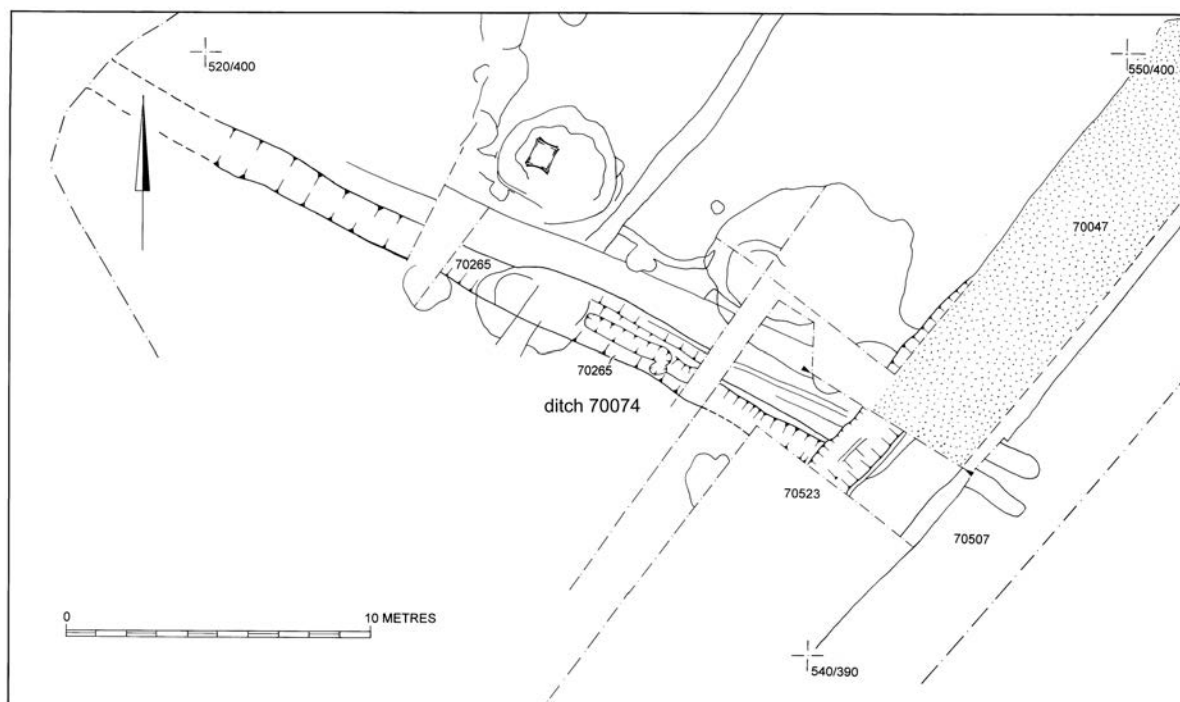


Figure 3.58 Area 7 Phase D: plan of features in southern boundary zone

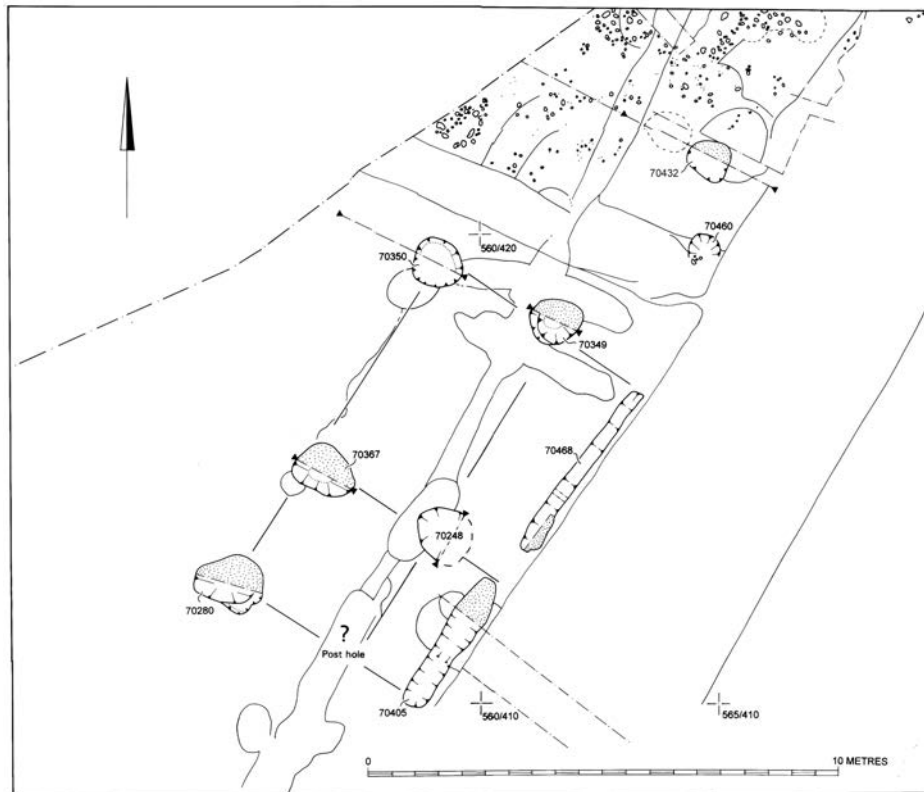


Figure 3.59 Area 7 Phase D: plan of building 70525 and adjacent features

70523 had a dark, silty, lower fill, but at the junction with the east-to-west boundary ditch 70074 they had a common fill of Dark Earth. At least one phase of this Roman ditching ended c. 6m from the south end of the site, at the west edge of later medieval–post-medieval ditch 70047. While we cannot be certain that this evidence represents the complete picture, it suggests that the ditch was confined to the settlement area and did not extend into the open area to the south. Unfortunately we cannot tell if the main road — which now cut the earlier roadside enclosure — had shifted westward or had simply increased in width. Whichever was the case, this provides the first evidence for a flanking ditch in Area 7 since the late 1st or early 2nd centuries (Ditch 70377, Phase A). This may indicate that the Roman road underwent a significant refurbishment at this time (*Discussion*, pp192–3).

The roadside ditch was one of the few features to produce coins, these occurring in the main ‘Dark Earth-type’ fill close to the junction with the southern boundary ditch 70074. A total of fifteen ranged in date between the late 3rd and mid-4th centuries. Similar coins were recovered from the later medieval–post-medieval ditch 70047, and many of these may simply have been redeposited from the Roman ditch. This coin evidence appears at odds with that offered by the assemblage of 3.29kg of pottery — the twelve fabrics from the primary fill, including late 2nd–mid-3rd-century samian and 3rd-century Rhenish, Pakenham and Colchester colour coats, all date from the middle of the Roman period. The main fills of the ditch also contain material of this date (a single sherd of Oxfordshire Red Colour Coat from the 4th century may have been intrusive: Lyons and Tester, Chapter 6). Taking everything together, a

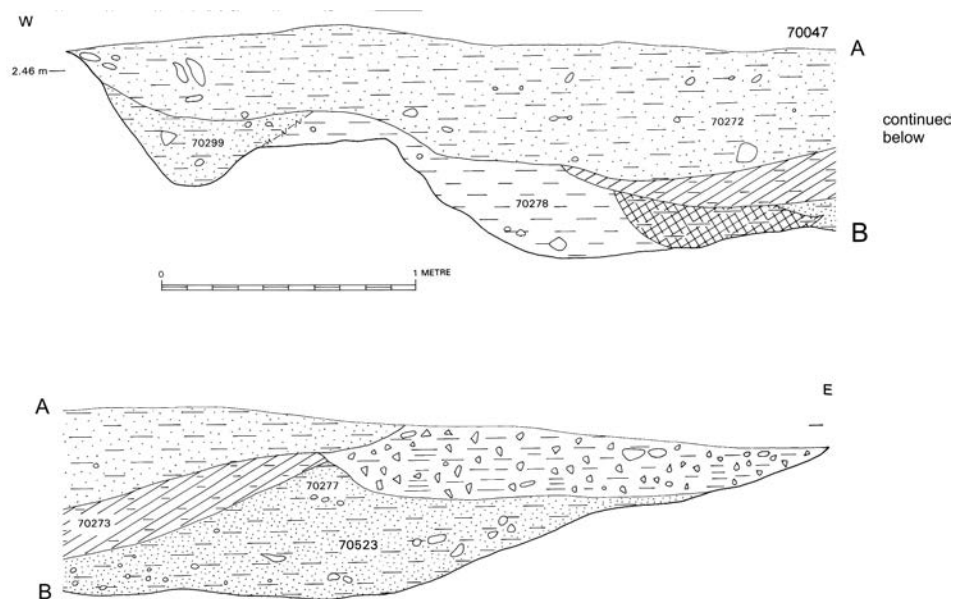


Figure 3.61 Area 7 Phase D: south-facing section through ditch 70074

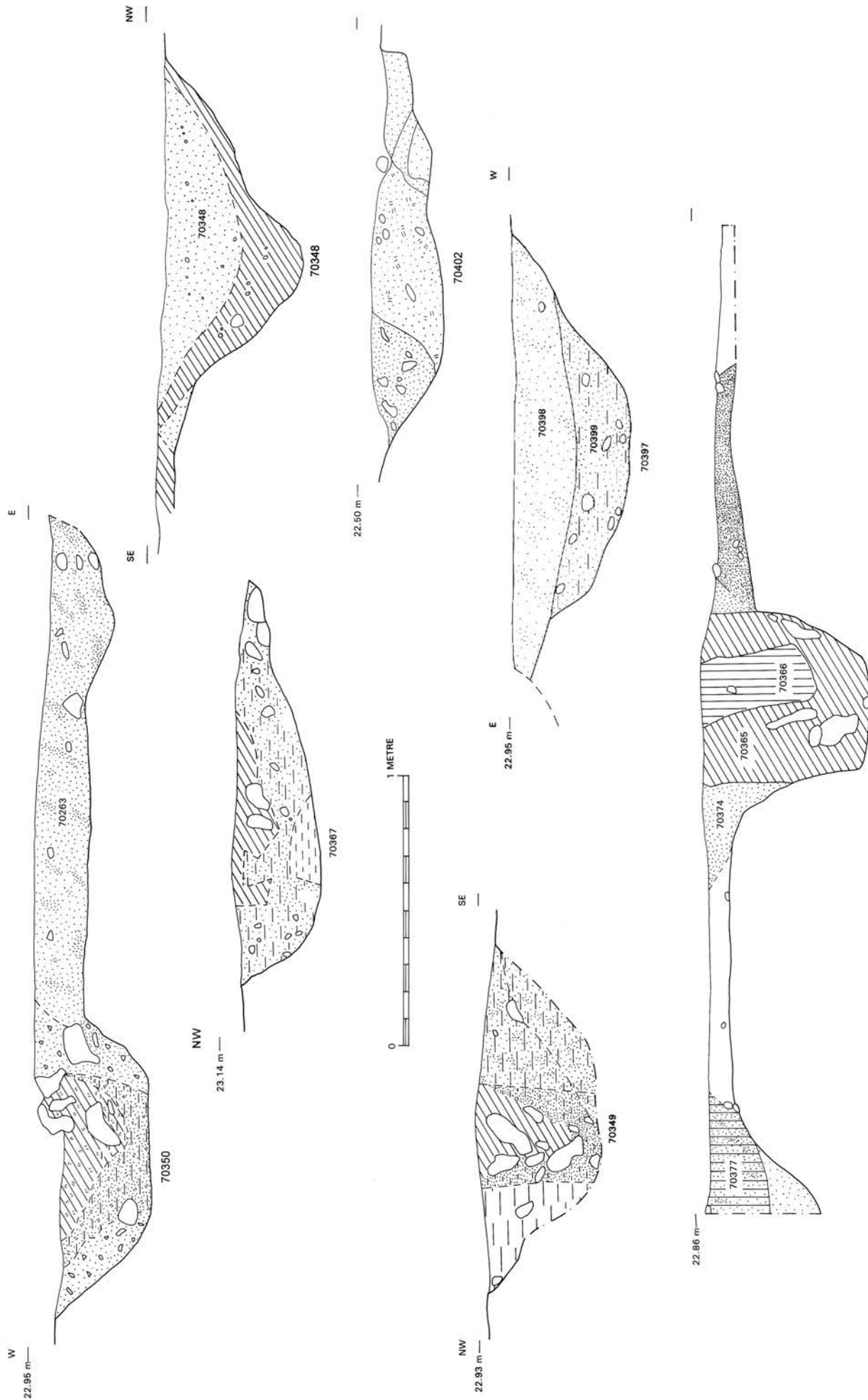
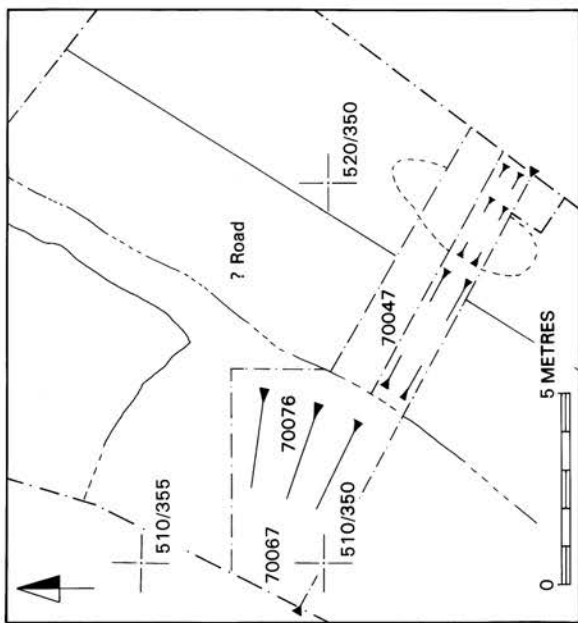
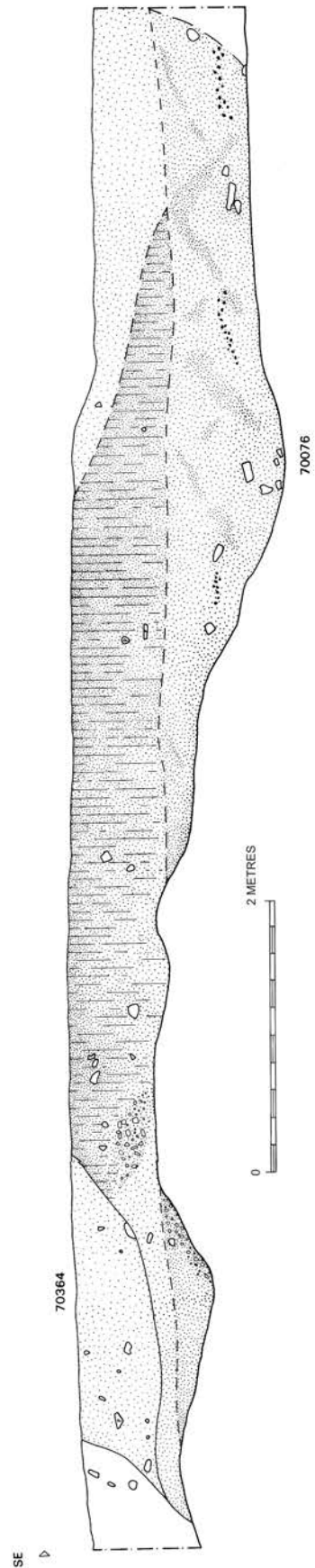


Figure 3.60 Area 7 Phase D: sections through building 70525



NW
 24.18 m.O.D



3.62 Area 7 Phase D: quarry pit 70076, plan and north-facing section

mid-3rd-century starting date seems likely, with the coins dating the upper fill to the 4th century. The overlying and adjoining Dark Earth excavation units yielded 4th-century pottery and coins.

Building 70525

(Figs 3.59 and 3.60)

A post-and-sill-beam structure lay in the angle between the east-to-west side road and the main Roman road in the northern part of Area 7. Its long axis measured at least 5m. Four post-holes formed a rectangle 3m deep and 5m wide, while 2m to the east a beam slot (70468) 4m long fronted onto the new roadside ditch 70523. The post-holes varied a little in depth, with the northern pair (0.4m and 0.45m deep) being more substantial than the others. Although very shallow, the slot was square-sided and filled with a dark, virtually stone-free sandy soil.

The slot was not parallel with the rectangular plan of the posts, despite being positioned midway between them, but was instead parallel with the 'new' roadside ditch 70523. This might be interpreted as evidence that the primary structure pre-dated the new north-to-south ditch 70523 but that the slot — maybe indicating a porch or veranda — was a later addition. However, a laying-out discrepancy may have resulted in a parallelogram plan.

The south wall of the first structure (post-holes 70367 and 70248) lay midway between the two slots, 70468 and 70405; this suggests that the post-holes might have been shared between two neighbouring buildings. In alignment with the rear post-holes of 70525 at the south end of the new construction lay an apparently strategically-sited 'pit', 70280, but this feature might have been either a natural feature or another ephemeral post-hole.

A similar interpretation may hold for the post-holes to the north of the building. Post-hole 70432 stands out in particular, both for its strategic alignment with the main building post-holes and the size of the gap between it and post-hole 70349 — the latter lay 5m distant, corresponding with the width of the main building. Other shallow ?post-holes lay in and around the area of the side road; their relationships with the road itself are not fully clear, but they are probably best viewed as post-dating it. Post-hole 70460 lay at the intersection of the two roadside ditches, and was perhaps related to these features rather than forming another element of the structure.

Quarry pit 70076

(Figs 3.55 and 3.62)

Major 3rd-century changes to the main Roman road are also suggested by a roadside quarry pit *c.* 40m to the south of the suggested settlement boundary. This was up to 20m wide and *c.* 1m deep and had a slightly flattened, oval shape. Its 'Dark Earth'-type fill could be sub-divided into two layers, an unusually homogeneous upper deposit and a ?podzolised lower grey fill. The suggested 3rd-century date of infilling suggests it was opened when alterations were carried out to the road, perhaps making it contemporary with roadside ditch 70523.

A significant collection of ten coins all date from the later 3rd century, apart from a coin of Hadrian (Davies, Chapter 7). A total of 12.52kg of pottery included a wide range of forms, most of them dating from the latter part of the 3rd century but continuing into the 4th. A relatively late date is indicated by the presence of flanged vessels. Micromorphological samples were examined as part of the Dark Earth investigations and the results are discussed by Macphail *et al.* (Chapter 9) and in the discussion dealing with the Dark Earth later in this chapter.

Period 5 (late 3rd–4th century)

Area 6

(Fig. 3.3)

The 3rd century saw the abandonment of the industrial complex. Following the silting of the leat and the abandonment of the makeshift well, the remains of the 'maltings' were finally buried by riverine silts. Field enclosure 60041 was probably one of the latest features in this area.

Enclosure 60041

To the north of trackway 60087, this irregular sub-rectangular enclosure straddled earlier ditch 60012. The ditch dimensions varied little and typically it was *c.* 0.4m wide and *c.* 0.2m deep, with a grey sand fill. Close

to the northern corner a short length of ditch projected outward *c.* 2m at right-angles. Only a small amount of residual pottery was found, but the enclosure was clearly 'late' as it cut a riverine silt deposit 60028, which in turn sealed ditch 60012. The silt was almost certainly related to the many deposits that overwhelmed the leat and brought the maltings complex to an end. On this evidence 60041 could be late Roman or even Saxon. Its similarity to a later prehistoric enclosure (Phase 2, 38036) recorded in Areas 1–4 north of the Waveney suggests that it was of a type familiar to the native population, but which had fallen out of use close to the settlement.

Silt deposits

These accumulated both in the tops of features and across the area generally in widely dispersed layers. The most substantial build-up occurred within the top of the leat. Following the abandonment of revetment 60116, a feature resembling a natural gully continued the line of the leat, but its height above the main leat may simply indicate a temporary course adopted by floodwater. The gully itself was buried by silt, and the leat may have virtually disappeared by the end of the Roman period. Pottery from deposits above the leat complex indicates a late 2nd–mid/late 3rd-century date; a single sherd of Oxfordshire Red Colour Coat may have been intrusive. Fine Grog White Ware, Ellingham/Colchester mortarium and slightly micaceous ?Brampton mortarium body sherds were retrieved, and it might be temporally significant that all of the pottery recovered from this ditch is oxidised, in contrast to that from features already discussed.

Areas 7 and 8

Phase 7 (Area 8, late 3rd–mid 4th century)/Phase E (Area 7, late 3rd–4th century)

Stratigraphic evidence of this period was very poor. However, pottery and other artefactual evidence continued to accumulate within the Dark Earth at least into the mid 4th century, and coin deposition persisted into the last quarter of the century. The Dark Earth formed over most of the excavation area, including the Oakley palaeochannel, during the final phase of occupation, after which the buildings on both sides of the Roman road were abandoned.

Phase 7 (Area 8)

(Fig. 3.63)

The palaeochannel

A 25–30cm thick layer of 'Dark Earth' over the palaeochannel was stratigraphically comparable with the Phase 7 Dark Earth layer over the main part of the site. Micromorphological analysis confirmed ancient earthworm activity, which suggests it was only intermittently wet (Macphail *et al.*, Chapter 9).

The layer was largely machined away, and finds recovery restricted to spoilheap collection and hand-digging of the lower few centimetres. A large quantity of animal bone was identified as almost exclusively cattle bones and teeth (Baker, Chapter 9). During excavation the quantity of large bones — and an apparent predominance of jaws — was striking. This faunal concentration was peculiar to the Dark Earth within the channel, and may indicate a dump from a primary butchery site. Many of the bones were weathered, suggesting this had been a surface deposit.

End of Roman occupation

Boundary ditches 80143 and 80107, the latest features that could be identified, had both filled with Dark Earth. Ditch 80107 was probably dug to redefine the Phase 6 building 81356 boundary, as there was no evidence for a new ditch on the south side of the road and no repairs were carried out on the existing surface. Pottery from 80107 suggests that it had been infilled by the middle of the 3rd century, and certainly by the late 3rd. The probability of late occupation in both Areas 7 and 8 is discussed further when the Dark Earth is considered (below).

Phase E (Area 7)

Phase D building 70525 had been discovered almost directly beneath the ploughsoil and in direct association with Dark Earth. It is suggested that this building continued to be used into the 4th century.

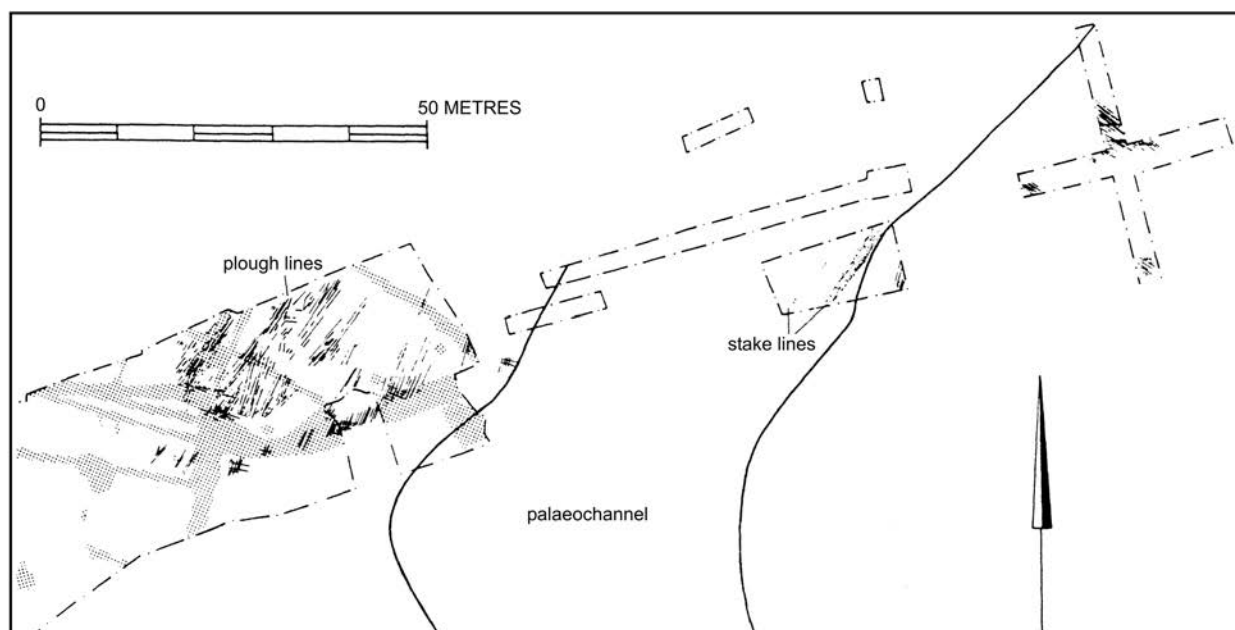


Figure 3.63 Area 8 Phase 6: plan showing Waveney palaeochannel, cultivation marks and stake-lines

The Dark Earth (Figs 3.64–3.74)

Introduction

A Roman-period 'Dark Earth' was recognised by archaeologists in London in the 1940s. Since then, it has been encountered in many other Roman urban centres. Brian Yule's summary and discussion of the London Dark Earths (Yule 1990) identified a range of characteristics common to these deposits: no visible stratification; variable quantities of finds; and a dark (usually black) colour (variations in soil colour seem to reflect individual site conditions). In some cases evidence for urban ploughing (both of Roman and medieval date) has been identified, creating truncation horizons. This has been recorded in London and, in East Anglia, at Colchester (Reece 1980, Yule 1990, Crummy 1984). In many cases Dark Earth layers mark the end of the Roman stratigraphic sequence (infilling roadside ditches in Lincoln: Darling 1977). It has been seen as an indicator of decline — almost a metaphor for urban decay — in the large towns, providing evidence for allotment gardening in the centre of major Roman settlements (Reece 1980). While this view of the significance of Dark Earth in the urban landscape may sometimes be valid, however, in many cases it is contradicted by the length of time over which it continued to develop, which often spanned both the 3rd and 4th centuries. This is clearly at odds with earlier views that such a deposit was simply an abandonment horizon. More recently, the chronologically-staggered 'arrival' of Dark Earth in different parts of Roman London has been seen in terms of a gradual contraction of settlement prior to abandonment, and the accumulation of rubbish on derelict sites. This has been supported by micromorphological studies of the soil (Watson 1998).

Yule advocated an inter-disciplinary approach to future analyses, with the collection and study of artefacts being coupled with scientific analysis of the soil itself. The work of soil micromorphologist Dr Richard Macphail, who has suggested that biological processes

may have been a key element in the soil-formation process, has been crucial to the Scole research. While the traditional interpretations applied to Dark Earth may work in urban contexts, there is increasing evidence for these deposits in more 'rural' settings, notably 'Small Town' settlements such as Pakenham and Hacheston (Suffolk). Here the density of finds (particularly coins) recovered from the Dark Earth by the use of metal-detectors suggests the presence of thriving communities during the 3rd and early 4th centuries. Indeed, this period may even have seen an *increase* in levels of commercial activity at these settlements (Blagg, Plouviez and Tester 2004).

A sample of 'rural' Dark Earth hand-excavated at Hacheston in 1973 has recently been considered in the light of other Dark Earth studies. Although the very top of the soil had been ploughed, this activity could not have accounted for its formation. Furthermore, it contained artefact distribution patterns — including possible rubbish heaps — which probably related to neighbouring buildings. It is in the context of this research that the Dark Earth at Scole was examined.

Extensive sampling of the soil during this study was intended to enable spatial analysis of the distribution of various finds-types. Artefacts were collected in two ways: in bulk from the selective hand-excavation and sieving of gridded Dark Earth units; and by intensive metal-detecting of the soil. The scope of work at Area 7 was restricted by more recent plough erosion, which had incorporated much of the Roman Dark Earth into the modern topsoil (although Dark Earth within the 'quarry' hollow towards the south end of the Area 7 enclosure lay deep enough to be undisturbed by this). Despite this disturbance, the Area 7 coins and pottery display some interesting patterning. It was at Area 8, however, that the Roman occupation surface was best preserved, and this area produced the most striking results. A thick deposit of black sandy soil towards the west of the site thinned out further to the east. Both deposits were clearly related to soil formation, while the presence of an ancient flood

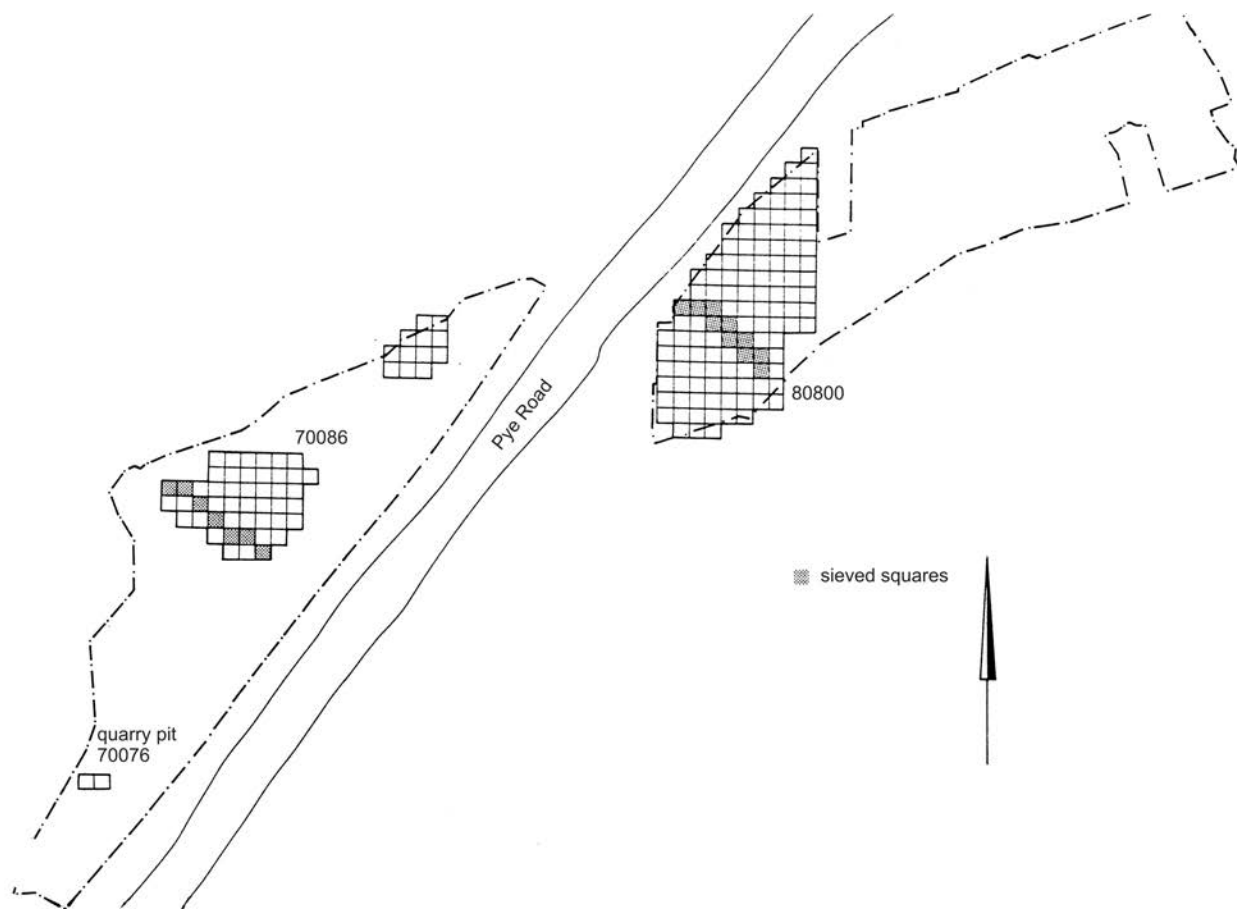


Figure 3.64 Areas 7 and 8: distribution of sieved units of Dark Earth

deposit (Wiltshire, Chapter 9) showed that they had not been disturbed.

A variety of artefact plots was examined with specific questions in mind:

1. Was the Dark Earth a stratified deposit?
2. Are there patterns in the finds distribution? If so, how do they compare between different artefact types?
3. What conclusions may be drawn about the processes of finds accumulation? Were the finds lost or disposed of as rubbish, and how far had the material travelled?
4. What can the combined study of all forms of evidence say about the nature of the Dark Earth?

Appearance and character

The Suffolk Dark Earths produced 31% of all pottery recovered from Areas 7 and 8 (this excludes deposits where the Dark Earth appeared to have accumulated in the tops of ditches) weighing 234kg (Lyons and Tester, Chapter 6); it also produced at least 75% of the small finds (Cooper and Seeley, Chapter 7). These figures make clear the potential significance of the Dark Earth.

The apparent homogeneity of this soil is its most distinctive feature, yet a comparison of the pottery dating evidence from particular Dark Earth ditch fills reveals significant chronological variations. While Dark Earth is absent from ditches that infilled during the 1st and 2nd centuries, it is a major fill component in ditch fills of the 3rd century. The clearest examples of this phenomenon are the 4th-century fills of roadside ditch **70523** in Area 7, and ditch **80107** in Area 8. Indeed, both of these features

were almost entirely filled with Dark Earth. In both cases the profile of the deposit was uneven, with this blanket soil slumping into the ditches. We can therefore be confident that the Dark Earth *en masse* had some internal stratigraphic structure — that it was not simply the result of *catastrophic* mechanical or biological reworking, but involved a gradual development from the late 2nd/early 3rd century onward. However, the majority of small finds (Cooper and Seeley, Chapter 7) and bulk finds from the excavations were recovered from the Dark Earth. Although many originated during the 3rd century, others (such as the brooches and early coins) did not. It was seldom possible to establish the vertical location of finds within the Dark Earth with any precision. The apparent inclusion of finds from open occupation surfaces into the Dark Earth that formed above, suggests some level of biological re-working.

Soil studies

Details of these analyses are presented within Chapter 9. A summary of the results, including some generalisations about the possible composition of the soil, is presented here.

In Area 7 samples were examined from the main Dark Earth deposit **70086** (close to the southern boundary of the occupied enclosure) and from the ‘quarry’ pit, **70076**, suggested to lie outside the main area of settlement. In Area 8 samples were taken of Dark Earth over building **80104** and its replacement **81356**, at the side of this building, and in the ‘field’ area to the rear. Other samples

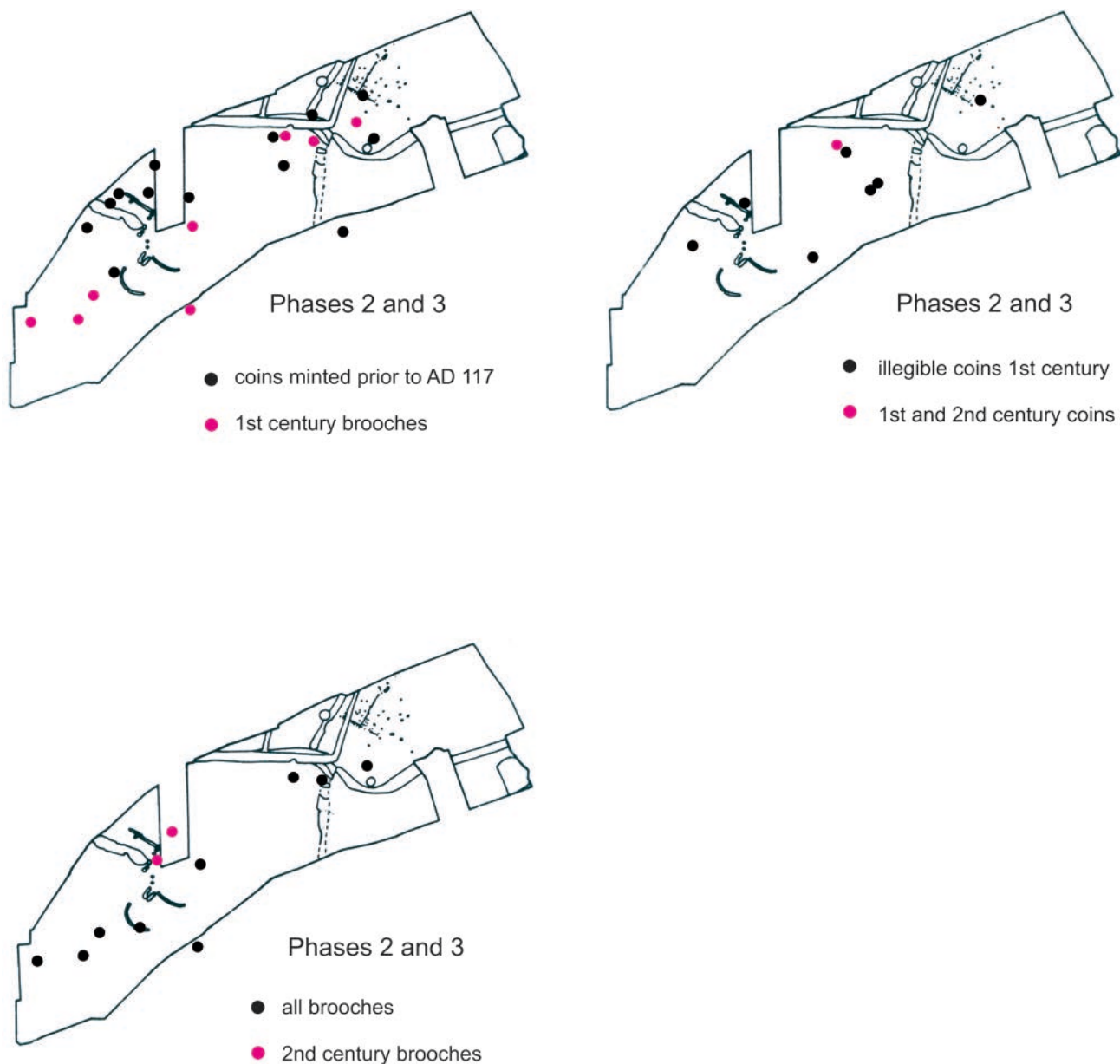


Figure 3.65 Area 8 Dark Earth: distribution of coins and brooches, Phases 2 and 3

of different soil types came from the possible floor *80131* (which sealed the larger of the two roundhouses, and lay below a Dark Earth), from plough-lines, and from fills within the Waveney palaeochannel.

It was clear that a podzol had already developed on both sides of the modern A140 by the Roman period, and that the topsoil was probably acid and infertile (Macphail *et al.*, Chapter 9). By contrast, the Dark Earths on both sides of the Waveney were highly organic, with a high pH indicating enhanced levels of biological activity. Although producing similar results overall, individual samples varied in several respects. In Area 7 the main Dark Earth layer contained a ‘major domestic component’, possibly consisting of dung along with hearth-debris, ash and general midden waste. These findings contrasted with those from the quarry pit, which included more coprolitic material and bone, in a ‘pellety’ fabric, and less ash and hearth debris. The latter samples may be compared with the *plaggen* soils — formed by heavy farmyard manuring of poor acid soils to improve

fertility — seen in Holland. The Dark Earth in Area 8 broadly resembled the ‘quarry-pit’ Dark Earth from Area 7, containing a similar soil fabric with low levels of domestic debris and high levels of animal dung. The soil pH was lower than in Area 7, possibly due to a lack of calcareous material, but was raised appreciably above the natural level and would have allowed earthworm reworking. (This is offered as a possible explanation for the recovery of 1st-century artefacts by metal-detector from apparently ‘later’ Dark Earth deposits.)

Chemical analysis of samples from beneath the ‘floor’ of buildings *80104/81356* and outside show high and low phosphate levels respectively. This contradicts what might be expected and suggests that the phosphate levels may not be related to activity at the building, but to the subsequent spreading of midden material over the top. Alternatively, however, they may be unrelated, with the soil post-dating the chemical signature which formed before the soil had properly developed.

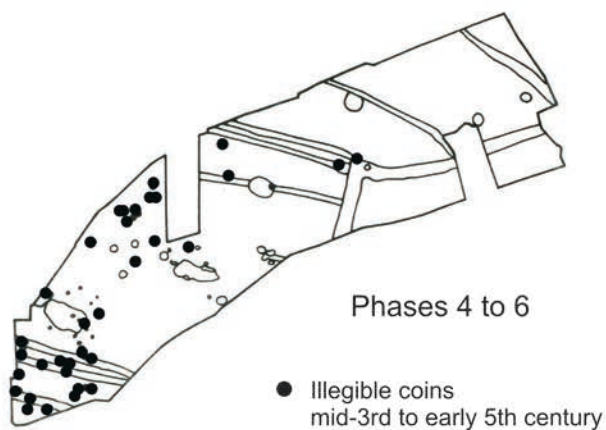
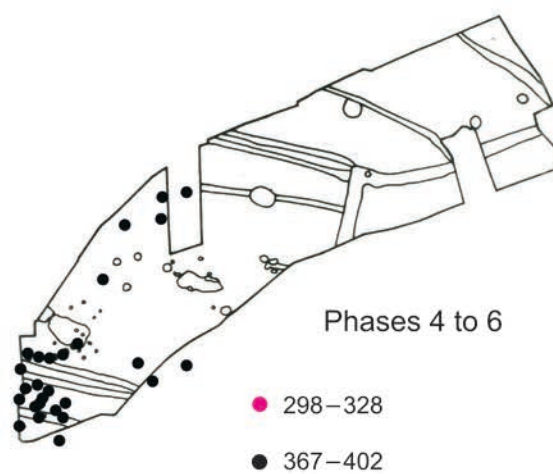
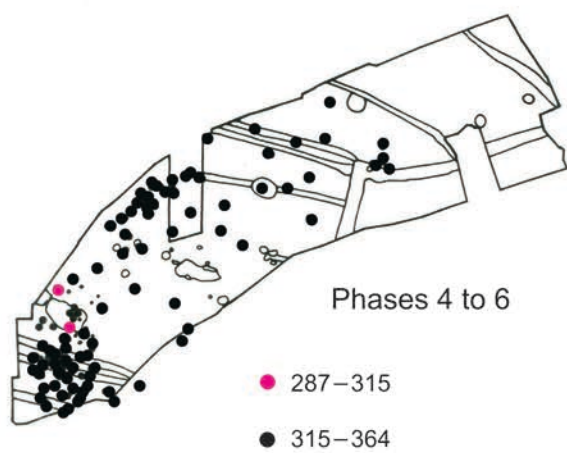
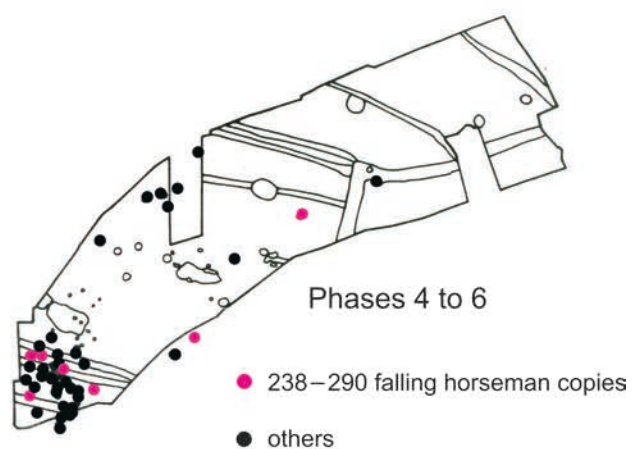
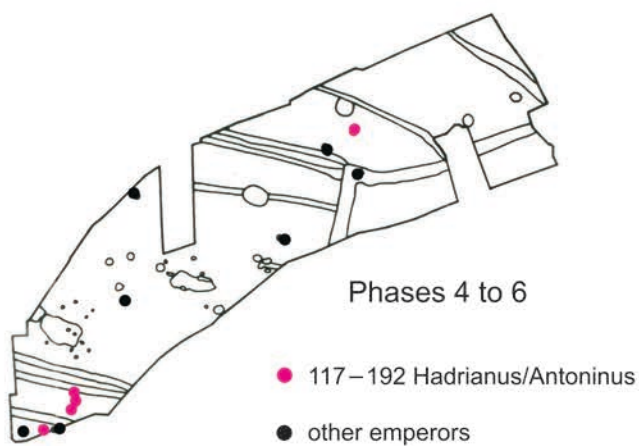


Figure 3.66 Area 8 Dark Earth: distribution of coins, Phases 4–6

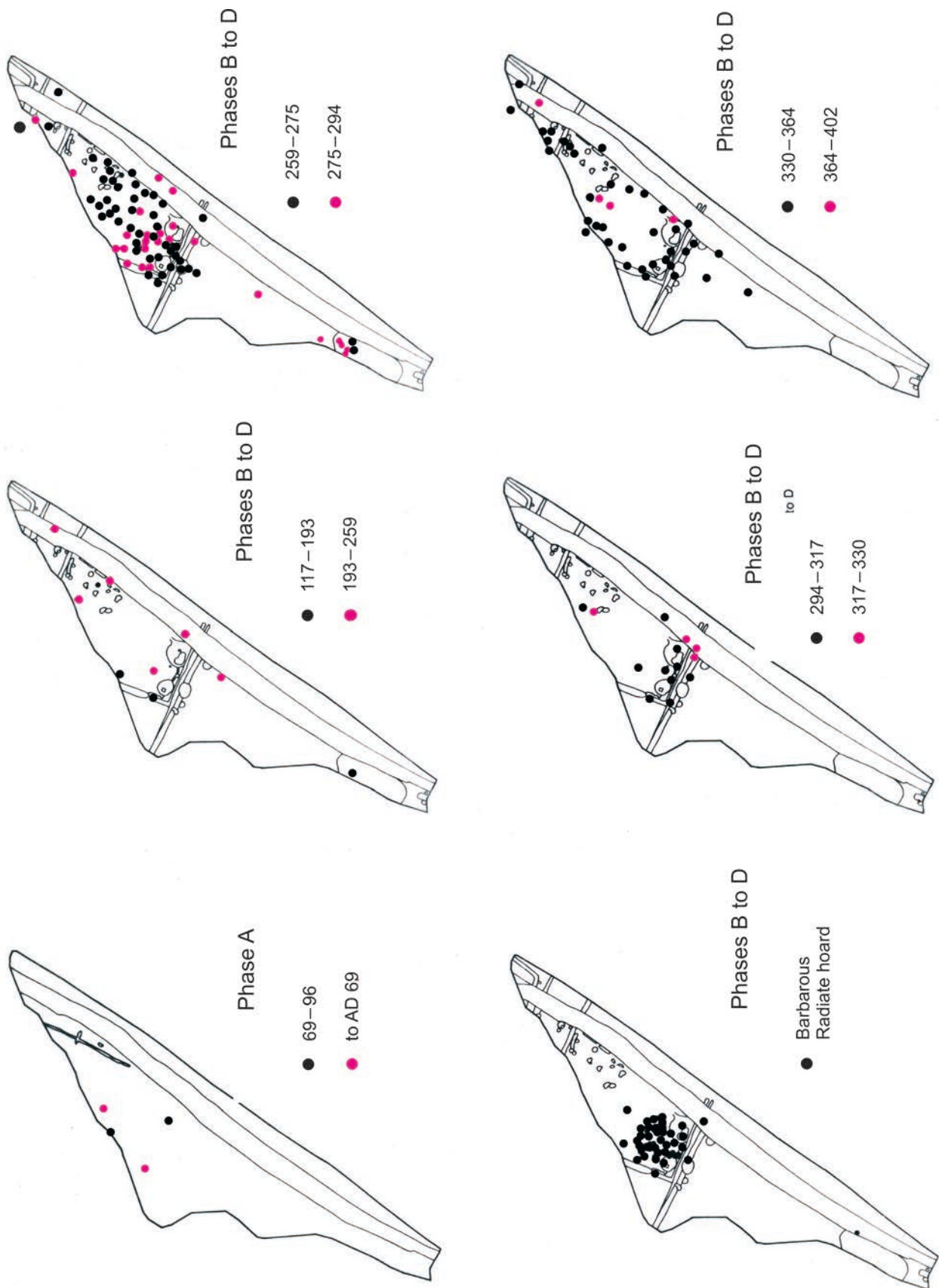
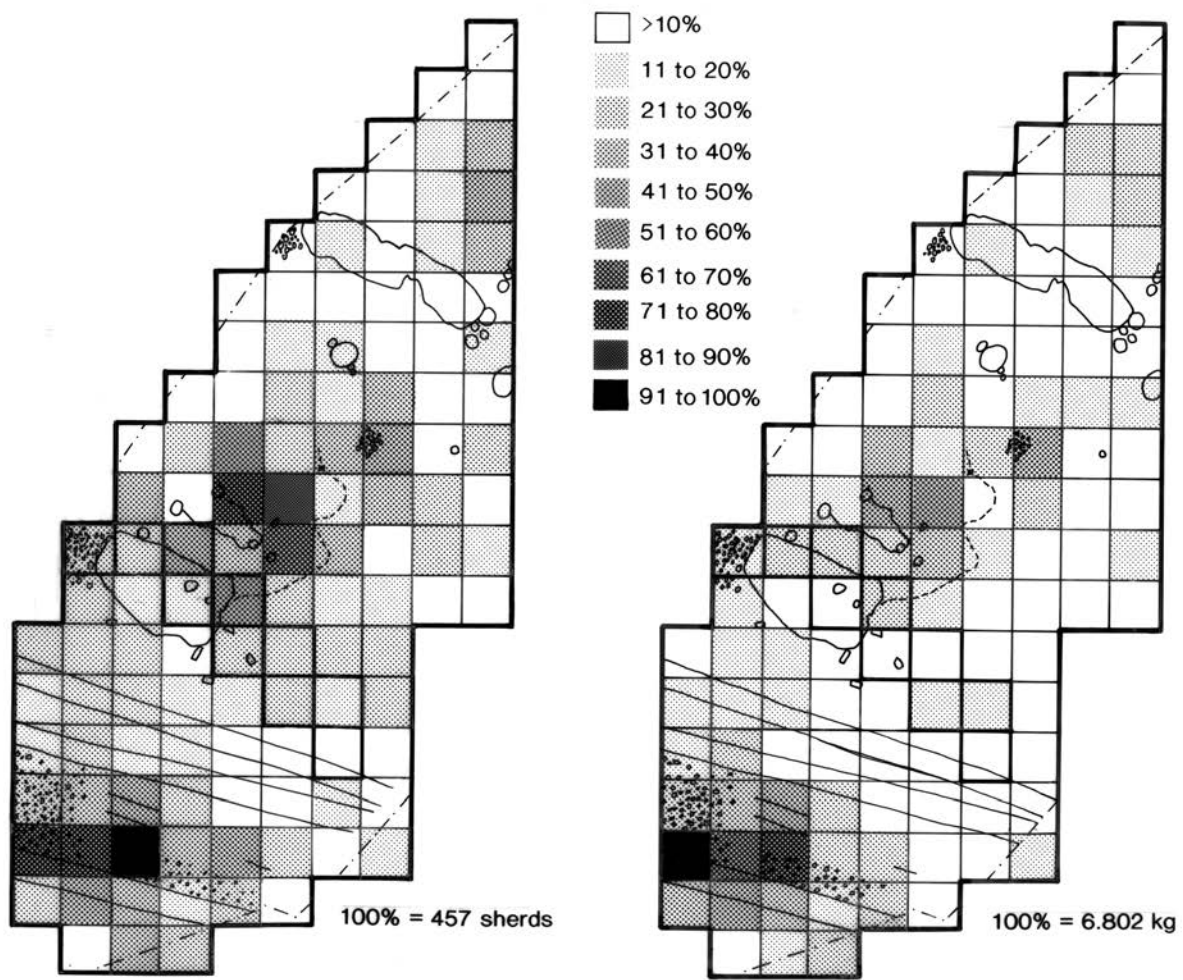


Figure 3.67 Area 7 Dark Earth: distribution of coins



Total pottery distribution by quantity.

Total pottery distribution by weight.

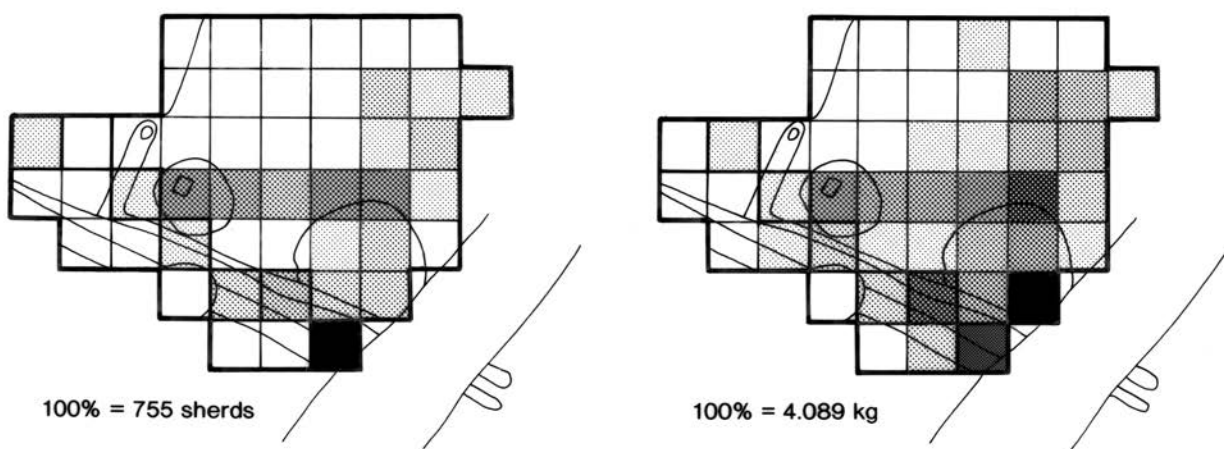


Figure 3.68 Dark Earth: distribution of pottery

Finds analysis

A general method statement appears in the chapter Introduction (pp114–15). The 2.5m grid pattern for recovering bulk finds is shown in Figure 3.64.

Finds distribution plots

The first plots show coins and brooches in combination, against two basic site plans showing the areas before and after the organisation of the boundaries and the construction of the Area 8 side-road in Phase 4 during the mid 2nd century. The dating of the underlying phases has relied on ceramic, stratigraphic and spatial analysis.

Brooches and coins (Area 8)

(Figs 3.65–3.67)

Figure 3.65 shows the distribution of coins and brooches dated to the 1st to early 2nd-century phases of activity. The most striking feature is the total absence of both coins and brooches from the c. 20m extent at the south end of the site. In contrast, the coin-spread in Fig. 3.66 shows that half the coins were recovered in the southernmost 10m of site, and that this corresponds to the underlying position of the 'new' Roman road.

The pattern which emerges in early phases is repeated — and even exaggerated — through the remainder of the coin sequence (Figs 3.66 and 3.67). A feature of the plots is the lack of 'hot-spot' concentrations of either coins or brooches. We need only consider the evidence for the coins after phase 4 where two coin clusters can be seen. The biggest of these occurs at the south end of the site, with a lesser one about 30m to the north lying close to the western edge (Fig. 3.66).

While the distribution of early coins and the brooches corresponds quite closely with the early settlement pattern, with a change in the settlement pattern the coin distribution changes too. The earliest coins over the new (2nd-century) road are two of the Emperor Hadrian. With no earlier coins appearing above the road it seems that no residual 1st-century coins were redeposited here. This evidence tends to reinforce the argument that coins were deposited in a cumulative sequence.

Pottery

(Figs 3.68–3.71)

As an inherently 'datable' artefact type, the pottery would appear to offer suitable raw material for analysis. It became clear that the bulk of the Dark Earth pottery did not occur in a simple vertical chronological sequence (Lyons and Tester, Chapter 6). Despite this, however, a number of plots illustrate some patterning within the distribution.

Although they were prepared using different analysis methodologies, the pottery distributions from both Areas 7 and 8 have

produced some similar results. In Area 7 the later pottery fabrics show some very specific concentrations. While the later wares are concentrated along the edge of the roadside ditch, the purely 4th-century Oxfordshire/shell-tempered fabrics cluster in the angle between the main southern boundary and the roadside ditch. In contrast, the earlier samian would appear to be more dispersed. The prehistoric pattern appears less so, but may relate to the pattern of natural features underlying the site. Taken together, however, it appears that the individual fabric plots reflect the general distribution pattern.

The pattern at Area 8 is similar, and three evenly spaced pottery concentrations may be seen, decreasing in density with distance to the north (Fig. 3.68). This pattern is displayed clearly by the Nene Valley colour-coated ware. Interestingly, the pattern plotted by weight gives much greater emphasis to the area over the side road.

Small finds

(Figs 3.72 and 3.73)

Spatial plots of various small find groups by functional category are presented in Figs 3.72 and 3.73. Possible functional interpretations are discussed by Cooper and Seeley in Chapter 7.

Ironworking

(Fig. 3.72–3.74)

The evidence for ironworking (discussed by Seeley, Chapter 7 and Cowgill, Chapter 8) has been interpreted as a link between the *underlying stratigraphy (within feature fills)* and the *overlying artefact distribution pattern*. The evidence includes the patterning of iron artefacts (many of which, associated with hammerscale, are suggested to be scrap), hearth-bottom fragments and tuyeres. The presence of these brittle smithing-furnace remains, both in the Dark Earth and in the tops of ditches to the side of the road, implies that they originated close by. A compacted 'ferruginous' surface, common to successive buildings 80104 and 81356, was identified as vivianite by Macphail (Chapter 9), but the proximity of this building to abundant metalworking evidence suggests it may have been a smithy at some point. A vitrified surface layer, cementing the cobbles over a c. 2m length of road surface, was also found in conjunction with a layer of black sand with charcoal flecks. Considering that there was no evidence of repair to the road surface using either metalworking waste or fresh cobbling, this appears to be compelling evidence that smithing took place in the immediate vicinity and that hot debris was dumped over the road surface.

While the stratified dating evidence suggests that slag began to be deposited in the 2nd century the majority probably dates to the 3rd century, or perhaps later, allowing for the ambiguities inherent when dating the fills of open ditches. Slag was also a major element of the Area

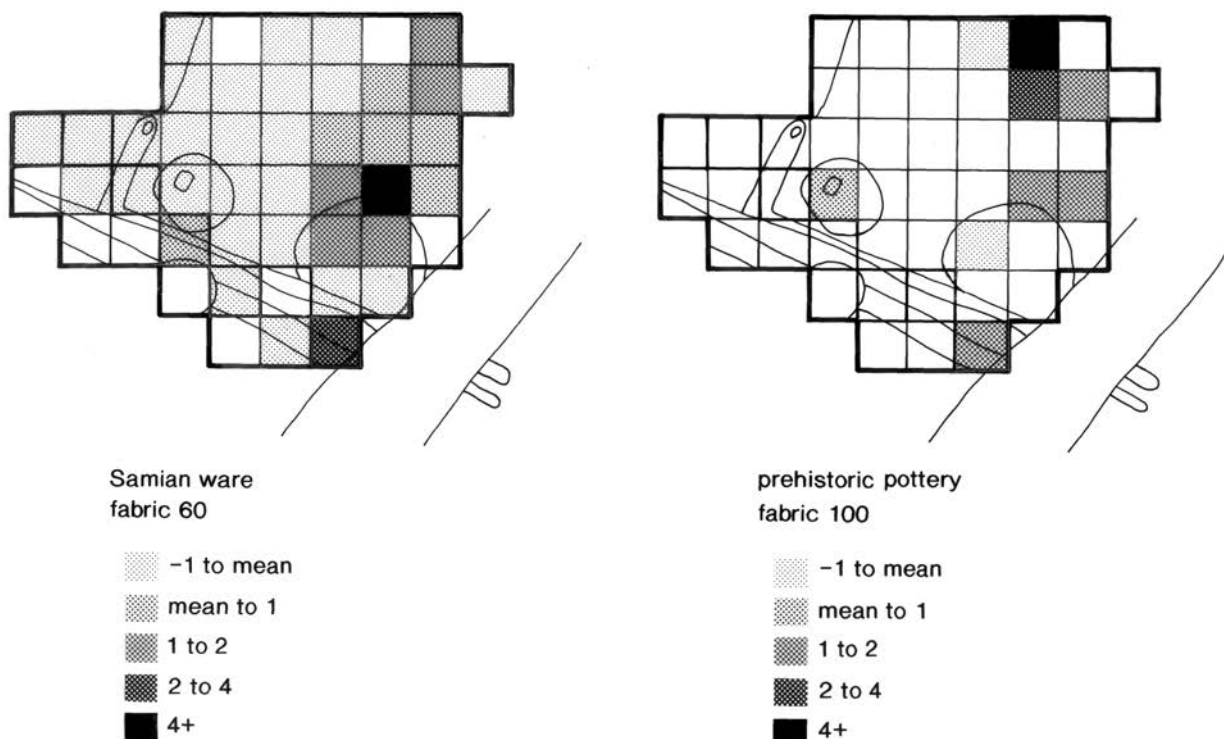


Figure 3.69 Area 7 Dark Earth: distribution of pottery (samian and prehistoric)

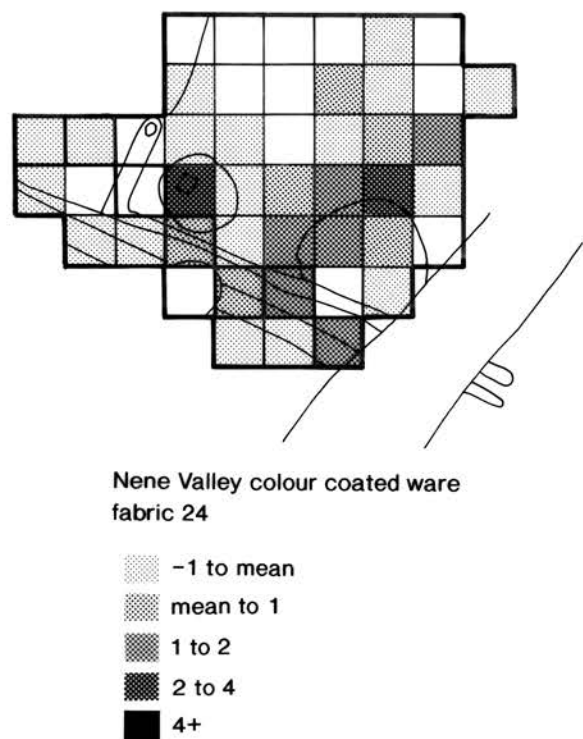
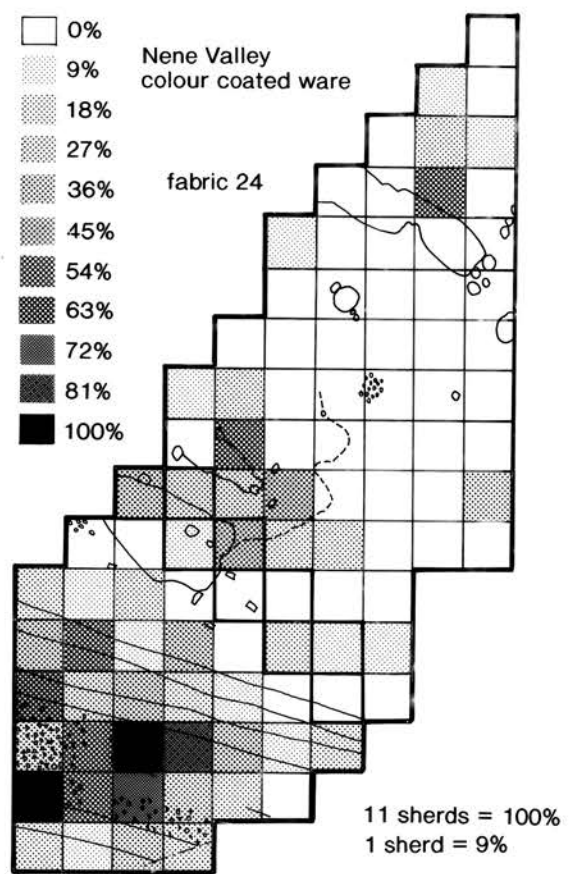
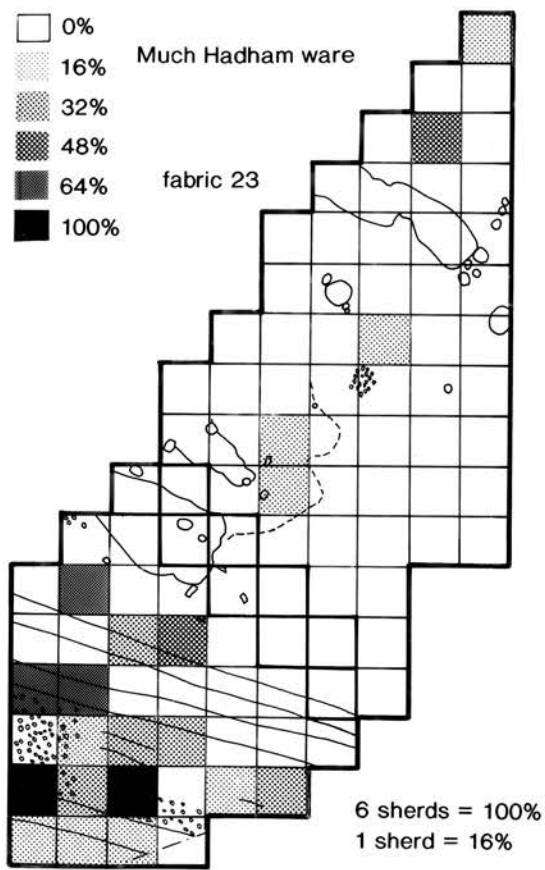
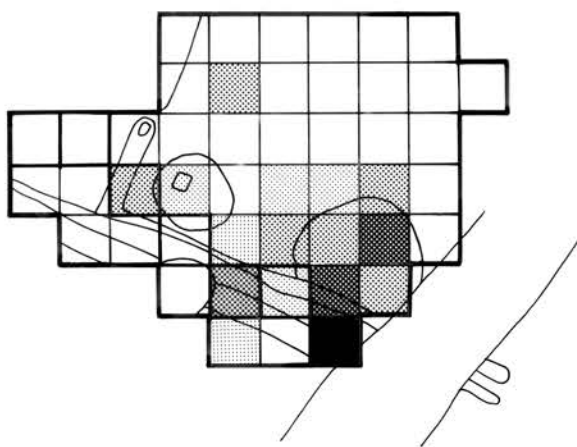
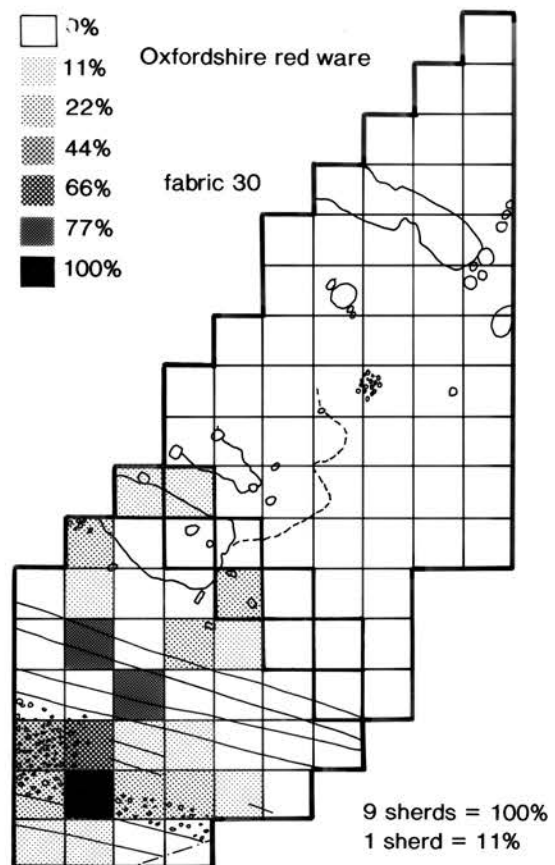
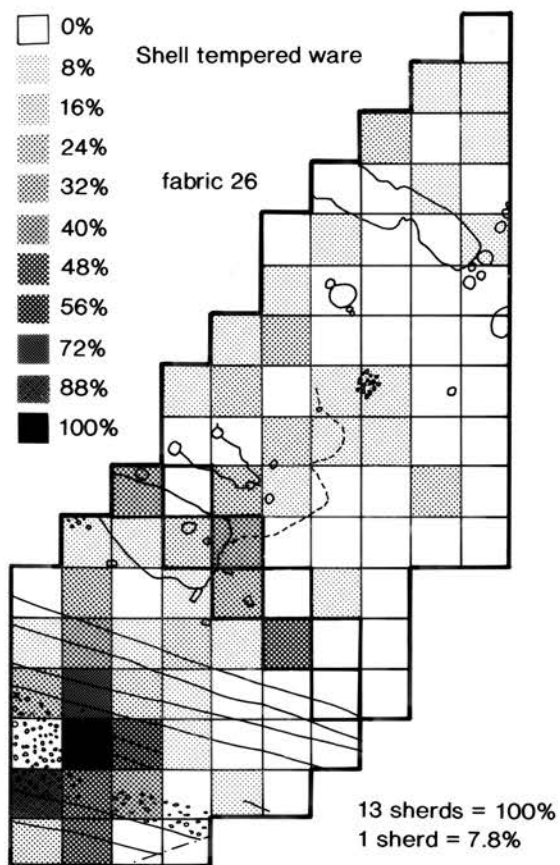
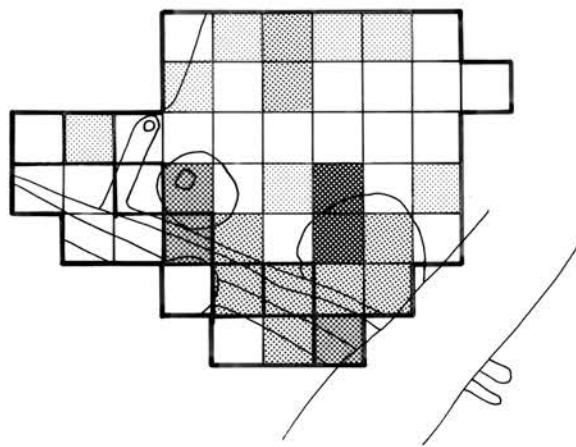
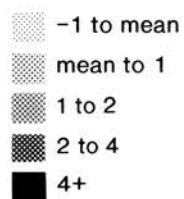


Figure 3.70 Dark Earth: distribution of pottery (Much Hadham ware, Nene Valley colour coated)



shell tempered ware
fabric 26



Oxfordshire red ware
fabric 30

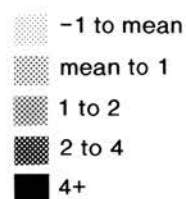


Figure 3.71 Dark Earth: distribution of pottery (shell-tempered ware, Oxfordshire red ware)

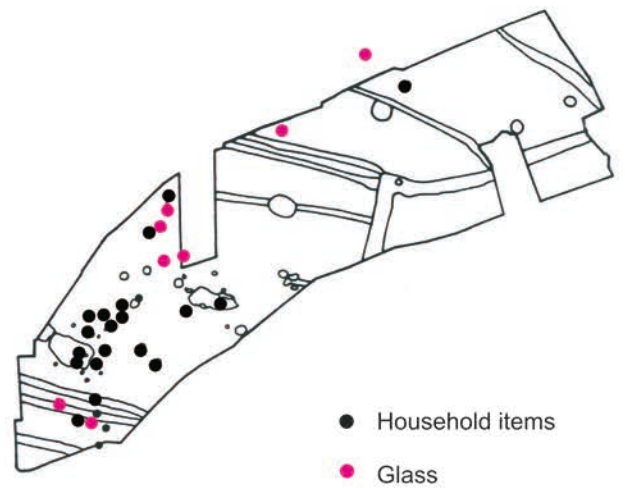
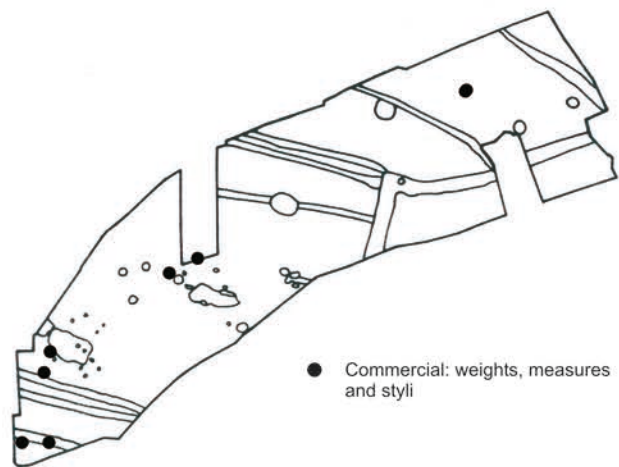
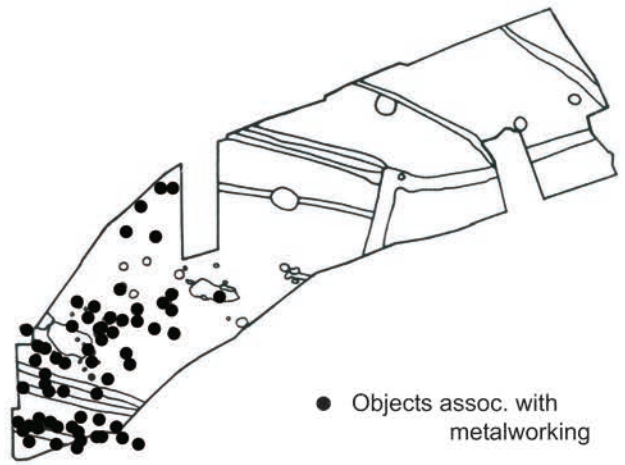
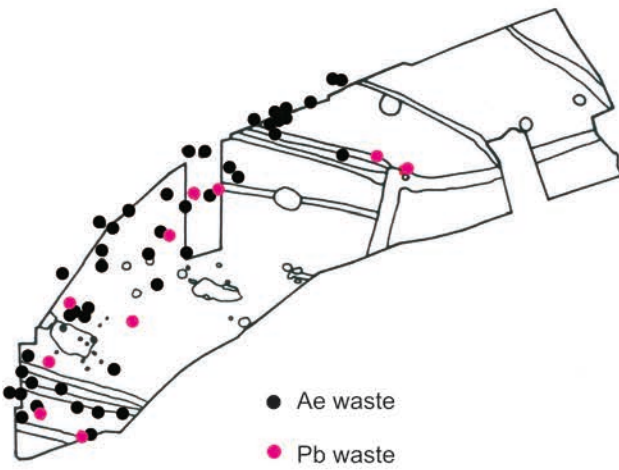
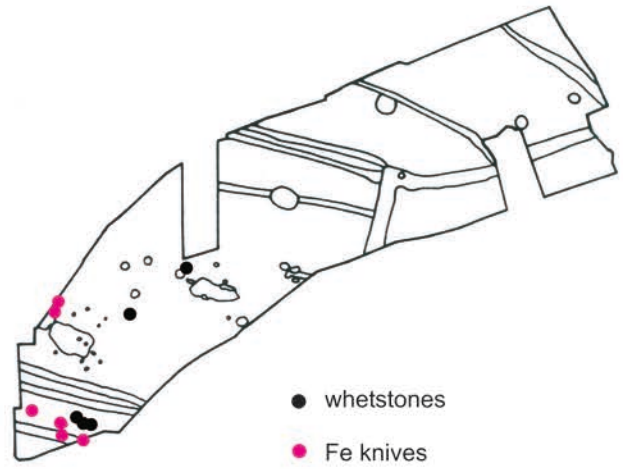
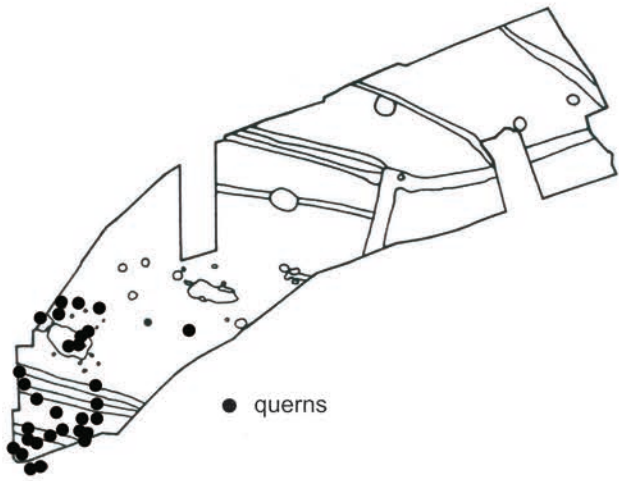


Figure 3.72 Area 8 Dark Earth: distribution of metalworking debris and small finds

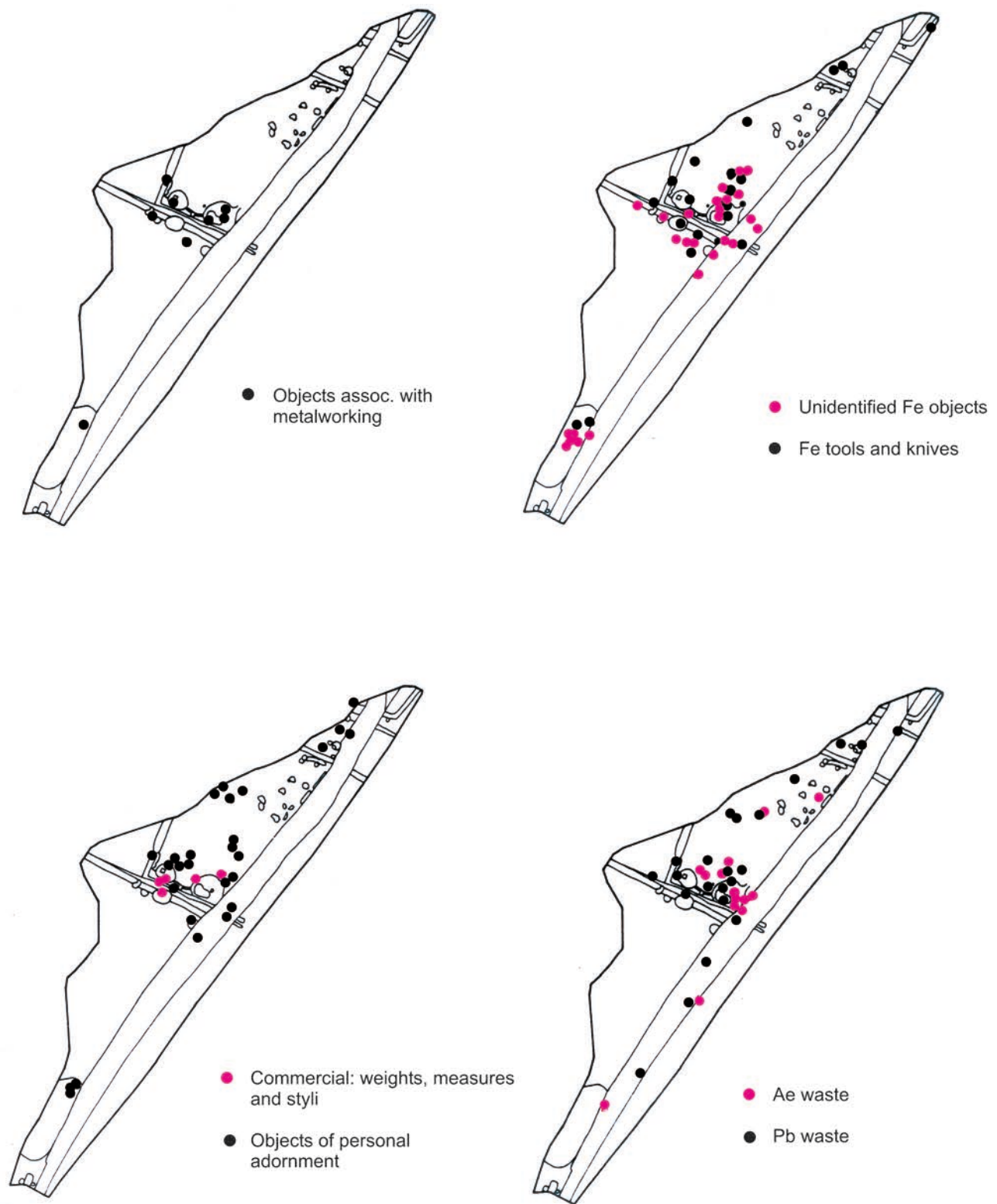


Figure 3.73 Area 7 Dark Earth: distribution of metalworking debris and small finds

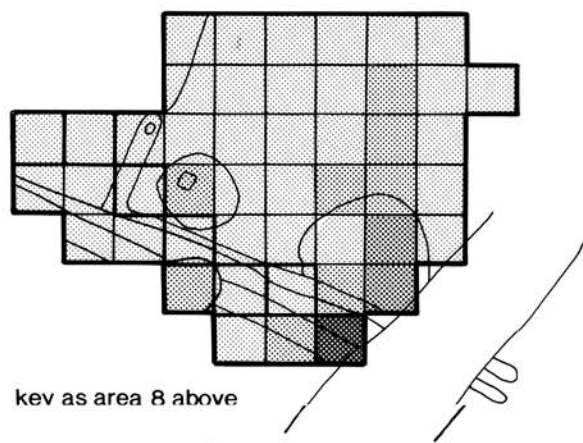
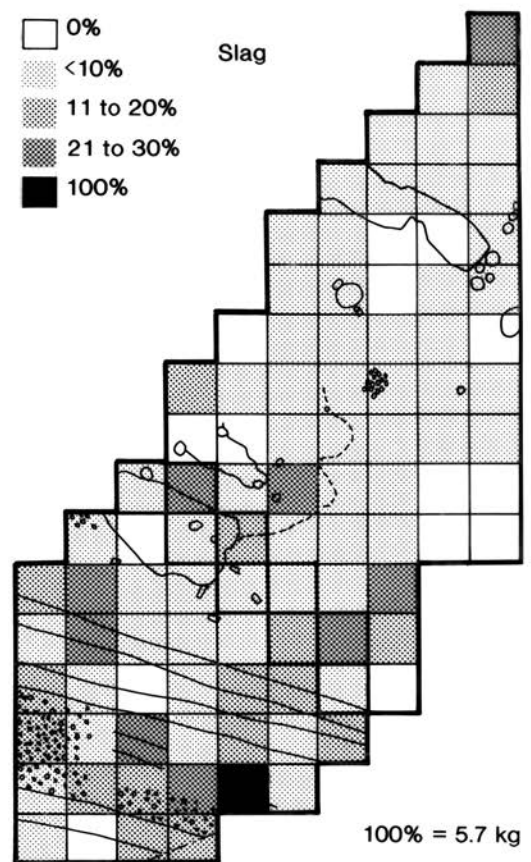
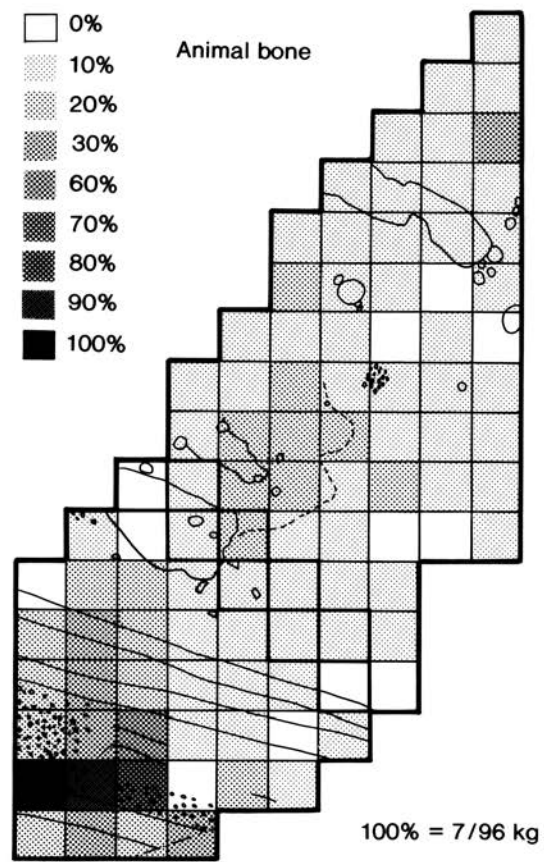


Figure 3.74 Dark Earth: distribution of animal bone and slag

8 Dark Earth but its distribution appears to have respected the southernmost enclosure; this trait is shared with the distribution of miscellaneous iron and of iron objects such as the knives (Seeley and Cooper, Chapter 7). The metalworking evidence seems to show that locally generated waste was allowed to accumulate and form a component of the Dark Earth.

Patterns in artefact distribution (Area 8)

When the various artefact plots are considered together, a number of patterns emerge. Firstly the finds peter out towards the eastern edge of the site, corresponding closely with the sequence of north-to-south boundary ditches. Secondly 'hot-spots' are apparent in a range of finds types. Beginning in the 2nd century and continuing through the 3rd and 4th, the coins are heavily concentrated over the road, in the vicinity of the adjoining buildings and (to a lesser extent) in an area *c.* 30m to the north. The pottery follows a similar pattern, as does the animal bone. Other finds types, which have been plotted by function, tend to show a similar effect when they are grouped. The exceptions to the pattern are the early coins and brooches, and the copper-alloy and lead waste. The latter may be seen in a band alongside the Roman road but otherwise occurs apparently randomly (Cooper and Seeley, Chapter 7).

Interpretation

Casual loss and rubbish

It may be assumed that certain finds types — such as coins and brooches — are more prone to *casual loss* than others such as pottery, which (once broken) is likely to have been disposed of as *rubbish* (Cooper, Chapter 7). However, distinguishing between the two circumstances of deposition may be very difficult, and small objects would undoubtedly have found their way into domestic rubbish. The rubbish dumped into Area 7 quarry pit **70076** provides a clear example of how small finds, including coinage, became admixed with bulk finds during the heaping of general waste. If the distribution of animal bone and pottery points to rubbish-dumping, how does this fit with the pattern of ironworking debris and copper-alloy finds, and the extended pattern of coin accumulation? If the coins in the main Dark Earth were dumped they would have to represent a heap which had built up *over several hundred years*. Caution is needed here due to the extended circulation of many earlier coins of the 2nd century (Reece 1972) yet the evidence appears fairly strong, particularly when the closely dated coinage recovered from **70076** is used for comparison (Fig. 3.67). Also worth considering is the 'contradictory' evidence from the 1st-century plot of coins and brooches. Certainly the 'random' pattern in the general area of the Area 8 roundhouses is suggestive of casual loss rather than structured rubbish-disposal.

Manuring

Yule has argued that no one interpretation can explain all aspects of these soils in Roman London, and a particular problem is the absence of structural evidence that seems to accompany their appearance. The apparent 'suddenness' of its arrival in the Small Towns of Suffolk, however — and its sheer extent, blanketing a number of sites wholesale — suggests the existence of a single 'root cause', in which its many characteristics have their origin. In the light of excavation results at Hacheston it was suggested that the Dark Earth was the result of surface composting, caused by the accumulation of domestic and other waste for agricultural use (Blagg, Plouviez and Tester 2004). The results of the micromorphological study at Scole are consistent with this interpretation. This would also conform with the interpretation of low-density pottery scatters recovered during fieldwalking as the

inorganic component of manure/compost generated from settlement areas.

The practice of agricultural manuring is claimed for almost all archaeological periods where arable farming predominates. At Birchanger (Essex) the use of manure from pits within an Iron Age settlement has been suggested (Medlycott 1994). During work in the same county, Victorian pottery scatters recovered during fieldwalking — and which from documented land-use could only have arrived during limited periods when pasture was given over to arable farming — have been used as a control with which to compare Roman fieldwalking scatters (Williamson 1984). Closer to hand, Andrew Rogerson suggested that manuring provides the only clear rationale for the widespread presence of both Iron Age and Roman pottery at Barton Bendish, Norfolk, in locations where it cannot be explained simply with reference to the settlement pattern (Rogerson 1997, 13). In the absence of artificial fertilisers, and with the primacy of agriculture in virtually all economies before the industrial revolution, manure was probably an important resource. However, there is no reason to suppose materials were sorted, as the ubiquity of pottery and other rubbish in fieldwalking finds collections suggests. Since most waste would have been organic, it is not unreasonable to suggest it was all dealt with in the same fashion.

At Staunch Meadow, Brandon, an extensive surface-collection strategy targeted finds associated with a Middle Saxon Dark Earth. Here specific heaps and ditch infills were associated with individual buildings or building sequences; however, two heaps stood out on either side of the entrance created by two ditches which led to a concentration of buildings. These appear to have been long-lived manure/rubbish heaps, from whence material was carted out to the fields (Tester *et al.* forthcoming; for fieldwalking evidence for Saxon manuring, see Wade in Lawson 1983).

While it seems likely that manuring took place, identifying this process in the archaeological record is difficult. The artefact distributions at Scole point towards the existence of rubbish heaps, but whether these simply accumulated or were a by-product of the deliberate creation of compost is unclear. The identification of cess in Area 7, and of animal dung in both the Area 7 'quarry' and in Area 8, argues for the latter, but this may be contradicted by the seemingly unbroken accumulation of coinage, particularly over the road in Area 8, which suggests that the heaps were neither heavily nor frequently disturbed.

The manipulation of rubbish

Was all of the material within the Dark Earth generated locally (as might be suggested by the ironworking debris), or did it have a wider 'catchment area'? While the longevity of buildings **70525** (Area 7) and **81354** (Area 8) could not be established stratigraphically, both were almost certainly contemporaneous with some of the Dark Earth layers. We should not assume, however, that all of the 'contents' of the Dark Earth originated close by. We have recorded something of the change that took place in Area 7 as the Dark Earth developed — a wide, open pit **70329** was buried by a stratified accumulation of silt and rubbish, which abruptly turned into Dark Earth above a certain level in the sequence. At the bottom a narrow range of pottery vessels were recovered, which may have been

the product of a single building, but this range increased above in the Dark Earth material.

Evidence from Lincoln suggests that rubbish was being carted out of the town and ‘dumped’ within the town ditch during the 4th century (Darling 1977). While Scole cannot be compared with a major urban site, the possibility of controlled or regulated dumping from a wider catchment area should be considered. If this indeed took place, compost/rubbish being prepared for agricultural use might have been collected in heaps within individual properties, and collected piecemeal and carted out to the fields during the winter months. Alternatively it may have been double-handled, with collection-points close to the edges of the settlement from where it would be seasonally spread.

The already-published results of Rogerson’s 1973 excavation, which lay closer to the centre of the Roman settlement, are of great comparative interest (Rogerson 1977). Rogerson identified a Dark Earth over most of the site, an area of c. 900 square metres. This was attributed to his Phase IV (late 3rd and 4th centuries) and displayed now-familiar Dark Earth characteristics — including a general lack of associated structural evidence — but contained ‘quantities of domestic refuse’. This was particularly noticeable at the northern end of the site, where the evidence (despite some residuality) ‘imply[ed] occupation close by’.

These early observations offer some ground for intra-site comparison. The description of the Dark Earth as a stratified layer resembling a ‘dumping ground’ mirrors the excavated evidence from the Suffolk Dark Earths. Also similar was the recovery of ‘residual pottery’, with a significant proportion pre-dating the 4th century — in particular a good collection of samian, which was predominantly late Antonine or of late 2nd–3rd-century date (Rogerson 1977, 193). Rogerson did note, however, the lack of any clear stratigraphic division between Phase III and Phase IV deposits. If the soil is interpreted in the same way as the Area 7 and 8 Dark Earth — as a layer accumulating from the late 2nd century until the 4th, and subject to biological and physical reworking — this ‘residuality’ might be explained.

If a Dark Earth had developed over *both central and peripheral* areas of the settlement, this suggests the adoption of a common practice affecting most areas of settlement. Whatever mechanism or process had generated the soil, the heaping of rubbish seems to have been a common feature.

The use of pits

If the growth of Dark Earth deposits reflects a change in rubbish-disposal habits, possibly related to manuring, it follows that we might be able to detect changes across the site in the use of cess pits. Such a shift was suggested at Hacheston without being clearly demonstrated (Blagg, Plouviez and Tester 2004). The recent excavations at Scole produced insufficient evidence of ‘early’ Roman occupation to test this theory. However a crude temporal comparison may be made using the published list of features from the 1973 site that produced finds. While Rogerson notes seventeen pits dated to his Periods I and II (Flavian–mid Antonine) there are only two for his Periods III and IV (late Antonine–4th century). To qualify this data Rogerson suggested a contraction in occupation in the later period, on the basis of the Dark Earth coin list.

While the overall coin total for his site (47) is low, it was suggested that the nine coins dating from AD 275–402 massively under-represent what might be expected from a site occupied through the 4th century, where a figure closer to 80% (c. 37 coins) might be expected (Reece 1972). This was interpreted as evidence either for a fall-off either in occupation or in the use of coinage. It was suggested that settlement may have shifted elsewhere, and that the area where the greatest depth of rubbish was recorded became a dumping ground.

In summing up the evidence for his Phase IV Rogerson suggested that, while much was obscure, settlement was now more restricted than in earlier periods. However, even if the coin total (compiled *before* the use of metal-detectors) gives a representative insight into events, it is unlikely to provide a single explanation for the decline in the number of pits. The change is simply too dramatic, and begins *before* the 3rd century hiatus in the coin list. Furthermore, it is not supported by the published pottery, which (although not quantified) suggests deposition continued after pit-digging had ceased. Although this evidence is not conclusive, it offers some support to the argument that the surface heaping of cess, animal dung and other general rubbish may have superseded dumping in pits.

Dark Earth morphology

Some apparent contradictions in the Dark Earth evidence remain, both in the composition of the soil itself and of the various artefact groups. This is particularly true in Area 8, where there is a need to reconcile the steady accumulation of coins over a newly-laid road surface both with the occupation of the site and the tipping of domestic and industrial waste. Any suggestion that this whole area — including the road leading to the temple site — was simply given over to rubbish disposal for 150–200 years, with large heaps of material simply rotting *in situ*, seems implausible. Indeed, if the Dark Earth was quite literally *everywhere*, where did the human activity that generated the material in the first place take place?

A major obstacle to any straightforward interpretation is the length of time over which the finds accumulated. The Dark Earth appears to embody 150 — or perhaps 200 — years of history. Within this span the land-use pattern could well have changed or fluctuated. Composting, if it took place at all, probably formed a small part of the agricultural calendar. For the remainder of the year other activities prevailed, and the trackway leading to the (?)temple site would have been unobstructed.

Maybe *two* distinct bodies of evidence are preserved by the Dark Earth. The first of these is composed of material generated over a long period of time which has been dug over and redeposited many times, with heavier items falling to the bottom of the heap. Secondly, a picture of events as the settlement ground to a halt, or was suddenly abandoned, during the 4th century may also be preserved. This scenario would help to explain the large pottery fragments and animal bone concentrations recovered at the junction of late ditches in Area 7 and over the road in Area 8.

The ‘true’ explanation for the Dark Earth’s character may be highly complex. What the finds illustrate clearly, however, is the continuance of occupation beyond that which may be verified from clear structural evidence.

Formation process

The formation of the Dark Earth poses questions of its own. While apparently restricted to the areas of occupation and the Area 7 quarry, it undoubtedly extended beyond centres of rubbish-disposal to cover large parts of the settlement. As was the case with the finds, there is an interpretative difficulty in accommodating both late road-use and Dark Earth accumulation. Similarly, establishing a direct relationship between buildings and Dark Earth is difficult, here as elsewhere, yet the Scole study would seem to indicate the co-existence of buildings and of Dark Earth.

The growth-rate of Dark Earth is at present unknown. It may have occurred following abandonment, generated by the lush flora encouraged by the nutrient-rich occupation surface which was able to accumulate because of neglect. Rapid accumulation of soil over concrete has been recorded on war-damaged sites in both London and Berlin (Yule 1990, Watson 1998); the widespread appearance of Dark Earth over the surface of roads at Hacheston was also seen at Scole (to a depth of *c.* 0.25m in Area 8, where it lay undisturbed beneath a topsoil).

In conclusion, while much remains uncertain, the formation of Dark Earth is likely to be far simpler to explain as a biological process — perhaps with the aid of experimental archaeology — than the patterns of the finds and the settlement evidence which lie concealed within it.

Discussion

Period 3 (later 1st–early 2nd centuries AD)

While the Pye Road was built before AD 70 (West 1956, 73–5), this may merely have formalised a route through Icenic territory which had already been adopted by the army. The coin evidence is consistent with a military presence at Scole before this date (Davies, Chapter 7). Although the case for a fort — or even for a marching camp — is unproven, the strategic location of the site in relation to *Camulodunum* and Coddanham (*Camboritum* on the Antonine Itinerary), where there is stronger evidence for a post-Boudican military presence (J. Plouviez, *pers. comm.*) is clear. Thus we must assume a significant connection between the road and this ‘new town’, particularly during its development. To the north of Scole, *Venta Icenorum* appears to have been established retrospectively as a tribal capital, there being no evidence so far to suggest that it had a significant Iron Age antecedent (Wacher 1976, 227–30). The metalled road was observed close to the Scole bridge (Chapter 1) where it was up to 6m wide with a substantial ditch on the western side.

There was very little evidence pre-dating the 1st century AD. Area 6 saw the creation of the leat and associated features in the latter part of this century. With regard to Areas 7 and 8, it may be safest to suggest that the truncation of topsoil in Area 7 and the creation of the western roadside ditch 70377 were the earliest Roman events recorded on either of these sites.

Buildings and land-use

There is no suggestion that the pre-2nd-century growth of settlement south of the Waveney was in any way ‘planned’. Relatively disorganised occupation may have been drawn, perhaps by economic factors, to a focus north of the river, or simply to the Roman road itself. (Wacher

(1976) takes such a view of the post-Conquest native dwellings which appeared at *Venta Icenorum* before the town was built.)

The two ‘traditional’ prehistoric-type circular buildings in Area 8 lay on the marginally higher ground towards the south end of the site. The gravel path that led to the largest emphasises how soft the ground may have been in this low-lying field. The roundhouses’ segmental planform, defined by opposing semi-circular foundation gullies, is curious. Edward Martin has recently drawn attention to the dearth of complete Iron Age building plans from Suffolk, suggesting some archaeologically ‘invisible’ building practice negating the need for substantial building footprints (Martin 1999). This may help to explain the apparent gaps in the Oakley roundhouse foundations. A similarly flimsy structure with uninterrupted wall lines (albeit 8m in diameter) at the small town site at Pakenham in West Suffolk is securely dated to the immediate post-Boudican phase (Plouviez 1995, 71), while interrupted, semi-circular wall lines were a feature of buildings 4 and 5 from Fison Way, Thetford (Gregory 1991). The two Area 8 ‘basket’ wells appeared short-lived, although well 80278 was of sufficient importance to influence the line of several phases of boundary ditch 81375, which looped around it.

A small segment of an enclosure fronting the main road could be seen in the north-west corner of Area 8; another, further from the road, may have been used to pen livestock. Irregularities in the laying out of these features probably reflected specific drainage needs. It is not clear if there was any habitation closer to the road.

The Pre-Hadrianic coinage and Roman brooches from Oakley appear to have been paralleled in Rackham’s detector survey of 1979–80 (Tester and Emery 1992) north of the Area 7 excavations. This produced eighteen brooches and although eight were widely spread across the open field, the remaining ten were found in the 100m area directly south of the river crossing and close to the A140. Significantly, no brooches were recovered from the Area 7 topsoil, which probably lay beyond the limits of 1st-century occupation.

The pattern of loss at Oakley was quite evenly spread in relation to the early settlement features; this is in contrast to the later patterns which are concentrated closer to the line of the A140.

When compared with later object loss the evenness of the distribution at Oakley is quite striking; the later patterns clearly reflecting a shift in material loss towards the road (below).

Periods 4–5 (mid 2nd–4th centuries)

(Fig. 3.75)

Changing land-use in the southern part of Scole

When the evidence from east (Area 8) and west (Area 7) of the Roman road is compared, it appears that some kind of centralised planning was imposed upon an earlier, more haphazard, development. At some point during the Hadrianic–early Antonine period, three enclosures were delineated by the excavation of four ditches projecting eastward from the main Roman road. The southernmost of these features, 81379, marked the north side of a new branch road (the southern boundary was beyond the excavation) extending eastward along the edge of the flood plain. These ditches served as drains as well as

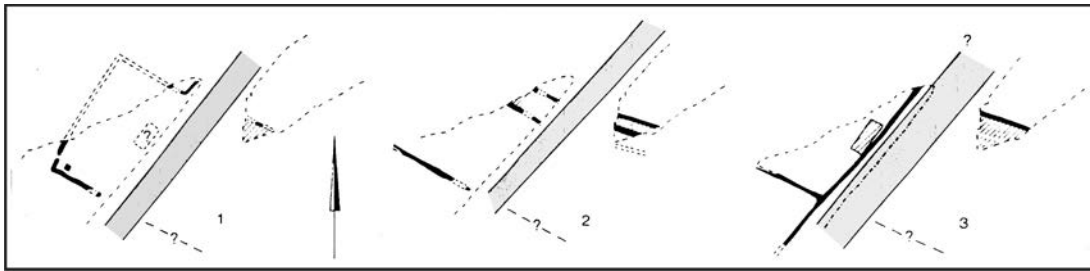


Figure 3.75 Periods 4–6: changing land-use in the southern part of Scole

property boundaries. The road ditches were soon replaced and the south edge of the road, which was cut into the gravel terrace, becomes visible.

The earliest rectangular enclosure in Area 7 was probably laid out at the same time. It had a long road frontage by comparison with those in Area 8, although it was very similar in total area to the largest of these. The alignments of ditches **70347** and **81379** on either side of the Roman road suggest co-ordinated development, although side-road development to the west of the main road came later and took a different form. The road to the west was *c.* 8m wide but effectively removed at least 13m from the enclosure, which was deepened — perhaps by way of compensation? — to include more of the field to the west which lay beyond the excavation limits. A simpler answer might have been to extend the enclosure to the south. As this was not done, however (and since the southernmost boundary ditch remained so well defined until the end of the settlement) it is possible that a formal southern limit for the settlement had already been established. Significantly, evaluation further south alongside the A140 road at Scole Plantation (above, p.4) produced no evidence for Roman settlement. This contrasts with the sprawl that apparently characterised the westerly roadside development in Areas 1–4 (Chapter 2). It is possible that many issues relating to land-holding influenced such contrasts — perhaps the frontages of secondary roads were developed in a different manner to that of the main Roman highway.

The fact that the new side-road in Area 7 did not align precisely with the second-phase road in Area 8 may indicate pragmatic adjustment to ensure that the roads ran along the edge of the flood-plain. To the south of Area 8, another enclosure might have mirrored that in Area 7 (Fig. 3.75). The trackway excavated in Area 6, joining the main road well to the north of Area 7, may only be dated broadly to the Roman period.

While there was no structural evidence for any 2nd-century building in Area 7 during Phases B and C, the sturdy well in the corner of the new enclosure, and the accumulation of occupation rubbish in pit **70508**, on open ground and in various boundary ditches, suggests a building once stood alongside the Roman road. This was probably destroyed when the road itself was (?)widened in the 3rd century. It may be significant that the earliest building remains which have survived in Area 7 date from this time. The main road frontage was not examined by Area 8, but here too settlement debris began to accumulate away from the road. While ‘main’ roundhouse **80220** probably became redundant during the 2nd century the new land divisions did not impinge upon it, and its location may have influenced their layout. A possible

parallel may be discerned north of the Waveney, where there are signs that the ?late 2nd-century land divisions laid out close to the Waveney respected the location of pre-existing roundhouse **18000**, which may still have been in use at this time (Chapter 2). If the Area 8 roundhouse had been replaced by a rectangular structure built in the Roman style, using sill beams, it could have escaped detection. It is suggested, however, that this area was now used for some unspecified industrial activity (a well lined with loose barrel staves may have been intended to supply agricultural or industrial needs) and that habitation had moved westward, closer to the main road.

While the enclosure to the west of the main road saw little subsequent alteration, apart from 3rd-century road encroachment, the Area 8 property divisions did not remain stable during the 2nd century, the central enclosures being sub-divided between those to either side. This new arrangement may have eased drainage problems, and was subsequently maintained. This is interesting given this area’s likely susceptibility to flooding, which had already become a problem in other areas of Scole — notably Area 6 — by the 3rd century. Rectangular ?sill-beam building **80104** was probably erected soon after this redefinition. Its apparent 3rd-century successor, **81356**, was aligned a little more to the east and west, with a porch facing south-east onto the side road. Uncertainties regarding the formation of the Dark Earth make the use-span of this building uncertain. The Dark Earth effectively covered the entire eastern half of Area 8 during the 3rd century, and (perhaps more importantly) the heaviest concentrations included within it were found over the side-road and in the area of this building. Whether this is consistent with continuing habitation close to the roadside is uncertain. A further (albeit smaller) concentration of late pottery and coins to the north-east of this group offers tantalising evidence for a building that might have existed between the main rubbish accumulations and the Roman road.

The earliest building west of the road for which we have structural evidence, **70525**, appeared in the 3rd century. Betrayed only by post-holes apparent beneath the Dark Earth, it seems to have comprised two buildings upon a terrace facing onto the edge of the newly-dug roadside ditch. There can be little doubt these buildings were directed toward the road, since the ditch could have been bridged without great inconvenience.

Renewal of the main Roman road?

Although the main north-to-south road was never actually exposed during the excavations, it is possible that alterations during the 3rd century exerted an influence on the surrounding land. Roadside ditch **70523** was probably

that first recorded close to the Waveney by Thrower in the 1930s (Chapter 1). To the south it extended well beyond the limit of settlement, while stopping short of the southern limits of excavation in Area 7. It cut at least 3m from the enclosures on the western side of the road and probably removed at least one building in Area 7 and possibly others leading to the bridge (Fig. 3.75). Further evidence for repairs to the road took the form of a small (?) gravel quarry pit **70076** towards the south end of Area 7.

Establishing when these changes occurred raises the familiar problem of dating 'open' features; indeed, the fact that the ditch was re-cut at least once further complicates matters. Both quarry pit and ditch were filled with Dark Earth. The ditch was maintained until the 4th century, a significant scatter of coins from this period being included in the terminal upper fill. The best dating evidence for this feature is its relationship with minor road ditch **70250**, which it must have cut. This ditch did not contain Dark Earth and dated from the late 2nd to mid-3rd centuries. The quarry pit contained pottery and coins from the later 3rd century (a significant 2nd-century component to the pottery throughout the fill is interpreted as residual).

The maltings

(Fig. 3.76 and 3.77)

Introduction

The component features of this complex, while obviously intended to fulfil a variety of special functions, displayed many similarities in construction (*e.g.* the use of rectangular pits and clay) while even the less distinctive features, such as pits and post-holes, shared common fill types. All of these characteristics combine to make the group appear a coherent whole. It is important to accept this linkage before we try to fill in interpretative gaps between the better-understood features and those which, by themselves, would defy explanation.

Direct evidence for malting has survived in the carbonised grain which appeared as waste in a number of features, particularly the corn-drier and clay trough feature **60009**. The composition of the assemblage (with a predominance of spelt with some barley, a high chaff-to-grain ratio, and some sprouted grains and sprout/detached embryo fragments) resembles those from Catsgore, Somerset (Hillman 1982, 137–41), Farmoor, Oxfordshire (Jones 1979, 103–4) and Tiddington, Warwickshire (Moffett 1986). At these sites it was concluded that straw and chaff used as fuel/kindling for firing the corn-driers became mixed with grains, the latter entering the flues after falling through the floor of the drying chamber. Samples from the stoke-hole and flue of the drier were largely composed of fuel/kindling, and the presence of charcoal in all the samples supports this interpretation. The sprouted grains are thought to indicate that the dryer was used for malt drying/roasting, though not all grains were sprouted (van der Veen 1989, 302–19). Fryer and Murphy (Chapter 9) note that the samples may only relate to the last usage of the oven, however, and that 'corn-driers' may actually have been multi-purpose structures.

Chronology and dating

Area 6 produced little good artefactual dating evidence. Only eight coins were recovered, despite extensive metal-detecting, and all of these were unstratified. While the earliest was of Domitian (AD 81–98) these coins had

an extended usage, and it may well have been lost during the 2nd century AD (J. Plouviez, *pers. comm.*). The two latest issues were mid-4th-century coins of Constans. Low-level activity such as manuring probably accounts for the entire collection, which is unlikely to be of any help dating the industrial complex.

A dendrochronological date of AD 146–188 was supplied by the oak plank from the base of the drain between the steeping tank and the leat (Tyers and Groves, Chapter 8). A tiny amount of pottery from the early phase of the leat could only be dated between the first half of the 2nd and the mid 3rd century. Indeed, the first leat may have had no extended life of its own, particularly as the decision to raise the bank on the riverside by making a second cut may have been taken as soon as the first stage was complete. The main fill of the leat contained a single sherd of Hadrianic–Antonine samian, with no other colour coats present; from this we can infer that most of the fill accumulated before the 3rd century. It is quite possible that the leat was open for less than twenty-five years. The well inside the old revetment (**60116**) was open for much longer, but since it was never infilled with rubbish it is dated by association with the steeping-tank and 'malting troughs'. These contained late 3rd-century pottery but only in abandonment fills, and the lack of shell-tempered pottery and Oxfordshire finewares suggests that infilling was complete by the end of the 3rd century. Material of a similar date and later was retrieved from a shallow scoop cut into the top of the corn-drier, and in the top fill of the leat (laid down after the well had been abandoned).

An interesting feature of the pottery was the similarity in forms between the assemblages from the steeping tank and the 'malting troughs', both of which consisted of grey ware jar fragments with few fineware forms or fabrics. Presumably this reflects the limited range of activities here.

Roundhouse **60394** also contained pottery with an extended date-range from the mid 2nd century onward. Despite this imprecision there is nothing to suggest that the roundhouse was not contemporary with the leat and maltings, although there is no firm evidence that it survived into the 3rd century. Ditch **60012**, which took a circuitous route to avoid it, is unlikely to have been maintained beyond the middle of the 3rd century. The pottery from Area 6 as a whole gives no indication that anything other than agriculture was taking place here by the end of the 3rd century.

The industrial process

While no written description of Roman malting and brewing methods exists, the process has probably changed very little since beer was first made in the Near East, except for the almost universal addition of hops for flavouring, which began during the Middle Ages in western Europe.

Beer-making processes may be divided into two stages — the preparation of malt, and its conversion into beer. A variety of cereals, including spelt wheat, are suitable. After removal of chaff and straw, the cereal is thoroughly soaked. Having absorbed water, the grain is then thickly spread on a malting floor and allowed to germinate. This process takes several days and varies in speed from plant to plant, even under comparable conditions (van der Veen 1989). The grain would have been turned regularly to stop the 'chitted' grains becoming intertwined and promote an

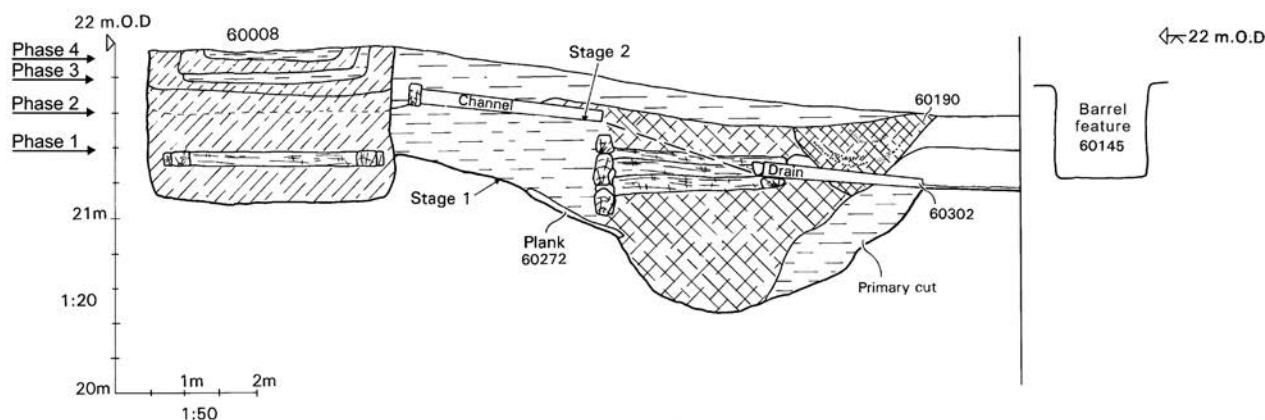


Figure 3.76 Area 6: schematic section across well/tank complex, indicating rising water levels

even development, to maintain an even temperature, and (more importantly) to prevent a build-up of carbon dioxide, a by-product of germination which would arrest growth at the bottom of the heap. The germinated grain can be gently roasted in a kiln or corn-dryer to stabilise it. In this state it may be stored for up to a year without deterioration; the roasting also makes the grain easier to grind. The starch is turned into sugar by mixing with water and heating to 65°C for an hour or so (Corran 1975). The resultant liquid or 'mash' is then strained to separate the husks from a brown liquid, the 'wort'. A prepared yeast would probably be added at this stage, along with flavourings. A variety of herbs and spices were used, particularly honey: this is one of the oldest sweeteners (Dickson 1978) and its use in Roman times is documented (Ross 1986; below).

A range of features from Area 6 besides the corn-drier **60438** can be identified with malting. The timber-and-clay tank **60008**, in its various forms and in combination with the leat, would have been ideal for steeping the grain. The first Scole tank discharged liquid into the leat, while in the second phase it dispersed it into the adjacent peat (Fig. 3.76). From this, we may infer that processing actually took place within the tank. Evidence for a timber-framed structure secured by clay was recorded within a pit at Stebbing, Essex. Although provisionally interpreted as a part of a mill complex on account of a concentration of millstone fragments, this was reinterpreted as a grain-steeping tank following the identification of sprouted, carbonised grain (Bedwin and Bedwin 1999).

During Phase 2 the well within the old revetment supplied sufficient water for grain-steeping, while clay structure **60393** replaced timber structure **60165** as the steeping tank. Although details of the tank seating are unclear it closely resembled the remains of a clay tank, with a central area measuring 1m x 3m, which drained into a leat at Solesbridge, Herts (S. Bryant, *pers. comm.*). To prevent fouling of the new groundwater supply, the discharge from tank **60393** was directed outwards over the peat to the north. The two later phases of the tank (**60146** and **60120**) seem more typical of features identified at other sites — these include the 'bins' at Catsgore (Hillman 1982), where there was no evidence of a lining, and the clay-lined pit (and well) associated with each of two 'corn-driers' at Tiddington (Moffett 1986).

Clay 'trough' feature **60009** is the most enigmatic of the Area 6 structures. It is suggested that the troughs acted in the manner of later malting floors and held the germinating grain prior to parching. This interpretation is attractive since it identifies the third major structural feature in the complex with an otherwise-'missing' stage in the malting process. There is some historical evidence to support this view. The medieval malthouse at St Gall Abbey, Switzerland, had an area for germination where four separate couches of grain could be processed at one time: 'A space in the form of a cross between the couches allowed for the turning of the grain during germination. The malt floor was adjacent to the malting kiln' (Corran 1975). Different types of cereals could have been germinated in the separate couches; alternatively, they might represent different stages in the process as the grain moved along. Either explanation is plausible, and both match the evidence from Scole quite closely. However, this feature was much smaller than might be expected for a malting floor, particularly in comparison with the scale of the first steeping tank. Perhaps, in the pre-medieval process, grain spent proportionally more time in the steeping tank and less in the germinating troughs.

Direct proof of beer-making is hard to identify. While water was clearly essential, fermentation would effectively sterilise it for drinking; it would have been for malting that a clean water supply would be required. The succession of pits would undoubtedly have proved useful in disposing of excess liquid from either malting or brewing. The large collection of quern and millstone fragments (below) is consistent both with milling generally and with the grinding of malt in preparation for brewing (Buckley, Chapter 8). It could be argued more strongly that the two identical ovens **60443** and **60381** were used to heat the 'mash' during brewing. These features bore little resemblance to the corn-drier, which suggests they had a separate function and were sequential, perhaps indicating the continuation of a successful design. At Orton Hall Farm, Cambs, an oven with a 'U'-shaped chamber and a central clay plinth has been interpreted as the seating for a large cauldron (Mackreth 1996a). The Scole ovens' superstructure was missing; while they are unlikely to have been as robust as those at Orton Hall Farm, they may have fulfilled a similar role.

Almost by its nature there is no certain evidence for beer-making. If the site was considered suitable for a

maltings, however, it can hardly be reasoned that it was *not* suitable for brewing. This last point is important given the long-term difficulties resulting from flooding, which probably caused the site to be abandoned during the 3rd century.

The buildings?

Given the interpretations put forward for the complex, there is a surprising lack of evidence for buildings. Mackreth comments that watertight and weatherproof buildings would have been required to control moisture and temperature during malting. Although very much in evidence at Orton Hall Farm, they seem to be lacking here. Odd post-holes associated with the 'malting troughs' **60009** were insufficient to form a regular building. They might instead have supported a lean-to with post-line **60478**, or even a simple canopy, but the range of different features surrounding **60009** would seem to rule out any larger building. The corn-drier was similarly lacking in associated structural evidence. Essential to these features' operation was an elaborate support to allow the circulation of warm air and suitable spreading of the grain (van der Veen 1989). In the absence of post-holes, we must conclude that some archaeologically-invisible structure had rested on the ground.

Brewing was carried out successfully before the Roman Conquest, and elaborate buildings were not essential; roundhouse **60394**, a modest building in the native tradition, might provide a flavour of the structures involved. Many factors might account for the disparity in scale and complexity between the operations at large farm and villa estates and the more modest enterprise here. While buildings that left no archaeological footprint may have existed, simple screens and windbreaks may have provided whatever shelter was necessary.

The drinkers

The Celts' capacity to over-indulge during feasting and Calendar festivals seems to have been a cause for satisfaction to classical writers. Diodorus Siculus refers to the quantities of ale drunk at meals and of the violence that might follow (Ross 1986). The writer Athenaeus (quoted by Ross) comments: 'The lower classes drink wheaten beer prepared with honey, but most people drink it plain. It is called *corma*. They use a common cup, drinking a little at a time not more than a mouthful but *they do it frequently*.' Perhaps it is to be expected that excessive behaviour attracted closest attention from classical writers, who were less interested in the part beer played in everyday Celtic life. Diocletian's price edict (Frere 1987, 285) offers the clearest indicator of its significance, but archaeological evidence is less secure. Pottery beakers which occur in Iron Age and Roman forms have been associated with drinking. More recently, it has been suggested that various bronze bowls and strainers from (mostly 1st-century) hoards, thought to have been used to prepare wine, might have been used for beer instead (Sealy 1997, 47–51 and *pers. comm.*).

While the origins of beer-drinking traditions are obscure, it is clear enough that brewing was an important activity. Demand was probably constant and not restricted to religious and other festival occasions. Mackreth has suggested (1996, 230) that Roman and medieval brewing traditions may have been quite similar, and that beer may have been a Roman staple too. This view, although

speculative, would be consistent with the regularity in which corn-driers are identified on Roman sites. Beer continued to form a central part of the rural diet up to the 20th century.

Possible water-mill

The main advantage offered by the riverside location over sites less susceptible to flooding was its suitability for the construction of a leat. It would seem unlikely that a maltings *by itself* would offer sufficient justification for this undertaking, and it is possible that a watermill was also present at, or intended for, the site. Direct evidence for milling at Area 6 is provided by the unusual concentration of quern and millstones, particularly from the fill of the old revetment. Thirteen pieces of millstone grit were recovered, four of which have been positively identified as millstone fragments (Buckley, details in archive). Lava quern was recovered from five contexts, three of these producing the shattered remains of single stones. These stones could have been used to grind either malt for brewing or corn. The millstones are of particular interest. They need not have originated from a watermill, but they do suggest that mechanical milling took place here. While millstone fragments were recovered from all three of the Suffolk excavation areas, the majority from Areas 7 and 8 were from Dark Earth contexts. Some may have been residual finds; others may have been re-used closer to the main settlement. As a proportion of the total finds assemblage those from Area 6 stand apart.

The two mill types most likely to have been used at the site are either the horizontal or undershoot. The undershoot mill, as described by Vitruvius in the 1st century BC (*On Architecture*, book X, chapter 5), is the type best recorded from the Roman period. Water directed under a vertical wheel worked a simple arrangement of gears. A very similar water-raising wheel had been in use in Egypt for many years, and the main requirement was a steady flow of water to turn it. Several examples have now been identified in Britain. Arguably the best of these was excavated at Haltwhistle Burn close to Hadrian's Wall. A fast-flowing leat ran alongside a largely stone building which housed the gearing and supported one side of the axle on which the wheel turned. Above the mill the 'headrace' steepened before descending over an inclined wooden trough to be directed under the wheel. The wheel-pit and much of the headrace were founded on solid rock, thereby inhibiting erosion. Although the water was naturally fast flowing, a weir was also built to control the river (Simpson in Spain 1984, 106–7).

At Ickham in Kent a series of mill sites which operated between the 2nd and 4th centuries were excavated although these were on a much larger scale than the remains at Scole. Substantial post-holes represented several of the mills, as well as a side channel with a sluice gate and a timber-bottomed and -lined leat (Young 1981). The earliest of the mills, dated AD 150–280, was 'ill-sited close to estuarine land and suffered from deposition in the tail race' (Spain 1984, 121). The post-positions were also 'asymmetrical', and Spain suggested the earlier mill might have been built without 'Roman supervision'. Judging by the footprint, however, considerable effort and carpentry skill was employed in the building, which housed both the wheel and the millstones (for a suggested reconstruction see Spain 1984, 120).

Perhaps a more likely type of mill to have been used at Scole was the horizontal mill; it is one of the earliest (Hodges 1992, 229) and employs a simple mechanism. Water directed down a narrow chute rotates a turbine that attaches directly through a vertical shaft to an upper grinding stone. This type of mill may still be seen in Nepal where they are still very basic and run as family concerns (*Nepali Times*, 12 September 2002: www.nepalnews.com.np/ntimes/issue110/nation-1.htm). Although mostly restricted to mountainous zones this was not a prerequisite, as was shown by the excavation of a sophisticated Anglo-Saxon horizontal mill across the former course of the river Anker at Tamworth over two seasons in 1971 and 1978 (Rahtz and Meeson 1992). A fall of approximately 0.4m from the lip of the millpond to the floor of the millhouse was sufficient to accelerate a jet of water enough to turn the upper stone. It was suggested, but not proven, that by directing the water through a narrowing channel it may have gained extra velocity using the *Venturi* principle; an example being the mill at Knocknagranshy, Co Limerick (Lucas 1969) where the remains of the chute have been preserved.

A site that bears closer comparison both in scale and the nature of the evidence to Scole is Solesbridge, Herts, where there was evidence for both a watermill and a maltings (S. Bryant, *pers comm.*). A clay steeping-tank drained into a leat, with other structures similar to those from Scole close by, while a suggested mill close to where the leat re-entered the river was represented by a range of post-holes and various secondary channels, with possible sluice gates to direct the water. At Scole evidence for a mill may survive to the east of the Area 6 excavations, closer to the point where the leat re-entered the Waveney.

Despite the circumstantial and comparative evidence for a mill at Scole the physical evidence is ambiguous. The water would have gained some velocity by taking the shorter route via the leat, compared with the longer meander of the Waveney. By comparison with other British mill sites, however, we might expect to find firmer evidence of some mechanism to accelerate the water if it was within the excavated area. For the Vitruvian mill a robust timber lining to direct it through a narrow channel at the site of the wheel could be expected. Both types of mill would have required a weir to raise the water level sufficiently to fill the leat and to control the flow. Sluice-gates with multiple channels might also have been necessary. There was very little evidence for timber lining in the channel and any momentum of water through it would have led to damaging erosion (although conversely the withdrawal of stakes might have left few remains, particularly if structural wood was salvaged).

Structure 60317 and post-hole pair 60178 might be construed as the remnants of a mill, with the scouring in the base of 60317 caused by the actions of a wheel (or turbine) and the timbers being the only surviving evidence of an attempt to direct the water. Neither structure compares with the remains from Ickham, however. Given the stresses and vibrations the water-flow would have generated (Andrew Wilson, *pers comm.*), they would seem wholly inadequate for the task. It is difficult to see where the structure housing the gears and millstones would have stood, given the position of the steeping tank in the case of a Vitruvian mill. It would also have been reliant on a precise flow of water — if the river was too low, or in flood, it would not function (Hodges 1992, 229).

Control of the water would also have been necessary for a horizontal mill although the position of the millhouse is less of a problem as it would have straddled the leat. It is also possible that post-hole remains such as 60489, 60347 and 60320 (Fig. 3.23) are trace elements from such a structure. Although the site was generally lacking shaped timbers specific to a mill, hollowed oak timber 60302 stands out; this piece was carefully made with a ‘U’ shaped channel 0.1m deep x 0.05m wide and 1.75m long. It could have been open at the top or sealed by a separate plank. This might be the remains of a driving chute, which fed directly onto the paddles of a horizontal mill turbine. If this were true it was, of course, re-used, as were the timbers that were excavated spanning the leat.

One final possibility to be considered is that the ‘steeping tank’ actually provided the header for a horizontal mill. This would explain the arrangement whereby the outflow from the tank in Stage 1B was directed beneath the revetment (Fig. 3.27B). Objections to this theory include the mechanical inefficiency of such a scheme. Filling the tank would have involved raising water, either mechanically or by hand, to release it down a chute — a less efficient process than simply turning a wheel with a simple gear. While the recorded evidence for the mill is inconclusive, it seems most likely that any mill within the excavation was of the horizontal, and not the undershoot, type.

The stratigraphic evidence makes it clear that the leat (and, by implication, any watermill) was short-lived, if indeed any mill here worked at all. Many technical difficulties might have prevented success. The water-level undoubtedly rose between the 2nd and late 3rd centuries; periodic violent flooding may have destroyed equipment and fouled the channel with silt. If the millers failed to establish control over the river, any watermill would have been doomed. Ultimately the malting/brewing complex was also driven out by water problems but not until it had remained here for perhaps about a century. This might reflect the scale of the investment that it represented. Simple inertia may also provide an explanation, and the evidence of the millstones suggests that a means of grinding corn other than by water may have been used, maintaining the industry on what was now an unsuitable site.

More generally, it may have been desirable to process crops and brew beer within a single complex. Catsgore, Tiddington and Orton Hall Farm, among many others, were essentially dry sites, where an adequate supply of water for malting was provided by single wells and yet the production of beer may have been substantial (Mackreth 1996, 230). These sites were complex, with evidence for grain storage and (at Orton Hall Farm) mechanical milling. It may have been an intention to create a similar — if more modest — complex at Scole, based around a watermill, which first attracted people to this riverbank location.

The roof timbers (Fig. 3.77)

Considering the lack of evidence for buildings at Area 6, it seems ironic that it produced such an exceptional collection of re-used roof timbers. The largest of these were two gable-end rafters, which suggest a roof angled at 45°. This is consistent with a thatched or shingled (rather than tiled) roof (Darrah, Chapter 8). The timbers may have been seated on a wooden wall plate or possibly walls of

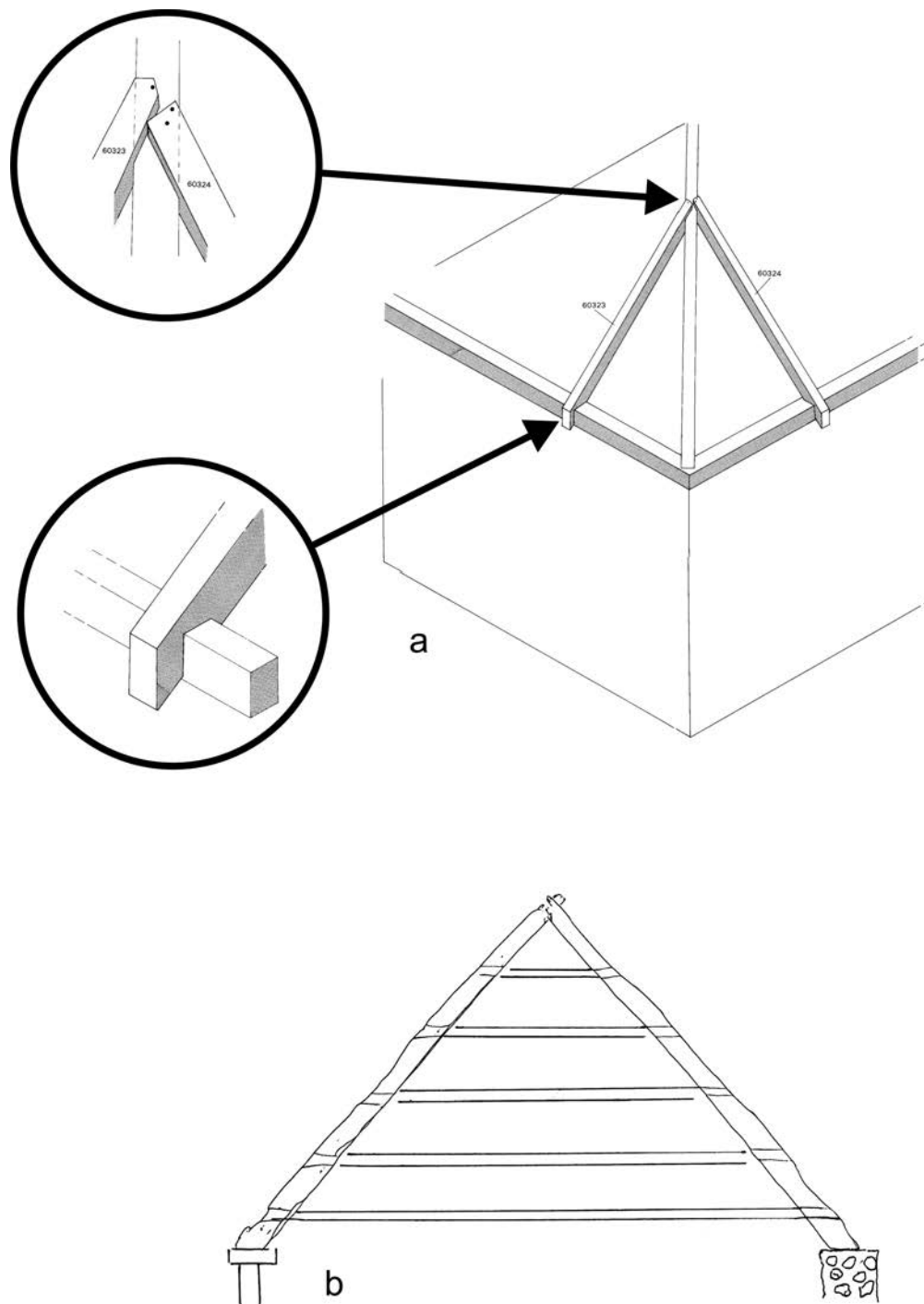


Figure 3.77 Area 6: reconstructions of roof timber carpentry: a – jack rafters; b – principal rafters

brick and flint masonry, such as those used at *Venta Icenorum*, or chalk blocks and unfired clay brick which were also present (Wacher 1976, 233). Similarly clay brick walls were in use at *Camulodunum* (Crummy 1984). There was little evidence to show how gables or bays along the roof had been joined. There may have been clasped purlins set into the connecting collars, which do not survive, or battens may have been secured by nails — although few examples of such holes were noted, others may have closed up over time. The matching pair of re-used jack rafters indicate a different type of thatched roof, either hipped or pyramidal, and rested on timber wall

plates. We cannot tell how close to the apex of the roof the timbers were where they met, and this prevents an accurate estimation of the size of the building (Darrah, Chapter 8). While they probably originate from a smaller structure than the gable timbers, in many ways they are more impressive pieces. Surviving evidence from apparently multi-functional buildings with earthfast posts elsewhere suggests that simple tie-beam roofs, presumably with gables, were commonplace. Local sites with buildings of this kind include Pakenham, Suffolk (J. Plouviez, *pers comm.*) and Brampton, Norfolk (Green 1977). Pyramidal roofs would be most appropriate for

square buildings, which are likely to have had specialised or unusual functions. Square ground-plans have been recovered for numerous Roman-Celtic temples (Rodwell (ed.) 1980, Crummy 1984), including that at Scole (Chapter 4). Military works may also include square towers; water towers such as those at Colchester and the much smaller example at Pakenham were also square (Plouviez 1995). Timber structure 60165 in steeping tank 60008, associated with Phase 1 of the leat, may also have been roofed.

The third identifiable roof timber was a more prosaic common rafter. Unfortunately, the general scarcity of these timbers makes it impossible to assess just how commonplace these were.

A ritual deposit?

Caution has been urged in recent years when interpreting deposits such as the horse skulls within 60116 as 'ritual' phenomena (Wilson 1992). There has also been much debate as to what constitutes ritual behaviour (Hill 1995; 1996). However, a combination of factors suggest this is the correct explanation for the horse skulls found in the Area 6 well. Firstly they were isolated finds in the bottom of the feature, not apparently associated with other rubbish-type deposits or (in particular) other animal bones. Secondly, while horse skulls are rare finds, here are two deposited together. There are numerous ethnographic parallels for the deep respect held for horses in some societies, which is sometimes expressed in ritual (Moore-Colyer 1994), and the special deposition of bones, in particular horse skulls, in the Iron Age is well documented (Wait 1985, Cunliffe 1991). We can also be fairly certain that the horse was regarded as 'special' by the Iceni in particular, since it featured so prominently on their coinage.

The deposition of horse skulls in wells was recorded in a Roman context during excavations at the *mansio* at Chelmsford (Luff 1996, Drury 1988). There are also examples, dating from the Roman period to the Middle Ages, of the placing of horse skulls under thresholds — for example, the deposition of three at the deserted 14th-century village of Thuxton in Norfolk (Butler and Wade Martins 1989). Possibly this was a remnant of an earlier Iron Age tradition.

The later Roman period

Whereas excavated ditches, post-holes, and other subsoil features and their contents establish a visible sequence for the earlier Roman period in Areas 7 and 8, the later centuries are scarcely represented in this manner. It is clear, however, from the evidence of the Dark Earth finds that the area still saw much activity.

The stratigraphic sequence in Area 8 ends with the infilling of the ditches which defined the most southerly enclosure. The roadside ditch shifted northward, as if to define the property edge rather than to improve the road itself; this may have been an attempt to prevent accumulated rubbish spilling onto an occupied building. The large drainage ditch to the rear of the properties had already silted up before the Dark Earth formed.

West of the main road, in Area 7, the picture is a little clearer. The 3rd-century roadside 'terrace' overlooked the north-to-south roadside ditch and was flanked by the

southernmost side-road ditch (both these ditches becoming infilled with Dark Earth by the mid 4th century). The stratigraphic relationship between building 70525 and the Dark Earth could not be established (above); in any case, it lay almost directly beneath the modern ploughsoil. However, there may be a significant pattern in the distribution of the pottery. Whereas Nene Valley ware was uncovered in the Dark Earth along the edge of ditch 70523, 4th-century pottery and coins accumulated in the south-east corner of the latest enclosure. This may be evidence that at least the southern end of building 70525 was occupied during the 4th century, and that rubbish-dumping was moving away from the building and was separated from the living and working areas by a distance of at least 20m.

The finds totals, although weighted in favour of the later period, suggest an increase in commerce. This was made especially clear by the concordance between the pattern of late coins and small finds across parts of the site (the pattern from Areas 1–4 seems particularly striking: Cooper, Chapter 7). The five iron styli recovered from Area 7 stand out within the context of the site as a whole (Cooper, Chapter 7) and seem to support the suggestion that building 70525 was engaged in trade, although a high proportion of the small finds were domestic (Chapter 7).

During the Orton Hall Farm analysis, a hypothetical equation was invoked to compare occupation density with the proportional recovery of pottery for each period (Makreth 1996, 182–3). The nature of the Dark Earth evidence does not lend itself to this kind of comparison but if quantities of pottery waste (and perhaps coins) are a reflection of settlement density there was clearly a marked presence in the southern part of the settlement during the 3rd and 4th centuries.

The end of the Roman settlement

West of the main road the deposition of coinage appears to fall off after AD 348; to the east this decline occurs after AD 378, as it did north of the river in Areas 1–4. The discrepancy either side of the road may be partly accounted for by the 3rd-century hoard found to the west of the road in Area 7 (Davies, Chapter 7), and presumably by the incorporation of some of the Dark Earth here into the ploughsoil. The restricted distribution of 4th-century pottery fabrics in both Areas 7 and 8 suggests that occupation did not continue beyond the date suggested by the coinage.

V. Period 6: post-Roman activity

(Plate 3.13; Figs 3.3, 3.78 and 3.79)

Area 6

Cremations

(Fig. 3.3)

The bases and fragmentary remains of two urned cremations were uncovered in 1994 during removal of ploughsoil close to the river in the western field. Both pots had been severely damaged by recent ploughing of the grey silt layers in the south end of the field, into which the pots had originally been placed. At the time of excavation the ploughsoil was itself waterlogged. Very little bone was recovered, the majority having been dispersed within the ploughsoil. Analysis of what remained suggested that 60402 was an adult, possibly female, while 60401 may have been a subadult/(small) adult (McKinley, Chapter 9).

Phase 8 (Area 8)

Palaeochannel and causeway
(Plate 3.13; Figs 3.78 and 3.79)

A band of closely-spaced oak piles, 1–1.3m wide, followed the western edge of the palaeochannel. They were in two main phases; a third phase, set further into the peat, only became visible at a lower level. The positions of 453 timbers from the two adjoining alignments were recorded (Darrah, Chapter 8). Two basic sizes of timber were used in the structure, large ones (c. 0.4m diameter) being placed along both edges with smaller ones (< 0.2m across) filling the spaces in between. Along the north edge, at the west end of the feature was a striking pattern of paired large timbers sited 1.2–1.8m apart. This pattern was not recognised over the central 4.5m of the excavated length, but re-emerged at the easternmost end. The timbers along the southern edge were generally smaller, apparently forming an almost-continuous line. There were numerous extraneous pieces beyond the structure's edges. The timbers were not all contemporary since some later stakes had been driven into the tops of earlier ones.

Four timbers were sampled for radiocarbon dating, three of them from the alignments of larger posts. The results showed that two posts were broadly contemporary, despite coming from different alignments (1435±35 BP and 1495±65 BP; C4th–C6th AD). This could imply either that the two alignments were part of a single structure or that timbers from the earlier line had been reused. The third date from the timbers was later (1625±40 BP) — it confirms that timbers were added subsequently, and that the structure could have been maintained for over 200 years. A fourth sample was dated from the separate alignment of posts sealed beneath the layer of dumped sand further out into the peat (OxA 5980: 1965±50 BP, 100 BC–AD 130). This date correlates with the supposed date for the dumping episode, during the late 1st or early 2nd centuries AD.

The later timbers had been driven into the peat through the Dark Earth, and were also sealed by the alluvial clay lying directly over the

Dark Earth. Their tops were all rotted but this may indicate the depth to which they were sunk, since earthfast posts generally rot at ground level. The lengths of the smaller timbers varied from 0.10–0.40m; the largest piles were up to 0.45m deep. Most were pointed, but the large paired timbers along the northern edge were flat-bottomed. The paired timbers are interpreted as a basic framework, with the lesser timbers supplemental. The paired timbers, however, were relatively shallow (set only c. 0.30m into the ground), which suggests they were not very tall.

The function of the structure is uncertain. While the layout of the posts and their position on the edge of the channel suggest a revetment their relationship to the channel is uncertain, since it was largely filled with Dark Earth by the time the later timbers were set out. Perhaps they represent a causeway leading to a natural crossing-point in the River Waveney.

Ploughsoil
(Fig. 3.78)

Plough-lines recorded across the eastern half of Area 8 post-dated all recorded features, and cut through the Dark Earth. They were sealed by a layer of alluvial clay/silt recorded across all excavation areas, including the palaeochannel.

While the plough-lines were not visible within the Dark Earth, the bottoms of the furrows were filled with Dark Earth and could be seen cutting the grey sand podzol and subsoil surface after the Dark Earth had been removed. The direction of ploughing was either parallel or at right-angles to the Pye Road, and minor variations indicate there had been at least four seasons of cultivation. There was no obvious boundary along the western edge of the ploughed zone but the matrix of the dark soil appeared less mixed here. The plough-lines were 0.20–0.45m apart. The deepest penetrated the surface of the subsoil, suggesting a furrow depth of up to 0.28m. Samples of soil were taken for micromorphological analysis, and the results are considered in Chapter 9.

Comparable, and probably contemporary, plough-lines on the same alignment were also recorded east of the peat channel. The location of the

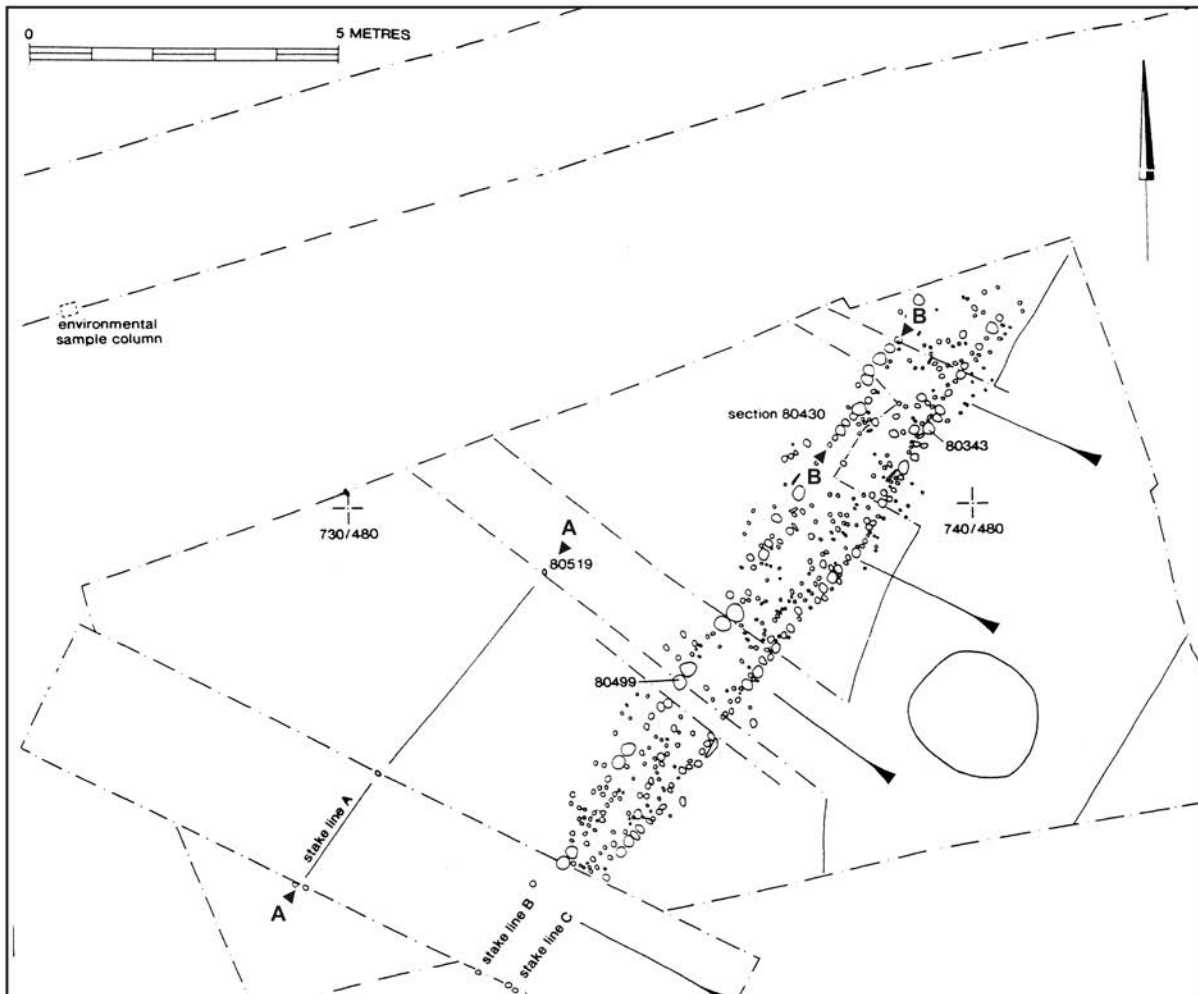


Figure 3.78 Area 8 Period 6: plan of features recorded on western edge of palaeochannel

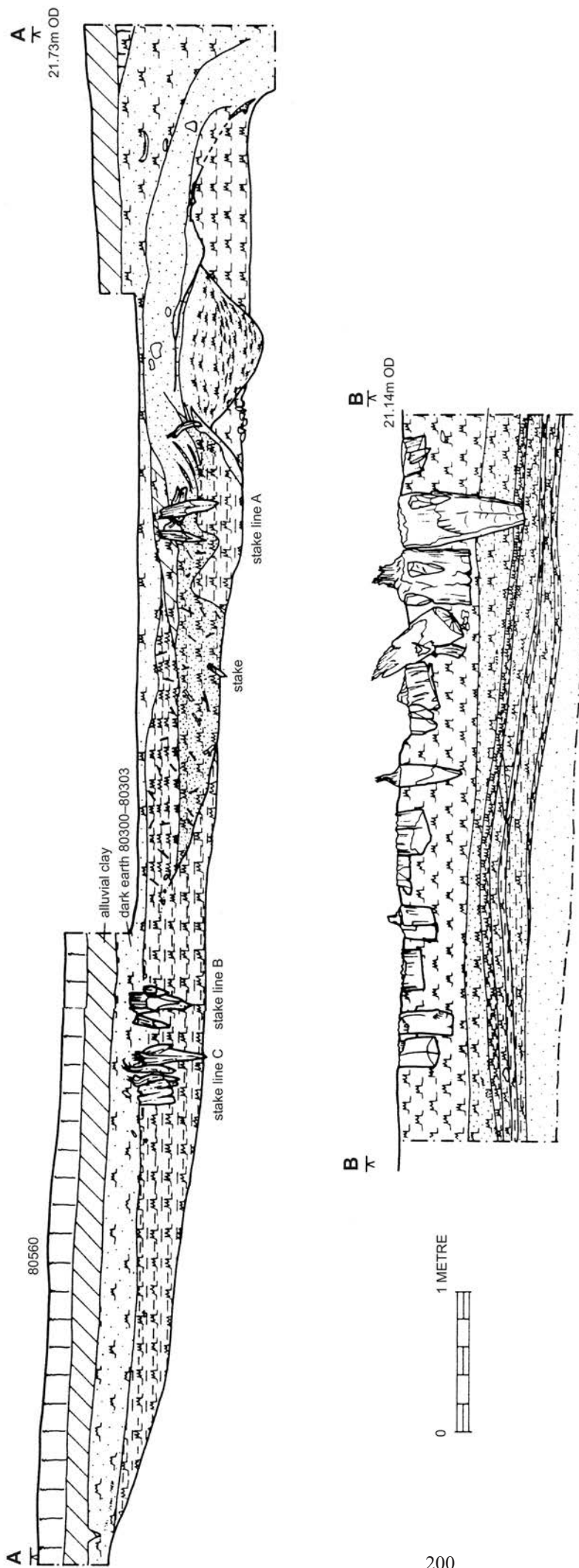


Figure 3.79 Area 8 Period 6: south-east facing section 80430 through stake alignment



a



b

Plate 3.13 Area 8, causeway across the Waveney palaeochannel:
a – general view, looking north-west; b – detail of oak pile alignment

channel, whose area was probably always too damp for cultivation, would suggest that the plough-lines represent two different fields.

The dating of cereal pollen recorded within the palaeochannel (Wiltshire, Chapter 9) suggested that the ploughing was Middle Saxon, and represents a very brief episode in the history of the field.

Discussion

There is nothing to indicate any continuity in nucleated settlement into the Saxon period south of the Waveney. This apparent hiatus may also be seen in the environmental evidence from the palaeochannel, where a 'great drop in microscopic charcoal' (Wiltshire, Chapter 9) might indicate the abandonment of the site. However a

marked increase in cereal pollen, with no corresponding increase in scrub or secondary woodland, suggests that there was no significant hiatus in land-use.

While the causeway is poorly understood, its significance in the landscape is suggested by its recorded presence at least 60m to the south of the river. The route of the earlier causeway, which bordered the palaeochannel in the Late Iron Age/early Roman period, was reinstated, with the stake-lines a little further to the west than previously. This supports the view that this feature had fallen into disuse during the Roman period, and its original line lost. It is possible that with the (?)collapse of the Roman bridge across Waveney the more ancient route

across the floodplain was adopted once again. The apparent revival of an old route in the Early Saxon period suggests that some topographical advantage favoured it over others, including that marked by the Roman bridge. Perhaps the causeway simply marked a path across the valley when the river was in flood. This interpretation would seem to match the available evidence, which suggests it had a fairly simple construction. A close-set line of posts might have provided support against the current for people and animals crossing the valley. Radiocarbon dates from samples of the causeway timbers suggest it was maintained for at least 200 years, lending support to the argument that this was a major and enduring routeway.

The final abandonment of the route is signalled in the pattern of plough-marks, which occur on either side of its

alignment and are not compatible with its continued use. These have been tentatively linked to an increase in cereal pollen recorded in the palaeochannel, which is suggested to have been of Middle Saxon date (Wiltshire, Chapter 9). If this were the case, it may have coincided with a return to the Roman bridge site and possibly with increased traffic along the old Roman road, which continued in use up to the present day.

The ploughing of the Oakley field was short-lived and may already have ceased before the deposition of a thick band of 'khaki' silt, suggestive of catastrophic flooding, sealed these deposits and appears to mark the end of all arable land-use close to the river until recent times.

Chapter 4. Excavations North of the Waveney: a Romano-Celtic Temple and its Environs (Norfolk Site 30650)

by Andy Shelley

I. Summary

During May 1994 a watching brief was maintained on road construction to the south and east of Scole. The A143 Scole bypass runs for 1km of its length along the northern bank of the River Waveney and is located, therefore, within Norfolk. The Norfolk Archaeological Unit discovered several areas of significant archaeological activity, including a simple Romano-Celtic masonry temple dating to the mid 2nd century. It lay equidistant between the river and the east-west Roman road which passed through Scole. The temple and its grounds had been established over a field system laid out in the 1st century AD and it fell from use towards the end of the 3rd century. Elements of a nearby building and kiln of similar date were also recorded. Remarkably little evidence was found for activity in any other historical period.

The remainder of the route of the A143 bypass lies within Suffolk and was examined by Suffolk County Council Archaeological Service; the results are reported in Chapter 3 (Oakley Area 8).

II. Introduction

Background

(Fig. 4.1)

At its eastern end, the route of the bypass leaves the old A143 Bungay road at a point 0.65km west of Billingford, where the natural soils are of chalk, sands and gravels. The road then descends onto water meadows, which consist largely of sands, except where old river channels have filled with as much as 3.50m depth of peat. The flood plain is waterlogged and is now drained by a series of parallel ditches.

A watching brief during road construction monitored four parts of the route (Norfolk Site 30650, Fig. 4.1) which accounted in total for an area of 1900m². Areas A, B and C were stripped of their sub-soils using a mechanical excavator before archaeological excavation began, whilst recording in Area D was restricted to the sections and bases of newly-cut roadside gullies. All the machining was conducted for road construction purposes, rather than under archaeological direction.

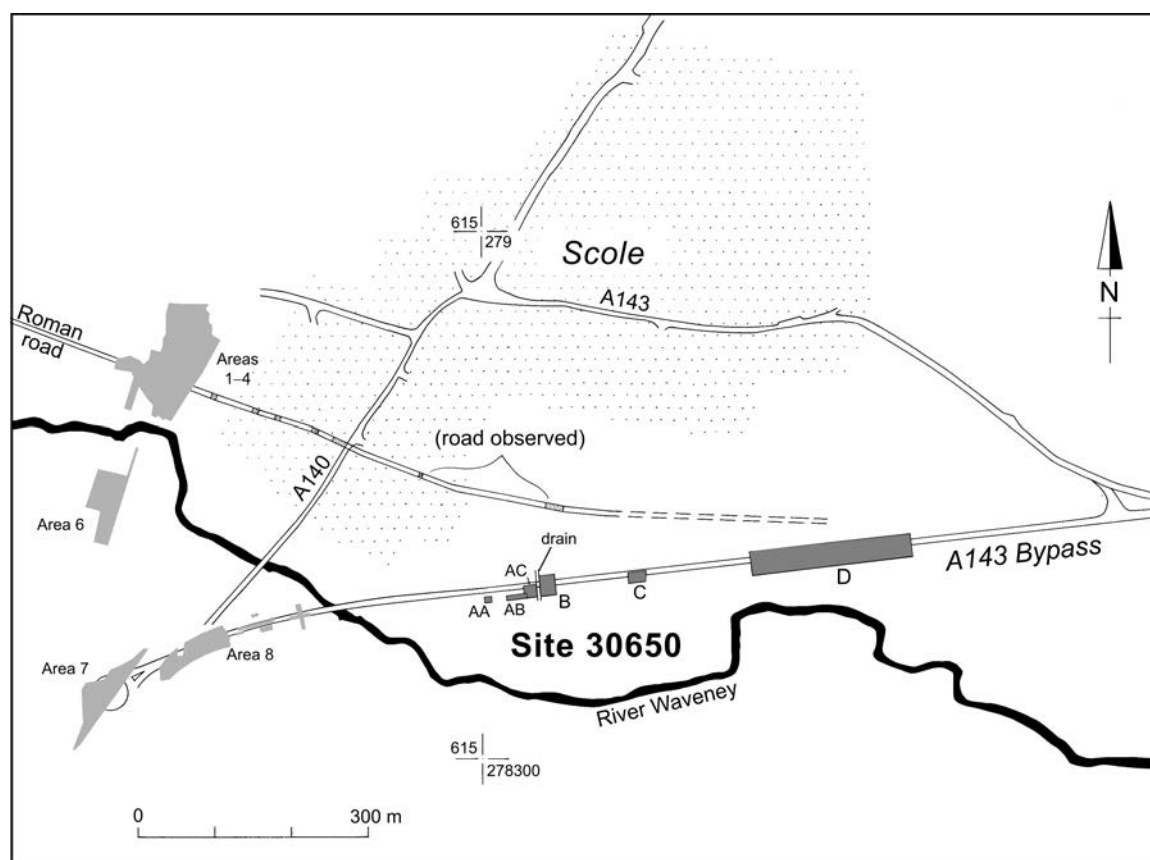


Figure 4.1 Location of Scole Site 30650, showing excavation and watching brief areas



Plate 4.1 Site 30650, during construction of the A143 bypass:
a – aerial view looking south towards the Waveney; temple site ringed;
b – aerial view of the temple site, looking north-west;
c – recording the north-west corner of the temple

The archaeological work was conducted in May 1994. Substantial lengths of the road were nearing completion when the watching brief began, and other areas could not be recorded to the level of detail that the excavators would have wished. A metal-detector survey was an integral part of the work, and further metal-detecting by Alan Smith subsequently led to the recovery of several significant objects (Chapter 7).

The periodisation system applied to the archaeological evidence in this chapter is that used in Chapters 2 and 3 (Norfolk Site 1007 SCL; Suffolk Sites SUS 005 and OKY 005). The span of Period 4 (mid 2nd century to late 3rd century) has been divided into four phases. Features are referred to by site context numbers.

III. Periods 1 and 2

Pre-Roman finds

Evidence for pre-Roman activity was limited to the recovery of six residual worked flints of Neolithic date, each of which came from separate features spread evenly across the area under examination. Of these only one, a blade, represented a tool, the others being flakes. There was no evidence for archaeological activity during the 1st century BC or the earlier years of the 1st century AD.

IV. Period 3 (mid 1st–mid 2nd century)

Field drainage

(Fig. 4.1 and 4.2)

The first Roman activity has been dated by pottery identification to the late 1st century AD, and occurred in the water meadows to the north of the River Waveney. These had been drained by a series of ditches, presumably to render the land suitable for agriculture.

Four east-to-west aligned ditches were recorded, each parallel with the Roman road observed to the north during

the construction of sewerage filter tanks in 1951 (Fig. 1.2; Clarke 1957) and in three cases separated by a distance of 22m. The northernmost ditch lay approximately 66m from the road, suggesting that a unit of *c.* 22m was employed when laying out the field system.

In Area C (not illus.) two ditches were visible for a distance of 17m. Ditch 311 was 'u'-shaped in profile and survived to a depth of 0.6m. Twigs and small branches lay at the base, probably to facilitate drainage. Ditch 306 was a wider re-cut of ditch 311 and was significantly shallower, at 0.45m depth. It had silted up rapidly. Towards the top of the fill a grey ware ceramic body sherd, re-fashioned as a spindle whorl, was retrieved.

In Area A a flat-based ditch (116) of 0.4m depth had filled solely with grey silt from which a considerable quantity of late 1st-century pottery was recovered. To the north a shallow ditch (227) contained fill of a similar nature. A large, irregularly-shaped pit of 0.7m depth was located to the south of ditch 116. Pit 127 was steep-sided, contained silty sand backfills and may have been a quarry pit. It had been backfilled in the mid-2nd century.

The ditches of Area B were examined only in small slots. An east-to-west aligned feature (166) was at least 1.0m wide and 0.6m deep. It contained a dark grey-coloured sandy clayey silt and, to the east, was filled with peats and loams, with much twig and small branch content. At a northern right-angle lay a 1.0m wide ditch of similar profile and fill (192). The latter demonstrated that the field system operated in two dimensions, a theory supported by the discovery of a second north-to-south aligned ditch (245) to the south-west. This measured 0.9m in width by 0.2m in depth and contained a clayey silt fill. It is conceivable that these two ditches were joined, although this was not proven. North-to-south ditches were presumably dug to allow drainage into the river.

A number of metal-detected finds datable to this period were also recovered. These included a Colchester-type brooch of mid 1st-century date (Cooper, Chapter 7) and coinage of early issue (Davies, Chapter 7).

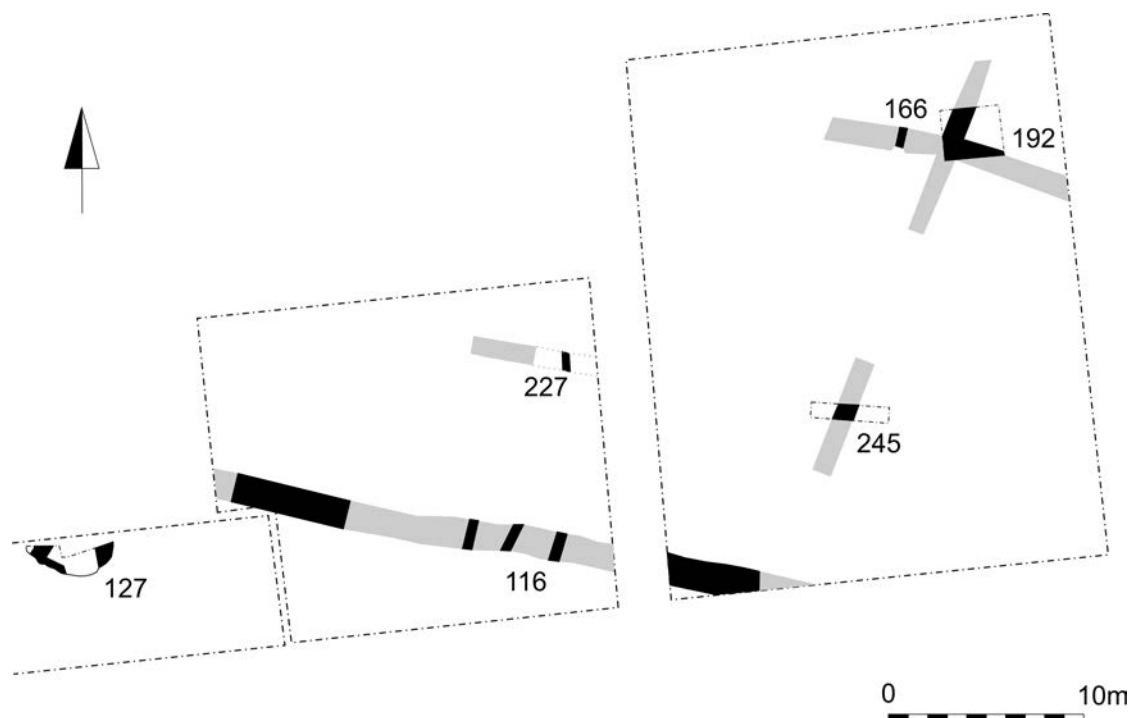


Figure 4.2 Area A: plan of Period 3 features

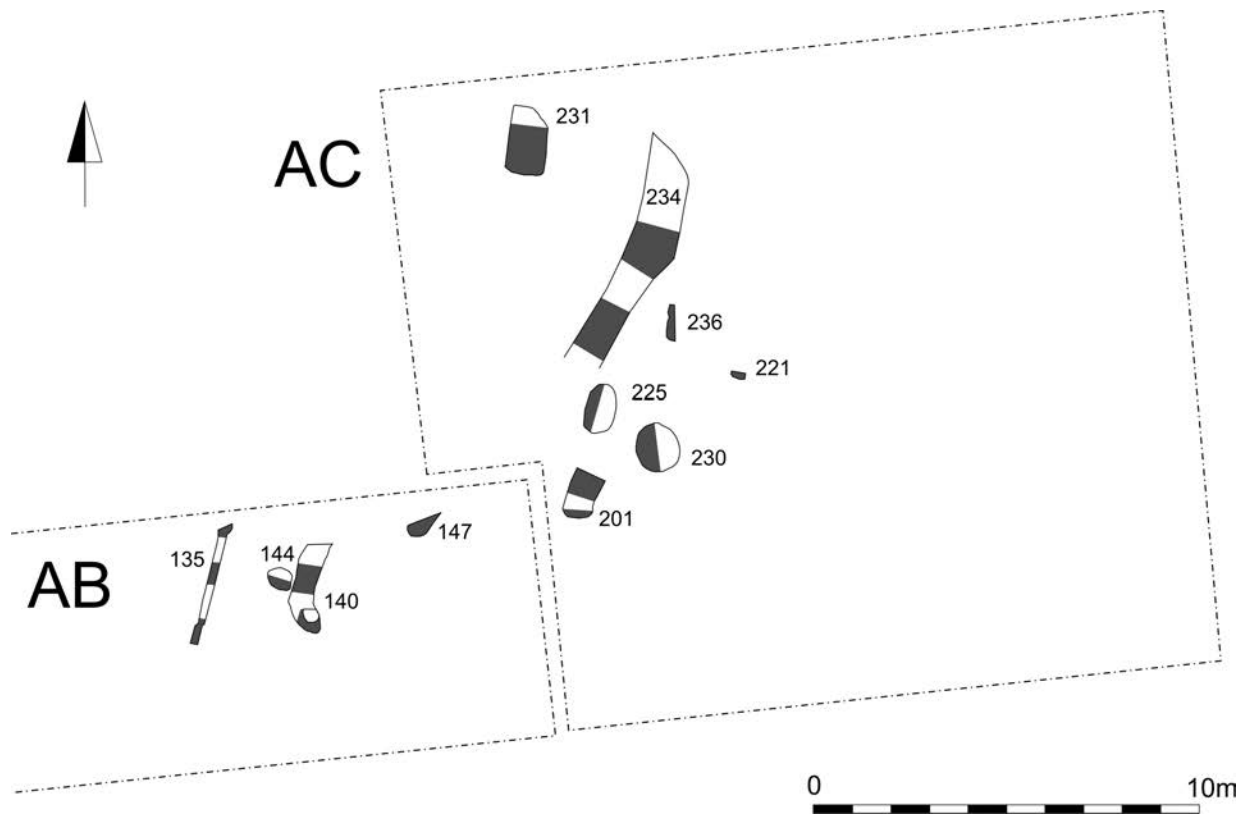


Figure 4.3 Area A: plan of Period 4.1 features

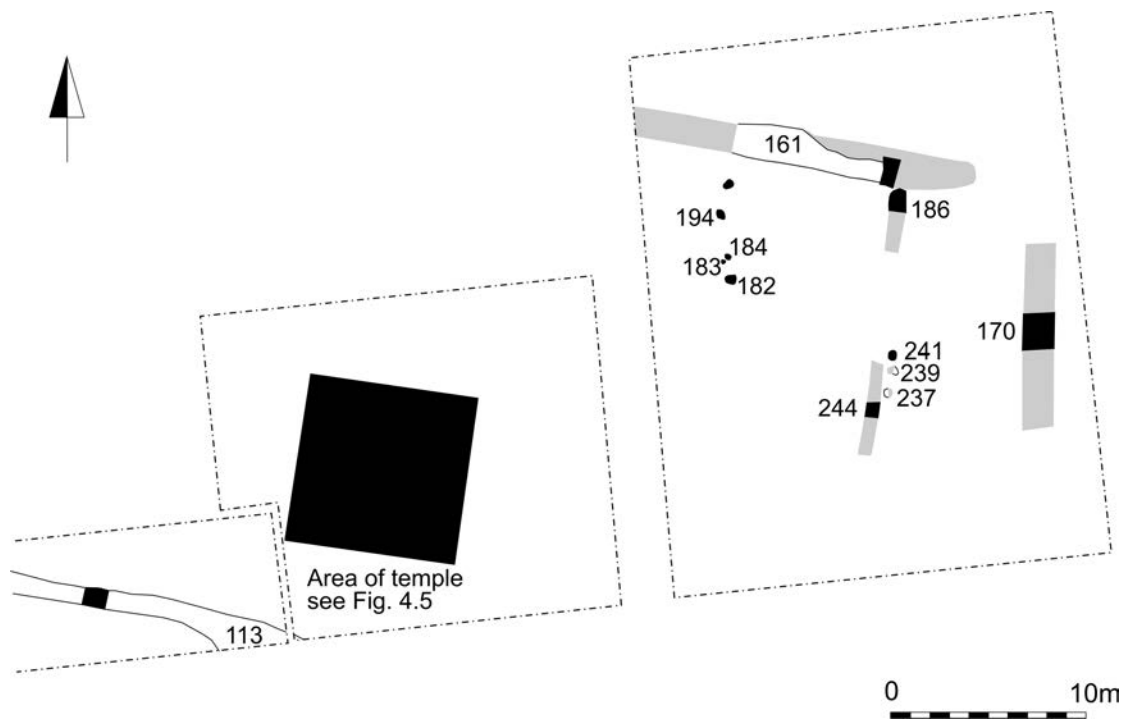


Figure 4.4 Areas A: plan of Period 4.2 features

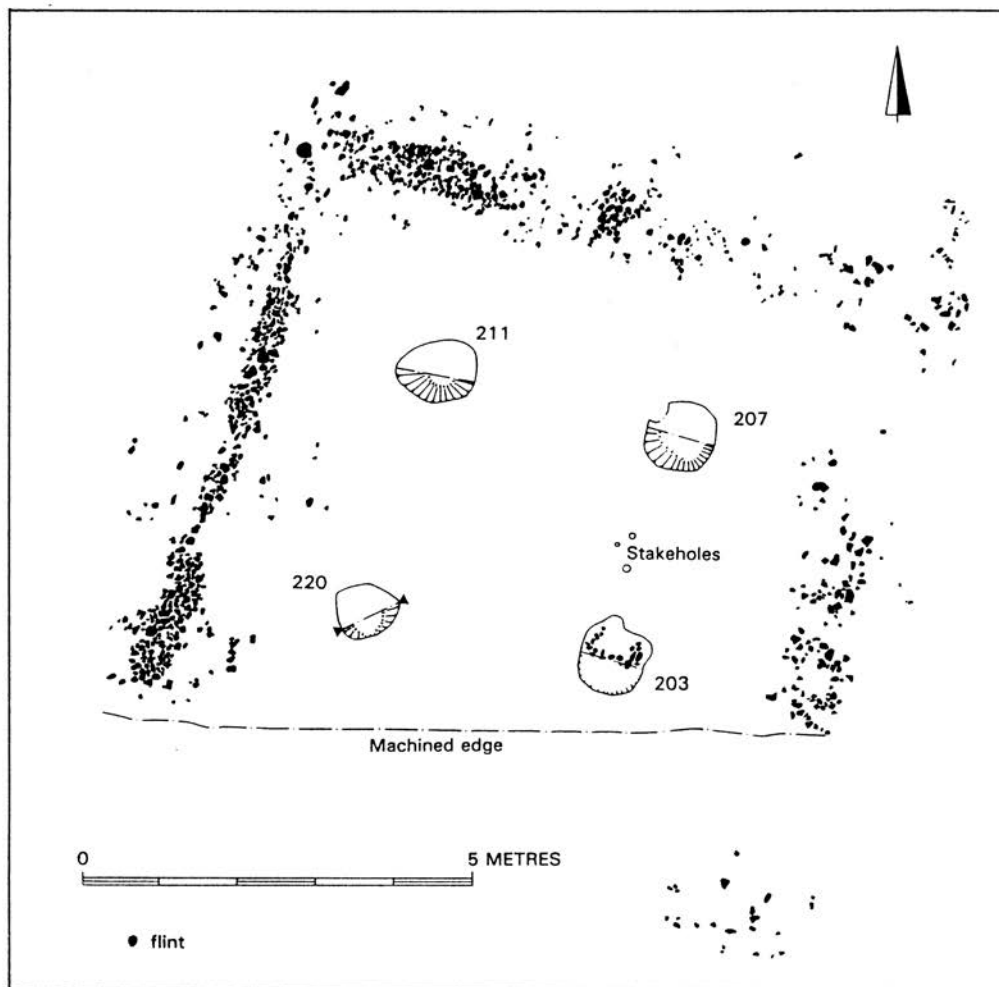


Figure 4.5 Area A, Period 4.2: plan of temple; section across post-hole 220

V. Period 4.1 (mid 2nd century)

Early structural activity

(Fig. 4.3)

A narrow, flat-based ?beam slot (135) and a parallel gully of 0.15m depth (140) contained silty sand with occasional charcoal fragments. The southern end of the gully contained a post-hole of 0.25m width. Between the beam slot and gully lay a circular post-hole (144) of 0.25m depth and to the east of the gully a lozenge-shaped slot was also recorded (147).

A collection of features occurred to the north-east of the gully. A rather meandering ditch of north-to-south

alignment (234) may originally have connected the two Period 3 ditches (116 and 227). It was between 0.9m and 1.2m wide with a very shallow, concave base. The feature, like most of the other ditches, had silted up. To the west lay a large, rectangular feature (231) of shallow depth, with a silt and charcoal fill, and to the east a small sub-square post-hole was located (222). Once again, charcoal flecks were present in the silty fill.

A third collection of features may have related to the construction of a pre-temple structure. Close to ditch 234 was a steep-sided rectangular cut of 0.22m depth (225) which became lozenge-shaped at the base. The basal fill contained a naturally-derived grey silt mixed with a

yellow clay. There were no finds. To the south lay a linear gully (201), only partially excavated and of 0.16m depth. This was seen for a distance of 1.2m and lay on the same alignment, and displayed the same width, as cut 225. East of the gully lay a large, irregularly-shaped cut of 0.55m depth (230). It had steeply-inclined sides with a nearly flat base. Two metres to the north lay a very similar feature (236) of sub-rectangular plan. Its lower fill, like the fills of 201 and 230, was of naturally-derived grey silty sand. All bar feature 230 had been sealed with yellow clay and flints during construction of the temple.

The features in Area A may, in part, have replaced the field drainage system and appear to have represented elements of a timber structure or structures. Too little survived, however, to accurately gauge their form.

Structural activity also occurred to the east of the site, at the base of the valley slope (Area D, not illus.). A large, sub-square post-hole (036) was recorded, originally measuring 0.6m square in plan with steep sides and a flat base. It had filled with a pale brown sandy silt containing occasional charcoal. This was sealed with a black organically-based soil (020) which contained eight sherds of late 1st–4th-century pottery.

VI. Period 4.2 (mid–late 2nd century)

Construction of the temple

(Figs 4.5 and 4.6)

The field system was finally replaced after the mid 2nd century by a pair of east-to-west aligned ditches. These flanked a simple temple situated equidistant between the road and the river, and sharing the alignment of the former.

A wide and shallow ditch (113) lay to the south of the temple building. The majority of the mid 2nd-century fill was of a mottled black material with frequent fragments of charcoal and cremated sheep and goat bone which had been tipped from the direction of the temple. Thereafter the ditch had silted up.

To the north of the temple a ditch (161) had been cut into the southern edge of drainage ditch 166. This had a relatively steep ‘V’-shaped profile, was 0.6m deep and contained naturally-derived silt. It may have provided northern delineation of the temple’s grounds. The eastern end of this re-cut was probably marked by a junction with a shallow north-to-south ditch (186, 244). This latter feature was 0.8m wide, contained sandy silts and clay and may have represented the eastern boundary to the grounds.

Three post-holes (238, 240 and 242) were located on the edge of the eastern ditch. Generally 0.35m deep, these unequally-spaced features would have held 0.15m-wide fence-posts. The base of one post, with a sawn point, survived. All features contained pottery, indicating the fence fell from use in the late 2nd or early 3rd century. The posts may alternatively have supported a bridge across the ditch, although this would have been a short-lived structure since the ditch had been sealed with a 0.25m depth of silty sands by the end of the 2nd century.

Within the area enclosed by the ditches (at least 1400m²) a small masonry and timber temple, of concentric square form, was constructed (Fig. 4.5). The soft and waterlogged nature of the ground had been countered by the deposition of yellow clay and flint within the silt-filled features of Period 4.1, over which a sill footing, surviving only to one course, was constructed. No

evidence for a sill beam or associated post-holes was found. The footing described a square with an area of 76.5m², and survived principally along its western edge, the eastern and southern sides having been significantly damaged during machining. The footing formed the outer perimeter of the ambulatory.

Four large and equally-spaced post-holes (203, 207, 211 and 220) lay within the area of the footing, and formed the corners to a square *cella* with an internal area of 10.75m². The post-holes had depths of between 0.5m and 0.7m and in each case the lower fills were of grey silt, over which yellow clay and flint had been used to pack the post. In both cases where post sizes could be gauged a diameter of 0.4m was recorded (Fig. 4.5).

Located between the eastern posts were three stake-holes, which suggested the eastern elevation of the *cella* was formed by a screen. Disturbed patches of yellow clay found on the same line proved to be the sole remnants of flooring material.

A small kiln in Area C (320, not illus.) had sealed naturally-formed layers of peat and washed silts (containing mid 2nd-century pottery) which had been generated by flood-waters working in tandem with colluvium from the valley slopes. The kiln was comprised of a circular, bowl-shaped cut 0.5m in diameter with a lining of grey clay. A ring of semi-fired clay and smithing slag further lined the ‘bowl’ and a small spread of charcoal and grey silt sealed the clay; this material also contained occasional patches of burnt clay and lumps of charred wood. The kiln had been too heavily truncated during road construction for detailed analysis, although it seems that metals had been smelted. Whether the kiln was related to the temple in any respect other than proximity cannot be proven.

The timber post of Period 4.1 was replaced in this period by a possible structure. Two rectangular post-pits (034 and 035, Fig. 4.6) mirrored the conjectured alignment of the Roman road (Fig. 4.1). The western feature (034) contained two posts of 0.2m diameter which had been placed on the base of the pit. These had been supported by chalk post-packing and were eventually replaced by light grey-coloured silty sands. One of the fills contained mid 2nd-century pottery, including a piece of samian ware (Tester, Chapter 6). The narrowness of the modern drainage gully in which they were discovered prevented proper investigation of this building.

The post-pipe fills had been sealed with colluvium (013 and 021) from the northerly slope. This contained mid–late 2nd-century pottery, indicating that the activity seen on the flood plain during Period 4.2 extended across the northern slope.

VII. Period 4.3 (late 2nd–mid 3rd century)

Alterations to the temple grounds

(Figs 4.4 and 4.7)

During the late 2nd–mid 3rd centuries the northern and southern ditches were re-cut. To the south a new ditch of 0.5m depth (112) was dug into the southern portion of ditch 113. This had filled with silt from upcast stored along the southern edge of the feature. In contrast to its predecessor, no cremated bone was placed in the ditch.

To the north of the temple the Period 4.2 ditch was re-cut to form a flat based, east-to-west aligned ditch of 0.5m depth (162). Over a shallow depth of clay a thin layer

of mottled black sandy clayey silt had formed. This contained abundant charcoal fragments and cremated bone. The fill had been tipped from the direction of the temple and it was from this deposit that a ceramic suspended cauldron was retrieved (Fig. 4.7 A; Lyons, Chapter 6). This was in turn sealed by a dark-toned layer with occasional charcoal flecks and cremated bone (152). Deposited in the first half of the 3rd century, the material contained a spindle whorl (sf 17), a flat, semi-circular lead object (sf 25) and a length of rectangular-sectioned lead (sf 27) which was initially thought to have been a curse tablet. Six sherds of Antonine samian were also recovered (Tester, Chapter 6), along with a copper alloy knife handle (cat. 278, Cooper, Chapter 7) with a tapering iron blade.

A solitary timber stake found along the southern edge of the ditch may have related to a timber palisade or later field boundary.

Evidence for a yard to the east of the temple building took the form of several clay layers (190 and 195). Excavation of these was under way when the area was flooded with ground-water. Consequently much of the archaeology, which seemed to include clay floors and pits, went unrecorded. The upper layer comprised orange peaty clay with plentiful charcoal and cremated bone, the pottery from which indicates a depositional date of the late

2nd or 3rd centuries. A metal-detector survey of the south-eastern area prior to the flood recovered from separate pits a late 2nd-century coin (sf 23, Chapter 7) and a votive axe (Fig. 4.7 C; cat. 343, sf 24, Chapter 7).

To the south of the northern ditch, and cut through the yard surfaces, lay a north-to-south aligned collection of post-holes (182, 183, 184 and 194, Fig. 4.4), some of which were filled with orange clay and chalk. The presence of nails, tile and daub within several of the fills suggests the cuts had supported a structure.

A north-to-south ditch (170, Fig. 4.3) was located immediately to the west of a boggy area which may have marked the eastern boundary of the temple grounds. The ditch contained a peaty material with high concentrations of twigs and small branches, and the pottery from this material suggested an early 3rd-century date for its disuse. A small amount of fired clay was also present in the ditch, which may have been dug to drain the western edge of the pond or bog.

To the west of the temple grounds new field drainage ditches (not illus.) eventually silted up, the fill containing plentiful late 2nd–3rd-century pottery.

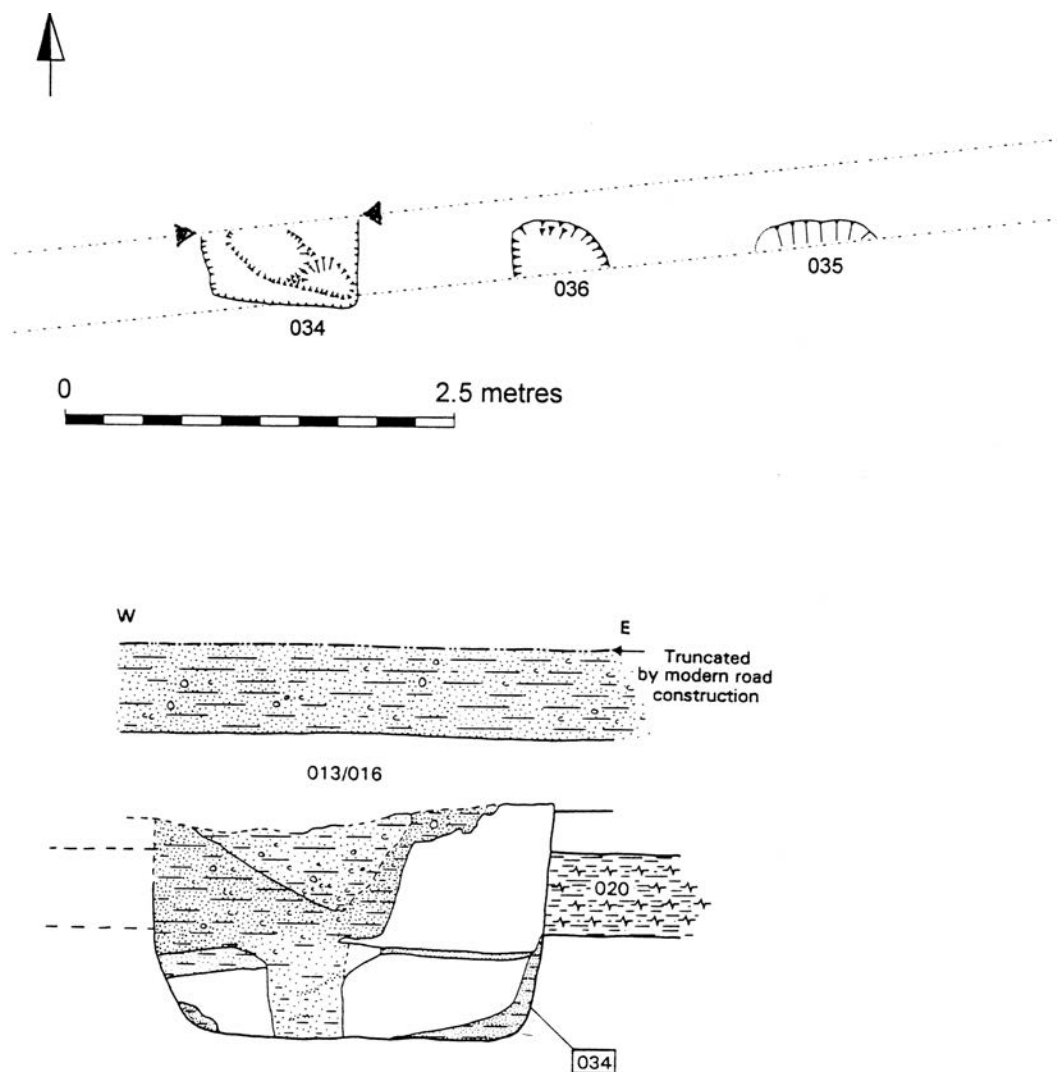


Figure 4.6 Area A: plan of Period 4.3 features; section across pit 034 (soils information for some deposits incomplete)

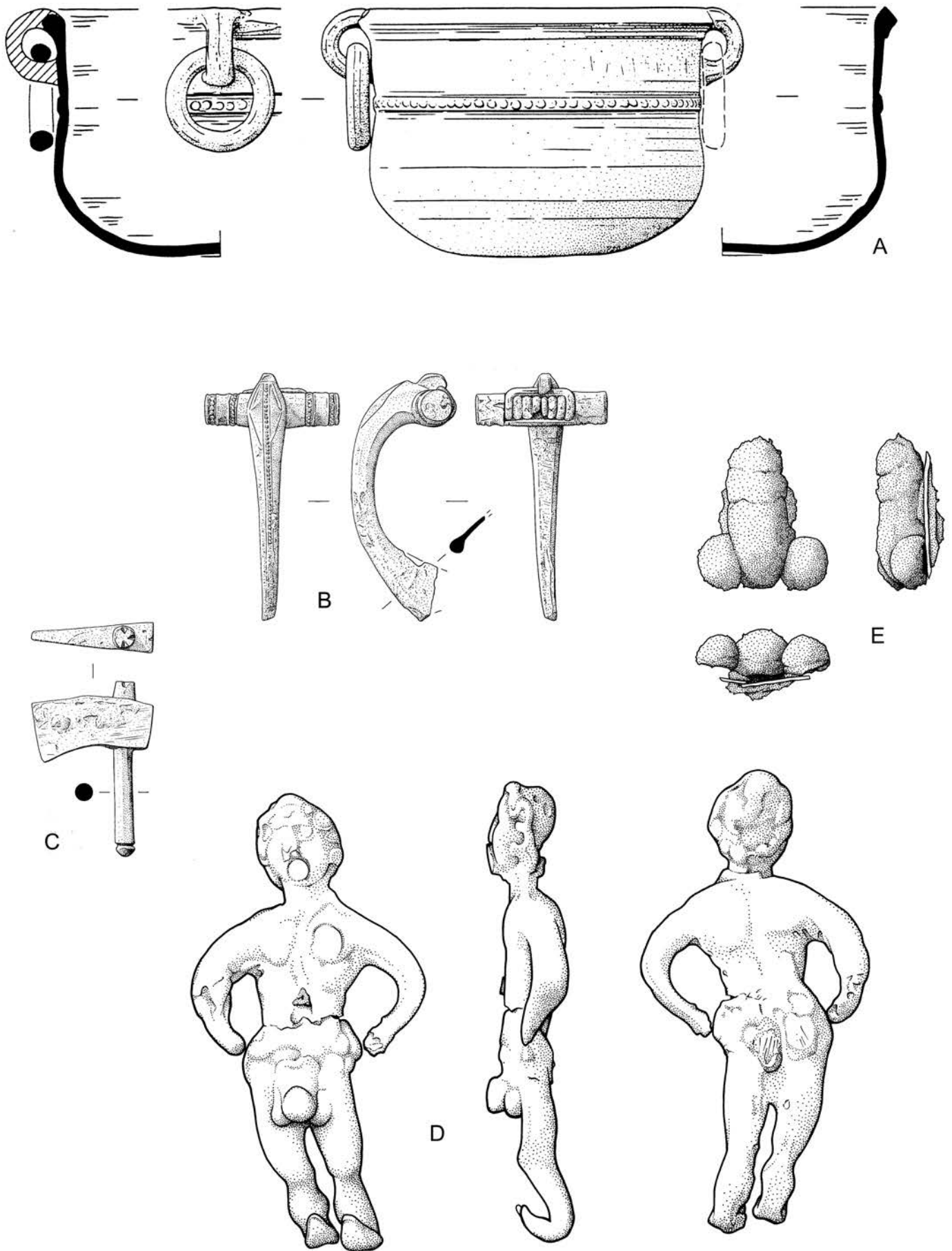


Figure 4.7 Selected finds from Site 30650:
 A – ceramic pseudo-cauldron; B – Polden Hill-type brooch; C – votive axe; D – lead figure of Priapus; E – phallic mount

VIII. Period 4.4 (mid 3rd–early 4th century)

The temple falls from use

Disuse deposits from the mid–late 3rd century indicated a building roofed with pinky orange-coloured *tegulae* and *imbrices*, of the fabric commonly found across Roman Scole (Fabric 2) and located with iron nails. The fallen tiles had generally survived in areas where the original ground surface may have been sunken, such as post-holes and areas outside the ambulatory.

The area of the temple was covered with a layer of loamy soil (154), from which 27kg of roof tile and late 3rd–4th-century pottery was recovered. Three coins of AD 259–93 support the date of last use of the building (sf 7, sf 21 and sf 22, Chapter 7). The soil also contained a Polden Hill-type brooch (Fig. 4.7 B; cat. 28, Chapter 7), two vessel glass fragments (sf 47 and sf 48) and three sherds of late 2nd–mid-3rd-century samian (Tester, Chapter 6). These objects may have been placed in the building as votive offerings shortly before it was abandoned.

A small post-hole (205) dug through the material that sealed the temple's north-eastern post-hole may suggest a temporary structure within the collapsed building.

It is possible that the temple structure survived religious abandonment, and this might explain the presence of animal bone within the soils that built up in the structure. Eventually the building was dismantled or collapsed. It is not clear whether building materials were robbed away at this stage, although a sufficiently deep layer of soil sealed the building to suggest that machining had not removed large amounts of the building's fabric.

IX. Discussion

The evidence uncovered indicates that cultivation of land began to the east of the town during the 1st century, and that 'green field' development occurred in the 2nd century as the town expanded. Although the temple was probably isolated from the main body of the settlement it is possible that neighbouring farm buildings (the Area D structures) developed in 'ribbon' fashion, encouraged by the east-to-west road.

The newly-discovered temple at Scole is the fifth to have been excavated in Norfolk, and the only example known so far to have utilised non-masonry *cella* walls (Gurney 1986b, 52, fig. 37). There is little evidence to

suggest in which direction the temple faced, although commonly it was to the east and the absence of a flint sill-footing at either end of the eastern ambulatory wall may support this interpretation. The eastern screen of the *cella* would, in this case, have been hidden by an ambulatory elevation with entrances at either end.

By comparison with the temples of *Venta Icenorum* (*ibid.*) the Scole example was of inferior design. The lack of a masonry *cella* wall has already been noted; further, the building seems to have been floored with nothing more substantial than clay (although a superior floor material could have been robbed or removed by machine no evidence was found for cobbling or *tesserae*, unlike the *Venta* buildings). The Scole temple was also the smallest, and there was no evidence for freestone or painted wall plaster. These differences underline the probability that the temple serviced a relatively poor, semi-rural community.

It is impossible to suggest what form the superstructure may have taken. It is noticeable, however, that no tile was found within the area of the *cella*, and this may suggest it was originally open to the sky or that it had incorporated a raised floor removed during machining. It is also impossible to gauge whether the temple originally contained internal features such as altars.

We are similarly at a loss when we consider which deities were worshipped at Scole. Few of the finds from the temple grounds were of a purely votive nature, the object closest to providing a dedication being a lead figurine of Priapus (Fig. 4.7 D; Cooper, Chapter 7, cat. 346), bringer of good luck and fertility. This was recovered from spoil removed by contractors from the area to the west of the temple.

If the deposition of cremated bone has any focal significance, it may be pertinent to observe that the focus of the temple swung to the north during Period 4.3. The appearance during this period of metalwork within the ditch fills may additionally suggest a change in religious practice within the temple.

Abandonment of the temple does not appear to have triggered, or been followed by, a return to agricultural use of the valley bottom, since there was no evidence for renewed drainage in the 4th century. Indeed there is little evidence for any occupation of the area after the demise of the temple. The eastern boundaries of Roman settlement at Scole seem to have contracted for good during the 3rd century.

Chapter 5. General Discussion

by Trevor Ashwin and Andrew Tester

I. Pre-Roman activity: Periods 1 and 2

Earlier Neolithic (c. 4000–3000 cal. BC)

While the palynological sequence from the Oakley Area 8 palaeochannel (Wiltshire, Chapter 9) only recorded evidence for a significant human environmental impact from the Early Bronze Age onward, the material from the series of ‘hollows’ at Stuston Area 7 indicates earlier Neolithic activity no great distance from the south bank of the Waveney. Although the assemblage of pottery (plain bowl and Mildenhall Ware) and associated flintwork is small, this probably reflects the small proportion of these features’ fills that was excavated. While some of these features resembled irregular pits, it seems more likely that they were remnants of a system of periglacial depressions and hummocks of Devensian date, which persisted as landscape features before being levelled by agriculture. It is not uncommon for worked flint and pottery to be found when features of this kind are excavated. Sometimes these finds relate to Mesolithic activity, with microlithic flint occurring along with pine charcoal representing burning caused either by humans (accidentally or deliberately) or by naturally-occurring forest and scrub fires (Spong Hill: Healy 1988, 104; Norwich Southern Bypass: Murphy in Ashwin and Bates 2000). While no charcoal was available from the Scole features for species identification or radiocarbon dating, the sherds of bowl pottery suggest a Neolithic date here.

Natural depressions might have been put to use by Neolithic people as ‘working hollows’ or have been incorporated within ephemeral structures. It is also possible that they were deliberately filled in by early Neolithic communities cultivating or grazing this low sand-hill, and that the pottery and flint collected became incorporated within them at this time. This would have flattened out depressions which could have been serious obstructions to tillage, while the deliberate incorporation of domestic waste material could well have been intended to enhance the fertility of the soil (Healy 1988, 106). If this interpretation is correct, it would indicate a significant human impact on the landscape here prior to the appearance of evidence for woodland clearance in the pollen record for the 3rd millennium BC.

Few earlier Neolithic occupation sites have been identified or excavated either in Norfolk or Suffolk, although one of the most important — that at Broome Heath, Ditchingham (Wainwright 1972) — also lies in the Waveney valley c. 25km east of Scole. An interesting feature of the Area 7 evidence is the site’s riverine position; many of the other early Neolithic occupation sites known to date were situated on light soils and elevated, often south-facing, locations (Ashwin 1996a). While the slight natural eminence at Stuston would have offered sandy, free-draining soil conditions of the kind apparently favoured by early agriculturalists, the discovery of a Mildenhall-type assemblage in this lowland context is of interest in its own right, and serves as a reminder of how thoroughly evidence of this period has

been generally destroyed or concealed in the East Anglian landscape.

Later Neolithic/Early Bronze Age (c. 3000–1500 cal. BC)

Neither of the burnt flint deposits on the northern bank of the Waveney at Scole — one of them substantial, the other more speculatively identified — could be dated, but their prehistoric origin was made clear by their position low down in the riverine peat sequence. Most of the other features of this kind that have been excavated in Norfolk and Suffolk have been shown to date to the Late Neolithic or Early Bronze Age (Fryer and Murphy, Chapter 9; Crowson 2004, Bates and Wiltshire 2000). Like them, the Scole mounds were situated in a low-lying, marshy environment and had no clear connection with any contemporary settlement site. Other burnt flint mounds excavated in the Norfolk Fens were discrete and well-defined features, and one of them (at Northwold) displayed the distinctive ‘horseshoe’ or ‘horned’ planform seen in many other examples. By contrast, burnt mound **18014** at Scole was an extensive and rather shapeless feature. None of the hearths, pits and reservoirs often found with burnt mounds were recorded, although features of this kind might have lain beyond the limits of excavation to the north and west.

No features clearly of Late Neolithic or Early Bronze Age date were identified. Activity during this period was represented by a small and dispersed collection of worked flint, and an assemblage of Beaker and Bronze Age pottery weighing only 0.33kg. In her ceramic analysis (Chapter 6), Percival has noted how over two-thirds of this collection was unstratified, or recovered from overburden or Roman dark soil layers. By contrast, eight out of the ten sherds of earlier Neolithic type recovered were found in feature fills. While admittedly these features were the pit-like natural hollows excavated at Stuston Area 7, there is still no reason to believe that these deposits had seen any mixing or disturbance since its deposition. This kind of depositional contrast — with most Early Neolithic bowl pottery being recovered from features and most Late Neolithic and Early/Middle Bronze Age material being found during site clearance work — has been observed on other living sites where occupation of both periods has been recorded (*e.g.* Spong Hill: Healy 1988, 107–8). Unfortunately the Scole evidence can offer nothing new to this debate; although the pottery assemblage appears to reinforce this pattern in plain statistical terms, this is negated by its very small size.

The massive disturbance caused by Roman-period activity may have removed much prehistoric evidence, while the fact that prehistoric subsoil features are often very ephemeral also makes it difficult to assess the negative evidence for human occupation during the 3rd and 2nd millennia BC. While it seems unlikely that the excavation areas ever saw a large ‘resident’ prehistoric population, it is unclear whether or not this holds true for the surrounding valley landscape more generally. The

presence of the burnt mound might indicate a sparsely populated landscape. While it is unclear what kind of human activity is represented by these ‘monuments’, in the Norfolk Fens they frequently occur in wetland areas where there is very little evidence for contemporary habitation. It has been suggested that, rather than living close by, people probably travelled to these locations to participate in the activities which took place there (Bates and Wiltshire 2000, Crowson 2004).

Wiltshire’s palynological results from the Oakley palaeochannel are not especially illuminating for this period, since the radiocarbon-dated sequence of sediments only started to accumulate after *c.* 1500 cal. BC. There is, however, sufficient information to provide a general picture of the vegetation that preceded the wholesale woodland clearance of the Middle Bronze Age (Wiltshire, Chapter 9). It is likely that alder carr in the ‘wet’ riverside zone contrasted with deciduous woodland, dominated by oak, hazel and lime, on the surrounding dry-land areas. All of these trees would have been of economic importance to prehistoric people, and Wiltshire has observed how charcoal recorded in the Early Bronze Age sediments probably indicates human activity nearby.

Mid-later Bronze Age (*c.* 1500–700 cal. BC)

The radiocarbon-dated pollen sequence from the Oakley palaeochannel suggests that woodland was cleared wholesale from the surrounding area at some time in the 15th–13th centuries BC, turning a landscape that was previously heavily wooded into an open one (Wiltshire, Chapter 9). In interpreting these dramatic results, Wiltshire has emphasised that this need not indicate general woodland clearance across the region at this time. It is likely that the Bronze Age countryside supported many different kinds of woodland, which would have been exploited by humans in different ways and cleared at different dates. Nonetheless the evidence from Oakley suggests wholesale changes in agriculture and woodland management hereabouts during the Middle Bronze Age. This might have been connected with significant changes in the division and ownership of land, as well as in farming practice. While evidence for the formalisation of land-holding during this period has been recorded elsewhere, for example on Dartmoor and in Wessex and East Yorkshire, it has evaded detection in East Anglia despite the high-quality air photographic coverage which exists for the region (Ashwin 1996a, 59). Potentially this is an exciting area for future research, and the Scole palynology only serves to emphasise its interest.

Other evidence from the latter part of the Bronze Age was very sparse indeed. No features attributable to the later 2nd/early 1st millennia BC were found in any of the excavation areas. Diagnostic artefacts were restricted to a bronze palstave head from Oakley and large sherds from a post-Deverel Rimbury type jar from the area north of the Waveney. Both of these items were recovered during hand-excavation of sample areas of Roman-period Grey Soil. While this raises the likelihood that many other finds from similar contexts could not be retrieved, the scale of the metal-detecting in all areas makes it unlikely that significant quantities of Bronze Age metalwork were overlooked.

Iron Age (*c.* 600 cal. BC–AD 43)

Iron Age material from the excavations was sparse. To the north of the Waveney, excavated features of Iron Age date were restricted to a small number of ditches and gullies. Although a single example of a roundhouse — a building type commonly associated with the later prehistoric period — was excavated, this proved to be not Iron Age but early Roman in date. Two more post-built roundhouses were excavated to the south of the Waveney, but associated pottery makes clear that one of these at least was also Roman period. On the Suffolk side of the river there is some evidence for ditched land divisions, and possibly for droeways too (Tester and Gill, Chapter 3). The general shortage of Iron Age finds is reinforced by the fact that only *c.* 400g of Iron Age pottery was recovered from a series of excavation areas which produced over 550kg of Roman vessels and sherds! What can be said about the Iron Age setting from which Roman Scole emerged?

Wiltshire’s palynological study of the Oakley palaeochannel offers some glimpses of the changing scenery of the Waveney valley during this period. In contrast to the evidence for an abrupt phase of deforestation in the later Bronze Age, the overall impression is one of gradual change and development. Pasture and rough grassland, as well as the cultivation of cereals, are visible in the pollen record; tree and weed species that were previously sparse had taken advantage of the new habitats created by the opening-up of the landscape. By the Middle Iron Age dryland and wetland trees may have regenerated somewhat, with the alder carr destroyed during the Bronze Age re-establishing itself at the river margins. At the end of the 1st millennium BC there are clear signs of the agricultural intensification which appears to have been such a characteristic feature of the Iron Age of lowland England.

Scole lies in a river valley forming a major natural routeway which would surely have been a focus for pre-Roman settlement. Poorly-drained Boulder Clay soils dominated its immediate surroundings to both north and south, however. Recently there has been much debate about how this agriculturally marginal zone of Norfolk and Suffolk was used in prehistoric times, and it has been suggested it might only have seen intensive settlement and human utilisation from the Middle Iron Age onwards (Davies 1996, Ashwin 1996b). Expansion of this kind could reflect a steadily-increasing population, and would have been made possible by agricultural advances in the 1st millennium BC, but this expansion/intensification thesis is by no means proven. Arguably the general shortage of earlier prehistoric ‘sites’ known from this landscape zone may be blamed to some extent on the absence (due to adverse subsoil conditions) of crop-marks and to the scarcity of gravel extraction, which has been so important elsewhere in East Anglia in revealing prehistoric sites that would otherwise remain concealed.

Cartographic research by Williamson (1988) suggested that traces of a major Iron Age co-axial field system (or series of systems) could be discerned in the Scole–Dickleburgh area, and that this extended across the Waveney valley and areas of the surrounding Boulder Clay plateau of south Norfolk and north Suffolk. The discovery of this kind of evidence — in a part of England where complete destruction or thorough concealment of prehistoric landscape traces has been the rule — has been considered highly significant, and this study remains

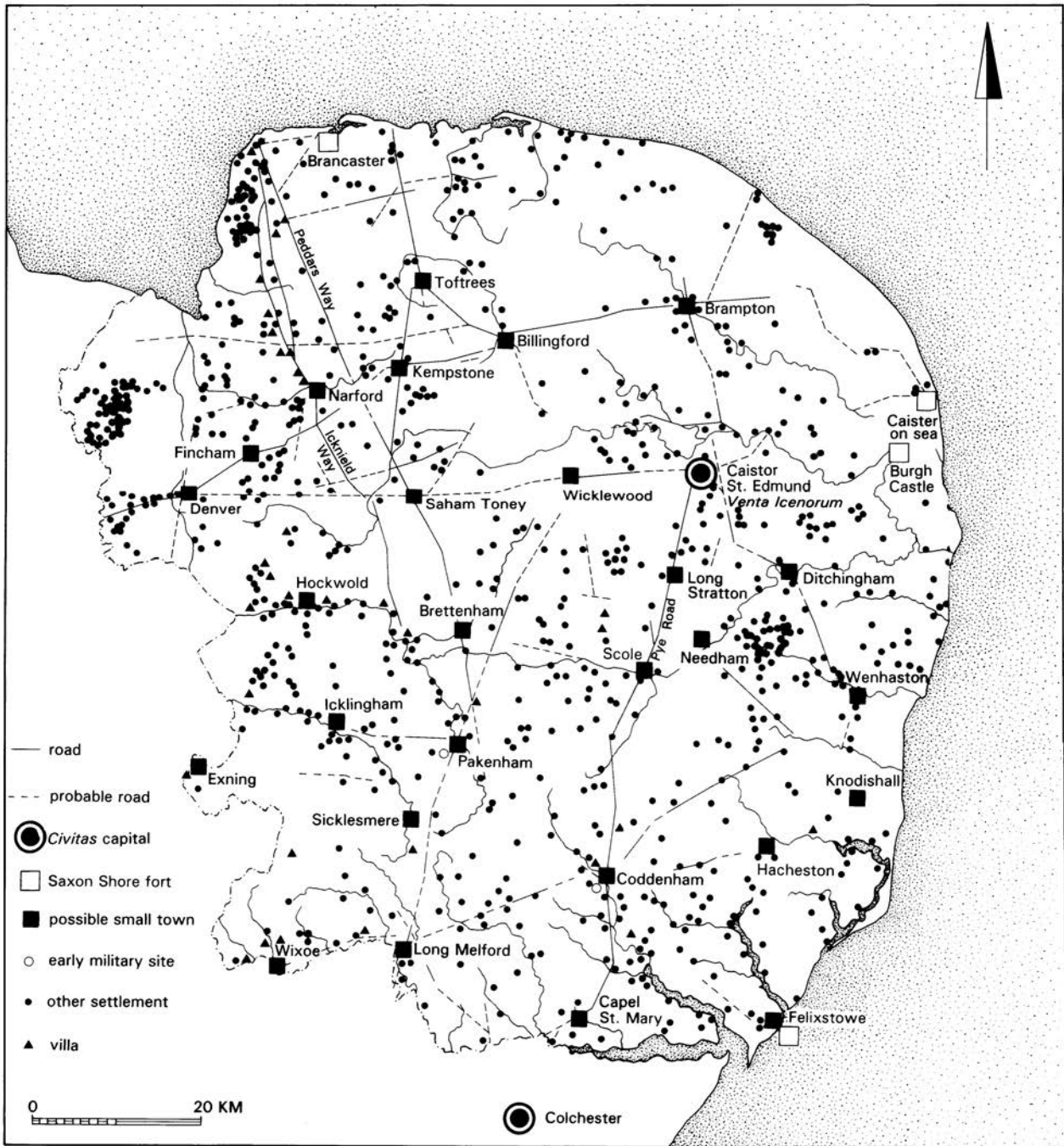


Figure 5.1 Map of Roman Norfolk and Suffolk

important and widely-cited. The date of the field system remains unproven by excavation, however, and Williamson's advocacy of a pre-Roman date rests entirely on the manner in which the main north-to-south Roman road appeared to have been superimposed upon it (Williamson 1988, fig.7). Williamson concluded that the fields indicated later Iron Age subdivision and allotment of land that was previously only lightly settled, but which nonetheless was not heavily forested.

When the Scole–Dickleburgh project was designed there was some optimism that the excavations would cast more light on Williamson's thesis. It is to be regretted that no opportunity arose for any point of contact between the main Roman road and elements of the field system to be recorded, either during the Scole excavations or during subsequent monitoring of road construction.

II. The Small Town and its context

Settlement origins

Review papers by Gurney and Plouviez (1995) have described how some, at least, of the Small Towns of Roman Norfolk and Suffolk developed on the site of Iron Age settlements. In Norfolk these included Billingford (Gurney 1995b, Wallis 2011) and Saham Toney (Brown 1986, Davies 1996), and in Suffolk Coddendam and Hacheston (Plouviez 1995; Blagg, Plouviez and Tester 2004). In Norfolk and Suffolk, however, there is little evidence that Small Towns were preceded by Iron Age settlement on any great scale, although most of the known sites have produced at least some Iron Age finds and Icenian coins. Coddendam is an important exception to this pattern but the case of Pakenham is salutary, this intensively-studied Small Town site having produced more Neolithic than Iron Age settlement evidence to date (J. Plouviez, *pers. comm.*). While the mixed hoard of Icenian and Roman coins recovered from the Long Meadow site in 1982–3 (Burnett and Bland 1986) might indicate that Scole had been a significant location early in the Roman period (Gurney 1995b, 54), Iron Age features and finds from the recent excavations were sparse.

Should we expect Roman-period settlements in this region to have had significant Iron Age antecedents? Millett (1990, 145), taking a broad national view of Small Towns in Roman Britain, suggested that just over one third of these sites are known to have had military origins, with a similar number perpetuating later Iron Age settlement locations. It has been suggested, however, that these proportions varied region-by-region, according to the varying degrees of Roman influence in different areas before the conquest itself. According to this model a strong element of continuity should be common in the south and east, while the settlement pattern in the less developed or hostile north and west may be expected to follow the imposed structure of military installations and the new Roman road system. Despite its location in south-east England, however, the Icenian tract of Norfolk and northern Suffolk need not have conformed to such a pattern. There is every indication that this region was economically relatively 'undeveloped' in the later Iron Age (Davies 1996), certainly by comparison with Essex and Hertfordshire, where *oppida* and nucleated 'hamlet'- and 'village'-like sites figure prominently in the settlement record. There is relatively little evidence for a significant Roman presence, or a 'Roman' way of life, in

Icenian territory before the rebellion, and the account of Tacitus (Dudley 1996) records the rebellion as a political and tribal response to the threat of increased Roman control.

In such a context, Small Town locations of the Roman period need not necessarily have echoed the pre-existing settlement pattern closely. Interestingly, the Norfolk sites already mentioned which *do* appear to have coincided with Iron Age settlement locations seem to have grown up adjacent to early Roman forts. It might be better to see these examples less as a perpetuation of earlier settlements than as 'new' sites, providing for military installations 'supervising' significant concentrations of the indigenous population. The fact that the Iron Age sites at Saham Toney and Billingford lay at important junctions and river-crossings on the Roman road network could have made this necessary during the later 1st century, and maybe beyond. The pattern in the Trinovantian zone of southern Suffolk might contrast with that in Icenian northern East Anglia, however. The precise nature of Late Iron Age activity at Hacheston is unclear; continuity has been proposed in the cases of Long Melford and Coddendam, where significant pre-Boudican native settlement is represented by coins and pottery, but both of these locations are also suggested military sites.

Regardless of whether or not a significant indigenous settlement preceded it, Scole would have become a significant location for Roman communications as soon as the main road from *Camulodunum* to *Venta Icenorum* was in use. Situated where the road crossed the River Waveney — which may itself have been a significant routeway — approximately 25km south of *Venta* and 20km north of the Small Town of Coddendam, it could have been a site for a *mansio* (inn) or for other facilities for the Imperial post. While no traces of any Roman public building have yet been identified, this does not in itself speak against this interpretation. It is known that the accommodation and other material support needed by the *Cursus Publicus* was frequently supplied by roadside communities without the provision of special buildings, especially in the 1st century AD (Salway 1993, 386).

It has generally been assumed that the Pye Road itself was built in the immediate post-Boudican period, although the route might have been used by Roman traffic before this. Thus, it might be expected that a strategic location such as Scole would have been the site of a fort, or have shown other traces of a Roman military presence. A military station could have been an important catalyst in the development of the Small Town itself, while a garrison may have helped to guarantee Roman control of the Waveney crossing in the event of unrest and rebellion. Yet relatively few distinctively 'military' artefacts were recovered (Cooper, Chapter 7), and Millett (*pers. comm.*) have stated that small assemblages of 'military' artefacts are known from other sites which appear purely civilian settlements. The assemblage of 1st-century coins and metal finds from Stuston does not necessarily signify a military presence. The brooches (unlike those from Pakenham, Coddendam and Colchester) include few Hod Hill types, while the pottery assemblage includes very few diagnostically military wares (Lyons ware, South Gaulish samian).

The evidence for the Stuston 'marching camp' (Chapter 3) has now been overturned by radiocarbon dating, while that for the Scole 'fort' site discovered in

1903 (Chapter 1) seems equivocal. It remains possible, however, that there was a small military presence in the centre of Scole itself, which has left no trace in the areas that have seen excavation. There is other evidence for a possible fort in the vicinity. In 1981, a square enclosure with rounded corners, surrounded by a bank and ditch, with three (possibly four) clavicular entrances and traces of internal roads and buildings was recorded. However it is not precisely located, other than that it lay somewhere between the A140 and A144 roads, on a line between Tibenham and Kessingland (Norfolk Site 17888). This means that it probably lay at least 10km to the north of Scole.

The 1st-century coin hoard discovered during the Long Meadow development, although notable in its own right (Burnett and Bland 1986), provides no clear information about Scole's status during this period. Gurney (1995b) has suggested that it might indicate an 'early' start-date for the Roman-period occupation. Alternatively, however, it may simply form part of a concentration of late Iron Age and conquest-period hoards recorded around Norfolk's southern and western borders. John Davies has suggested that this patterning might have had some unexplained ritual or religious significance (Davies 1996).

Morphology and development

Introduction

The scale of the excavations at Scole offers a chance to appreciate the morphology and development of a Roman-period Small Town perhaps exceeded, in East Anglia, only by that provided by recent excavations at Heybridge (Atkinson and Preston forthcoming). Yet serious problems still cloud our picture of the development and appearance of Roman Scole — especially our lack of knowledge of the settlement centre, which has seen little modern excavation. Although there was evidence for formal subdivision of land along the roadside, Roman-period activity was characterised by a general lack of intensity in land-use, widespread and varied craft evidence, by a lack of evidence for sophisticated building technology, and by all-pervading rubbish. Scole is perhaps unusual amongst intensively studied 'Small Towns' in that most evidence comes from peripheral areas of the settlement rather than from the presumed centre. While the nature of the primary occupation is conjectural, however, the data from very large areas examined in 1993–4, when added to the results of the smaller excavation carried out in 1973 (Rogerson 1977), offers many clues to the development of the site.

Figure 5.2 summarises current knowledge of the settlement's form and extent. There can be no disguising the scale of remaining uncertainties, especially regarding the area north of the Waveney. However, considered in the light of Burnham and Wachter's suggested categorisation of 'Small Towns' by planform (1990, 23–7) Scole might best be seen as falling within their 'category 1' (ribbon development extending from the junction of two or more major routes). Planforms of this kind are common, including at some sites (*e.g.* Brampton) where formal defences have also been recorded. Burnham and Wachter have suggested that this kind of layout would have satisfied the commercial and other needs of the population in the absence of any geographical, social or

administrative pressures to create a more compact or conspicuously 'urban' settlement layout. Ultimately it expanded southwards across the River Waveney, with side roads and lanes extending to east and west along either side of the valley. The full extent of development is not entirely clear, but the two east-to-west roads north of the river may eventually have connected with other settlements such as those at Brettenham to the west and Needham to the north-east.

The land division outlines seen in some of the excavated areas are quite regular, although not all trackways and property boundaries extend back from the road frontages at true right-angles. Individual properties form regular plots fronting both onto the main roads and side-lanes, the latter often providing access to farmland beyond the settlement. In these respects, some element of co-ordinated planning is clearly visible.

Chronological development

Any 1st-century settlement focus probably lay in the area of the 1973 excavation, *i.e.* around the junction of the north–south and Waveney valley routes. Rogerson (1977) suggested that Scole may have had an official function based on its strategic location between *Camulodunum* and *Venta Icenorum*. The present study has been unable to take this argument forward — while the coinage might suggest a military presence at the settlement, perhaps in the period following the Boudican rebellion, this is by no means certain (Davies, Chapter 7).

The results of the 1973 excavations provided little evidence of formal planning within the confines of the (admittedly small) excavation area. A metalled 'lane' was flanked by a single ditch, and several other pathways, all aligned east-to-west, also divided the site. First-century structural evidence was restricted to occasional post-holes, but numerous cess and rubbish pits containing comparatively large quantities of pottery offered clear evidence of habitation. Evidence for early iron-smelting is also important. There were no signs of 'native' roundhouses of the kind recorded in more peripheral areas of the site. In Area 1–4, to the north of the Waveney, roundhouse **18000** overlooked the river and lay well to the south of the east-to-west road which crossed this area (Chapter 2). It may have related to a rectilinear system of ditched enclosures, although the latter have been phased somewhat speculatively to the later Iron Age. A roundhouse in Area 8, set back from the main north-to-south road, was associated with a developing system of boundary and drainage ditches that featured basket wells, fences and stock pens (Chapter 3). A low-intensity scatter of 1st-century coins and brooches recovered from ploughsoil in Area 7 suggests a similar level of occupation on the western side of the Roman road at this point.

It is possible to suggest two important expansion mechanisms for this 'early' period. First of these is growth of occupation in the centre of the settlement; this area had a distinctly 'Romanised' flavour with evidence for lanes, possibly rectangular properties and relatively large quantities of pottery. Expansion may represent rapid development intended to serve the civil or military authorities in the immediate aftermath of the rebellion. Secondly, people from the locality or from further afield may have been drawn to the settlement or its periphery, either through economic necessity or optimism. This may have created something of a peripheral sprawl, with an

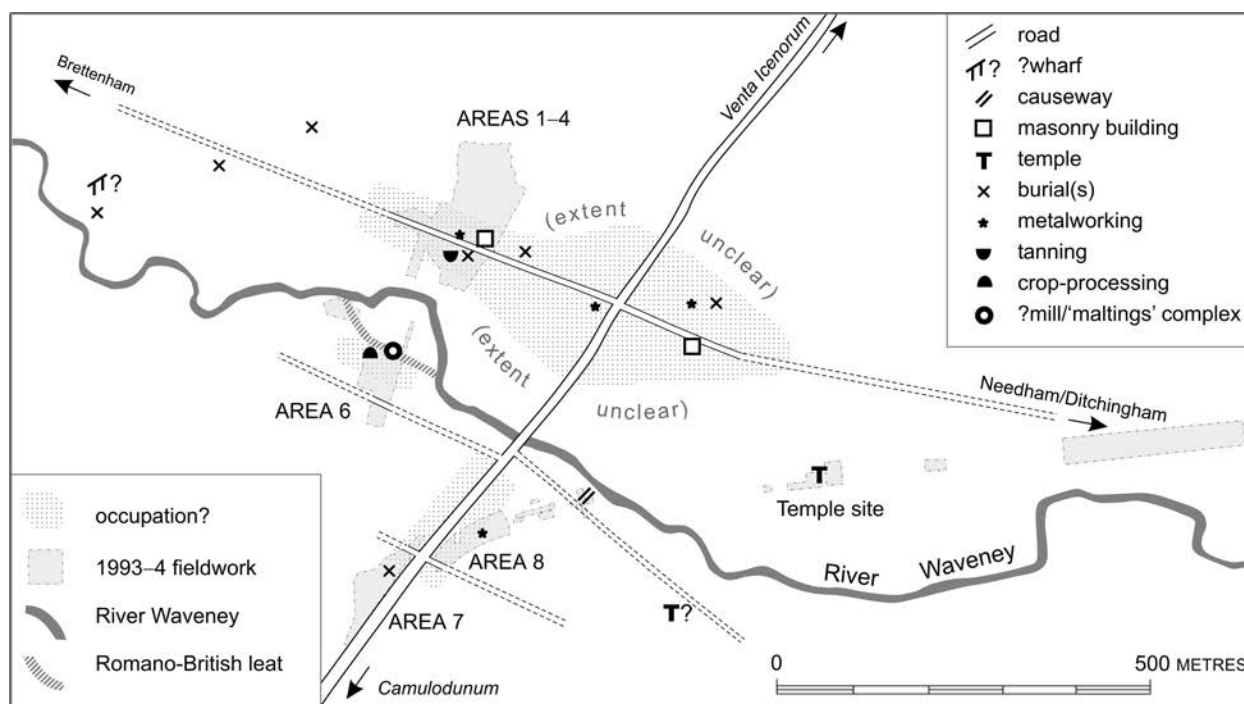


Figure 5.2 Summary interpretative plan of Roman Scole, after plans in Burnham and Wacher 1990. The extent of occupation is indicated speculatively

obviously 'native' flavour most clearly to be seen in the adoption of circular building forms.

It is during the 2nd century that evidence for a degree of centralised planning appeared, and an outline 'shape' for the settlement which appears to have changed little over the following 300 years. The excavated evidence from the peripheral areas of the settlement suggests that this occurred simultaneously in several parts of the site, but the dating evidence (much of which relies on pottery assemblages from ditches with complex cleaning and infilling histories) is sufficient only to place these changes in the early-mid 2nd century. These developments might reflect the development of a more fully 'Romano-British' economy in the region. Furthermore it is not impossible that these changes were associated — albeit indirectly — with the visit of Hadrian to Britain between AD 120–22, and are a reflection of the impetus which he gave to development in the larger towns (Salway 1993; Wacher 1976).

Two phases of planning are evident to the south of the river. Three enclosures were created in Area 8, but the central enclosure was divided up not long afterwards and the southern boundary of the group was buried beneath a road. A similar two-stage process occurred in Area 7, with an 'early' enclosure soon altered by the addition of a new road. It is suggested (Chapter 3) that this boundary marked a fixed southern edge of the settlement. The specialist 'maltings' complex in Area 6, very close to the Waveney itself, apparently lay beyond any series of formal land divisions.

To the north of the Waveney a continuous ditch marked the southern boundary of an east-to-west road, and a series of major enclosures was set out on either side of this route (Chapter 2). The enclosures were broadly similar in size, typically *c.* 0.3 hectares. While timber-lined wells were constructed within individual plots (*cf.* Neatham, Hants: Millett and Graham 1986), at least one possibly communal roadside well was also recorded. While the

substantial layer of metalling applied to the east-to-west road might also have been laid down at this time, the dating of this development is uncertain: it may have occurred earlier in the 2nd century or even (*cf.* the dating of roads in Rogerson 1973) in the 1st. Ribbon development might have extended for a considerable distance, as in the case of the 'industrial suburb' at Brampton (Green 1977, fig. 2; Gurney 1995b, 56–7). Previous observations (Chapter 1) suggest that Roman-period activity extended well beyond the limits of the 1993 excavation areas, with evidence for structures alongside a north-to-south side road being recorded over 500m to the west of the settlement centre at Waterloo by Brown and Gale in 1936. A lack of opportunities for geophysical survey, or for systematic fieldwork of the kind undertaken at Brampton, makes it impossible to be sure of the true westerly extent of the Scole 'industrial suburb'.

The proximity of the river, its relationship to the angle of the road, and the fact that many enclosure ditches would have functioned as drains, may have influenced the enclosure pattern north of the Waveney. These factors also had an effect in Area 8 to the south of the river. The trackway that passed to the south of Area 6 did not continue across the main Roman road into Area 8 to the east, where the land was marginal.

Within this broad framework a wide range of industrial activities grew up. Crafts with special locational needs, such as malting and tanning, occupied riverine positions. Smithing appears to have taken place at several locations, and may have migrated away from the central areas of the site as the settlement expanded (Cowgill, Chapter 8). Given the scale of some of the enclosures recorded to the north of the river — and the paucity of finds from the entire area north of the northern road frontage itself — it is likely that some of the properties here were used for cultivation or grazing (Chapter 2). The identification of animal dung in a range of soil samples across the site appears to support this claim (Macphail *et al.*, Chapter 9). Many industries

and crafts are difficult to distinguish from each other in archaeological terms — ovens and hearths, for example, could have fulfilled a range of purposes and may sometimes have been multi-functional. There was little positive evidence for industrial ‘zoning’ within the planned settlement scheme, however.

If we were to rely solely on excavation and survey unsupported by metal-detecting, our impression of activity at the site would include relatively little change between the 2nd and 4th centuries. However the intensive programme of metal-detecting which accompanied the excavation revealed dramatic and unexpected chronological patterning in the deposition of coinage in Areas 1–4 to the north of the river. The lack of coinage in the later 2nd and 3rd centuries (by comparison with heavy 4th-century deposition) even raises the possibility that this part of the site was abandoned in this period, although this idea is not supported by the combination of ceramic and dendrochronological evidence (Tyers and Groves, Chapter 8) suggesting that wells and other features originating in Phase 5A (later 2nd–early 3rd century) remained in use into the 4th. This evidential problem — which has interesting implications for the dating and characterisation of sites in Roman Britain on the basis of detector-survey alone — is discussed more fully in Chapter 2. Comparison with the evidence from Area 6, where only eight unstratified coins (including ploughsoil finds) were recovered from a large area, is illuminating. On the basis of coin deposition alone, Area 6 is invisible! Arguably this is because intensive coin-use (and hence coin-deposition) would have been limited to areas of commercial activity. The latter is unlikely to have been of any significance in Area 6, a specialised industrial focus in a ‘wet’ location well away from road frontages or intensive habitation. Perhaps the striking Area 1–4 coin-loss pattern shows an intensification of commercial activity over time. A shift of this kind might even mirror the absence of 4th-century coinage (albeit from a grand total of only 46 coins) from the 1973 excavation close to the Roman road, which was treated by Rogerson as evidence that this ‘core’ location had been abandoned by the end of the 3rd century. Interestingly these intra-site variations do not seem to affect the overall pattern of coin loss from Scole, which is comparable with that from other Small Towns in the region (Davies, Chapter 7).

Although the pattern of roads remained stable through the Roman period, there may have been significant adjustments to property boundaries within Area 1–4 during the 3rd century. The most substantial of these developments, however — the laying-out of rectilinear enclosure/trackway system represented by ditches **28002** *et al.* — was centred well to the north of the main roadside activity foci, and probably existed in an agricultural setting. Some buildings, notably that excavated by Moss, show signs of re-organisation and renewal — or replacement, even — but others seem to have continued in use. In Area 7 the main north-to-south Roman road was redefined by a large new ditch on its western side during the 3rd century. This probably sliced through any roadside properties that abutted or encroached on the main road (Chapter 3), and could have led to displacement of those who lived and worked there — a reminder, with reference to Areas 1–4, that significant movements of population could indeed have taken place within a settlement like Scole during the course of the Roman period.

These changes to the road and its layout may have been a key factor in the development of the settlement itself. The main north-to-south road was probably the principal land route into Norfolk from the south, linking the only major towns in the region. Wider political considerations may have dictated the need for improvements. It is unclear why urban defences appear in lowland Britain during the later 2nd and early 3rd centuries, but the trend is clear (Frere 1987, Salway 1993, Wachter 1976, Woodfield 1995). The wall surrounding *Venta Icenorum* is suggested to have dated from this time, as is the defensive ditch at Brampton. The strategic significance of the road through Scole is difficult to ignore, despite a lack of convincing evidence for strategic military planning in the region. In military terms it represents an ‘internal line’ within East Anglia and would undoubtedly have been used, or been available for use, by military traffic. Its maintenance would have been a matter of more than merely local importance.

There are few indications that the settlement layout saw major reorganisation of the kind seen in the later Roman period at Hacheston and Pakenham (Plouviez 1995, 72–3). Indeed the artefact assemblages from some of the roadside buildings suggested that they remained in use until the later 4th century. The Area 7 roadside, however, might provide a parallel for the Pakenham evidence for 4th-century reorganisation on a disruptive scale. At Pakenham, late Roman alterations to the settlement plan seem to have catered for a new high-status building erected in the settlement. At Area 7, the ‘late’ redefinition of roadside ditch **70523** could have impinged upon the occupants of structure **70525** (Chapter 3).

Functional zoning?

The identification of settlements devoted to ‘specialised functions’ — usually religious or industrial — has been an important theme of recent studies of Small Towns in Roman Britain (Burnham 1995, 10). There has also been great interest in identifying discrete ‘functional zones’ within settlements given over to particular activities or types of activity. In particular this has been considered by Esmonde Cleary in terms of the possible ‘town centre/suburbs’ dichotomy already discussed, and with respect to extramural development and cemeteries (Esmonde Cleary 1985, 76).

Despite their scale, the Scole excavations yielded little evidence for any degree of functional segregation. The general impression that land-use was not particularly specialised is reinforced by the lack of strong concentrations of artefacts specifically associated with industrial, domestic or commercial pursuits (Cooper, Chapter 7), and by the relatively low intensity of buildings and other features across the excavated areas. It is clear that some buildings (for instance, those sited along the northern roadside in the area to the north of the Waveney) were used by metalworkers, while others adjacent to the deep tanning reservoirs may have been connected with hide preparation and leatherworking. In the absence of compelling evidence to the contrary, many of these structures may have been workshops doubling as dwellings and trading places for artisans who carried on this work. With regard to the identification of ‘residential’ areas, Esmonde Cleary (1989, 78) has cast doubt on the idea that these ever existed as such in Small Towns. The fact that the few burials recorded often occurred either

singly or in small groups adjacent to land given over to other activities (rather than in discrete cemeteries of the kind discussed by Esmonde Cleary) offers further evidence that different types of land-use were not segregated strictly — although this need not indicate that burials were necessarily sited on a ‘casual’ or random basis.

Buildings

Structural evidence was neither abundant nor substantial. The earliest building plans associated with the Roman settlement were roundhouses in the ‘native’ style. These were very similar in design, with a circuit of stakes interrupted by opposing openings.

Burnham and Wachter (1990), characterise Small Town buildings as ‘simple designs conforming to regional traditions ... providing domestic and workshop accommodation (with) a marked scarcity of clearly Roman-inspired structures, especially those represented by the wealthy private houses, public and official buildings so common in the cities’. No significant early buildings have been identified in the centre of Scole. However the roof timbers re-used in the structures of the late 2nd-century maltings complex (Chapter 3) might have originated in this area of site, representing either ‘Romanised’ private dwellings or (perhaps more likely) official buildings of earlier Roman date. These timbers represent the type of ‘new’ building techniques visible to the native population during the 1st century AD.

Most of the structures, from the 2nd century to the end of the Small Town, seem to have been purely utilitarian from the evidence. Regardless of status they appeared ‘Roman’ in character, not least in terms of the woodworking techniques used (Darrah, Chapter 8). Buildings were often erected using an admixture of constructional methods embracing earthfast posts, sill beams and possibly post pads. In some cases only the fragmentary outline of a floor in clay or chalk disclosed the position of a likely structure. The only building excavated in the town centre in 1973, the clay-floored post-hole structure 30, appears to have resembled 38029 and other roadside buildings from the outer areas excavated in 1993.

The largest buildings were probably those excavated by Moss to the north of the Waveney (Chapter 2), featuring substantial clay floors and (possibly) a portico. The type of building represented by Moss’s building 38054 — the ‘strip building’, perhaps with a commercial outlet at the front and workshops and living space to the rear, was common in both small and larger towns (Frere 1985, Esmonde Cleary 1989). Buildings in the plots to either side were less well defined but that to the east was founded on parallel lines of post-holes and resembled a structure from Brampton (Green 1977). Buildings south of the river were similarly unimpressive. In Area 8 poorly-defined structures faced the angle between two roads. The structure in Area 7 was little more than a commercial frontage, possibly similar to examples at Neatham (Millett and Graham 1986) and, more locally, Hacheston (Blagg, Plouviez and Tester 2004).

Locally-available wood was probably used for framing with timber, or perhaps within lath and mud walls. Given the general lack of roof tile it is assumed that most roofs were thatched or shingled. Tile was poorly represented, even in secondary contexts like oven-linings,

and this begs the question as to whether any buildings within the main settlement area were roofed with them. Similarly no masonry footings were recorded, although these often replaced earthfast post structures during the later Roman period (Burnham and Wachter 1990). Two fragments of Purbeck marble slabs recovered in 1973 were interpreted as evidence of a ‘building of some importance close by’ (Rogerson 1977), but wall plaster was entirely absent from the recent excavations. The tesserae found in the vicinity of the possible Oakley temple — and the roof tile from the Norfolk temple — are scant evidence for buildings of higher status, both occurring on the fringes of the settlement. The woodworking remains show that skilled carpenters were at work in Scole but it is also clear that the buildings themselves were near the bottom end of the scale in terms of size and status.

It seems unlikely that the Roman buildings that supplied the roof timbers re-used in the late 2nd-century Area 6 revetment had simply fallen into disrepair. By this time they could have been little more than 100 years old at the most. Perhaps ‘Roman’ buildings erected soon after the Boudican rebellion were now being dismantled. Furthermore, clearly sufficient wood was available to allow a choice of timber for re-use in the construction of this rather crude revetment. Inevitably, aspects of this narrative lead back to Rogerson’s unanswered questions (Rogerson 1977) about the nature and extent of administrative and military activity at Scole in the immediate aftermath of the rebellion. If a *mansio* — or even a fort — had been the primary focus of settlement during the 1st century it might have outlived its usefulness by the middle of the 2nd, and have then provided raw materials for other construction work.

Character and status

We must heed recent warnings by Millett (1995) and Plouviez (1995) that our knowledge of ‘Roman towns’ in the classical sense may be of little value in interpreting settlements like the ‘Small Towns’ of rural Britain, which may be better viewed as indigenous developments serving the local needs of provincial Romano-British society. Any attempt at characterisation of the Scole settlement as a whole must be mindful of gaps in the evidence, in this case most notably the lack of opportunities to excavate within the ‘town centre’. That said, there is little evidence that the settlement had any real ‘focus’ after the 1st century other than the main road frontage itself. If this assessment is correct Scole bears comparison with sites such as Hockwold-cum-Wilton and Icklingham (Gurney 1995b; Plouviez 1995). Both of these sites appear quite loosely structured, although geophysical survey and limited fieldwork at the latter do suggest that some discrete functional areas may exist (J. Plouviez, *pers. comm.*). At Heybridge a temple precinct lay at the heart of the settlement (Atkinson and Preston forthcoming). Although it has been suggested that certain Small Towns had a religious ‘specialised function’ (Burnham and Wachter 1990, 165–202) the only possible temples identified to date at Scole lay on its fringes.

Quantifying fluctuations in prosperity is difficult, especially given the lack of evidence for public or ‘high-status’ buildings at Scole. The relatively regimented plan may have been an attempt to regulate or smarten up the settlement in the early–mid 2nd century, but this might

indicate changing trends in local government or land-ownership rather than economic wealth or status. Similarly commercial life, as reflected in the small finds and the coins, may well have peaked in the early 4th century. Reece, interpreting the coin evidence nationally (Reece 1980), and Millett (Millett 1990) have suggested that activity at Small Towns generally peaked in the later Roman period. The evidence from Scole may be viewed in this light, notwithstanding the sharp decline in economic fortunes — both regionally and at Scole — in the later 4th century (Plouviez 1995; Davies, Chapter 7).

Human activity and rubbish: Dark Earth and Grey Soil

The discovery, during evaluation trenching, of a relatively well-preserved rural 'Dark Earth' over Areas 7 and 8 offered an important opportunity to carry out an analysis of both the soil and the artefacts contained within it. Most commentators on this phenomenon have worked on the voluminous deposits of dark soil recorded on the great urban sites such as London and Colchester (Crummy 1984; Yule 1990; Watson 1998). Although noted on many rural sites, it has rarely been examined systematically in these contexts. In most cases (and here at Area 7) ploughing has disturbed these rural deposits, and their characteristic lack of stratigraphy has been uninviting to the stratigraphic excavator seeking structural evidence. However the increasing use of metal-detectors has now established beyond doubt the significance of ploughsoil finds, and particularly those from these soils (Gurney 1995b; Plouviez 1995). On sites where these dark soils are well-preserved they offer scope for spatial analysis rarely possible in the cases of their urban cousins, either due to restrictions of space or contamination from medieval and later pits.

The micromorphological and chemical analysis of the Stuston and Oakley Dark Earth (Chapter 3; Macphail *et al.*, Chapter 9) has identified differences in composition between them and the better-known urban dark soils (notably in the soil pH and in the varying types of building debris present). Many common features have been identified, however, notably the presence of household debris (charcoal and ash), cess and animal dung. Artefactual evidence from the town deposits appears to vary (Yule 1990), but recent work has suggested that rubbish heaps containing pottery and domestic waste were commonplace (Watson 1998). The quantitative and spatial studies in Chapter 3 paint a similar, albeit more complex, morphological picture of the finds assemblage. (Similar conclusions have recently been drawn from surface survey and limited excavation at Shiptonthorpe, E. Yorks: Taylor 1995.)

The coins are of special significance to understanding these layers. Many (if not all) seem to have accumulated along with other rubbish, suggesting that these deposits formed over a span of 150–300 years. Other finds categories (notably ironworking debris) and the evidence of buildings, particularly in Area 7, confirm that people were indeed living next to these heaps, in areas where Dark Earth had already formed or was eventually to do so. Evidence from the 1973 excavations may indicate change over time in the disposal of cess, with a virtual ending of pit-digging during the 2nd century leading to the surface-heaping of waste material which included animal dung (Chapter 3). Perhaps composting was taking place. This suggestion owes much to the results of fieldwalking

studies, and nationally there is a body of evidence for the spreading of settlement waste over arable land (Pryor and French 1985). At Scole, however, only the chemical and micromorphological soil profiling work of Macphail *et al.* provides any direct evidence for this.

Large areas of Roman 'Grey Soil' in Areas 1–4 were examined by a combination of sample boxes, limited excavation and (particularly) by metal-detecting. The results suggest that this also formed over a span of up to 300 years, and that it included colluvially-thickened podzols and buried soil (Macphail *et al.*, Chapter 9). Studies of the pottery from gridded sample collection has revealed distribution patterns suggestive of surface rubbish-dumping (Chapter 2; Lyons and Tester, Chapter 6). As if to support this interpretation, two localised areas of Dark Earth close to buildings produced particularly high finds concentrations reminiscent of those from Areas 7 and 8. The metal-detected coin and small finds data from Areas 1–4 covered a much larger area than that to the south of the Waveney and is less easily comparable with the pottery distribution pattern. Nevertheless it has provided some very interesting information. While the familiar problem (Chapter 3) of distinguishing casual loss from redeposited rubbish remains, it has been suggested that the concentration of 4th-century coins recorded to the south of the east-to-west road is a visible remnant either of a pathway or of a linear build-up of rubbish, possibly emanating from properties lying closer to the road itself (Chapter 2). Other concentrations are less easy to interpret due to the lack of supporting evidence, such as corresponding surface concentrations of pottery.

In conclusion, it seems that surface dumping of rubbish was a commonplace phenomenon, and that in the context of a settlement like Scole it does not necessarily signal abandonment or economic decline. On the contrary, the Small Town as a whole saw heaviest coin-use during the 3rd and 4th centuries (Davies, Chapter 7). This evidence conforms to a wider national interpretative trend suggesting that the *floruit* of the Small Towns in Roman Britain began during the 3rd century and mirrors a relative decline in the major public towns (Reece 1980, Millett 1990). If Dark Earth is indeed associated with economic health in Small Towns but with disrepair and abandonment in larger ones (Watson 1998), it would suggest that neither its presence nor absence is a useful indicator of economic well-being and that only its artefactual content may give a more reliable picture. Perhaps the evidence indicates a significant general behavioural change, originating with innovations in agricultural practice among the rural peasantry and extended into the 'semi-rural' Small Towns. Whether or not the heaped material was efficiently converted into compost, its piling in backyard areas was presumably of little consequence within settlements such as these. However its appearance in a more confined or formal 'urban' setting — while not in itself indicating economic contraction — must surely reveal some degree of breakdown in the functioning of the 'classical' public towns. Thus evidence for behavioural change in the countryside may, in an urban context, be a symptom of institutional failure, Reece's 'tender Mediterranean plant in foreign soil [which] failed' (Reece 1980).

Craft and commerce

Industry

Although Rogerson's relatively small-scale excavations in central Scole found evidence only for iron- and bone-working, many Small Towns seem to have been important centres for craft and industry, in particular metalworking. The 1993–4 excavations produced a very large collection of ironworking debris, and offered an opportunity for Cowgill and Mills to consider it alongside the metallurgical evidence from many other settlements in Roman Britain. Other craft and industrial activities practised at Scole included tanning (represented by water-filled pits and associated features), leatherworking (leather offcuts preserved by waterlogging), woodworking (further examples of the apparently unique 'Scole' type of timber well-shaft lining), brewing (the 'maltings') and possibly milling also (if the interpretation of the earliest phase of the 'maltings' complex of features is correct). Evidence for some other industries common at many other Small Town sites — most notably potting — was not detected, but traces of industrial activity certainly loom large in the peripheral areas of Scole.

As Small Town studies have developed in their own right, many scholars have been keen to identify certain settlements of this type as centres specialising in the production and distribution of manufactured goods on an 'industrial' scale (Burnham 1995, 10). Although craft and industrial evidence — especially the ubiquitous finds of iron slag — is common at Roman Small Town sites, the very small scale of so many past excavations has often made it difficult to establish the settlement context within which these activities were set, or to prove that the sites in question were indeed 'specialist' centres devoted to them. The scale of the area excavation at Scole is valuable here in helping appreciation of the context of industrial activities. Despite the apparent dominance of ironworking and tanning in the area to the north of the Waveney, it is difficult to prove that this material indicates true 'mass-production'. The fact that both of these activities were carried on over a period of 200 years or more is not in doubt, nor is the possibility that the ribbon development within which they were situated extended further to the west. When broken down phase-by-phase, however, the pits, hearths and features connected with them appear less numerous than might have been expected, especially considering the site had seen relatively little erosion or plough-truncation.

While some technical ambiguities remain unresolved, Cowgill and Mills's conclusions regarding the iron slag itself are significant in any discussion of the *scale* of industrial activity. Despite the size of some of the individual slag concentrations, the waste itself seems to indicate an efficient process, which recovered a high proportion of the iron available to the smith. Macphail's failure to identify slag or vitrified remains in his micromorphological analysis of Dark Earth deposits to the north of the Waveney (Macphail *et al.*, Chapter 9) might be significant here (although even efficient smithing would surely be expected to leave microscopic traces). All of this evidence implies that the smiths' emphasis lay ultimately upon quality rather than quantity. The whole seems consistent with relatively small-scale production by artisans who worked to supply local needs, rather than with the mass manufacturing of goods for sale elsewhere.

If Roman Scole was a local trading and services centre for self-sufficient rural communities in the surrounding area, it is perhaps not surprising that ironworking and tanning are the two most conspicuous 'industries'. As Burnham and Wachter have commented with regard to tanning (1990, 47) these activities may have been regarded as too specialised, dangerous or noxious to be undertaken in and around the home. While there is little evidence that textile production and finishing were carried out in Roman Britain upon anything resembling a commercial scale, the general absence of loomweights from sites like Scole may indicate specialised (?urban) production elsewhere. Following on from their suggestion that domestic leather production would have been impractical, Burnham and Wachter have proposed that tanneries would necessarily have existed in many Small Towns to answer local needs. Brampton is one example of an East Anglian site which has yielded evidence for leatherworking (in the form of offcuts: Knowles 1977), but evidence for the actual curing of hides has seldom been found at Small Towns. The outstanding published example is that at Alcester (Warks), where a long extramural timber building associated with a series of large pits filled with waterlogged deposits has been identified as a possible tannery (Burnham and Wachter 1990, 95). The Alcester deposits contained leather offcuts, suggesting that leatherworking was carried on as part of the same operation. It has already been suggested that some of the clay-floored structures excavated in the peat-edge area to the north of the Waveney in Areas 1–4 were connected with tanning. It is possible that the leather offcuts from the fills of tanning pits **18075**, **18076** and **49002** indicate that hide-curing and leatherworking were carried out on the same premises at Scole, as well as at Alcester. This cannot be proved, however, and the presence of scrap leather in well siltings north of the Waveney and at Stuston Area 7 may indicate a wide dispersal of leatherworking across the site.

The remarkable wooden bowl-blanks remain undated, but the excellent preservation of many pieces of structural timber from the site has allowed valuable insights into Romano-British carpentry (Chapter 8). The oak well-shaft linings of the later 2nd and early 3rd century were constructed locally by highly skilled carpenters, who employed a distinctive design not known to date from any other site. Darrah's analysis has exposed the general availability of plantation-grown oak, and an apparent dearth of long nails! There is insufficient evidence to show whether Scole itself was a major centre for the production of wooden items — perhaps including the design and fabrication of timber structures for erection elsewhere — or if the needs of local communities were served by carpenters who operated on an itinerant basis. In more general terms there is little evidence as to the degree of craft specialisation that existed within the Romano-British 'construction industry'. While the findings of high-quality furniture items are significant, these items may have been imported from elsewhere. It is not certain whether specialist carpenters and joiners operated in rural provincial contexts such as Scole: it is equally possible that local builders practised both of these crafts along with bricklaying, thatching and tiling (Burnham and Wachter 1990, 49).

The maltings complex on the south bank of the Waveney was an extraordinary find. As well as a single corn-drier, it included substantial pits and the foundations

of timber structures, while clay had clearly been imported for structural use on a large scale. It is unclear whether the leat was dug simply to serve the maltings or if it had been intended to serve a pre-existing watermill — an enterprise which must ultimately have failed — but a mill and maltings may well have been related (Chapter 2). Corn-driers were essentially a Roman-period phenomenon, making an appearance in the 1st and 2nd centuries but becoming more widespread in the 3rd and 4th (Morris 1979); they are likely to have been important contributors to brewing in Roman Britain. Considered alongside the maltings at villa estates such as Orton Hall Farm and Barton Court, the Scole complex was fairly modest, given its Small Town setting, and may have served only a small catchment area.

In conclusion, it is clear beyond doubt that Scole was an important focus for manufacturing and craft production in the Roman period. Positive evidence that these activities took place on a truly ‘industrial’ scale, however, has been lacking.

Trade and communications

Roads and rivers

Scole lies at the point where the Pye Road — the main north-to south highway linking *Venta Icenorum* with the south-east of England — joins the Roman roads leading east and west along the Waveney valley and also crosses the River Waveney. Its possible role as a posting station has already been considered: what may be said about its situation within networks of trade and exchange?

The importance of the Roman road system to the siting and distribution of Small Towns is clear in both Norfolk and Suffolk. Only two of the known Norfolk examples (Long Stratton and Fincham) were apparently straightforward ‘roadside’ settlements, all of the others being situated either at road intersections and/or close to rivers and river crossings (Gurney 1995b, fig. 6.1). Scole exemplifies the latter type of location. Whether or not it originated as a military or posting station, it would have been well placed to capitalise on passing trade and to act as a local centre for more modest communities within a radius of *c.* 10–15km.

It is not clear whether the River Waveney was navigable up to this point during the Roman period. Certainly the excavation areas aimed at locating waterlogged timber quayside structures failed to locate evidence of this kind, revealing instead the Area 6 maltings complex. Burnham and Wachter’s brief survey of Small Town harbours (1990, 50) has emphasised how seldom evidence of this nature has been recorded at Small Towns, as opposed to public towns and cities. Two of the possible examples that they cite, however — Brampton and Scole itself — are in Norfolk, and are both in riverine rather than coastal situations. The earlier evidence from Scole took the form of a wooden structure of piles and horizontal timbers excavated by Brown and Gale at Waterloo, *c.* 500m to the west of the centre of Scole. At Brampton, a timber platform was recorded on the south bank of a now-silted channel of the River Bure (Knowles 1977). Neither of these features necessarily lay at the point where a major Roman road had crossed the river, although the Brampton quay appears to have been the focus of two converging metalled roads. The putative ‘quay’ at Scole lay alongside the main road leading westwards out of

Scole (Chapter 1, Fig. 1.3); at a distance of over 100m from the modern course of the river, it might have lain at the head of a creek or inlet (*cf.* Springhead: Burnham and Wachter 1990, 192) if it was indeed a harbour structure. There are many similarities between the location of this site and that of the Oakley causeway, however, and it is possible that a river crossing rather than a quay was indicated here (Chapter 3).

Although the 1993–4 excavations exposed neither harbour structures nor roads or paths that obviously provided access to them, it should be remembered that the recorded length of the Scole ‘waterfront’ remains small, and that evidence of this kind might remain concealed at any number of locations to either side of the main Waveney crossing. Even if the river was used for transport, fishing and fowling by small craft, the modest dimensions of the present-day Waveney at this point make it seem unlikely that Scole was ever a significant centre for water-borne trade on any scale. Yet the mechanisms and practicalities of riverine trade in Roman Britain have seen little study in their own right. The possibility that materials of all kinds were traded extensively by water, using a whole variety of small craft requiring no large or distinctive harbour structures, is certainly a real one. Thus evidence for quays *etc.* is not necessarily to be expected.

Trade and exchange

The difficulties involved in characterising trade and commercial activity at Small Towns have been described by researchers studying other settlements (*e.g.* Neatham: Millett and Graham 1986, 154–7). Scole should perhaps be seen in the context of Millett’s opinion that the ubiquity of these sites — and their strikingly ‘even’ distribution in many areas — makes it most sensible to regard them as a network of local service centres. On an East Anglian level, Plouviez (*pers. comm.*) has observed that no place in Suffolk would have lain more than about ten miles from a settlement of this kind, offering further evidence of their suitability as local market venues.

The lack of evidence for a market place or designated market building is not in itself surprising. The small scale of fieldwork in central Scole has limited opportunities for identifying any public buildings that once existed here. Structures resembling fora or *macellae* (market halls) are seldom found in Small Towns anyhow. (Indeed some buildings previously identified as aisled market halls are now considered more likely to have been temples: Burnham and Wachter 1990, 49.) Markets could have been held within the confines of existing street space and may have used temporary stalls and buildings. The ubiquitous ‘strip-buildings’ sited end-on to the road frontages in so many Small Towns, probably combining residential and workshop accommodation for artisans and their families, may well have been used as shops and trading places too. The suggestion of a portico or veranda attached to the front of building **38031** (excavated by Moss) may be significant here. As Cooper (Chapter 7) has indicated, only a small number of the objects recovered during the 1993–4 excavations (including steelyards, weights, batch tallies, and perhaps styli) were definitely connected with exchange and commerce. Their small number and restricted range is typical of Small Town sites.

Despite Roman Scole’s nodal location in East Anglia’s Roman communications network, there is no convincing evidence that it was a centre for the mass distribution of

goods. Nor does it appear that manufactured items that had not been produced locally were entering the settlement in any great quantity as a result of trade. Lyons and Tester's conclusions regarding the pottery are important here (Chapter 6). The coarse pottery assemblage is completely dominated by the products of the local Wattisfield kilns. Although quantities of Oxfordshire and other non-local wares, most of them colour-coated finewares, reached Scole during the 4th century, this is typical of settlement sites in Roman Britain generally. According to Esmonde Cleary's hypothesis (1989, 135), this phenomenon may be an indicator of the later 4th-century recession — with large pottery producers distributing more widely in order to survive in a contracting market — rather than offering any insights into the working of the earlier 'healthy' Romano-British economy. Despite the size of the pottery collection from the 1993–4 excavations overall, arguably the assemblage is unexceptional considering the very large scale of the excavations themselves. Furthermore, the proportions of samian and other finewares appear very small. While the lack of large catalogued and analysed pottery collections from Roman Scole's immediate hinterland makes it impossible to be certain, the small proportion of non-local wares suggests that Scole had no significant role as a centre for ceramic redistribution. This echoes Cowgill and Mills's conclusions regarding the metalworking evidence.

Subsistence

Relatively little new information about Romano-British arable farming has arisen from the project (Fryer and Murphy, Chapter 9), although the discovery of the maltings complex has obviously provided valuable insights into crop-processing activities as well as brewing. Murphy's conclusions have emphasised a general lack of charred grain indicating crop-processing from the large excavation areas to the north of the Waveney, although the relatively small number of samples taken and processed may have contributed to this.

Baker's consideration of animal and bird bones (Chapter 9) concluded that meat consumed at Scole was predominantly domestic cattle and (to a lesser degree) sheep, although the possibility that pork or other meats were imported to Scole in boned form must not be overlooked. No aspects of the zoological evidence appeared especially surprising in the context of a Small Town in Roman Britain, but many useful insights into animal husbandry were gained. Cattle kill-patterns make clear the importance of milk production and traction as well as beef. While bones of domestic cattle predominated in assemblages studied from all phases, there is evidence that the rearing of sheep and goats may increasingly have embraced wool and milk production during the later Roman period. There is little evidence for any significant hunted component in the diet in any period, and no clear signs of the later Roman increase in woodland exploitation and hunting discerned by King at a range of other Roman sites in Britain (King 1978).

Some broader questions remain unanswered. Most important of these is the extent to which the inhabitants of the Small Town participated in food production. Baker has concluded that the site was a centre for the slaughter and jointing of animals, but that stock were not necessarily reared or kept within the Small Town itself. In a more truly 'urban' context this could indicate that meat was supplied

to the settlement's population by specialist stockrearsers and butchers, but at a relatively low-status site such as Scole this must remain open to question. Further doubt is cast on this issue by the soil analyses of Macphail *et al.* (Chapter 9), which have identified a significant coprolitic content in the Roman-period Dark Earths at Oakley and in the southern part of Stuston Area 7. Although this may be attributable to animals brought in for sale or slaughter, it seems equally likely that these animals were kept in a domestic context within the individual enclosures. These findings are from peripheral parts of the settlement, which are not necessarily representative of the Small Town as a whole. Yet Burnham (1995, 9–10) has emphasised the likely importance of agricultural pursuits, as well as commerce and manufacturing, to the inhabitants of Small Towns. Although the excavations at Scole have produced few implements clearly connected with farming, Cooper (Chapter 7) has stated that this should not be construed as negative evidence for the importance of agriculture here.

It is likely that many inhabitants were involved in subsistence farming as well as other craft, commercial or other specialised activities. This must be emphasised in view of the settlement's relatively humble social and commercial status. Indeed, discussion of industry and commerce has focussed on the difficulties involved in identifying real evidence that these pursuits took place on an intensive or specialist basis. (Importantly, 'intensive' and 'specialist' need not be interchangeable terms here!) Further support for the ubiquity of subsistence farming is provided by the settlement's relatively undeveloped plan, with the majority of roadside properties backing onto open land which was probably grazed or cultivated. In a rural context of this kind, it is possible that skilled artisans concentrated upon craft activities such as metalworking and tanning at slack times in the agricultural cycle. Maybe butchery was carried out within the Small Town itself by full- or part-time specialists who were also engaged in tanning, bone- and leather-working.

Religion and ritual

Temples

It is possible that Romano-Celtic temples remain undiscovered within Scole's largely-unexcavated core, and the buildings considered here are peripheral ones. In neither case is there any indication of the cult practised; indeed only one of the sites is certainly a temple.

To the north of the Waveney, the outlying temple excavated to the east of the settlement was of humble construction, even by the standards of rural Norfolk (Chapter 4) — despite the fact that it had a tiled roof, unlike any of the other Small Town structures excavated in 1993–4. Severe machine-stripping prior to archaeological monitoring may have removed evidence that would have been useful in reconstructing the building's appearance, and probably swept away many artefacts also. The temple also appears to have been relatively short-lived, perhaps having fallen from use in the latter part of the 3rd century. Despite its modesty, it seems to have been located within a *temenos*.

The identification of the other possible temple site, to the south of the Waveney at Oakley, remains speculative. Surface finds make clear that this was an altogether grander masonry building with a tessellated pavement. Its identification as a temple rests upon the recovery of coins

and metalwork, and there are indications that the use of the site was perpetuated by a pagan Saxon cemetery (Chapter 1). Votive objects recovered from the Scole temple site and its environs include a Priapic figurine and a miniature axe, while two miniature axes came from the Oakley site.

Death and burial

Despite the number of Roman sites in Norfolk and Suffolk — many of them of national significance — recorded burials of the period are few in number. David Gurney's survey of the known Roman burials from Norfolk has identified only approximately 250, a small number in the light of Gurney's view that the county's population in Roman times might have been quite similar to that in later medieval times (Gurney 1998). This dearth of evidence extends to the region's Small Towns, and only one small-town cemetery has been excavated to date. This was at Billingford (Norfolk), where a group of (?50) unaccompanied inhumations lying on the southern edge of the occupation area was excavated during 1991–6 (Wallis 2011). A later Roman inhumation cemetery at Melford Meadows, Brettenham, Norfolk, has also seen recent excavation (Mudd 2002) — this too was adjacent to Roman-period settlement, although the character and extent of it is unclear.

Evidence for burial at the various Suffolk Small Town sites is also relatively slight. A discrete 4th-century cemetery and church have been excavated at Icklingham (Moore *et al.* 1988), while a cluster of seven adult burials — one in a stone coffin — discovered recently at Long Melford may represent a 4th-century cemetery overlooking earlier settlement. A cremation cemetery at Hacheston was located on a promontory overlooking both the settlement and the River Deben, while the extensive fen edge settlement at Lakenheath has produced several burials since the construction of the present air base on the site.

At Scole itself, a number of burials had been discovered prior to the 1993–4 excavations, and there was scattered evidence for inhumations in the central part of the Roman town at Long Meadow and Karen Close. No clear evidence for cemeteries of any size had been identified; although none were located during the recent excavation works either, a total of two inhumed and eleven cremated burials were found. These were found singly or in small groups, and in a variety of different contexts. Considering the scale of the 1993–4 excavations this total might be considered rather small. It is possible that further burials went unexcavated or unrecognised during the work. Acid sandy subsoils could well have led to poor preservation of bone in some 'dry' parts of the site. The limited scope of feature-excavation in many areas — especially in Norfolk, where excavation of some parts of the site was hindered by flooding and inclement weather — may also have led to burials remaining concealed. This is especially true in the case of the main roadside ditches, which could only be sample-sectioned along much of their length.

To the north of the Waveney the main concentrations of burials located were the small 'cemetery' recorded at the rear of the peat-edge enclosures — situated next to the Period 3 roundhouse and including 'midden' deposit **18100** — and the group of urned cremations located in the fill of the southern roadside ditch (Chapter 3). The only Roman-period burial found during excavations in Suffolk

was the inhumation recovered from a roadside ditch (Chapter 3). It is a commonplace in Romano-British archaeology that burials frequently occur in boundary locations, typically at the periphery of settlements, or at roadsides. The burials excavated in 1993–4 appear to conform with this pattern, occurring either in roadside ditches or — in the case of the Norfolk cemetery — lying at the boundary between wet and dry land.

Even at the conclusion of analysis there is much which is not fully understood about the small Norfolk cemetery. The assignment of the 'primary' inhumation **18056** to Phase 4 rests upon a balance of probability rather than on incontrovertible stratigraphic or artefactual evidence. While specialist studies by Macphail, Baker and Lyons have shown that midden **18100** was not an *in situ* pyre deposit, as was thought at the time of excavation, its true significance is still unclear. It is also not known whether the adjacent roundhouse **18000** had any particular funerary significance. Certainly none can be proven; and yet the area seems to have been used for burial over a considerable period, and it seems likely that the Phase 4 infant inhumation acted as a focus for the Phase 5 cremations. The siting of small groups of burials at the rear of roadside property divisions has been recorded at other Small Towns (*e.g.* Hibaldstow, Lincs: Smith 1987, 189–194; Ashton, Northants: Dix 1983). The location of the Scole cemetery at the edge of the wet river margins may have been of religious or symbolic importance in itself; furthermore it seems likely that the primary inhumation actually pre-dated the laying out of the major land divisions in this part of the site. After the Phase 5A enclosures were established, the complex may have lain beside a significant access route to the river itself.

The fact that both the north-west and south-west corners of the eastern peat-edge enclosure appear to have been 'marked' by burials has already been discussed (Chapter 2). The manner in which the cremation group **48083**, lying in the upper fill of the southern roadside ditch, coincided with the western limit of road metalling and the most substantial building excavated on the road frontage has also been considered. The siting of this latter group may provide further evidence that this was in fact the western limit of the town proper during the later 2nd–early 3rd centuries, although the unproven date of the metalling itself — and the possibility that more cremations remained concealed in unexcavated parts of the roadside ditch — both argue for caution here.

So while it would appear that many burials at Scole were situated on boundaries, there is little evidence for clear spatial separation of funerary activity from other aspects of the settlement's life. On the Norfolk peat-edge the cemetery appears to have existed in close proximity to tanning and other craft activities during the 2nd and 3rd centuries, Lyons's ceramic group analyses demonstrating the chronological overlap between these activities. Chapter 2 has already considered the possibility that human burial and tanning were attracted to this part of the site for entirely different reasons: liminal location on the one hand and easy access to ground water and river on the other.

The inhumations from Area 7 deserve special comment. While Iron Age and Roman crouched burials have been recorded elsewhere in East Anglia, most are poorly dated, although one of two recently excavated examples at Mildenhall in West Suffolk has been

radiocarbon-dated to the Iron Age (360–30 cal. BC: OxA-7642; 2115±45BP). Cremations are slightly more numerous (Martin 1999). Wilson suggests that exhumation was the majority rite in the Early Iron Age but that crouched burials, in a variety of grave shapes, become more frequent over time. While these were often placed in pits rather than in formally-dug graves, Whimster (1977) suggests that we cannot assume interment to have been ‘casual’ purely on the basis of the shape or location of a grave, and points instead to shared characteristics in the laying out of many bodies (*e.g.* crouched burials with the body lain on its side and the ‘head directed between north and east’: Whimster 1977, 1981). Wilson, however, observes that the act of burial may have been ‘of less consequence than the preceding ritual’ (Wilson 1981, 163). If this is true, probably very little may be inferred from what appears to have been an exceptionally casual interment, and the Stuston prehistoric burial may thus be included within the catholic pre-Belgic funerary tradition.

The human burial recorded in a roadside ditch at Area 7 is intriguing. It is possible that it is an ‘extraordinary’ deposit indicating a violent death — either murder or judicial execution — taking place on or close to the main Roman road in the late 1st–early 2nd century. It may, however, provide more evidence that boundary locations were often preferred for burial. Randomly-spaced small-scale excavations carried out at the Lakenheath settlement since the late 1980s have uncovered at least six burials located either alongside or within various elements of a site-wide network of ditches (Martin *et al.* 1988; 1993; 1994). These excavations have encompassed less than 5% of the settlement area. If the figures are extrapolated, this intensity of burial suggests that 120 or more burials may lie undetected at the site. While this cannot have accounted for the entire population of Roman-period Lakenheath, it is clear that no classical taboo on burial within towns necessarily applied to provincial settlements of this kind. Perhaps some individuals were buried along land-divisions or the limits of properties which they owned or occupied.

The burials excavated at Scole in 1993–4 were all from peripheral areas of the settlement. What may be said about Roman burial practise within the core of the Small Town? No burials were found by Rogerson, although the area opened in 1973 was not extensive. The Long Meadow watching brief, however, revealed several inhumation burials lying in the area immediately to the east of the main north-to-south Roman road. Archaeological coverage of this large area was very partial, being confined to observing road stripping and holes excavated by contractors. Despite this a total of seven inhumation burials was seen, all of them in the north-western quarter of the area. Five lay very close together, being encountered when the footings for two adjacent houses were dug out. All were unaccompanied; all but one were oriented west-to-east with their heads to the west. Finds collected from the grave fills were few, but included sherds of 2nd- and 3rd-century pottery.

These finds may indicate that an inhumation cemetery of later Roman date, of uncertain size but occupying an area of at least 400m², lay in the angle formed by the intersection of the main north-to-south road and the secondary road leading eastwards out of Scole down the Waveney valley. Given that Roman cemeteries occur most frequently in suburban or extramural locations, on the

surface it seems a little strange to identify one apparently lying close to the centre of the town, maybe in an inhabited zone of the settlement. Along with the general absence of later Roman coins, this could indeed be taken as further evidence showing that central Scole was either moribund or in decline from the 3rd century onward. The presence of the burials need not necessarily support this interpretation, however. The possibility has already been mentioned that Roman Scole, like some other Small Towns focussed on road junctions, was relatively undeveloped behind the land-divisions fronting onto the roads themselves. The burials encountered at Long Meadow lay 25m and more to the east of the main Roman road. Rather than occupying land which had once been used for industrial, domestic or commercial purposes, it is possible that this cemetery simply followed a familiar small-town pattern in lying at the rear of a series of property divisions extending back from the road.

What insights into funerary ritual and Romano-British belief do the Scole burials offer? On a specific level, Robinson’s identification of remains of deadly nightshade and box from the coffined infant burial **18056** surely provides a glimpse of the funeral rite itself. The association of box with funerals and burial places in the Roman era is well known, both in Britain and in mediterranean Europe (Dickson 1994). The deliberate damage to the majority of the cremation vessels recovered (discussed by Lyons and Tester, Chapter 6) is also likely to have been symbolically meaningful, perhaps intended to consign the pots to the world of the dead as opposed to that of the living.

Millett has recently suggested (1995, 36) that the pervasiveness of evidence for ‘ritual’ life on provincial Roman settlement sites should not be underestimated; and that these beliefs may well have been founded upon indigenous views and habits rather than upon anything explicitly ‘classical’. Perhaps the intriguing group of peat-edge burials to the north of the Waveney represents the burying place of family group or small community, or else a local cult centre of some kind. In such a context the primary infant burial within its timber ‘coffin’ may have been that of a significant individual, which acted as a focus for other burials. In future, parallels for phenomena of this kind should perhaps be sought in the archaeology of the British *Iron Age* rather than in the better-documented practises of the Roman period.

‘Special deposits’

The implications of Millett’s opinion go beyond the funerary evidence itself. Recent trends in Iron Age studies have emphasised the ways in which the evidence from settlement sites may provide information about religion and ritual, with regard both to formal ceremonies and to broader undercurrents of superstition and habit. There has been an upsurge in interest in the ritual and symbolic aspects of Iron Age life, and a growing appreciation that it may be inappropriate for us to expect that any rigid division between the ‘mundane’ and ‘sacred’ aspects of life existed at this time.

Recent studies by Hill (1994; 1995) and Fitzpatrick (1994) have concentrated on discerning patterns in the distribution, context and association of artefacts on Iron Age sites. At some sites, superficially random deposits of artefactual ‘rubbish’ retrieved from pits and ditches actually betray signs that some artefacts (*e.g.* metalwork,

decorated pottery, human remains and bones of particular animals) were deliberately selected for incorporation. There are indications that 'structured' artefact deposits or human remains were sometimes carefully and meaningfully sited on boundaries, close to the entrances of enclosures and structures, or in and around dwelling houses. Furthermore, there are some indications (most famously at Danebury: Cunliffe 1984) that whole animal skeletons or animal parts sometimes received burial or careful deposition in a variety of contexts. There may be scope for greater efforts to try and identify similar evidence at Roman settlement sites, and to discern whether or not these indigenous beliefs and practises continued to permeate life in the Roman period. The fact that Scole, like most other Small Towns, exhibits few indications of *Romanitas* or classical urban culture, and has produced hardly any overtly classical religious material, makes this an important and relevant question.

The pair of horse skulls from the Area 6 leat is discussed at the conclusion of Chapter 3; it is suggested that this (like other comparable finds from Iron Age and Roman contexts in Britain) was in fact a deliberate 'closing deposit' made when the channel was abandoned as a water-source by the maltings complex. Other likely examples of special deposits including human bone were found in structural post-holes to the north of the Waveney. While one of these occurred in the base of a corner post-hole of the late 2nd–early 3rd-century building **38029** the other came from the 1st-century roundhouse **18000**, a building much more in the 'native' Iron Age tradition.

To the north of the Waveney, the siting of burials in a variety of liminal locations — already discussed fully in the earlier part of this section — might betray 'Iron Age' rather than 'classical' beliefs and habits. In superficial terms, the location of burials at the limits of human occupation and immediately beyond them accords with our understanding of the Roman prohibition of burial within the area of towns, while roadside burials are also well-known in the Roman world. The placing of burials at the corners of the eastern peat-edge enclosure, however, suggests a more complex pattern of behaviour. The possibility that the peat-edge infant burial **18056** was a focal point for subsequent cremations suggests that this functioned as a minor cult centre. Indeed it is possible that the 'dark soil' material forming the 3rd-century 'midden' **18100** indicates funerary or other cult activity at the site, representing either debris generated by feasting or else material imported from elsewhere for special reasons unknown. The micromorphological evidence that this material had been laid down in a number of episodes could offer further support for this.

In discussing possible Romano-British 'special deposits', Millett (1995, 36) has cited as an example a roadside well at Shiptonthorpe (E. Yorks) which contained an unusual collection of artefacts and also appears to have been a focus for animal and infant burials. Other possible examples of special deposits in wells have been recorded on other sites in Roman Britain, for example at Neatham (Millett and Graham 1986, 159) and at Chelmsford (Luff 1982). Certainly a number of distinctive artefacts have been recovered from the Scole well-shafts, notably the fallow deer antler from the fill of well **38024**, the complete pewter dish from well **38018** and the cattle carcass from well **80271**. It is, however,

difficult to prove that the deposits in the Scole wells had any special votive significance. It has been observed that well-shaft 'special deposits' could have been introduced when the well was excavated, when it was in use, or at the time of its infilling.

The fact that many of the Scole wells could not be fully excavated, due to high ground-water levels *etc.*, means that the basal deposits (*i.e.* those most likely to contain objects thrown into them while the well was actually in use) within many of them were not fully examined. Yet the 'ordinary' nature of the pottery assemblage from the wells in general, along with the almost complete lack of coins, other metal objects, complete pots and obviously 'cultic' items, does not encourage their interpretation as ritual foci. In her report on the faunal remains, Baker (Chapter 9) has preferred to view the bones from the wells as butchery waste or other rubbish. It is possible that the immature cattle skeleton from well **80271** was connected with a water rite or some other ceremony.

A matter of status? 'Small Towns' and settlement hierarchy

The semantic problems posed by the term 'Small Town' are well rehearsed in the recent literature on settlement in Roman Britain. Concern has focussed upon two general issues: firstly, that it is used to embrace a diverse range of quite different kinds of settlement; secondly, that most of these sites display very few of the characteristics of classical urbanism. Yet in the absence of a simple and generally-accepted alternative, it has proved remarkably difficult for scholars — even those who are fully aware of its limitations (Millett 1995, 29) — to avoid. Another point raised by Gurney (1995b, fig. 6.2) is the fact that some of Norfolk's 'Small Towns' are similar in total area to the *civitas* capital of *Venta Icenorum*, and that a few (Hockwold) were clearly even larger. In Suffolk, Plouviez has also commented on the large size of many Small Towns (1995, 69). Despite the scale and intensity of the 1993–4 excavations, the true extent of Roman Scole remains uncertain, especially to the north and north-east. Its extent of at least 800m east-to-west, however, suggests that it covered an area not dissimilar to that occupied by (for example) Brampton, another site situated at a road intersection which saw considerable ribbon development.

In an attempt to appreciate the true diversity of these sites, Burnham (1995) has presented an alternative classification scheme for 'Small Towns' in Roman Britain. Using his series of 'structural and functional indicators', Scole would be classified as a *lower order settlement*: public or official buildings have not been discovered, and there is no evidence for a developed plan, defences, 'large organised cemeteries' or a specialised function. Unfortunately this nomenclature does not greatly help appreciation of the East Anglian Small Towns. The application of Burnham's criteria places nearly all of them in this one category — despite obvious contrasts in size (Gurney 1995; Plouviez 1995) and chronological development — since they are neither proto-cities (*upper order settlements*) nor sites devoted to particular economic or religious functions (*middle order settlements*). Another problem with this use of the term is that even the more modest Small Towns would have been relatively grand and highly-developed in comparison with small settlements and farmsteads — the true 'lower order' of settlement in Roman Britain. In Norfolk, recent

excavations at Snettisham (Flitcroft 2001), Spong Hill (Rickett 1995) and Attlebridge (Hall 1996) have provided useful glimpses of the lower reaches of the settlement hierarchy in Norfolk. Yet most of these sites are known only from pottery scatters — over 3000 of them are recorded in the Norfolk SMR alone — rather than from excavation. Dawson's fieldwork in the Sandy region is a reminder of the type of questions which may be targetted by concerted research into the roles of these more modest settlements (Dawson 1995).

Firm evidence for Scole's 'official' status — as an imperial estate centre, for instance, or as a posting-station on the *Cursus Publicus* — remains absent. The lack of evidence for any imposing Roman building does not help here, although the central area of the Small Town, where a *mansio* or similar public building would probably have been sited, has seen very little excavation. The fact that the imperial post was not necessarily served by special 'official' buildings should be borne in mind, however.

Rogerson's suggestion that Scole was an estate centre must also be considered. The siting of villas on the edges of Small Towns may sometimes indicate that a settlement indeed serviced an estate. (A possible example of such a relationship may be seen at Hockwold, where the 'Small Town' lay close to the villa at Weeting and to other large masonry buildings: Gurney 1995.) No obvious candidate for a building of this kind has yet been discovered in the Scole environs. Although the possible 'superior' building at Oakley (OKY 010) should not be forgotten, neither should the collection of metal-detected artefacts which suggest that it was actually a temple (Chapter 1). The fact that much of the surrounding clayland is unconducive to the recording of crop-marks — often so important in the discovery of East Anglian villas — is also a problem here, while more fieldwalking evidence would be invaluable in providing a better context. The discovery of the Hoxne hoard only c. 2km to the east of Scole in 1992 could well indicate that a high-status community lived nearby during the late Roman period, however. This late Roman 'treasure', one of the largest ever discovered in Britain, contained over 14,780 coins and around 200 other gold and silver items, and is thought to represent the wealth of an affluent private family (Bland and Johns 1993). The fact that one spoon was inscribed with the name FAVSTINVS is intriguing when considering the much-discussed issue of whether Scole was indeed the *Villa Faustini* of the Antonine Itinerary (Rodwell 1975). While Gurney has suggested (1995, 53) that this might indicate that the place-name has nothing to do with Scole at all, alternatively it could suggest that Scole was part of a larger economic unit.

In national terms, it has been argued that the major towns had ceased to be centres of prestige and wealth by the 4th century, with 'money' moving into the countryside and finding expression in an increase in the number of villas (Reece 1980). In the case of a 'Small Town' such as Scole it is doubtful if the *settlement* itself had ever held any great status. A huge gulf in wealth is indicated by the contrast between the hoard and anything recovered from the present excavations, either in terms of artefacts or of buildings. Real prestige and power must surely have rested with families such as those who owned the Hoxne treasure, regardless of whether they exercised it in and around the Small Town or on estates in the open countryside. It may be worth considering Scole in the light

of the 1985 excavations at Pakenham, however. Here a stone-founded building, complete with hypocaust, close to the probable centre of settlement might indicate the concentration of power within a nearby Small Town (J. Plouviez, *pers. comm.*). While the building itself lay beyond the excavation limits, a wooden tower, built in the easement between a 3rd-century ditch and the central line of the road, supplied it with water. This encroachment on the road might be a further indication of the exercise of power, since this ditch — which reinstated the outer line of a section of road — might have been as destructive of earlier roadside properties as ditch 70523 seems to have been to properties fronting the Pye Road in Area 7 (Chapter 3).

What indications of Scole's status are offered by the coins? Reece (1987) has suggested that 'urban' and 'rural' sites may be distinguished from each other numismatically, with mid- and later 4th-century (rather than 3rd-century) issues predominating at the latter. Davies and Gregory (1991), in their survey of Roman coinage finds from Norfolk, sought to apply Reece's criteria to the collections from all the larger Norfolk settlements. Apart from Caistor St Edmund itself, Brampton is the only site which emerged with an 'urban' profile (Davies and Gregory 1991, fig. 5). All of the other Small Towns included in the study appear to have been 'rural', with Brettenham, Saham Toney and Billingford having an especial preponderance of 4th-century coins. Scole falls into this category as well, with over 80% of all the coins recovered dating to the 4th century. This evidence should probably be treated with some caution. Brampton is considered in detail by Burnham and Wacher (1990, 203–8) as an exemplar of a 'specialised' Small Town dedicated to industrial production, and is perhaps the best-known site of this kind in Norfolk. The presence of formal defences on a scale virtually unique amongst Norfolk and Suffolk Small Towns could be taken as further evidence that Brampton stood apart from other Small Towns in the region. Yet it is unclear whether or not this Small Town is really different from them in any other respect. Plouviez's research in Suffolk (1995) does not support any simple application of Reece's numismatic model, implying rather that variations in coin-loss conform to broader territorial patterns across the county rather than providing information about the character and functions of the sites themselves.

There is an increasing appreciation that Roman legal terminology and definitions of urbanism are of limited value in the study of smaller provincial 'towns', both in Britain and elsewhere in northern Europe. The results of excavation and research at Scole have shown how 'urban' or 'classical' criteria have little value in evaluating the status and various roles of Small Towns in Roman Britain. The indicators of rank or status chosen by Burnham and other researchers all seem ineffective: there is no positive evidence of imposing buildings or a 'Roman' townscape; no indications of 'specialised' religious or industrial roles; no suggestions of great affluence amongst its inhabitants; and no signs that Scole was a centre for the manufacture and distribution of objects on anything other than a local scale. Yet it is equally clear that roadside settlements like Scole were morphologically and economically more developed than the true 'lower order' of settlement in Roman Britain. Perhaps it is best to view Scole in the light of Millett's contention (1995) that Small Towns were an indigenous

response by local societies and economies, and that they grew up in response to the demands and opportunities provided by the developing Romano-British milieu. In this context there need be no expectations either of outward *romanitas* or of specialist functions. As informal settlements which grew up spontaneously to meet the needs of a developing economy they may, as Plouviez has suggested (*pers. comm.*), have been analogous to the 'cow towns' of the 19th-century American frontier.

The end of Roman Scole

Concluding his report on the 1973 excavations, Rogerson suggested that Scole's decline may be dated to the latter part of the 3rd century, conjecturing that the settlement formed part of an Imperial estate and thus was affected by the collapse of the Gallic empire in AD 273 (Rogerson 1977, 224). This interpretation must be revised now that larger-scale excavation has demonstrated Scole's 4th-century vitality, and placed Rogerson's evidence for later Roman decay or desertion into a wider context. Although there are indications that some parts of the Pye Road frontage close to the southern edge of the town no longer saw settlement in the latter part of the 4th century, the coin assemblage from the excavations north of the Waveney suggested that activity along the westerly ribbon development was in full swing until the last decades of the century.

This makes the almost-complete absence of 5th-century features and artefacts at Scole even more notable. No Anglo-Saxon features were identified as a result of Rogerson's work, nor was pagan Saxon pottery or metalwork recovered, although a number of sherds of this date were collected during the Scole House/Long Meadow watching brief. Evidence for 'sub-Roman' Scole from the 1993–4 excavations focuses on only two actual features. To the north of the river, the date and context of the shallow inhumation **18077** remain very difficult to interpret. The presence in the grave of an equal-armed brooch makes a 5th-century date seem likely, however. This is not contradicted by the feature's late stratigraphic position, in the uppermost filling of a disused 4th-century tanning pit.

South of the Waveney, radiocarbon dating of oak piles from the timber causeway flanking the river palaeo-channel at Oakley suggested that this period saw the renovation of a feature which originated in the later Iron Age, perhaps constructed to reach an unlocated ford or bridge site. The Roman-era hiatus in the maintenance of this routeway may indicate that it was supplanted by the Roman Pye Road in the 1st century AD, only to re-enter use when the Roman river crossing fell into disrepair (Chapter 3; pp201–2). It appears that the causeway saw repeated maintenance in the Anglo-Saxon period. Perhaps the location chosen for the crossing was simply identified as the safest or most convenient area of river-bank by both pre- and post-Roman travellers; it is very possible, however, that the older route was deliberately and knowingly revived during the sub-Roman period. Beyond the recent excavation areas themselves there are suggestions of pagan Saxon activity to the south of the river, in particular at the possible Roman temple site at Oakley (OKY 010, p.113) where metalwork suggestive of a cemetery has been found by metal-detecting.

In recent years some doubt has been cast upon the historical evidence which traditionally gives great

significance to the years 409–10 in the ending of Roman Britain. In particular it has been queried whether the historian Zosimus is a reliable source for the events of these years, including the Britons taking up arms themselves to 'liberate' the 'cities'. The significance of the letter from Honorius exhorting the 'cities' to defend themselves has also been debated (Esmonde Cleary 1989, 137–9; for an alternative view see Salway 1993, chapter 4). The withdrawal of troops from Britain by the usurper Constantine III, to pursue Imperial ambitions, during the first years of the century is not in dispute. Yet in his general survey of the evidence for the end of Roman Britain, Esmonde Cleary (1989, 153–4) has concluded that the great majority of Small Towns — both walled and undefended — had effectively ceased to function by the early 5th century. All the stratigraphic, structural, artefactual and numismatic evidence suggests that this was the case at Scole, too. Roadside buildings went out of use, in some cases dismantled or demolished, and were not replaced. The creation of tanning pits, hearths and other industrial features ceased, while many timber-lined wells which had been in use since the late 2nd century were no longer maintained. Despite the relatively large number of coins of the 360s and 370s which were collected, especially in the excavation area to the north of the Waveney, issues of Reece's Periods 15B and 16 (AD 378–402) were very few by comparison. This pattern accords well with the generally rapid falling-off in coin deposition after AD 378 which was identified by Davies and Gregory (1991) in their survey of Roman coinage from the Icenian *civitas*. In the case of Scole, how may this apparently negative evidence be interpreted?

Rogerson's synthetic essay on Anglo-Saxon Norfolk (1996) has emphasised the discontinuity between Roman and Saxon settlement patterns, and suggested that there were many fewer settlements — and a smaller population — in the 5th and 6th centuries. Although problems of archaeological visibility may have exaggerated this impression, the results of intensive field survey campaigns at Witton (north-east Norfolk: Wade 1983) and in the Loddon area of south-east Norfolk (Davison 1990) suggest that this evidence for contraction is real enough. During the 4th century the disruption caused by Germanic raiding and by the early phases of immigration probably played a decisive role in the end of Romano-British life in East Anglia. This decline may have triggered a severe economic recession, suggested by the slow-down in coin deposition from the 370s onward (Davies and Gregory 1991). In his discussion of the ending of towns in Roman Britain — both large and 'small' — Esmonde Cleary has emphasised the impact which a decline in the issue and use of Roman coinage could well have had on settlements which supplied goods and services in the context of long-established money-based trading systems (Esmonde Cleary 1989, 153–4).

At none of the Small Towns of Norfolk and Suffolk which have seen excavation and survey are there any clear signs that occupation continued into the 5th century or beyond at its former scale or intensity. This is characteristic of nearly all known sites of this kind in Britain (Millett 1990, 223). With reference to Suffolk, Plouviez (1995) has noted that many have yielded evidence for early Saxon occupation or burial but seldom on any significant scale. It has often been located (as at Hacheston, Pakenham and Icklingham) on the edges of

the earlier settlements, and cannot be interpreted as true continuity in 'urban' function. Early Saxon timber buildings and a sunken-featured building recently excavated at Billingford, Norfolk (Wallis 2011) also lay on the fringes of the Roman-period settlement. While pottery from the sunken-featured building indicated a 5th-century date, there is no evidence that these features actually represent direct continuity of occupation and function from the later Roman settlement of this part of the site.

There are, however, indications that the sites of towns did remain significant locations in sub-Roman East Anglia. In Norfolk, Williamson has observed a degree of correspondence between Roman towns and the sites of Anglo-Saxon cemeteries. This applies most famously to the *civitas* capital of *Venta Icenorum* itself, which is flanked by two major cremation cemeteries, but may also be seen in the cases of Small Towns at Billingford, Tofrees, Walsingham, Brettenham and elsewhere. This could well indicate that these sites remained important central places for tribal groups or other communities in the 5th and 6th centuries (Williamson 1993, 67). In some ways this is only to be expected, given that the Small Towns frequently occupied river-valley locations and other strategic points on the still-extant Roman road network. Scole, situated at a crucial river-crossing on the main highway leading north to *Venta Icenorum*,

exemplifies this kind of location. It must be considered likely that it remained a significant centre of some kind. The metalwork finds suggesting the presence of an Anglo-Saxon cemetery immediately to the south of the Waveney at OKY 010 might indicate that Williamson's argument for central-place continuity holds good here too. The fact that this cemetery may have perpetuated the site of a Romano-Celtic temple makes this interpretation even more interesting.

Wiltshire (Chapter 9) has noted an abrupt decline in charcoal content in the sub-Roman sediments from the Oakley palaeochannel. This must record a decline in local human occupation, signifying the shrinkage or disappearance of the Small Town *per se*. Yet the palynological record certainly does not imply a background of agricultural dereliction or decay; indeed Wiltshire suggests that arable farming actually *intensified* during this period. This may be a purely local snapshot of land-utilisation, of course, and should not be viewed as a guide to sub-Roman farming and woodland management practise in the wider area. It does suggest, however, that landscape management in the Scole area continued without interruption after the Small Town had ceased to function. The fact that the pollen-bearing deposits lie within a radiocarbon-dated stratigraphic sequence adds to the importance of this observation.

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