EAA 48

WEST STOW
The Prehistoric and Romano-British Occupations

East Anglian Archaeology
Suffolk County Planning Department 1990

EAST ANGLIAN ARCHAEOLOGY

West Stow, Suffolk: The Prehistoric and Romano-British Occupations

by Stanley West

with contributions from
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Cover Illustration
Excavations 1967, general view looking west.

Contents

List of Plates

List of Figures

List of Tables

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Summary

This volume constitutes the second part of the report on the excavations at West Stow, carried out by the author between 1965 and 1972.

Extensive earlier occupations of the site were revealed by that excavation and form the subject matter of this report; the Mesolithic industry; the Late Neolithic cemetery; the Iron Age settlement and the Romano-British pottery industry; being important to local studies, each in their own right. After the Anglo-Saxon settlement (West 1985) decayed, in the 7th century, the site remained unoccupied until it was ploughed for a time in the 13th century. Following a sand-blow the area reverted to heathland and remained undisturbed until the 19th century.

Part 1. Introduction

I. Introduction
(Fig. 1)

The multi-period site on the north bank of the River Lark at West Stow (County Number WSW 002, at TM 7970 7135) was excavated by the author for the Department of the Environment from 1965 to 1972. The first report was concerned with all aspects of the Anglo-Saxon village (West, 1985). This second part covers the Mesolithic flint industry, the Late Neolithic cemetery, the Iron Age settlement, the Romano-British pottery industry and the traces of the medieval field system.

II. Geology and Topography of the Lark Valley
(Figs 1 and 2)

The solid geology of the Lark Valley area is chalk, the surface of which is undulating, rising close to the surface at Icklingham and Cavenham. The overlying drift consists of a heavy blanket of boulder clay to the south of Bury St. Edmunds and remains in quite extensive patches on both flanks of the river, forming a high, dry plateau in West Stow and Icklingham, which is in turn capped with sands and gravels. The glacial sands and gravels with occasional patches of brickearth, are exposed in the valley itself. The valley bottom has a covering of alluvium and peat along the flood-plain, leading directly to the fens at Mildenhall (Fig. 1).

The River Lark rises in Whepstead on the high Suffolk boulder clay plateau south of Bury St. Edmunds and is joined at about the 300 ft (90 m) contour by other, smaller, streams flowing north from the watershed. At Sicklesmere, two and a half miles south of Bury St. Edmunds, where the stream leaves the clay plateau, the valley of the Lark begins to assume the form that characterises it for much of its length; that of an easy flowing river meandering through a gentle landscape of water meadows. (Fig. 2). From Sicklesmere the drift geology is sands and gravels, with the river flanked by gravel terraces which gradually give way to a flatter landscape of lighter sands and gravels typical of the 'Breckland'. A noticeable feature of the valley is the width of the flood plain; over much of its length, from Fornham St. Martin to Mildenhall, it is as much as 450m wide. Before the water course was embanked and canalised early in the 18th century the river clearly meandered over the valley bottom to provide a broad swathe of water meadows. An interesting example of the changing river pattern can be seen on the south side of Lackford Bridge, where the parish boundary of Icklingham follows a distinct bank south of the present river and, again, along a 1350m stretch either side of Farthing Lock at Icklingham, where the parish boundary is not now the main course of the river, but clearly in an older course, now reduced to a small ditch. From West Stow down-stream to Mildenhall there is extensive evidence of the sand blows which are such a common phenomenon in this region even today. The resultant dunes are now best seen on Icklingham Plains where some areas are still uncultivated. Although largely covered with re-generated vegetation they are still subject to wind erosion, often exposing the old ground surface beneath. West Stow Heath is part of a larger area affected in this way, although in recent years afforestation has masked considerable areas of dune sand. The region between the old sewerage farm and the crossing of the Icknield Way is entirely covered with blown sand, in places 90-120cm thick.

The regenerating vegetation of sedge, grasses and, lately, of silver birch and oak present a primeval atmosphere which is, as it happens, entirely false, for beneath the sand are extensive traces of a medieval open field system and beyond that of earlier prehistoric and Romano- British cultivations. Twenty-two miles north-west of Bury St. Edmunds, the river joins the Ouse between Prickwillow and Littleport; the last eight miles being through Mildenhall Fen. To either side few streams flow down from the Breckland to the valley and it is noticeable that the parishes on the north side are long and narrow, running back into the dry Breckland. From the earliest times down to the mid-20th century the topography has influenced the pattern of settlement, with centres of population strung out along the valley bottom bordering the Lark with its water meadows, and utilising the back country for sheep walks and scattered farms.

There are two main lines of communication: along the valley itself (the present A1101); and the prehistoric Icknield Way, which runs from the south-west along the chalk escarpment and the edge of the Breckland to cross the Lark at Lackford Bridge before heading north, across the Breckland proper, toward Thetford. The importance of the Icknield Way approach is demonstrated by the earthwork known as the Black Ditches (Fig. 3, top) which bars the approaches to Icklingham from south of the river. The bank and ditch runs in two sections, from the edge of the flood plain on the south side of the river opposite the western end of Icklingham to the Icknield Way, and then almost due south across Cavenham Heath to the higher, heavier gravels of Risby Poor's Heath, utilising a deep, marshy valley and stream in the intervening section. By the beginning of the 5th century AD much, if not most, of the valley must have been open arable farmland with grassland behind. Trees were not absent to judge from the West Stow settlement; willow, hazel, alder, ash and hawthorn were all in evidence; oak was used as the primary building material and oak scrub or forest must have been within reach of the settlement. From West Stow on, the heavier gravels of the upper Lark Valley still support oak in quantity and light oak scrub is beginning to colonise the heath itself.

III. The Site
(Figs 3, 10)

The site is a low knoll of sand, some 4.5 acres (1.8 ha) in extent, rising steeply from the flood plain of the Lark on the south and sloping gently away to the north. The general aspect then, is of a small hill, only 4.5m in height, but noticeably apart from the surrounding landscape. As has already been mentioned, the site lies on the edge of a sand-blow area along the Lark valley, which extends to the west as far as Barton Mills. The hill formed an ideal 'core'

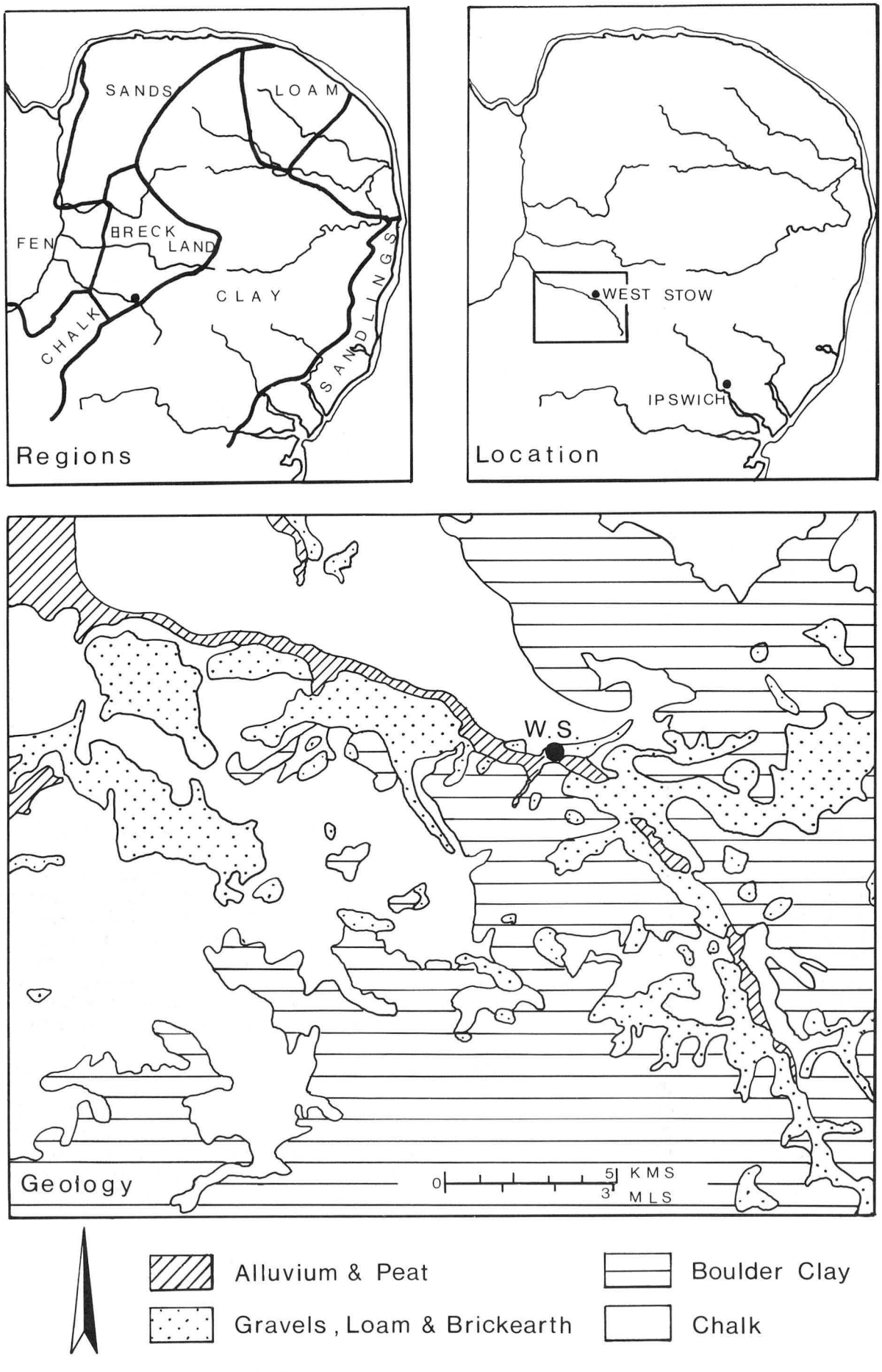


Figure 1 West Stow and the Lark Valley: location and geology

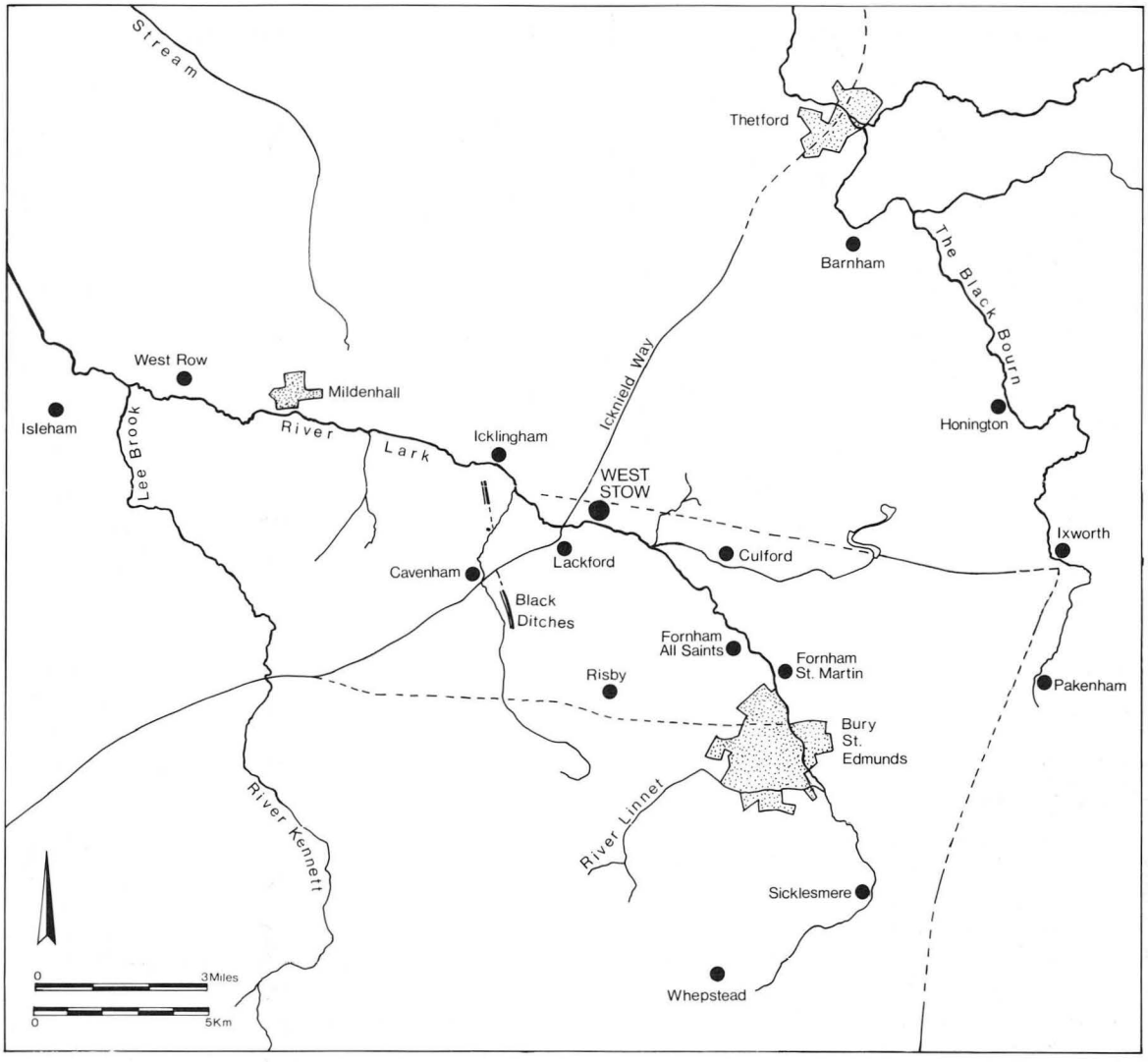


Figure 2 The Lark Valley, showing topography, the Icknield Way, Roman roads and the Black Ditches

for the development of a sand dune with a long slope facing the prevailing wind and a sharp drop on the sheltered side. The sand-blow, which took place in the early 14th century, completely covered the site with up to 1 metre of blown sand on the south side, tailing off on the north slope. This protected the site from later agriculture and from discovery until 1940, when the site was found by Basil Brown. The steep slope along the south side is accentuated by the ditch at its base, marking the edge of the flood plain. Close examination of this slope suggested that there had not been much erosion of the site since the Iron Age, as the general occupation layer (Layer 2) trailed down over it and some of the ditches ending at the top edge of the slope were not truncated. The land to the north and east had previously been extensively modified by the construction of the filter beds for the Bury sewerage farms. However, it has been possible to ascertain that the hill had preserved its original contours on those sides, from sections taken down the slopes and from subsequent discoveries in the floor of the filter beds. The north-east corner had, however, been partially destroyed by a small gravel pit during the 1950s, where the first observations of Anglo-Saxon huts were made. Today the site and the surrounding heath is a regenerating landscape of sedge, grass and birch, with some oak in places. The sewerage farm to the north and east and the subsequant town rubbish dump has now been reconstituted and landscaped to become part of a Country Park.

It should be borne in mind that the Romano-British and Anglo-Saxon landscape of the valley was very different, as there is reason to believe that there were considerable areas of ploughed land on the lower slopes close to the river as well as open grazing on the higher, dryer areas.

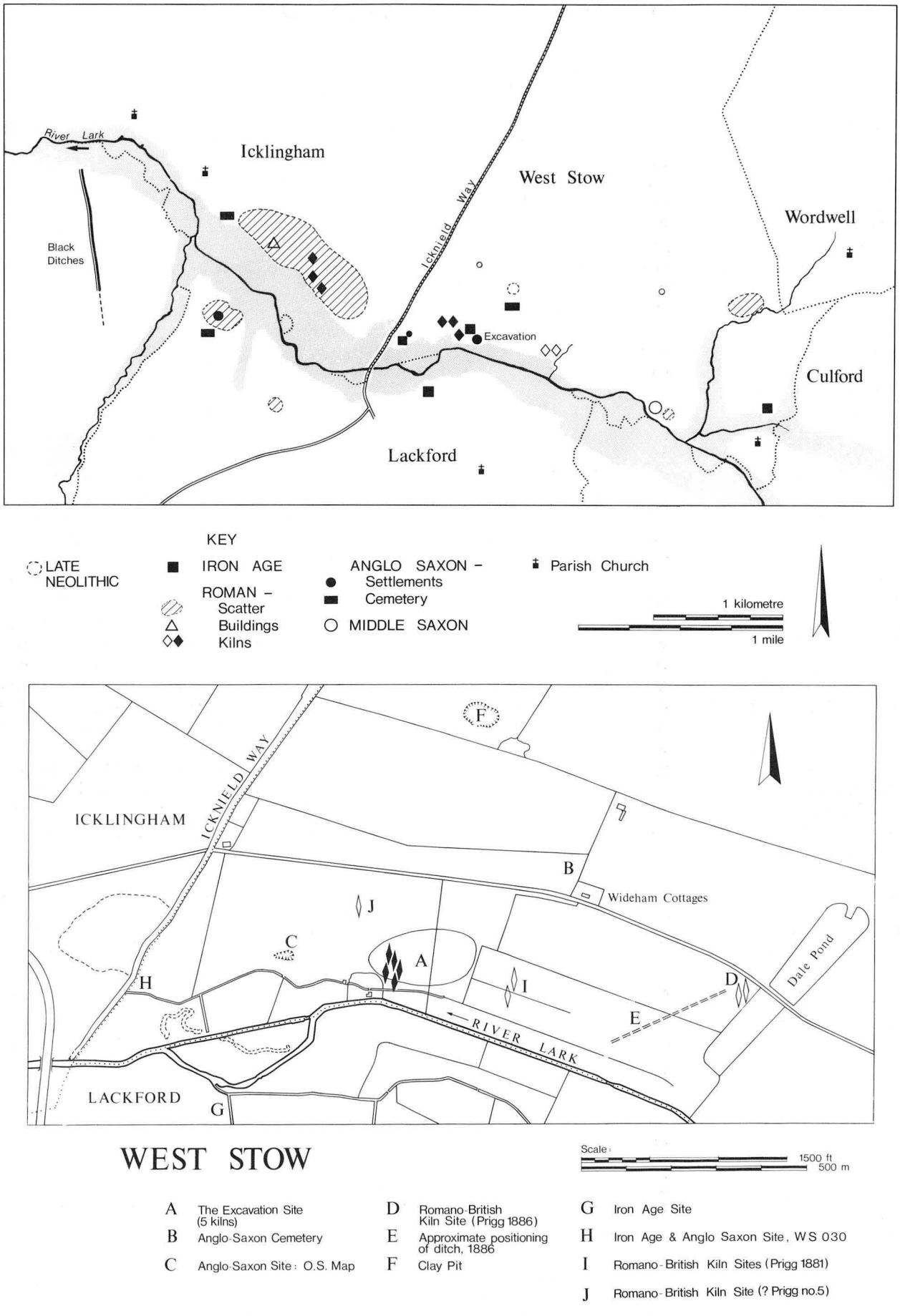


Figure 3 (a) The location of the excavation in the Lark Valley in relation to other sites. (b) West Stow Heath in detail

Part 2. The Excavation

I. Excavation Method

(Fig. 4)

The site was discovered by Basil Brown, who excavated two Roman pottery kilns in 1940; the first large scale excavations were undertaken by V.I. Evison, using a grid of fifteen-foot squares. The base line for this excavation was utilised for a larger grid of fifty-foot squares by the author for the excavations from 1965 to 1972. In order to distinguish the two grid systems, the second used a 'W' prefix before the alphabetical letter, as seen on the site plans. Apart from the belt of pines planted in the 19th century crossing the excavation site from north to south, the entire knoll was stripped and examined; with up to 1 metre of blown sand being removed from the south side of the hill. Beneath the blown sand (Section, Fig. 34), a medieval field system of ridge and furrow was preserved in the top of a layer of black soil up to 35cm thick (Layer 2). Selected areas of this were trowelled down in an attempt to distinguish features within this layer; which, in the event, proved fruitless. This 'general cultural layer' covered the entire area of occupation and considerable quantities of pottery, food bones and artefacts were recovered from it, in spite of the practical necessity to remove most of it by machine. Machining was followed by the careful removal of the final few centimetres by controlled shovelling to reveal the features in the top of the natural sand. Fortunately the subsoil carried few pockets of gravel, making the identification of post-holes and smaller features easier. During the excavation all features were given consecutive numbers within classes; *i.e.* sunken-featured buildings, pits, ditches, post-holes, *etc.* Small finds were listed consecutively as found; pottery and bones similarly, but on a separate list.

The site was excavated in Imperial measurements, the metric equivalents are given throughout the report to the nearest 10cm for those over 1m and to the nearest cm between 10cm and 1m. Figure 4 is an overall site plan showing features of all phases.

Throughout the report the abbreviations SFB (Sunken-Featured Building) will be used rather than *Grubenhaus* and SF for Small Finds.

Archive material from the excavations is held by the Suffolk Archaeological Unit, Shire Hall, Bury St. Edmunds and exhibitable material in Moyses Hall Museum, Bury St. Edmunds.

II. The Mesolithic

(Figs 5 and 44; Table 1)

A total of 20,795 worked flints was recorded from the five acres of the excavation, incorporated in Layer 2 and in many of the features of the Iron Age and later periods. A density diagram, Figure 5, demonstrates the density of unassociated and culturally unidentifiable worked flints.

Although no features were found that could be attributed to the Mesolithic, eleven concentrations of flint waste, all with cores of Mesolithic character, and five with Mesolithic tools, were found, mainly in the south-west quarter of the site. Five concentrations of flint waste and tools were found in the sand below Layer 2, implying that all traces of hollows, in which they must originally have been dropped, had been entirely leached away or had been obscured by the purple patches of podsol. It is clear from the amount of minute core waste flakes and blades that some of these concentrations indicate working areas. There were no traces of animal bones or charcoal associated with any of the concentrations.

Table 1 sets out the basic analysis of the groups. Two groups of concentrated flints were close together in areas where later features were very dense and have therefore been considered together (WG.9: F.73, F.74; WG.13: F.150, F.153, F.157).

Feature No.	*Grid Square*	*Feature dimensions (cm)*	*Blades*		*Flakes*		*Cores*	*Waste**	*Other*
			comp.	*bkn.*	*comp.*	*bkn.*			
Large Groups									
160	WC.3	*c.* 213 × 152	28	20	94	29	2	45	
134	WD.10	91 (diam.)	152	73	160	30	9		14 microliths
135	WG.12	122 (diam.)	44	15	104	61	4	3	
148	WG.12	*c.* 302 × 213	152	107	484	122	35	97	21 microliths
150, 153, 157	WG.13	*c.* 175 × 150	197	162	578	381	14	113	25 microliths
Small Groups									
72	WG.9	45 × 45	2	1	11			1	
73/74	WG.9	122 × 61	19	11	43	12			
136	WG.12	ill defined	22	16	29	9	1	1	
154	WG.13	61 (diam.)	21	24	54	49	3	16	2 microliths
156	WG.13	ill defined	6	4	18	4		1	
117	WG.11	ill defined	27	1	40	13	1	1	
Ring-ditch									
P.330	WF.11	—	47	37	113	25	2	26	2 'tortoise cores'
D. 115	WF.11	—	135	103	280	64	16	84	1 arrowhead
Totals			796	537	1895	774	75	362	

* = chunks and broken burnt fragments

Table 1 Concentrations of worked flint.

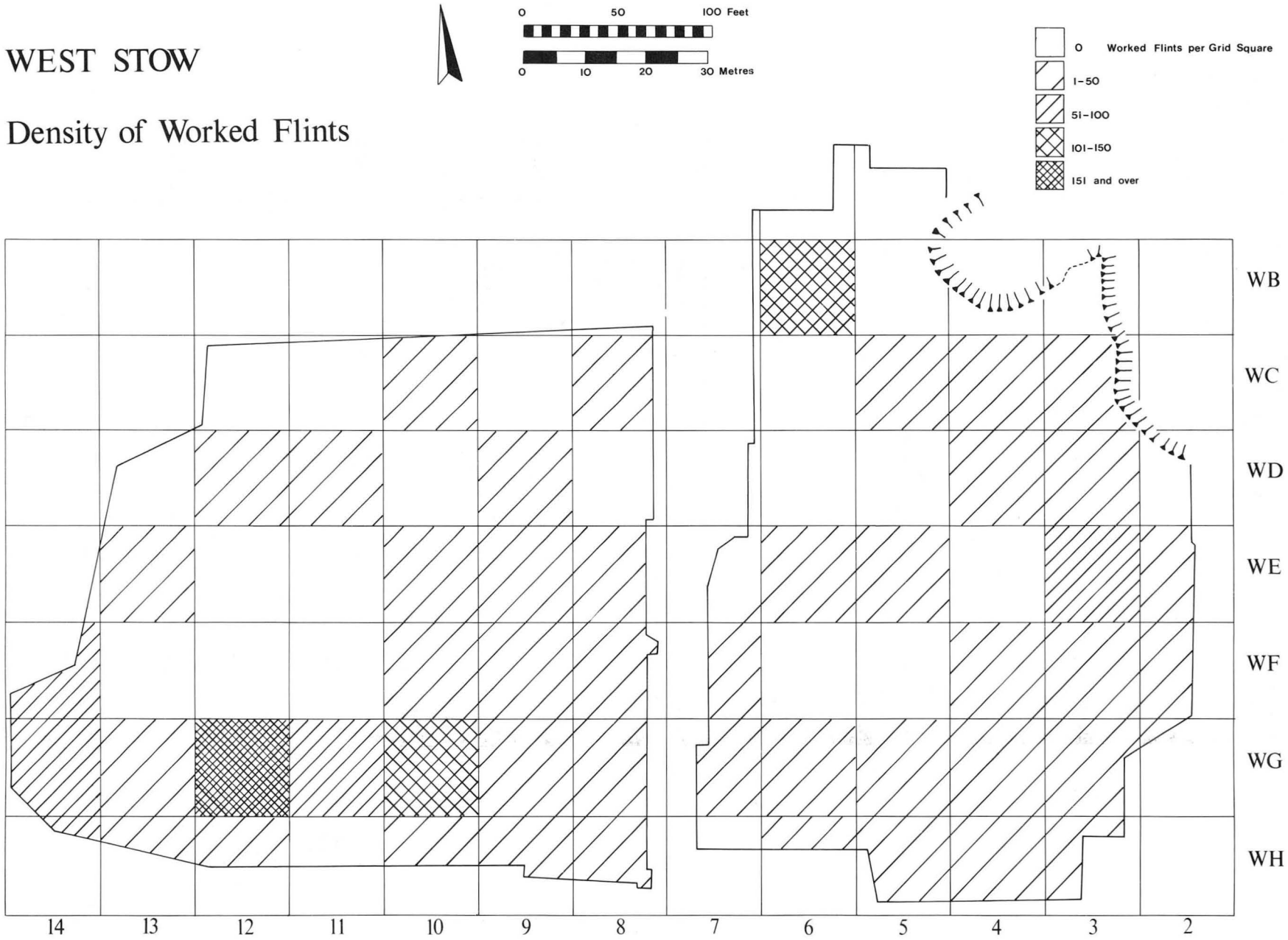


Figure 5 Mesolithic: density of worked flints

WEST STOW
ALL PERIODS

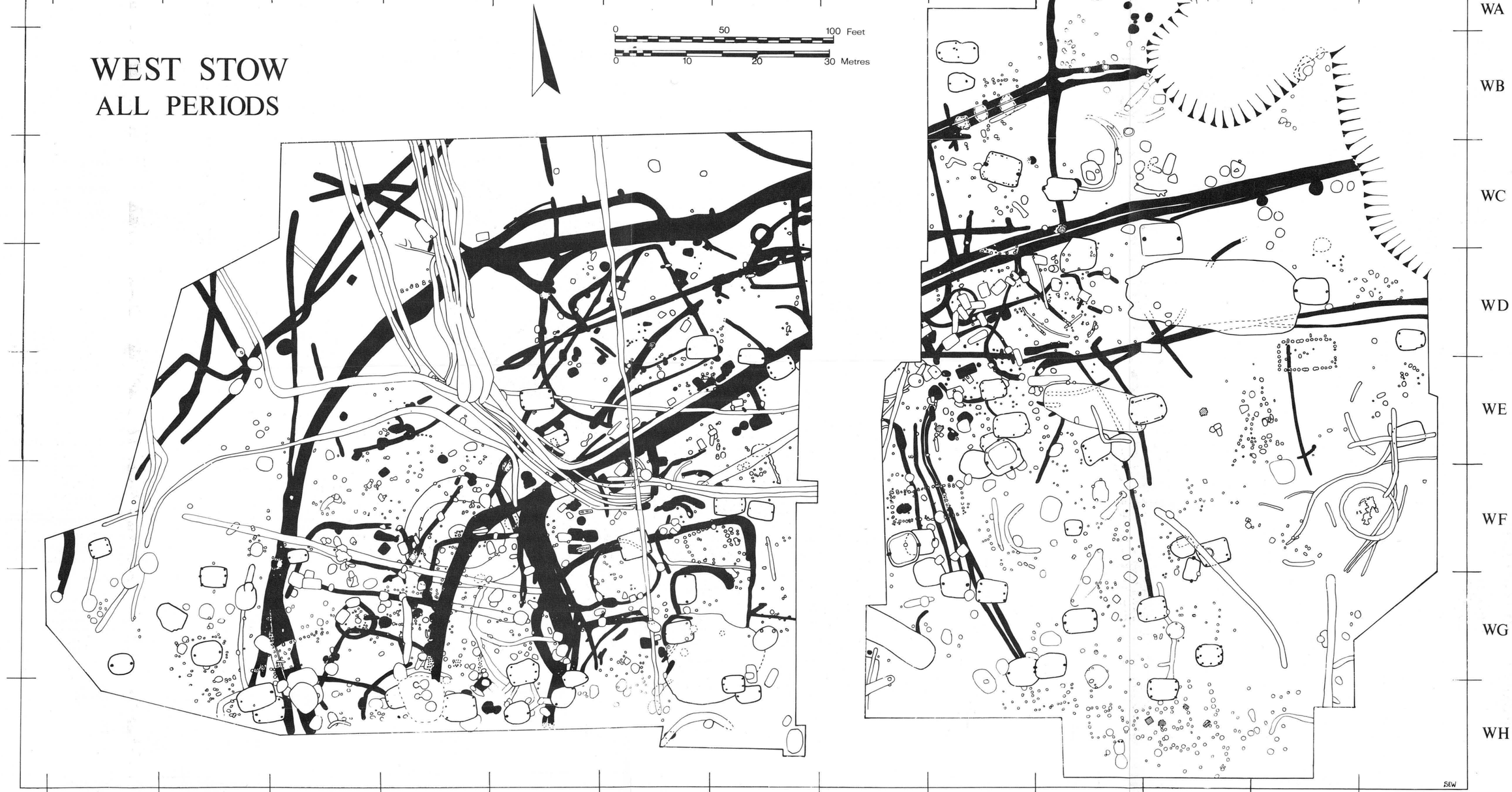


Figure 4 West Stow excavation: all periods; Iron Age in black

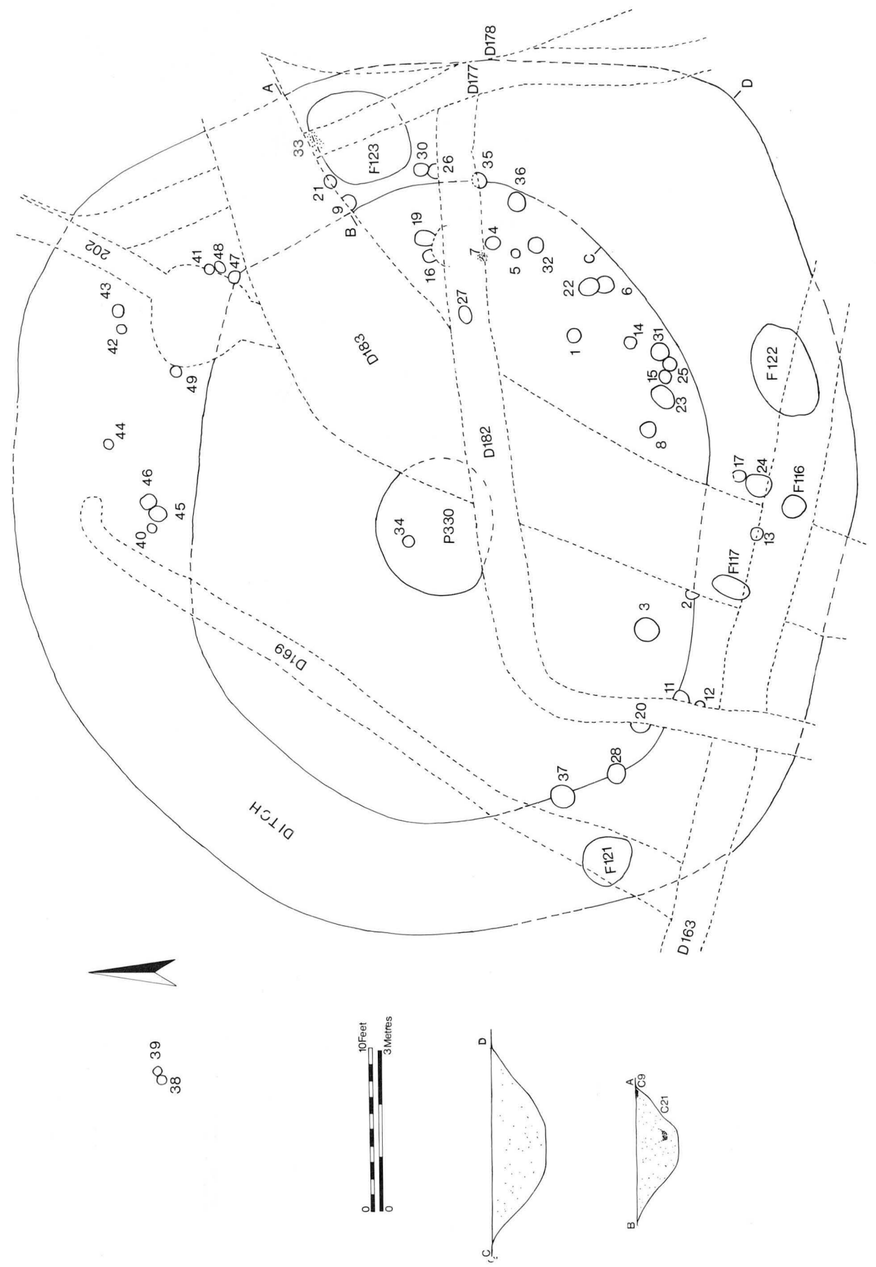


Figure 6 Neolithic: plan and section of ring-ditch with cremations and Pit 330. Scale 1:25.

III. The Neolithic

The ring ditch (Grid Ref. WF. 11; D.115)
(Figs 6-9; Pl. I)

Introduction
On the crest of the western end of the knoll a broad, irregular ditch enclosed a roughly oval area 9.4-11.6m in diameter. A pit (P.330) with a crouched inhumation was found in the centre of the enclosure and forty-seven cremations in the ditch and its inner lip suggests that originally there had been a small, ditched round barrow on the site, although no trace of a mound was found. Two thirds of the enclosure was obscured by later, mainly Iron Age, features suggesting that if there had been a mound, it had already been denuded by Iron Age times.

The ditch (D.115; Fig. 6) The enclosing ditch (D.115) was shallow, 76-91cm deep, flat bottomed with steep sides and varied in width from 2.1m on the west to as much as 3.65m on the north and east. The filling was of a uniform orange sand without trace of primary silting, tip lines or turf lines; the whole being leached to such an extent as to be almost invisible. Three shallow hollows in the ditch bottom (F.121, F.22, and F.123) appeared to either predate the ditch or to be contemporary with it. All were filled with the same pale orange sand with no definition between it and the fill of the overlying ditch.

Plate I Pit 330. Primary burial in Neolithic ring ditch

The central pit (Fig. 7, Pl. I) Pit 330 in the centre had been damaged by two Iron Age ditches (D.182, D.183) but had clearly been oval, *c.* 2.1×*c.* 2.74m across and 53cm deep. The base was flat and the sides sloped steeply to the top of the natural on the south side and almost vertically on the north. In the centre, on the bottom of the pit, the silhouette of a crouched burial was identified, lying on the left side with the legs flexed (Fig. 7). A single stone bead (Fig. 42, No. 56) was found 7.6cm from the chin in the presumed area of the chest. No other grave goods accompanied the burial. Above the primary burial there was a 7.6cm layer of orange sand (Layer 3) which sloped up the south wall of the pit and passed into yellowish dirty sand in the centre. A sloping band of dense black sand (Layer 2) containing quantities of worked flints partially covered the primary fill and was, in turn, covered with dirty sand to the brim of the pit (Layer 1). To the north-west of centre of the pit an unurned cremation (No. 34) was found, 23cm above the floor of the pit and the inhumation. Although no secondary pit could be defined for the deposition of this burial, there was an ill-defined area of lighter, cleaner sand above the cremation which might represent it. The black layer (P.330: Layer 2) with worked flints was first seen as a ring outlining the edge of the pit at the level of the top of the natural, but 15cm down had disappeared from the west side. Although it was not continuous across the section the impression was that it had probably subsided into the pit and that after that stage the secondary cremation had been inserted into the upper fill.

The worked flints and the black layer were confined to the limits of the pit; none occurred outside it. Two small 'tortoise' cores were found among the assemblage of flakes, blades and core pieces, but no other tools.

One transverse arrowhead (Clark Class D) was found in the ditch (Fig. 42, No. 53) and another of a very large lobed type (Fig. 42, No. 54; Clark (1934) Class D), came from an Iron Age pit (P.341) cut into the ditch fill, from which it may well be derived. An oblique arrowhead (Fig. 42, No. 55) came from the top of the ditch fill with two 'tortoise' cores and a fabricator.

The cremations (Figs 8 and 9; Table 2)
Forty-nine cremations were found in all, of which one (No. 34), was found as an insertion into the primary burial pit (see above). Two others (Nos 38, 49) were found to the north-west of the barrow, 3m from the outer lip of the ditch but should, by their proximity, probably be considered to be part of the same cremation cemetery. Of the cremations, No. 10 was a scatter of fragments along the Iron Age Ditch, D.163, and probably represents derived material; No. 12 was a tiny portion, probably representing a cremation but now of insubstantial quantity; No. 33 a much disturbed cremation and No. 44 also insubstantial and scattered (see report by Keepax, Part 4, below). The

Group	*In mound or inner lip*	*Inner lip inserted through ditch*	*In ditch wall*	*In ditch fill*
South-west	3, 20	2, 37, 38	11, 13 24	12 Top
South-east	1, 4, 5, 6, 8, 14, 15, 16, 18, 19, 22, 23, 25, 27, 31, 32, 35, 36	35	9	21 45 cm from floor 26 high in fill 30 high in fill 33 scattered in Iron Age ditch
North-east		47		Top: 40, 41, 42, 43, 45, 46, 48, 49 Frags only: 44

Table 2 Distribution of cremations.

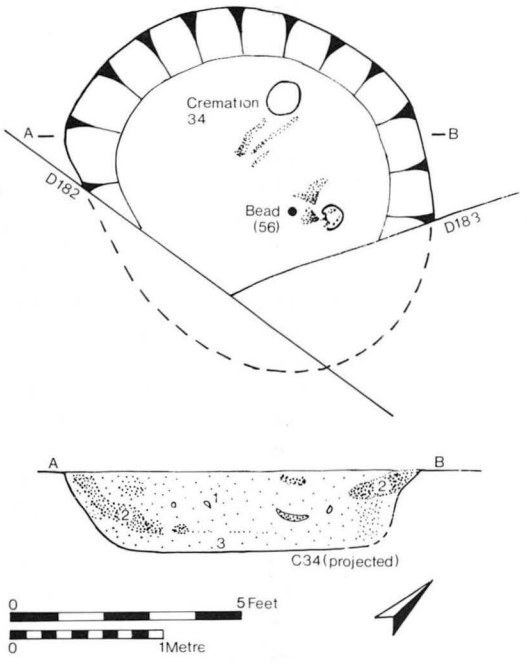


Figure 7 Neolithic: plan and section of central Pit 330 with silhouette of crouched burial and position of bead. Scale 1:50

number of cremations in consolidated deposits in the ditch and in the lip, therefore, number forty-three with three probables, but these were heavily disturbed and one, (No. 10) was derived material only.

The cremations were densely packed inside the inner lip of the ditch in the south-east quarter, on the edge (at the level of the natural) and in the fill of the ditch in the south-west and north-east. No cremations were found in the north-west quarter.

Table 2 shows this distribution; it should be remembered of course, that the ditch as recorded is at the level of the surface of the natural, therefore some of those listed in the first column may have been inserted through the upper wall of the ditch.

The group in the south-west quarter shows a wide range of siting, with No. 24 at the base of the ditch, with no apparent cut through the fill, and No. 12 in the top of the fill, with others in the mound or inner lip.

The south-east group consists of eighteen in the mound or inner lip and three in the fill, of which, No. 21 was 45 cm from the floor and Nos 26 and 30 high in the fill. All three were, however, at the northern edge of the quadrant and may possibly relate to the north-east group.

The north-east group is, with the exception of No. 47, entirely in the top of the ditch fill, as excavated. It is tempting therefore, to see a chronological development in the deposition of the cremations with those in the north-east quadrant being buried after some 75 cm of silt had accumulated in the ditch.

There was little evidence for the pits dug to contain the cremations. Where there was, (Nos 25, 31) they appeared to be just large enough to accommodate the deposited bone although two, (Nos 24, 35) were slightly larger.

The sections through these cremations (Figs 8 and 9) strongly suggest the depositions were made in bags or containers, as may be supposed for the others, although not so clearly. No accompanying small finds were found with any of the cremations. Two cremations (Nos 26 and 45) contained bone fragments stained green, presumably from contact with copper or bronze, but no traces of artefacts were found. In the case of No. 26, this was truncated by the Iron Age ditch, D182, which might account for intrusive material but No. 45 was undisturbed, with only the general layer, L.2, above it.

The relationship between the ring-ditch and the later Neolithic flintwork is discussed in Chapter 6.

IV. The Iron Age

Introduction

The excavation showed that the whole of the knoll was covered by traces of Iron Age settlement, particularly in the western half (Fig. 10). There are indications that some of the linear ditches or gullies run off the hill onto the neighbouring areas but the pits and structures are clearly confined to the hill itself. The picture is inevitably confused by the mass of later Romano-British and Early Anglo-Saxon settlement features (Fig. 4) but it has been possible, by stratigraphy, to untangle a substantial amount of information about the Iron Age settlement. Three basic 'phases' are identified by stratigraphy and associated pottery and may be assigned to the following chronology:

Phase I	3rd-1st century BC (Fig. 11);
Phase II	may start in the 1st century BC but much of it probably dates to the early 1st century AD (Fig. 11);
Phase III	early 1st century AD until the middle of the century (Fig. 17).

Although three phases can be distinguished there are ninety-two pits which, although of Iron Age date, cannot be assigned to any particular phase and a large number of post-holes which are shown on the Phase plans (Figs 11 and 17) and separately on Figure 68 but could belong to any of the periods represented on the site (see below, p. 00).

Iron Age Phase I: 3rd-1st century BC

(Fig. 11)

There are few features that could be confidently assigned to this phase; these consisted of part of an enclosure, twenty-one pits and possibly (by association) a few post-holes. All were situated on the western half of the site, much overlain by later features.

Enclosure No. 1 (WD/WE. 10; Figs 11, 13, 14)

A semi-circular ditch (D.158/160), 23 m in diameter was excavated on the crest of the north facing slope. On the north side it was destroyed by the Phase 3 ditch, D.148, and no trace of an eastern arc could be found. The ditch was cut by both Phase 2 and Phase 3 ditches. In the southern portion, the ditch was 'V' shaped, 68.5 cm wide and 30 cm deep, with a grey, sandy fill over black soil. In the central part, the ditch widened to 91 cm with a uniform dark brown sandy fill. The northern section had become deeper and wider, to 1.1 m, with a light brown sandy fill. No structures were identified within the enclosure, although undatable post-holes occurred. Three Phase I pits (P.224, P.245, P.246) were found in the north-east quarter, although the majority of pits of this phase occurred to the south of the enclosure. All three pits were oval or circular and widely dispersed. One other small pit (P.213) may also be contemporary. The enclosure ditch and the three pits all contained small quantities of Phase I pottery.

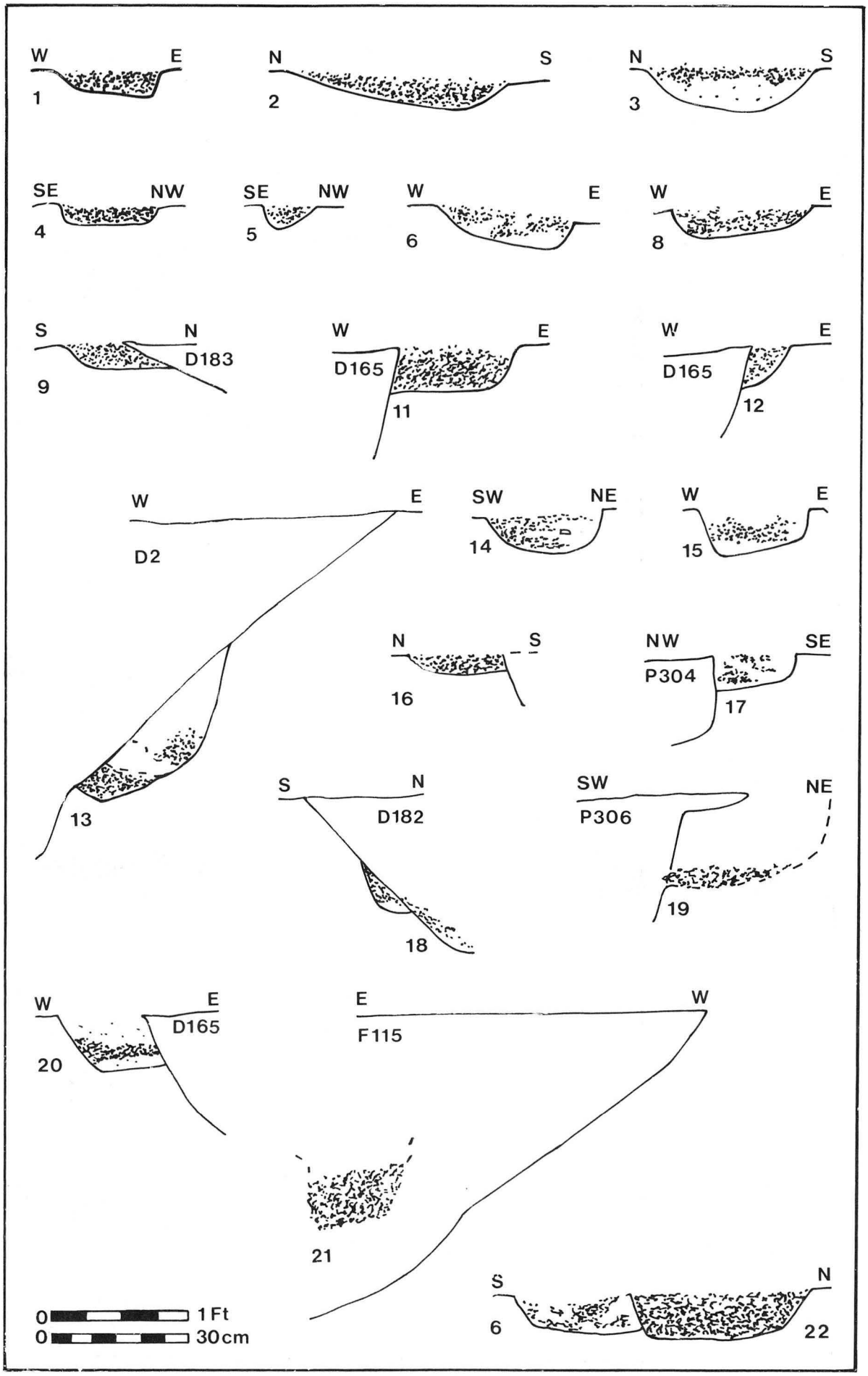


Figure 8 Neolithic: cremation profiles Nos 1-22. Scale 1:24

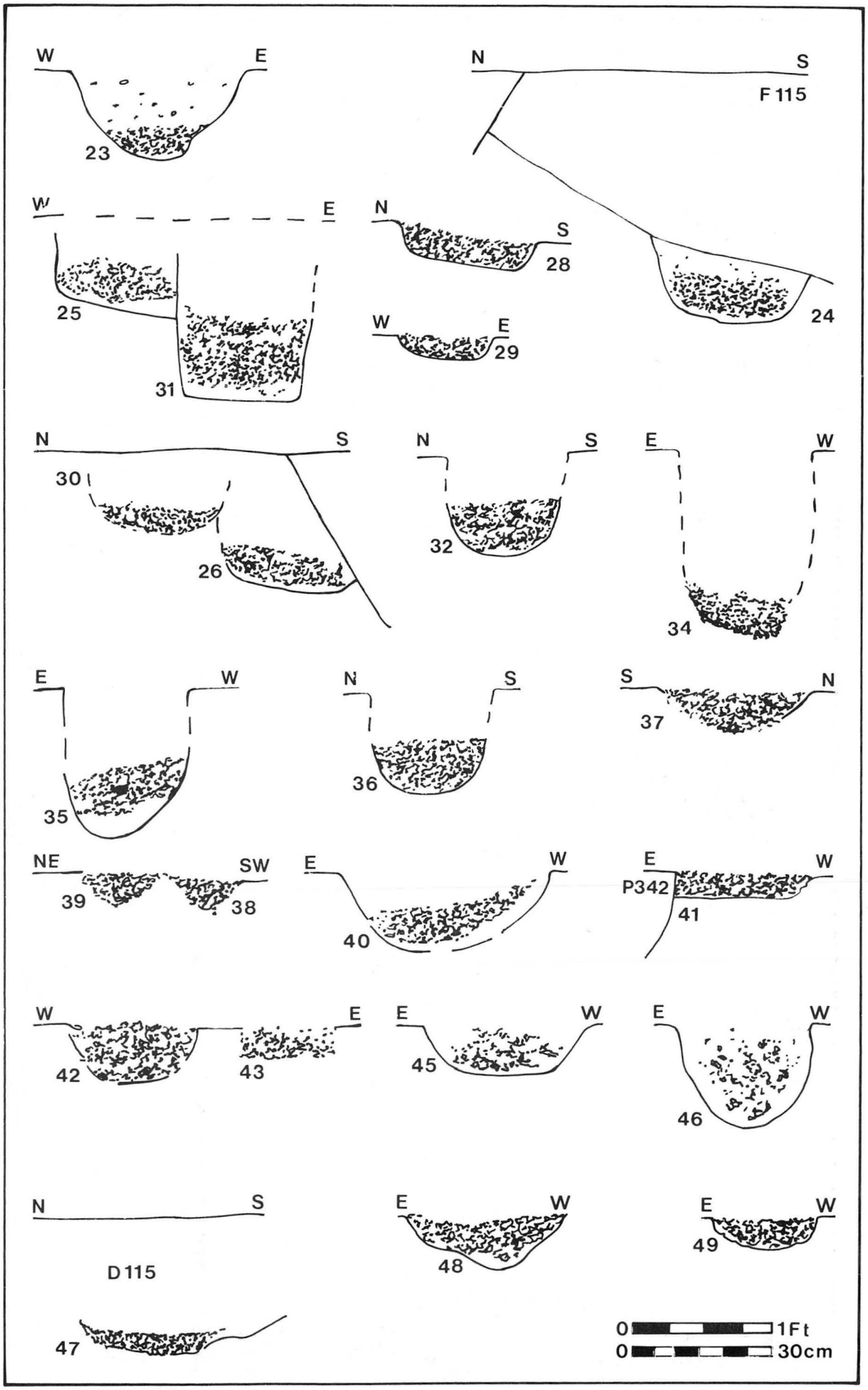


Figure 9 Neolithic: cremation profiles Nos 23-49. Scale 1:24

Pits (Fig. 12; Tables 3 and 4)
A total of twenty-one pits have been assigned to Phase 1 on the basis of the pottery they contained or their stratigraphy. The predominant shape in this phase was oval or circular, (62.8%) the rest being rectangular or sub-rectangular (Table 3). Pit section shapes were chiefly straight sided and flat bottomed (73.6%) whilst the others were bowl- shaped with a rounded base (Fig. 12). Of the twenty-one pits, only 38% had stratified fills and the rest were homogenous. The majority were between 1m and 1.5m in length, and 30-60cm in depth, although one (P.261) was 1.2m deep, and two (P.298, P.395) were 2.1m and 2.7m long respectively.

The following illustrated examples are a representative selection of pits from Phase I.

	Phase I		Phase II		Phase III	
Shape	Total	%	Total	%	Total	%
Plan						
Square	0		0		4	
Rectangular	5	31.5	8	35.4	13	45.8
Sub-rectangular	2		3		5	
Circular	5	62.8	8	57.4	7	45.7
Oval	7		10		15	
Irregular	1	5.7	2	7.2	4	8.5
Uncertain	1		1		0	
Section						
Flat base, vertical sides	6	66.6	10	59.4	21	53.2
Square	8		9		4	
Rounded, bowl-shaped	1	19.0	4	31.2	7	46.8
Very shallow, rounded	3		6		15	
Very shallow, straight sides	1	14.3	0	9.3	0	0.0
Uncertain	2		3		0	

Table 3 Iron Age pits, analysis by shape, Phases I-III.

Pit	*No. of sherds*	*Illus. (Fig. 46)*
84	7 (from same vessel)	
224	16	No. 87
213	17	
245	13	
246	14	Nos 88, 91
261	70	Nos 86, 90
265	62	Nos 81, 82, 93
280	16	
297	14	No. 77
298	35	No. 74
473	7	Nos 80, 89, 92

Table 4 Phase I pottery and published sherds from illustrated pits.

Pit 84 (WF.7; Fig. 12)
Cut by P.85 (Phase II). Enough survived to show it was rectangular with vertical sides and flat bottom. Homogenous grey sand fill (Layer 1) with a dark brown Layer (2) covering part of the base, possibly representing a pit lining. Six Iron Age sherds from Layer 1.

Pit 261 (WG.11; Fig. 12)
Unusually deep (1.5 m); vertical sides and rounded base. Cut by D.183 (Phase III). Layers of ashy sand (Layers 1-3) and deposit of unfired yellow boulder clay (Layer 4) almost on bottom; together with a few pieces of burnt clay. Some slumping when quarter full, otherwise walls well preserved suggesting rapid filling. No evidence of lining. Seventy Iron Age sherds from Layers 1-3.

Pit 265 (WG.11; Fig. 12)
Circular pit, 91cm deep with vertical sides and almost flat base. Reused when half filled, after considerable collapsing of the walls had occurred. Lower fill (Layer 4) light brown sand, heavily flecked with ash, charcoal and red clay fragments. Subsequent use shown by layer of yellow clay capped with gravel and quartzite pebbles (Layer 2) used as a hearth. Upper fill of dark brown, ashy, charcoal flecked sand to rim of pit (Layer 1). Sixty-two Iron Age sherds.

Pit 280 (WE.11; Fig. 12)
Circular pit; 1.2m diameter, 50cm deep. Flat bottom, near vertical sides. Lower Layer (2) black soil covered by unstratified Layer (1) of black ashy material suggesting rapid filling and that both layers were contemporary. Sixteen sherds of Iron Age pottery.

Pit 297 (WF.10; Fig. 12)
Cut by Grave 2 (Anglo-Saxon). Rectangular, 1.8m long, 60cm deep with vertical sides and flat bottom. No weathering or lining found, suggests rapid infilling. Lowest levels (2) of ash and ashy sand, covered by further layers of ashy sand (1).

Pit 298 (WF.10; Fig. 12)
Large rectangular pit, 2.2m long and 53cm deep with near vertical sides and a flat bottom. Cut by undated pit, P.229, and Iron Age Phase III pit, P.160. Filled with alternate layers of ashy, dark grey sand and dirty, yellow-brown ashy sand. Layer 1 had patch of partly burnt white clay 45 cm across and 7.6cm thick. Forty-four sherds of Iron Age pottery.

Post-holes
No post-holes could be confidently assigned to this phase, although a few, in the north-west quarter (WD.10) may have been associated.

Phase I discussion
Little can be made of the plan of the features of this phase, with no structures discernable, although the small enclosure may well have contained a building. It is possible that there was a relationship between this enclosure and the much later Enclosure 8 of Phase 3, which was sited within it. The main grouping of Phase I pits was to the south of the enclosure, on the crest of the hill. Unfortunately this was the densest area of succeeding settlement disturbance, so that early structures may well be concealed there, although further enclosures are not likely.

WEST STOW
IRON AGE

Phase I

Phase 2 & Early Phase 3

Late Phase 3

Unphased

Possible

0 50 100 Feet

0 10 20 30 Metres

WA

WB

WC

WD

WE

WF

WG

WH

14 13 12 11 10 9 8 7 6 5 4 3 2

S.E.W.

Figure 10 Iron Age: Phases I, II and II

WEST STOW
IRON AGE PHASES I AND II

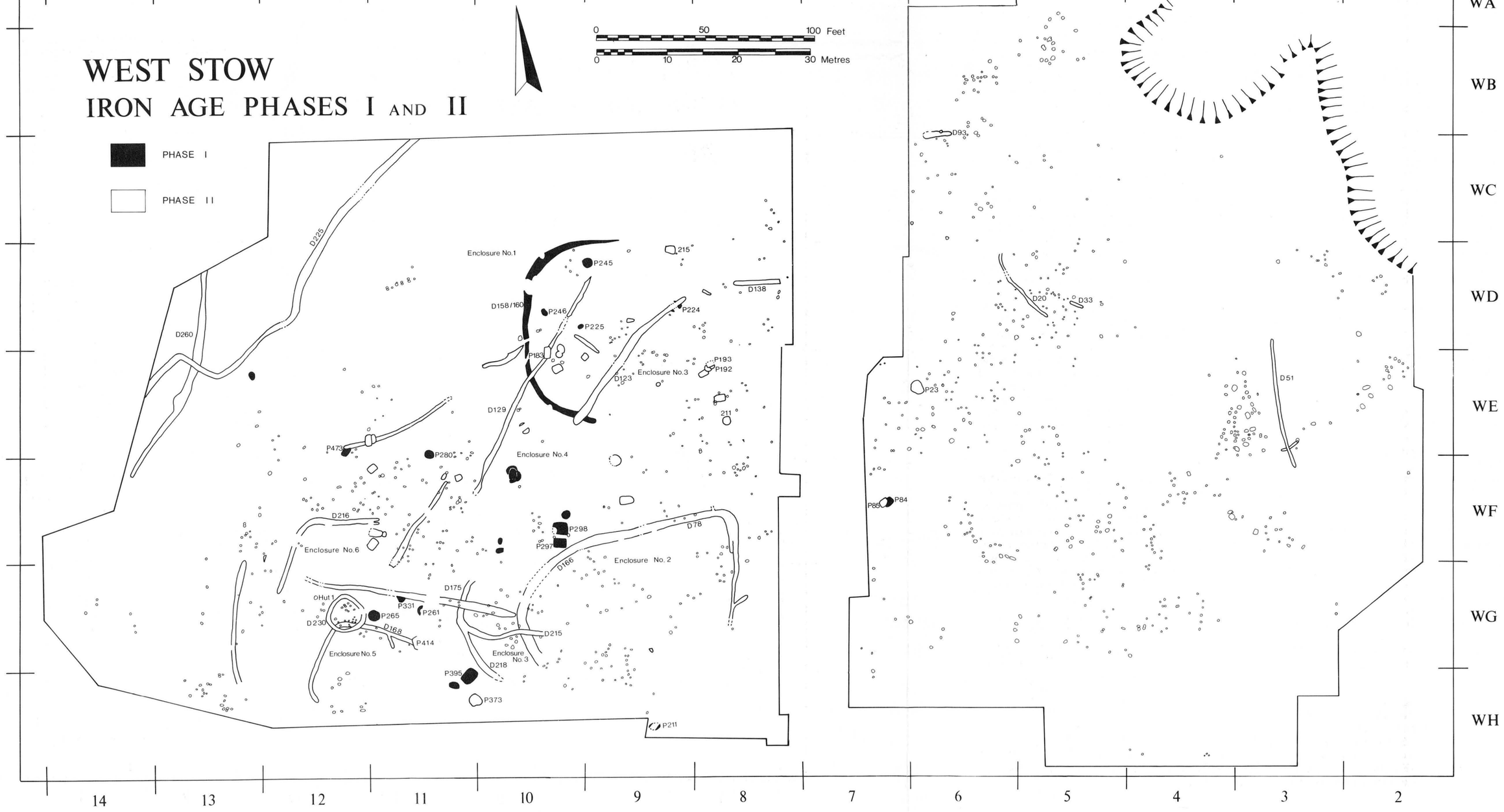


Figure 11 Iron Age: Phases I and II

Iron Age Phase II: 1st century BC-Early 1st century AD
(Fig. 11)
In the second Iron Age phase, the attributable features were concentrated on the western half of the hill, although a few short lengths of ditch occurred to the east. The evidence consisted, in the main, of fragments of enclosures, one or possibly two circular structures, and thirty-three pits. In the north-west corner of the excavated area, meandering ditches (D.260, D.225) of much longer enclosures ran off the hill.

The enclosures (Figs 11, 13, 14)
No complete enclosures were found but a number of stretches of ditches are interpreted as enclosures (Nos 2-6).

Enclosure No. 2 (WF.8-WG.10; Fig. 13)
Ditches D.78 and D.166 (WF.8, 9, 10 and WG.10) formed three sides of an enclosure on the southern slope of the hill. The shape, as far as it survives, is sub-rectangular, with the western corner very rounded and approximately 30m across. The ditch had been recut on the north, west and part of the east sides, following the original alignments. No trace of an entrance was found. The ditch was 'V' shaped in section (Fig. 14), with a flat base, 1.2m wide and 53cm deep, filled with red-brown sand, becoming lighter at the top. The ditch was cut by Phase 2 D.215 and D.104 of the Phase 3 circular hut 2, and the Phase 3 D.2 and P.273. The pottery from the undisturbed areas of the ditch was consistent with other Phase 2 features. Two curved sections of ditches immediately to the west of the above (WG.10, 11; D.175/218, D.215) may be parts of another enclosure (No. 3); D.175 perhaps connecting with straight sections to the north (WD.9, WE.9, D.123; WD.8, D.138) and D.215 with a long straight section from WF.10-WD.9 (D.129; Enclosure No. 4).

Enclosure No. 3 (WG.10, 11; Fig. 13)
The curved ditch (D.175/218) was 91cm wide, a shallow bowl shape in section, and 23cm deep, with a grey-brown sandy fill. Ditch 123 was a little deeper, but 99cm wide with a grey-brown fill (Fig. 14). The third ditch (D.138) was again bowl-shaped, but narrower, (68 cm) and varied in depth from 23-38cm. The fill was dark brown sand.

Enclosure No. 4 (WE.10; Fig. 13)
The second curved ditch (D.215) was distinctly 'V' shaped, 79cm wide and 45cm deep, with a grey-brown sandy fill. Ditch 129 was also 'V' shaped, 68cm wide and 30cm deep, with a grey sandy fill, darker brown at the bottom (Fig. 14). Although the associations of these ditch sections cannot be proved, there is a similarity in profile and fill as well as a linear relationship, to form parts of enclosures in the order of 60m across. The first (No. 3) may have been associated with the smaller (No. 2) enclosure to the east (WF.8-WG.10) as it appears to respect its west side. The second (No. 4) is later, as it overlaid the ditches of both the others.

Enclosure No. 5 (WG.11, 12; Fig. 13)
The north and west sides and the south-west corner of a possible small enclosure was found, approximately 15m across and overlaid by the ring ditch of Hut 1. The ditch (D.168) was a shallow 'V' shape, 45cm wide and 15cm deep, with a grey sandy fill (Fig. 14). No pottery was recovered, so it remains possible that this is a Phase I ditch.

Enclosure No. 6 (WF.12; Fig. 13)
The north and west sides of enclosure 6 were possibly associated with the circular Hut 1. The ditch (D.216), which was certainly recut once on the north side, was 76cm wide and 23cm deep, with a rounded profile, and a light brown, sandy fill (Fig. 14).

Other short sections of ditch broaden the scatter of Phase 2 material across the hill but cannot be interpreted functionally. Two longer fragments, (D.225, D.260) in the north-west corner of the site must have been enclosures or field boundaries of some kind, which ran off the hill. These cut two similar, but earlier ditches which must therefore be Phase I or II. Pottery was scarce from D.225 and D.280 but they were, in turn, cut by ditches with Phase III pottery, strengthening the phasing of these ditches.

Circular Structure: Hut 1 (WG.12, Fig. 15)
This small structure was situated on the south side of the hill overlooking the flood plain of the river and probably associated with Enclosure 6. The roughly circular ditch (D.230) had a maximum internal diameter of 4.5m and was cut by a Phase III pit (P.231) and two Romano- British pits (P.386, P.431). The ditch was vertical-sided with a flat bottom and averaged 45cm wide and 60cm deep, with a mixed grey-brown and darker grey, sandy fill. There were no signs of post-holes in the fill or at the base of the ditch. Internally there was an incomplete, erratic, but roughly circular setting of post-holes, one of which was cut by Phase III pit (P.231) already mentioned. No evidence was found of either central posts or entrances, although the latter could have been destroyed by the Romano-British pits in the north-west sector. Two small groups of shallow post-holes at the south-east and north-west edges of the circular ditch may be considered with the structure although there is no real evidence of association. The diameter of the post setting was *c.*3m and the post-holes were between 10 and 19cm deep. Two were exceptionally deep (1142; 33cm and 1127; 26 cm) but do not form part of any obvious pattern. Forty-five sherds of pottery were recovered from the ditch, including two rims.

Pits (Fig. 16; Tables 3, 5)
A total of thirty-three pits were assigned to Phase II on the pottery that they contained; some of the ninety-two unphased Iron Age pits must also belong to this phase. In Phase 2, as in Phase I, the predominant shape is circular or oval (63%) but with rectangular pits becoming more common (35%; Table 3). The majority were again between 1m and 1.5m in length and up to 75cm deep. Apart from two between 1.8-2.1m long, only one was of exceptional size, P.414 at 3m long. In section, most were straight sided

Pit	*No. of sherds*	*Illus. (Fig. 47)*
85		
183	3	
192	19	
193	57	
211	3	No. 101
215	23	
373	11	No. 111
414	63	Nos 95, 105, 113, 119a-c

Table 5 Phase II pottery and published sherds from illustrated pits.

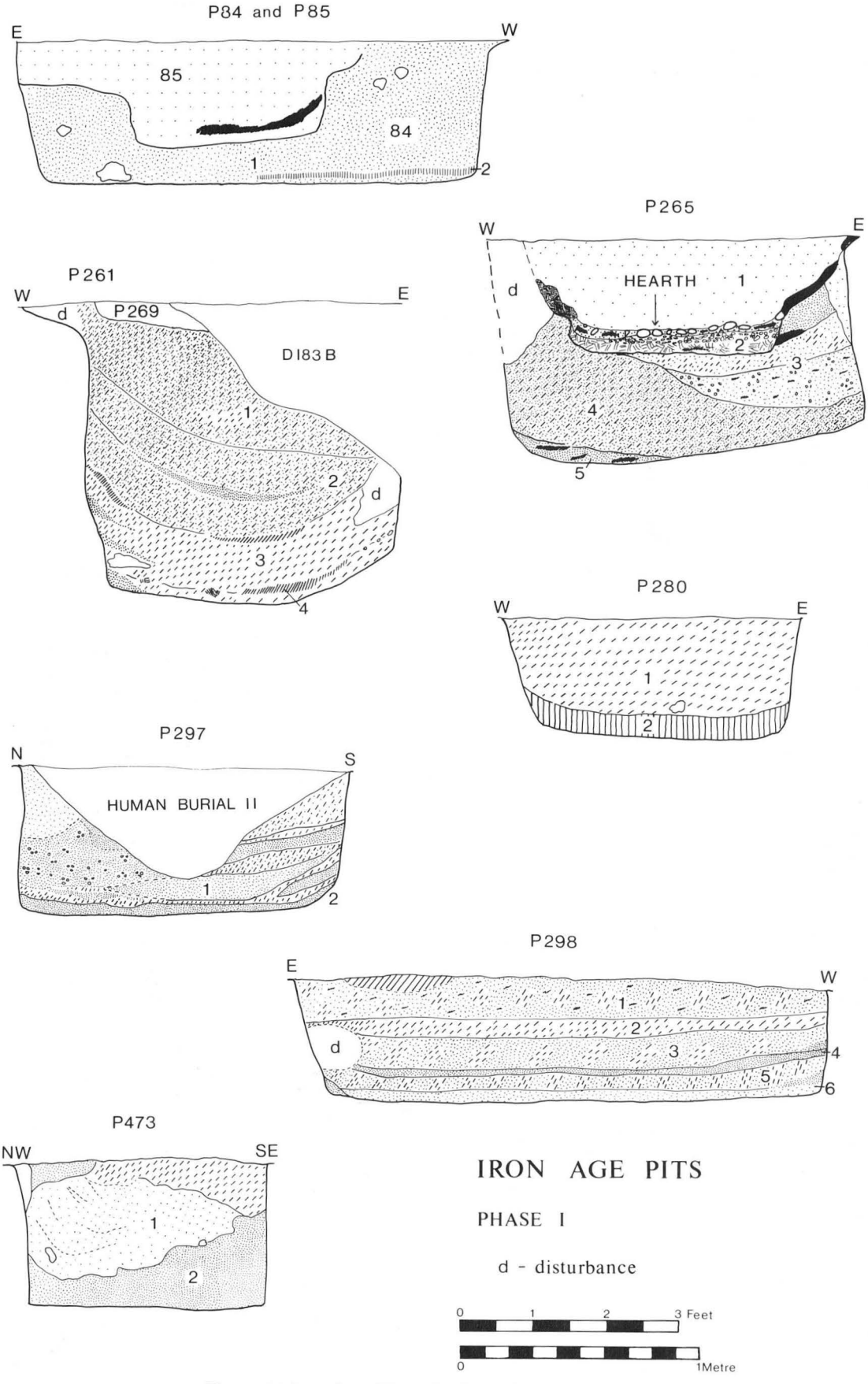


Figure 12 Iron Age: Phase I, pit sections. Scale 1:25

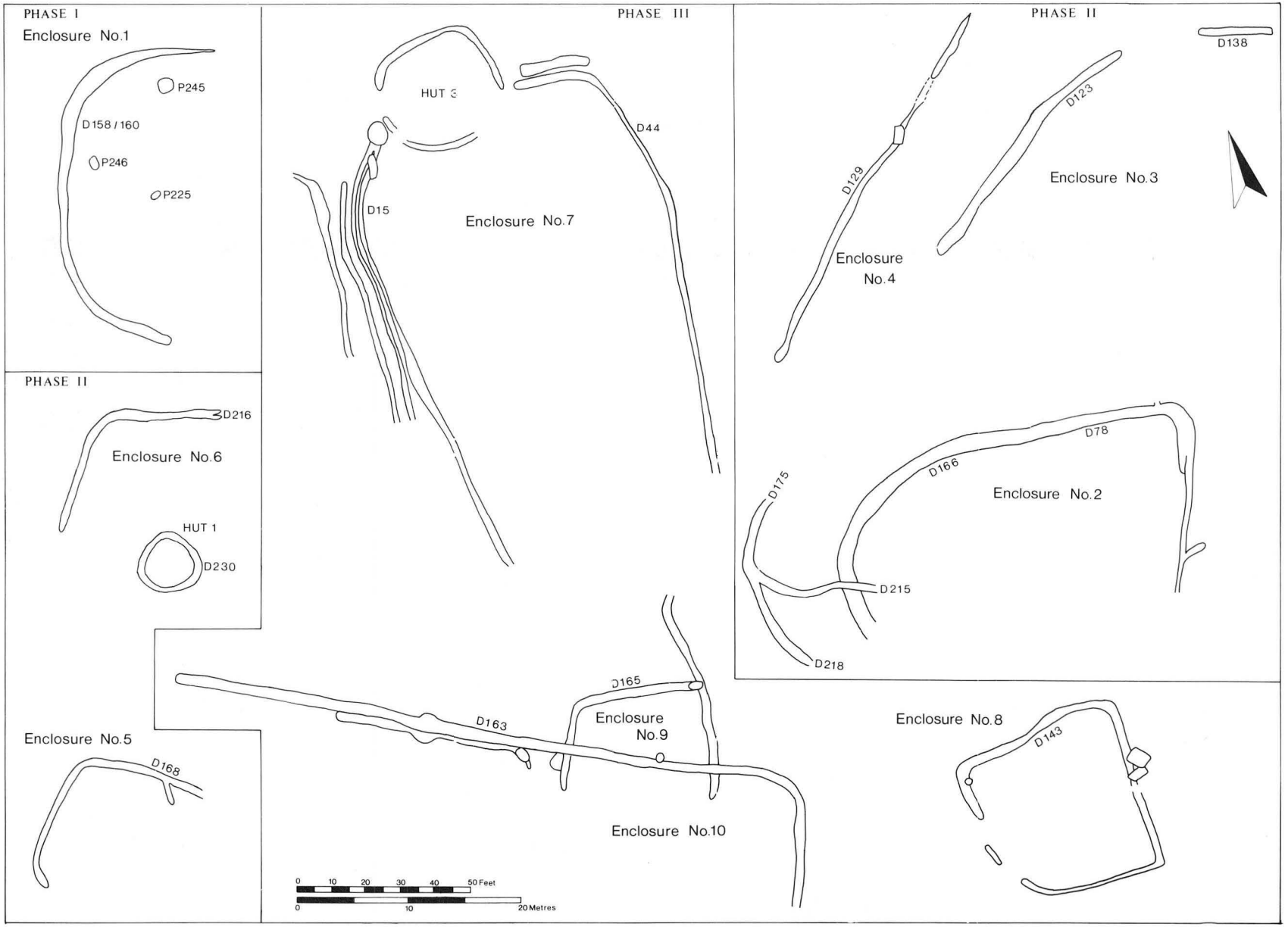


Figure 13 Iron Age: plans of enclosures of Phases I, II, III. 1:160

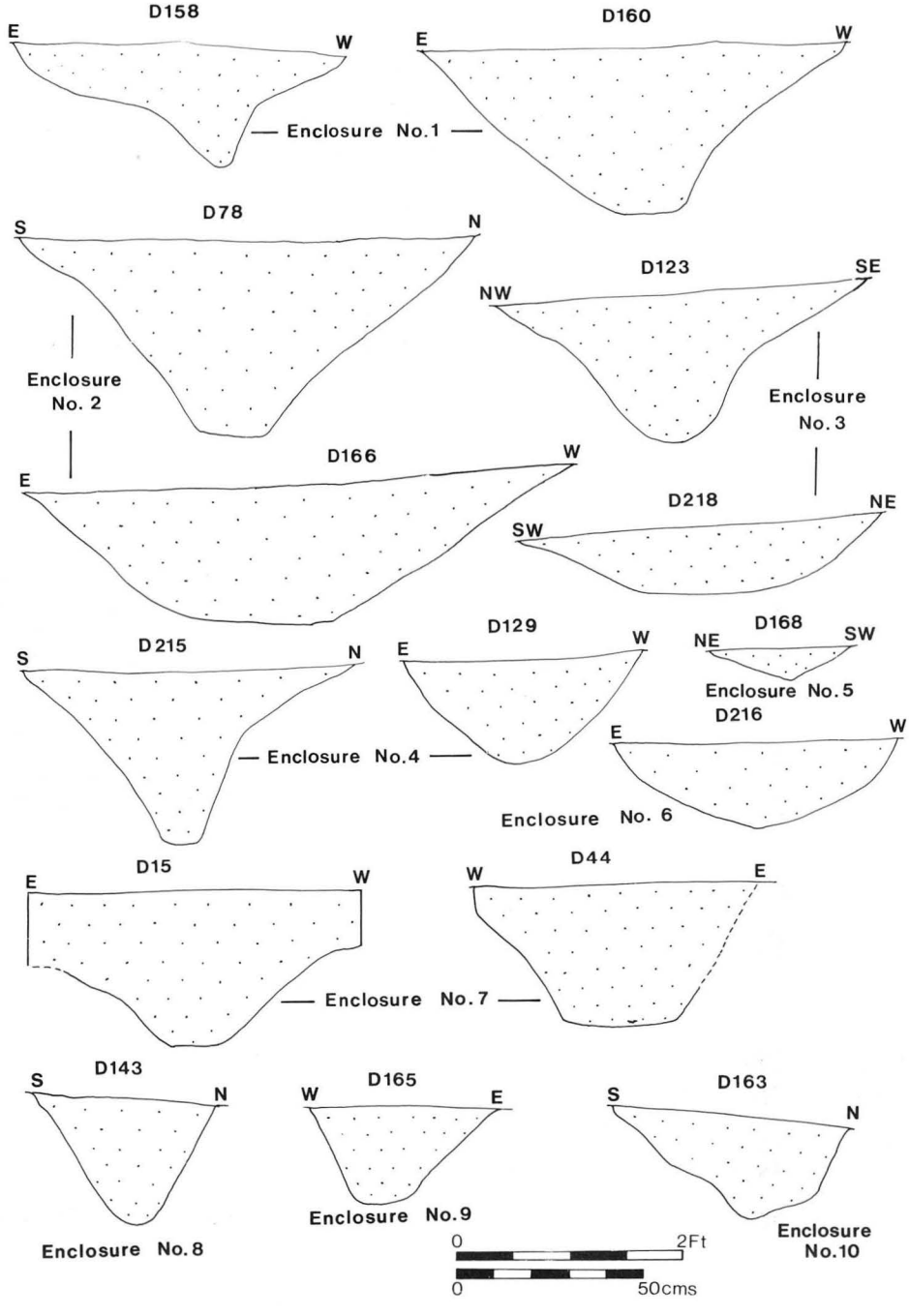
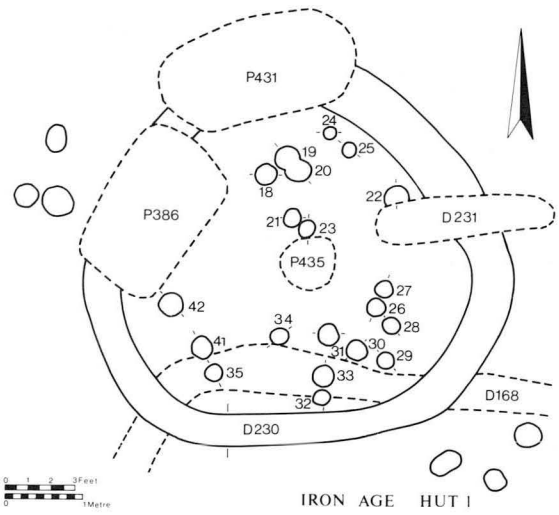
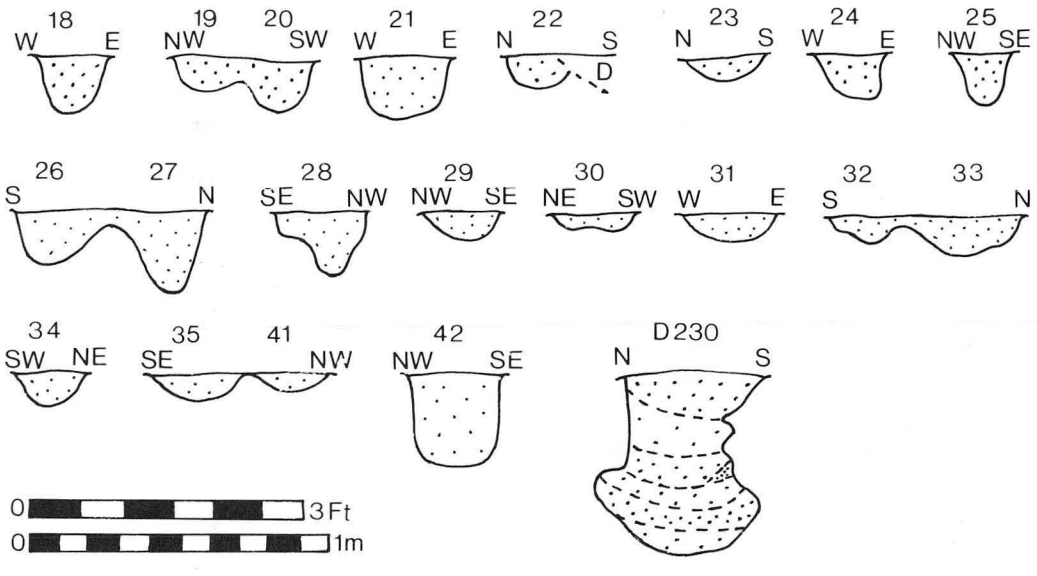


Figure 14 Iron Age: enclosures of Phases I, II, III, Ditch profiles. Scale 1:20





POST-HOLE SECTIONS

Figure 15 Iron Age: Phase II, plan of Hut 1 (Scale 1:100) and post-hole sections (Scale 1:25)

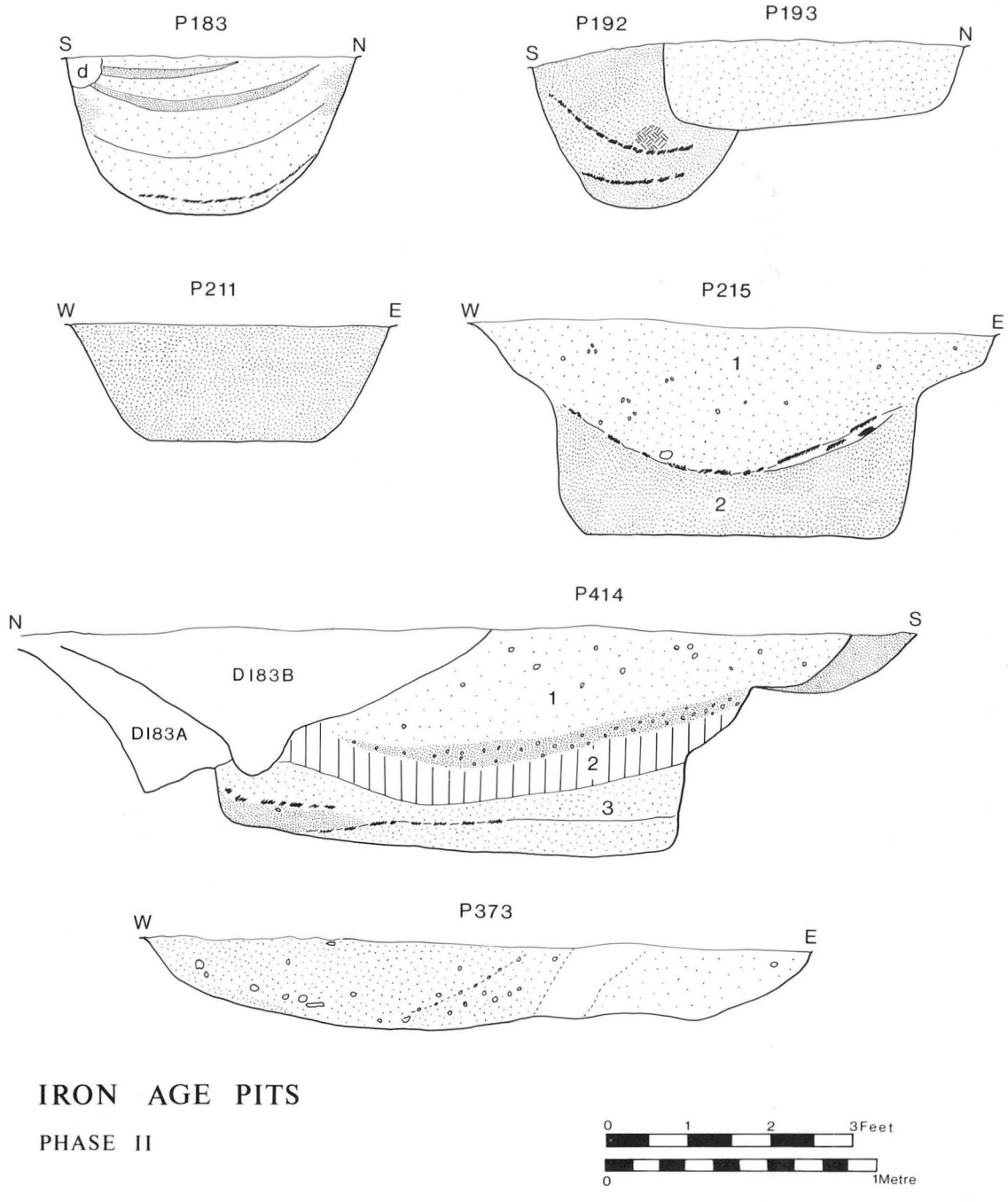


Figure 16 Iron Age: Phase II, pit sections. Scale 1:25

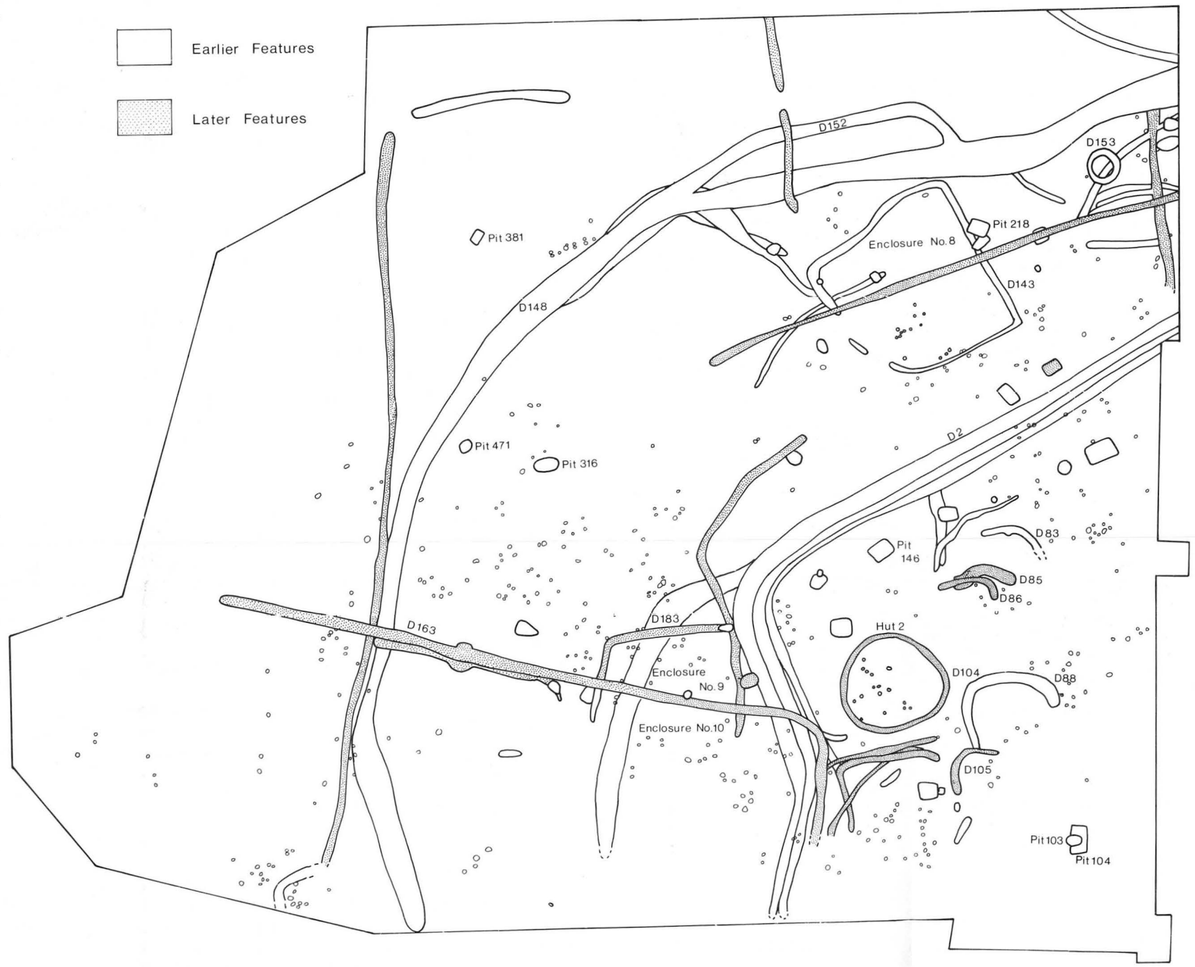
WEST STOW
IRON AGE PHASE III

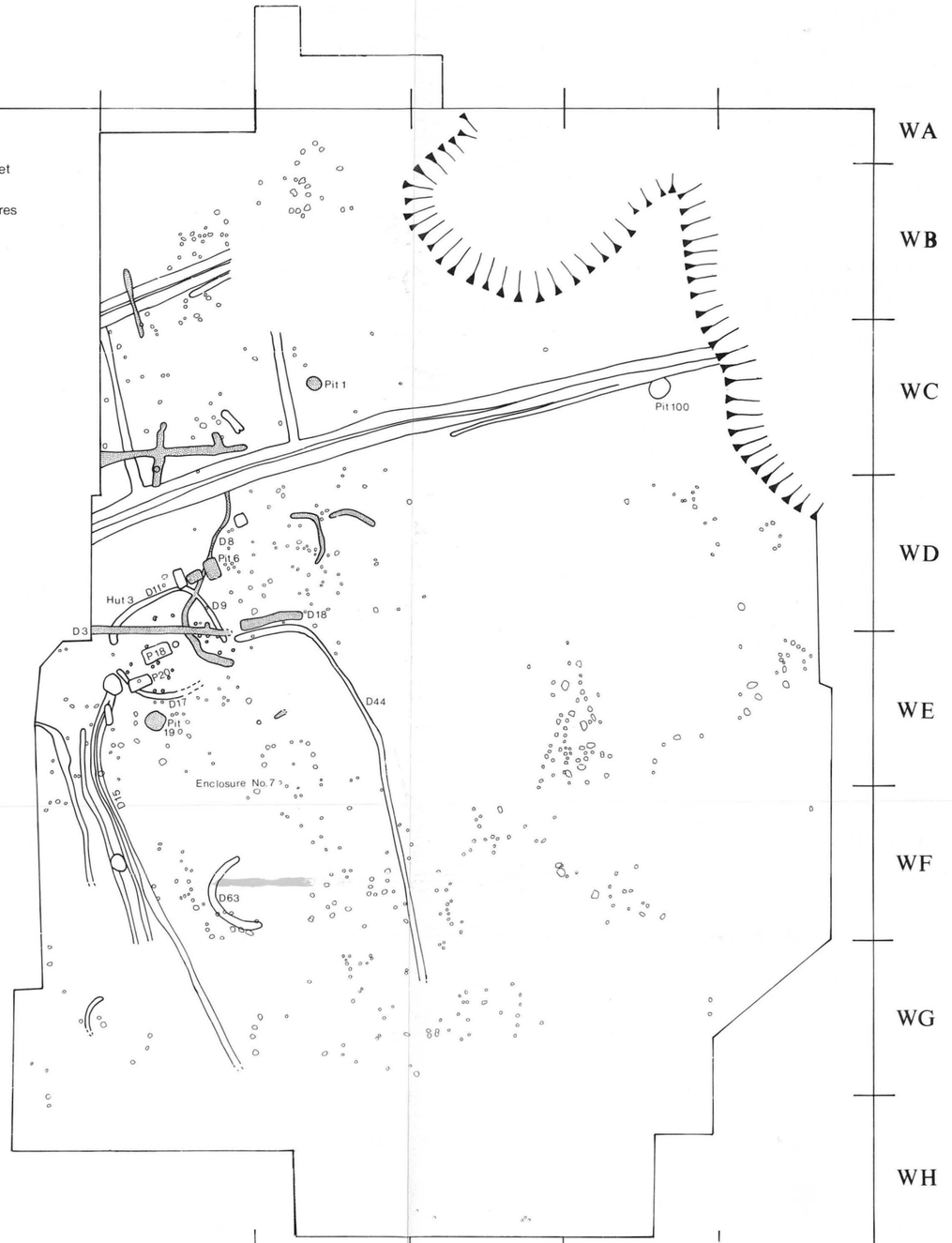
Earlier Features

Later Features

0 50 100 Feet

0 10 20 30 Metres





WA WB WC WD WE WF WG WH

14 13 12 11 10 9 8 7 6 5 4 3 2

Figure 17 Iron Age: Phase III, plan

and flat based (65.5%), as in Phase I, while the rest, (34.5%), had rounded profiles. Only 22.5% of the pits had stratified fills. A section of pits has been illustrated to demonstrate the variations of size and fill (Fig. 16).

Pit 85 (WF.7)
Rectangular, 1.4m x 91×45cm deep; irregular stepped profile and flat bottom. Cut P.84 (Phase I). Brown sandy fill, including dark line above base.

Pit 183 (WE.10; Fig. 16)
Rectangular, deep bowl-shaped with rounded base. Grey sandy fill with darker grey line near base. Some evidence of collapse from sides. Three Iron Age sherds.

Pit 192 (WE.8; Fig. 16)
Cut by P.193 (Phase III). Circular with sloping sides and rounded base. Homogenous grey sandy fill with two darker lines near base. Nineteen Iron Age sherds.

Pit 211 (WE.8; Fig. 16)
Circular with sloping sides and rounded base. Homogenous grey sandy fill. Half a Phase II pot (Fig. 46, No. 84).

Pit 215 (WD.9; Fig. 16)
Rectangular. Two layers of grey brown sandy fill, lower fill darker, seperated by dark brown line. The upper fill probably represents a recutting or re-use after some collapse of the sides. Twenty-eight Iron Age sherds and some animal bone.

Pit 373 (WH.10; Fig. 16)
Large, shallow, bowl-shaped, oval plan. Grey-brown sandy fill. Eighteen Iron Age sherds.

Pit 414 (WG.11; Fig. 16)
Cut by Phase III D.183. Exceptionally large oval shape, 3m long×91 cm deep. Sloping sides at top, vertical lower down. *Fill:* Layers 1 and 3 dark grey-brown; Layer 2 brown-black overlapping edge of vertical sides, suggesting pit remained open after partial filling. Sixty-three Iron Age sherds and some Romano-British material from top of fill.

Phase II discussion
Although the Phase II features are more wide spread, the main concentration is in the south-west quarter of the site, with one house and a number of fragmentary enclosures. Pits are scattered over the whole of the western half of the site. Hut 1 is small and very probably not the only one originally. The surrounding ditch is clearly not a drip trench; with its vertical sides and flat base it must be structural, to take a series of vertical posts, of which there was no trace, unless the slightly undercut nature of the trench walls and the mixed fill represents disturbance caused by the removal of uprights. The internal posts, by their isolation, appear to be related to the hut, although the layout, even using those most regularly placed, seems to be rather haphazard.

Iron Age Phase III: Early to middle 1st century AD (Fig. 17)
The Phase III features dominate the Iron Age plan, spreading over the whole of the knoll, and including enclosures, circular structures (huts), curved ditches and pits.

The Enclosures (Figs 13, 14 and 17)

Enclosure No. 7 (WE.5-6, WG.4-6; Fig. 13)
This feature was a long, flattened oval shape, formed from two sides curving inward at the northern end to connect with Hut 3. The west side had been recut twice on the same alignment, with two further recuts slightly to the west of these. On the east there was no evidence of the main line having been recut, although two shorter stretches of ditch follow the line some little distance beyond it. Very little pottery was recovered from any of the ditches, but what there was would indicate that all of them were broadly contemporary. The interior of the north end of the enclosure was occupied by a group of Anglo-Saxon structures and the southern end destroyed by another.

The ditches varied in width and depth and were, apart from D.18 on the north-east, rounded in profile and rather shallow, filled with brown or dark brown sand. Ditch 18 was different in character, being a short stretch with vertical sides and a flat base and filled with alternate layers of black material and brown sand. The relationship to Hut 3 is clear (see below), although this is the only example of the kind on the site.

Enclosure No. 8 (WD.9, WD.10; Fig. 13)
This was a small trapezoidal enclosure within the Phase I enclosure No. 1, and was roughly 15m across. It was the only complete enclosure on the site, and although no definite structures could be associated with it, a group of post-holes in the south-west corner may represent such a building. Two gaps occurred in the south-west side and could indicate two entrances. The two parts of ditch section between the gaps may well be contemporary, although the inner one only contained Phase II pottery. The ditch varied in width from 45 to 60cm and was 38cm deep, filled with light brown sand.

Enclosure No. 9 (WF.11; Fig. 13)
Parts of the north and west sides were all that was found of a possible Enclosure No. 9, which was otherwise much obscured by later ditch systems. It consisted of D.165, 60cm wide and 30cm deep, filled with light grey sand, and was the third in a series of at least three right-angled ditches, all in the same area of the site, all with the same corner and of the same size.

Enclosure No. 10 (WG.10-WF.13; Fig. 13)
The north and part of the east side of this possible enclosure were formed by D.163. This ditch was 75cm wide and 38cm deep, containing a fill of light grey-brown sand, with a dirty yellow sandy layer at the base.

Circular Structures

Hut 2 (WF.9-10, WG.9-10; Fig. 18)
A large circular ditch (D.104), 9.75m in maximum internal diameter, was situated on the crest of the hill. This structure overlaid a Phase II enclosure ditch (D.78) and was, in turn, cut on the south side by later pits and on the north by an Anglo-Saxon hut (SFB 47). Otherwise the interior was unencumbered with later features. A number of post-holes were found in the western half but could not be dated or readily interpreted structurally. The 'ditch' surrounding the structure was shallow, 'V' shaped and averaged 30cm wide by 15-23cm deep, and was filled with

dark grey-brown sandy soil. Thirteen sherds were recovered from the ditch.

Hut 3 (WD.6-WE.6; Fig. 19)
A large, sub-rectangular ditch (D.9, 11, 17) approximately 9×9.9m across internally, was situated on the crest of the hill to the north-east of Hut 2. The shape of the ditched area was rather irregular, flatter on the north side and more rounded in the south-west corner. The ditch was cut by two later Iron Age ditches, (D.89, and D.3) five pits, (P.13, 14: undated; P.20, 22, 38: Iron Age) and an Anglo-Saxon SFB (SFB.5). Other pits, of which P.18 and P.16 (Iron Age) occupied the central area and the entrance on the west respectively. This 'entrance' was 2.4m wide, and was matched, apparently, to another of roughly the same size, although partly obscured by later features. A number of post-holes occurred in the area defined by the ditch, which may have been associated, to form a circular setting 7.9m in diameter, rather off-centre to the surrounding ditch. The ditch varied from 30-60cm across and 15-20cm deep, with steep sides and a flat bottom, filled with brown soil. The structure was clearly associated with Enclosure No. 7 (Fig. 17), the sharply incurving ditches of which met, but did not join that of the structure. If the gaps in the enclosing ditch of the structure were entrances, that on the west would have led to the outside of the enclosure and that on the east, to the inside.

Curved Ditches
Other possible hut sites are included in a number of sections of curved ditches (Fig. 17).

Ditch 88 (WG.9)
A semi-circular ditch, open to the south, appeared to be related to a fragmentary square enclosure No. 2, but the pottery from enclosure 2 is Phase II. The ditch was of a shallow 'U' shape, up to 1.2m wide at the north-east end, but only 30cm deep with an internal diameter of 7.3m.

Ditch 105 (WG.9)
This semi-circular ditch, open to the east and south, had an interior largely obscured by SFB.48 and Hollow 3. The ditch was at least 60cm across, of 'U' shape, 30cm deep, with an approximate diameter of 4.8m.

Ditch 63 (WF.6)
This was a semi-circular ditch open to the east, with no internal features. This ditch was 'U' shaped, 60cm across and 30cm deep, with an approximate diameter of 5.5m. The fill was a dark brown sand.

Ditches 83, 85, 86 (WF.9)
A series of three short stretches of curved ditch, apparently replacing one another, made up this possible hut site. All were 'U' shaped in profile, *c.* 1.2m across and 45-60cm deep.

Pits (Fig. 20; Tables 3, 6)
Forty-eight pits have been assigned to this phase. The relative number of rectangular pits as opposed to circular or oval pits increased, continuing the trend throughout all three phases (Table 3). In Phase III it was noted that these pit shapes accounted for approximately 45% each, with the remaining 10% made up from irregular examples. The sections show an increase in the rather shallow bowl shape (46.8%) although 53.2% were straight sided and flat bottomed. One quarter of the pits had stratified fills. Only 35% of the pits were between 1m and 1.5m in length, and 31% were well over 1.8 m, a notable increase in size. No corresponding increase in depth was apparent, however, and 85% of Phase 3 pits were between 30 and 60cm deep.

Pit	*No. of sherds*	*Illus. (Figs. 49, 50)*
1	98	Nos 107, 109-11, 122, 124, 126, 127, 128, 139, 141
6	3	
19	20	
100	1	
103		
146	38	
218	12	
316	8	
381	15	
471		

Table 6 Phase III pottery and published material from illustrated pits.

Pit 1 (WC.5)
One of largest sub-rectangular pits, 2.7m long, 1m deep. Originally vertically sided and flat bottomed; considerable slumping of sides (Layer 2). Clean yellow sand (Layer 5) at bottom suggests the pit lay open for some time. Layers of black soil (Layers 2, 3) alternate with collapse of sides; possibly deliberate infilling. Ninety-eight Iron Age sherds, including wheel-thrown wares; fitting pieces from Layers 2 and 4 suggest rapid infilling.

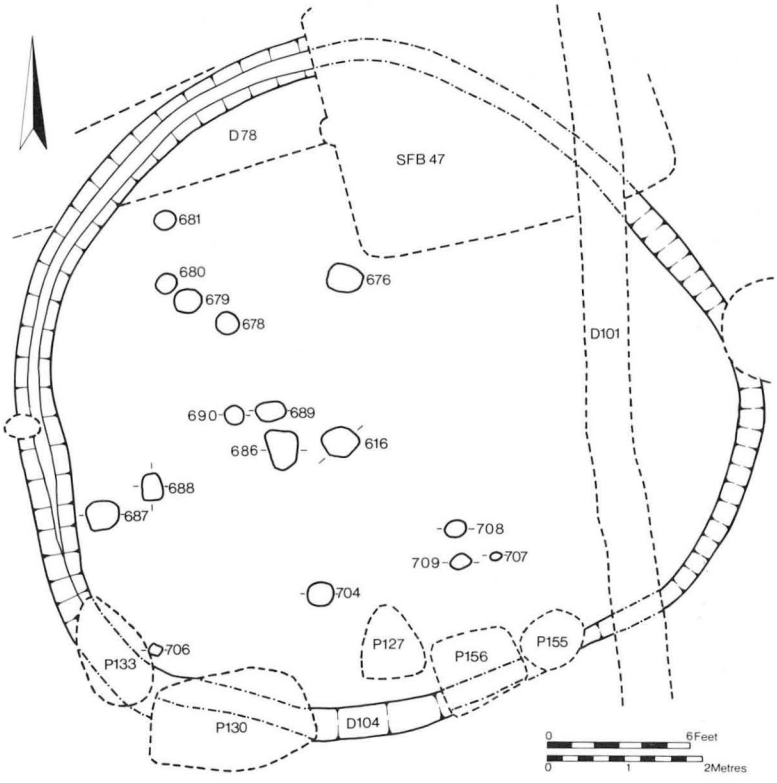
Pit 6 (WD.6)
Representative of a number of rectangular or sub-rectangular pits in this area, all with light-brown sandy fill. Dating insecure as the few Iron Age sherds in them could be residual. Only P.12 of this group is stratified beneath Iron Age features, others over Phase III features. Sterile nature of the fills suggests that they were filled with sand from freshly dug pits as they went out of use. These pits are mentioned here but are considered more likely to be largely of Early Anglo-Saxon date (West 1985, 55).

Pit 19 (WE.6)
Large, deep circular pit, 2.1m diameter, 1.0m deep. Stratified fill of alternate brown (Layers 1, 3, 5) and dark brown sand (Layers 2, 4). Thirty-two Iron Age sherds from Layers 2-5, five Anglo-Saxon sherds from Layer 1.

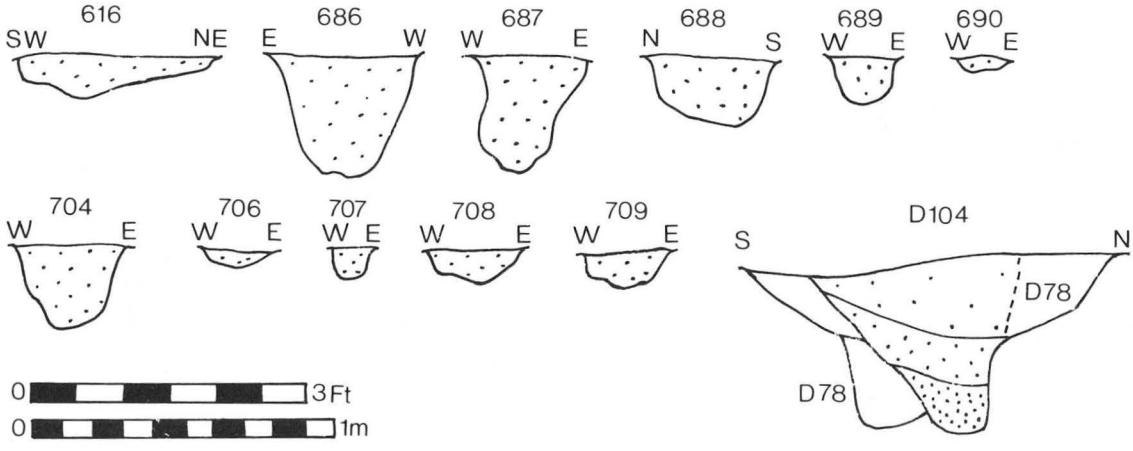
Pit 100 (WC.3)
Cut by Iron Age boundary ditch (D.2). Small, circular pit, 1.1m diameter, 38cm deep. Grey sandy fill. Flat base curves to meet vertical walls, no trace of lining. One of group of eight pits of varying sizes.

Pit 103 (WG.8)
Square, 1.2m diameter. Featureless grey sandy fill with slumping from sides. Cut large deep P.104, with sandy fill and dark brown lining. No dating for P.104, but it had been completely filled before P.103 was dug. The isolation of these pits some 15m from an area of dense activity in Phase III may be due to the large Anglo-Saxon hollow area in between. Pit 104 was one of the largest on the site, 2.7m long and 1.3m deep, with flat bottom and sloping sides.

Pit 146 (WF.9)
Shallow, rectangular pit, 2.2m long and 30cm deep. Fill of

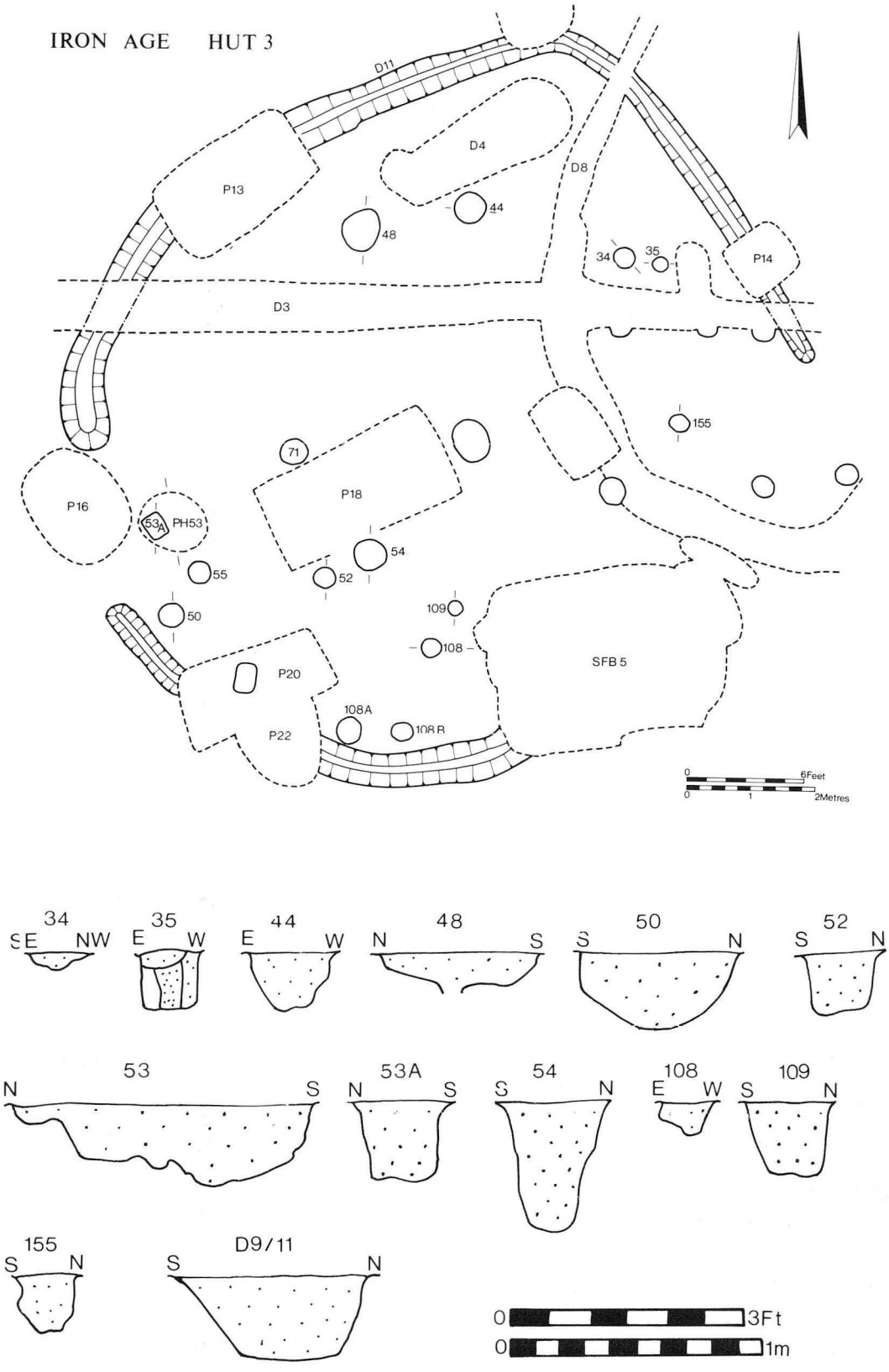


IRON AGE HUT 2



POST-HOLE SECTIONS

Figure 18 Iron Age: Phase III, plan of Hut 2 (Scale 1:100) and post-hole sections (Scale 1:25)



POST HOLE SECTIONS

Figure 19 The Iron Age: Phase III, plan of Hut 3 (Scale 1:100) and post-hole sections (Scale 1:25)

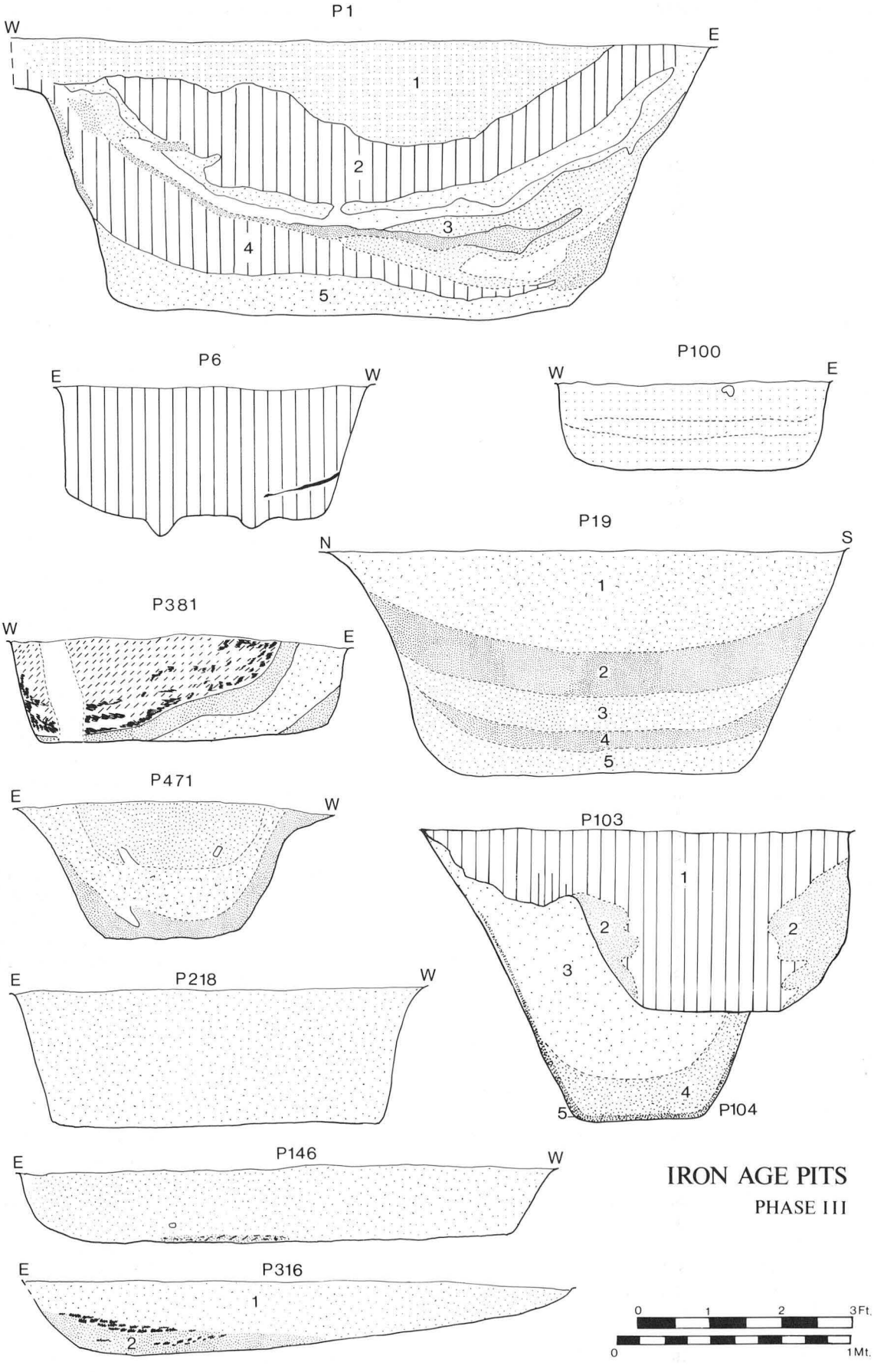


Figure 20 Iron Age: Phase III, pit sections. Scale 1:25

grey sand with a patch of burnt sand 60cm across on the bottom. Thirty-eight Iron Age sherds.

Pit 218 (WD.9) Rectangular, 1.7m long, 60cm deep. Flat base, near vertical sides. Fill of homogenous grey-brown sand. Twelve Iron Age sherds.

Pit 316 (WE.11)
Shallow oval, 2.4m long, 38cm deep. The slightly deeper eastern half had a layer of burnt sand and charcoal; rest of fill dark brown sand. Nine Iron Age sherds.

Pit 381 (WD.12)
Rectangular, 1.5m long, 45cm deep. Sandy fill covered with irregular layer of ash and black soil, deeper at west end. Twelve Iron Age sherds.

Pit 471 (WE.12)
Flat bottomed with sloping sides, 1.5m diameter, 60cm deep. Fill of dark, grey-brown sand.

The ditches, D.2, D.148 (Figs 17 and 21)
The Phase III plan is dominated by two ditches, D.2 and D.148, roughly parallel to one another. Both had been recut many times on the same general alignments. Both broadly followed the contours of the northern slope of the hill but swung to the south, up the slope; the inner ditch (D.2) cutting across the highest point of the hill. The east end of both ditches had been destroyed by the small sand pit in the north-east corner of the site; both ditches petered out on or near the south edge of the hill. The inner line, (D.2) was the more regular, following a fairly straight course to WF.10 then swinging sharply to the south. The original line seems to have been slightly farther to the west (D.183, WG.11), which was recut three times in the surviving part. In WF.10 it is overlaid by a new set of recuts (D.178, 179, 180) and totally destroyed. This new set, with the sharper angle in WF.10, then continued the line to the north-east corner of the site; up to four recuts were observed in the numerous sections. The recutting showed a gradual shift of the centre to the north. In some sections the earliest cuttings of the ditch were the deepest, but in others the position was reversed. The intention seems to have been to have an open 'V' shaped ditch, some 2.8-3m across and up to 1m deep. In some parts the base of D.2 tended to be almost a narrow channel with a flat base, as was the case with the earlier ditch (D.183). The third recut of D.183 was much shallower, with a broad, flat base.

The infilling of all the ditches seems to have been gradual, with sand eroding from the sides, and occasional lenses of ash or dirty soil after the initial silting had taken place.

The outer ditch (D.148) was more irregular in outline, although it broadly followed the pattern of the inner. The north-east section was straight and recut three times. However, in WC.8 it suddenly narrowed and veered to the north, apparently to avoid a small circular ditch (D.153) barely 3m in diameter. A little further to the west a spur (D.152) left the main line, to rejoin it some 21m to the west. Careful examination of the junctions of this spur to the main course of the ditch showed that it was contemporary. No explanation could be offered for either feature. The outer ditch then followed a curving course to the edge of the hill in WH.12, recut twice along that length. This ditch was designed to be an open 'V' shape in profile, about 2.7m across and some 91cm deep, and was filled with light brown sand and very largely from the erosion of the sides. Occasional darker streaks were seen which could represent turf lines although they were not complete.

The circular feature, D.153 (WC.8; Fig. 17)
As has already been noted, the outer boundary ditch of Phase 3 avoids this small feature, which consists of a circular ditch enclosing an area 2.1m in diameter. The ditch (D.153) was vertical sided and flat bottomed, 38 cm deep and an average of 38cm across, with a grey sandy fill at the bottom and a gravelly, light brown sand above. There was no sign of collapse or decay of the walls of the ditch, or of any associated feature. There were no post-holes inside the enclosed area or immediately adjacent to it. No interpretation can be offered for this feature.

Phase III discussion
As indicated in Figure 17, not all the features of Phase III were contemporary and a number of sub-phases existed. No clear patterns emerged but it can be seen that the two long ditches which dominate the Phase III plan were not the earliest features of that phase, as they cut a number of minor ditches. Neither do they appear to have been laid out at the same time, as they are so different in character. A possible sequence of events for this phase would appear to be that Enclosure No. 8 (WD.9), the curious circular feature in WC.8 (D.153), the circular hut (No. 3) in WD.6-WE.6 and its associated enclosure (No. 7) and the semi-circular ditch (D.83) in WF.9 were the first features to be constructed. The inner boundary ditch (D.2) then followed, cutting across a number of other features and dividing groups of pits; but apparently respecting the area of Hut 3 and being recut at least four times after silting up. The outer boundary ditch would seem to follow, avoiding the enclosure and the small circular structure. Hut 3, in WD.6 seems to have decayed before the end of Phase 3 as several pits and at least one small ditch impinge upon it. The boundary ditches were not the final features of Phase III. Parts of the north and east sides of Enclosure No. 10 cut both boundary ditches to form an enclosure on the south side of the site, although no structures could be discerned within it.

'Fire Pits' of uncertain date
(Figs 4, 22)
Three 'fire-pits' (F.114; P.383; P.469) and four other pits with burnt fills (P.41, 42, 43, 46) were found. The fire pits were rectangular and filled with burnt and crackled flint. No dating evidence was found in any of them but F.114 was stratified beneath the Anglo-Saxon SFB.29 (unphased) and P.383 had Iron Age, Romano-British and Anglo-Saxon pottery in the upper fill. Pit 383 (WC.11) and P.469 (WG.13) were both in isolated positions apparently unrelated to other features. Pit 383 was on the northern slope, well away from all other settlement features.

Feature 114 (WF.4)
Rectangular, 1.6×1.3m and originally 60cm deep, top 30cm removed by the Anglo-Saxon SFB.29. Carbonised branches, identified as *Prunus* species, lined the sides with the interior a mass of calcined flint nodules. The sand round the edges and base of the pit burnt pink.

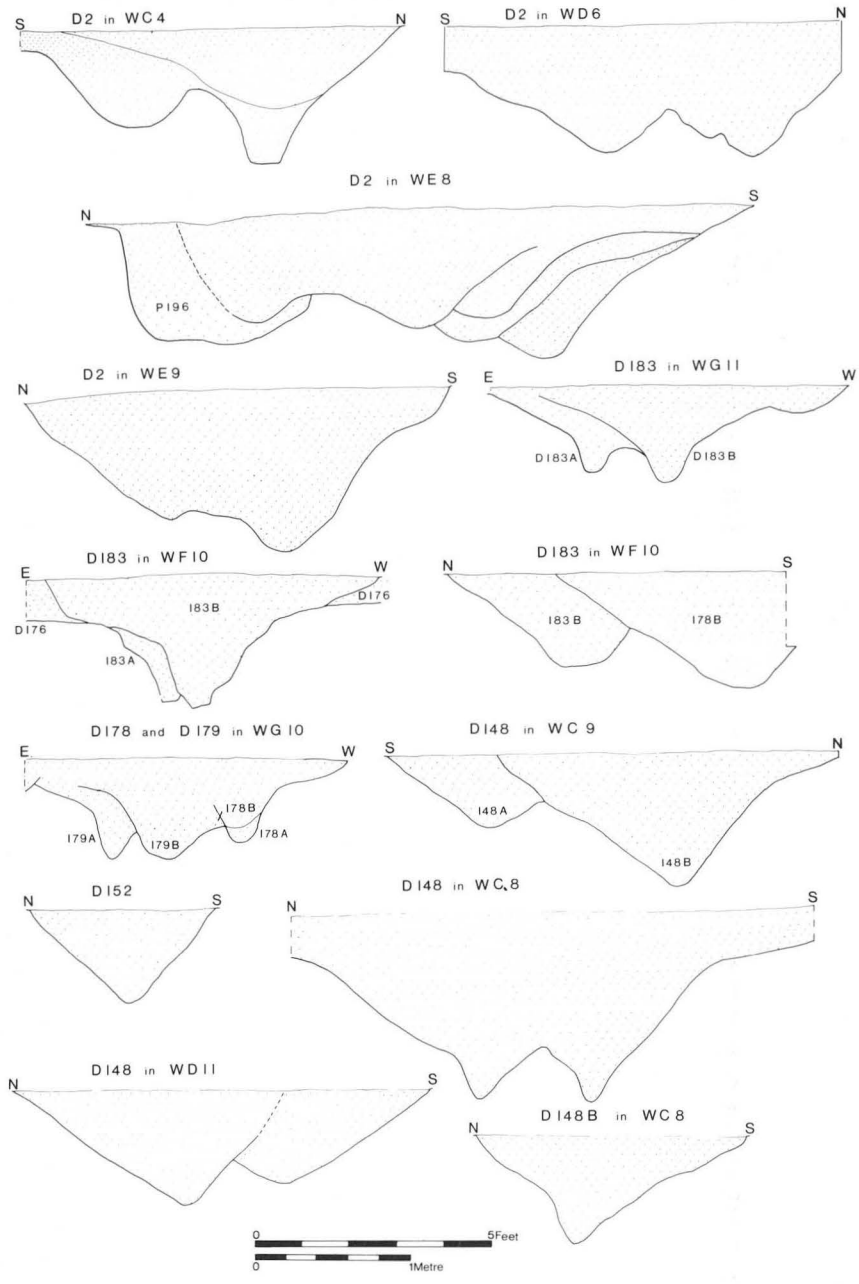


Figure 21 Iron Age: Phase III, ditch profiles. Scale 1:50

Pit 383 (WC.11)
Rectangular, 2×1.3m and 75cm deep. The upper fill of ashy sand contained mixed Iron Age, Romano-British and Anglo-Saxon sherds above the mass of calcined flints and carbonised wood lining of the pit.

Pit 469 (WG.13)
Roughly rectangular and smaller, at 1.1m by 60cm and 30cm deep. A very dense, black layer round the edges of the pit and on the base probably represents a similar lining as the others with an inner filling of calcined flints and charcoal.

Pit 46 (WD.4)
Rectangular, 2.9×1.3m by 60cm deep. Charcoal lined, containing a dense mass of calcined flints. Cutting the unphased Iron Age ditches D.32 and D.46; D.46 is itself cut by Phase III Iron Age features. Close to the three smaller bowl shaped pits next listed.

Pits 41, 42, 43 (WD.4)
Three roughly circular pits all 75cm across and 30cm, 20cm and 35cm deep respectively. Lined with charcoal and filled with calcined flints; lying in a group beneath the Anglo-Saxon 'Hollow' 1.

Although undated it is suggested that all these features be included here as of probably Iron Age date.

V. Romano-British

Introduction

(Figs 23 and 24)
The evidence for Romano-British activity on the site is to be found chiefly in the south-west corner where five pottery kilns were located (Fig. 23). At least eighty-four pits are associated but only two possible buildings have been defined. Clearly the pottery industry flourished during the 1st and 2nd centuries but there were few other signs of settlement. This may be due in part to the density of occupation of the site as a whole, particularly in the Saxon period when many SFBs destroyed earlier evidence.

A scatter of Romano-British material, including samian sherds, coins and small objects, was found right across the excavation area (Fig. 24). The gentle slope of the site to the north-west is almost devoid of Romano-British finds beyond the Iron Age ditch, D.148. Possibly this survived as a boundary into the period of kiln activity of the Roman period although the constant recutting of this feature in the late Iron Age suggests that silting was fairly rapid. Many Roman finds came from the SFBs suggesting that they may have been deliberately collected (West 1985, 82).

The Romano-British pottery industry: earlier discoveries

From the 19th century evidence and the field surveys undertaken at the time of the excavation it is clear that at least ten Romano-British pottery kilns have been found on West Stow Heath, between the river Lark and the present road (Fig. 3, bottom). The extensive excavations between 1965 and 1972 provided a contemporary context for five of these kilns (Fig. 25).

The first reference to pottery kilns on the heath is by Henry Prigg, a well-known local antiquary, in his paper to the British Archaeological Association in 1881 in which he describes the discovery and excavations of two kilns in 1879-80 (Prigg 1881, 152-5). The precise position of these discoveries is not known but it is given as 'some 400 yards south-west' of the (unlocated) circular earthwork he was digging in 1878 (Prigg 1881, 152) and, later, as '3 furlongs west' of kilns 3 and 4 (Prigg 1886a).

Prigg Kiln 1 (Fig. 25)
'This structure was circular in form, 3 feet 6 inches in internal diameter, with walls 18 inches high, and 4 inches in thickness. It was composed wholly of puddled clay with a large admixture of chalk pebbles.

Impacted, as it were, into the eastern side of the kiln, and of the same construction, was the furnace, which was circular in contour, and 1 foot 10 inches wide at the kiln end; and straight-sided as it approached the mouth, which was 2 foot wide. Unfortunately this kiln had, upon disuse, been partially dismantled, and no roof remained to the furnace, nor any material portion of the baking-floor, or its central supports. Half way up the walls of the kiln, however, projecting from a slight flange, was a keystone-shaped brick or thick tile, of small size, perforated centrally-the surfaces of which were covered with a greenish vitrification, an apparent indication of the position of the baking-floor and its construction'.

Prigg Kiln 2 (Fig. 25)
'At a distance of 8 feet due south of kiln 1, a second was come upon of the same construction, but differing somewhat in the length and form of the furnace, the walls of which splayed outwards, making the mouth, which also open to the east, 20 inches wide. This kiln was 3 feet in diameter, and in a much more ruined condition than the other. Within it were found several heavy bricks, 13 inches long by 8 inches wide, and 3 inches thick, which were perforated with two holes of 2½ inches in diameter, separated by an interspace of the same length. Evidently these were the remains of the baking-floor. With them were a series of roundels of moulded brick, 6½ inches in diameter, and varying from 3 to 4 inches in thickness, which had formed the supports of the baking-floor. In both instances the floors of the furnace and kiln were of trodden clay, and much vitrified.

The pottery from the mouth of Kiln 1 was mainly of single-handled flagons of buff wares, a small proportion of little cups or bowls in light red ware, of delicate make, ornamented upon their sides with markings from a milled revolving wheel. There were also a few fragments of saucers, etc.'

The pottery from about Kiln 2 was more varied, 'and from the hue of it it is evident that at time this was used as a Smoked kiln'. In addition to the light-coloured flagons and dishes were fragments of urns in brown ware, smaller jars in blackish ware, ornamented with burnished lines in diaper and one fragment of a poppy-head beaker with applied dots. There were also potsherds with a noticeable mica content.

Prigg records burials on the heath close to the river, one of which had a bowl with a potter's mark in the centre, of an .N. between dots. Later in 1886 he records another burial with an iron spear in the same general area (Prigg 1886b).

Subsequent work by Prigg on West Stow Heath as the area was being developed for sewage works, describes two

THE FIRE PITS

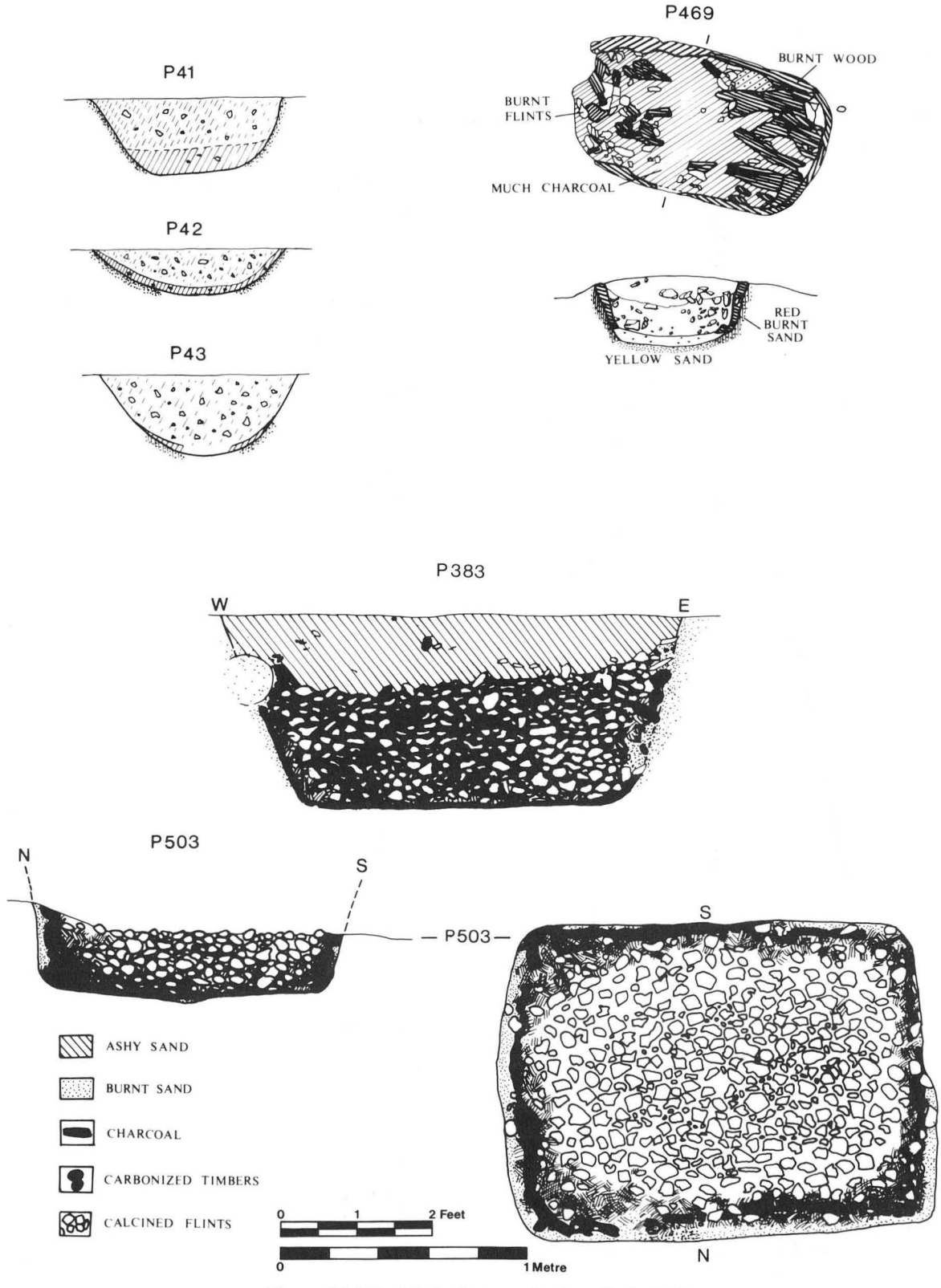


Figure 22 'Fire Pits' of uncertain date. Scale 1:25

WEST STOW

ROMANO-BRITISH FEATURES

0 100 Feet

0 30 Metres

WA WB WC WD WE WF WG WH

14 13 12 11 10 9 8 7 6 5 4 3 2

31

Kiln 5
431
481
Building 2
Kiln 4
444
430
449
Kiln 3
412
Kiln 2
Kiln 1
Building 1
403
342
D80
159
267
345
401
397
389
D89
Smother Pit
D65
D75

Figure 23 Romano-British features, plan

WEST STOW

DISTRIBUTION of ROMANO - BRITISH FINDS

▲ Small Finds from features
△ Small Finds in grid squares
● 1st and 2nd century coins
○ 3rd century coins

0 50 100 Feet
0 10 20 30 Metres

WB WC WD WE WF WG WH

14 13 12 11 10 9 8 7 6 5 4 3 2

Figure 24 Romano-British: finds distribution

further kilns close to the brook which connects Dales Pond to the river (Prigg 1886a). These are here called Prigg 3 and Prigg 4 to follow those previously recorded, although in Prigg's account they are listed as 1 and 2.

Prigg Kiln 3

'The first kiln intersected about its centre was five feet in diameter with walls 2 feet 8 ins in height and five inches thickness. Composed of tempered clay, now ruddy from oft repeated firing. It was filled with blackened earth, portions a broken wall fragments and flooring and numerous fragments of the vessels which were fired in it but damaged in the process and thrown aside as wasters. Among these were a good proportion of broad lipped elegantly formed vases or bottles, of globular form with reeded handles in buff and fawn coloured clay, in capacity varying from a pint to half a gallon'.

Prigg Kiln 4

'The second kiln was distant some four yards to the north-east of the other and this was intersected at about one third of its diameter. I was induced to excavate about it in the hope that its walls would prove to be perfect and that it might remain for a while open to the inspection of our Bury friends, who take an interest in such remains.

Unfortunately I found that upon abandoning the kiln its sides had been broken in and demolished and the whole filled over with the deposit of ashes and broken pottery which formerly lay around it. The remains of pottery here were chiefly of vessels of the jar and saucer form and mostly dark in colour, leading me to believe that like the second kiln excavated by me, further on the heath, this one had been used as a smother kiln for the production of black and 'slate' ? (defaced) coloured pottery'.

Among the potsherds from Kiln 4 a fragment of samian was found, decorated with a sea-horse and the potters name ALBVC1 in the field.

Prigg Kiln 5

Prigg (1890) records a further kiln but without a detailed description. This produced a shallow bowl in fine grey ware, other bowls, rims with patterns in slip of various colours, two bowls with circles and lines in slip and large flagons. Two coins of Constantine I (305-6) are noted as found in the kiln.

The site produced mainly buff bottles and flagons. Fragments of small bowls in soft red paste imitating samian Form 37 and ornamented with stabbing were also present, together with a few sherds with inscribed concentric circles. The examples were unpolished and usually smaller than the types from Kilns 1 and 2. The southern half of the site had been disturbed by a trench which had been cut into the kiln deposit.

In an account published by Prigg in the *Bury and Norwich Post* for November 2nd 1886, Prigg mentions the discovery of rubbish pits and the line of 'an ancient trench, which commenced apparently near the mouth of the second potter's kiln [No. 4 above] and ran in a south-westerly direction, to the verge of the heath. It was 6 feet broad and 4 feet deep and was V shaped in section'. He went on to say that two urns were found, one above the other, which he suggested as presenting features both Roman and Saxon but clearly made on the wheel, by skilled workmen after the Saxon model. His description of the vessels clearly fits those still in the Moyses Hall Museum and figured here (Fig. 58, 205). Although he was pre-empting the more recent, but now discounted, Roman-Saxon ware, the decorated vessel clearly belongs to the first century phase of pottery making on the heath.

In 1951 the author found the site of a kiln to the north-west of the site of the 1965-72 excavations. The kiln was largely destroyed and appeared to have been disturbed, the loose soil colonised by a patch of nettles; this was probably one of those found by Prigg, in which case it should be Kiln 5 as its position is further to west than is suggested by the description of the others. The surviving evidence indicated a stoke-hole some 2.1 m across and a furnace 90 cm in diameter. There was no trace of a central pedestal, but fragments of kiln bricks were present. The kilns excavated by Prigg do not appear to have solid central pedestals and bricks are mentioned in relation to Kilns 1-3. The bottle-shaped flue for Prigg Kiln 1 is at present unique in Suffolk. The positions of Prigg's discoveries are not precisely located and are shown as approximations on Figure 3 (bottom), but it is clear that they are spread over a considerable area of the heath.

In 1940 Basil Brown from Rickinghall discovered two kilns on the western half of the site which is the subject of this report. These kilns were re-excavated in 1947 together with a smother pit and subsequently published (West 1952).

The 1965-72 excavations

(Fig. 23)

In the course of the 1965-72 excavations a further three kilns were excavated, all part of the same group with 1 and 2 above (Fig. 25). All were found in the south-west quarter of the site, within 100 ft (30 m) of each other, above the steep bank which drops to the flood plain of the river. The kilns were surrounded by a group of eighty-four pits attributed to the period of activity of the kilns by the quantity of kiln waste found in them.

The remains of two small rectangular structures were also identified close to the kilns. The Romano-British activity on the site was confined to pottery making, there was no sign of field systems or other domestic occupation. This compact group of kilns ranged widely in size and internal arrangements. Three (Nos 1, 2, 4) had central pedestals in the furnace, in common with many others in Suffolk, particularly those in the Wattisfield area (Brown 1935). The other two (Nos 3, 5) had pierced clay plates supported on cylindrical bricks. All were constructed by lining a hole, cut into the subsoil, with clay and provided with a short flue and a stoke-hole; all were therefore of the circular updraught type.

Kiln 1 (WH.11; Fig. 26)

Kilns 1 and 2 shared a single stoke-hole, the measurements of which were not accurately recorded when it was excavated in 1940. It appears to have been about 3 m across and at least 86 cm deep and filled with an intense accumulation of black soil and pottery fragments. The flue arch of Kiln 1 was intact but only 23 cm long; the floor sloped gently up from the stoke-hole to the east.

The furnace was roughly circular, with walls 18 cm thick, standing to a height of 51 cm and sloping outwards, leaving a narrow channel between the kiln wall and the central pedestal. The pedestal was a solid block of clay, probably damaged on the irregular top, but apparently used in that condition as the exposed surfaces were all reduced and hard. An irregular slot, 15 cm deep and 9 cm

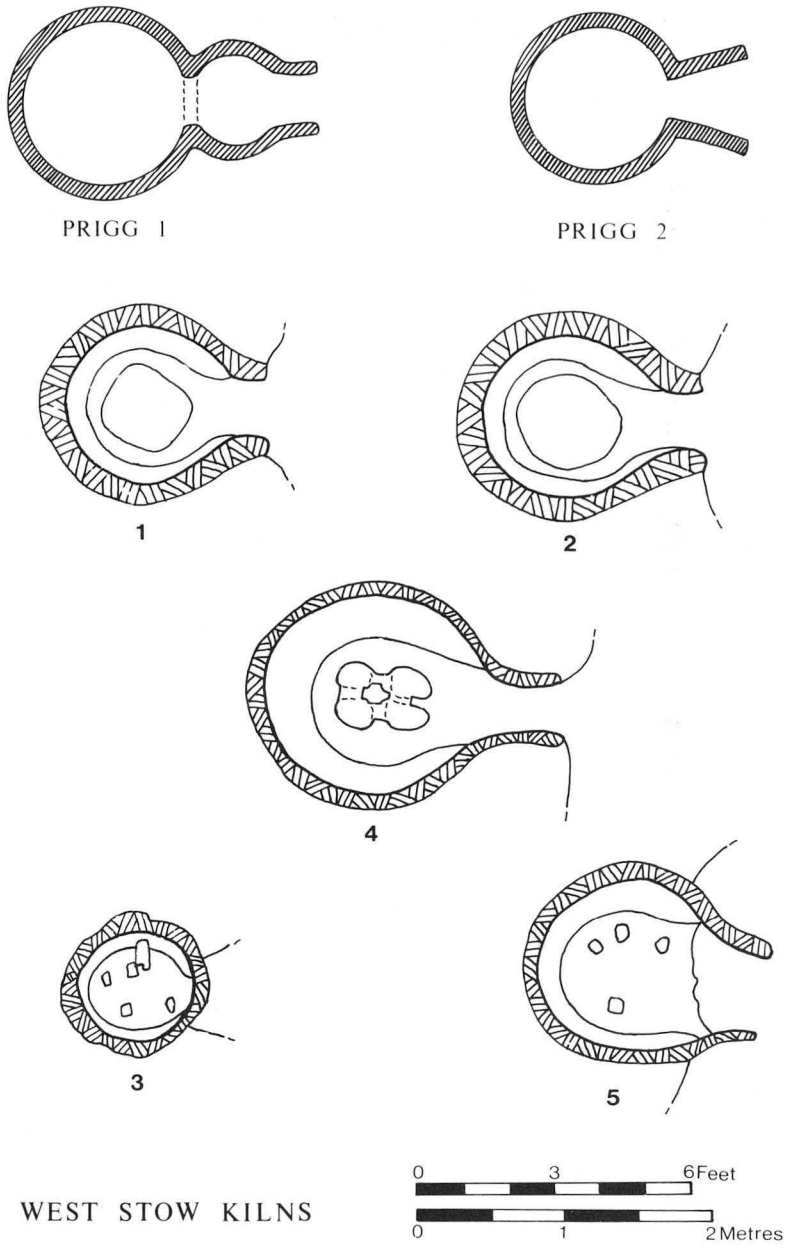
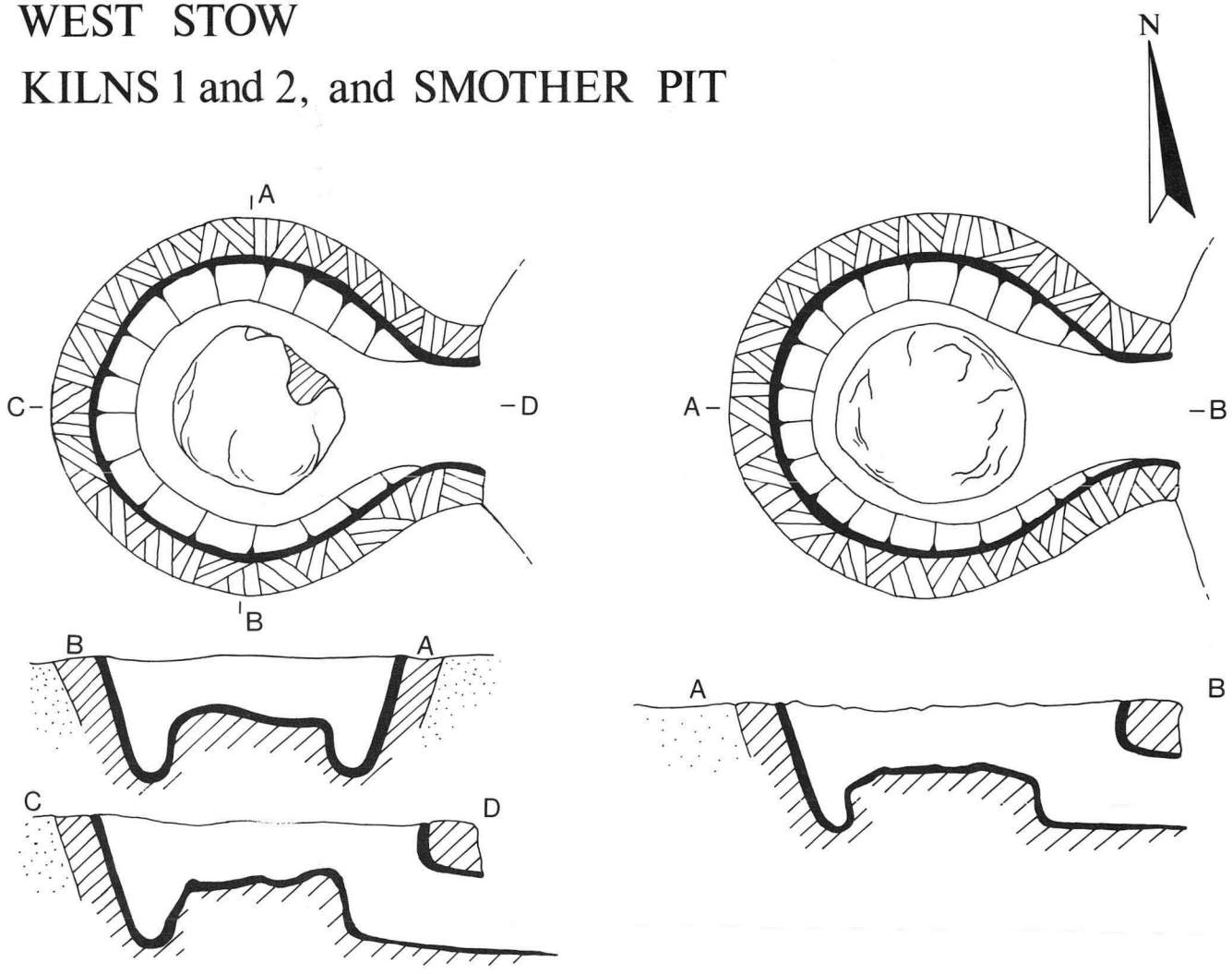


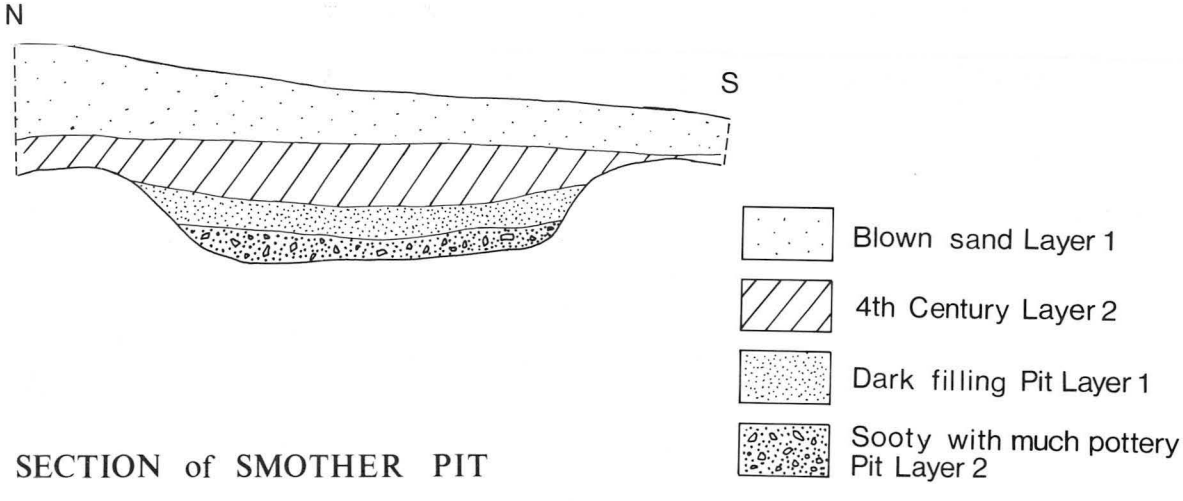
Figure 25 Romano-British: Prigg's Kilns 1 and 2, and West Kilns 1-5. Scale 1:50

WEST STOW
KILNS 1 and 2, and SMOTHER PIT



KILN 1

KILN 2



SECTION of SMOTHER PIT

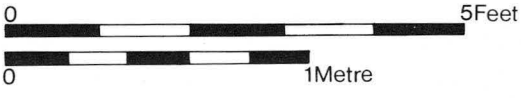


Figure 26 Romano-British: Kilns 1 and 2 and section of smother pit (1947). Scale 1:25

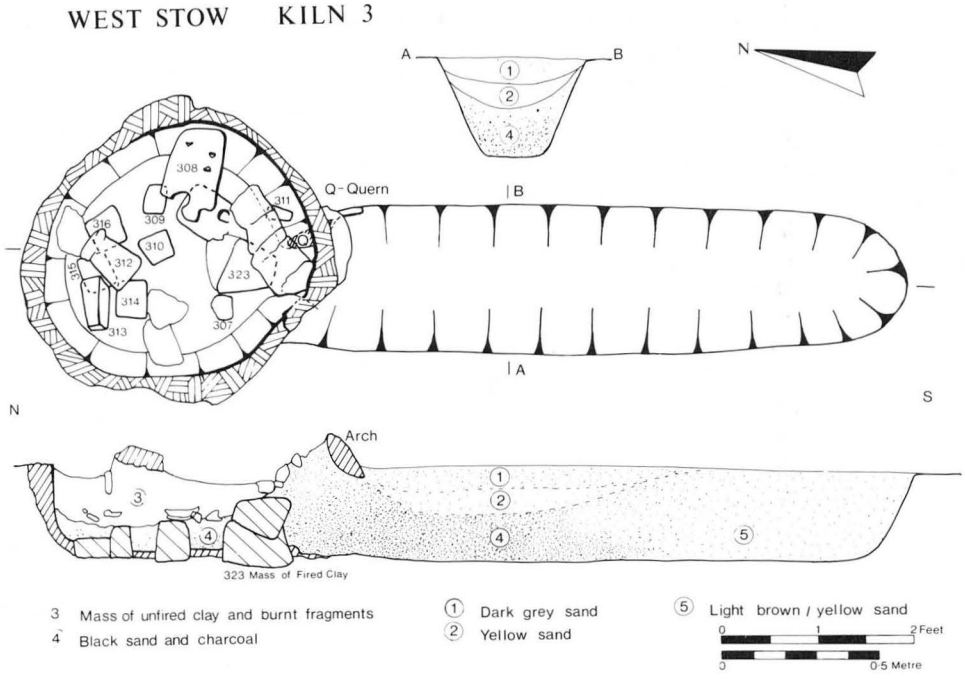


Figure 27 Romano-British: Kiln 3, plan and section, showing positions of fired clay kiln-bricks and perforated plates. Scale 1:25

wide occurred in the side of the pedestal, for which no purpose could be adduced.

Three complete kiln bricks were recovered, together with a quantity of fragments of others. Two varieties were present:-

a. Rectangular: 22×7.6×9cm,

b. Tapering: 19×21.5cm long by 9×10cm at the widest end, narrowing to 6.8×6.6cm. These are angled at the widest end, perhaps to fit between the sloping kiln wall and the pedestal, although if used in such a position the channel beneath would have been small.

There was no indication of any form of cover for the furnace area.

Kiln 2 (WH.11; Fig. 26)

As stated above, this kiln shared the same stoke-hole as Kiln 1; both kilns leading directly out of it to the west, and lying parallel, some 1.2m apart.

The flue arch was complete and only 23cm long, as in Kiln 1. The furnace was roughly circular and constructed in the same manner and same size as its companion. In both cases the material used had been a chalky boulder clay, readily available on the crest of the hill to the north of the site.

The central pedestal, as in Kiln 1, was a solid block, of a low 'mushroom' shape, rather uneven on its surface as though damaged at some time during use, although it clearly continued to function. In this case the pedestal was plain with no slot or flues. One small, cylindrical brick was found in the furnace area, roughly shaped, and measuring 9cm high by 9cm in diameter, with two flattened areas on the sides. A fragment of a much larger cylindrical brick, with two flattened sides was also recovered, the diameter of which was approximately 14cm and the height at least 19cm. No evidence for rectangular or tapering bricks was found, or for any form of cover for the furnace area.

Kiln 3 (WG.11; Fig. 27; Pl. II; Table 7)

This kiln was excavated in the 1971 season, immediately to the north of Kiln 1. It differed from Kilns 1, 2 and 5 in every respect.

The stoke-hole was a narrow trench, 0.9m wide, 1.8m long and one 0.45m deep, with a rounded 'U' shaped profile, filled with black soil and potsherds, rising gently to the furnace floor (Layers 4, 5). The collapsed flue arch appeared to have been originally about 0.45m long, opening to the south-west into the stoke-hole. The east side of the arch was based upon a fragment of a puddingstone quern (Fig. 66, 321). The furnace was roughly circular, 84×76cm, with thin, irregular walls 5-15cm thick, nearly vertical, but sloping gently at the base to become one with the furnace floor.

The internal arrangements of the furnace consisted of flat, movable clay plates pierced with holes, resting upon small, solid clay bricks and set into the floor. These bricks were roughly shaped, but intended to be rectangular. The lower ends were expanded where the soft clay had been thumped onto a hard surface before being set into the floor. The bricks appear to have been set in a rough circle some 15cm from the kiln wall, with at least one in the centre. The arrangement as found was incomplete, as fragments of others and one complete brick were found out of position. A curious feature was that the bricks in position were not all the same height and would have caused the floor plates to dip toward the centre of the furnace. Only one floor plate remained in recognisable form (Fig. 63, 308). The plate was 2.5cm thick, 17.8cm wide, and although incomplete in length, had been more than 20cm long. The existing end was rounded; the plate pierced with a series of wedge-shaped holes providing apertures of about 1.3cm across. Figures 63 and 64 illustrate the range of kiln bricks discovered, Table 7 gives the sizes and Figure 66, 321 shows the quernstone from Kiln 3.

Just inside the furnace from the flue entrance there was a large mass of fired clay, irregular but rounded in shape, set into the floor. Its position, and highly fired appearance would suggest that it was deliberately set there to divert the hot gases round the walls of the kiln and to induce a stronger draught.

A detached fragment of the kiln arch bore the impression of a straight piece of wood, indicating that wood had been used to strengthen the arch in the course of reconstruction. Above the kiln bricks a layer of unfired clay, 10-15cm thick, covered the entire furnace area (Layer 3). The most likely explanation is that this was the collapsed dome of the kiln. No traces of any supporting structure, or of the grass marked clay so typical of the Wattisfield kiln covers (Brown 1935, 181), was found. The unfired state of the clay walls toward the rear of the kiln, and of the kiln bricks, apart from that marked 323 (Fig. 27) immediately behind the flue suggests that possibly only one firing was undertaken and that this small kiln was then abandoned.

No. on plan (Fig. 27)	*Height (cm)*	*Width (cm)*	*Comment*
307	9	7.7 × 8	
309	7	11 × 8	
310	8.9	10.2 × 8.9– 10.2 × 11.4	
311	12.7	6.3 × 6.3	
312	16.5	8.9 × 7.6	Expanded foot, sloped end
313	16.5	7.6 × 7.6– 4.4 × 4.4	Sloped, expanded end
314	14	14 × 14– 11.4 × 10.2	
315	14	12.7 × 12.7– 10.2 × 10.2	Expanded foot
316	10.2	12.7 × 10.2– 10.2 × 10.2	
323	20	*c.* 20 × *c.* 18	Mass

Table 7 Romano-British Kiln 3, brick sizes (see Figs 63 and 64)

Kiln 4 (WH.12; Fig. 28; Pl. III)

This kiln was excavated in 1971, 16.8m to the west of Kilns 1-3. The kiln and stoke-hole were much obscured by a number of Romano-British rubbish pits around the kiln itself and by the superimposition of an Anglo-Saxon hut (SFB.61) above the kiln and much of the stoke-hole.

The stoke-hole was situated to the south of the kiln and measured *c.* 4.3m wide, 2.7m from the flue to the rear and 1.2m deep. The floor of the stoke-hole was 45cm below that of the furnace area of the kiln; the original slope had been destroyed by constant raking out and subsequently repaired to form a step. The stoke-hole had a thick layer of black sooty sand and quantities of waste pottery (Layer 2) capped by dirty sand (Layer 1). There was little ash and no charcoal. The flue arch was broken but had clearly been 45cm long and the opening in the order of 53-61cm high. As already mentioned, the original floor had been destroyed by constant raking-out and had been replaced by another, over a layer of black soil at a higher level (Layer 3), to provide a horizontal floor to the actual arch, beyond which the floor of the furnace itself sloped upward to the central pedestal. The furnace area was an irregular oval, 1.5m long by 1.3m wide internally, with sloping walls of puddled boulder clay, 10cm thick. The wall at the rear (north) of the kiln was standing to a height of 76cm to the top of the natural sand. The whole interior of the kiln was well fired and reduced to a uniform dark grey colour.

A large pedestal was centrally placed, based upon the 'mushroom' type, but modified by a series of vents, from front to rear, from side to side and centrally, to provide an even circulation of the hot gasses. The top of the pedestal was 45cm below the upper level of the kiln walls. No evidence was found of any form of kiln bricks or plates, but it is possible that pots were used to bridge the narrow gap between the pedestal and the wall. A quantity of fragments of fired clay formed a definable layer above the filling covering the pedestal, possibly representing the remains of a covering for the furnace.

Kiln 5 (WG.13; Fig. 29; Pls IV, V)

The last kiln to be found in this group was excavated in 1972, some 14m to the north-west of Kiln 4. The kiln was in a poor state; the walls much fractured and very friable.

The stoke-hole was a large, irregular bowl-shaped hole some 2.7×3 m across and 90cm deep, and filled with dense

Plate II Romano-British Kiln 3. Pierced clay plate and kiln bricks in situ

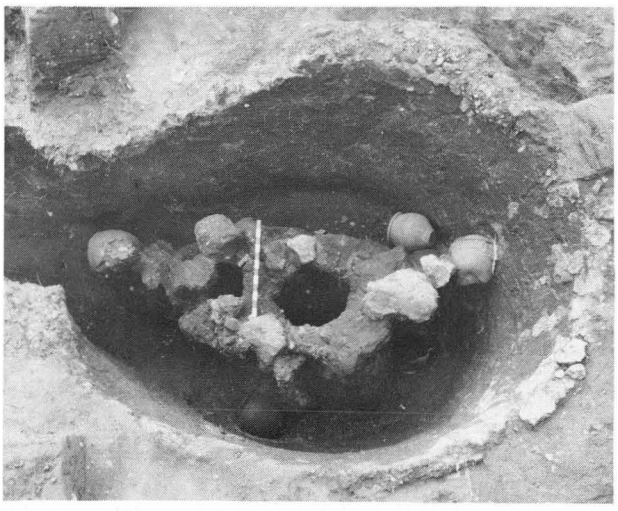


Plate III Romano-British Kiln 4. Pierced central clay pedestal

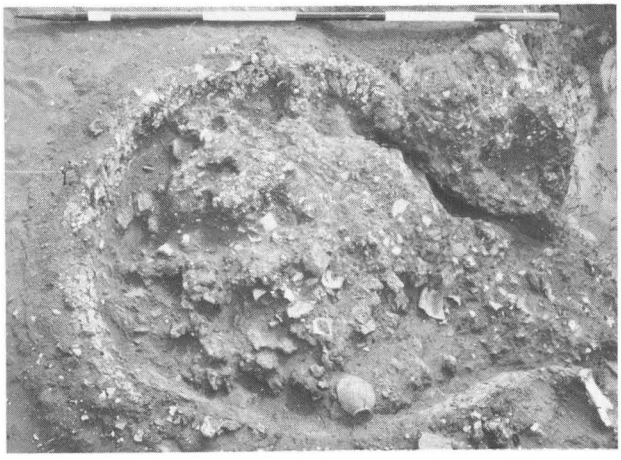


Plate IV Romano-British Kiln 5. Furnace area filled with burnt clay fragments and potsherds

Plate V Romano-British Kiln 5. Kiln bricks in situ

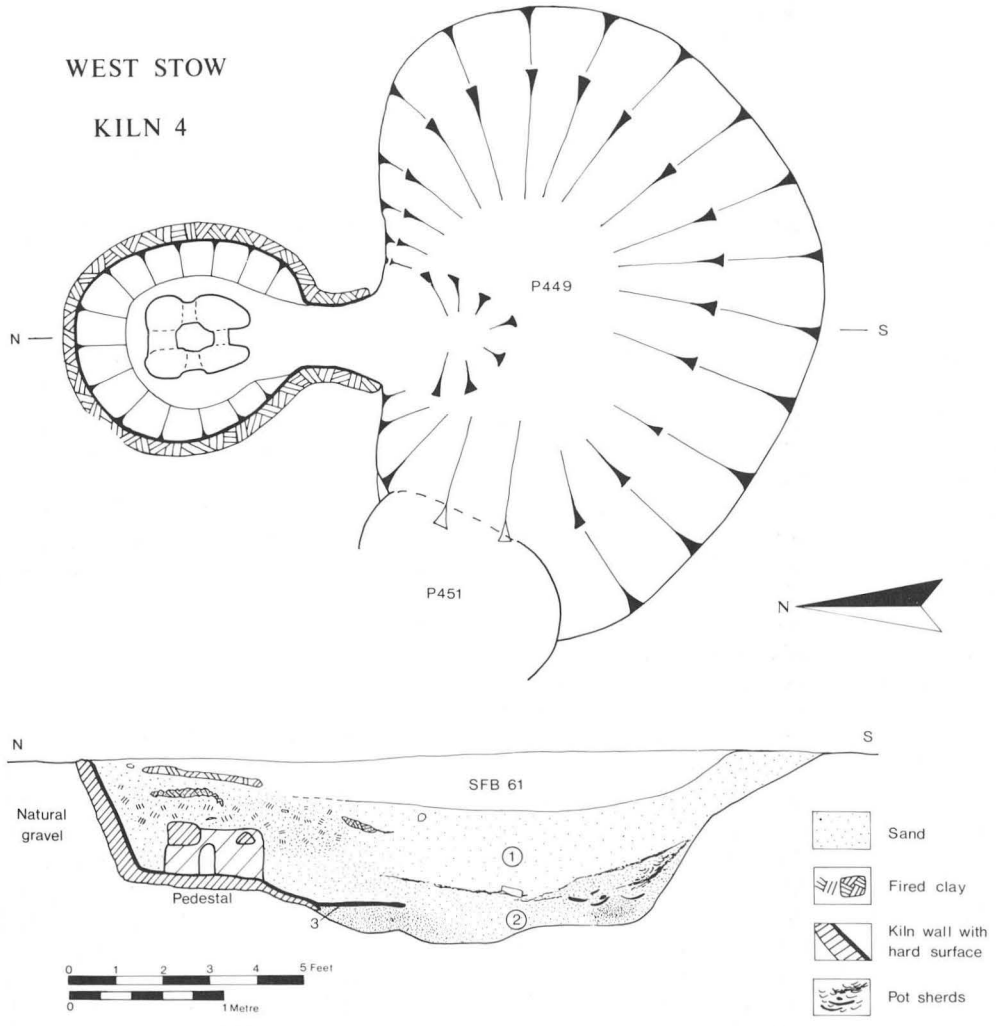


Figure 28 Romano-British: Kiln 4, plan and section. Scale 1:50

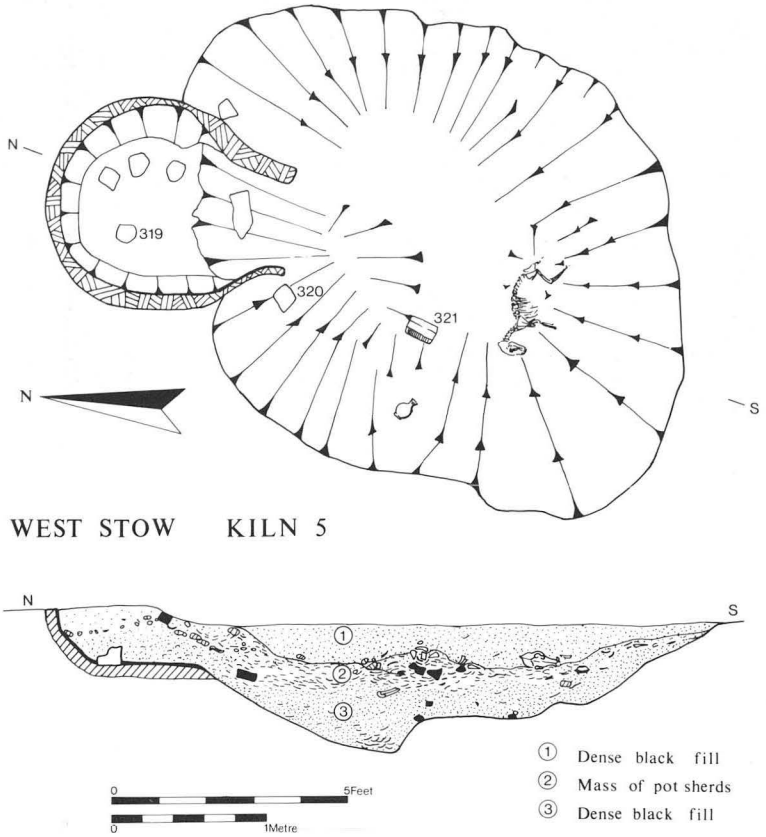


Figure 29 Romano-British: Kiln 5, plan and section, showing positions of fired clay kiln bricks and dog skeleton in stoke hole. Scale 1:50

black soil (Layers 1, 3). A mass of pot-sherds halfway up the filling (Layer 2) probably represents the raking-out after the last firing. At the rear of the stoke-hole, a complete skeleton of a dog was found lying on this fill, which in turn was covered with more black soil and little pottery. The floor of the pit sloped steeply up to the flue arch, which was broken, but had been about 30cm long.

The furnace beyond was oval in shape, 1.4m from the front rear and 1.2m across. The floor of the stoke-hole sloped back into the furnace area for about 30cm beyond the flue arch and the broken edge of the floor at this point shows that the slope had been eating back into the furnace area in successive firings. The walls of the furnace were in a crumbly condition but still stood to a height of 38cm, splayed out from the floor. There was no central pedestal present, the arrangement inside the furnace was similar to Kiln 3, but on a larger scale. A rough ring of badly shaped kiln bricks was incorporated into the floor some distance from the walls, but no evidence was found of pierced clay plates as in Kiln 3. Bricks from Kiln 5 are illustrated in Figure 65. Above the ash, brick fragments and pottery occurred inside the furnace; a layer of pot-sherds and unfired clay filled the kiln to the brim; the clay probably representing some form of cover, but again without the grass impressions so characteristic of the Wattisfield group of kilns and others in Suffolk.

Pits associated with the pottery industry
(Fig. 30; Tables 8-11)
In all, eighty-four pits have been attributed to the period of the operation of the pottery kilns. These are all grouped in the south-west quadrant of the site in an apparently haphazard way. To only one can there be a specific function attributed; this was described in the 1952 report as a 'smother pit' and is still so considered (West 1952, 42). The rest can only be described as 'rubbish' pits as they were filled, to a greater or lesser extent, with kiln waste. Most of them were oval or rounded in shape and ranged from 60cm to 3m in length. Bowl-shaped sections predominated with only a small number of rectangular or square cut types.

The smother pit (WH.8; Fig. 26)
This pit, the only one of its kind to be recognised on the site, was excavated in 1947, some 41m to the east of Kilns 1 and 2. The pit was oval, 1.4m in diameter, flat bottomed, with steeply sloping sides, and about 30cm deep from the top of the natural sub-soil. The primary filling (Layer 2) consisted of a dense mass of pot-sherds, sooty black soil and charcoal. The nature of the filling and the fact that ninety-eight per cent of the pottery was black or dark surfaced ware prompted me then to suggest that the pit had been used to produce this black surface by reduction in a clamp-type firing (West 1952). It seems clear, now, that this black surface was in part at least, the desired effect and that this pit, unique as it is on this site, was used for that purpose.

Although it would appear that pits were dug and filled with kiln waste, large quantities of rubbish were scattered over the whole site, particularly in the south-west quarter, often forming the secondary layers in Iron Age pits and ditches. Waste products were also found to be spread across

the low lying land between the knoll and the river, although no evidence of pits has been established.

The ditches, D.65, 75, 80, 89
(Fig. 23)
Two short lengths of ditches on the southern perimeter of the site contained considerable quantities of kiln waste and may be considered of late 1st-century date (D.78, WH.7; D.89, WH.8-9). Both were shallow, 'U' shaped in section and incomplete. Their function could not be ascertained. Two other, tiny fragments, (D.65, un-numbered in WG.7 and D.80, WF.9) may also have been of the same date. Otherwise there was nothing to suggest boundaries or any kind of limitation to the site, unless the Iron Age Phase III ditch, D.163, had survived as a ditch or hedge to provide a boundary to the working area.

The buildings
Although the entire area surrounding the pottery kilns was completely excavated, traces of only two buildings, which could confidently be identified, were found. Both were post-hole structures and both were much mutilated by the later Anglo-Saxon settlement features on the site. No evidence was found to indicate the purpose of these buildings but the proximity to the kilns must suggest some function connected with the industry such as workshops or drying sheds.

Building 1 (WG.11; Fig. 31; Pl. VI)
Traces of a light structure were found in close proximity to Kilns 1, 2 and 3. An irregular area, some 7.6m in length from east to west and, less obviously, 4.3m wide was covered by a thin intermittent layer of chalk and bounded at the east and west by short stretches of gravel. At a point midway between the gravel spreads there was a circular patch of heavier gravel, 90cm in diameter. The plan shows a number of post-holes in the area bounded by these features with small quantities of Romano-British pottery in them, but it is not possible to relate them to any coherent plan. One circular pit (P.363), inside the complex may be related, and contained half a limestone rotary quern stone at a low level in the fill (Fig. 66, 322; Pl. VI). On the north side of the structure there was a patch of burnt sand and two patches of unburnt yellow boulder clay.

Building 2 (WG.13; Fig. 32)
The second structure is even more ephemeral. A roughly rectangular area, 7.3m east to west by 5.5m was defined by a scattered mass of daub, flints, burnt-clay fragments and post-holes. The situation was further complicated by the construction of Anglo-Saxon SFB65 in the eastern half.

The scattered mass of clay fragments gave the same impression as the structures found on many of the East Anglian Romano-British rural sites; of buildings, largely composed of wattle and daub which can only rarely be given a definite form and discernable only from fragmentary 'floors' of clay or collapsed material. In this case the post-holes on the north and east sides seem to be part of a rectangular building, but are not supported by evidence from the south and west sides. Other post-holes, in the south-west corner of the 'structure', are covered by the collapsed clay and could therefore be contemporary. There is no real evidence to positively associate the post-holes with the clay however, so that it would be unwise to interpret the evidence as anything more than some form of building, which, from the quantities of Romano-British pottery and small finds in and around it and the fact that it is cut by an Anglo-Saxon hut, would appear to be of Roman date. Indefinable spreads of chalk, often associated with patches of laid gravel are a well known feature of Romano-British sites in East Anglia and do not occur in either the Iron Age or Early Anglo-Saxon periods here.

Plate VI Romano-British Building 1, pit with fragment of quern

VI. The Medieval Field System
(Fig. 33)

Fragmentary evidence of a medieval field system was found during the excavation as the covering layer of blown sand was stripped off by machine. One area, of 50×70 ft (15.2×21.3 m) in the south-east was stripped to the base of the blown sand and then carefully trowelled to reveal the ploughmarks filled with sand. Sufficient evidence was found to show that the whole hill had been ploughed in a north to south direction, across the main axis of the site by ridge and furrow technique.

The evidence in the south-east corner suggests that the headland lay off the edge of the excavation. The plan (Fig. 33) shows the extent of the ploughing recorded; the dotted lines show the edges of the furrows as they were seen filled with sand. The ridges were of variable height, ranging from 23-30cm above the lowest point of the furrows. The widths between the centres of the lowest points varied between 4.3 and 8.2 m (Fig. 34).

The plough marks, where they were exposed in sufficient quantities, were 23cm apart and could be traced for 8-10cm in depth. The fragmentary nature of the evidence makes it difficult to relate many of the pieces, but, particularly in the western half of the site, the marks show a slight curve over 76m (250 ft). No ditches, or other features were found on the site related to the post-seventh century.

Ninety fragments of pottery, ranging from Thetford Ware to *c.*1300 were recovered from the plough-soil, together with two plough-pebbles from mould-boards and a bronze buckle (Fig. 67).

Pit No.	Grid Square	Length	Breadth	Depth	Shape
111	WG. 9	106	106	—	Circular
114	WF. 8	106	—	17.8	—
118	WH. 8	—	—	—	—
121	WG. 9	152	114	22.9	Oval. bowl
122	WH. 9	168	160	30	Oval. Shallow bowl
123	WH. 9	122	122	22.9	Circular. Irregular
124	WG. 9	—	—	—	Disturbed
126	WH. 9	106	91	30	Circular bowl
128	WG. 9	84	61	22.9	Oval bowl
130	WG. 9	213	122	22.9	Rectangular square cut
143	WG. 9	122	122	25.4	Square cut
145	WH. 9	183	183	61	Circular square cut
156	WG. 9	106	91	15.2	Square. Shallow
157	WH. 9	76	61	30	Irregular. Oval. Bowl.
159	WF. 9	304	137	61	Oval/rectangular. Bowl.
214	WD. 9	76	76	15.2	Circular. Square cut
259	WG. 10	53	30	15.2	Oval. Bowl.
264	WG. 11	152	152	10.2	Circular. Shallow.
266	WG. 10	244	168	61	Square cut.
267	WG. 10	213	198	61	Circular. Bowl.
268	WG. 10	91	30	22.9	Oval. Bowl.
342	WF. 11	198	168	61	Oval. Bowl.
345	WG. 10	152	137	38	Circular. Bowl.
363	WG. 11	122	114	45.7	Circular. Square-cut — quern
369	WG. 11	145	114	91	Oval. Square cut.
374	WG. 11	76	61	122	Circular. Shallow
375	WG. 11	91	61	122	Circular. Shallow
376	WH. 11	122	76	53	Oval. Bowl.
378	WH. 11	168	122	30	Oval. Bowl.
379	WG. 11	76	76	15.2	Circular. Bowl. Post-hole
380	WG. 11	53	38	—	Oval
386	WG. 12	213	137	68.6	Rectangular. Square cut
387	WG. 12	183	183	76	Circular. Bowl.
389	WH. 10	*c.* 244	—	30	Oval. Bowl
390	WH. 10	91	76	22.9	Oval. Bowl
397	WG. 10	198	175	45.7	Oval. Bowl
401	WG. 10	160	*c.* 152	22.9	Circular. Bowl
402	WH. 10	106	99	22.9	Circular
403	WH. 11	183	183	53.3	Irregular. Bowl
404	WH. 10	168	91	—	Oval
406	WF. 12	91	45.7	22.9	Oval. Bowl
407	WG. 11	61	45.7	17.8	Circular. ?post hole.
410	WG. 12	*c.* 152	*c.* 152	22.9	Irregular. Bowl
411	WG. 12	106	91	22.9	Oval. Bowl
412	WG. 11	213	198	83.8	Oval. Deep bowl.
415	WG. 12	274	137	91	Rectangular. Deep bowl.
417	WH. 11	76	61	15.2	Oval. Shallow
418	WG. 12	152+	152	—	Rectangular
424	WH. 12	213	*c.* 91	—	Oval.
426	WH. 12	83.8	76	22.9	Circular. Bowl.
430	WH. 12	198	168	61	Irregular oval. Deep bowl
431	WG. 12	259	137	91	Rectangular. Square cut
433	WG. 12	213	183	50.8	Rectangular. Deep bowl
434	WG. 12	137	137	—	Circular
435	WG. 12	76	76	15.2	Circular. Bowl.
436	WH. 10	183	106	22.9	Rectangular. Bowl
438	WH. 10	76	76	15.2	Circular. Bowl.
439	WH. 10	91+	76	—	Oval
441	WH. 12	76	76	—	Oval
442	WH. 12	61	61	10	Circular. Bowl
444	WH. 12	—	—	—	Kiln 4 complex
446	WH. 12	—	—	—	Kiln 4 complex
447	WH. 12	61	61	*c.* 61	Circular
449	WH. 12	—	—	—	Kiln 4 complex — Ae brooch
450	WH. 12	183	*c.* 152	—	Kiln 4 complex
451	WH. 12	152	*c.* 152	—	Kiln 4 complex
453	WH. 11	—	—	—	
456	WH. 11	137	91	—	Oval
464	WG. 12	46	46	—	Circular. Post-hole
468	WG. 13	137	61		Oval
469	WG. 13	99	61	30	Rectangular — Fire pit
472	WG. 13	213	213	61	Circular. Bowl (Bronze pin SF 2015)
474	WG. 13	91	91	25.4	Circular. Bowl.
477	WG. 13	—	—	—	Kiln 5 complex
479	WF. 13	244	213	91	Oval. Square cut
480	WF. 13	198	76	45.7	Rectangular. Bowl
481	WG. 13	183	152	61	Oval. Square cut
482	WF. 13	244	244	25.4	Circular. Bowl
483	WG. 14	122	122	45.7	Circular — irregular. Bowl
484	WG. 14	106	106	45.7	Circular. Square cut
485	WF. 14	274	274	83.8	Circular. Bowl
487	WG. 14	122+	122+	22.9	Disturbed. Bowl
488	WG. 14	244	198	61	Oval. Bowl

Table 8 Romano-British: comparison of pit dimensions and shapes (measurements in cm).

Shape	No.
Circular	29
Oval	28
Rectangular	10
Square	2
Irregular	4
Uncoded: 11	73

Table 9 Analysis of pits by shape (plan).

Shape	No.
Straight sides, flat base	12
Bowl: rounded, deep	38
Bowl: shallow	6
Uncoded: 28	56

Table 10 Analysis of pits by shape (section).

0.6-0.9	*0.9-1.2*	*1.2-1.5*	*1.5-1.8*	*1.8-2.1*	*2.1-2.4*	*2.4-2.7*	*2.7-3.0*	*3+ m*
7	10	12	11	10	7	4	—	2

Uncoded: 17

Table 11 Analysis of pits by size (maximum width/length).

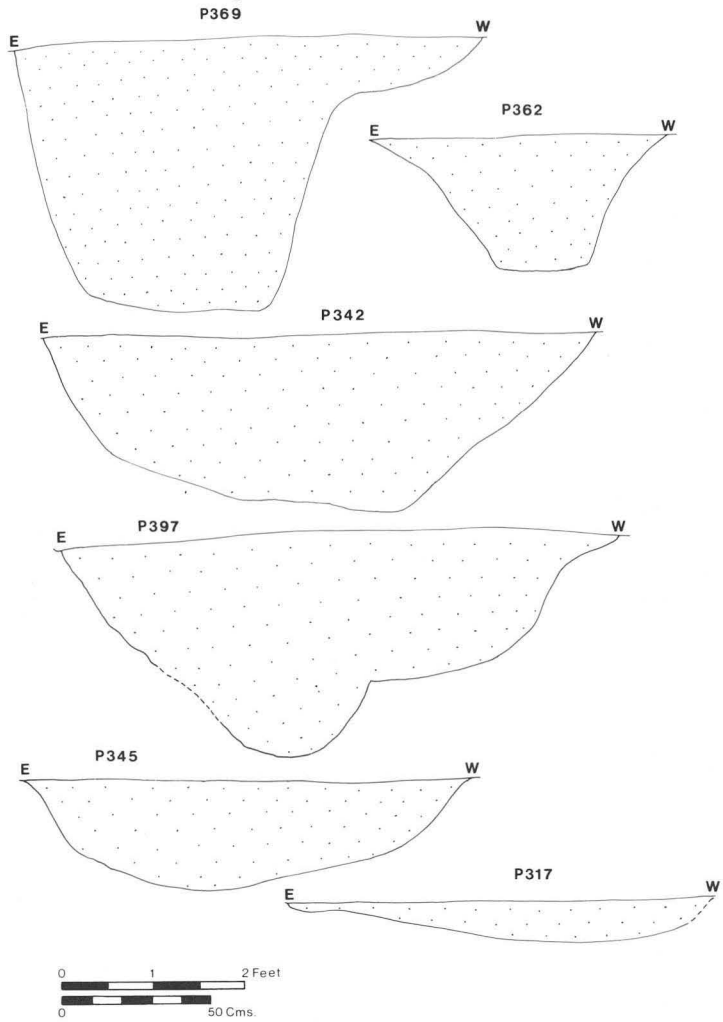


Figure 30 Romano-British: pit profiles. Scale 1:25

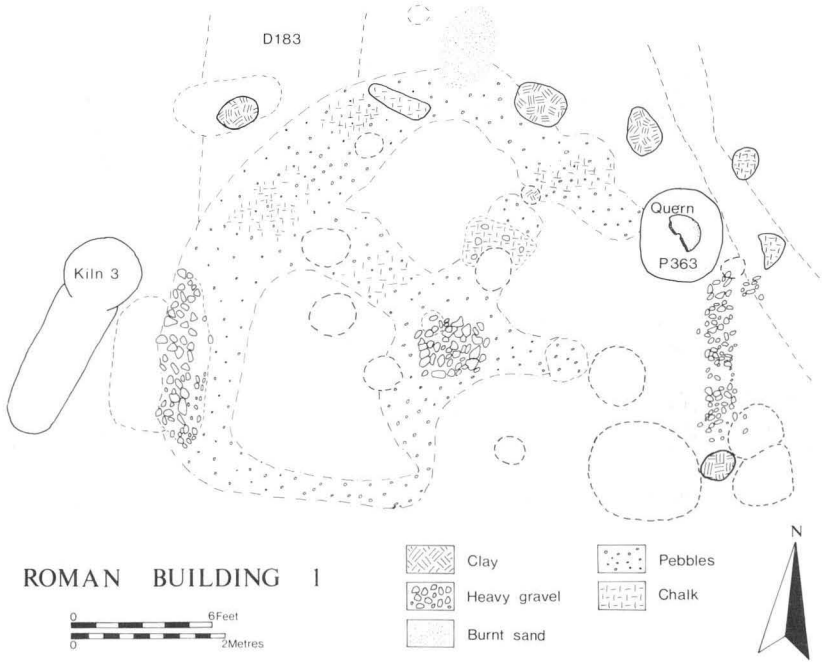
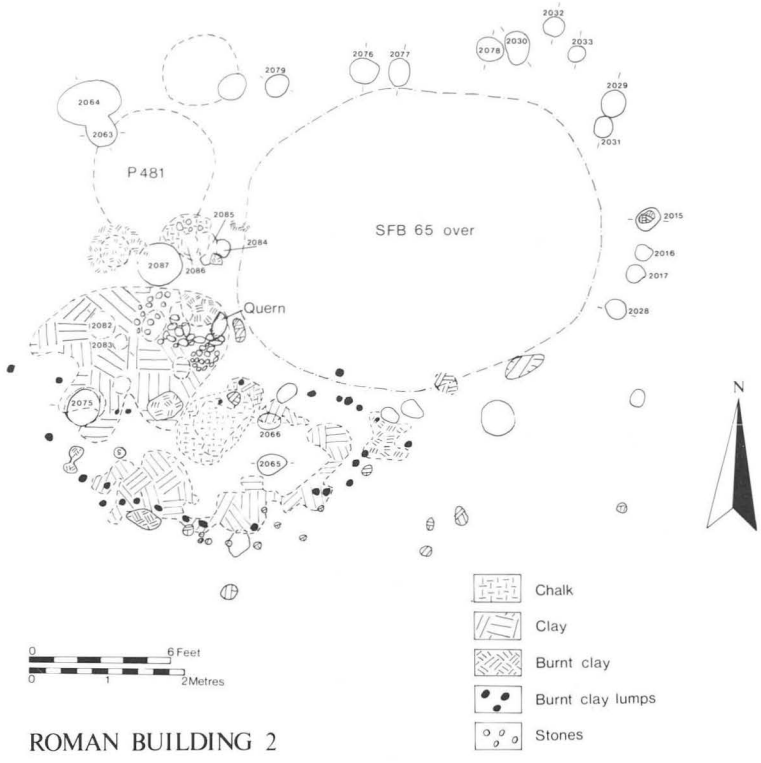
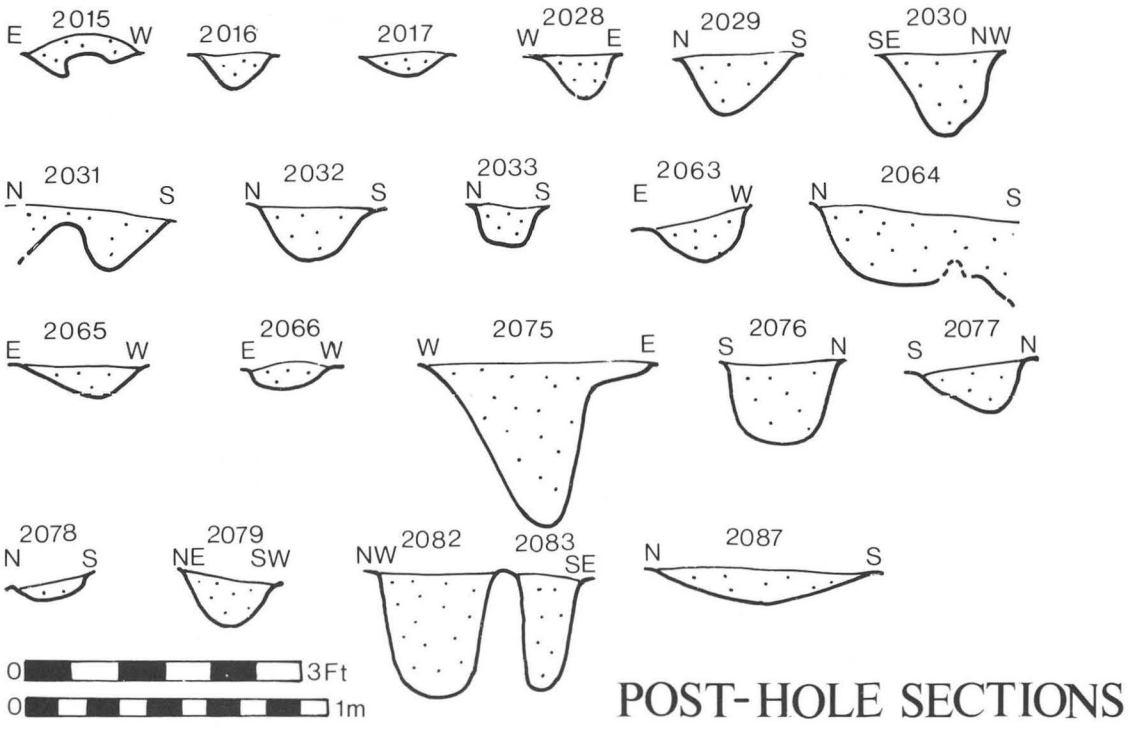


Figure 31 Romano-British: plan of Building I. Scale 1:100



ROMAN BUILDING 2



POST-HOLE SECTIONS

Figure 32 Romano-British: plan of Building 2 (Scale 1:100) and post-hole sections (Scale 1:25)

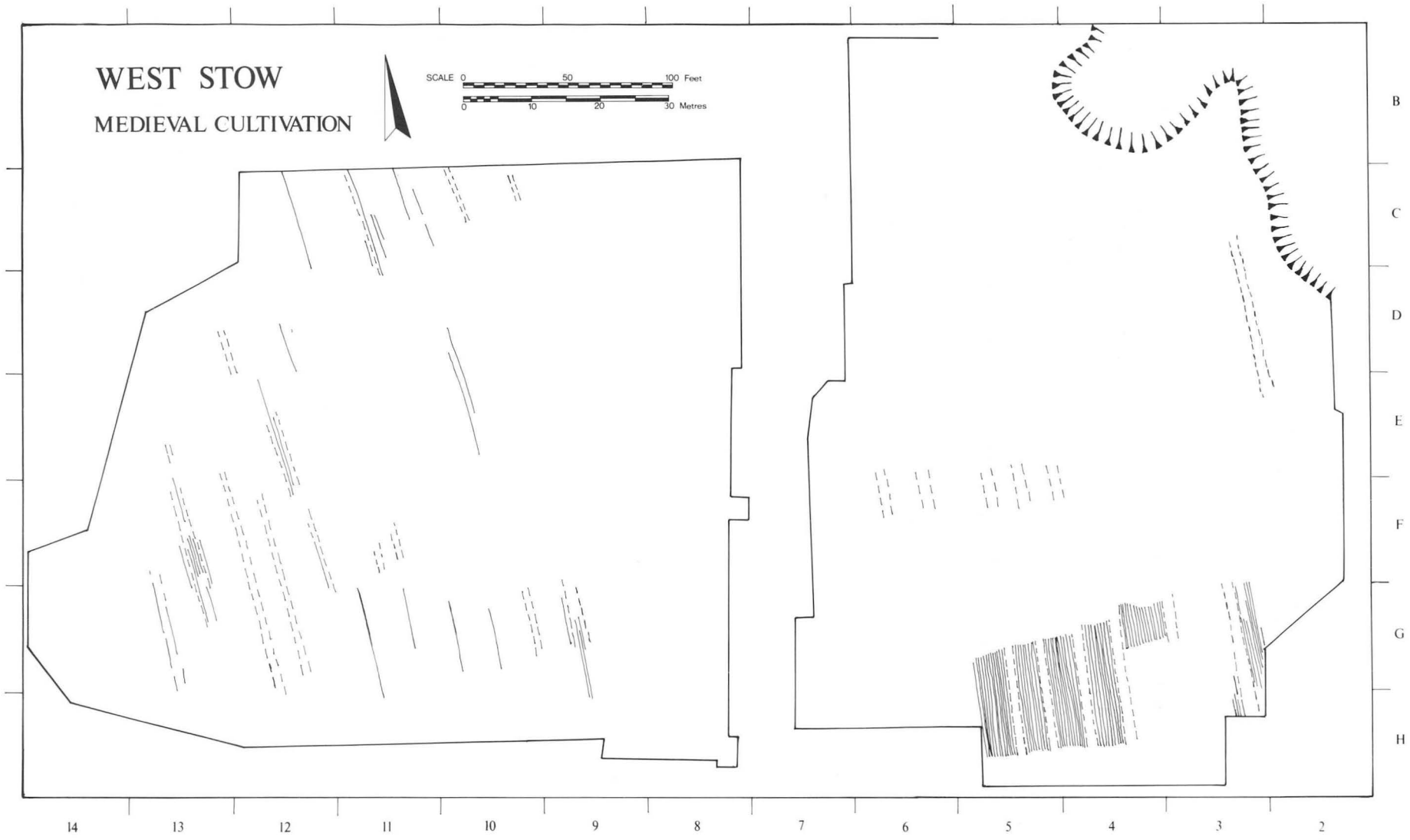


Figure 33 Medieval cultivation: traces of ridge and furrow below blown sand

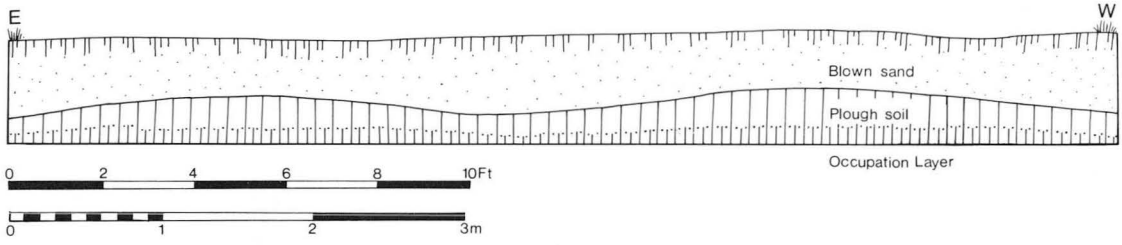


Figure 34 Medieval cultivation: section of ridge and furrow. Scale 1:50

Part 3. The Artefacts

I. The Prehistoric Flint and Stone Assemblage

by E.J.Pieksma and Julie Gardiner

Introduction

A draft flint report was prepared in 1977 by Elizabeth Pieksma. Subsequent lithic research has shown that some of the basic assumptions about this material were incorrect. However, this fact did not become apparent until the report was submitted for publication, at which stage there was not time for a re-examination of the 21,000 flints involved. The report which follows is based on identifications and metrical analyses by Elizabeth Pieksma, edited, and with a short discussion appended, by Julie Gardiner. It should be noted that no overall quantification of the assemblage was provided by the original report and that artefacts occasionally referred to in original tables were not identified in the report itself. Discussion of the composition of the collection has therefore been kept to a minimum.

A total of 20,795 struck flints were recovered, of which 395 (*c.*2.0%) were classified as cores by Pieksma, and 195 (<1.0%) as implements. Three stone implements were also recovered. The material is well spread all across the site (see Fig. 5), occurring throughout the general layer (L.2) and in a variety of later features, with a number of small concentrations of waste material identified (see Fig. 44, below). Later Mesolithic and later Neolithic/Early Bronze Age (LNEBA) activity is indicated, though the material has become thoroughly mixed due to intense later activity on the site and natural agencies, such as weathering and sand-blow (see Chapter 1). The basic composition of the assemblage, based on Pieksma's identifications is given in Table 12.

Waste and unretouched material		
Cores	395	
unretouched flakes and other waste	20201*	
Microburins	4	
Axe sharpening flake	1	
Total waste	*20601*	
Implements		
Microliths	102	
Gravers	5	
Polished axes	1	+ 1 reused frag.
Flaked axe fragments	3	
Miniature axes	2	
?Pick	1	
Transverse arrowheads	18	
Oblique arrowheads	5	
Barbed and tanged arrowhead	1	
Arrowhead fragments	3	
Polished discoidal knife	1	
Fabricators	5	
Scrapers	43	
Pebble macehead	1	
Stone axe fragment	1	
Stone bead	1	
Total implements	*194-7*	

* This figure arrived at by subtracting identified pieces from the total.

Table 12 Flint: composition of the assemblage.

Waste material

Cores (Table 13)

Pieksma's only observation on the nature of the raw material was that much of the material was small and of grey, grey-brown or dark-brown flint. The general size of the complete flakes (see Tables 14-15, below) is certainly very small though there is no indication of the size/weight of cores. In only one or two instances (for example, the discoidal knife and the barbed and tanged arrowhead, see below) is there any indication given of possibly imported flint. The bulk of the raw material used was probably either the local gravel pebble flint or, more likely, weathered flint present in the chalk-derived soils close to the site.

Cores were widely scattered across the site with only one notable concentration, in grid squares WG.12 and 13, where they are associated with concentrations of waste material and 45% of the recovered microliths.

The core classification given in Table 13 is based on that used by Clark and Higgs (1960, 216) at Hurst Fen, Mildenhall. Over 30% of recovered cores are fragmentary, a few are on flakes and a small proportion reused. Core rejuvenation flakes are apparently rare (three examples). Of the classifiable cores, roughly equal proportions belong to Clark and Higgs' classes A and B (40.1% and 40.6% respectively). In addition there are two LNEBA 'tortoise' cores, both of which came from the black layer (L.2) of Pit 330, within the ring-ditch (D.115).

Unretouched material (Table 15 and 16)

A number of metrical analyses were undertaken on unretouched material. These analyses were, however, carried out for specific groups of material identified as 'concentrations' and not for the entire collection. Analysis of debitage from five larger concentrations, and from the ring-ditch (D.115) and P.330 illustrate the predominantly later Mesolithic character of the collection as a whole, with large proportions of small, narrow flakes (breadth/length ratio of 2:5 or less) and bladelike flakes occurring in each group. Concentration F.160, in WC/WD.3, has a much lower proportion of blades than the other groups (Tables 14 and 15).

On average, the concentrations include 21% blades, whilst debitage from P.330 and D.115 include rather less (av. =15.5%). Broad flakes (B/L ratio (>5:5), by comparison, are slightly more frequent amongst the latter two groups (av. =23.5% against 17.6%). These differences are not very significant but may hint at a greater LNEBA presence amongst flintwork in the vicinity of the ring-ditch than elsewhere on the site (see discussion, below).

Pieksma also noted the frequency of small fragments of 'core waste' (*i.e.* chips and spalls which may have resulted from the trimming of core platforms prior to blade removal) and 'waste' or broken and burnt fragments and chunks. It should be borne in mind that no sieving was undertaken and, therefore, that numbers of these items may be meaningless, but it may be of interest to note that a much larger number of 'waste' pieces were recovered from concentration F.134 (WD.10) than from any of the other concentrations (see discussion, below).

Context	Class A Ai	Class A Aii	Class B Bi	Class B Bii	Class B Biii	3 or more Platforms	Tortoise Core	Core on Flake	Frag-mentary	Retouched	CRF	Total
Flint concentrations and Neolithic features												
F. 117, WG. 11		1							1			2
F. 134, WD. 10		4	2	1	1				2	1	1	12
F. 135, WG. 12					2			1	1			9
F. 136, WG. 12								1	2			3
F. 148, WG. 12	2	13	6	4	5	4		1	15			50
F. 150/153/157, WG. 13		3	1	3	1	5			7	1		21
F. 154, WG. 13				1	1	1					1	4
F. 160, WC. 3		2							1			3
P. 330, WF. 11							2		1			3
D. 115, WF. 11		10		2	3				15	1		31
Later features and Layer 2												
Features	2							1	1	1		5
Post-holes					1	3		2				6
Pits		3	5	7	2	3			18	2		40
SFBs	3	7	2	4	3	2			9	4	1	35
Ditches	2	32	8	14	7	5		10	38	10		126
Layer 2	3	11	5	6	2	4		2	12			45
Total	12	86	29	42	28	27	2	18	127	21	3	395

Table 13 Flint: core classification.

Context	Obliquely blunted points	Geometrics	Rods	Microburins	Total
F. 134, WG. 10	2	7	5	4	18
F. 148, WG. 12	3	1	17		21
F. 150, WG. 13	4		20		24
F. 154, WG. 13	2				2
General	15*	11	15		41
Total	26	19	57	4	106

* Four are double-sided.

Table 14 Flint: Classification of microliths.

Implements

Microliths (Fig. 35; Table 14)

A total of 102 microliths was recovered from the site, sixty-five (64%) from four major concentrations of flint-working debris, and a further forty-one (36%) from later features and the general Layer 2. An analysis of microlith types is given in Table 16, based on Clark's (1955) classification of microliths from Shippea Hill. Of these, the most frequent types are rods (56%), followed by obliquely blunted points (25%), and geometric forms including scalene triangles (19%), five of which are retouched on three edges. One of the obliquely blunted points has basal retouch (Fig. 35, No. 15). The composition of the microlithic assemblage indicates a fairly late Mesolithic date for the bulk of the industry.

In addition to the microliths four microburins are recorded (Fig. 35, Nos 18-20).

(Fig. 35)

Obliquely blunted points

1. Clark type 1a. Grey flint. *SF.1662 WE.10*
2. Clark type 1a. White flint. *Concentration F.150, WG.13*
3. Clark type 1a. Pale grey flint. *SF.964, SFB.38, WH.8*
4. Clark type 1a. Pale grey flint, doubled-ended. *SF.958, WF.8*
5. Clark type 1a. Grey flint, double-ended. *WG.8*
6. Clark type 1b. Dark grey flint. *SF.1467, WD.9*
7. Clark type 1b. Dark grey flint. *SF.1677, WF.10*

Rods

8. Clark type 2a. Dark grey flint, double sided. *SF.961, SFB.37, WG.9*
9. Clark type 2a. Dark grey flint, double-sided. *SF.1639, WG.3*
10. Clark type 2a. Grey flint. *SF.1666, WE.11*
11. Clark type 2a. Grey flint, double-sided. *SF.1468, WG.10*
12. Clark type 2a. Dark grey flint, double-sided. *SF.1573, unstratified*
13. Clark type 2a. Dark grey flint, double sided. *SF.1635, WG.3*
14. Clark type 2b. Grey flint. *SF.166, WE.5*

Point with basal retouch

15. Clark type 3ai. Dark grey flint. *SF.878, WF.8*

Scalene piece

16. Clark type 4b. Grey flint, trimmed on two edges. *SF.1484, WD.10*

Axe-sharpening flake

17. Grey mottled flint. *Concentration F.150, WG.13*

Microburins

18. Pale grey flint. *WD.10*
19. Grey flint. *WD.10*
20. Grey flint. *WD.10*

Gravers (not illustrated)

One of the tables in the draft report records five gravers, one manufactured from a core rejuvenation flake.

Pebble macehead (Fig. 36)

A quartzite macehead with hour-glass perforation was recovered from an Anglo-Saxon SFB. It is probably Mesolithic in date.

(Fig. 36)

21. Quartzite, with hour-glass perforation. *SF.971, SFB.37, WG.9*

Axes (Figs 35, 37)

One broken polished flint axe (Fig. 37, No. 22) was recovered and a flake from another which had been reworked into a scraper. Figure 37, Numbers 23 and 25 are miniature axe forms, the former rather crudely worked but with a small patch of polish near the cutting edge (not shown on illustration). It may have been worked down from a larger polished example. Number 25 is a finely flaked example and Pieksma made special note of its white patination. Three other fragments of flaked axes are recorded.

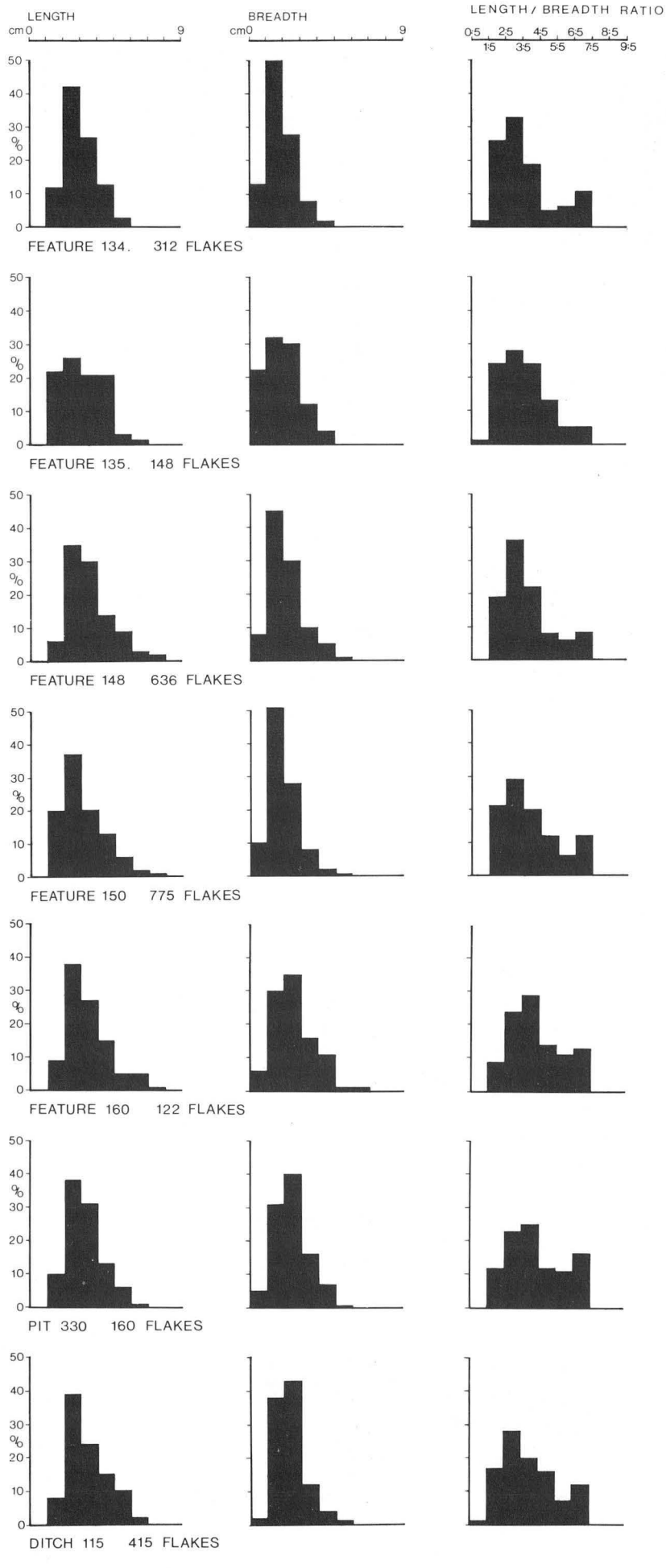


Table 15 /16
West Stow flint flakes:
length, breadths and length/breadth ratio.

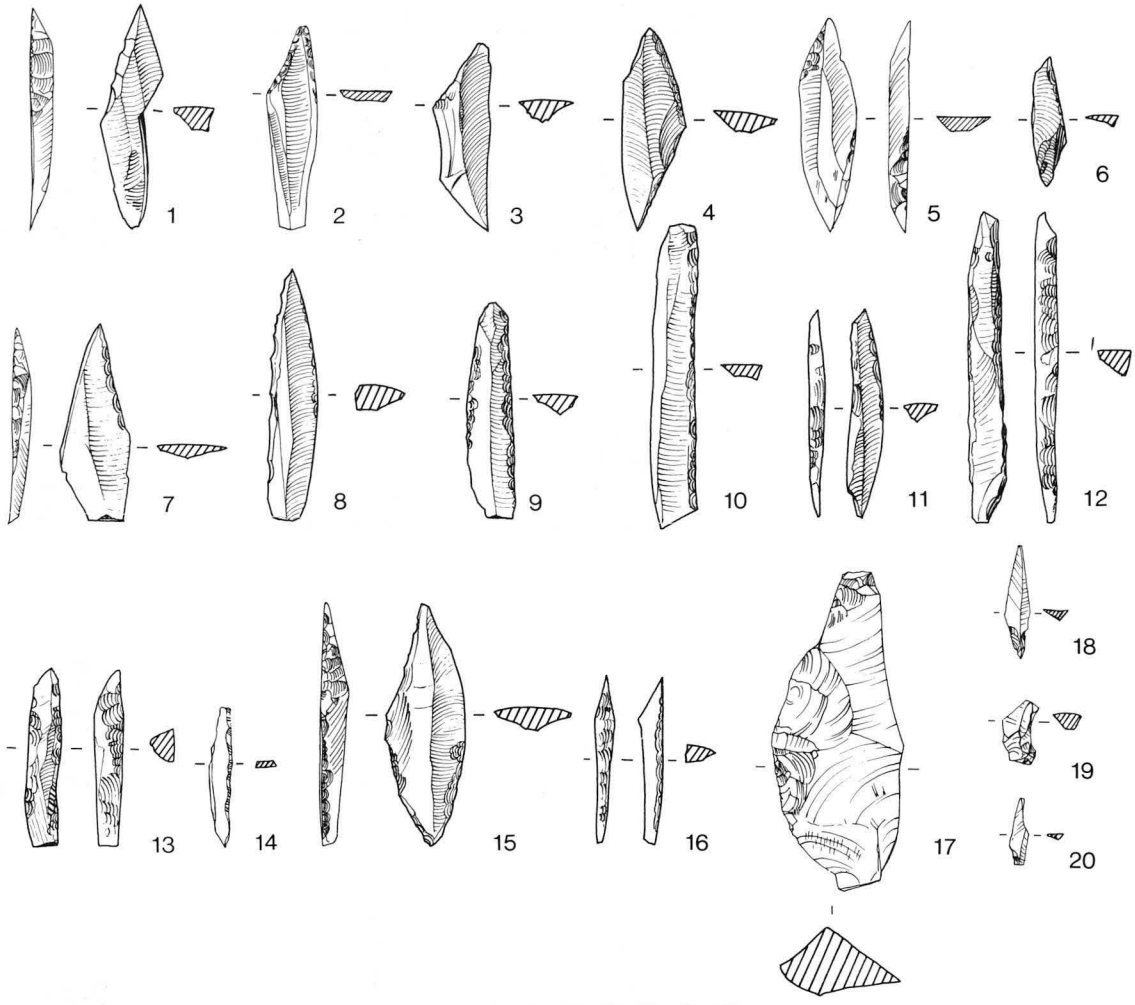


Figure 35 Flint: microliths. Scale 1:1

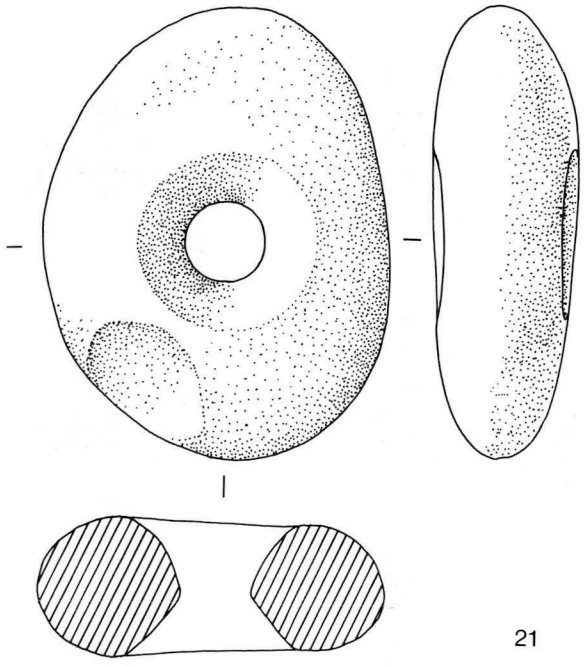


Figure 36 Quartzite pebble macehead. Scale 1:1

One axe-sharpening flake (Fig. 35, No. 17) was also recovered from flint concentration F.150 (WG.13) as well as two joining fragments of a core tool, probably a pick (unstratified).

A broken, pecked stone axe (Fig. 36, No. 24) was recovered from the fill of SFB.18. It is of ungrouped Cornish Greenstone (Clough and Green 1972, S81).

(Fig. 37)

22. **Polished axe.** Middle portion of a long, narrow axe in pale grey patinated flint. Finely polished flake scars almost entirely removed, and sides faceted. *SF.1285, WF.4, Layer 2*
23. **Miniature axe** in pale grey flint with area of polishing on one face near the cutting edge. Possibly reworked from larger form *SF.377, WE.4, Layer 2*

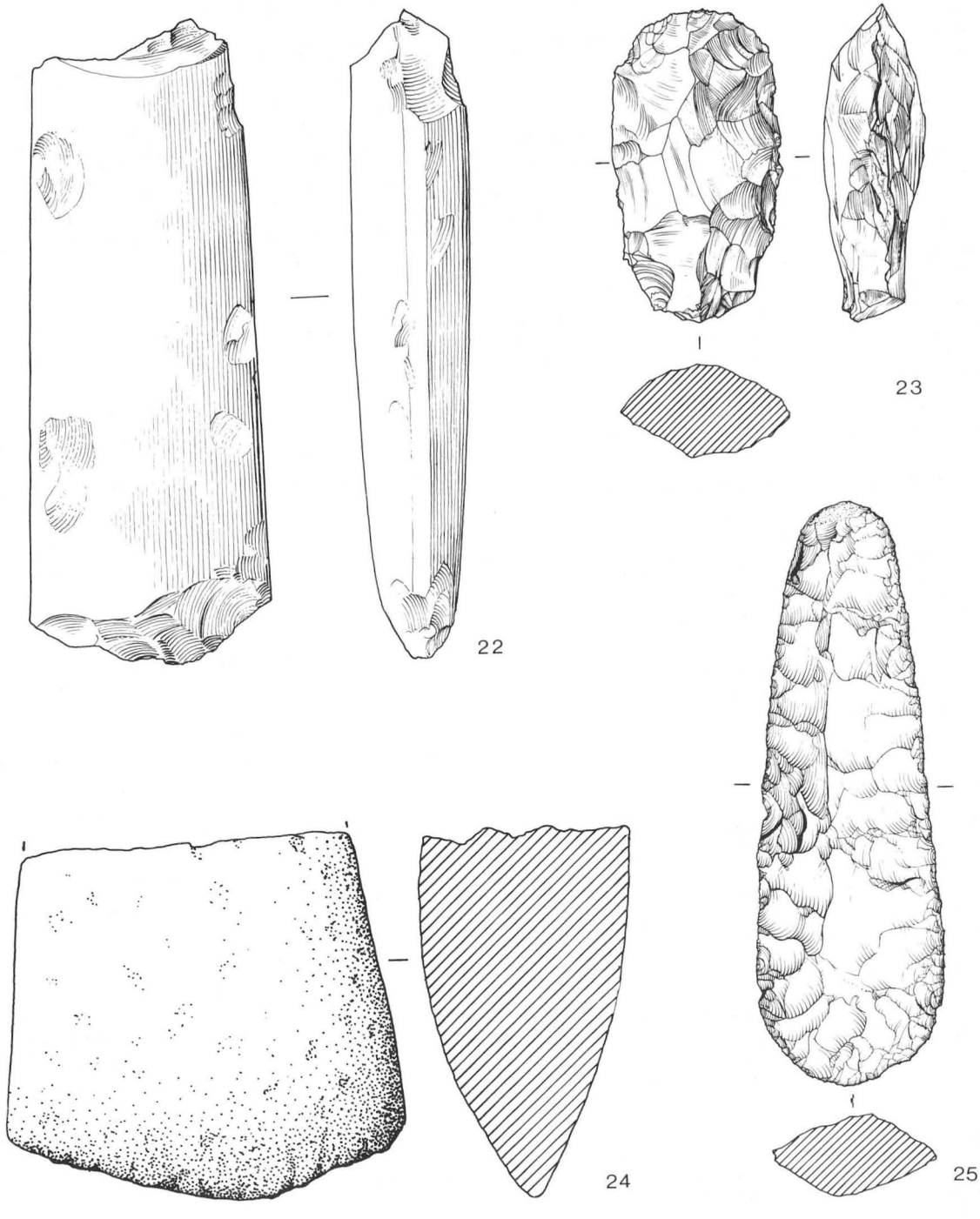


Figure 37 Flint: axes. Scale 1:1

24. **Stone axe**. Blade only. Ungrouped Cornish Greenstone (Clough and Green 1972, 151; No. S81). *SF.572, WF. 4, fill of SFB.18 (West 1985, fig. 82.5)*
25. **Miniature axe**, flaked both sides, white patination. *SF.3149, WA. 5, SFB.31 (West 1985, fig. 118.5)*

Arrowheads (Figs 38-40, 42)

Twenty-four arrowheads are recorded, of which twenty-three are Late Neolithic chisel and oblique forms. Of these, the majority are chisel types conforming to Clark's (1934) Classes A-F. The ratio of chisel to oblique forms is 3.6:1 and several appear to be unfinished. The chisel arrowheads include several large and/or elaborate types (*e.g.* Fig. 39, Nos 38 and 40; Fig. 40, No. 39; No. 54) and one (Fig. 40, No. 39) has some polish along the cutting edge, though it is not clear if this results from deliberate polishing of the arrowhead or from the use of a flake taken from a polished implement.

Two chisel and one oblique arrowhead came from P.330, which also produced the two 'tortoise' cores (Fig. 42).

A single large barbed and tanged arrowhead was recovered from Layer 2 in WE.6. The artefact is finely worked with a long tapering point and short tang. Both the barbs are broken. It appears to be of Green's Ballyclare C type (Green 1980, 128; fig. 44) and is, therefore, worthy of note as these types are uncommon in East Anglia (Green 1980, fig. 48; table vi.3).

In addition to the complete arrowheads, three small bifacially retouched fragments may be broken arrowhead tangs (not illustrated).

(Fig. 38)
26. **Chisel arrowhead**. Class C1. Grey-blue flint, patch of cortex remaining. *SF.1127, WF.8, Layer 2*
27. **Chisel arrowhead**. Class C1. Pale grey flint. *SF.1670, WG.11, D.2*
28. **Chisel arrowhead**. Class C1. Grey flint, possibly unfinished. *SF.2226, WG.10, D.166*
29. **Chisel arrowhead**. Class C1. Grey flint, on hinge fractured flake. *SF.2224, WD.4, Hollow 1*
30. **Chisel arrowhead**. Class D. Dark grey flint. *SF.1678, WD.11, unstratified*
31. **Chisel arrowhead**. Class D. Dark grey flint. *SF.2223, WE.9, Layer 2*
32. **Chisel arrowhead**. Class D. Grey flint with cherty inclusions, ?unfinished. *SF.2222, unstratified*
33. **Chisel arrowhead**. Class D. Black flint. *SF.1746, WG.10, D.215*
34. **Chisel arrowhead**. Class D. Grey flint. *SF.1627, WG.10/11, D.176*

(Fig. 39)
35. **Chisel arrowhead**. Class D. Grey flint. *SF.2225, WG.11, P.374*
36. **Chisel arrowhead**. Class D. Grey flint, large. *SF.1741, WF.11, P.341*
37. **Chisel arrowhead**. Class D. Mottled grey flint with broken tang. *SF.1688, WF.10, P.298*
38. **Chisel arrowhead**. Class F. Mottled grey flint. *SF.1624, WG.10, Layer 2*
39. **Chisel arrowhead**. Class F. Dark grey flint. Main cutting edge damaged but the surviving portion has a polished edge. *SF.2173, WG.13, Layer 2*
40. **Chisel arrowhead**. Class E. Grey flint. *SF.1463, WE.9, D.2*
41. **Oblique arrowhead**. Class G. Dark grey unpatinated flint. *SF.1351, WB.6, Layer 2*
42. **Oblique arrowhead**. ?Class G. Grey flint, unfinished or badly damaged. *SF.705, WE.3, Layer 2*

(Fig. 40)
43. **Oblique arrowhead**. Class H. Pale grey flint. *SF.1094, WB.7, Layer 2*
44. **Oblique arrowhead**. Class H. Grey flint.*SF.1668, WE.10, P.288*
45. Unclassified. Grey flint. *SF.1751, WG.10, Layer 2*
46. **Barbed and tanged arrowhead**. Ballyclare C type with barbs broken off. *SF.63, WE.6, Layer 2*

Discoidal knife (Fig. 41, No. 47)

A circular discoidal knife was recovered from Layer 2 in WG.8. Pieksma describes this artefact as being manufactured from grey-black flint with extensive polishing on one face and polished flake scars on the other. This is not shown on the illustration (Fig. 41, No. 47). It is unlikely to have been manufactured from flint available in the immediate vicinity and may originate from Grimes Graves, Norfolk (Saville 1981, 56).

(Fig. 41)
47. **Polished discoidal knife**. Grey-black flint. *SF.925, WG.8, Layer 2*

Scrapers (Fig. 41, Nos 48 and 49)

Pieksma comments that forty-three scrapers were recovered from the site. Of these, twenty-two are from features of Iron Age, Romano-British or Anglo-Saxon date, thirteen are unlocated from Layer 2 and nine are located by grid square and are widely dispersed across the site. This is an extremely low number for such a large collection. The two examples illustrated are both long end-scrapers with fairly steep retouch.

(Fig. 41)
48. **Long end-scraper**. Dense grey flint. *SF.1092, WB.6, Layer 2*
49. **Long end-scraper**. Grey worked flint. *SF.3154, WB.5, Hall 7*

Fabricators (Fig. 42, No. 52)

Five fabricators are recorded, four of them broken. One showed heavy battering on one end. These could belong with either the Mesolithic or the LNEBA activity on the site. Only one is marked on Figure 44.

The flints and stone bead from P.330 and D.115 (Fig. 42)
50. **'Tortoise' core**. Pale grey flint with one broad flake removed. *P.330*
51. **'Tortoise' core**. Pale grey flint with one broad flake removed. *P.330*
52. Broken **fabricator**. *SF.1633, D.115*
53. **Chisel arrowhead**. Class D. Pale grey flint. *SF.1632, D.115*
54. *(Not illus.).* **Chisel arrowhead**. Class D. Mottled grey-brown flint. An exceptionally large specimen. *Iron Age P.341, but probably derived from D.115 into which the pit is cut*
55. **Oblique arrowhead**. Class G. *SF. 1740, D.115, top fill*
56. **Stone bead**, stone not identifed. *SF.1702, WF.11, P.330, with primary burial*

Discussion

(Figs 43 and 44)

by Julie Gardiner

The Prehistoric flint assemblage from West Stow represents at least two periods of activity, during the later Mesolithic and Late Neolithic/Early Bronze Age. The nature of those activities is, however, rather different.

Later Mesolithic (Fig. 43)

Figure 5 showed that flintwork was spread over much of the excavated area but with a particular emphasis on the highest part of the knoll, in grid squares WG.11-13, just south of the ring-ditch. A number of concentrations were identified during the excavation within that general spread. These were generally very small and discreet (Table 1, above).

Some 52% of microliths were recovered from grid squares WG.12 and 13, both from the flint concentrations and as individual finds. Concentrations F.72-4, in WG.9

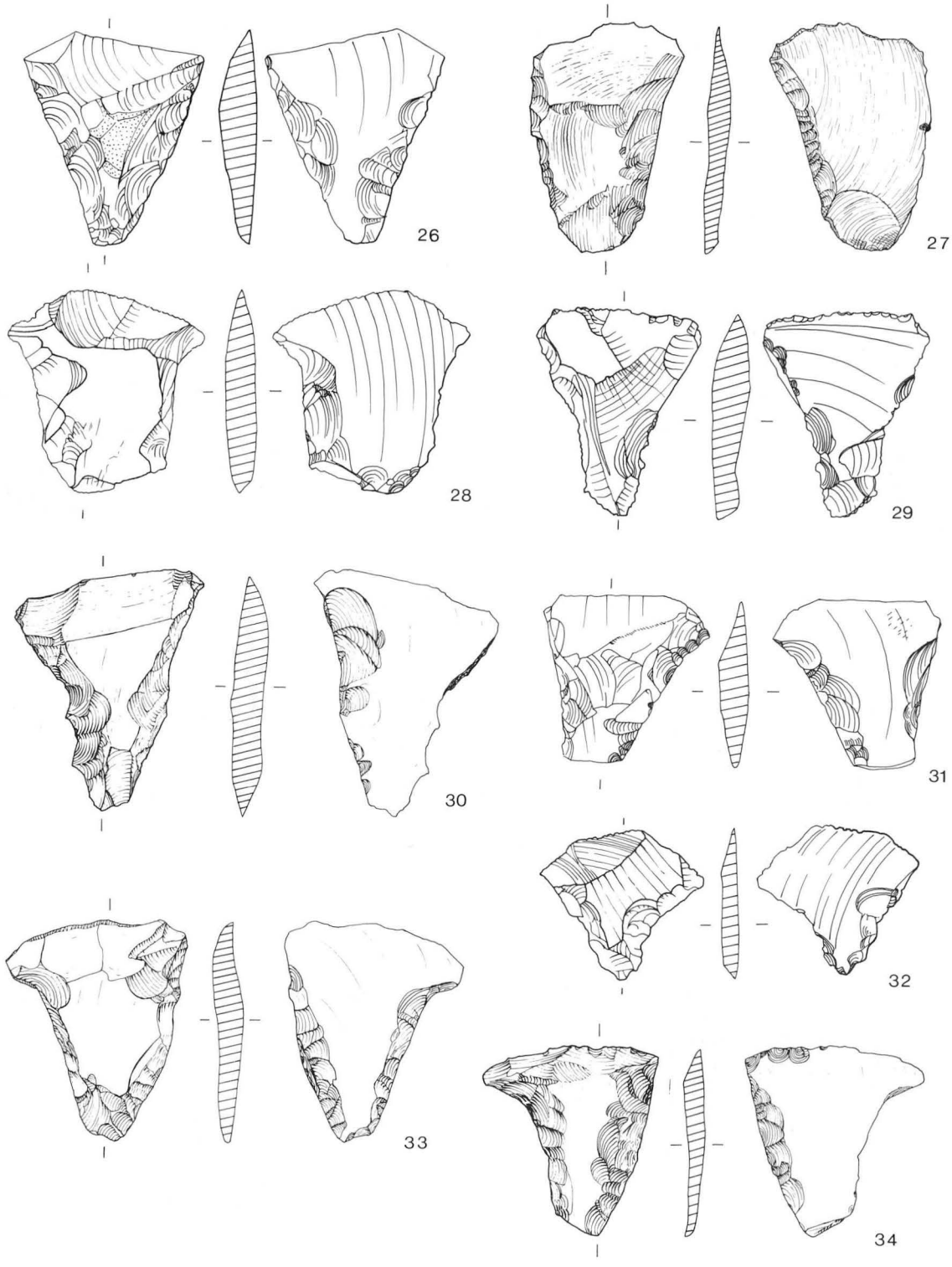


Figure 38 Flint: transverse arrowheads. Scale 1:1

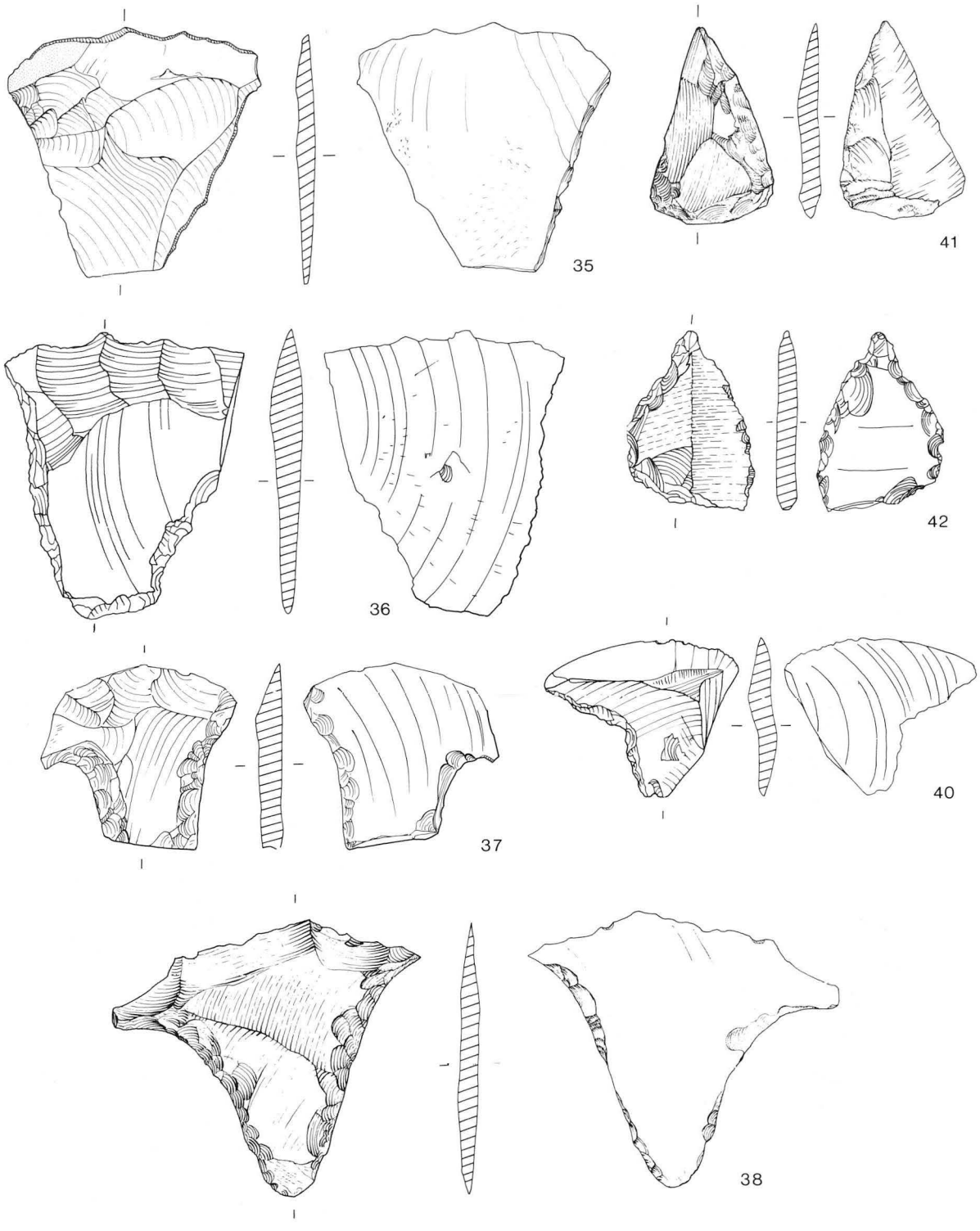


Figure 39 Flint: transverse arrowheads. Scale 1:1

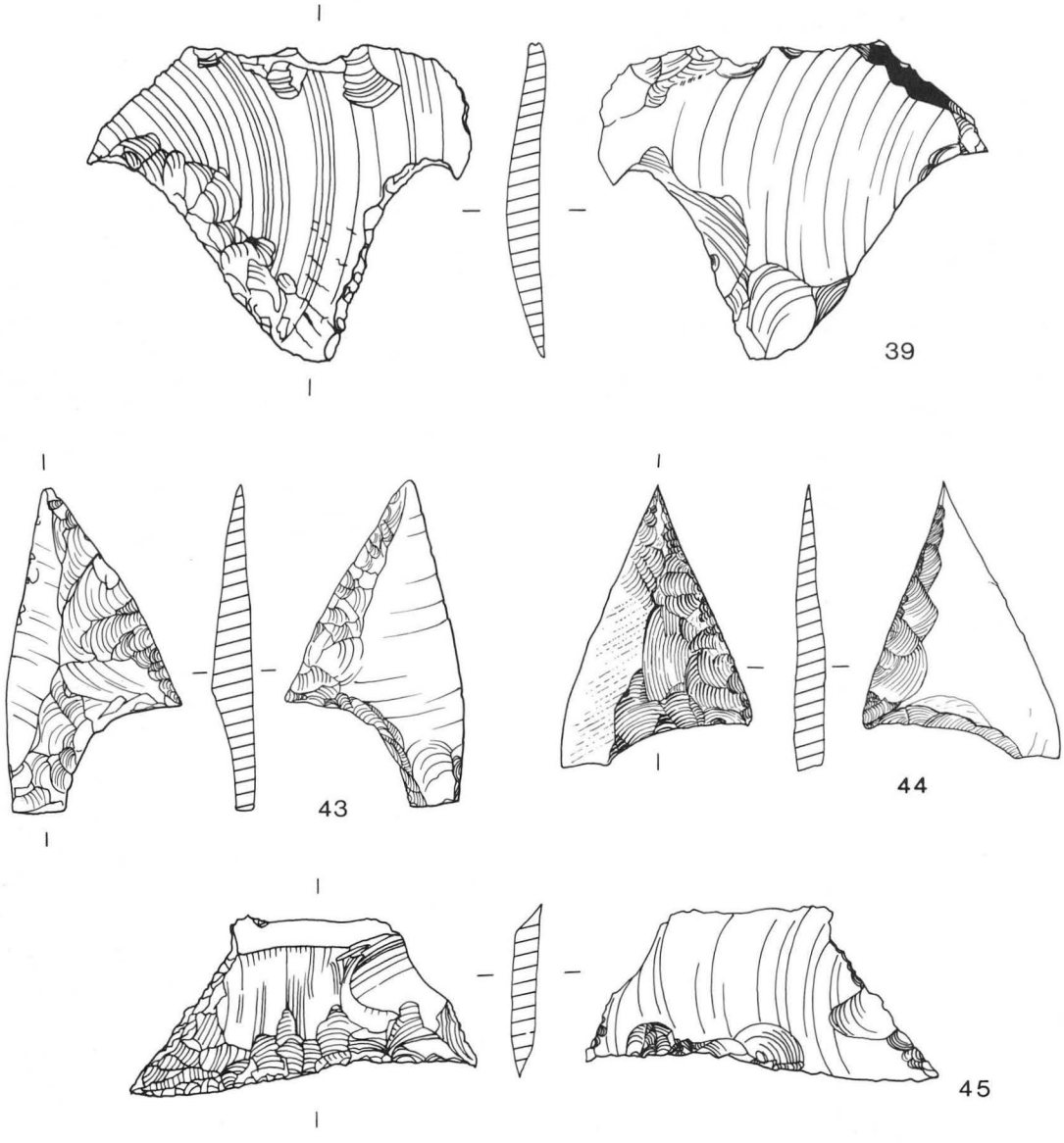


Figure 40 Flint: transverse and barbed and tanged arrowheads. Scale 1:1

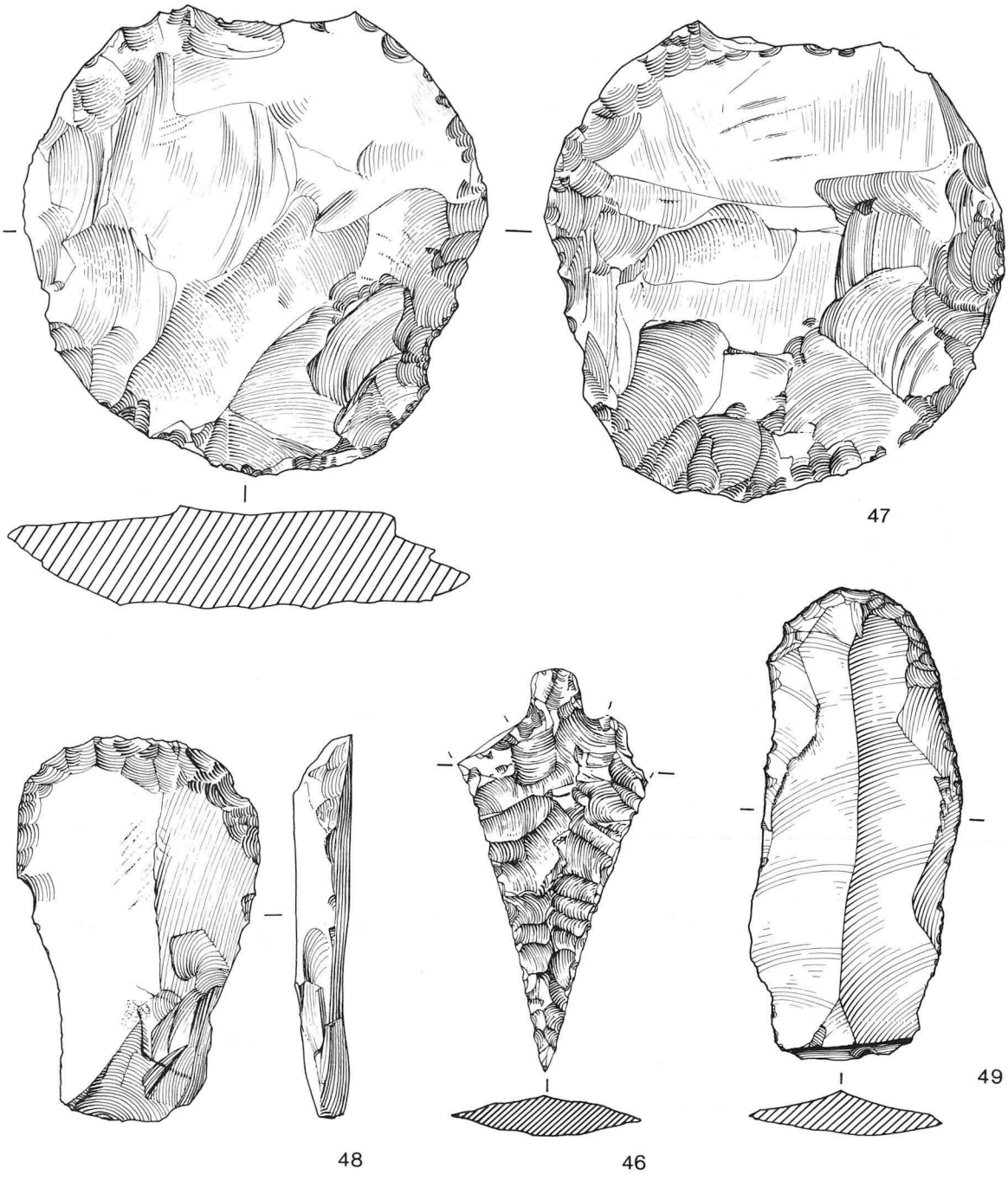


Figure 41 Flint: discoidal knife (No. 47) and scrapers (Nos 48 and 49). Scale 1:1

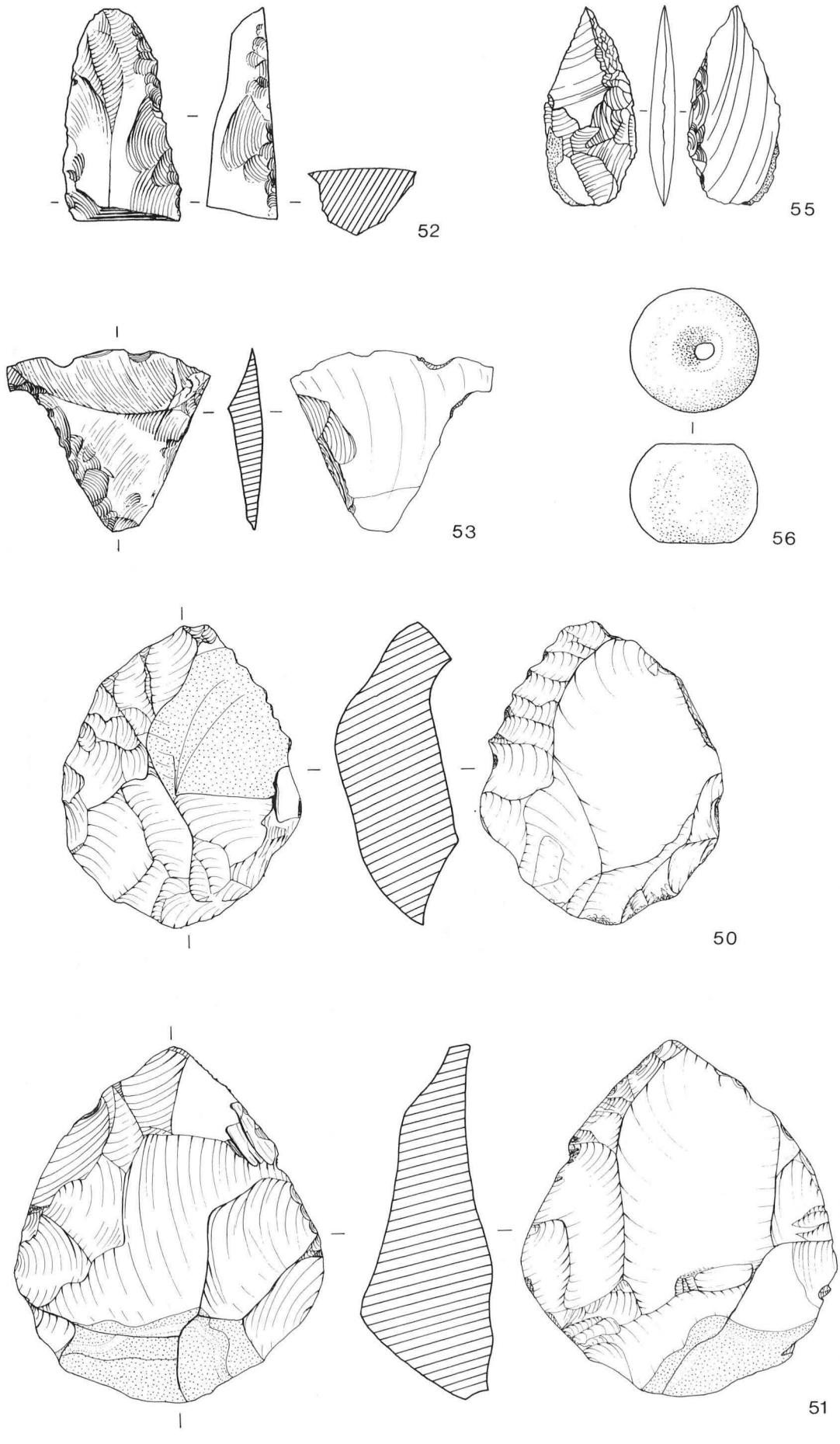


Figure 42 Flint implements and stone bead from Pit 330. Scale 1:1

WEST STOW

Flint Concentrations and Mesolithic Tools

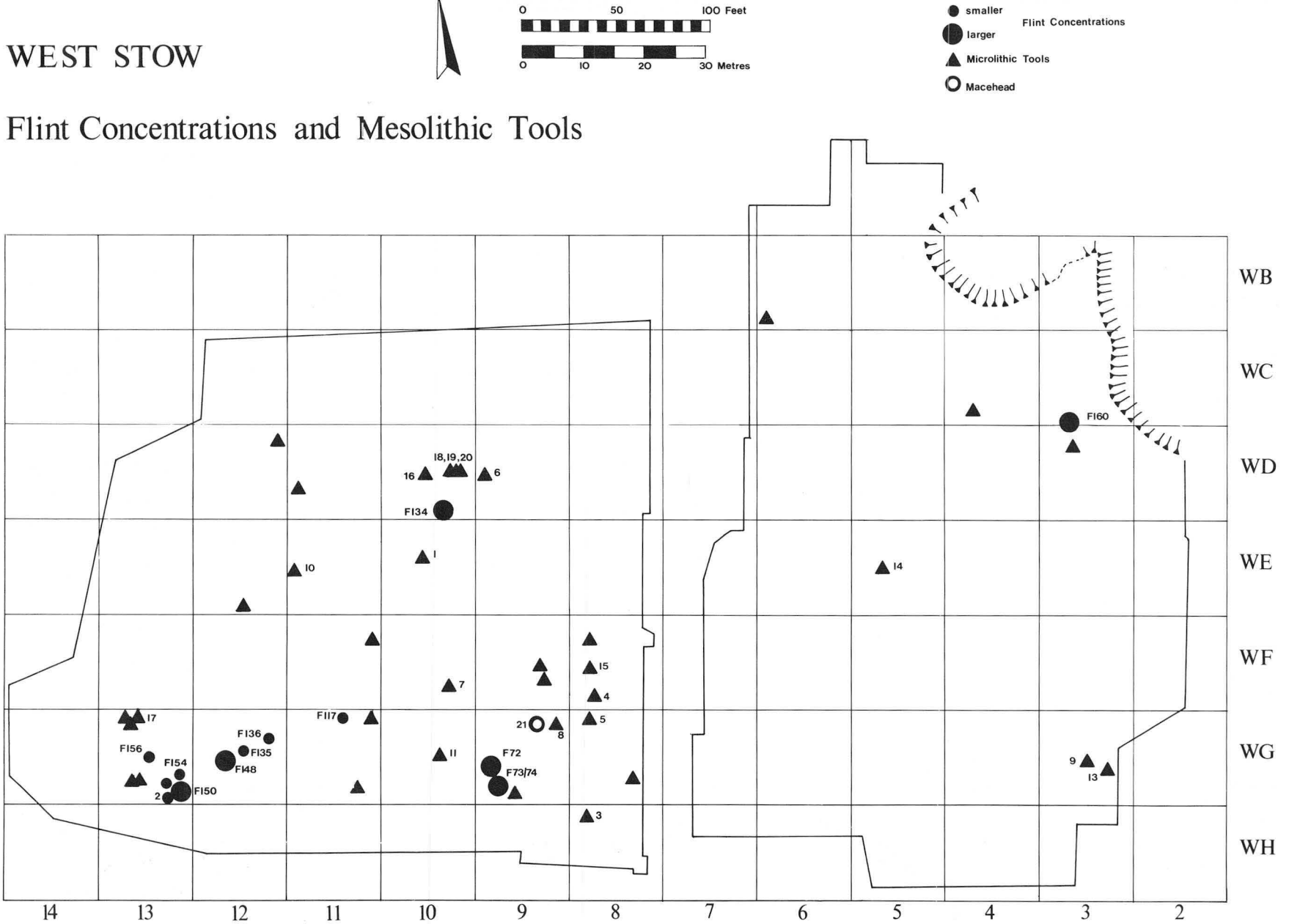


Figure 43 Flint: distribution of flint concentrations and Mesolithic tools.

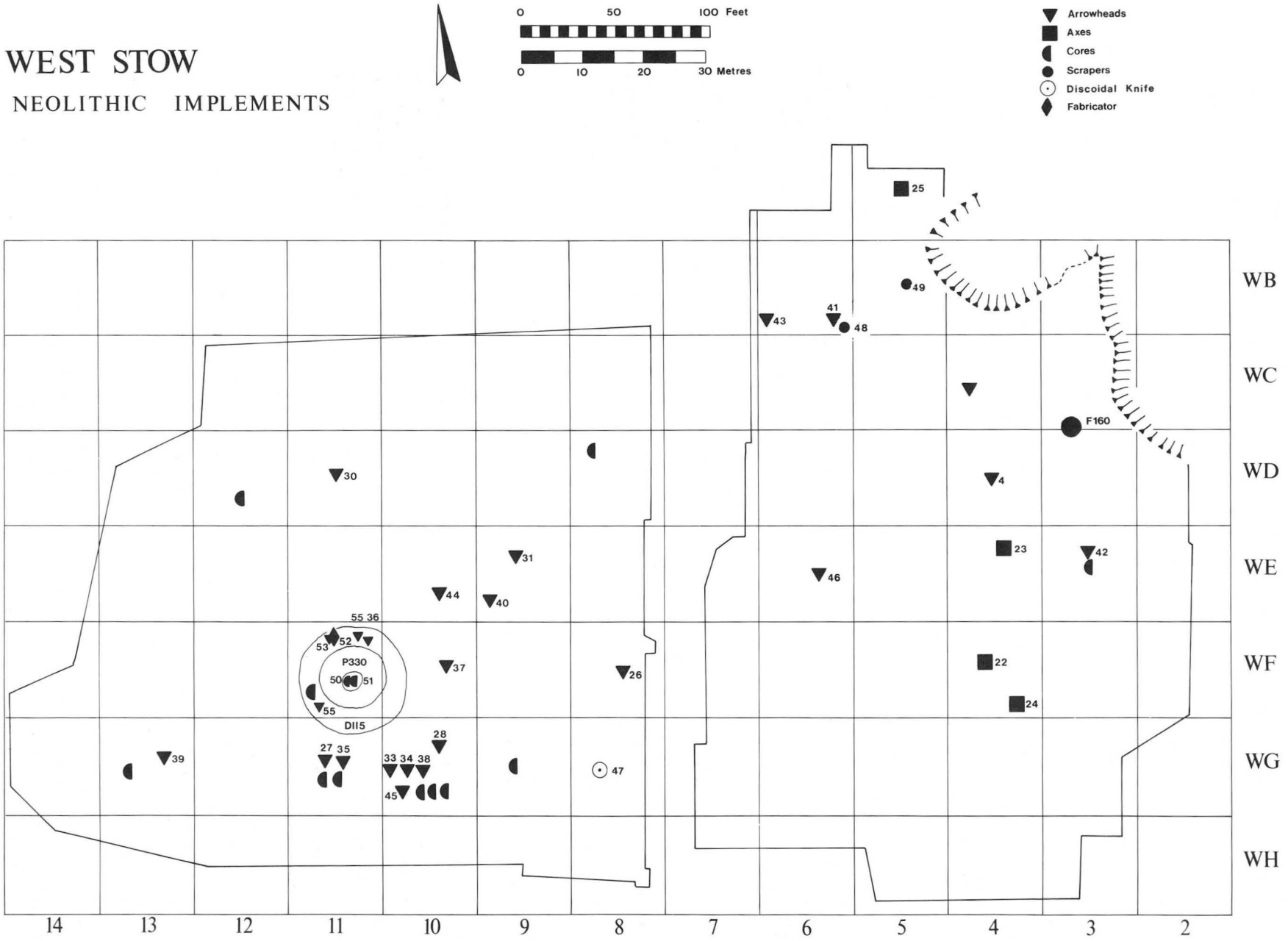


Figure 44 Flint: distribution of Neolithic implements

did not include any microliths though there is a general scatter of these artefacts in and around this grid square. WD.10, which contained F.134, produced a further 22.5% of microliths. The eastern half of the site, though it did produce a few implements and one concentration (F.160, WC.3), seems to have witnessed much less intensive activity at this time.

None of the flint concentrations were associated with any traces of burning, other than a few burnt flints which might not be contemporary, or with charcoal or any other indication of hearths. Several did, however, provide some evidence for *in situ* flint knapping; F.134 in particular. This concentration included a relatively large number of small, narrow blades, large quantities of core chippings and flint spalls, twelve cores, some irregular waste, a core rejuvenation flake and four microburins, as well as finished microliths. Flint concentrations in WG.12-13 produced over 1500 blades and flakes, waste material, gravers, 20% of cores (others came from later features in the same area) and core chippings, in addition to microliths.

Although the material has been much disturbed by later activity and wind erosion it seems likely that, amongst what is now a general spread of material, there were at least three major foci of later Mesolithic flintwork. Two of these seem to have resulted, at least in part, from flint knapping but the other, centred probably in grid square WG.9 (Fig. 43) has been too disturbed by Saxon features for further comment.

Later Neolithic/Early Bronze Age (Fig. 44)

There is a problem in interpreting the later flintwork from this site. The selective nature of the metrical analyses, and the lack of a detailed metrical record of cores and scrapers make it very difficult to determine just what proportion of the total assemblage is likely to be LNEBA in date. It is clear, however, that this is not a normal domestic assemblage.

The distribution of most LNEBA or possibly LNEBA tools is shown in Figure 44. Again there is a general spread of artefacts but the main concentration, particularly of arrowheads, is firmly in the area around the ring-ditch. The spread of material in the eastern half of the site is much thinner though it is interesting to note that all the axe fragments are from this area, in contrast to the distribution of arrowheads. Only two diagnostically LNEBA cores were identified by Pieksma. These are both 'tortoise' cores of the type generally accepted to be associated with the manufacture of transverse and oblique arrowheads, and both came from P.330 in the centre of the ring-ditch.

The range of tool forms is very restricted-arrowheads and arrowhead cores, axe fragments and a discoidal knife. All other artefacts shown on Figure 44 could as easily belong with the Mesolithic assemblage as with the later material. In addition to the restricted *range* of forms, it is also noticeable that the majority of diagnostic pieces are either elaborate or imported. The discoidal knife is likely to have been manufactured at Grimes Graves, Norfolk; the stone axe is certainly an import and the Ballyclere-type barbed and tanged arrowhead possibly so (see Green 1980, chapter 6). The arrowheads include a number of elaborate forms and the miniature axe (No. 25), though not unusual in an assemblage of this date, is a particularly fine example.

The Breckland has produced abundant evidence for LNEBA activity in the form of vast spreads of surface flintwork (Healy 1984, 126-7 and in prep.). Much of this material is clearly of a domestic nature, with a wide range of tool forms present, and of typical LNEBA character, based on the production and use of broad squat flakes. Some of these spreads are associated with pottery-Peterborough Wares, Grooved Ware or Beaker and occasionally with features but the majority of evidence, as in other parts of the country, is in the form of unasssociated, surface collected material. Dr Alan Sturge is a particularly important figure in the area, having retired to Icklingham, near Mildenhall, from where he continued to amass his vast collection of flint artefacts.

The West Stow assemblage stands out from this material, not only because of the apparently small LNEBA component overall in the excavated assemblage, but also in the restricted range and particular types of tools recovered. The number of recorded scrapers is unusually low for an industry which is generally dominated by them, and there is a corresponding lack of simple edge-retouched pieces or other simple tools. On the other hand, the high proportion of arrowheads and elaborateness of the diagnostic pieces generally is strongly suggestive of something other than domestic activity. The assemblage is strongly biased towards a narrow range of specialised implements and some which could happily be classified as prestige items.

The most likely explanation of this situation is that the flint assemblage is closely linked with activities associated with the ring-ditch. This feature, and its associated pit (P.330) have, again, suffered disturbance and any mound or bank originally contructed on the site had clearly disappeared entirely by the Iron Age (see Chapter 2). Even so, the presence within the pit of arrowhead cores and the clustering of LNEBA artefacts around the ring-ditch is significant, though the stratigraphic relationship is no longer certain. This relationship, and its implications for the status of the West Stow site during the later Neolithic and Early Bronze Age, will be discussed in Chapter 6.

III. Iron Age

In addition to the illustrated objects, eleven iron nails were found but were too fragmentary or corroded to merit illustration. Several brooches of Iron Age date were discovered but because of the overlap with some of those of the Roman period it was decided to illustrate and catalogue them all together in Figures 52 and 53, for the sake of continuity. See p.68 below.

Objects of bronze

(Fig. 45)

57. **Domed stud** with broken, heavy pin. *SF.1399, WE.8, Layer 2*

58. **Needle**, complete; large oval eye. *SF.3056, P.601*

Objects of iron

(Fig. 45)

59. Smaller **joiner's dog**, one arm missing. *SF.1317, WG.9, D.102, upper layers of the Iron Age ditch, could be intrusive.*

60. Flat fragment with remains of rivet; very corroded, no real limits in any direction. *SF.1483, WD.9, D.142*

61. Large bladed **knife** with concave back. *SF.1661, WG. 10, D.180*

62. **Bar**, square section. *SF.1697, WF. 10, P.309*

63. Small **clip** with iron rivet at one end; neatly folded over to form a narrow opening. Possibly used as a strap junction. *SF.1706, WE.11, P.316*

64. Stout **ring**, circular section. Made as a bar bent into shape with small butt joint. *SF.1757, WF.11, P.367*

65. Small **loop**, possibly for suspension. *SF.1782, WH.11, P.395*

66. **Rod** with looped end. *SF.1783, WF.12, P.391*

Objects of shale (Fig. 45)

67. Fragment of turned **bracelet**, circular section with internal rebate. *SF.1253, WG.9, D.102*

68. Globular ?unfinished **bead**, bored from two directions but not completed. *SF.1482, WD.8, P.228*

Objects of glass

(Fig. 45)

69. Annular **bead**, blue. *SF.744, WF.16, D.15*

Objects of bone (Fig. 45)

70. Fragment of **needle**, broken at the eye. Flattened oval section. *SF.1442, WE.8, D.2*

Objects of fired clay

(Fig. 45)

71. Fragment of **plate** with traces of five impressions. Fine brown fabric. Although found in an Anglo-Saxon context, it is republished here as a possible Iron Age **mould** derived from nearby contexts. *SF.1044, WB.6, Anglo-Saxon SFB.34*

72. **Sling shot**, complete, oval shape. Light brown, smoothed fabric with grey and black patches and a few large angular flint grits. *SF.1448, WE.8, Layer 2*

73. Broken **sling shot**, oval shape. Pale buff fabric with chalk and quartz inclusions. *SF.2256, WG.9, D.108*

The Iron Age pottery

A large quantity of Iron Age pottery, covering the three broad phases of occupation, was recovered from the excavation. The three phases are suggested by the stratigraphy on the site and supported by the typology of the pottery. Quantities of residual pottery of all periods were found in the general layer (L.2) over the whole site, and in later features, often complicating the analysis of, particularly, the pottery in Anglo-Saxon contexts. The Iron Age pottery is discussed below in the three phases postulated on the settlement.

Phase I pottery

Four fabrics were identified (percentages by sherd count).

Fabric 1 (41.34%)
A close, hard, body with rough surface, having flint and chalk grits up to 5cm across. No sand filling. Some straw or grass tempering. *Colours:* brown to grey black. *Surface treatment:* often vertically striated surfaces. *Forms:* squared rims with more or less pronounced shoulder, flat base. Occasionally rims have finger-tip ornament on upper surface (Fig. 46, No. 89) but are normally plain.

Fabric 2 (19.15%)
A hard, close body with burnished surfaces and small chalk and flint inclusions up to 1.5mm across but normally not exceeding 1mm. *Colours:* dark brown-black surfaces, oxidised beneath.

Fabric 3 (13.98%)
A hard, close body with sparce, small grits and some 'chaff'. Rough surfaces, generally black in colour.

Fabric 4 (25.53%)
A medium-hard, sandy fabric with sparce flint grits and smoothed or burnished surfaces, dark brown in colour. *c.f.* Wandlebury Group I (Cunliffe 1974, 39, 325).

Forms

A total of 329 sherds were recovered from closed Phase I features; but only one complete profile could be restored. Without exception the basic form seems to be an open mouthed bowl. The differences that are apparent relate to the rims which are either square, frilled or rounded, and the degree of emphasis of the shoulder, most of which are weak but with some examples of a more definite shouldered type. Some of the flat topped rims have finger-nail impressions, diagonal and at right angles to the rim. Surface treatment consists of fingering under the rims, diagonal or vertical scoring or, rarely, diagonal slashing on the shoulder or neck.

There were no angular bowls of the Darmsden-Linton group (Cunliffe 1974, 39) or of finger-tip impressions on the shoulder.

(Fig. 46)

74. Jar. Flat topped rim with diagonal finger-nail impressions and rough external 'bead'. Slight shoulder surface treatment. Fabric 1, brown surface, black interior. *WF.10, P.298*

75. Flat topped rim fragment with deep finger-nail impressions. Edges pushed down to form both internal and external beading. Fabric 1, brown with black surface externally. *WD.9, P.219*

76. Flat topped rim with deep finger-nail impressions. Internal beading. Neck hollow, suggesting a strong shoulder. Fabric 1, black core with brown and black surfaces. *WD.9, P.218*

77. Flat topped rim with diagonal slashing, thumbing on neck and weak shoulder. Fabric 1, black core, red-brown internal surface, black externally. *WF.10, P.297*

78. Jar with plain, flat topped rim with slight internal beading. Neck with slight thumbing, weak shoulder. Fabric 3, black core, brown-grey surfaces. *WF.10, P.323*

79. Jar, plain flat topped rim. Only the slightest trace of a neck, sides almost vertical. Fabric 1, black core, brown surfaces. Grain impression. *WF.10, P.243*

80. Jar. Plain, flat topped rim. Horizontal scoring on neck. Fabric 1, black core and surfaces. *WE.12. P.473*

81. Jar. Plain, flat topped rim. Straight neck to distinct shoulder. Coarse diagonal scoring caused by vigorous wiping with ?grass. Fabric 1, black core and surfaces. *WG.11. P.265*

82. Jar. Plain, flat topped with with both internal and external beading. Trace of coil on shoulder. Fabric 1, black core, red-brown surfaces. *WG.11. P.265*

83. Large jar, flat topped rim with diagonal slashing on upper surface. Vertical tooling of body. Fabric 1, black core, red-brown surfaces. *WH.11, P.409*

84. Flat topped rim. Fabric 1, grey core, red-brown surfaces. *WF.10, P.243*

85. Small flat topped rim, slightly beaded. Fabric 4, grey-black core and surfaces. *WF.10, P.243*

86. Large open bowl, heavy flat topped rim, with thumbing beneath. Vertical smoothing internally and diagonal wiping externally. Fabric 1, with large chalk grits, grey core, brown-black surfaces. *WG.11, P.261*

87. Large jar with frilled rim and deep slashing on shoulder. Traces of vertical scoring on neck suggests that the first surface treatment was wiped out and redone with the deeper slashing. Fabric 1, thin, black core, grey-black surfaces. *WD.9, P.224*

88. Sloping, flat topped rim. Fabric 4; burnished, black core and surfaces. *WD.10, P.246*

89. Flat topped rim, slightly bevelled externally. Fabric 4, burnished with black core and surfaces. *WE.12, P.473*

90. Upright, rounded rim and shoulder. Fabric 1, grey core and grey-brown surfaces. *WG.11, P.261*

91. Rounded rim. Fabric 1, grey core and surfaces. *WD.10, P.246*

92. Small jar, lightly everted rim with wavy top, some scoring on body. *WE.12, P.473*

93. Base and side with vertical scoring. Fabric 1, black core, with grey-brown surfaces. *WG.12, P.265*

94. Squared rim, some scoring, red-brown surfaces, grey core. *WF.10, P.244*

Phase II pottery

Four fabrics were identified

Fabric 1 (19.6%)
Hard, rough, sandy fabric with some grass tempering.

Fabric 2 (44.26%)
Medium hard, fine grained with rare flint grits. Usually fine wares, burnished inside and outside. The burnishing is dense, all over with no trace of burnishing lines except sometimes on the inside.

Fabric 3 (36.15%)
Medium hard, sandy, with small sparse grits. Smoothed, not burnished, with some knife trimming.

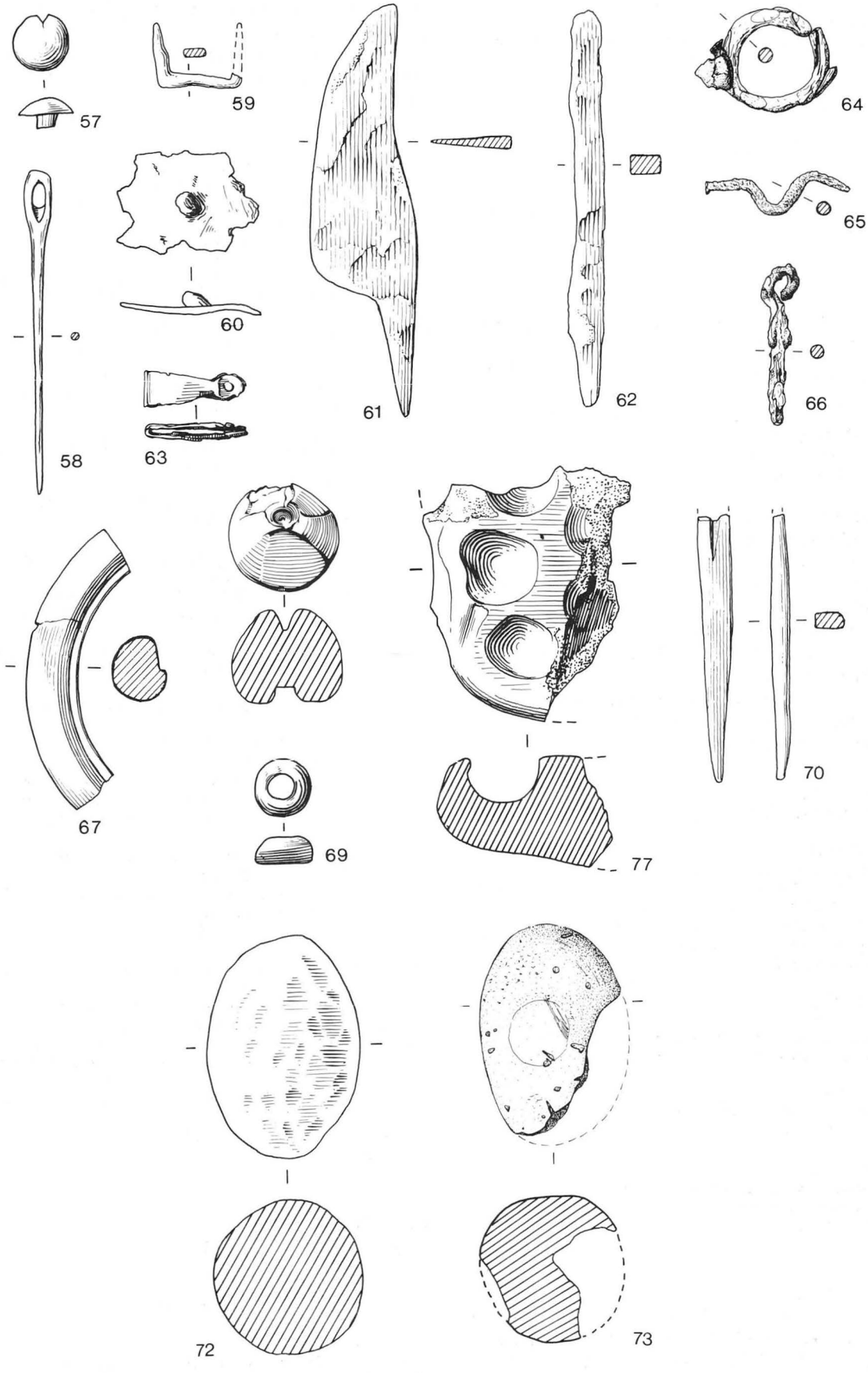


Figure 45 Iron Age small finds: objects of bronze, iron, shale, glass, bone, fired clay. Scales: Iron 1:2, others 1:1

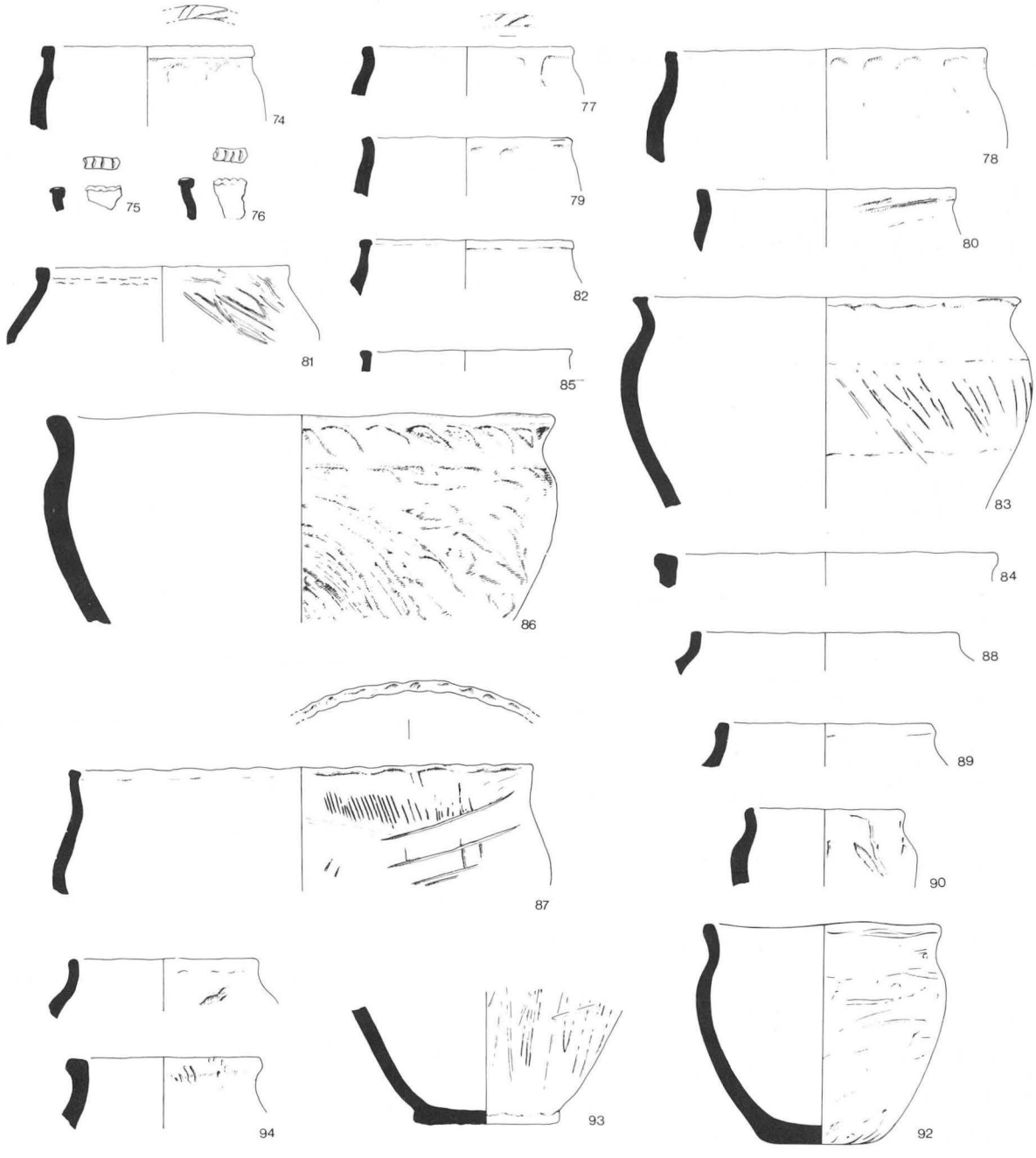


Figure 46 Iron Age Phase I pottery. Scale 1:4

Fabric 4
Hard, with many tiny chalk particles. Rare. Three sherds only.

Forms

A total of 296 sherds were recovered from closed Phase II features, *i.e.* pits, although a proportion may be derived from Phase I pits. Only five complete profiles were recovered but many more were complete to the main width of the vessel. The coarser fabrics of Phase I have disappeared along with the flattened rims and high shoulders, to be replaced with a generally more rounded profile with upright, rounded rims or slightly everted types and more graceful open bowls.

(Fig. 47)

95. Large jar, short upright rim, flattened above with small oval depressions. Fabric 2, black, burnished exterior. *WG.11, P.414*

96. Open jar, simple, upright rounded rim. Vertical scoring on body of pot. Fabric 1, black core and external surface, internal surface red. *WF.9, P.161*

97. Open jar, simple, upright, rounded rim and suggestion of a shoulder. Fabric 3, black core and surfaces. *WF.9, P.148*

98. Small jar, upright rim and constricted neck. Fabric 2, black core and surfaces. *WC.6, P.17*

99. Jar with small pinched rim slightly turned over internally. Small shoulder. Fabric 1, brown-black. *WC.6, P.17*

100. Small bowl, slight shoulder; rounded rim with internal beading. Fabric 2, black core and surfaces. *WC.6, P.17*

101. Small jar with rounded upright rim and shoulder. Flat base. Fabric 3, with some chaff impressions, poorly burnished, black core, with brown to black patchy surfaces. Complete profile. *WE.8, P.211*

102. Two fragments probably from same jar. Upright rounded rim and waisted, heavy base. Fabric 2, closely burnished exterior surfaces, tool marks internally. Imperfectly fired, crumbly base with hard. Patchy red-black surfaces and black core. *WF.11, P.347*

103. Small jar. Slightly flattened rim and rounded profile. Fabric 1, brown black. *WF.11, P.348*

104. Small jar, slightly flattened rim. Fabric 2, black core and surfaces, closely burnished externally but tooling on internal surface. *WC.6, P.17*

105. Large jar with rounded rim and hollowed neck. Fabric 2, red-brown core, black surfaces. *WG.11, P.414*

106. Jar with rounded rim and hollowed neck. Rim and neck showing 'thumbing'. Both surfaces have vertical scoring from scraping. Fabric 1, rather more chaff than usual. Black core with patchy, brown-black surfaces. *WC.6, P.17*

107. Complete profile. Rounded, everted rim and hollowed neck. Flat base. Fabric 2, black core and brown-black surfaces. *WE.8, P.191*

108. Rounded, slightly everted rim. Fabric 2, black core and brown-black surfaces. *WE.8, P.191*

109. Small, flattened rim. Fabric 2. *WE.10, P.317*

110. Small flattened rim, much thicker body. Fabric 2 imperfectly fired, red core, black surfaces. *WF.9, P.148*

111. Complete profile, small rounded rim with hollowed neck and flat base. Fabric 2, close exterior surface, interior surface burnished but tool marks visible. Black core with red-brown exterior surface and dense black interior. Similar to Form 1 at Little Waltham (Drury 1978, 52; fig. 37). *WH.11, P.373*

112. Heavier profile, with everted rim, hollowed neck and rather 'humped' shoulder. Fabric 2, black core, brown-black surfaces. *WD.8, D.146*

113. Diminutive vessel, slightly inturned rim, flat base. Fabric 1, black core, red-brown surfaces. *WH.11, P.414*

114. Small, open shape, rounded rim and straight sides. Fabric 1, black core and surfaces. *WG.10, P.273*

115. Sherd with two horizontal grooves. *WE.10, P.195*

116. Everted, thinned out rim. Fabric 2, black core and red-brown surfaces. *WE.10, P.195 with No. 98 above*

117. Body and base of small jar. Rounded shoulder and slightly waisted base. Fabric 1, black core, brown-black surfaces. *WF.9, P.212*

118. Base of jar, defined base. Fabric 3, black core, brown-black surfaces. *WD.9, P.213*

(Fig. 48)

119. a-c. Two body sherds, with two rows of impressed circular pits or 'dimples', with impressed groove between. A further sherd (119c) from the same pit, has two pits on the edge of the sherd. All three sherds decorated with the same tool as all the pits show a faint cross-bar. All Fabric 2, black core and black or brown-black surfaces. *WG.11, P.414*

Phase III pottery

Both hand-made and wheel-thrown pottery was present, but no kilns or evidence of pottery production. The hand-made wares continued, apparently throughout the whole of Phase III, but developments are apparent, with more out-turned rims, tending to thicken at the edge. Evidence of coils was noted in a few sherds. The wheel-thrown pottery consists mainly of double-cordoned bowls in finer wares and coarser pots with the upper half covered with horizontal combing. Occasional tazzas and pedestal bases occurred but no imported pottery.

Hand-made

Seven fabrics were identified.

Fabric 1
Close, hard, burnished, usually no grit.

Fabric 2
Very hard, with some surface holes, possibly burnt out chalk, some chaff and sand or fine grit backing. Burnished or smoothed.

Fabric 3
Hard, but coarse and crumbly, with chaff. Rough surface.

Fabric 4
Hard, with some large flint grit; coarse, with rough surface.

Fabric 5
Hard, coarse, lots of grit up to 1 cm across. Rough surface. Largest vessels.

Fabric 6
Soft, large grits, smooth or burnished.

Fabric 7
Close, sandy fabric, very hard, micaceous.

Wheel-thrown

Six fabrics were identified.

Fabric 1
Hard, sandy, usually a red core with black surfaces, and burnished in part.

Fabric 2
Hard, sandy, with some chaff.

Fabric 3
Softer, buff-white core, grey surfaces. Micaceous.

Fabric 4
Hard, very gritty. Large jars.

Fabric 5
Hard, with surfaces pitted with small holes. No chaff. Grey core and surfaces.

Fabric 6
Hard, shelly, with some large flint grits. Grey core, oxidised layers and black surfaces.

Hand-made (Fig. 49)

120. Bowl with simple inturned rim. Fabric 6 with smoothed exterior; black core and brown-black surfaces. *WD.10, D.147*

121. Bowl with short, slightly out-turned rim and humped shoulder. Fabric 1; black core and brown-black surfaces. *WD.10, D.147*

122. Bowl with everted rim. Fabric 2; black core and surfaces. *WD.10, D.147*

123. Bowl with everted rim. Fabric 1; black core and brown-black surfaces. *WD.10, D.147*

124. Bowl, rounded profile with everted rim. Fabric 4; black core and surfaces. *WC.5, P.1*

125. Complete profile of small bowl, slight shoulder, thin everted rim. Fabric 1; black core and surfaces. *WF.11, P.369*

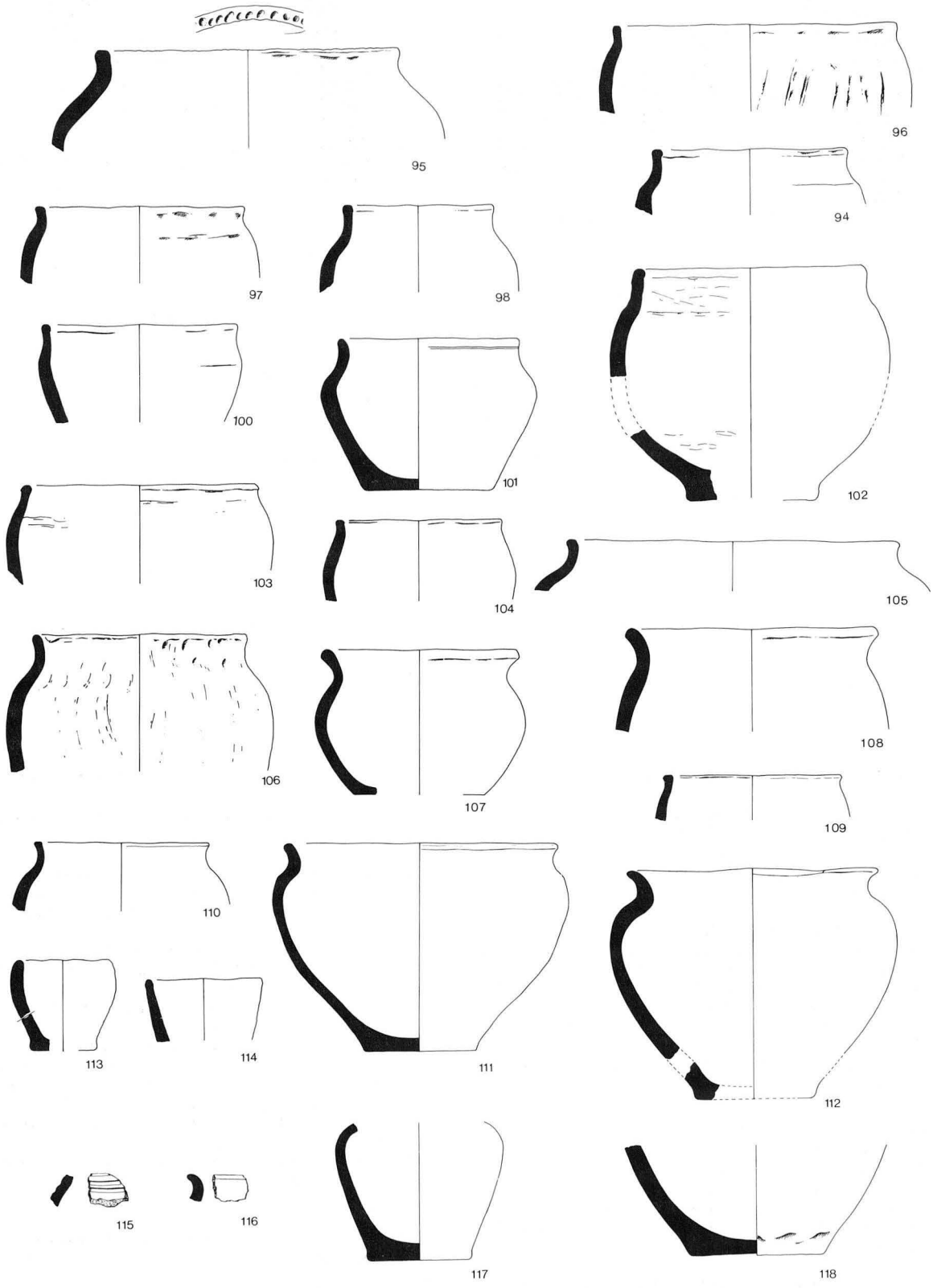


Figure 47 Iron Age Phase II pottery. Scale 1:4

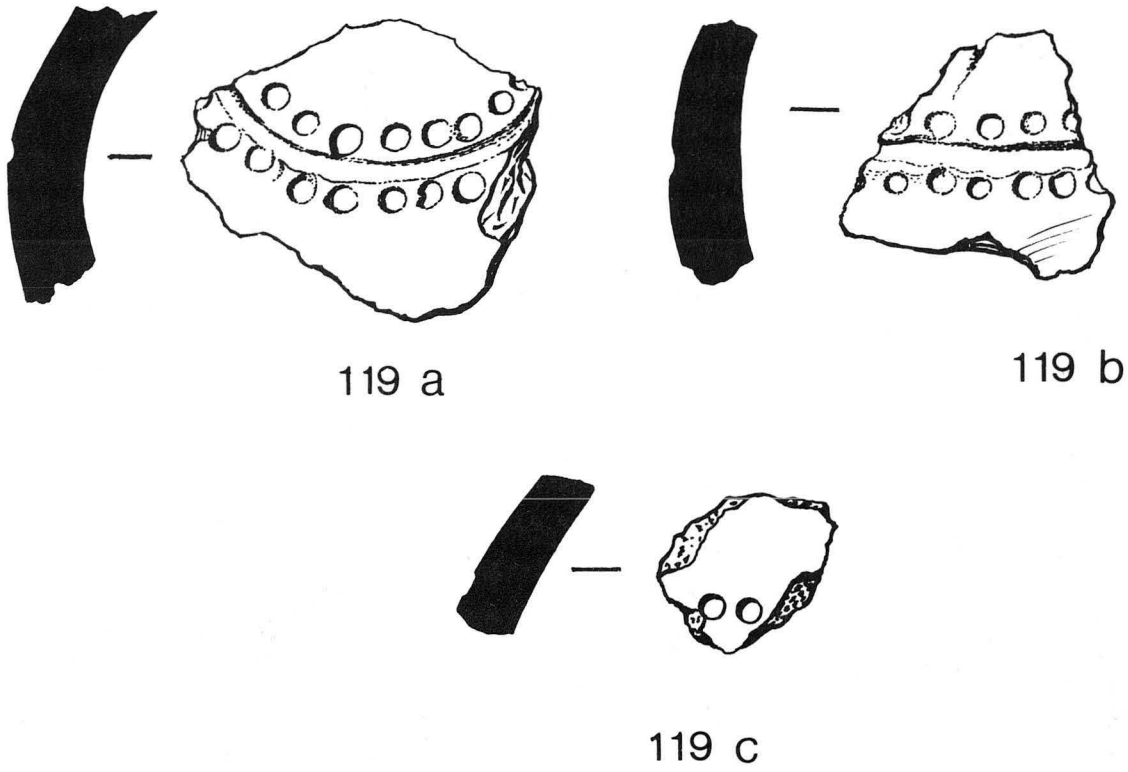


Figure 48 Iron Age Phase II pottery, decorated. Scale 1:1

126. Complete profile of small bowl. Thickened, everted rim and base. Incised, running scroll on shoulder. Fabric 2, with some larger flint grits; black core, brown-black surfaces. *WC.5, P.1*

127. Upper portion of storage jar. Small, flattened rim, weak shoulder. Evidence of coils, 3 cm wide. Shoulder with horizontal scraping and diagonal slashes. Body of vessel heavily scored with vertical scraping. Fabric 5; black core, brown-red surfaces, patched with black. *WC.5, P.1*

128. Complete profile of small bowl. Slightly everted, rounded rim and strong shoulder. Cordon at base of neck and single groove on shoulder. Flat base. Upper and lower parts close-burnished, central area left rough and covered with poorly executed cross-hatching. Two seed impressions. This vessel is thought to be a hand-made copy of a wheel-thrown type. Fabric 1; black core, brown-black surface. *WC5, P.1*

129. Complete profile of small bowl with thickened, everted rim and flat base. Fabric 1; black core and brown-black surfaces. *WD.9, P.219*

Wheel-thrown wares (Fig. 50)

130. Thickened rim and heavily corrugated shoulder. Fabric 5; grey core, brown-black surfaces. *c.f. Camulodunum (Cam.)* 229 (Hawkes and Hull 1947, 262, pl. lxxvi). *WG.9, P.219*

131. Shoulder and body sherds only, heavily corrugated as No. 113, but with a rounded body. Fabric 5, black core and surfaces. *c.f. Cam.* 229. *WE.11, P.319*

132. Complete profile, rounded, everted rim; upper half of body covered with horizontal combing, lower half with vertical scoring. Neck and rim burnished. Fabric 1, black core, brown-grey surfaces. *Unstratified, Layer 2*

133. Rounded, everted rim, horizontal combing as for No. 115. Neck and rim burnished. Fabric 1; black core, brown-black surfaces. *WG.9, D.102*

134. Jar with strongly everted rim and ovoid body, with some knife trimming on the widest point. Lime deposit internally. Fabric 2, grey core, grey-brown-black surfaces. *WH.10, P.378*

135. Fine tazza; carrinated bowl with concave, cordoned wall. Well cut cordons, close burnished. Fabric 3; pale grey core, grey-black surfaces. The fine quality of the vessel and the sharp carination suggests a pedestal base like *Cam.* 211 (Hawkes and Hull 1947, 258, pl. lxxiv, 210a; pl. lxxv, 211A). *WG.10, Romano-British P.415*

136. Bowl, grooved and carinated, with everted rim wider than the girth. Base missing. Fabric 2; grey-black surfaces. Similar to *Cam.* 215(A) *WG.10, Romano-British P.267*

137. Bowl; carinated, with bulge between cordons on shoulder. Short neck and rounded cordons and carination. Fabric 5; grey core and surfaces. *c.f. Cam.* 218 (Hawkes and Hull 1947, 259, pl. lxxv). *Unstratified, WE.6*

138. Large bead-rim bowl with omphalos base. Base rounded with cordon. Careful, all-over burnish. Fabric 5, rather soft, grey core with brown-black surfaces. *WC.9, D.148b*

139. Tall, bead rim jar. Thin and well thrown. Fabric 6; black core with oxidised layers and black surfaces. *WC.5, P.1*

140. Bowl with simple, everted rim. Rounded carination and zone of cross hatching between grooves on shoulder. Close burnished, apparently by 'hand', not on the wheel. Hand-made Fabric 6; grey-black core, brown-black surfaces. *WC.6, D.14*

141. Base, of tall, wide bodied vessel. Fabric 1, but black core, with brown-black surfaces. *WC.5, P.1*

142. Pedestal base with moulded edge and high centre. Hard grey fabric with some mica, most like Fabric 3. *WE.8, D.2*

Commentary on the illustrated Iron Age pottery
by Edward Martin

Phase I

Most of the vessels are in hard, sand-tempered fabrics, dark to red-brown in colour, all are hand-made. Number 86 is atypical in having large chalk inclusions in the fabric. Forms are basically jars with weak shoulders. Decoration is limited to finger-nail or finger-tip impressions on the top of the rim (finger-nailing giving the rim a cabled appearance) and various slashes on the body.

The sand-tempered vessels with cabled rims can be

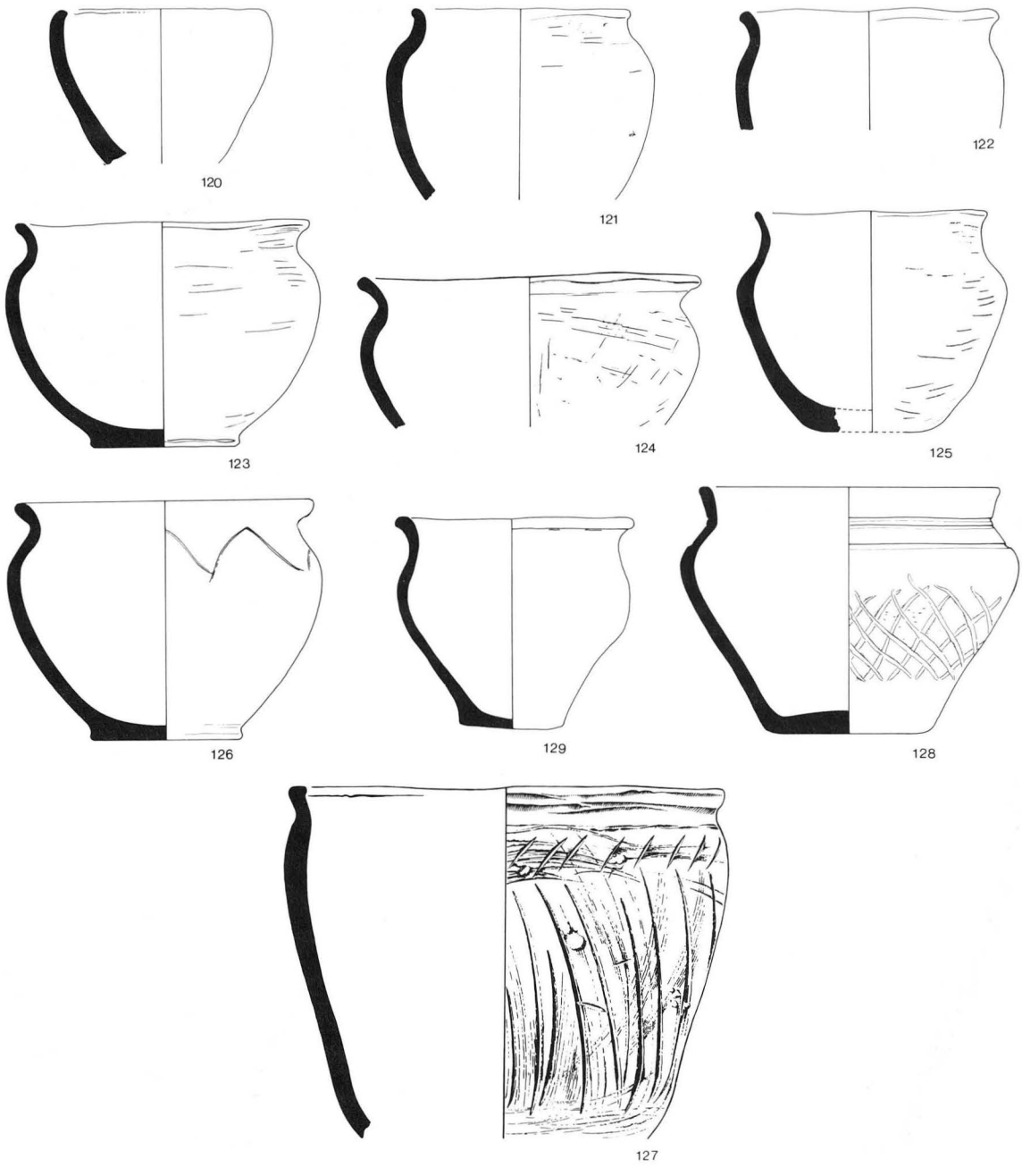


Figure 49 Iron Age Phase III pottery. Scale 1:4

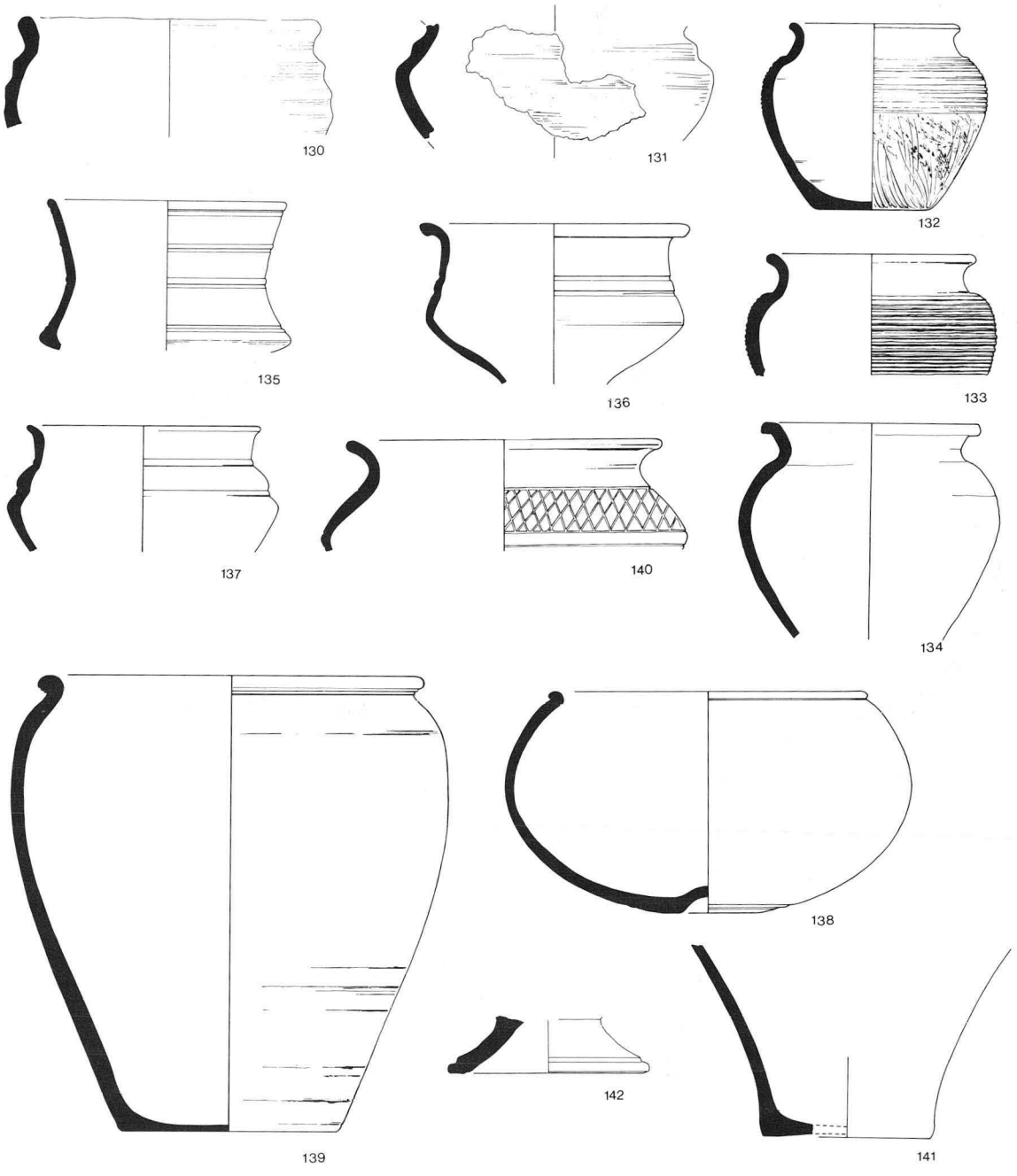


Figure 50 Iron Age Phase III pottery (wheel-thrown). Scale 1:4

paralleled at Barnham in north-west Suffolk where a date of 3rd-1st century BC is likely (Martin forthcoming a). Finger-tip decoration on top of rims also occurs on 1st century BC pottery from Burgh in south-east Suffolk (Martin 1988).

Phase II

Nearly all of this pottery is organic-tempered (grass or chaff) admixed with some sand, all are hand-made. Colours vary from mid-brown to black and many of the vessels have highly burnished exteriors. Forms are again mainly jars, though now tending more towards a 'S'-shaped profile. Decoration, other than burnishing, is still fairly limited: slashed lines, rough zig-zag lines and burnished line cross-hatching.

The fabric of this group is unusual in an East Anglian Iron Age context; in fact it more closely resembles local Anglo-Saxon fabrics, though the forms and stratigraphical evidence do confirm its Iron Age date. Organic-tempered fabrics do, however, form a minority element amongst the early 'Belgic' style pottery at Burgh, the majority of which is grog-tempered. Vessel No. 128 with its cross-hatched decoration and horizontal neck lines does look very much like a copy of the early 'Belgic' ripple-shouldered vessels with cross-hatched lower bodies (*e.g.* Burgh nos 41-3; Martin 1988, fig. 20). Similarly No. 127 may be a copy of an early 'Belgic' storage vessel with combed decoration (*e.g.* Burgh no. 50; Martin 1988, fig. 21). The possibility exists that this pottery may have been a local response to the first grog-tempered 'Belgic' pottery appearing in the Trinovantian areas of south-east Suffolk and Essex, the finish of the organic-tempered pottery (smooth, slightly soft and polished) is very reminiscent of 'Belgic' grog-tempered wares.

Phase III

This pottery consists of 'Belgic' wheel-made forms, mainly in grog-tempered fabrics, though some other fabrics do exist, *e.g.* No. 131 is organic-tempered and No. 139 is shell-tempered. Many of the forms can be paralleled from other sites, *e.g.* the ripple-shouldered vessels, Nos 130 and 131, can be paralleled at Burgh (nos 41-9; Martin 1988, fig. 20) and *Camulodunum* (form 29; Hawkes and Hull 1947), also the furrow-shouldered jars (Burgh nos 215-6, Martin 1988, fig. 27), the concave-sided cup/bowl No. 135 (Burgh nos 113-6, Martin 1988, fig. 23; *Cam.* forms 211-4) and the double-cordon jar No. 137 (Burgh nos 54-7, Martin 1988, fig. 21; *Cam.* form 218). The bowl with the omphalos base, No. 138, is a rare 'Belgic' form, deriving from an earlier hand-made form, commonly with stamped decoration, found in eastern England (Thompson 1982, 563; Elsdon 1975, 38). The pedestal base is in a hard, well-fired, slightly micaceous fabric, probably sand-tempered (though there are a few voids possibly indicating a small organic component).

The date range for this group is roughly 1-60 AD; Nos 130 and 131 being at the early end of the scale, whilst most of the rest is more likely to date from 30-60 AD. Numbers 139 and 141 were found in the same pit as some Phase II pottery (Nos 110 and 111) and it seems that, in part, Phase II and Phase III pottery was in use concurrently. This echoes the situation at Burgh where hand-made pottery occurs alongside wheel-made forms and presumably indicates locally made wares being used in conjunction with imported wheel-made ones.

The sequence of phases is confirmed stratigraphically on the site: Phase I being 3rd-1st century BC; Phase II may start in the 1st century BC but much of it probably dates from the early 1st century AD; Phase III material starts to occur in the early 1st century AD and becomes dominant by the middle of the century.

Objects of fired clay

Loomweights (Fig. 51)

Six fragments of fired clay loomweights were recovered. The corners are all rounded, having a simple perforation, with the exception of No. 144c, which has a hollow groove in addition and is considerably thicker than the others.

As far as can be judged from the fragments, the loomweights are all much the same size; the most complete example (No. 144b) weighs 0.97 kg.

143 a Triangular loomweight fragment. Buff to pink surfaces, grey to brown interior; soft fabric with grass tempering and rare specks of chalk. *WD.10, P.225, Phase I*

143 b Triangular loomweight fragment. Buff to pink surfaces and grey patches; brown interior. Soft fabric with little evidence of grass tempering. Sparse chaff fragments. *WD.10, P.225, Phase I*

143 c Triangular loomweight fragment. Buff to pink surfaces and interior. Soft fabric with some red inclusions and chalk fragments. Some grass tempering. *WD.10, P.225, Phase I*

144 a Triangular loomweight fragment. Buff surfaces, grey interior. Soft fabric with some angular flint fragments, rounded flint pebbles and chalk. *WF.10, P.297, Phase I*

144 b Triangular loomweight fragment. Grey to brown surfaces, grey interior. Hard fabric with red inclusions, flint fragments and pebbles. *WB.3, talus of sandpit*

144 c Triangular loomweight fragment. Buff surfaces, grey interior. Fairly hard fabric with chalk, flint and quartzite pebbles and fragments. This loomweight is much thicker than the other fragments and has a hollowed corner. *WG.8/9, D.78, Phase II*

IV. Romano-British

Finds distribution

(Fig. 24)

A number of items have been published in West 1985 from the Anglo-Saxon contexts; those which could conceivably have come from the Romano-British occupation of the site are republished here, but those which are more likely to be 4th century or are not specifically significant are not repeated. All the 1st and 2nd-century brooches are brought together in this volume, including those from Anglo-Saxon contexts. All the brooches, of Late Iron Age and Romano-British date are brought together as a group rather than divide them arbitrarily between the periods.

The Iron Age and Romano-British brooches

(Fig. 52)

145. Iron fragment, possibly part of the common form of iron brooch current in the 1st century AD, basically of **La Tène III** type. *SF.1830, WG. 10, P.401*

146. Iron pin and part of coiled spring, probably from a one-piece brooch. *SF.1474, WC.9, D.148 (same as Ditch 2, below, Iron Age)*

147. Part of bow and coiled spring from a one-piece iron brooch. *SF.43 WC.5, P.1, base*

148. Nauheim derivative type. Single piece bronze brooch with flattened bow and two coils of the spring surviving. The catch-plate was originally large with triangular piercing. *SF.450, WD.4, Layer 2*

149. Langton Down type. This simple version has no cover to the four-coiled spring. The bow is straight, narrowing to the catch-plate with marginal lines and tooling down the centre. The catch-plate has a single large opening. Closely similar to one figured in *Camulodunum*, pl. xciv, 85 (Hawkes and Hull 1947), which Hull considered to be the prototype of this class. *SF.1096, WB.6, D.2, base*

150. La Tène III type. Four-coiled spring with external cord attached by a hook to the bow. A second hook secured the spring by a, now missing, axis bar. Plain, rounded bow with small side-wings. Catch-plate damaged. Possibly residual in the Romano-British ditch. *SF.1236, WH.9, D.89*

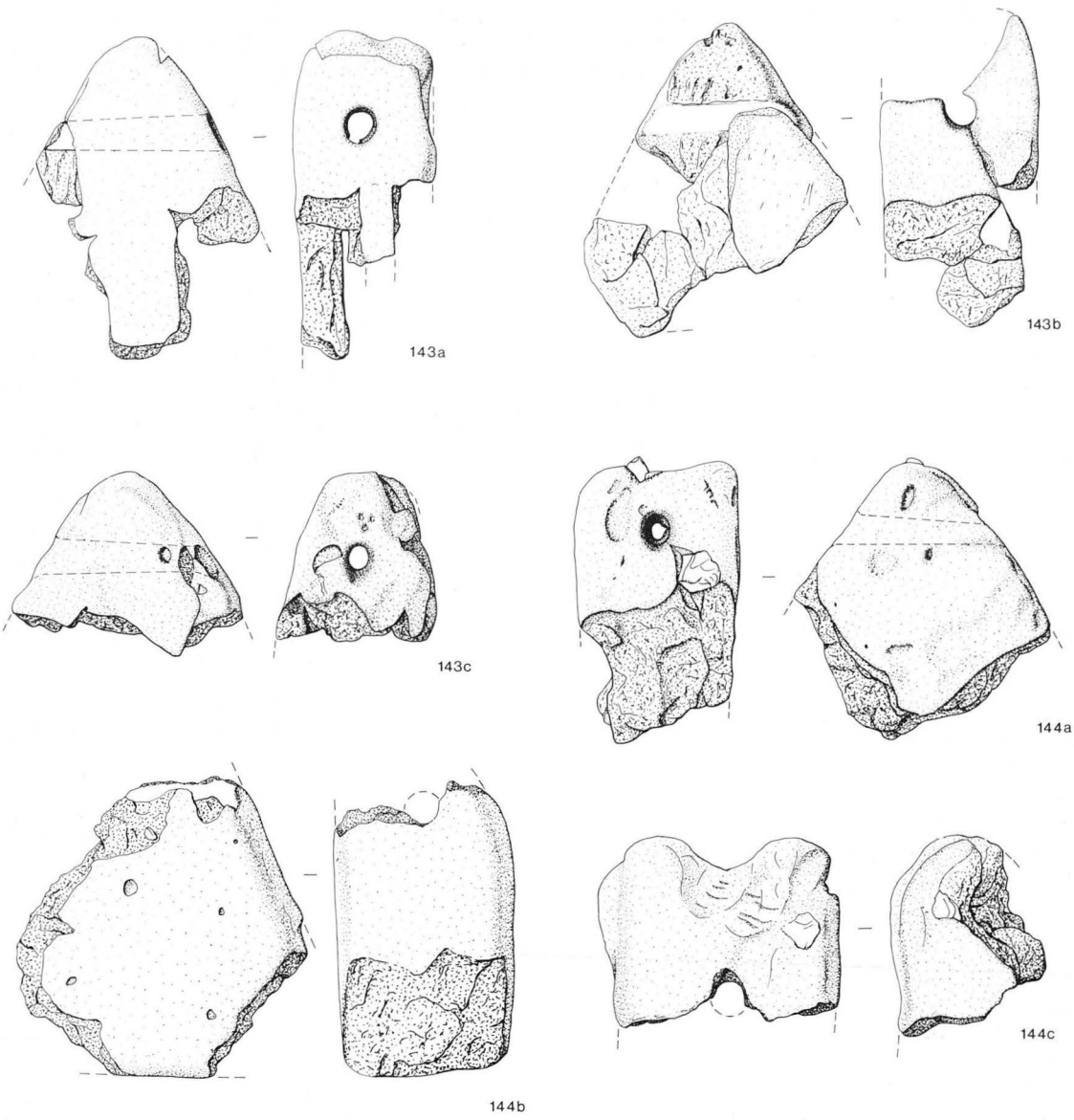


Figure 51 Iron Age: fired clay loomweights. Scale 1:3

151. ?Colchester Type III. Fragment of bow with traces of central groove and pierced triangular catch-plate. *SF.583, WG.5, Anglo-Saxon SFB.19*

152. Colchester Type II. Iron brooch of modified La Tène III type. Single piece with three turns to the spring and an internal cord beneath the bow. Solid catch-plate. Possibly residual in the Romano-British pit. *SF.1917, P.403*

153. Part of bow and small, solid bronze catch-plate. Possibly from a **La Tène III** type. *SF.1825; WG.10, P.401*

154. Colchester Type IV. A solid piece with broad bow and fixing loops for the axial bar and cord cast as lugs. The lug for the cord is carried back to the bow as a vestigial decorative feature. The projecting side-wings are flat with terminal and diagonal grooves. The bow has marginal moulding and central knurled groove. Catch-plate solid. The spring has ten turns and a pointed axial bar. *SF.838, WF.8, Layer 2*

155. Colchester Type IV. Slender version with rounded band and pierced catch-plate and slightly hollowed side-wings. Half the spring survives with four turns. Short, nicked groove on bar. *SF.1020, WG.9, D.88*

156. Colchester Type IV. Strongly moulded bow with short, hollowed side-wings; the central crest with zig-zag ornament. The catch-plate is solid but with a deep groove for the pin; the spring had eight turns. *SF.1924, WH.12, P.449*

157. Colchester Type IV. Broad stubby bow of 'D' section with marginal lines and central groove with zig-zag. Flat side wings; fixing loops all in one piece. Solid catch-plate. Spring missing. *SF.460, WG.5, Layer 2*

158. Colchester Type V. 'Dolphin' type with low stout bow of 'D' section with knurled ridge. Transverse wings to cover spring; backward hook for the cord missing. *SF.1479, WH.4, Anglo-Saxon SFB.49*

(Fig. 53)

159. Colchester Type IV. Well moulded bow of 'D' section with double zig-zag down the crest and small raised edges. The transverse wings were heavily moulded (one missing) and extended over the spring which is secured by cast-on loops for the axial bar and chord. *SF.849, WF.8, Layer 2*

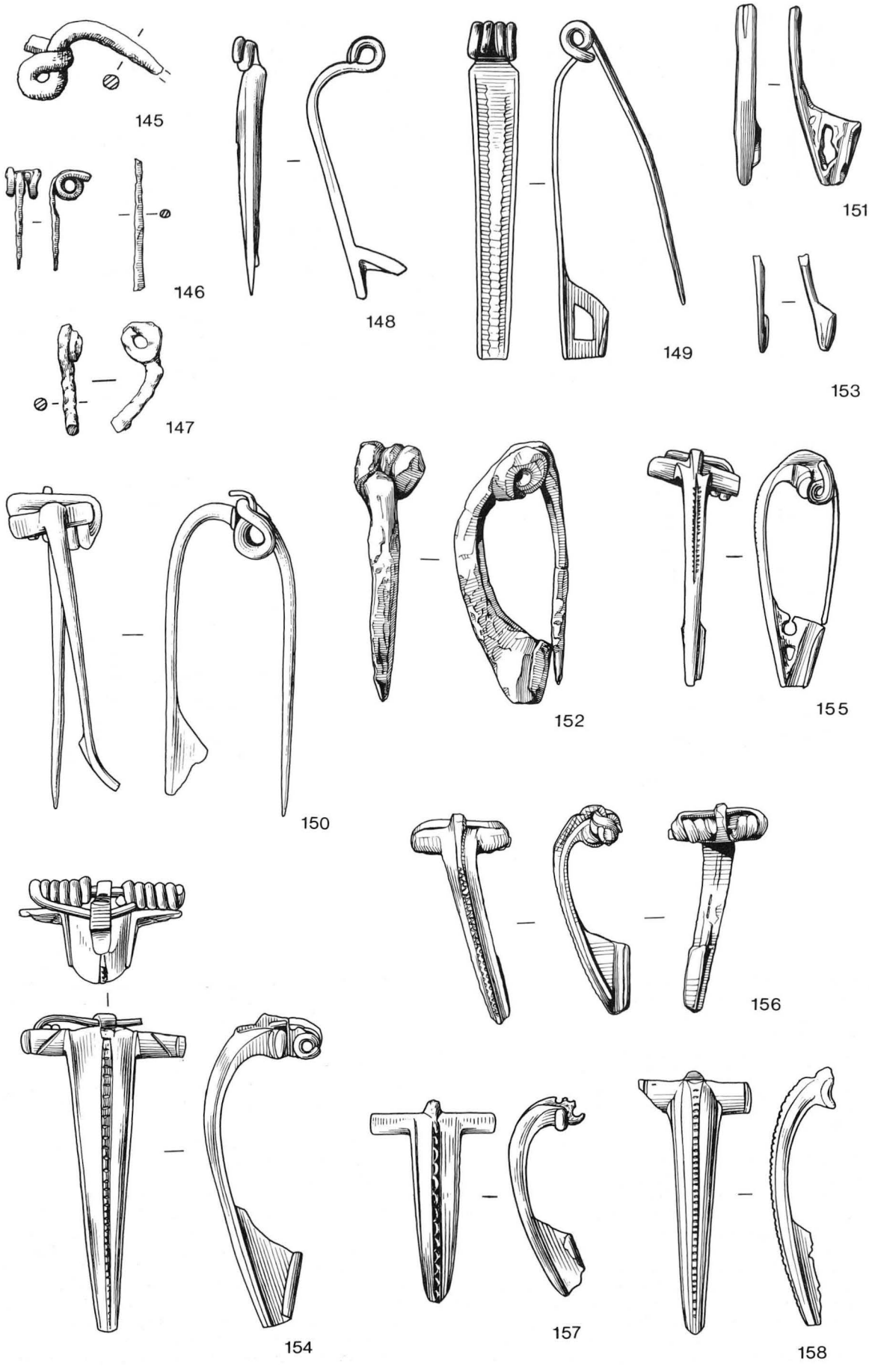


Figure 52 Iron Age and Romano-British brooches. Nos 145-47, iron. All Scale 1:1

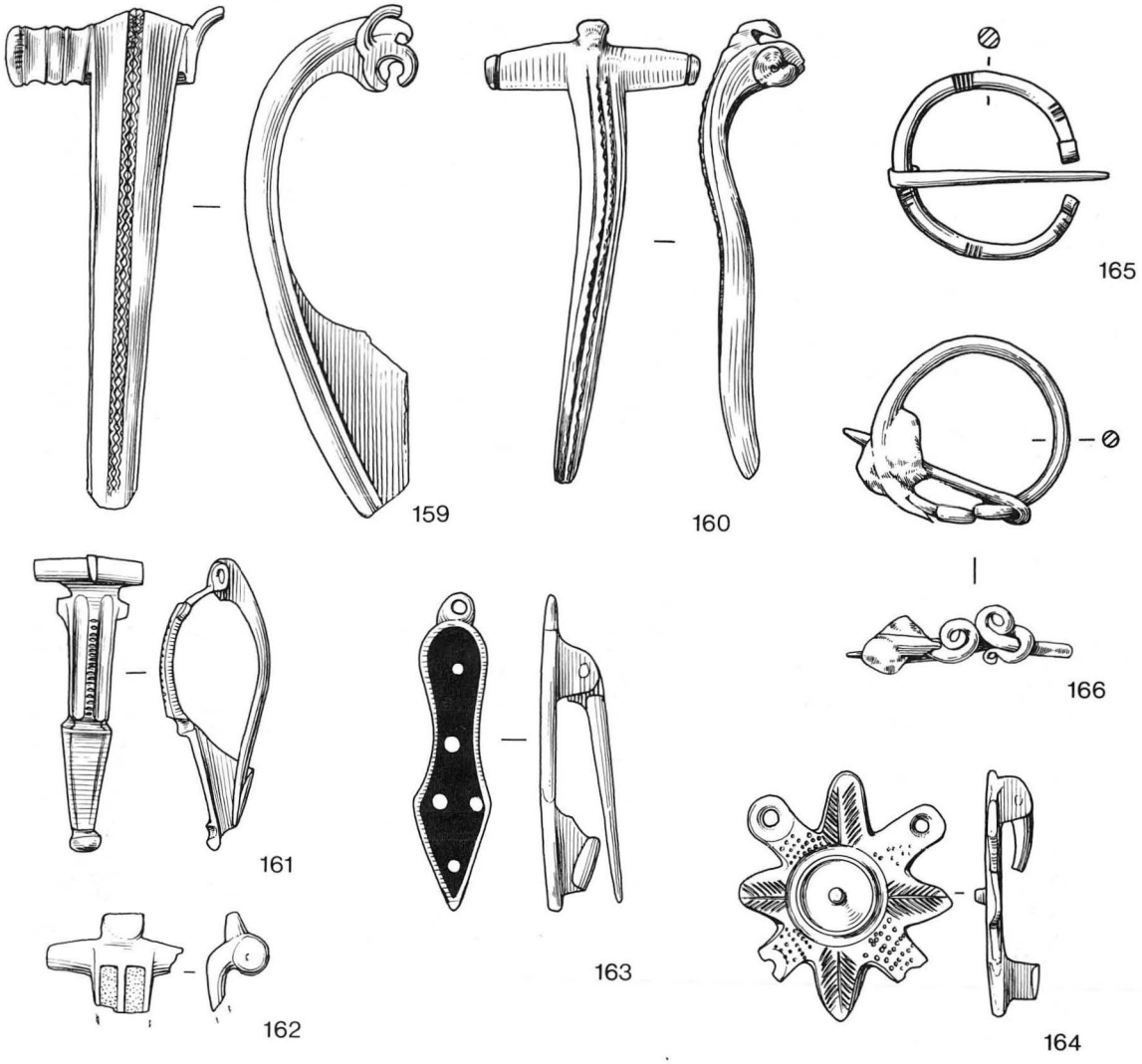


Figure 53 Romano-British brooches. Scale 1:1

160. Dolphin type with long, low bow with zig-zag decoration down the crest. Simple wings with transverse mouldings at the end. Rear-facing hook to secure the chord. Catch-plate missing. *SF.515, WG.6, Anglo-Saxon SFB.20*

161. Small, well moulded **Hod Hill** type with tinned surface. Simple hinge with iron pin secured by wrapped-over wings, low bow with central knurled ridge flanked by broad grooves with a small lug on each side at the head end. The foot is flat and tapering, with outlining grooves ending in a rounded moulding. The catch-plate is solid. Bronze pin complete. The date of the type is generally accepted as *c.* AD 40-60. *SF.916, WF.8, D.76*

162. Fragment with enclosed wings, remains of loop at the head and recessed panels for enamel. *SF.1176, WF.8, Anglo-Saxon D.77*

163. Slipper brooch, suspension loop at head, central area enamelled, dark blue or black with five yellow dots. Pin repaired. *SF.800, WG.8, Layer 2*

164. Plate brooch with eight arms. Alternate arms round ended, pierced and decorated with punched dots. The other arms are roughly pointed and carry leaf-like ornament. The centre of the brooch is recessed with a strong outer moulding and a central pin to secure an enamelled or paste centrepiece. The holes in the arms are also recessed and may also have been similar settings. The neck of the upper surface of the brooch is silvered. *SF.890, WG.2, Layer 2*

165. Bronze **penannular brooch** with simple bronze pin. Bow ornamented with groups of transverse 'nicks'; plain knob stops. *SF.564, WG.6, Layer 2*

166. Bronze **penannular brooch** with spiralled finials. The bronze pin is simply looped round the bow and also provided with a decorative twist. *SF.51, WC.5, D.2 (Iron Age Phase III)*

Objects of Bronze (Fig. 54)

167. Pin with knurled finial and moulding below. Point missing.*SF.822, WG.7, Roman pit at base of Anglo-Saxon Hollow 3*

168. Pin. *SF.1808, WG.11, P.406*

169. Pin. *SF.1878, WG.12, P.386*

170. Pin. *SF.2015, WG.13, P.472*

171. Pin. *SF.1884, WG.12, Layer 2*

172. Pin. *SF.115, WE.6, Anglo-Saxon SFB.9*

173. Pin. *SF.2073, WH.13, Anglo-Saxon SFB.66*

This group of pins all had small moulded heads. Numbers 172 and 173 are published in West 1985 (pt 2, fig. 52; fig. 216) but are included here as part of the group. It is worth noting that P.386 had a majority of the open cooking pot rims of Type 2.4 (see below) and the hooked rims of 2.7 (see below). Pit 406 had only one rim, Type 2.4. Pit 472 had one rolled rim of 2.6. On this evidence it would appear that the pins should be considered as early-to-mid 2nd century in date.

174. Fragment of **?bracelet**, circular section, having transverse nicks at one end. *SF.836, WH.7, D.75*

175. Twisted **ribbon**, pierced at one end, broken at other. Probably part of a bracelet. Published in Part I (West 1985, p. 60). *SF.2195, WG.13, R.B. Building 2, general Layer 2*

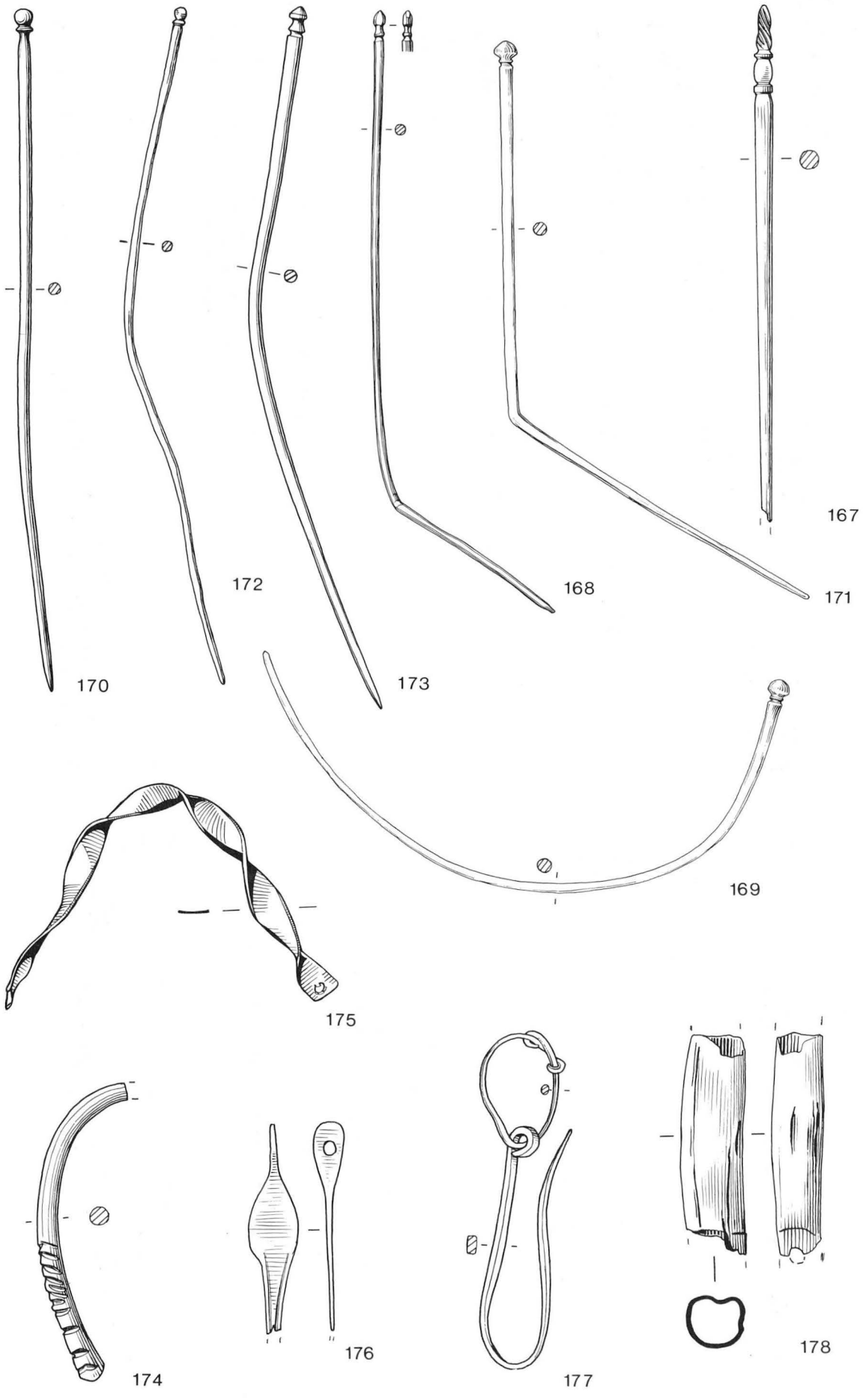


Figure 54 Romano-British objects of bronze. Scale 1:1

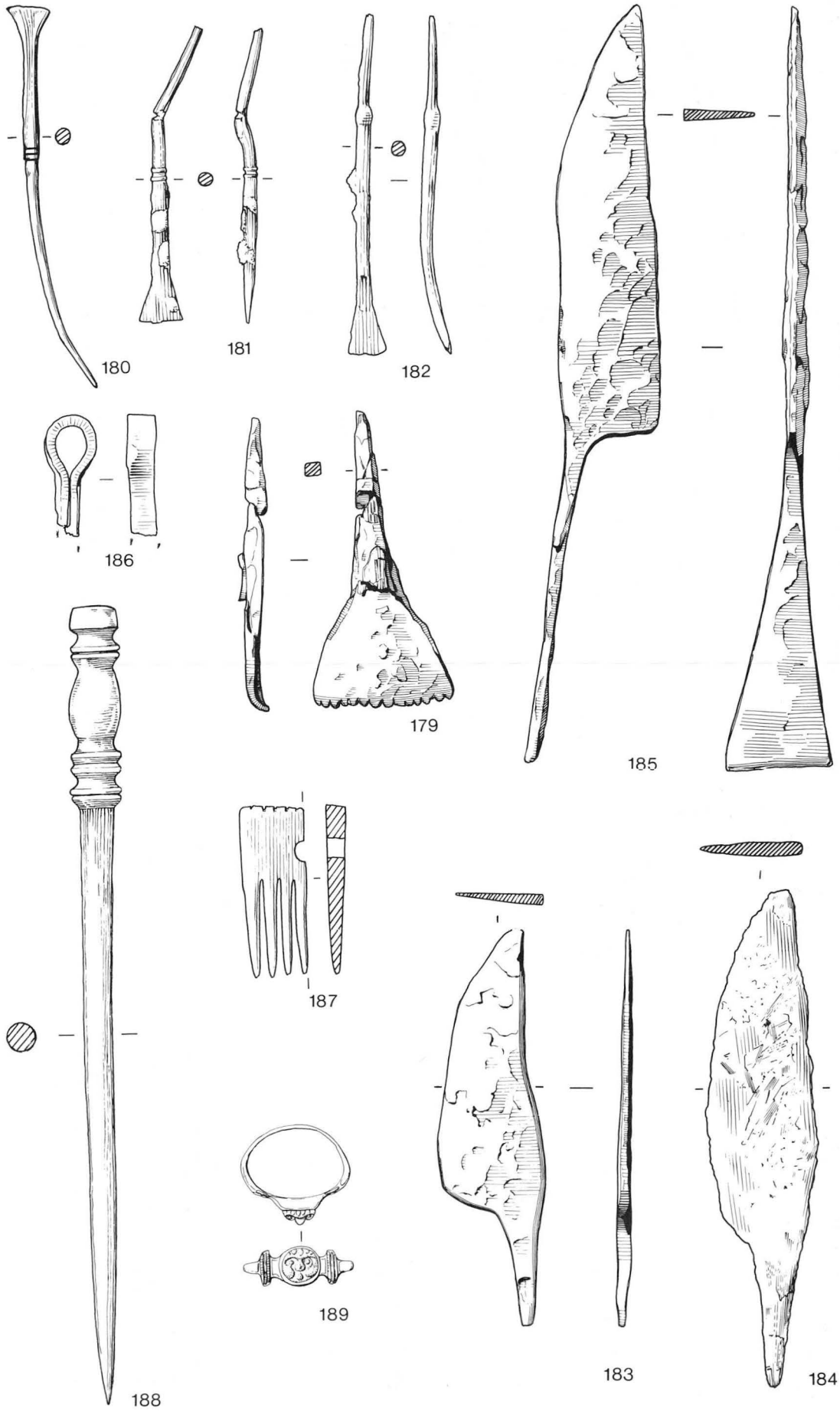


Figure 55 Romano-British objects of silver, iron and bone. Scales: silver, bone 1:1, Iron 1:2

176. Nail cleaner with flattened, transverse loop for suspension. Pit 121 contained little pottery, none of which belonged to the 'late' material. *SF.1281, WG.9, P.121*

177. Long, pointed **hook** of rectangular section suspended on simple wire loop with slip knot fastening. *SF.1234, WH.9, D.89*

178. Tubular fragment; no seam visible, rather uneven in shape and diameter; partly crushed. There is a marked enlargement at the lower end with part of a possible hole. Possibly part of a figurine. *SF.823, WG.8, Layer 2*

Objects of Iron

(Fig. 55)

179. Broad bladed tool with square shank and traces of wood. The blade has an incurved, serrated edge. *SF.1938, WG.12, P.415*

180. Stylus, round section with three Transverse lines. Published in Part I (West 1985, fig. 94, 6). *SF.595, WG.6, Anglo-Saxon SFB.22*

181. Stylus, round section with double moulding. *SF.91, WC.5, Layer 2*

182. Stylus with round section, slight swelling towards point. *SF.1650, WH.5, Layer 2*

183. Large **knife** of Roman type. Published in Part I (West 1985, fig. 194, 2). *SF.1821, WH.10, Anglo-Saxon SFB.58*

184. Large **knife** of Roman type. Published in Part I (West 1985, fig. 91, 3). *SF.655, WG.5, Anglo-Saxon SFB.21*

185. Half a pair of shears. *SF.2156, WG.13, Layer 2 over Romano-British Building 2*

186. Loop. *SF.1583, WG.10, P.266*

Objects of bone

(Fig. 55)

187. Fragment of **double-sided comb** with part of rivet hole. Its stratigraphic position suggests that it could well be of Anglo-Saxon date as the upper levels of the pit have the general cultural Layer 2 intermixed. *SF.1215, WG.9, Upper levels of P.128*

188. Large, well preserved **pin** with baluster moulded head. *SF.343, WE.4, Layer 2*

Object of silver

(Fig. 55)

189. Finger-ring with bezel of pale yellow glass, crudely moulded to form a face. *SF.1774, WG.10, D.215*

Objects of stone

(Fig. 56)

190. Greenstone **palette** with bevelled edges and strongly marked groove. *SF.806, WF.8, Layer 2*

191. Greenstone **palette** fragment with bevelled edges. From area of Anglo-Saxon Hall 1. Published in Part I (West 1985, fig. 9, 2). *SF.385, WD.3, Layer 2*

Romano-British objects published in Part I (West 1985)

The following objects were published in Part I and were either from Anglo-Saxon contexts or identifiably belonging to the later Roman material from the general cultural Layer 2. Figure and page references following the description of each object refer to West 1985.

Objects of Bronze

SF. 152; WE.6, SFB 6.	Decorated strip	(fig. 42, 1; text p. 18)
SF. 278; WE.5, SFB 12.	Miniature axe	(fig. 60, 3; text p. 21)
SF. 341; WE.4, Layer 2.	Spoon bowl	(fig. 237, 1; text p. 60)
SF. 392; WD.3, Layer 2.	Steelyard arm	(fig. 237, 2; text p. 60)
SF. 425; WF. 3, Layer 2.	Strip, ?bracelet	(fig. 76, 1; text p. 60)
SF. 447; WD.3, SFB 16.	Scoop. ?RB	(fig. 76, 1; text p. 24)
SF. 754; WG.5, Layer 2.	Bracelet fragment	(fig. 23B, 8; text p. 60)
SF. 844; WF.8, Layer 2 (area of Hall 3).	Ligula	(fig. 13, 1; text p. 11)
SF. 921; Layer 2.	Spoon handle	(fig. 237, 3; text p. 60)
SF. 927; Layer 2.	Bracelet fragment	(fig. 238, 9; text p. 60)
SF. 1041; WB.6, SFB 34.	Spoon bowl	(fig. 121, 4; text p. 32)
SF. 1059; WF.8, SFB 36.	Ear scoop	(fig. 126, 2; text p. 33)
SF. 1100, WH.8, SFB 42.	Spoon handle	(fig. 144, 2; text p. 36)
SF. 1133; WG.5, Layer 2.	Finger ring	(fig. 238, 28; text p. 60)
SF. 1279; WF.10, D. 113.	Glass ring	(fig. 229, 15; text p. 54)
SF. 1543; WG.10/11, Layer 2.	Bracelet fragment	(fig. 238, 13; text p. 60)
SF. 1676; WE.10, Layer 2.	Spoon handle	(fig. 237, 4; text p. 60)
SF. 1948; WF.12, Layer 2.	Spoon	(fig. 237, 5; text p. 60)
SF. 2078; WG.13, Roman Building 2.	?Bracelet fragment	(fig. 238, 15; text p. 60)
SF. 2211; WF.14, D.254.	Scoop	(fig. 229, 25; text p. 55)

Objects of Iron

SF. 595; WG.6, SFB 22.	Stylus	(fig. 94, 6; text p. 27)
SF. 2139; WE.14, Layer 2.	Handle, ?RB	(fig. 241, 11; text p. 61)

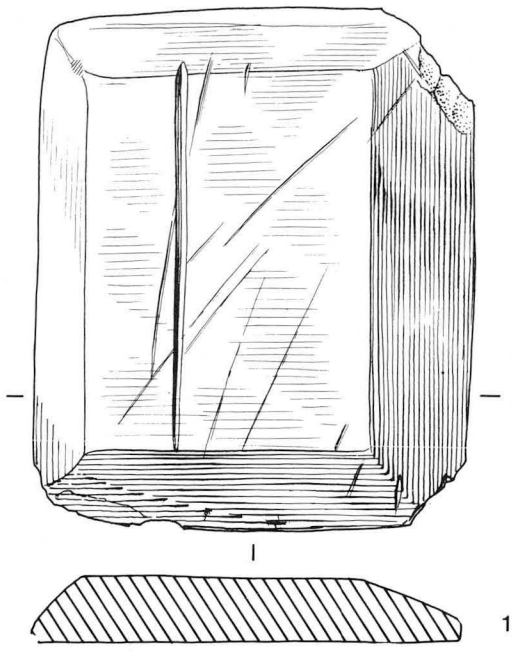
Objects of Glass

Note: Fragments of Roman window glass and glass vessels are published in West 1985, p. 75, 'The glass' by Vera I. Evison.

SF. 1279; WF.9, D. 113.	Finger ring	(fig. 229, 15; text pp. 55, 75, 76)
SF. 3058; WD.3, Layer 2.	Finger ring	(fig. 237, 6; text pp. 60, 75, 76)
SF.1062; WG.9, SFB.46.	Imitation gem	(fig. 277, 5; text pp. 39, 75, 76)
SF. 619; WG.5, Layer 2.	Fragment of bezel	(fig. 277, 7; text pp. 75, 76)

Object of Jet

SF. 536; WF.4, Layer 2.	Fragment	(fig. 238, 6; text p. 60)



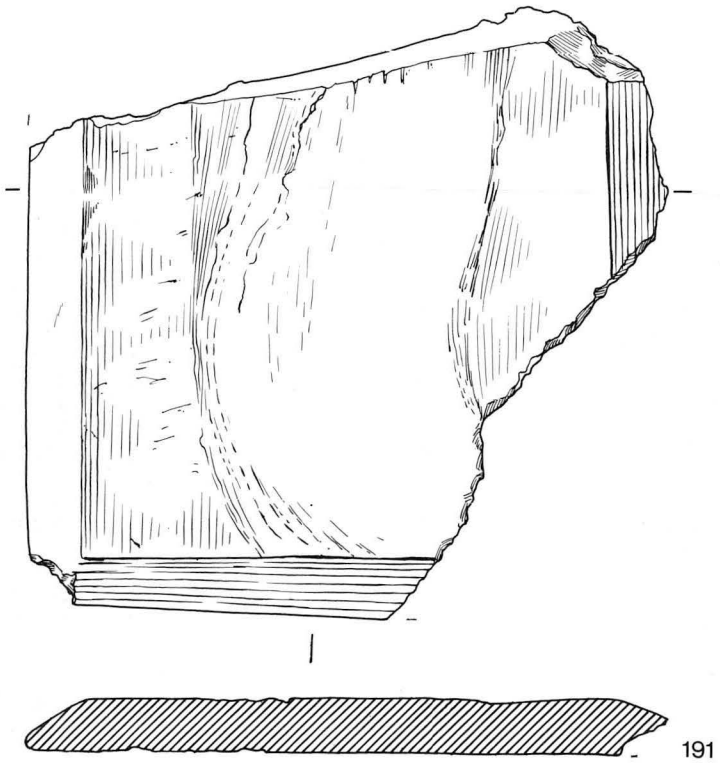


Figure 56 Romano-British objects of stone. Scale 1:1

The Romano-British Pottery

It is known that there were a number of kilns on West Stow Heath, producing much the same kinds of wares. On the site of the 1965-72 excavations there were five kilns, all within a short distance of one another, but, on the analysis of the pottery, spanning quite a long period of time. It seems likely that the potters were moving the sites of their kilns from time to time, so that there may not be a continuous history of pottery making on that precise site. Furthermore, the study of the pottery is complicated by the length of occupation, in that the kilns produced large quantities of waste, which has become inextricably mixed in the remains of the kilns and the pits around them. Nor is it possible to provide more than a general conclusion as to the order of progression of the kilns themselves, as waste from later or earlier kilns could so easily find its way into them.

The pottery industry from West Stow is remarkable for its high technical quality and for the diversity of forms represented. Twenty-six forms have been arranged in a type series (Table 17), some with a number of sub-divisions to accommodate apparently related but distinctive variations within the main types. The largest sub-group, 2.4, are medium-mouthed jars of great individual variety but basically a simple everted rim with an 'S' form which, doubtless, could be refined down to many sub-divisions. It was felt, however, that this would serve little purpose as they are functionally the same and the variations merge imperceptably into one another. A total of 8030 rims from contemporary pits and kilns were counted. A large quantity of kiln waste from unstratified and residual deposits was not analysed to prevent the mixture of late Roman material. All the analyses are presented as a result of rim counts; which at the time was considered the only practical method of demonstrating the relative quantities of each form present. Clearly with some forms, such as the flagons (Type 1), the number is close to a minimum number of vessels as there are many complete necks, but for Types 2 and 4 this is not accurate. With these forms, where there are so many vessels of identical size and shape, rim counts must present a distorted picture of vessel numbers and allowance made.

Vessel type	*No. of rims*	*%*	*Vessel type*	*No. of rims*	*%*
1.1	681	8.5	4.11	6	0.07
1.2	40	0.5	4.12	274	3.4
1.3	44	0.5	4.13	13	0.2
1.4	14	0.2	4.14	15	0.2
1.5	50	0.6	4.15	6	0.07
1.6	69	0.9	4.16	37	0.5
1.7	4	0.05	4.17	1	6.8
1.8	8	0.1	5	552	6.8
1.9	10	0.1	6	99	1.2
1.10	11	0.12	7	23	0.3
2.1	193	2.4	8	252	3.1
2.2	170	2.1	9	59	0.7
2.3	16	0.2	10	18	0.2
2.4	2994	37.3	11	174	2.2
2.5	32	0.4	12	9	0.1
2.6	542	6.75	13	15	0.2
2.7	353	4.4	14	7	0.09
2.8	1	0.01	15	117	1.5
3	245	3.1	16	2	0.02
4.1	56	0.7	17	26	0.3
4.2	75	0.9	18	22	0.3
4.3	24	0.3	19	55	0.7
4.4	272	3.0	20	1	0.01
4.5	103	1.3	21	21	0.3
4.6	46	0.6	22	1	0.01
4.7	64	0.8	23	1	0.01
4.8	12	0.15	24	1	0.01
4.9	4	0.05	25	1	0.01
4.10	87	1.1	26	2	0.02
			Total	8030	99.65
			Type 1	931	11.6
			Type 2	4301	53.6
			Type 4	1095	13.6
			Total	6327	78.8

Table 17 Romano-British pottery: analysis of vessel types.

Note: The table was constructed by a count of rim fragments; no attempt was made to arrive at a minimum number of vessels, which would have been impossible for some of the divisions (*e.g.* 2.4).

Fabrics

In general, the West Stow fabrics show an enormous range of colour, from white, buff and pink to dense black at the other extreme. The flagons, and some examples of Types 5 and 6 were clearly meant to be of light colour; most of the others are in a dark brown to black finish. The 'smother-pit' found in 1948 would indicate a desire to produce that finish. The standard of potting is high, in the best products, with the primary throwing finished by fine tooling of the bases to produce foot-rings, girth-grooves and rims. The surface treatment of much of the products is by burnishing the leather-hard surface, often very closely to produce a polished appearance.

Fabric 1

The buff, white and pink fabrics mainly used for the flagons and some of the other forms is dense, fairly hard and very fine grained with occasional minute flecks of chalk and sparce grit, capable of taking a high burnish.

Fabric 2

The brown and black wares range from soft to fairly hard, are fine grained with some rounded quartz inclusions.

Fabric 3

The latest coarse-ware pots of Types 2.6 and 2.7 tend to be much harder and of a coarse fabric with more sand backing. There is no evidence for the overall use of slip coating, other than for some flagons, as has been suggested (Rodwell, 1978); the fine surfaces were achieved by burnishing. The West Stow potters were very versatile, not only in the production of many different forms, but in the preparation of clays for special purposes particularly for the flagons, mortaria and some dishes and in the control of the firing processes.

Forms

Type 1, Flagons: 11.6% of total rims counted (Fig. 57; Table 18)

The majority, 89%, are single-handled ring-necked flagons in buff or white fabrics (Fabric 1) ranging from white to pink surfaces, normally with burnished bodies. There is clear evidence on a few examples of the use of a pale cream slip on the body of the vessel applied in stripes and splashes. The necks are thrown separately and afterwards married on to the body, and not pushed into the aperature; technically a weakness, as is evident by the number of

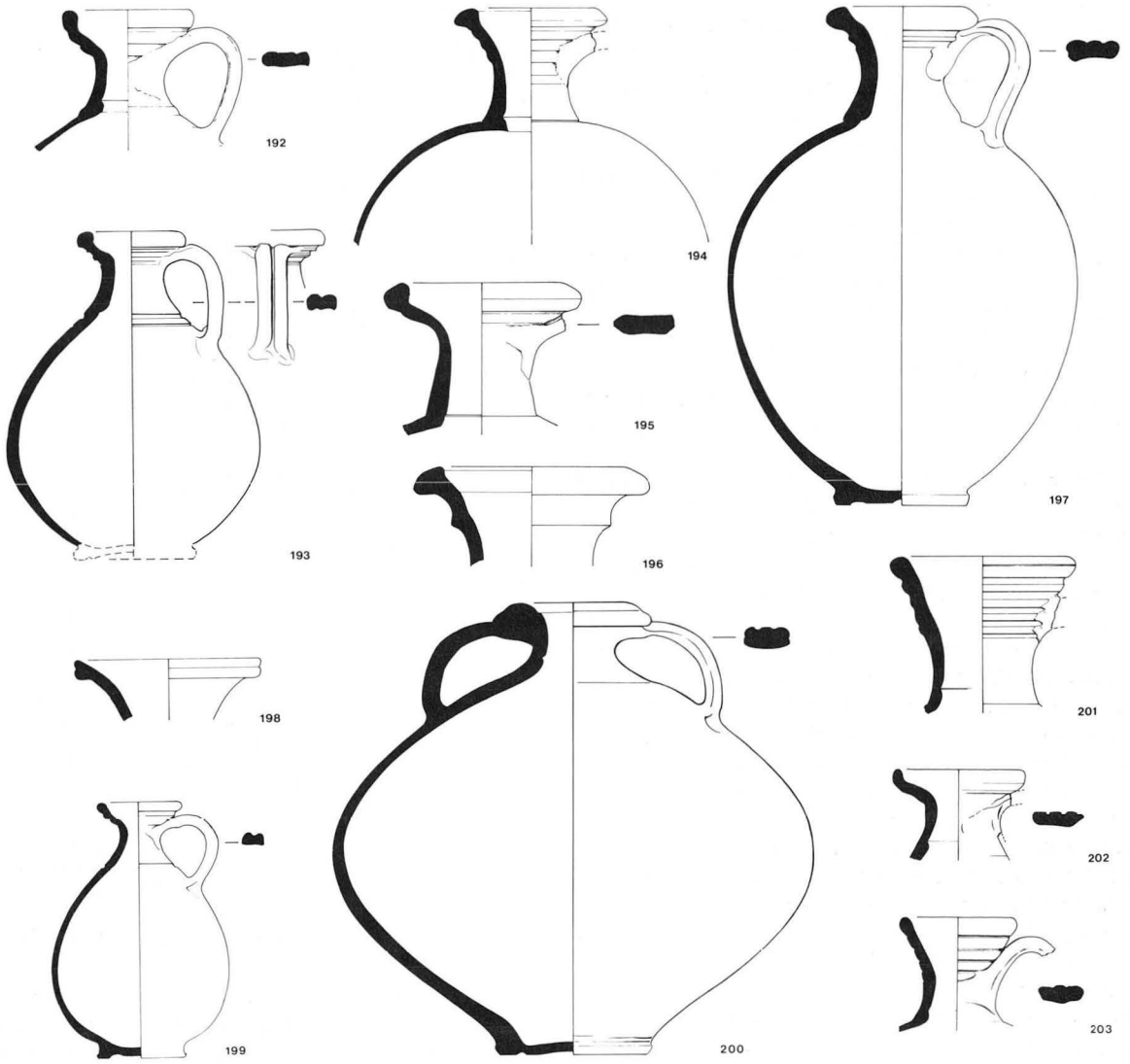


Figure 57 Romano-British pottery, Type 1. Scale 1:4

Flagon type	*No. of rims*	*%*
1.1	681	73
1.2	40	4.3
1.3	44	4.7
1.4	14	1.5
1.5	50	5.4
1.6	69	7.4
1.7	4	0.4
1.8	8	0.9
1.9	10	1.1
1.10	11	1.1
Total	931	

Table 18 Romano-British pottery: Type 1 flagons, numbers and percentages within group.

breakages at this point. The handles are reeded and luted on below the rims. All flagons are turned to provide a foot-ring. The fabric of all the flagons is a close grained, dense body, with occasional chalk grits. The desired colour was clearly a white/buff surface, but often with a pinkish tinge; Type 1.7 is a deep orange and may be intentionally that colour. Over-fired pieces are grey-green.

A wide variety is represented, of which 1.1 (hollow ring-necked) with some variations, is by far the commonest; those straight internally in the rim usually considered to be 'early', do occur, but rarely (1.8). Type 1.5 with fifty examples is a notable change; similar, but not exactly like *Camulodunum* 143, which is rare there and certainly early, although the date-range is uncertain, but on three examples given as AD 49-65. Type 1.9 (ten examples) is distinctive and may be copying a common early Roman bronze flagon (Marsh 1978, 139, type 3), although the handle does not spring from the lip, but is attached to the neck.

Two-thirds (622, including material from the Anglo-Saxon SFB above) of the total number of flagons were found associated with Kiln 5 and may well indicate specialised firing proceedures to achieve the oxidised surfaces. Examples of all the flagon forms were found associated with this kiln but 1.1 was by far the commonest (Table 18).

(Fig. 57)

1.1. Nos 192, 193. By far the largest group represented in the type series of flagons. Complete examples show an ovoid body with tall neck and rim with four rings, concave inside. There is usually a line at the junction of the neck to the body. *192: WG.13, Kiln 5; 193: WG.11, P.412*

1.2. No. 194. Similar to 1.1 but with a pronounced top ring which tends to be beaded internally. *WG.13, Kiln 5*

1.3. No. 195. A further development of Type 1.2 with a large rounded beaded top ring and usually only one other ring below. *WG.13, Kiln 5*

1.4. Nos 196, 197. Closely allied to Type 1.3 but larger, with a pronounced, but flattened, top ring and one, pointed ring below. *Both: WG.13, Kiln 5*

1.5. No. 198. A specialised form without rings, but with a doubled beaded rim with an internal groove. *WG.12, Kiln 4*

1.6. No. 199. Tiny flagon with three-four rings and internal hollowing. *WG.13, Kiln 5*

1.7. No. 200. Four examples only of large, globular, double-handled flagon, fired to deep orange colour and closely burnished. Heavy, rolled-over rim with simple, double-reeded handles. *All examples from WG.13, Kiln 5*

1.8. No. 201. Eight examples, seven from Kiln 5, only of very large flagon with five rings, neck straight or slightly convex internally. No complete examples. *WG.13, Kiln 5*

1.9. No. 202. Ten examples. Externally plain, rim concave internally. *WG.12, Kiln 4*

1.10. No. 203. Small flagon with rim diameter of *c.* 3.8 cm, small top ring and straight side to rim. *WG.12, Kiln 4*

Type 2, Jars: 53.6% of total rims counted (Fig. 58; Table 19)

More than 53% of the total rim count falls into this broad category of medium-mouthed jars. The range in form, fabric and finish is considerable and, as has been noted in the introductory paragraph, one of the categories, 2.4, could be sub-divided many times, but without real profit.

Jar type	*No. of rims*	*%*
2.1	193	4.5
2.2	170	4.0
2.3	16	0.4
2.4	2994	69.6
2.5	32	0.7
2.6	542	12.6
2.7	353	8.2
2.8	1	0.02
Total	4301	

Table 19 Romano-British pottery: Type 2 jars, numbers and percentages within group.

(Fig. 58)

2.1. No. 204. No complete examples; weak flaring rim. Grey fabric and surfaces. *WG.13, Kiln 5*

2.2. Nos 205-208. This is a beaker form with a small everted lip, decorated with ring stamps or 'flame' designs. Examples occur in various colours from buff to black. In basic shape it is very like a Type 4 poppy-head beaker decorated with panels of barbotine dots

205. Complete example of form. Small everted rim, turned base in brown fabric with brown to black surface; burnished exterior. Pointed outlined areas enclosing rows of comb impressed dots with single and grouped oval impressions. *Found by Henry Prigg in 1886 (see p. 00)*

206. Globular body with small everted rim. Turned base, grey fabric with grey burnished surface and double row of dot-and-ring stamps. *WH.10, P.378*

207. Poppy-head beaker shape, with barbotine decoration in a light grey, burnished micaceous fabric, not regarded as a West Stow product, possibly from Wattisfield. A precise parallel, from Grimstone End, Pakenham (Brown *et al.* 1954, fig. 25, 2) was found in a small group of secondary cremations in a barrow ditch, all considered to be within the range AD 80-120. *WH.10, P.389*

208. Fragment of girth band ornament in grey fabric with black surfaces; burnished exterior. Two lines of rosette stamps with 13 bars. *WG.13, RB Building 2*

2.3. No. 209. No complete examples. Weak, turned-over rim; the small number of examples may well mean that it is a variation of 2.4 although the examples did appear to be deliberately folded over. All are large, with diameters of *c.* 35 cm. *WG.13, Kiln 5*

2.4. Nos 210-213. Basically a simple, medium-mouthed jar of 'S' profile and single girth groove. This has a long pedigree; probably an ultimate derivative from the 'Belgic' double-cordoned pots, reduced to the simplest form. As mentioned above, there are many minor variations on this form; the rims form a continuum from one end of the spectrum to the other and range in colour from orange to black. The type as a whole is well finished with a burnished exterior and neat, turned bases. Generally very common locally and known to be a major component of the Wattisfield kiln group.

2.4(1), No. 210. An intermediate form between the double-cordoned 'Belgic' type and the 'S' shape, where the two cordons have come together almost on the girth of the body. Partially burnished, incompletely fired; red fabric with black surfaces. *WG.11, Oven of Kiln 3*

2.4(2), No. 211. Complete example with slight angle at junction of neck to body; orange-red fabric with some chalk; exterior burnished surface. *WH.10, P.389*

2.4(3), No. 212. Complete example from small range. All-over burnish and tooled line on base. Surfaces grey to buff. *WG.13, RB Building 2*

2.4(4), No. 213. For comparison with the West Stow type, this example is the form produced by the Wattisfield kilns, in heavily micaceous clay and may be the prototype for the West Stow product. Thin, dark grey to black fabric and surfaces; burnished. *WH.10, P.378*

2.5. Nos 214, 215. Carinated bowls with out-turned rims, some with zone of combed or cross-hatched ornament. No bases are known.

2.5(1), No. 214. Carinated bowl with out-turned rim. All-over burnish carried over top of rim. Grey-buff surfaces with grey core. *WG.13, Kiln 5*

2.5(2), No. 215. Carinated bowl, with wider mouth but functionally the same as (1). All-over burnish as before, but central zone decorated with uneven cross-hatching. Of the forty-five samples found, seventeen were found in *Kiln 5*, and five in *P.412. WG.13, Kiln 5*

2.6. Nos 216, 217. The whole impression of this sub-type is of a mass produced product, competently produced, functional, but with little attention to finish, having none of the surface treatment which characterises the earlier material. Found in the stoke-holes of both Kilns 4 and 5 in large numbers. Fine, sandy fabric, fired dark grey throughout.

2.6, Nos 216, 217. Plain, squat cooking pot with rolled-over rim, other examples with one to three grooves at the base of the neck. Bases are flat, often with string mark. *Kilns 4 and 5.*

2.7. Nos 218-220. Closely allied to 2.6, the rolled-over rim has a pronounced 'hooked' effect; it is doubtful if this should be separated as a distinct form, but 353 examples were logged. *Mainly from P.430*

2.7, No. 218. Plain, hard dark grey sandy fabric.

2.7, Nos 219, 220. Hooked rim as before, base with string marks; (2) reconstructed from waster. Both examples have very coarse barbotine decoration which is rare.

2.8, No. 221. Wide mouthed jar in hard light grey fabric with chalk inclusions. Exterior possibly burnished. Weak cordons with spaced vertical combing. Tooled ring under feet. Only one recognised but others may be incorporated in fragments in other groups.

Type 3, jars: 3% of total rim sherds (Fig. 58)

No. 222. Narrow-necked jar. Hard, grey or brown with all-over burnish. Range from 12-23 cm in height. Globular with rolled-over rim and neatly tooled

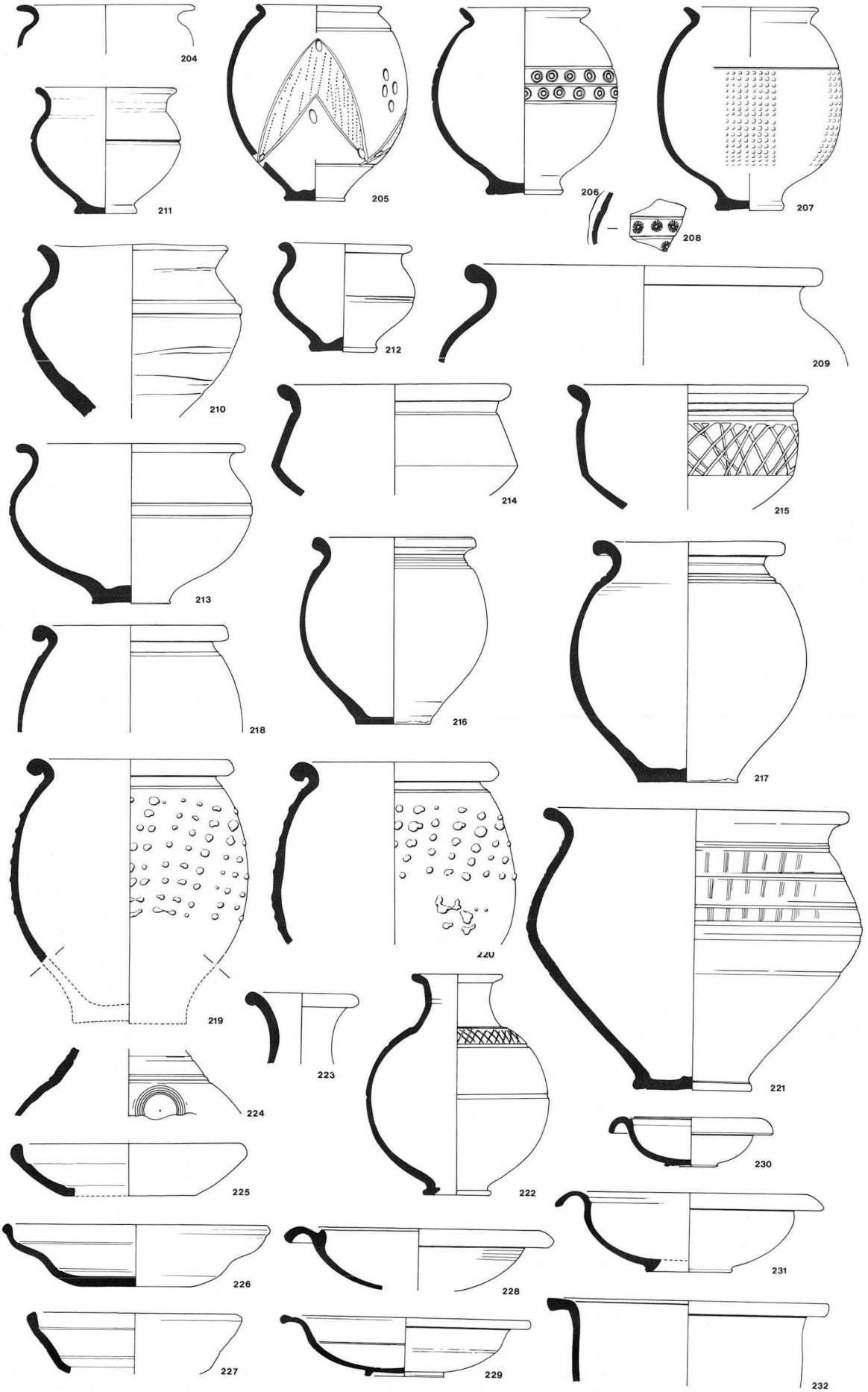


Figure 58 Romano-British pottery, Types 2-4, 6. Scale 1:4

base. Girth groove and occasional zone of cross-hatching on shoulder, bordered with two grooves. Previously published in 1952 report (West 1952, fig. 13).

No. 223. Neck with rolled-over rim. Dark brown fabric with burnished surface. *WH.12, P.430*

No. 224. Shoulder of similar vessel with two cordons at the base of the neck and spaced compass-drawn circles on shoulder. Buff fabric with burnished outer surface. *WG.13, Kiln 5*

Type 4, Bowls/Dishes: 8.5% of total rims (Figs 58, 59; Table 20)

This general type covers a wide range of bowls and dishes, many of which are related and some derive from samian forms. Other, very distinctive samian derivations of bowls and cups, notably those of F.37 (Type 5), F.30 (Type 6), F.33 (Type 9), F.27 (Type 10) Loeschcke 7 (Type 18) and Types 7 and 20 have been isolated and given separate type numbers.

Type	*No. of rims*	*%*
4.1	56	5.1
4.2	75	6.8
4.3	24	2.2
4.4	272	24.8
4.5	103	9.4
4.6	46	4.2
4.7	64	5.8
4.8	12	1.1
4.9	4	0.4
4.10	87	7.9
4.11	87	7.9
4.12	274	25.0
4.13	13	1.2
4.14	15	1.4
4.15	6	0.5
4.16	37	3.4
4.17	1	0.1
Total	1095	

Table 20 Romano-British pottery: Type 4 bowls and dishes, numbers and percentages within group.

(Fig. 58)

4.1. No. 225. In-turned rim and convex walls externally, with marked internal grooves at rim and base. Base flat. All-over close burnishing. Fired brown-black, intention seems to be for a black finish. These have a native Gallo-Belgic background derived from similar Colchester forms (*Cam.* 24, 26, 27) but without the foot ring. *WG.13, Kiln 5*

4.2. Nos 226, 227. Very similar to 4.1 but with concave walls externally. Sufficient numbers of each were found to justify a distinction, but occuring in the same contexts. The exterior burnishing on 4.2 is normally limited to the base and lower wall. Derives from Gallo-Belgic platters and compare well with *Cam.* Form 28, dated there to Claudius-Nero. Type 4.1, 4.2 occasionally bear copies of Gallo-Belgic stamps; see Rigby, below, Group Ca, Die 7. *WG.10, P.267 and WG.13, Kiln 5*

4.3. No. 228. Shallow bowl with prominent upstanding ridge on the flange. Base not known but very probably turned as in 4.4. Presumably related to 4.5 although the ridge is much more a feature of the design and the fabric normally the same as the flagons, with creamy buff surfaces and pink core. *WG.13, Kiln 5*

4.4. No. 229. Thin, open dish with all-over burnish, internally and externally, except under rim. Beaded rim, more or less pronounced and groove internally at base of 'neck'. Two grooves define center of base. Base small turned foot-ring, often turned too far, as most of the wasters are broken at the junction of the base and the wall of the vessel. Few examples in pink fabric, but most in grey to black. At least four have copies of Gallo-Belgic stamps, see Rigby below. The form is ultimately derived from the samian Form 36 and is similar to the much later products of the Oxford region. *WG.10, P.267*

4.5. Nos 230, 231. In form rather deeper than the preceeding 4.3, and 4.4. Thin walled with all-over burnish. Inner edge of flanged rim marked by tiny cordon. Base a small turned footing commonly over-cut, producing a basic weakness as in 4.4. The form is a copy of samian Form 35 and is, occasionally at least, stamped with a native copy of a Gallo-Belgic potter's mark (Fig. 31, No. 14). A few examples are in the buff to white flagon fabric, but most are grey to brown to black. *c.f. Cam.* Form 46 in buff ware. *WH.10, P.378*

4.6. No. 232. Flat flanged bowl with vertical wall. Grey to black, unburnished. Other examples show flat base and occasional zone of combing (*c.f.* West 1952, fig. 12, 5b, 5c). *WH.10, P.389*

(Fig. 59)

4.7. No. 233. Simplest form of flat dish, with low sides. All-over burnish, internally and externally, the illustrated example has clearly been inverted and turned, the lower part of the wall cut away, producing a slightly angular appearance. Grey to black finish. *WH.12, P.430*

4.8. No. 234. Open bowl with slightly beaded rim. Burnished internally, with three fine grooves defining the centre of the base. Eleven examples are stamped with native copies of Gallo-Belgic stamps usually within inscribed circles. Externally the base has a diminutive foot-ring. Dark grey to black fabric. *WG.10, P.259*

4.9. No. 235. Copy of samian Form 18 in brown to grey ware, burnished externally and internally. Rare.

4.10. No. 236. Deep bowl with 'hooked' rim and rounded profile, smoothed or burnished. No bases extant. Grey ware. *WG.12, Kiln 4*

4.11. No. 237. Small bowl with everted rim, two grooves on upper surface. Buff 'flagon' fabric. Form not certain, possibly more-jar shaped than a bowl. *WG.13, Kiln 5*

4.12. No. 238. Deep bowl with heavy, beaded rim and rounded profile, in grey to black fabric with all-over burnish. Flat base with external angle to side. Rims formed by extending rim and folding it down upon itself. Only one example has lattice ornament. *WG.13, Kiln 5*

4.13. No. 239. Shallow bowl in hard, coarse fabric; slightly swollen rim and angle to lower part of wall. *WH.12, P.449*

4.14. No. 240. Deep bowl with rolled-over rim. Grey core, orange surfaces, burnished externally. *WH.12, P.430*

4.15. No. 241. Deep bowl with wide, flat flanged rim; upstanding internal bead. Rounded profile and high, turned foot-ring. Dense fabric, deep buff surfaces and much of core; thick pink core in places. Both surfaces burnished. Copy of native Gallo-Balgic in stamp in centre of base. (Rigby, fig. 32, 16, below). Looks like a copy of Curle type II (Curle 1911, pl. 39, 11)

4.16. No. 242. Open bowl in dark grey fabric with black burnished surfaces. Out-flaring rim with marked swelling at the carination. No bases extant but probably had a tooled foot-ring. *C.f.* Curle type 15 (Curle 1911). *WG.13, P.481*

4.17. No. 243. Necked bowl in dark grey fabric with black surfaces with rather poorly burnished exterior. Conical neck above sharply incurving shoulder and simple out-turned rim. No base extant. *WG.10, P.401*

Type 5, copies of samian Form 37: 6.9% of total rims counted (Fig. 59)

These copies of the samian Form 37 are among the best

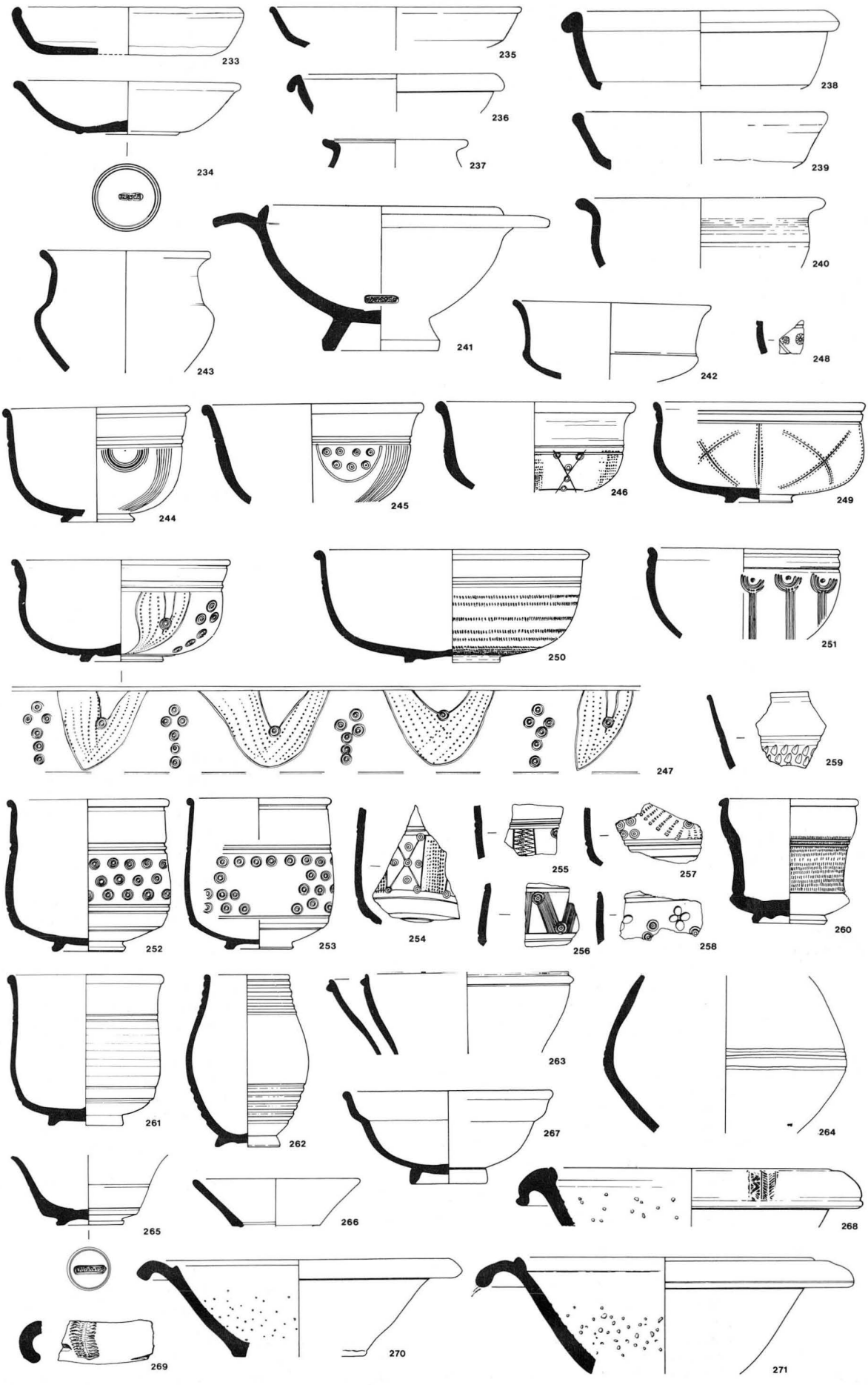


Figure 59 Romano-British pottery, Types 4-7, 11. Scale 1:4

products of the West Stow kilns in terms of technique and decoration. Most are carefully made with neat bead rims and turned bases, an all-over external burnish and a wide variety of stamped, combed, incised and rouletted designs. Most are in a brown to dense black ware, although some, from the kiln site found in 1951, and from the 1965-72 excavations, are in a hard, creamy white 'flagon' fabric. These, when decorated, have coarse rouletting (Fig. 59, 250).

(Fig. 59)
Type 5 decorative schemes

5A. No. 244. Compass-drawn semi-circles, interspaced with bands of vertical combing. Number of semi-circles range from 3-10 and vertical lines from 5-14+. *WG.11, Kiln 2 (West 1952, fig. 10, 1a; 45)*

5B. No. 245. Single-line pendant swags enclosing groups of ring-and-dot stamps interspaced with bands of vertical combing. *WG.11, Kiln 2 (West 1952, fig. 10, 1b; 45)*

5C. No. 246. Ring-and-dot stamps in cross formation with vertical bands of rouletting. *WG.8, smother pit (West 1952, fig. 10, 1c; 45)*

5D. No. 247. Groups of ring-and-dot stamps between bands of 'flame' motif; *i.e.* free drawn lines enclosing lines of comb-impressed dots.

5E. No. 248. Oval stamped rosettes, rare. In one example from the 1952 excavation there was an enclosing single-line swag. Ten and thirteen petals. *WH.7, D.75*

5F. No. 249. Alternate vertical and crossed lines out-lined with comb-impressed dots. *WG.10, P.267*

5G. No. 250. All-over decoration of horizontal plain rouletting. This form is invariably in white to buff 'flagon' fabric. *WG.11, P.412*

5H. No. 251. Coarse variety with combed lines dropping from compass drawn semi-circles. In brown to grey fabric, burnished externally. This variation on the design occurs on only one example from the site and, coupled with the presence of fine grains of mica in the fabric, suggests that is an import. *WB.6, P.114*

Analysis of decorative features

(Tables 21 and 22)

The vertical combed bands are relatively shallow, with a squared section, made with a multi-tongued tool. Not all the tongues were always in contact and some clearly fade out along the band, thus making a qualitative analysis of questionable value. The compass-drawn semi-circles were made with a different tool, with broader blades, again multi-tongued and, again, not always in maximum contact. As with all the decorative features, the compass-drawn semi-circles and the combed lines were applied after burnishing, rarely raising any rough edges to the lines.

No. of rings	*No. of Examples*	*Range of outer radius (cm)*
3	3	1.2 (2), 1.3
4	2	1.2, 1.55
5	9	0.9, 1.2, 1.4, 1.55, 1.7*
6	10	1.4 (2), 1.55 (2), 1.65 (2), 1.7, 1.8, 1.9, 2.0
7	14	1.4, 1.5 (2), 1.6 (2), 1.65, 1.7 (3), 1.75 (2), 1.8, 1.9 (2)
8	6	1.2, 1.6, 1.8, 1.9 (3)
9	3	1.1, 1.4 (2)
10	2	1.8, 1.9
Total	49	

* 4 not measurable

Table 21 Romano-British pottery: Type 5, analysis of decorative features (compass rings and combed lines).

No. of lines	*No. of examples*
5	2
6	0
(7+)	(1)
8	4
(8+)	(1)
9	1
(9+)	(1)
10	8
11	9
12	4
13	1
14	2
(14+)	(1)
Total	35

Table 22 Romano-British pottery: Type 5, analysis of decorative features (vertical combed lines).

Type 6, copies of samian Form 30: 1.2% of total rims counted (Fig. 59)

As with Type 5, these are among the highest quality products on the site and are carefully and expertly finished. The major range is in the dark to black fabrics and surfaces; outer surface close-burnished. A small number of examples are in the typical 'flagon' fabric and not burnished. The decorative zone has many variations, many with dot-and-ring impressed stamps; all over or in groups; or divided by lines or rouletted bands. Examples in 'flagon' fabric are decorated with close, simple, horizontal rouletting and are much more 'waisted' and may owe something to the native Gallo-Belgic tradition of girth and pedestalled beakers. No copies of native Gallo-Belgic stamps are known on this form.

(Fig. 59)
Type 6 decorative schemes

6A1, 2. Nos 252, 253. Central zone occupied by ring-and-dot stamps either all-over or in groups. *WH.7, D.75*

6B(1). No. 254. Panelled decoration with stamped circles in cross formation joined by lines with free stamps between the arms, intersperced with vertical bands of rouletting. *WH.11, Kilns 1 and 2 (West 1952, fig. 11, 2b; 47)*

6B(2). No. 255. Vertical band of ornament made with 'rocker' tool. *WG.12, P.387*

6C. No. 256. Ring-and-dot stamps on a zig-zag of combed lines. *WH.7, D.75*

6D. No. 257. Ring-and-dot stamps associated with running band of rouletting. *WG.13, P.481*

6E. No. 258. Ring-and-dot stamps in group intersperced with clusters of impressed ovals. *WH.11, P.403*

6F. No. 259. All-over pattern of angular impressions. *WG.13, P.481*

6G. No. 260. All-over, coarse horizontal rouletting, in 'flagon' fabrics. The form is much thicker with the curves and angles accentuated. *WH.11, Kilns 1 and 2 (West 1952, fig. 11, 2e; 47)*

6H. No. 261. Plain form with fine horizontal lines in the field. *WG.10, P.267*

Ring-stamps on Types 2.2, 5 and 6 (Table 23)

The character of stamps on pottery is likely to vary according to the hardness of the vessel, the amount of pressure exerted and any variation of the angle of the stamp to the vessel. Using the central 'blip' as the most likely constant feature of the ring-and-dot stamps these were measured in mm (Table 23). The number of 'rings' counted are represented by the grooves on the impression rather than the upstanding parts. The outer shape can vary considerably and the only sure method of comparison,

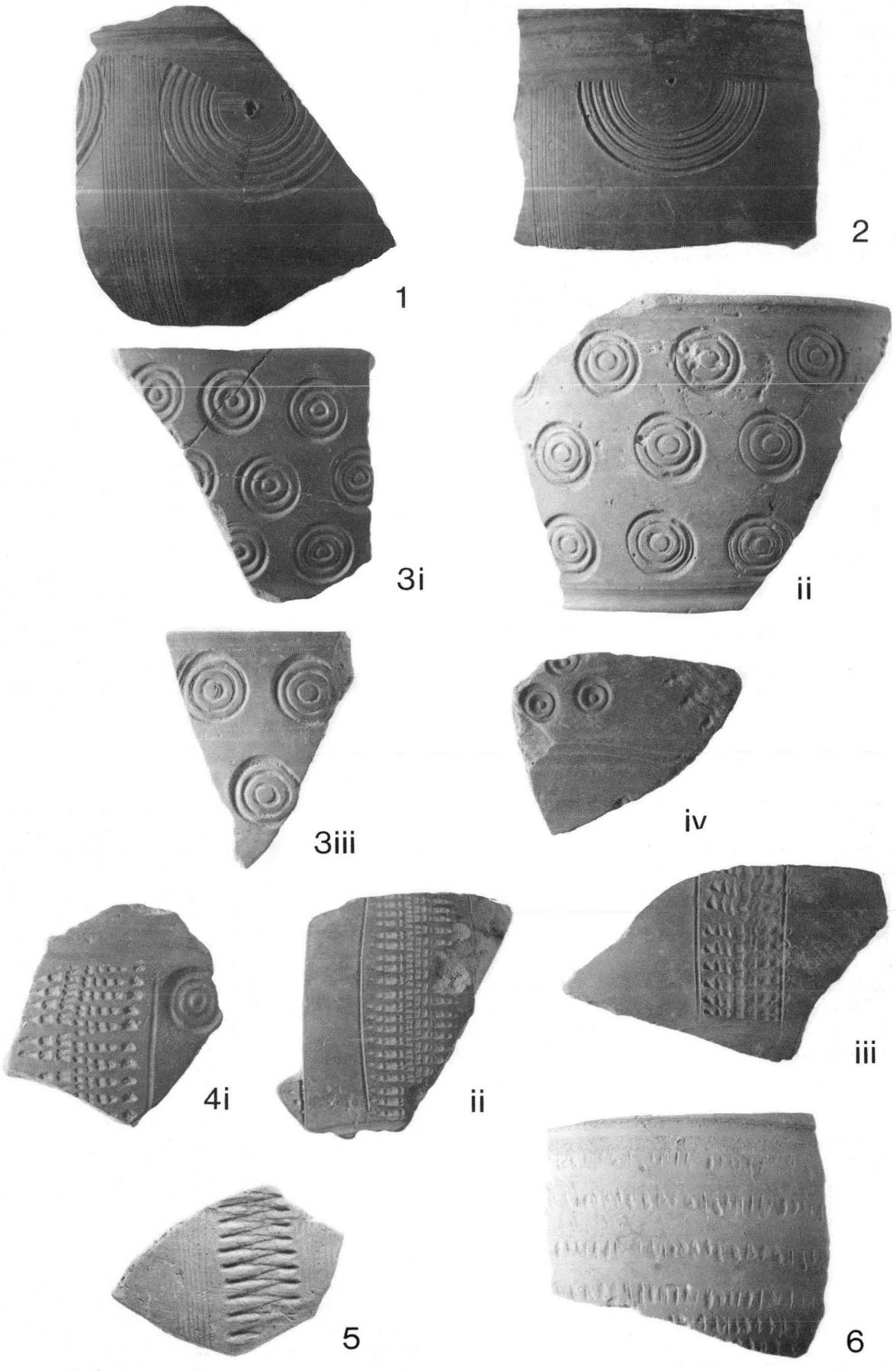


Plate VII Romano-British pottery: decorative schemes. Scale 1:1 1, 2: combed verticals and compass drawn circles; 3-6: examples of ring and dot stamps; 7-9: examples of rouletted zones; 10: 'rocker' tool; 11: coarse rouletting (1: P.403; 2: P.403; 3i: P.488; 3ii: P.378; 3iii: P.378; 3iv: P.430; 4i: D.75; 4ii: D.75; 4iii: P.387; 5: WE.13, Layer 2; 6: P.412)

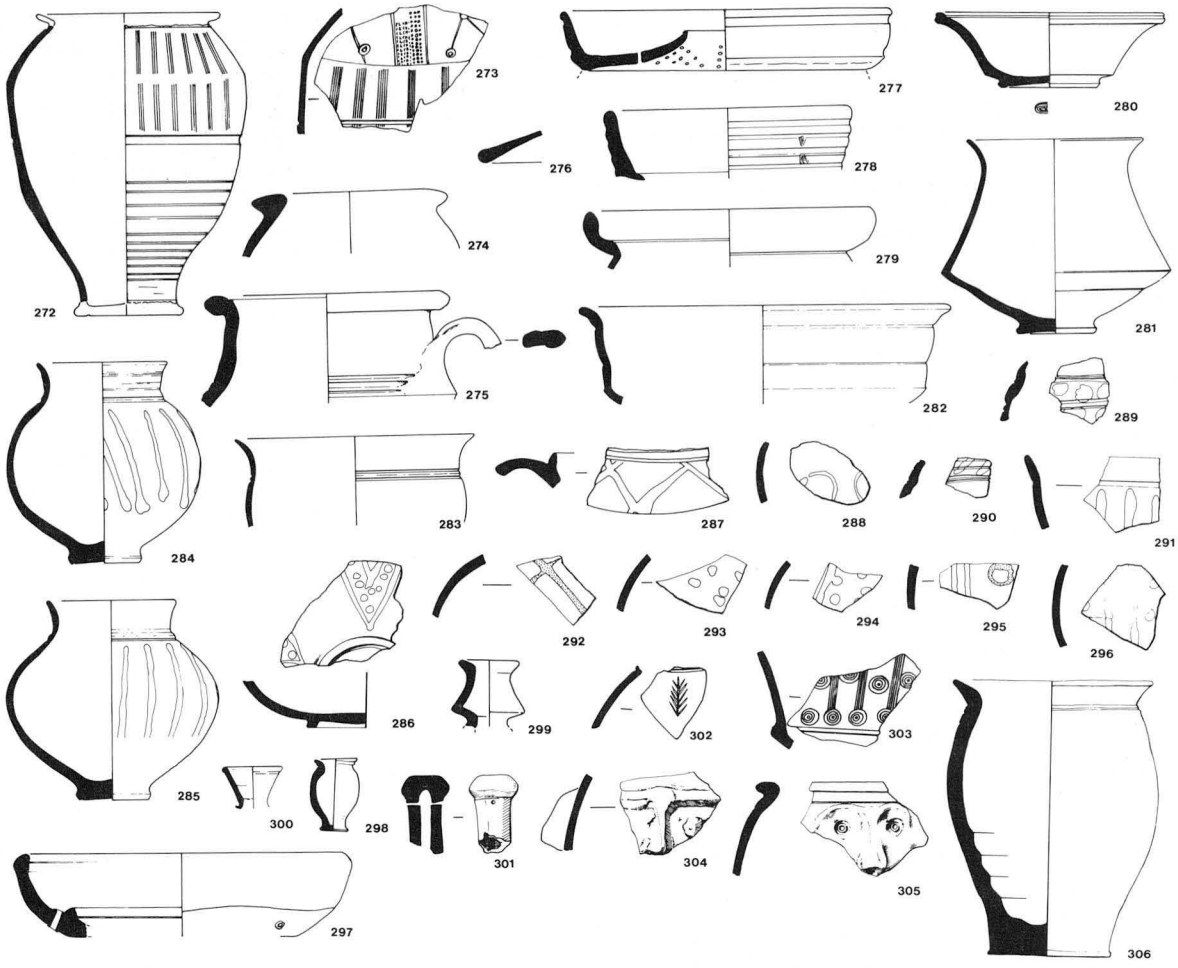


Figure 60 Romano-British pottery, Types 12-26 and miscellaneous. Scale 1:4

particularly between sites, is by direct confrontation, stamp to stamp.

Diam. of 'blip' (mm)	*No. of examples*	*No. of rings 1*	*2*	*3*	*Type*
1	3	0	2	1	5 (2)
1.5	9	2	2	5	5, 6 (5), ?(2)
2	17	3	11	3	2.2 (3), 5 (3), 6 (9)
2.5	10	0	7	3	2.2 (3), ?5, 6 (5), ?(6)
3	2	0	1	1	2.2, 6
3.5	1	0	0	1	?6
no central blip	1	0	1	0	6

Table 23 Romano-British pottery: size and incidence of ring stamps.

Type 7, barrel-shaped beaker: 0.3% of total rims counted (Fig. 59)

No. 262. Ten rim fragments, representing four examples only, in dense, dark brown fabric with brown surfaces blotched in black, burnished all over externally. Turned base and two zones of deeply cut grooves at top and bottom. Samian form, barely known outside Colchester; only dating given is to a grave at Remagen, *c.* AD 100 (Hull 1963, 82-3; fig. 47, 11-16). *WG.12, P.387*

Type 8, jugs: 3% of total rims counted (Fig. 59)

Nos 263, 264. Jug with flaring neck and simple pouring lip, wide, carinated body and turned foot-ring. All in buff to pink flagon fabrics, burnished on lower half of body. No complete profile recovered.

Type 9, cups, similar to samian Form 33: 0.1% of total rims counted (Fig. 59)

Simple, low forms in buff to pink flagon fabrics or occasionally in dark brown to black.

Nos 265, 266. Base and part of side-wall in burnished black ware with native copy of Gallo-Belgic stamp in centre (Rigby, below, 18). *WH.9, D.101*

Type 10, copy of samian Form 27: 0.2% of total rims counted (Fig. 59)

No. 267. Finely made in pink 'flagon' fabric, carefully burnished internally and externally with internal grooves on base. *WG.11, P.412*

Type 11, mortaria: 2.2% of total rims counted (Fig. 59)

Nos 268-271. Consistently made in a white to buff fabric. Simple overhanging rim with internal bead, which was applied separately and continued to form the sidewalls of the spout. The grits are normally low down and, with one exception, of angular blue to white flint up to 5mm across. The exception has small, rounded flints and quartz grains up to 1.5mm across. **No. 268:** *WG.9, P.146;* **No. 269:** *WE.8, SFB.50;* **No. 270:** *WH.10, P.389;* **No. 271:** *WG.12, P.387*

Type 12, butt beaker derivatives: 0.1% of total rims counted (Fig. 60)

No. 272. Rare, the most complete example illustrated in 1952 Kiln Report (West 1952, fig. 13, A(i)). Dark brown burnished ware with both horizontal and vertical combed lines and one sherd with impressed ring stamps and band rouletting *(not illus.)*. A number of base sherds, probably from similar vessels, were found in the 1965-72 excavation.

No. 273. Shoulder with rouletted band between cross motif with stamped circles, bands of vertical lines below. Brown fabric, burnished externally. *WH.10, P.389*

Type 13, jar with flattened rim: 0.2% of total rims counted (Fig. 60)

No. 274. Rim only of jar, probably of rounded profile, with distinctive, thickened rim, flattened above. Grey to black ware, externally burnished. *WH.12, P.430*

Type 14, wide-mouthed jar with two handles: 0.1% of total rims counted (Fig. 60)

No. 275. Rim and neck only, in white flagon fabric. Groove on upper surface of rim. *WG.13, Kiln 5*

Type 15, lids: 1.5% of total rims counted (Fig. 60)

No. 276. Simple form with bead rim, unburnished, brown to grey fabrics. *WG.13, Kiln 5*

Type 16, incense burner: 0.2% of total rims counted (Fig. 60)

No. 277. Two examples only, the most complete in 1952 Kiln Report (West 1952, fig. 11, 10), in buff to pink burnished 'flagon' fabric. Central aperture with alternate lines and triangles of pierced holes, body missing. *C.f.* Fox (1923, pl. xxi, 3) from Litlingham in Cambridgeshire.

No. 278. Wall only in buff flagon fabric. *WG.13, Kiln 5*

Type 17, jars with seating for lids: 0.3% of total rims counted (Fig. 60)

No. 279. In grey to black ware. *WH.12, P.449*

Type 18, cup: 0.3% of total rims counted (Fig. 60)

No. 280. Fine, hard grey fabric with light brown burnished surfaces, low squared foot-ring. Beaded rim with strong internal groove, but no groove midway down inside like the Colchester example (*Cam* Form 53B, Hawkes and Hull 1947, pl. L111). Fragment of native copy of Gallo-Belgic stamp. Close parallels to Loeshcke 7 (Haltern 77); in Colchester the range is periods I-III with rubbish survivals to VI (Hawkes and Hull, 1947, 226). Whatever the origins of this form it must be among the earliest on the site. *WH.10, P.378*

Type 19, carinated beaker: 0.7% of total rims counted (Fig. 60)

No. 281. Fine finished, with sharp carination and flat turned base; close all-over burnish. Dark brown to black ware. The finest examples at Colchester in *Terra Nigra* ware, much copied later in 1st century in local wares; examples from Needham (Norfolk), Grimstone End, Pakenham (Suffolk). *WG.12, P.431*

Type 20, ?copy of samian Form 29: 0.01% of total rims counted (Fig. 60)

No. 282. Only one example. Not decorated, but the form, with out-turned rim suggests the samian prototype. Brown to grey fabric, buff burnished outer surface. *WH.10, P.389*

Type 21, beakers: 0.3% of total rims counted (Fig. 60)

No. 283. Thin, finely finished vessel in grey to black fabric, close burnished all-over externally. Out-turned rim with two lines at base of neck. Other examples of this form were decorated with applied slip in lines, dots and circles (see below).

Painted wares (Table 24)

A total of 117 fragments of painted pottery were recovered from the site, mainly in the area of the kilns. Of these, fifty-five separate sherds and nineteen others, representing the two restored pots (Fig. 60, Nos 284 and 285) were recovered from Romano-British pits containing kiln waste. One sherd (SF.1947, Fig. 60, No. 286) was found inside Kiln 4. With two exceptions (Bag 146 and 1079) the fabric is that used for the flagons, a creamy-buff to pink ware, fired hard. The high standard of finish, with neat, turned bases, careful burnishing and style of the vessels represented here is also characteristic of the pottery from these kilns. There can be no doubt, therefore, that the painted wares are products of this pottery industry. Various forms are represented in the painted group.

Fig. 59	*Context*	*Form*	*Fabric*	*Paint*	*Description*	*No. sherds*
	WG.11,F.138		Bu	Wh	Vert. line	1
	D.245	Jar	Bu	Bu/Wh	Horiz. line	1
	D.245	Jar	Bu	Bu/Wh	Horiz. line	1
	D.245	Jar	Bu	Dark R	Horiz. line	1
	D.245	Jar	P	Bu	Horiz. lines	1
	D.245	Jar	P	Bu	Splash	1
289	WF.13,L.2		Bu	Wh	Large dots	1
	F.152	Gr, P surface	Wh	Dot	1	
	F.152		Bu	Wh	Horiz. line	1
	F.152		P	Wh	Splash	1
	P.472		P	Wh	Broad horiz. stripe	1
	P.472		P	Wh	Vert. line	1
288	P. 472		P	Pu	Circles	1
	L.2	Flanged bowl	Bu	Pu	Lines	1 rim
	SFB.66	Jar	P	Wh	Vert. lines	1
	D.249	Jar	Bu	Wh/Bu	Horiz. lines	1
	P.475	Jar	Bu	Wh	Vert. lines	2
	P. 475	Jar	P	Pu	Circles and dots	3
	P. 475		Bu	Wh	Vert. line	2
	D. 248	Jar	P	Slip-W	?Applied slip	1
	SFB.66		B	W	Circle	1
	SFB.66		P	Pu	Lines	1
	D.250		Bu	Wh	Vert. lines	1
290	Ph.2049	Jar	Bu	Wh	Diagonal lines	1
287	SFB.65	Flanged bowl	P	Bu	Lines on flange	1 rim
	Hollow 1		Gr	Bl	1 line	1
	F.56	Jar	Gr	Gr	3 vert. lines	1
	Layer 2		Soft P	Wh	?	1
	D.216/7		Soft Bu	R	Line	1
	WG.10, L.2		P, burn-ished	Wh	2 vert. lines, 3 dots	1
291	WG.11, L.2	Jar	Bu	Wh	Vert. lines	4
	WH.11, L.2	P	Wh	Dots	1	
284	P.378	Jar	Bu/P	Wh	Vert. lines	16+3 rims + 1 pot
285	P.378		Bu/P	Bu	Vert. lines	3 + 1 pot
	P.378		P	Wh	Vert. lines	1
	P.378	P	Wh	Dots	3	
	P.378		P	Cr	Vert. lines	1
296	P.389		P	Wh	Vert. lines, dots	1
293	P.389		P	Wh	Dots	10
294	P.389		P	Wh	Dots and lines	1
	P.389		P	Wh	Vert. lines	3
295	P.389		P	Wh, Pu	Vert. lines (Pu), circle (Wh)	1
	P.389		P	Wh, Pu	Dots (Wh), line (Pu)	1
	P.389	Jar	P	Pu	Horiz. line	1
	P.389		P	Pu	Line	2
292	P.389		Bu	Pu	Lines, some crossed	7
	P.389	Bottle	Bu	Bu	Vert. lines	1
	P.380		Bu-P	Wh	Lines	17
	WG.11, L.2		Bu	Wh	Dot-?line	1
	P.390		P, burn-ished	Wh	Dots	1
	P.479		P	Wh	Dots	1
286	SFB.4	Bowl	Bu, P surface	Wh	Pendant triangles and dots	1 base
Total						116

Key:

Bl = Black
Bu = Buff
Cr = Cream
Gr = Grey
P = Pink
Pu = Purple
R = Red
Wh = White

Paint	*No. occurences*
Bl/Gr	2
Wh	82 (+ 1 slip, 1 pot)
Bu	8 (+ 1 pot)
Bu/Wh	3
R	2
Pu	16
Wh and Pu	1
Cr	1

Table 24 Romano-British pottery: painted wares.

Nos 284, 285. Small jars in buff fabric, externally burnished. Small cordon at the base of the neck in 284 and a groove in 285. Bases turned with small groove underneath. White paint in vertical lines. The form follows the early 'poppy-head' beakers with upstanding rim and cordon and relate in some way to the 'dot-and-ring' beakers from London, dated *c.*AD 75. Although the form is not the same, the decorative dot-and-circles (but no panels of barbotine dots) probably share the same tradition. Nearer to home are the beakers from the fill of the ditches at the War Ditches site, Cherry Hinton

(Cambs.), decorated in dots and circles in white or coloured slip (Fox 1923, 208; pl. XXIV). *WH.10, P.378*

No. 286. Base and part of the wall of hemispherical bowl in buff fabric, pink externally. Burnished internally and externally. White paint in pendants containing white dots. *WH.12, Found against wall inside Kiln 4*

No. 287. Wide flange in burnished pink fabric with buff lines. *WG.13, Early SFB.65, close to Kiln 5*

No. 288. Body-sherd in pink fabric, purple circles. *WG.13, P.472*

No. 289. Body-sherd in buff fabric with narrow cordons, large white dots. *WF.13, Layer 2*

No. 290. Body-sherd in buff fabric with cordons, diagonal white lines. *WH.13, PH.2049*

No. 291. Rim of open bowl in light brown to buff fabric, burnished internally and externally. Vertical white lines. *WH.11, Layer 2*

No. 292. Body-sherd in buff burnished fabric; crossed purple lines. *WH.10, P.389*

No. 293. Body-sherd in pink burnished fabric with white dots. *WH.10, P.389*

No. 294. Body-sherd in pink burnished fabric with dots and line in white. *WH.10, P.389*

No. 295. Body-sherd in pink burnished fabric with two vertical lines in white and purple circle. *WH.10, P.389*

No. 296. Body-sherd in pink burnished fabric, white vertical lines and dots. *WH.10, P.389*

Type 22, cheese press: one example only (Fig. 60)

No. 297. Grey to brown fabric with black surfaces. Lower portion of outside burnished. Strong internal rib. *WG.13, Kiln 5*

Type 23, miniature vessel: one only (Fig. 60)

No. 298. Buff fabric and surfaces. *WF.9, P.159*

Type 24, triple vase: one only (Fig. 60)

No. 299. Buff fabric and surfaces. Burnished. *WG.11, P.412*

Type 25, small out-turned neck, no handle: one only (Fig. 60)

No. 300. Buff fabric and surfaces. *WG.13, Kiln 5*

Type 26, hollow, tubular handle: one only (Fig. 60)

With closed-end and two blow-holes to prevent bursting when fired, probably from a *patera. c.f.* others from London (Arthur and Marsh 1978, 164; fig. 6.14).

No. 301. Buff fabric and surfaces. Smooth. *WG.13, P.472*

Miscellaneous: (Fig. 60)

No. 302. Body-sherd with incised leaf-like ornament. Form unknown but possibly a Type 2. Flagon fabric, buff internally, orange surfaces, burnished exterior. *WG.13, P.481*

No. 303. Body-sherd. Stamped circles and vertical groups of combed lines. Brown fabric, buff surfaces. Form not known but probable an open bowl of some kind. *WH.11, Kilns 1 and 2 (West 1952, fig. 11, 2d; 47)*

No. 304. Body-sherd with applied features of face. Grey fabric and surfaces. *WH.12, P.444*

No. 305. Rim sherd, small out-turned rim with applied features of face beneath. Eyes stamped. *From the flood plain close to river*

No. 306. Jar found by Henry Prigg in 1886 with the Type 2 jar, No. 205. Hard, coarse grey fabric with rough grey surfaces. Pointed everted rim with grooves at base, very thick base. *(Moyses Hall)*

Potters' stamps (Fig. 61; Table 25)

by Valerie Rigby

The dies form an interesting and closely related group suggesting they were used by a single potter, or a small group, working together over a comparatively short period.

The motifs are simple, being limited in range to V and I, with or without additional spots. All the dies have borders and this marks them out as a group from the dies used at other workshops in Britain, for many more stamps *without* borders than with have been found on British sites. Bordered dies would therefore appear to be a characteristic 'house-style' feature of the West Stow workshop. The positioning of the stamps was standardised as central on the upper visible surface of the base, although they could have been placed radially or in cruciform, on the underside of the base or even on the wall.

A less widespread but still important characteristic, which also comes under the heading of 'house-style', is the use of a combed circle or wreath around the stamp. It has been recognised on seven different bowls. A number of examples have also been found at Ashton and Duston, Northants. and Odell, Beds., but the idea of an exclusively Nene Valley regional trait is somewhat undermined by an example from Chichester, Sussex, which must have been manufactured locally. The combing technique satisfactorily associates the stamps with decorated bowls and jars which formed a major component of the West Stow output.

Although the dies could have been deliberate copies of

No.	*Group*	*Die No.*	*Examples*	*Form*	*Fabric*
1	A	5	WG.9, Hollow 4	Prob. foot-ring	Black
			WF.8-9, SFB.36 (post hut fill)		Black
			WF.10, Layer 2		Black
			WF.8, D.76		Brown/black
			WB.6, Layer 2		Black surface
2	A	6	WG.10, P.259		Black
			WG.10, P.259		Black
			WG.8, D.88	4.8	Grey/black
			WG.8, D.88	4.8	Grey/black
			WF.8, D.76		Black
			WG.10, Layer 2	4.8	Brown
3	B	18	WH.11, P.378	4.4	Brown/grey
			WG.12, P.387	9 or 18	Black
4	B	19	WF.14, Layer 2		Brown
5	Ca	1	WF.8, F.59	Foot-ring	Brown/red
6		2	WF.9, D.101	Prob. 4.8	Black
7		3	WG.8, D.88		Black
8		4	WG.11, Layer 2	Prob. 4.8	Brown
9		11	WH.11, P.378		
10		7	WG.11, P.412	Foot-ring, 4.4	Buff/pink
			WG.11, P.412	Foot-ring, *cf.* 9, 18	Buff, blackened
			Kiln 5, stokehole	Prob. 4.2	Buff/pink
11		8	WH.13, Layer 2	?5	Black
		20	WG.4, SFB.44	4.5	Buff
		A1	WH.10, Layer 2		
12	Cb	12	WF.14, SFB.66		Buff
13	Cb	10	WG.13, Layer 2	Prob. foot-ring	Black
14	D	17	WG. 10, P.397	4.5	Brown
			WH.11, P.378	4.4	Grey
15	E	13	WG.12, over D.168	*cf.* 4.5	Red
			WH.12, P.449	4.5	Black
16	E	14	WG.8, Hollow 4	Foot-ring	Black
17	F	9	WG.10, D.176	5.8	Black
			WG.11, P.374	Foot-ring	Black
			WG.14, Layer 2	Foot-ring, *cf.* 9	Brown/grey
			WG.14, Layer 2	Foot-ring, *cf.* 9	Brown/grey
18a	G	16	WG.13, PH.2074		Black
18b		16	WG.10, P.397	?4.4	Buff
			WC.11, D.183		Black
			WH.10, Layer 2	Low foot-ring	Brown
			WH.13, PH.2041	Large foot-ring	Buff
19	H	15	WH.11, SFB.56	Prob. 4.8	Buff

Table 25 Gallo-Belgic pottery stamps (Fig. 61).

GROUP A

1 A 5

2 A 6

GROUP B

3 B 18

4 B 19

GROUP Ca

5 Ca I

6 Ca 2

7 Ca 3

8 Ca 4

9 Ca II

I0 Ca 7

II Ca 8

GROUP Cb

I2 Cb

I3 Cb I0

GROUP D

I4 D I7

GROUP E

I5 E I3

I6 E I4

GROUP F

I7 F 9

GROUP G

I8a G I6

I8b G I6

GROUP H

I9 H I5

Figure 61 Gallo-Belgic pot-stamps. Scale 1:1

illiterate marks used by Gallo-Belgic (G-B) and samian, neither the forms nor the fabrics closely parallel the imports, so any such connection is tenuous. Certainly with such simple dies no prototypes would have been necessary.

The dies fall into eight closely related groups (Table 25 and Fig. 61).

Groups

A.	Symmetrical 3-motif arrangement	Dies 5, 6,(2).
B.	Zig-zag motif (Vs), bordered	Dies 18, 19.
Ca.	Bordered zig-zag motif, with spots	Dies 1, 2, 4, 7, 8, 20, A1.
Cb.	As above, with one triple stroke	Dies 10, 12.
D.	V and I motifs, with spots, bordered	Die 17.
E.	Ladder stamp	Dies 13, 14.
F.	Ladder stamp, with spots	Die 9.
G.	Repeated IVI-motif, with joining motif	Die 16.
H.	At least one M-motif	Die 15.

Only stamps from the dies in Groups A and G have been found outside West Stow to date, so the distribution area for these products remains unknown. The specialised forms and quality of the fabric and finish however, suggest that the market should have been more than just local in extent, and the presence of a stamp from a die in Group A as far afield as Doncaster, South Yorks., and one from Group G at Colchester may support this hypothesis.

Stamped coarse-ware products are comparatively rare, although the finds produce a wide but thin distribution on sites south of a line from the Humber to the Mersey estuary, with outliers beyond on military sites. The earliest examples occur on cups and platters closely copying imported G-B forms in typical grog-tempered wares of the late Iron Age. However, none is firmly attested to a pre-conquest context despite the presence of two platters in the King Harry Lane Cemetery, St. Albans, Herts. and others in Period I contexts at *Camulodunum*.

By the Flavian-Trajanic period, the use of potters' stamps had spread to its furthest extent. Die-studies suggest that a number of different workshops were involved, the most northerly being in the Doncaster area. The most varied and concentrated output appears to have been located in the Upper and lower Nene Valley-East Anglia-Thames estuary areas where the use of potters' stamps is closely associated with the production of vessels with incised decoration; stamps, rouletting and combing (Roswell 1978; Perrin 1980).

Group A: Dies 5 and 6

With twelve stamps, this is the largest group comprising most common dies. Dies using a symmetrical arrangement of three motifs are rare and may eventually prove to have been restricted to workshops within eastern England, north of the Thames. The idea could have been copied from dies used by G-B potters in the Tiberio-Claudian period since ONO and O⋀O arrangements were used.

It is possible that Dies 5 and 6 belonged to the same potter, and that the additional stroke which results in a central M and Die 6, may just have resulted from an attempt to correct the retrograde N of Die 5. However, whereas five of the seven bowls stamped with Die 6 each have a combed circle around the stamp, those stamped with Die 5 do not, possibly an indication of an independant producer.

The potter or potters using Dies 5 and 6 apparently traded over a wide area. Stamps from Die 6 have been found at Doncaster and Brandon, Suffolk, while stamps from a die closely related to Die 6 have been found at Colchester (excavations by Colchester Archaeological Trust). A stamp from Die 5 occurred at Hockwold cum Wilton, Norfolk. It remains to be discovered if these finds indicate that the West Stow potters had wide trading links, or if they are merely accidental exotics, traded for their contents. There is no independent dating evidence for either die, although the Doncaster stamp was found with a large group of Flavian pottery in a later context (information from the excavator Dr P.C. Buckland).

Group B: Dies 18 and 19

A small group of only three stamps, two of which were placed within an incised circle. This die style has been found over a much wider area than Group A, many different dies are represented and judging from the range of fabrics several different workshops were involved. Bordered versions from dies other than those found at West Stow occur at Hacheston, Suffolk; Scole, Norfolk; Colchester and Kelvedon, Essex; London and Southwark; Ashton, Duston and Rushden, Northants; Odell, Beds.; Fishbourne and Wiggenholt, Sussex; Canterbury, Kent. One of the Colchester stamps could be a West Stow product.

They provide some dating evidence for the general currency of this type of die. The Rushden stamps are the earliest, both typologically and according to context, and are pre-Flavian (information from P. Woods). The Fishbourne stamp occurred in a Period I context and so pre-dates AD 70 (Cunliffe 1972, fig. 80, no. 8). Various stamps from Southwark are from Flavian and Flavian-Trajanic contexts (information from H. Sheldon).

Group Ca: Dies 1, 2, 4, 7, 8, 20, A1

The second largest group of stamps, but comprises a large number of different dies. An example on smooth dark grey ware found at Colchester could be a West Stow product, if so, it adds yet another die to Group Ca (excavations by Colchester Archaeological Trust). Dies of this type are represented on a number of sites in eastern England. The most southerly sites are Allington and Upchurch, Kent, where they occur on similar platters copying *Camulodunum* Form 8, which were probably from the same workshop: both should be pre-Flavian in date. The other finds are from sites to the north of the Thames; a platter from Burgh-by-Woodbridge, Suffolk, two platters from Needham, Norfolk, a cup copying *Cam.* Form 56 from Weston, Herts., and two platters and a flagon from Baldock, Herts. (Stead, forthcoming).

Typologically, the cup from Weston should be Neronian at the latest. The excavations at Baldock provide some dating evidence for the currency of the die-type. The flagon and one of the platters were found with pre-Flavian pottery, but in different groups, the second platter, almost complete, occurred in a large group of pottery of mid 2nd-century date. The concentration of finds in north Hertfordshire indicates that there were at least two sources here using dies in Group Ca in the period *c.* AD 50-140, in addition to West Stow.

Group Cb: Die 12

The variant with at least one double or triple stroke is much more rare than Ca, examples being confined to Wereham and Scole in Norfolk, two almost identical platters from Baldock and Longthorpe, Cambs., and one from Colchester, all possible products of workshops in the

lower Nene Valley. It is interesting that while the platters from Wereham, Baldock and Longthorpe are very similar copies of the Gallo-Belgic platter *Cam.* Form 8, the bowls from West Stow and Scole, although similar to each other, are quite different and in no way resemble the traditional range of G-B imports. On typological grounds the platters could be pre-Flavian, but the bowls are more likely to be Flavian/or Flavian-Trajanic. Both the Baldock and Longthorpe examples are from similarly dated Caudio-Neronian contexts (Stead and Rigby 1986, fig. 243, 4; Dannell and Wild 1987, fig. 36, 2).

Group D: Die 17

This die has an asymmetrical arrangement of motifs unlike the other groups. It can be paralleled amongst post-conquest G-B imports in Britain, although there is only one close parallel, a coarse ware platter from Colchester, probably a local product (*Cam.* no. 299). Although it could have been the earliest die in use at West Stow, any time after AD 46, since it occurs on the same range of forms and fabrics as vessels stamped with other dies, it should be contemporary with them.

Group E: dies 13 and 14

Although a very simple arrangement and not difficult to invent, this group of dies cannot be closely paralleled, and so may represent a local development. There are bordered ladder stamps from Sussex at Chichester, Fishourne, Wiggenholt and Arundel, but the size and proportions are different.

Groups F, G and H: Dies 9, 16 and 15 respectively

Six stamps for which there are no close parallels, suggesting local development. A stamp impressed with Die 16 has been recorded at Colchester (excavations by Colchester Archaeological Trust).

With the exception of the dies in Group B, the distribution of the die-styles used at West Stow shows a more or less regional concentration in East Anglia stretching from north Hertfordshire, through Essex and Suffolk to Norfolk. Group C is particularly interesting because of the number of examples, the range of forms and the connection through Cb with the lower Nene Valley potteries.

When the stamped vessel forms produced at West Stow are compared with those made at other unknown workshops, it is noticeable that with one exception, Scole, the types are very different; while the majority are close copies of G-B imports, particularly platters of *Cam.* Form 8, the examples from West Stow and Scole are not. The difference could be one of chronology with West Stow beginning after the import of G-B wares ceased *c.* AD 80. The similarity here of the bordered and spotted dies to stamps found in Hertfordshire suggests that the development of specialist pottery-making in the two areas may be related, with that at West Stow being later.

Samian (Fig. 62; Tables 26 and 27)
by Brian Hartley and Brenda Dickinson

Summary

The samian ware from West Stow shows clearly that the site was occupied in the 1st century AD, probably by, or soon after, AD 70. The source of supply at that time was exclusively La Graufesenque. Some of the latest South Gaulish ware will have been imported under Trajan and there are a few contemporary sherds from Les Martres-de-Veyre, as usual in Britain. A single late South Gaulish sherd from Montans could belong to the later Trajanic period, but is more probably Hadrianic or early-Antonine. Thereafter, Central Gaulish ware from Lezoux predominates until the later Antonine period, when East Gaulish ware begins to appear. Most of it belongs either to the 2nd or early 3rd century. It comes mainly from Rheinzabern, but at least one sherd is from Trier.

The general pattern shows a considerable increase in the use of samian on the site from *c.* AD 140. The sources of supply at all periods are the standard ones for Britain.

Introduction

All the samian pottery from the site is listed here. Samian sherds from Anglo-Saxon contexts have been published in Part I (West 1985, 82). Early samian from the Anglo-Saxon SFBs is likely to have been picked up on site. Sherds of late 2nd/early 3rd century, and probably 3rd century date, were found predominantly on the east side of the site in the SFBs and Layer 2.

Figure 62 shows the occurrence of samian in Romano-British features, with earlier samian from Layer 2 in the grid squares, all predominantly in the south-west area of the site. Later 2nd/early 3rd century samian from Layer 2 on the east side of the site is not shown.

Abbreviations

AS Anglo-Saxon
C.G. Central Gaulish
D. Figure-type in Déchelette 1904
E.G. East Gaulish
RB Romano-British
S.G. South Gaulish

Neronian

Origin	Comment
WE.5, Hollow 2, A.S.	Form 29, S.G. The decoration of the lower zone, tendrils with fan-shaped leaves on either side of a vertical wavy line, can be closely paralleled on a bowl from London stamped by Labio (Knorr 1952, Taf. 32B). On the whole, this type of decoration tends to be Neronian rather than later. *c.* AD 55-70.

Neronian-Flavian

WH.5, Layer 2	Form 29 rim, S.G. Only a trace of rouletting remains. *c.* AD 65-85.

First Century

WD.2, Layer 2	Cup fragment, S.G.

Flavian

WH.4, Hearth 5, AS	Form 35, S.G.
D.177(1)	Form 27, S.G.
WF.8, Layer 2	Form 30 or 37 rim, S.G.
WG.9, SFB.37, AS	Form 15/17 or 18, S.G.

Flavian-Trajanic

D.176(1)	Form 27, S.G.
WF.8, D.76, AS	S.G. fragment
WH.3, Layer 2	Form 18R, S.G.
WF.8, Layer 2	Form 37, three fragments of bowl, S.G. The leaf-tips and Pan (D.416) were used at La Graufesenque by Flavian and Flavian-Trajanic potters. The ovolo is perhaps a blurred version of a trident-tongued ovolo used by M. Crestio. *c.* AD 80-110.

Trajanic-Hadrianic

P.363, RB	Form 18/31, C.G.
WG.14, SFB.67, AS	Dish fragment, C.G.
WF.10, Layer 2	Form 36, from Les Martres-de-Veyre. The angular

WEST STOW

ROMANO-BRITISH FEATURES with 1st. and 2nd. CENTURY FINDS

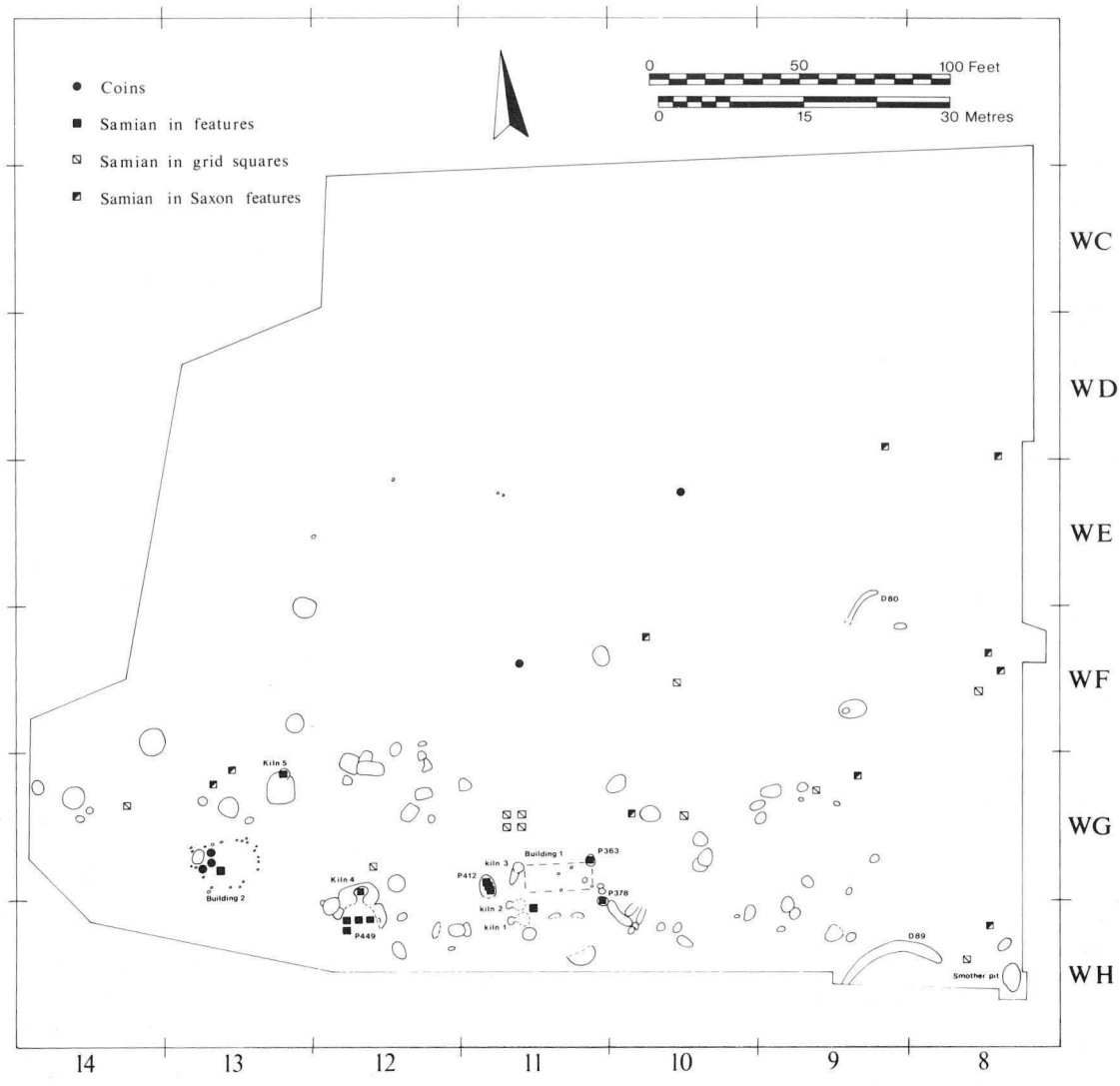


Figure 62 Romano-British features with 1st and 2nd century finds. Scale 1:500

variant of the form, not uncommon at Les Martres (Oswald and Pryce 1920, pl. liii, 6, 20), Trajanic or Hadrianic.

Hadrianic

P.412, (SF.1893) RB — Form 18/31, stamped DAGOMA [RVS.F], by a potter who worked at both Les Martres-de-Veyre and Lezoux. The die for this stamp was almost certainly used at both centres, though probably for a shorter time at the latter, since most of the examples noted seem to be in the fabric of Les Martres. However, this piece is likely to come from Lezoux, to judge by the rather deep wall and high kick and the cream slip below the glaze. The stamp is known from Catterick, Hadrian's Wall (Chesters Mus.) and *Verulamium* (Period IIB, before AD 140). *c.* AD 125-35.

P.378, RB — Form 18/31, C.G.

WH.11, Layer 2 — Form 27, C.G.

WG.13, Kiln 5, RB — Form 27, burnt, C.G.

WE.8, SFB.50, AS — Form 18/31 to 31, C.G.

P.412, RB — Form 27, C.G. (two fragments)

1st half of 2nd Century

WG.11, Layer 2 — Form 18/31, C.G. probably stamped AV|ITO O.F| (die la). This potter seems to have worked at Les Martres-de-Veyre, to judge by his fabrics. His forms and the proportion of his stamps in the Rhineland suggest a date in the first half of the 2nd century.

Hadrianic/early-Antonine

WG.4, D.54, AS — Cup, C.G.

WG.14, Layer 2 — (1) Form 18/31, C.G. (11) ?Form 30, C.G., with an Apollo (D.52) used at Lezoux by Hadrianic and Antonine potters. This piece is probably Antonine.

WG.11, Layer 2 — Form 46 (unstamped), C.G.

WG.3, Layer 2 — Form 18/31, C.G.

WG.11, Layer 2 — Form 33, C.G.

WG.10, Layer 2 — Form 46, C.G.

WH.8, SFB.42, AS — Form 18/31R, burnt, C.G.

P.449, RB — Form 18/31R, C.G.

P.449, RB — Form 33, C.G.

P.449, RB — Form 33, C.G.

P.449, RB — Form 27, burnt C.G.

P.412, RB	Form 18/31 or 31, C.G.
P.412, RB	Form 18/31 or 31, C.G.
P.412, RB	Form 18/31 or 31, C.G.

Early-Antonine

WH.5, Layer 2	Form 27, C.G.

Antonine

F.22, AS	Form 31, drilled for a rivet, C.G.
WH.4, SFB.49, AS	Two fragments i) Form 33, C.G. ii) E.G. scrap, Antonine or later.
WG.13, Layer 2	Form Curle 15, C.G.
WE.7, Layer 2	Form 31, C.G.
WG.6, Layer 2	Form 33, C.G.
WC.5, Layer 2	Form 33, C.G.
WH.8, Layer 2	Dish fragment, C.G.
WG.9, Layer 2	Form 31, E.G.
WH.5, Layer 2	Form 33, C.G.
WG.5, Layer 2	Form 38 or 44, C.G.
WE.3, Layer 2	C.G. flake
WG.4, Layer 2	Form 18/31R or 31R, E.G.
WG.12, Layer 2	Form 18/31R or 31R, C.G.
WD.3, SFB.16, Layer 2, AS	Form 18/31R or 31R, C.G.
WD.3, SFB.16, AS	Form 33, C.G.

Early-to mid-Antonine

WE.9, SFB.48, AS	Form Curle 15, C.G.
WG.13, SFB.63, AS	Form 18/31R, C.G.
WC.5, Layer 2	Form 18/31R with rouletting, C.G.
WG.2, Layer 2	Form 31, C.G.

Mid-Antonine

WG.11, D.183	Form 18/31R to 31R, C.G.
WG.2, Layer 2	Form 18/31R to 31R, C.G.

Mid-to late-Antonine

WH.12, Kiln 4, RB	Form 79 or Ludowici Tg, C.G.
WB.6, SFB.34/35, AS	Form 31R, C.G.
WF.7, Layer 2	Form 31R, C.G.
WF.7, Layer 2	Bowl fragment, ?C.G.
WD.2, Layer 2	Form 31, C.G.
WG.6, Layer 2	Form 31, C.G.
WD.4, Layer 2	Form 31, C.G.
WG.11, Layer 2	Form 33, C.G.
WE.6, SFB.6, AS	Ludowici form Tg, C.G. ?Mid-late Antonine

Late 2nd-3rd Century

WG.4, P.79, AS	Form 36 flange, E.G.
WF.6, SFB.7, AS	A fragment of enclosed vessel with 'cut-glass' decoration, ?E.G.
WE.6, SFB.8, AS	Form 38, E.G.
WG.4, SFB.44,	AS Dish fragment, E.G.
WG.9, SFB.46,	AS Form 33, E.G.
WG.14, SFB.69,	AS Form 31, E.G.
WG.13, Layer 2	Form 32 *etc.* with rivet-holes, E.G. with an unidentified stamp]I/ IE. Late 2nd-or 3rd-century.
WG.13, Layer 2	?Form 27, S.G. stamped Q.V.C. with die 1d of a potter (Q. V-(alerius?)C--) who worked at Montans in the 2nd century. This stamp occurs at Watercrook and Newstead and several of his others appear in Antonine Scotland. One is in a group of burnt material of the Hadrianic period from London. *c.* AD 110-45.
WD/WE.2, Layer 2	Form 31, E.G.
WG.4, Layer 2	Form 38 or 44, E.G., worn on the inside.
WE.4, Layer 2	Form 31, E.G.
WD.4, Layer 2	Form 31, E.G.
WD.4, Layer 2	Form 32, E.G.
WG.6, Layer 2	Form 31, E.G.
WH.3, Layer 2	Form 38, E.G.
WH.4, Layer 2	?Form 33, burnt, E.G. The piece is unstamped.
WG.6, SFB.24, AS	Form 31, E.G.

Probably 3rd century

WE.5, Layer 2	Form 37, E.G., burnt. Both the ovolo and the medallion were used by Paternianus of Trier. Probably 3rd century.

Dated

WG.4, SFB.45, AS	Form 37, C.G. The ovolo (Rogers 1974, B143) and Minerva (D.77) were both used at Lezoux by Cinnamus ii, *c.* AD 150-80.
WH.4, SFB.49, AS	Form 37. Four fragments, two joining (and two further sherds, from Layer 2, WG.13 and the 19th-century disturbance in WG.13) with freestyle decoration, C.G. Since the ovolo (Rogers B14), used earlier by Sacer, and all the figure-types appear on signed bowls of Criciro v, the raised mark below the decoration probably belongs to his signature CR retr. The panther (D.799), lioness (D.793) and serpent on rock (D.960 bis) are on a bowl from *Verulamium* (Period IID; Hartley 1972, D.68). The goat (D.892) is on a bowl from London (GH; Stanfield and Simpson 1958, pl. 118, 13). *c.* AD 135-55.
WE.8, SFB.50, AS	Form 27, burnt, stamped ALBVCI by Albucius ii of Lezoux (die 6j). This stamp has apparently not been recorded before, but Albucius's site record and his decorated ware both suggest the range *c.* AD 150-80.
WH.11, SFB.56, AS	A fragment of a gritted samian mortarium, C.G. *c.* AD 170-200.
WC.5, Layer 2	Form 37, C.G. with panelled decoration. The zig-zag borders with rosette junction-masks (Rogers C120) and narrow panel of circles are typical of the work of Tetturo of Lezoux (*c.f.* Stanfield and Simpson 1958, p. 131, 3). The leafy festoon appears on bowls in his distinctive style. The animal is a panther or leopard (perhaps D.799). *c.* AD 140-70.
WG.11, Layer 2	Form 27, C.G. The stamp PA[TERNI] belongs to one of the earlier Paterni of Lezoux (Die 2b). It has been found in an early-Antonine context at Castleford (a pottery shop burned down *c.* AD 140-50) and is relatively common in the Rhineland. *c.* AD 135-50.

Dating the pottery industry (Tables 26 and 27)

Five pits and two kilns contained fragments of samian which ranged from one piece in P.363 of Trajanic-Hadrianic date to one of mid-to-late Antonine date from Kiln 4.

From the table of contents of the features concerned (Table 27) it can be seen that the fills contained quantities of residual material from earlier phases of kiln firing on the site. However, the total samian evidence, including the unstratified Level 2 material shows the following distribution:

Neronian	1
Neronian-Flavian	1
Flavian	4
'1st Century'	1
Flavian-Trajanic	3
80-110	1
1st half 2nd century	1
Trajanic-Hadrianic	3
Hadrianic	6
Hadrianic-Early Antonine	15
Early-Antonine	1
Antonine	15
Early-Mid-Antonine	4
Mid-Antonine	2
Mid-Late Antonine	9
	67
Late 2nd to 3rd century	17
Probably 3rd Century	1
	18

Fifteen sherds of samian from Neronian toMid-Late-Antonine and nine of the late 2nd and probable 3rd

Context	Traianic/ Hadrianic	Hadrianic	Hadrianic/ E. Antonine	Mid-Late Antonine
P. 363	1			
P. 378		1		
Kiln 5		1		
P. 412			6	
P. 449			4	
Kiln 4				1

Table 26 Samian sherds from Romano-British pits and Kilns 4 and 5.

West Stow Pottery Types	Pits, Kilns P. 363	P. 378	K.5	P. 412	P. 449	K.4
1.1		2	171	17	21	2
1.2			5		1	
1.3			33		6	
1.4			4		1	
1.5			16		8	2
1.6			30	1		
1.7			3			
1.9			9		3	2
1.10			19			
2.1	1		11		42	20
2.2		7	14	7	6	2
2.3		2	1			1
2.4	4	31	340		466	128
2.5			6	5		
2.6			42		43	20
2.7			33	10	37	14
3		2	44	4	22	3
4.1		2		3	10	1
4.2		29	4	5	1	
4.3			1			1
4.4	1	9	55	29	1	4
4.5		2	3	8	4	1
4.6		6	1	2	4	
4.7					6	1
4.8			1			
4.9			2			
4.10			10			3
4.11			2			
4.12		4	25	7	86	23
4.13					9	
4.14					1	
5	2	2	58	54	22	3
6	1	7	3	3		
7				1	4	
8			108		10	2
9			13	5	3	
10				5		
11	1	1	64	1	2	2
13	1	1	1		1	
15		3	4	5	7	
17					9	
18		3			3	2
19	2	5	1			4
21			1			
Gallo-Belgic potter's stamps		2	1	2	1	
Samian indicators	T/H	H	H	H/EA	H/EA	M/LA

T = Trajanic, H = Hadrianic, EA = Early Antonine, M/LA = Middle-Late Antonine.

Table 27 Roman features with samian, West Stow pottery types quantified in each feature.

century; the latter probably representing material gleaned from the late Roman site at Icklingham, were recovered from Anglo-Saxon features (West 1985, 167). The overall impression is that the samian confirms the general dating of the pottery industry during the latter part of the 1st century and the first half of the 2nd.

Of the six earliest Roman coins on the site, ranging from Domitian (81-96) to Antoninus Pius (138-161), three form a group from the Anglo-Saxon SFB.65 in WG.13 and the other three another group from WD.3 (SFB.16, Hollow 1 (both Anglo-Saxon) and Layer 2). Those from SFB.65 are in the area of the kilns and could in fact have been derived from the Roman Building 2 which was partially destroyed by that SFB. The coins as a whole have been published in Part I (West 1985, 76-81). Figures 24 and 61 in this volume shows their distribution.

Of the pottery itself, the Gallo-Belgic potters' stamps are dated by Rigby to *c.* AD 80 after the importing of Gallo-Belgic wares ceased and a number of the other forms have a distinctively 1st-century date, including the stamped platters, Types 4.2, 4.4, 4.5, 4.8; the flanged bowl, Type 4.15, bowl, Type 9 and the cup, Type 18.

The dating suggested in the 1952 report of *c.* AD 100-120 needs now to be extended in both directions; starting *c.* AD 80 and continuing to the mid 2nd century to accommodate the large series of plainer coarse wares from Kilns 4 and 5, in particular Types 2.6 and 2.7. Production was not confined to the area of the 1965-72 excavations, as earlier discoveries on the heath have shown, but moved about the adjacent area with the latest kilns returning to an older site.

The presence of a small amount of pottery with the distinctive high mica content in the clay which so characterises the products of the Wattisfield kilns (Fig. 58, 207 and 213) indicates a real link between the two potteries. Wattisfield did produce some stamped wares, but of quite different forms, particularly pedestalled beakers, which do not occur in the West Stow repertoire. Rodwell has made a case for actual stamp-links between the two sites; these are all ring-stamp forms which are not found on both sites (Rodwell 1978, 256).

Discussion (Table 28)

The kilns found on West Stow Heath have all been of single flue types but demonstrate a wide variety of arrangement. Prigg's Kiln 1 had an unusual flue arch into the furnace area and Kiln 3 virtually none at all. The furnaces range considerably in size, from *c.* 0.80cm for Kiln 3 to 1.3m for Kiln 4 in width. Kiln 3 had a narrow trench for a stoke-hole, Kilns 1 and 2 shared a stoke-hole and 4 and 5 had large, deep pits. Internally, arrangements vary from the use of bricks set in the floor with others, sometimes in the form of pierced plates (Kiln 3), to large, solid (Kiln 1, 2) or pierced (Kiln 4) pedestals. Fragments of clay, fired and unfired in the upper levels of Kilns 4 and 5 suggest some form of temporary covering but were without the grass tempering so characteristic of kilns elsewhere in Suffolk.

The flues of Kilns 1 and 2 faced east along the ridge but Kilns 3, 4 and 5 faced due south.

The large quantities of broken pottery from the stoke-holes and furnaces of the kilns were analysed in terms of rim counts per form, in an attempt to identify a possible sequence of construction and use. As the pottery from Kilns 1 and 2 (1952) were not separated and Kiln 3 produced very little, only Kilns 4 and 5 had sufficient material. The presence of virtually complete and overfired vessels of Types 2.6, 2.7 (Fig. 58, 218-20) in the furnaces of Kiln 5 makes a case for this to be last in the series. Kiln 4 had thirty-four rims of these forms in the furnace and eighty in the stoke-hole, which may suggest that Kiln 4 is in part contemporary with Kiln 5. The recovery of vessel

Form	KILN 3 Furnace	KILN 3 Stoke-hole	KILN 4 Furnace	KILN 4 Stoke-hole	KILN 5 Furnace	KILN 5 Stoke-hole	Dome	* Early form + Latest form
1.1		1	3	21	12	316	140	
1.2				1	3	23	2	
1.3				6		14	19	
1.4				1	2	4	5	
1.5			2	8	1	17	7	*
1.6					2	10	8	
1.7						4		
1.8						7		
1.9			2	3		10	3	*
1.10				1	1	25	7	
2.1			20	42	1	5	4	
2.2		3	2	6		21	2	
2.3			1			4		
2.4	10	7	128	466	23	426	206	
2.5			1			13	5	
2.6			20	43	2	41	31	+
2.7			14	37	3	43	18	+
2.8								
3			3	22	6	44	22	
4.1		4	1	10		2	3	
4.2				1		6	6	*
4.3			1		2	10		
4.4		3	4	1	12	84	29	*
4.5			1	4	2		2	*
4.6				4			4	
4.7			1	6			1	
4.8						1		*
4.9					2			
4.10			3		2			
4.11								
4.12			23	86	3		18	
4.13				9				
4.14				1				
4.15								*
4.16								
4.17								
5		4	3	22	9	2	22	
6		1					1	
7		1		4		3	8	
8			2	10	8	7	61	
9				3	1	1	8	
10				1				
11			2	2	7	1	41	
12		1						
13				1				
14						3		
15		3		7	3	17	4	
16								
17				9				
18	1		2	3				*
19			4		2	6	1	*
20								
21								*
22								
23								
24								
25								
26								

Note: This table is included here to underline the problems of a long-lived pottery site where stoke-holes and kilns can be filled with waste material from later and contemporary firings. The analysis has separated the material from the furnace and stoke-holes of each kiln and, in the case of Kiln 5, from the 'dome', or collapsed cover, filling the upper part of the furnace.

Table 28 Romano-British pottery: occurrence of forms with Kilns 3, 4 and 5.

No. 210 (Fig. 58) from the furnace of Kiln 3 may be used to suggest that this kiln is of late 1st-century date as the vessel was incompletely fired at the base and is unlikely to have survived being moved. Although this is basically a Type 2.4, the double girth grooves and general treatment should place it early in that series. There were none of the early forms from Kilns 1 and 2. Although the material from the kiln and the stoke-holes provides an indication of the products there is clearly a great deal of mixing of rubbish of different dates so that Kiln 5 has quite large numbers of some of the earlier forms. From what appears to be the 'late-firings' surviving inside the furnaces the order should be Kiln 3; probably Kilns 1 and 2; Kiln 4, Kiln 5.

Kiln 3 unfortunately produced very little pottery; it was also very small and had probably only been used for one firing and so could not have produced all of the earlier material on the site. One third of the examples of Type 6 were recovered from Kilns 1 and 2 in 1952 compared to none from Kiln 4 and only one from Kiln 5, suggesting that these kilns may have been used earlier than 4 and 5. Kilns 1, 2, 4 and 5 all had the appearance of having been used many times with heavy vitrification on Kilns 1 and 2 and repairs to the flues and cleaning of the stoke-holes of 4 and 5.

West Stow products are known from a number of local sites, including Fakenham, Lakenheath, Lackford, Icklingham, Sicklesmere and Coddenham. The West Stow type material recently excavated at Pakenham provides the best contexts beyond the site, but the results are not yet available. The distribution of the stamped vessels is wider with Group A examples from Doncaster, South Yorks, Brandon (Suffolk) and Hockwold cum Wilton (Norfolk).

Kiln bricks

(Figs 63-5)

All the kiln furniture was roughly made of fine-grained clay with chalk inclusions.

Kiln 3 (Figs 63, 64)

308 a,b. Fragments of perforated clay plate, largest fragment *c.*20 × 17.5cm x 2.5cm thick.

307-16. Nine roughly shaped rectangular bricks with slightly expanded ends. See p. 00 and Table 7.

Kiln 5 (Fig. 65)

317. Complete cylindrical brick with slightly expanded foot.

318, 319. Fragments of cylindrical bricks, No. 318 with slightly expanded foot.

320. Rectangular brick.

Querns

(Fig. 66)

Evidence for only two querns were found in Iron Age features (not illustrated); one, a fragment of puddingstone from a depth of *c.*30cm in the filling of the Phase III ditch, D.88, and a sandstone quern from the Phase III ditch, D.151. The puddingstone fragment is a rare example from Iron Age contexts (D. Buckley, pers. comm.) but is securely located. Ten other puddingstone fragments were recovered from the site; five from Layer 2 (in WF.4 (2), WG.8, WF.12, unsited), and five from Anglo-Saxon contexts (SFBs 14, 20, 48, Hearth in WC.10, P.76).

The majority of quern fragments (eighty-nine fragments) were of lava, of which twenty-two came from Anglo-Saxon contexts and the remainder from Layer 2. Those from SFBs were all of 6th-or 7th-century date and there was a concentration of fragments from Layer 2 in the south-east corner of the site where there was a strong late 6th-early 7th-century scatter of other material, suggesting that the lava querns were probably largely of Anglo-Saxon origin.

321. Fragment of puddingstone quern used as the foundation for the flue arch of Kiln 3. *WG.11, Kiln 3*

322. Limestone rotary quern. *WG.11, P.363, inside RB Building 1*

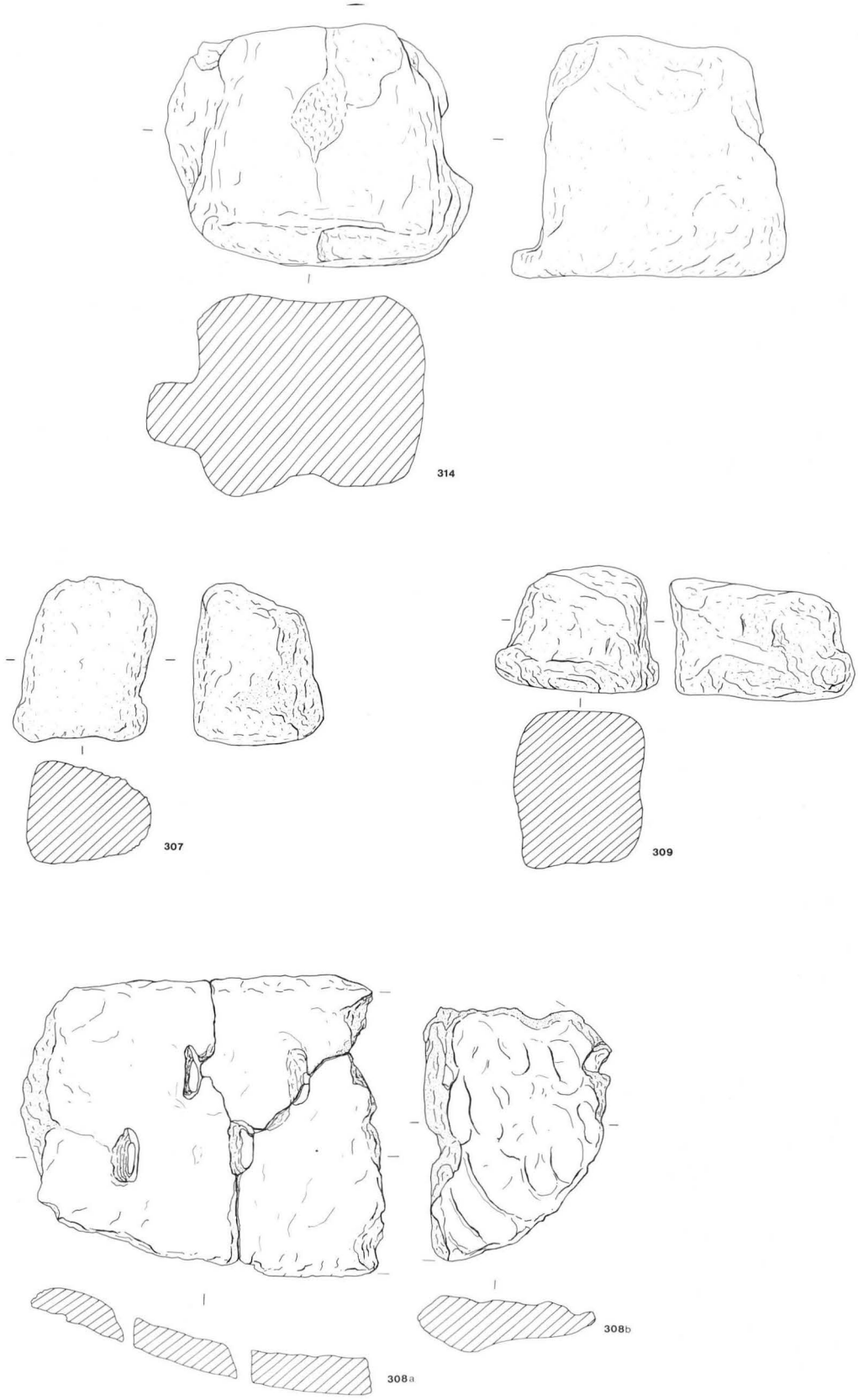


Figure 63 Romano-British Kiln 3: kiln bricks. Scale 1:4

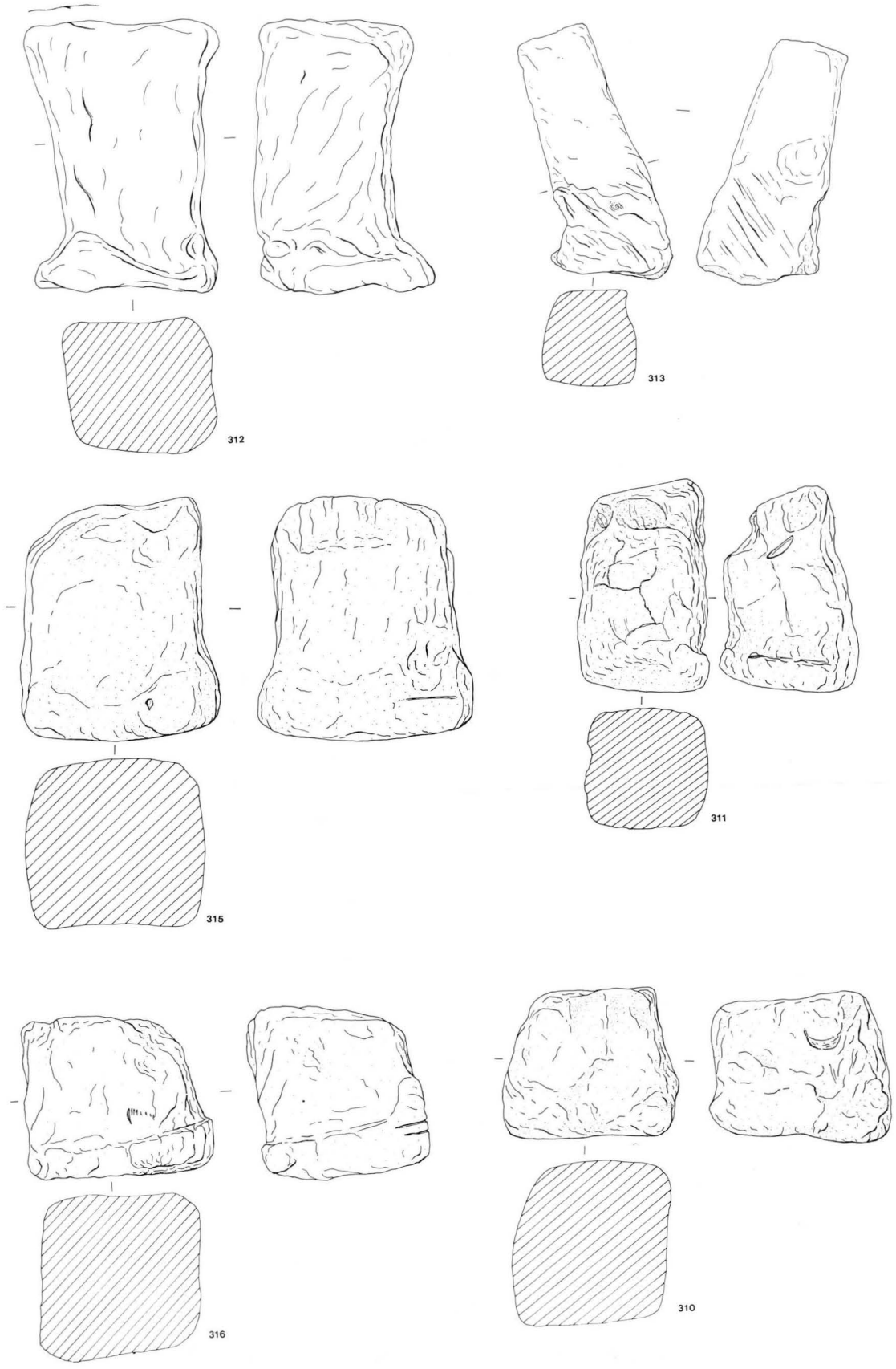


Figure 64 Romano-British Kiln 3: kiln bricks. Scale 1:4

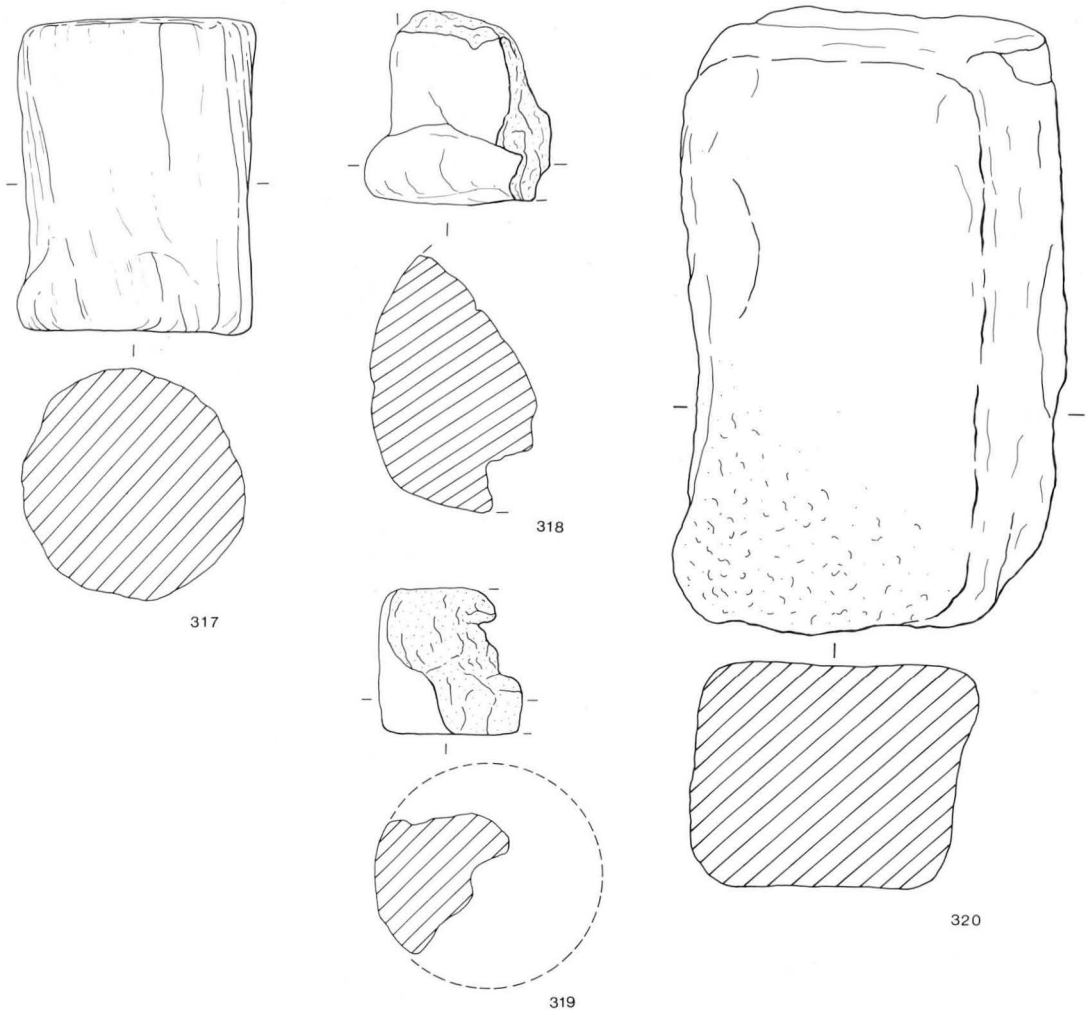


Figure 65 Romano-British Kiln 5: kiln bricks. Scale 1:4

V. Medieval

The evidence for the dating of the field system consists of a small scatter of medieval pottery, and three objects recovered from the ploughsoil (Layer 2).

Small finds

(Fig. 67)

1. Bronze **buckle**, with lunate and circular stamps. Flat section with bevelled outer edge. *SF.439, WF.5*

2, 3. Quartzite pebbles from **mould-boards** of **ploughs**. Both are flattened on one surface with striations. No. 819 was found in a post-hole associated with the Early Anglo-Saxon Hall 2 and No. 895 in a plough mark in the top of Layer 2 in WH.4. *WF.7, SF.819: WH.4, SF.895*

Pottery

(Not illustrated)

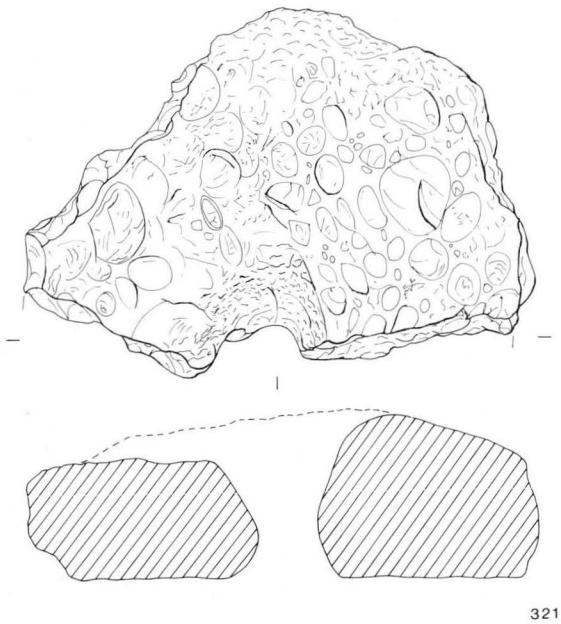
The dating for the medieval pottery is not geared to local sequences but falls into distinct groups. There are no sherds of the 'Early Medieval' type recognised in Suffolk; a medium hard, gritty brown fabric, but there are fifteen rims and thirty-nine sherds of hard fabric with a backing of coarse sand giving gritty surfaces. The colour is a pale grey core with light brown surfaces. The rims are rounded and flattened above.

Type	*Rims*	*Sherds*	*Handles*	*Glazed*
Thetford	3	2		
Early medieval	1+1			
12th-13th century	15	39		
Late 13th-Early 14th century	2	16	2	7

Table 29 Medieval pottery recovered from the ploughsoil.

Two rims have the better known angular, square shape which can be attributed to the late 13th or early 14th century. These, and sixteen sherds have a finer, sandy fabric.

There are seven sherds with dark grey core, an oxidised inner surface and a pale grey outer surface with an all-over outer glaze of yellowy-green with dark speckles, probably 13th-century Hedingham ware. One other sherd, in orange fabric with an applied strip, clear glaze and applied red dot is of unknown origin.



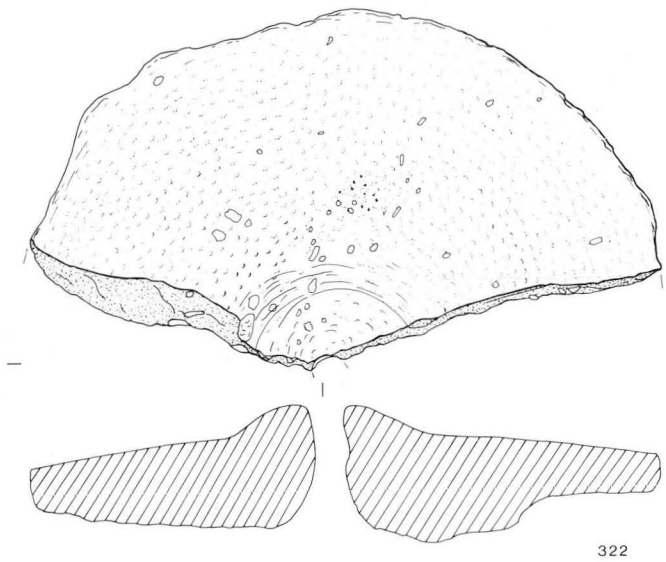


Figure 66 Romano-British: Querns tones. Scale 1:4

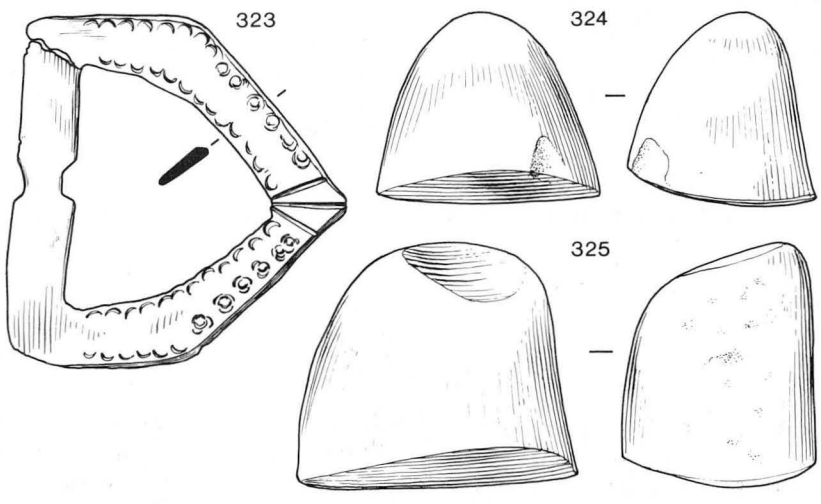


Figure 67 Medieval objects of bronze and stone. Scale 1:1

Part 4. The Human Bone

by Carole A. Keepax

I. Introduction

Forty-seven late Neolithic 'cremations' (*i.e.* collections of cremated bones found in close association) were submitted for study. Most of the cremated bones are well calcined, brittle and fissured, with a certain amount of distortion and twisting. It is difficult to estimate the average size of the fragments precisely, but visually most fragments appear to be 1-2cm square, seldom exceeding 5cm square. The high degree of calcination and fragmentation suggests that the cremation process was fairly efficient, possibly with deliberate breakage of the bones.

II. The Cremations

Number of individuals present

(Table 30)

Each 'cremation' does not necessarily represent one separate individual; the remains of more than one individual may be mixed together, or one individual may be divided between more than one group of cremated bones. The minimum number of individuals was therefore estimated by counting certain commonly occurring fragments which occur only once in each individual. The most useful results are listed in Table 30.

Bone	*No.*
Left petrous bone	21 (? + 3)
Right petrous bone	19 (? + 2)
Left jaw condyle	16 (? + 1)
Right jaw condyle	10 (? + 1)
Odontoid process of axis vertebra	10

Table 30 Human bone: numbers of certain bones present.

It is therefore obvious that at least twenty-one individuals are present. Those cremations which definitely represent a separate individual (due to the presence of a left petrous bone) are indicated by asterisks on Table 30.

However, the true number of individuals present is probably more than twenty-one; presumably the useful fragments do not happen to be preserved in a recognisable form in all cases. Therefore, for the purposes of the tables, one individual was assumed to be present in each cremation, unless there was evidence to the contrary. Marked developmental differences (in the dentition or bones) or the presence of more than the usual number of any fragment (*e.g.* two odontoid processes of the axis vertebra), sometimes indicated the presence of more than one individual. One (possibly two) 'cremations' were found to represent at least three individuals, seven (possibly eight) represent at least two individuals, thirty represent at least one individual, and seven are very insubstantial (and obviously do not represent an entire cremated body).

Age and Sex

(Fig. 68; Table 31)

The ages of the individuals were mainly estimated from the following evidence:- state of dental development (incompletely formed tooth roots were sometimes recognisable); dental attrition (this was estimated by the amount of wear on the dentine, although the enamel had split away during the cremation process); fusion of the epiphyses (unfused epiphyses were recognised in a few cases); degree of bone degeneration and osteophytosis of the articular surfaces due to osteoarthritis (this was recognisable in some cases).

Sexing the cremated remains was more difficult due to the efficiency of the cremation process and subsequent lack of informative fragments (*e.g.* pelvis). In many cases, it was not possible to form any opinion. Where assessments of sex are given, they are often based on a few cranial features, or the general size and robustness of the bones, and should therefore be regarded as questionable.

Approximate age range	*?Sex*	*No. of individuals* *Male*	*Female*
Immature individuals			
0-5 years	4		
5-11 years	4		
11-15 years			
15-20 years	2 (+?1)		1
'Immature' generally	5		
Totals	15 (+?1)	0	1
Adults			
Young adult (< *c.* 35 years)	3	1	
Middle-aged (*c.* 35-55 years)	1	1	1
Elderly (> *c.* 55 years)		1	
Adults (not elderly)	10	1	3
Age unknown	12	1	3
Totals	26	5	7

Table 31 Human bone: age and sex of cremations.

The information regarding age and sex of the 'cremations' is summarised in Table 31 and a full catalogue presented in Table 34 (*note:* for simplicity, the Roman numerals used to record the cremations have been converted into the Arabic form).

There are no children which died at about the time of birth. This lack of 'new-borns' would suggest that young infants were not cremated, but were disposed of by an alternative method. However, there are a number of children which died during the first few years of life, suggesting that once a child had survived for a short while after birth, it was considered 'eligible' for cremation.

Only one individual seems to have survived past middle age, suggesting (as is usual until fairly recent times) that the average life expectancy was not very long. Apart from the lack of new-borns and elderly individuals, no anomalous age or sexual bias is apparent in the results.

The number of individuals in each age group should not be interpreted as precise figures, as it is not clear to what extent one individual may be divided amongst two 'cremations', and therefore counted twice.

Pathology

Oral health

Only one 'cremation' (No. 34) produced evidence of caries

and ante-mortem loss of the teeth. Three jaw fragments indicate that at least four teeth were lost ante-mortem. This might be due to caries or a severe periodontal disease. Three tooth roots (including one set of molar roots) are swollen; the molar roots are fused, swollen, and very short. This is probably a reaction to infection. The oral health of this individual therefore seems to have been very poor.

Osteoarthritis

Six 'cremations' (Nos 3, 13, 19, 34 and 36) contain fragments of vertebrae with slight lipping of the articular surfaces of the bodies (due to osteoarthritis). The cervical and lumber regions are both involved; no thoracic vertebrae with lipping were definitely identified.

Possible, very slight, bone degeneration and osteophytosis due to arthritis were also observed on a scapula (No. 15), sacrum (No. 15) and terminal phalanges, (Nos 30 and ?47).

The only individual affected by arthritis to a medium degree was No. 34. A jaw condyle and three terminal phalanges were affected to this degree. When considered with the evidence of poor oral health (described above), this would suggest that the individual was fairly advanced in age.

Non-metrical variants

Four complete wormian bones (accessory bones from the skull vault) were discovered in four 'cremations' (Nos 36, 37, 40 and 47).

Cremation weights

(Tables 32 and 33)

The cremations were sieved through a 1mm mesh to remove mineral and bone dust. All fairly large stones were removed by hand (a small amount of mineral matter may remain with the unidentified bone). The unidentified bone was weighed and this figure expressed as a percentage of the total weight of the cremated bone. The identifiable bone was then sorted into anatomical groups (removing all mineral matter), and each group weighed. These figures were expressed as a percentage of the total identifiable bone. This information is summarised on Table 32.

It is of some interest to compare the average weight of each anatomical group of bones (expressed as a percentage of the total identified bone weight) with the weight of each part of the human skeleton before cremation (expressed as a percentage of the total skeleton weight). A comparison of these figures is given below. The percentage weights of unburned bones were obtained from complete, well preserved skeletons, but are based on a few examples only. They are therefore intended to provide a rough guide only, and do not present a statistically valid sample.

It is readily apparent that, as expected, the skull and long bones are highly over-represented in the identifiable cremated material, and that more delicate bones (*e.g.* vertebrae, ribs, pelvis) are under-represented (presumably because they were not preserved in a recognisable form). However, most 'cremations' (apart from the very insubstantial remains) produced some evidence that the small bones of the hands and feet were present. This suggests that entire bodies, presumably not decomposed, were cremated. If decomposition had occurred before the body was cremated, it might be expected that most of these bones would have been lost during the process of moving the remains of the cremation fire.

Av. weight of cremations (2) with 3 individuals	2124 g
Av. weight of cremations (8) with 2 individuals*	1285 g
Av. weight of cremations (27) with 1 adult	867 g
Av. weight of cremations (5) with 1 child	280 g

* excluding cremation 29.

Table 32 Human bone: average weights of cremations.

Associated finds

Cremations 2, 11 and 23 contained a few fragments of unburned animal bone (mostly tooth fragments of sheep). There is no evidence to suggest that these were anything but accidental inclusions.

Staining of the cremated bone

Some of the bones in Numbers 26 and 45 are stained green, presumably due to contact with copper or bronze. These stains do not seem to be concentrated in any particular anatomical region.

	Skull	*Vertebra*	*Rib*	*Clavicle*	*Scapula*	*Lone Bones*	*Patella*	*Pelvis*	*Extremities*	*Sternum*
Unburnt bone (approx. %)	20	11	8	1	2	40	1	7	9	1
Cremation (average %)	34	3	0.4	0.1	0.1	61	negligible	0.4	1.0	negligible

Table 33 Percentage weight of cremated and unburnt bone.

No.	No. Individuals	Age	Sex	Degree of calcination	Max. size frags
1	1 adult	Young (20-30 yrs)		WC	8 cm
2	1 child	?6-13 yrs		WC	4 cm
	1 adult	>16 yrs		WC	4 cm
3	1 child	*c.* 6 yrs		WC	4 cm
	1 adult	?>25 yrs		WC	4 cm
4	1 adult	>20 yrs, not elderly	?F	WC	6 cm
5*	1 child	*c.* 21/2-4 yrs		VWC	3 cm
6	1 adult	*c.* 25-50 yrs		WC	3 cm
7	1 ?child	?Immature		WC	3 cm
8*	1 adult	Fairly young		WC	3 cm
9	1 ?adult	?		WC	6 cm
10	scatter in D. 163				
11*	1 sub-adult	*c.* 15-21 yrs	?F	NWC	5 cm
*	1 adult	?	?F	NWC	5 cm
12	Insubstantial burnt ?human bone fragments				
13	1 adult	>25 yrs		WC	5 cm
14	1 adult	Not elderly		WC	4 cm
15	1 adult	Mature, *c.* 30-50 yrs	?M	FWC	6 cm
16	1 adult/ sub-adult	>13 yrs		WC	3 cm
17	Missing				
18	1 adult	?		WC	5 cm
19	1 adult	Mature, *c.* 30-50 yrs		WC	4 cm
20*	1 child	*c.* 10 yrs		Mainly WC	3 cm
21	1 adult	>20 yrs	?M	Mainly FWC	4cm
22	1 adult	Fairly young	?M	WC	4 cm
23	1 adult	Young middle age	?F	WC	5 cm
24*	1 child	*c.* 7 yrs		WC	3 cm
25	1 adult	?	?F	WC	6 cm
	1 adult	?	?F	WC	6 cm
26	1 adult	>20 yrs		WC	10 cm
27	1 ?child	?Immature		VWC	4 cm
28	1 adult	Not elderly	?F	WC	3 cm
29	?1 child	?Immature		WC	4 cm
*	1 adult	>20 yrs, not elderly		WC	4 cm
30*	1 adult	*c.* 25-35 yrs		WC	6 cm
31*	1 adult	>20 yrs	?F	WC	4 cm
*	1 adult	?	?M	WC	4 cm
32	1 adult/ sub-adult	?<21 yrs		Mainly WC	5 cm
33	insubstantial scatter			WC	
34	1 adult	Late middle age or elderly	?M	FWC	6 cm
35*	1 adult	Not elderly	?F	WC	7 cm
36	1 adult	?		WC	4 cm
37*	1 adult	>25 yrs		WC	3 cm
	1 adult	?		WC	3 cm
38	1 adult/ sub-adult	*c.* 14-35 yrs		WC	5 cm
39	1 child	*c.* 1-3 yrs		WC	2 cm
40	1 adult/ sub-adult	<21 yrs		FWC	6 cm
41	1 ?child	Immature		WC	3 cm
42*	1 child	*c.* 2-6 yrs		WC	2 cm
*	1 child	?		WC	2 cm
*	1 child	?		WC	2 cm
43	1 adult	?		FWC	3 cm
44	Insubstantial scatter				
45*	1 or ?2 adults	One >25 yrs		WC	6 cm
*	1 child	*c.* 2-6 yrs		WC	6 cm
46*	1 child	Immature		WC	4 cm
0	1 adult	?		WC	4 cm
47	1 adult	>25 yrs, not elderly		FWC	6 cm
48	1 adult	Not elderly		FWC	5 cm
49	1 adult	Not elderly		WC	4 cm
Feature 42 Insubstantial ?human					

* = ? WC = well calcined FWC = fairly well calcined
VWC = very well calcined.

Table 34 Cremations: age and sex.

Part 5. Faunal Remains From Iron Age and Romano-British Features

by Pam J. Crabtree

I. The Iron Age Fauna

Quantification

(Tables 35-9)

In studying an archaeological faunal collection, some of the most important questions the faunal analyst seeks to answer are:

1. What animal species are present in the faunal sample?
2. How important were hunting and stock raising to the economy of the site? and
3. What is the relative importance of the domestic species, especially cattle, sheep and goat, horses, and pigs?

Unfortunately there is no general agreement among archaeozoologists on the ways that these species ratios should be calculated. Both the Minimum Number of Individuals (MNI) method (White 1953; Chaplin 1971) and simple fragment counts are fraught with difficulties (see Grayson 1984 and Klein and Craz-Uribe 1984, for detailed discussions of the problems involved in faunal quantification). Differential bone fragmentation and the fact that different animal species have varying numbers of identifiable bones in their skeletons can lead to bias in species ratios based on fragment counts. While the use of the MNI technique may overcome these difficulties, MNIs are subject to biases of their own. In particular, MNIs are subject to the effects of aggregation. In other words, when two archaeological contexts are lumped together, the MNI for this combined sample is usually not equal to the sum of the MNIs for each individual context. Thus, the ways in which archaeological units are combined during analysis can have significant impact on MNI estimates and species ratios.

Because of the problems inherent in all zooarchaeological quantification, both fragment count ratios and MNIs were calculated for the Iron Age faunal sample from West Stow. Detailed anatomical distributions were prepared for the main mammalian species (cattle, sheep/goat, pig and horse) in order to detect possible anomalies which may affect both fragment count and MNI estimates.

A total of 7574 bones and fragments were recovered from Iron Age contexts of which 3721 (49.1%) could be identified to species or higher order taxon.

Following the recommendations of the Department of the Environment, animal bones which could be identified to anatomical element but not to species were included in the following higher order taxa: small artiodactyl (sheep, goat, pig, or roe deer), large artiodactyl (cattle or red deer), and large mammal (cattle, red deer, or horse). No attempt was made to identify ribs and vertebrae other than atlas, axis, and sacrum to species. Sheep and goat were distinguished following the recommendations of Boessneck *et al.* (1964). The majority of the caprine bones could not be identified to species and were included in the sheep/goat category. Table 35 indicates that the vast majority of the Iron Age fauna is composed of the domestic mammals, especially cattle, sheep/goat, pig, and horse. The role of wild mammals in the Iron Age economy was clearly a minor one, as red deer, roe deer, fox, and hare comprise less than 1% of the identifiable mammalian sample.

Species	*No. of fragments*
Mammals	
Cattle *(Bos taurus)*	1390
Sheep *(Ovis aries)*	79
Goat *(Capra hircus)*	3
Sheep/goat	808
Pig *(Sus scrofa)*	270
Horse *(Equus caballus)*	215
Large artiodactyl	150
Small artidactyl	296
Large mammal	421
Dog *(Canis familiaris)*	22
Cat *(Felis* sp.)	2
Red deer *(Cervus elaphus)*	8
Roe deer *(Capreolus)*	5
Rabbit *(Oryctolagus cunniculus)*	21
Hare *(Lepus* sp.)	1
Fox *(Vulpes vulpes)*	6
Mole *(Talpa europaea)*	2
Small carnivore	3
Unidentifiable mammal	3849
Birds	
Domestic fowl *(Gallus gallus)*	6
Domestic goose *(Anser anser)*	5
Grey heron *(Ardea cinerea)*	1
Cranes (Gruidae)	3
Unidentifiable bird	4
Other	
Frog/toad *(Rana* sp./*Bufo* sp.)	4
Total	7574

Table 35 Faunal remains: species represented in Iron Age features.

In addition to the mammalian remains, both domestic and wild bird bones were recovered from the Iron Age features. Domestic birds have been recovered from other pre-Roman Iron Age sites in Britain including Winklebury, Hants. (Jones 1977), Baulksbury, Hants. (Maltby 1981, 162) and Ashville, Oxon. (Bramwell 1978). Moreover, Caesar states that the Britons kept fowl and geese as pets (Rivet 1964, 125). Birds, however, played only a minor part in the economy of Iron Age West Stow.

Since large domestic mammals form the mainstays of pre-Roman animal husbandry at West Stow, detailed anatomical breakdowns for cattle, sheep/goat, pig, and horse are presented in Table 36. Although these distributions are quite regular overall, three anomalies are apparent in the sheep/goat anatomical distribution: (1) high numbers of loose teeth, (2) high numbers of tibia fragments and (3) relatively low numbers of carpals, tarsals, phalanges and sesamoids. As will be shown below, the West Stow Iron Age sheep were killed at young ages. The fragile corpora of the young mandibles may have deteriorated, producing large numbers of isolated teeth. The high numbers of sheep/goat tibiae may result from identification biases, as sheep/goat shaft fragments bearing nutrient

	Cattle	*Sheep/Goat*	*Pig*	*Horse*
Head				
Skull	109	21	35	4
Horn Core	20	5		
Maxilla	28	13	17	1
Mandible	127	85	34	14
Hyoid	2	1		
Atlas	13	3	2	
Axis	7	4		1
Forelimb				
Scapula	69	19	26	10
Humerus	54	36	28	11
Radius	59	66	4	14
Ulna	24	5	6	3
Hindlimb				
Innominate	38	22	15	9
Femur	51	19	9	12
Patella	3		1	1
Tibia	76	106	3	9
Fibula			5	
Sacrum	4	1		
Feet				
Carpals	29			2
Tarsals	21	1		7
Astragalus	31	6	8	6
Calcaneus	34	4	3	11
Metacarpals	61	45	6	11 (2)
Metatarsals	62	43	6	11 (5)
Metapodials	14	1		2
1st phalanx	53	2	5	12
2nd phalanx	22	1		3
3rd phalanx	18	1		3
Teeth				
Maxillary teeth	913	137	20	30
Mandibular teeth	154	220	30	18
Tooth fragments	11	23	7	3
TOTAL	1390	890	270	215

NOTE: Ancillary metapodials in parentheses.

Table 36 Faunal remains: species/anatomy distribution for Iron Age features.

foramena can be distinguished from those of roe deer and other small artiodactyls. High numbers of sheep/goat loose teeth and tibial fragments have been recovered from other Iron Age sites in Britain including the Phase 3 Iron Age ditches at Winnall Down, Hants. (Maltby 1981, 165).

The faunal remains at West Stow were collected by careful hand trowelling. This was a standard excavation procedure in the 1960s and '70s. Large-scale programmes of wet-sieving, designed to recover very small animal bones, were not commonly used until the late 1970s. The scarcity of very small bones of sheep and goats, such as carpals and tarsals, undoubtedly results from the lack of wet-sieving.

	Fragment Count		*MNI*	
	N	%	N	%
Cattle	1390	50.3	71	46.1
Sheep/goat	890	32.2	56	36.4
Pig	270	9.8	18	11.7
Horse	215	7.8	9	5.8

Table 37 Faunal remains: comparison of MNI and fragment count methods.

Species ratios for cattle, sheep/goat, pig, and horse were calculated using both the fragment count and MNI methods. Because of the large sample size, right and left bones were not matched for sex and age. This technique produces a minimum MNI. Matching by age and sex can only serve to increase the overall number of individuals. Table 37 shows that the MNI and fragment count methods produce strikingly similar results. In both cases cattle are the predominant species, following by sheep/goat, then pig, and then horse. The proportional estimates differ by only 2-4%. The close agreement between these two methods, each of which is subject to different biases, allows us to treat these species ratios with reasonable confidence.

The relative importance of sheep and goat in the Iron Age collection deserves comment. Eighty-two of the 890 sheep and/or goat fragments could be identified to species (following Boessneck *et al.* 1964). Both sheep and goat bones were identified, but sheep outnumber goats by more than 25:1. The vast majority of the Iron Age caprines were sheep; only a small number of goats were kept, possibly for a specialised purpose such as dairying.

Many recent faunal studies have emphasised taphonomic processes and intrasite variations in specific proportions, and Iron Age studies are no exception. Of particular interest to zooarchaeologists studying Iron Age sites are variations in specific proportions calculated for ditches and pits. For example, at Winnall Down, Maltby (1981, 165) found that cattle bones survived better in ditches, while sheep and pig bones were more common in pit deposits. He attributed these differences to a combination of differential preservation and disposal practices. To test whether intrasite variations might be apparent in the West Stow assemblage, distributions of anatomical groupings (cranial elements, forelimb bones, hindlimb bones, foot bones, and loose teeth) were compiled

	Cattle		*Sheep/Goat*		*Pig*		*Horse*	
	Pits	*Ditches*	*Pits*	*Ditches*	*Pits*	*Ditches*	*Pits*	*Ditches*
Head	172	116	78	51	45	32	10	8
	(26.1)	(17.5)	(18.9)	(12.0)	(35.7)	(28.3)	(11.0)	(7.5)
Forelimb	99	96	62	55	30	29	15	21
	(15.0)	(14.5)	(15.0)	(12.9)	(23.8)	(25.7)	(16.5)	(19.6)
Hindlimb	96	72	80	61	20	11	14	16
	(14.6)	(10.8)	(19.4)	(14.3)	(15.9)	(9.7)	(15.4)	(15.0)
Feet	155	171	49	50	12	12	40	29
	(23.6)	(25.8)	(11.9)	(11.7)	(9.5)	(10.6)	(44.0)	(27.1)
Teeth	136	209	143	209	19	29	12	33
	(20.7)	(31.5)	(34.7)	(49.1)	(15.1)	(25.7)	(13.2)	(30.8)
Total	658	664	412	426	126	113	91	107

NOTE: Percentage figures in parentheses.

Table 38 Faunal remains: anatomical groupings for Iron Age pits and ditches.

for Iron Age pits and ditches (Table 38). For all the main mammalian species the proportion of loose teeth is higher in the ditches than in the pits. Conversely, the proportions of cranial elements are consistently lower in the ditches. These differences may be the result of preservational factors. Loose teeth are relatively sturdy and retain their identifiability when fragmented (T. Van Houten, pers. comm.). Cranial elements are more fragile, and, when broken, can easily be reduced to a pile of unidentifiable bone bits. Bones which fall into ditches are more likely to be exposed to the destructive effects of weathering than those which are placed in trash pits and rapidly covered over. Thus the fragile cranial elements are more likely to survive in the relatively protected pit contexts. Proportions of forelimb, hindlimb, and podial elements in the pits and ditches are generally comparable for all species, although somewhat fewer horse podial elements were recovered from the ditches.

Table 39 compares species ratios based on fragment counts for Iron Age pits and ditches. Contrary to what might be expected, the species ratios calculated for the pits and ditches do not differ significantly despite the differences in anatomical representation discussed above.

	Pits		*Ditches*	
	N	*%*	*N*	*%*
Cattle	658	51.1	664	50.7
Sheep/goat	412	32.0	426	32.5
Pig	126	9.8	113	8.6
Horse	91	7.1	107	8.2
Total	1287		1310	

Table 39 Faunal remains: specific proportions for Iron Age pits and ditches.

Measurements

(Table 40)

All the West Stow animal bones were measured following the recommendations of von den Driesch (1976). Most bones were measured to the nearest 0.1 mm using a Mitutoyo vernier caliper, while the largest of the long bones were measured to the nearest 0.5 mm using an osteometric board. A complete summary of Iron Age animal bone measurements has been presented elsewhere (Crabtree 1982). This report will focus on the measurements of complete limb bones which may allow us to reconstruct the withers heights of the West Stow domesticates.

Cattle (Table 40)

Eight complete metapodia, one humerus, one femur and two tibiae provided withers height estimates for cattle which range from 100-116 cm (Table 40). These animals are comparable in size to the cattle recovered from other Iron Age sites in Britain including Gussage All Saints, Dorset (Harcourt 1979, 151), where withers heights ranged from 100-113 cm and Ashville (Wilson 1978, 116), where withers heights ranged from 100-118 cm.

Sheep

Two complete metacarpals yielded withers height estimates of 60.5 and 63.0 cm, based on Teichert's factors for sheep following von den Driesch and Boessneck (1974). Although the sample is very small, these sheep appear to be at the large end of the Iron Age range. In comparison, Iron Age sheep in Wessex are typically between 50 and 60 cm at the shoulder.

Greatest length (mm)	*Withers height (cm)*
Metacarpus	
166.7	102.1
168.1	103.0
177.6	108.8
186.1	114.0
189.8	116.3
Humerus	
223.3	106.5
Femur (GLC)	
287.0	99.6
Tibia	
295.6	102.0
297.0	102.5
Metatarsus	
118.0	102.5
211.0	115.0
213.3	116.2

mean = 107.4 cm, s.d. = 6.4

Note: Following von den Driesch and Boessneck (1974, 336), Fock's factors were used to calculate withers heights for metapodia; Matolcsi's factors were used for the other long bones.

Table 40 Faunal remains: withers height estimates for Iron Age cattle.

Pigs

The Iron Age pig sample from West Stow was small, and consequently very few measurable bones were recovered. One of the most common measurements that could be taken was the length of the lower third molar. This measurement has traditionally been used to distinguish wild from domestic pigs (see Noddle (1980, 401) for measurements of lower third molar lengths on male and female wild boar). The West Stow Iron Age lower third molar lengths range from 28.1-35.1 mm, all well within the domestic range.

Horses

Seven complete horse long bones provide withers height estimates which range from 110-136 cm, or from about 11-13½ (hands. British Iron Age horses, such as those from Gussage All Saints (Harcourt 1979, 153), generally range from 10-14 hands, and the West Stow horses are no exception to this generalisation.

Ageing

(Tables 41-3)

Analysis of ages at death is an essential part of any faunal study. Once we have reconstructed the kill patterns for the major domestic species, it is possible to make inferences about the economic uses, such as meat, milk, wool and traction, to which the domestic stock may have been put. Estimates for ages at death for sheep and goats, cattle, and pigs are based on dental eruption and wear (following Grant 1975). Grant's method produces a numerical value (n.v.) for each complete mandible which represents the sum of the wear stages seen on the first, second, and third molars. Since each numerical value probably represents a very short period of time, the n.v.s for cattle and sheep were grouped into broad age classes following Bourdillon and Coy (1977). Numerical values for pigs were grouped into intervals of five.

Cattle (Table 41)
The Iron Age pits and ditches at West Stow produced only twenty ageable cattle mandibles (Table 41). Although this sample is too small to produce a detailed mortality pattern, it is clear that cattle of all ages were slaughtered with no concentration on either young or elderly animals. The cattle killed during stages 1 and 2 are probably excess males which were not needed for breeding purposes. Those animals which survived to old age (stages 5 and 6) probably represent milch cattle and traction animals. This is the type of age distribution that might be expected from a small, self-sufficient Iron Age farm.

*Stage**	*n.v.*	*Estimated age*	*No. Mandibles*	*Proportion*
1	*1-5*	<6 months	1	3.7%
2	6-19	6-18 months	7	25.9%
3	20-29	1½-2½ yrs	4	14.8%
4	30-36	2½-4 yrs	4	14.8%
5-6	over 36	>4 yrs	9	33.3%

* Stages following Bourdillon and Coy 1977.

Table 41 Faunal remains: kill pattern for Iron Age cattle.

Pigs (Table 42)
The kill-pattern for Iron Age pigs from West Stow is shown in Table 42. Two modes of mortality are apparent; young piglets (n.v./6-10) and adolescents (n.v./26-30). This pattern is typical of pig husbandry, especially sty husbandry. Since pigs have only one major economic use, food, most pigs will be killed in late adolescence, just before they reach bodily maturity. Only a small number of older pigs will be kept for reproductive purposes. Pigs are also prolific animals, often producing very large litters, and excess piglets are commonly slaughtered early in life.

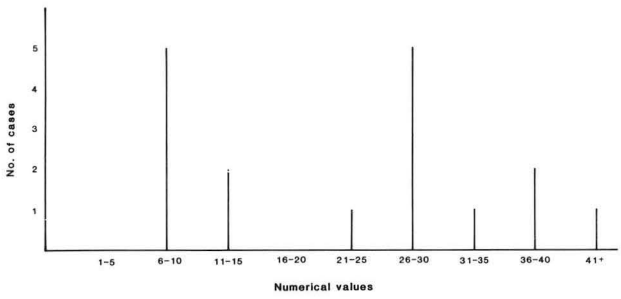


Table 42 Faunal remains: distribution of pig mandibles.

Sheep and goats (Table 43)
In contrast to pigs, sheep and goats are multi-purpose animals, sources of meat, milk, and wool or hair. The ageing distribution for the Iron Age sheep and goats from West Stow is shown in Table 43. From the table it is clear that nearly one-third of the animals were killed during the first year of life, and that over half were killed by the age of two years. Of those sheep that did survive to adulthood, most were killed at 4-6 years of age. This pattern of early slaughter is to be expected when sheep are raised for meat and milk production. Payne (1973, 282) has argued that dairying populations may slaughter surplus lambs at 6-9 months (stage 2), while shepherds emphasising meat will kill a large proportion of the flock at 2-3 years of age (stages 3-4). Those animals surviving to older ages probably represent breeding stock and may have provided wool for domestic consumption. The kill pattern seen at West Stow is paralleled at a number of later Iron Age sites in southern Britain including Barley, Herts. (Ewbank *et al.* 1964) and Ashville (Hamilton 1978).

*Stage**	*Payne stage*	*n.v.*	*Estimated age*	*No. Mandibles*	*Proportion*
1	A-B	1-6	<6 months	2	4.9%
2	C	7-18	6-12 months	10	24.4%
3	D	19-28	1-2 yrs	9	22.0%
4	E-F	29-35	2-4 yrs	8	19.6%
5	G	36-46	4-6 yrs	11	26.8%
6	H-I	over 46	6-10 yrs	1	2.4%

* Stages following Bourdillon and Coy 1977.

Table 43 Faunal remains: kill pattern for Iron Age sheep and goats.

II. The Romano-British Fauna

Quantification

(Tables 44 and 45)
The Romano-British faunal sample is small, and most of the bones were recovered from early Roman (1st and 2nd century AD) pottery kilns. A total of 1824 bones and fragments were analysed of which 933 (51.2%) could be identified to species or higher order classification (Table 44). Domestic mammal bones make up the bulk of the assemblage and include cattle, sheep, sheep/goat, pig, dog, and horse. Wild mammals are limited to red deer, hare, and three rabbit bones which are almost certainly modern. Small numbers of domestic bird bones were identified, but no unequivocally wild bird remains were recovered. Specific ratios were calculated for the Romano-British faunal sample using the fragment count method (Table 45). When compared to the Iron Age sample, the Romano-British collection includes a higher proportion of pig and sheep/goat bones and relatively fewer cattle remains.

Species	*No. of fragments*
Mammals	
Cattle *(Bos taurus)*	257
Sheep *(Ovis aries)*	23
Sheep/goat	256
Pig *(Sus scrofa)*	97
Horse *(Equus caballus)*	45
Dog *(Canis familiaris)**	3
Large artiodactyl	15
Small artiodactyl	84
Large mammal	134
Red deer *(Cervus elaphus)*	2
Rabbit *(Oryctolagus cunniculus)*	3
Hare *(Lepus* sp.)	8
Unidentified mammal	887
Birds	
Domestic fowl *(Gallus gallus)*	2
Domestic goose *(Anser anser)*	2
Domestic duck/mallard *(Arias platyrynchos)*	1
Unidentified bird	4
Other	
Frog/toad (*Rana* sp./*Bufo* sp.)	1
Total	1824

* Dog skeletons are not included in this total. These will be discussed in Crabtree (forthcoming).

Table 44 Faunal remains: Species present in Romano-British features.

Species	*N*	*%*
Cattle	257	37.9
Sheep/goat	279	41.2
Pig	97	14.3
Horse	45	6.6
Total	678	

Note: Proportions based on fragment counts.

Table 45 Faunal remains: specific proportions for Romano-British features.

Measurements

Because the Romano-British faunal sample is so small, complete measurable long bones are rare. A single complete sheep metacarpus provided a withers height estimate of 52.9 cm. This measurement is typical of Iron Age and Romano-British sheep in Britain. No complete long bones of horses, pigs, or cattle were recovered.

Ageing

Cattle

Only five complete cattle mandibles were recovered from the Romano-British features. Three of the mandibles belonged to elderly or adult cattle, but the sample is much too small to draw any conclusions and kill-patterns.

Pigs

Five pig mandibles were recovered from the Romano-British features. Pigs of all ages were represented, from juvenile to adult.

Sheep and goats

The sample of Romano-British sheep and goat mandibles is somewhat larger; thirteen mandibles were recovered from the Roman features. Most of the juveniles were killed between six and twelve months of age, while the adults were killed between two and six years. Although the sample of ageable mandibles is small, the mortality pattern is not unlike that for the Iron Age sample.

III. Conclusions

Although the vast majority of the animal bones recovered from West Stow were recovered from the Anglo-Saxon features, the smaller Iron Age and Romano-British faunal samples can provide useful information about animal husbandry practices in the pre-Saxon periods. Iron Age animal husbandry was based primarily on cattle-raising. Sheep, pigs, and horses were relatively less important, and wild mammals and birds played only a minor role in the Iron Age economy. The kill-patterns reconstructed for the domestic species are are typical of those seen at small, self-sufficient Iron Age farmsteads, and the West Stow animals are generally comparable in size to British Iron Age stock. The Romano-British sample, despite its small size, does suggest some long term changes in animal husbandry practice. In particular, the Romano-British assemblage shows an increased proportion of sheep and pigs and relatively fewer cattle. This trend continues into the early Anglo-Saxon period. By the 5th century AD sheep and goats comprise 44% of the faunal sample, cattle are reduced to 34%, and pigs have increased to 21% (Crabtree 1982, 82). The significance of these long term changes will be discussed in the final report on the Anglo-Saxon animal bones from West Stow.

Part 6. Discussion

I. The Prehistoric Settlement Pattern

with a contribution by Julie Gardiner

From Mildenhall to Bury St. Edmunds, the Lark Valley has one of the greatest concentrations of prehistoric settlements in East Anglia. From the close of the last glaciation, successive cultures have hunted and farmed the region, leaving traces of settlement at a whole series of major and minor sites. The West Stow site itself has produced evidence for later Mesolithic activity on the knoll, with several discreet concentrations of waste flakes, blades, cores and implements indicating one or more short-lived visits by hunter-gatherer groups.

Scatters of Mesolithic material occur widely over the whole area, with concentrations at the east end of West Stow parish, Culford, Cavenham Heath, Icklingham and Mildenhall and at West Row, on the fen-edge around the twenty-five foot contour. One important earlier Mesolithic site, at Lackford Heath (Jacobi 1984, 47-51) lies less than 3 km downstream of West Stow on the opposite bank of the River Lark. Most of the Mesolithic material is difficult to date accurately but diagnostically late industries, with rods, trapezoids and micro-burins occur in groups on sandhills at various locations in the south-west Norfolk and north-west Suffolk Breckland. Clusters of small later Mesolithic sites are known at Peacock's Farm (Clark 1955); Lakenheath Warren; Wangford; and Two Mile Bottom (Jacobi 1984) as well as at West Stow, Site 001, just west of the excavation site (002). Numerous transversely sharpened axes, including a stray find from the site itself, are also recorded.

Evidence of the earliest agricultural communities in the region is best known from the site at Hurst Fen, Mildenhall (Clark 1960) which, although it is on a tributary of the Little Ouse, is the only earlier Neolithic site to have been examined in detail. Some earlier Neolithic material is recorded from excavations at West Row (Healy, pers. comm.) and leaf arrowheads are very abundant in the Breckland (see Green 1980); however, the bulk of the vast amount of surface flintwork collected from the area is of Late Neolithic/Early Bronze Age date. Large numbers of artefacts attributable to this period have come from the parishes bordering the Lark, with a particular concentration between the fen-edge and the Icknield Way extending southward the pattern observable in Norfolk (Healy 1984). Much of this material seems to be essentially domestic in nature but there is also an unusual concentration of imported and elaborate artefacts along the fen-edge, including stone axes, large quantities of arrowheads and elaborate knives, a pattern which was apparent even as early as the 1930s (see Clough and Green 1972; Green 1980; Healy 1984). The West Stow LNEBA assemblage is, itself, dominated by these forms.

No pre-Iron Age ceramic material was recovered from the excavations but Late Neolithic and Early Bronze Age Peterborough Wares, Grooved Ware and Beakers are recorded from numerous locations in the Breckland (see Healy 1984; Cleal 1984). Seven sherds of Grooved Ware, two of Peterborough Ware and a quantity of flintwork were recorded in association with a number of black patches on the field immediately north of the West Stow site (TL 796 718) after deep ploughing, recalling the situation at Honington (TL 915 748), where Grooved Ware and an assemblage including a high proportion of arrowheads and polished implements was again associated with dark patches and some pits (Wainwright and Longworth 1971, 285). More recently, three further sherds of Grooved Ware and a few flints were also recovered from a small pit within a gravel quarry at West Stow (WSW030; Martin 1979). Other ceramic finds in the general area include Grooved Ware from Pakenham, Grimstone End (TL 9345 6900) and Icklingham (*c.*TL 77 72). The only reasonably certain monuments of the period are the cursus and attendant hengiform enclosures at Fornham All Saints (St. Joseph 1964).

Beaker and full Bronze Age cultures are attested by numerous burials, rare settlements, widespread, scattered finds and occasional metal hoards, all along the valley, with a particularly dense concentration on the fen-edge around West Row, Mildenhall. The Isleham Hoard of 84 kg of scrap bronze, belonging to the period of the inception of the 'Iron Age', contained fragments of harness and vehicle fittings with a decidedly central European flavour (Britton 1960). A scatter of barrows, some known to be of Beaker and Early Bronze Age date, flank the valley on the higher land. At Fornham All Saints, cropmarks show an important group at the southern end of the cursus in the valley bottom. Settlement, or penetration of some kind, occurs as far up the river as the southern limits of Bury St. Edmunds where, in 1971, two gold bracelets of the Late Bronze Age were recovered from a presumed burial discovered by chance (Longworth 1972, 271-2). The Bronze Age settlement pattern is distinctively associated with the fen-edge and the chalk escarpment and is clearly linked with settlements along the Icknield Way and the Upper Thames.

The Neolithic ring-ditch and its implications

With regard to the West Stow site (WSW003) it is worth repeating that, in spite of the relatively large number of Neolithic flint artefacts which could be culturally associated at West Stow, there was no evidence of domestic settlement. The flint asssemblage is very strongly biased towards arrowheads and polished implements and all of the more utilitarian pieces recovered fit quite happily with the Mesolithic assemblage. It seems likely that deposition of the LNEBA flint assemblage is related to activities at the ring-ditch.

The Late Neolithic burial practice of cemeteries enclosed by a ring-ditch may be seen as a progression from the distinctive Neolithic round-barrow tradition, in which ring-ditches sometimes occurred though perhaps not always recognised as playing a significant part. Within the framework suggested by Kinnes (1979) the West Stow ring-ditch comes under the classification of Stage F, the final insular group before Beaker and Early Bronze Age traditions take over. The majority of the known Stage F sites in his study are defined by ring-ditches (sometimes penannular or formed by contiguous pits), with cremations usually found along the inner edge of the bank. Some, however, do occur within the ditch fill, as at West Stow, examples being at Stonehenge (Atkinson 1960) and at Barford, Warwickshire (Oswald 1969). At Bryn Celli Ddu,

Figure 68 Neolithic ring-ditch: age and sex distribution of cremations Scale 1:125

Anglesey (O'Kelly 1969) and at Dorchester II, Oxon. (Atkinson *et al.* 1951) cremations were also found within a central pit. The absence of banks or a mound associated with D.115 at West Stow is due to the continued occupation of the site, especially in Iron Age times, and arguably to wind erosion.

It is envisaged that these cemeteries were open for some length of time, and that deposition of cremations were not made simultaneously. A covering mound was added in some cases, at a later stage, but what criteria were used to assess when a cemetery should be completed in this way are not known. Ring-ditches may be seen as mortuary enclosures and the lack of finds from within bears out the argument that they were not used for any domestic purpose. This lack of finds is apparent at West Stow, whilst the few objects that were associated (Fig. 42, Nos 50-5) have parallels at other stage F sites, in particular Dorchester IV and VI. One particular artefact, the burnt bone skewer pin, seems particularly indicative, and has been found at 60% of similar sites, but was not present at West Stow.

Comment on the ring-ditch

by Julie Gardiner

The results of a recent programme of research into the complex sequence of, and relationship between, Neolithic monuments and flint assemblages in Cranborne Chase, on the Dorset/Wiltshire border, are due to be published at about the same time as this report (Barrett *et al.* in press). Whilst the West Stow ring-ditch remains unusual in terms of the number of un-urned cremations present within it, the similarity of some aspects of the feature itself and the flint assemblage associated with it, and the situation in Cranborne Chase, provides an opportunity to comment a little further and suggest a context for the site.

At least three small ring-ditch sites in Cranborne Chase (Handley Barrows 26 and 27 and Fir Tree Field, Down Farm) have been identified as Late Neolithic burial sites. Each of these sites, cut into chalk, is larger than West Stow (13-17.5m max. diam. compared with 11.6 at West Stow), whilst slight mounds and causeways survive in two cases, the third site (Fir Tree Field) showing evidence of recuts. Any similar features in the sand at West Stow have long since disappeared. A late long barrow (Wor Barrow) close to Handley Barrows 26 and 27, and clearly associated with them (see Barrett *et al.* in press for details) shares a number of similarites with them, including in terms of the burial rites recorded there.

These sites were not prolific in artefacts but small amounts of Peterborough Ware are recorded from each and at least three of the sites included the remains of individual articulated male skeletons, though not in pits. Grave-goods were limited to one or two items; elaborate arrowheads or belt-sliders. The only grave-good from West Stow is a single stone bead. Like West Stow, the stratigraphic associations of these various elements are rather uncertain.

Perhaps more relevant here is the location of these sites in relation to other monuments and flint assemblages. Handley 26 and 27 and Wor Barrow are tightly grouped together and are located less than 2 km from the Dorset Cursus and its attendant monuments (Bradley *et al.* 1984, fig.7.3). Fir Tree Field is only *c.* 400m from the Cursus and close to another Late Neolithic site consisting of a series of pits containing highly structured deposits associated with Grooved Ware and Peterborough Ware. The whole area around the Cursus complex is marked by deposits of these decorated ceramics and by flint assemblages with unusually high numbers of imported and polished implements (see Bradley *et al.* 1984, fig. 7.4a).

In other areas ring-ditches and small hengiform enclosures can be seen to occur within major groups of Late Neolithic monuments. Examples include the Stonehenge area (Atkinson 1960); and Dorchester-on-Thames (Atkinson *et al.* 1960; Bradley and Holgate 1984). It has also been demonstrated on numerous occasions that decorated ceramics, including formal deposits in pits, cluster around the major groups of monuments. This can be seen in each of the areas mentioned above as well as in others. Moreover, it can also be shown in other areas that flint assemblages located close to Late Neolithic monuments may include unusually large numbers of elaborate, exotic and polished implements (Bradley *et al.* 1984; Gardiner 1988).

This combination of decorated Late Neolithic ceramics, monuments and elaborate flintwork can be seen in the West Stow area, though it has not been studied in enough detail for more than general observations to be made. Few monuments have yet been recorded but the cursus and hengiform enclosures at Fornham All Saints lie less than 5 km to the east. Ceramic finds in the area are not always well recorded but Cleal (1984) has shown that, whilst the majority of finds are from sites which appear, on other evidence, to be largely domestic in nature, some sites are not of purely domestic character. More Grooved Ware than Peterborough Ware sites seem to have included specialised deposits. Among her list of possible specialised deposits are one of the earlier groups of finds from West Stow (Martin 1979). The flintwork from the excavated site is unusually elaborate, as described above (Chapter 3) and the site lies towards the limit of the well-attested fen-edge concentration of exotic and elaborate stone tools. The central pit produced two 'tortoise' cores. Cleal's (1984) study showed that these types, where they are associated with pottery, have only been recorded alongside Grooved Ware, though this is not necessarily the case elsewhere.

In summary then, although the West Stow ring-ditch appears as a rather isolated feature at first glance, it may best be seen as part of a much wider complex of sites and finds. It lies between a very high concentration of elaborate stone tools and a small monument complex, including both a cursus and hengiform enclosures (Martin 1982). Although more distant from these monuments than others of its type it shares a number of similarities and is associated with a very selective range of artefacts. It lies next to a site which has produced Grooved Ware in a possible specialised deposit and provides no evidence for domestic occupation of the knoll.

The proximity of this material, the restricted tool-range, funerary function of the site and the presence of tortoise cores might suggest that the ring-ditch itself should be considered a 'Grooved Ware site'. It should be noted, however, that ring-ditches of this date tend to be associated with Peterborough Ware and that the majority of the arrowheads are chisel forms more frequently associated with this ceramic! On the other hand, it would not be unusual in other parts of the country to find a Peterborough Ware site in close proximity to one associated with Grooved Ware (see Bradley *et al.* 1984; Gardiner 1988).

The individual character of the site, with its central pit, numerous cremations and ambiguous associations, requires further investigation but it can be concluded that it need

not be viewed as an isolated feature, but as part of a pattern of Late Neolithic and Early Bronze Age occupation and ritual activity in the Breckland which becomes increasingly complex as more evidence is recovered.

II. The Iron Age

The pattern of Iron Age settlement in the West Stow area is quite well known.

Settlements are indicated at Hengrave, at the northern end of the Fornham cursus site; at West Stow, Lackford, Icklingham, Mildenhall and Eriswell. The Icklingham-Mildenhall-Brandon region was clearly one of several centres of the Iceni tribe, as is evidenced by the density of the coin scatter, the Elvedon bronze-bound tankard (Clarke 1940, 107), and the Brandon (unpublished) and Santon Downham metalwork hoards (Clarke 1940, 63ff).

The extensive gravel quarry to the north of Lackford Bridge has revealed part of a further occupation of a similar kind to that of the excavation on the West Stow side of the river and another in Lackford. It would appear that the settlement pattern during the Iron Age was, therefore, diffuse, with a series of small farmsteads strung out along the valley bottom; the evidence from West Stow parish, where there were at least three, is beginning to suggest these at roughly half mile intervals, unlike the communual settlements of the Anglo-Saxon type.

There are no known Iron Age forts in the Lark valley, the nearest being Wandlebury to the south-west; Thetford and Barnham to the north-east. Important hoards of coins, invariably of Iceni origin, are known from Lakenheath and Mildenhall; the most recent from Lord's Walk, Eriswell, including Roman denarii down to Nero (AD 54-68). These, taken with the metal hoards from Santon Downham and Brandon and the evidence for the abandonment of the West Stow settlement, all suggest considerable upheaval at that time, presumably as a result of the Boudiccan rebellion. Only one settlement is known in detail from extensive excavation; that underlying the Anglo-Saxon settlement at West Stow, which covered the entire five acre knoll; providing the most completely known settlement site for the region.

The settlement consisted of a number of circular huts, storage or rubbish pits, and enclosure systems. A notable feature was two parallel ditch systems, recut many times, which transversed the site from east to west, providing, on a modest scale, protection for the site on the landward sides during the last stages of the Iron Age occupation. The Iron Age 'settlement', however, when broken down into phases, was really a farmstead rather than a village. The first phase features are certainly very few; by Phase III there is a considerable proliferation of pits and ditch systems, but few identifiable houses. Three 'phases' have been suggested, Phase I is distinctive and isolated by the stratigraphy of the features and the characteristic pottery. Phases II and III are, from the pottery evidence, part of a continuous development of the site, the division being based on the introduction of wheel-thrown pottery. When the features containing this material are isolated, a Phase II can be shown to be clearly stratigraphically unassociated with the main early Phase III features, with significant changes in the layout of the site, particularly with the introduction of the long, linear ditches. Continuous changes can be discerned in Phases II and III, with modifications and many recuttings of the main ditches. As the background to Phase II and III is part of a cultural continuum, the total Iron Age Plan (Fig. 4) has been shaded to show the phases in a different way to the extracted plans in order that the relationships between various elements might be better understood. The later Phase III features, which are again fewer in number, suggest that the silted-up ditches, so much part of the early Phase III, had been abandoned and a new lay-out created.

There are a number of unphased features attributable to the Iron Age by stratigraphy or small amounts of pottery; some of these could be related to phases by association, such as two small ditches in WE/WF.5 which run parallel to the ditch of Enclosure 7. Others overlie Phase II features and are cut by those of Phase III.

There remains the problem of the large number of post-holes on the site, over 2000 in all, some of which were resolved into Romano-British or Early Anglo-Saxon buildings and some associated with Iron Age houses. The majority, however, could not be assigned to any period and have been included in Figures 11 and 17 in order to present the possibilities. On Figure 69 there is an attempt to suggest possible groupings in the form of four-post structures, often interpreted as raised granaries, although opinions are wavering, in the light of successful experiments of storing grain in pits. These range from 1.6m to nearly 4m square, in some cases rectangular or trapezoidal. The size range is comparable with those from elsewhere and equate with Stanford's type A (Stanford 1970) with examples at Wandlebury, Cambs. and Barley, Herts. In one instance there is a possible rectangular structure, in WD.6, but the evidence for the long south side is lacking. There are a number of instances of short lines of post-holes (*e.g.* WG.4) but without further support. Not all the post-holes are Iron Age; doubtless some are Romano-British, particularly in the south-west corner of the site, and many must be of Anglo-Saxon date.

A wide range of the East Anglian Iron Age pottery, from high shouldered, squared rims (Cunliffe 1974, 29-48), to the double-cordoned bowls and tazzas of the Late Iron Age were found. The latter, usually described as 'Belgic' are not 'Belgic' in the strictly political sense, but overlap with the Roman conquest and go on into the second half of the 1st century AD; later emerging as a primary influence on the products of the West Stow Romano-British kilns, in operation from *c.* AD 80-140.

The pottery from Phase I suggests an early occupation on the site between the 3rd and 1st centuries BC, basically with one enclosure and a random scatter of pits. Phase II has a number of short lengths of ditch, one round-house and traces of a number of angular enclosures. As the pottery from this phase may start in the 1st century BC but is probably mainly from the early 1st century AD, there may well be a discontinuity of settlement on the site. Phase III, which overlaps Phase II ceramically, represents the major phase of occupation and development with an ambitious layout of ditch systems, huts and enclosures. The pottery seems to end significantly about AD 60, with a period of abandonment before the establishment of the Romano-British pottery industry. As suggested in the introduction, this settlement at West Stow is part of the scattered, valley-bottom occupation of the Lark Valley at this period.

III. Romano-British Settlement in the Area

The whole of the Lark Valley was densely settled in the

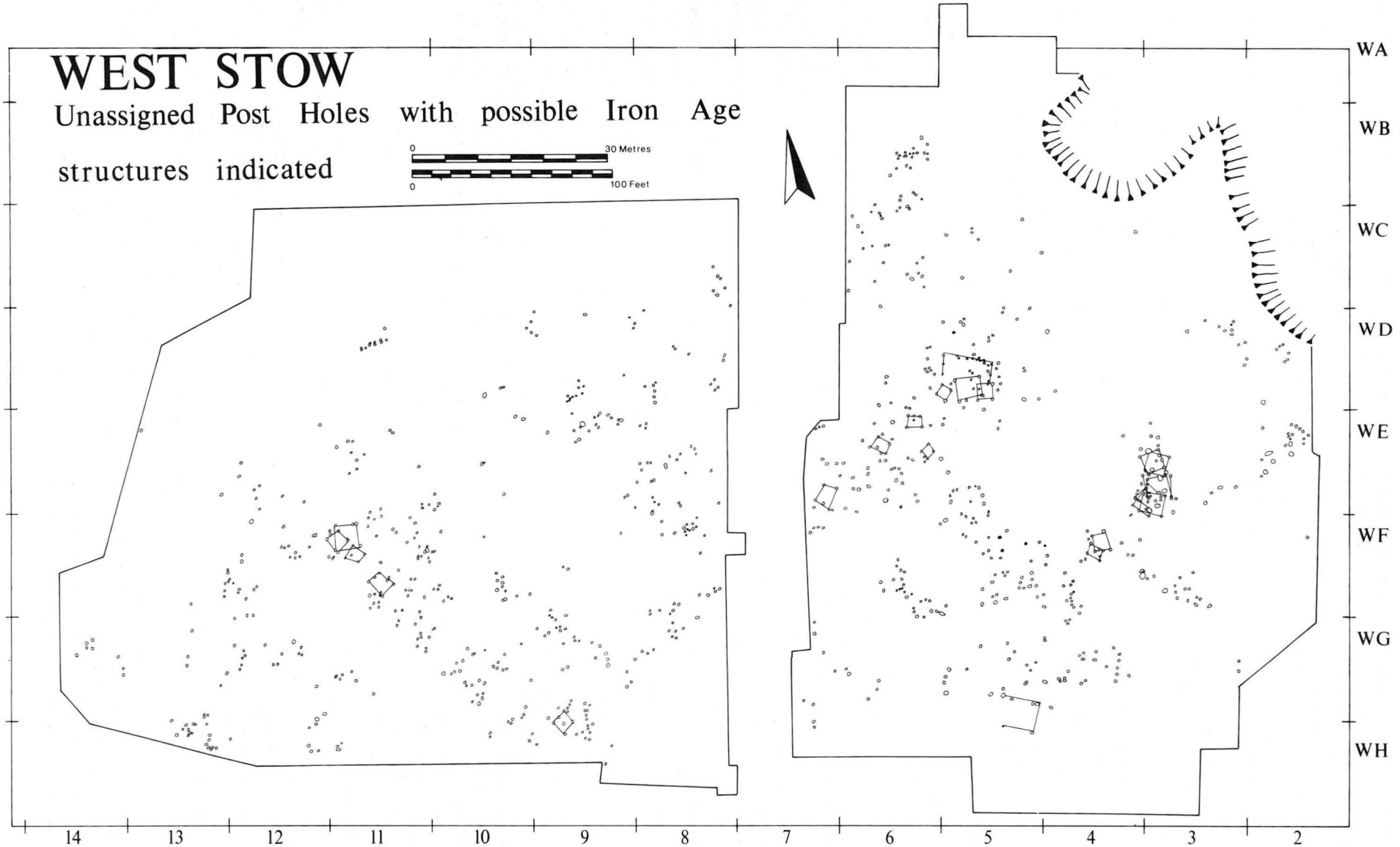


Figure 69 Unassigned post-holes with possible Iron Age structures indicated

Romano-British period. At Mildenhall and Icklingham very large nuclear settlements with major buildings are known to have existed, with other sites strung out between them reaching up the valley to Great Whelnetham. The Roman road system is barely known in this area at all, although it must be supposed that there were connections between the settlements along the Lark Valley; to the vast Hockwold nucleus to the north and to Cambridge in the south-west. It is not known how important the Icknield Way was in Roman times; the lack of Romano-British sites along its length in this area would suggest that it had declined, in contrast to the Icknield Way in north-west Norfolk, where there were seven villas in 11 km (Gregory 1982, 360-6), although it clearly persisted to become a boundary in later Saxon times to a number of parishes. A clear link is, however, known with the major settlement at Pakenham, with a road on Puttocks Hill passing the Redcastle Farm villa and continuing to Livermere and Culford. Recent excavations at Icklingham confirm the existance of an east-west road shown on a recent air photograph of the Icklingham site (West and Plouviez 1976, 65). The Mildenhall, and particularly the Icklingham sites, are recorded as 'villas' as mortared flint foundations have been discovered there, but there are extensive areas of settlement beyond the building complexes. In the case of Icklingham, a major potting industry is also apparent, so that the 'villa' concept is not an adequate description of the nature of these Romano-British settlements. It is clear that these sites are large, open, rural settlements; extending, in the case of Icklingham, for over a mile in length, with peasant houses, industries and larger establishments in much the same manner as medieval market towns; in fact they may be seen as the pre-cursors of the medieval markets, often dominating similar tracts of country in Suffolk. As with the earlier cultures, the Romano-British settlement pattern is concentrated on the river valley and the streams leading into it, particularly along the edge of the flood-plain.

Both Mildenhall and Icklingham have produced important material. Mildenhall is the more difficult to understand due to the uncertainty surrounding the discovery of the Mildenhall Treasure, allegedly found close to a small 'villa' at Thistley Green, in a complex area of Romano-British settlement which may well contain more important buildings than at present known (Phillips 1970).

Icklingham, by its size and the richness of the finds associated with it, was clearly a major settlement throughout the Roman period and may be compared with the other large, open sites in the county, notably Pakenham (Ixworth), Long Melford, Coddenham, Hacheston, Capel St. Mary and Wenhaston, together with Hockwold and Scole immediately adjacent in Norfolk. The nature of these settlements shows a marked similarity; they were large, sprawling sites apparently expanding and contracting without obvious boundaries. The buildings are difficult to define by excavation in most cases and are likely to have been timber-framed with slight foundations, with occasional structures of more importance. These settlements are usually rich in coins, brooches and other objects and, by their relation to the road pattern, were focal points dominating areas of the countryside.

An important distinction between Icklingham and some, at least, of the other sites (notably Scole, Hacheston and Coddenham) that seems to be emerging is the importance of the site in the later Roman period as opposed to the apparent decline of some others at that time. A building with a hypocaust was partially excavated in 1877 (Prigg 1878, 12-15) and a free-standing Christian church within a cemetery, associated with lead tanks bearing the Christian monogram, was postulated on a older, possibly pagan, ritual site, following the excavations in 1974 (West and Plouviez 1976). Four metal hoards, with a total of thirty-seven pewter vessels and a one-piece bronze cauldron are recorded from Icklingham, together with five 3rd-century pottery kilns discovered in the 1930s.

The coin list for Icklingham is impressive and important. Two major hoards containing Honorian coins discovered in 1877 and 1903 and three smaller hoards are recorded from the area of the site, suggesting an occupation down to the early years of the 5th century.

The discovery (*c.* 1925) of the pagan ritual regalia from Lackford (the so-called 'Cavenham' Crowns) on the high land on the opposite side of the valley (Layard 1925) must be associated in some way with the settlement at Icklingham and may well be the *raison d'être* for the siting there of the great Early Anglo-Saxon cremation cemetery.

The pottery kilns discovered by Prigg elsewhere on West Stow Heath and those excavated on the knoll all seem to have been related, representing some seventy years of pottery production. This is a notable workshop, producing a very wide range of forms and fabrics, particularly in the earlier phases of manufacture. There was some relationship to the potteries at Wattisfield although the finer forms are different. Production seems to have ceased in the mid 2nd century and, as yet, there is no evidence of a continuum with the three known mid 3rd-century kilns at nearby Icklingham. It is not known how these kilns were accommodated in the Romano-British landscape which might be expected to have been well-managed with field systems at that time, nor is there any evidence of domestic buildings on the site apart from the small buildings which are more likely to be connected to the pottery making process. The presence of nine brooches and three (possibly six) early coins is an unusual feature when pottery making sites are not renowned for the quality of small finds. It should be borne in mind, however, that the Lark Valley and the fen-edge generally in this area produces numbers of brooches and small finds of this period.

IV. The Medieval Ploughland

The whole of the knoll and probably much of the surrounding area was cultivated during the 12th and 13th centuries, and possibly earlier, by the method of rig and furrow ploughing. In this case the ridges and hollows are quite shallow and the widths of the strips are variable. It is the only attested case of this technique in Suffolk. The Breckland region, of which this area is part, is prone to sand-blows in dry spring weather and the cessation of agriculture on the site is clearly directly related to this problem. The pottery scatter, probably the result of muck-spreading, suggests that this event (for it would appear that great quantities of sand were involved) took place in the late 13th or early 14th century. Thereafter the site was undisturbed.

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Index

Placenames are followed by the abbreviated county name. In addition, (C)=Cambridgeshire, (E)=Essex, (N)=Norfolk, (S)=Suffolk.

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