EAST ANGLIAN ARCHAEOLOGY

REPORT NO.3

SUFFOLK

SUFFOLK COUNTY COUNCIL

1976

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PLANNING DEPARTMENT

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CONTENTS

LIST OF PLATES

LIST OF FIGURES

LIST OF TABLES

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PREFACE

THE COUNTY INDEX OF ARCHAEOLOGICAL SITES IN SUFFOLK

The Suffolk Archaeological Unit's index of archaeological sites uses the parish, each with a three letter code, as the basic unit of recording. Sites are numbered in a continuous series within each parish. Thus RBY 1 (the tumulus excavated at Barrow Bottom, Risby, in 1975, and reported in this volume) is the first site recorded under that parish in the Unit's index and all data related to that site bear that prefix. All sites in Ipswich (prefix IAS) have a four-digit reference: the first two digits indicating the geographical area within the Borough boundary, and the last two indicating the precise area of ground within that block, as planned onto the 1:1250 O.S. map.

ABBREVIATIONS USED IN THE TEXT

N.R.O. Norfolk Record Office (Norwich).

O.S. Ordnance Survey.

R.C.H.M. Royal Commission on Historical Monuments.

S.A.U. Suffolk Archaeological Unit.

S.R.O. Suffolk Record Office (Ipswich and Bury St. Edmunds).

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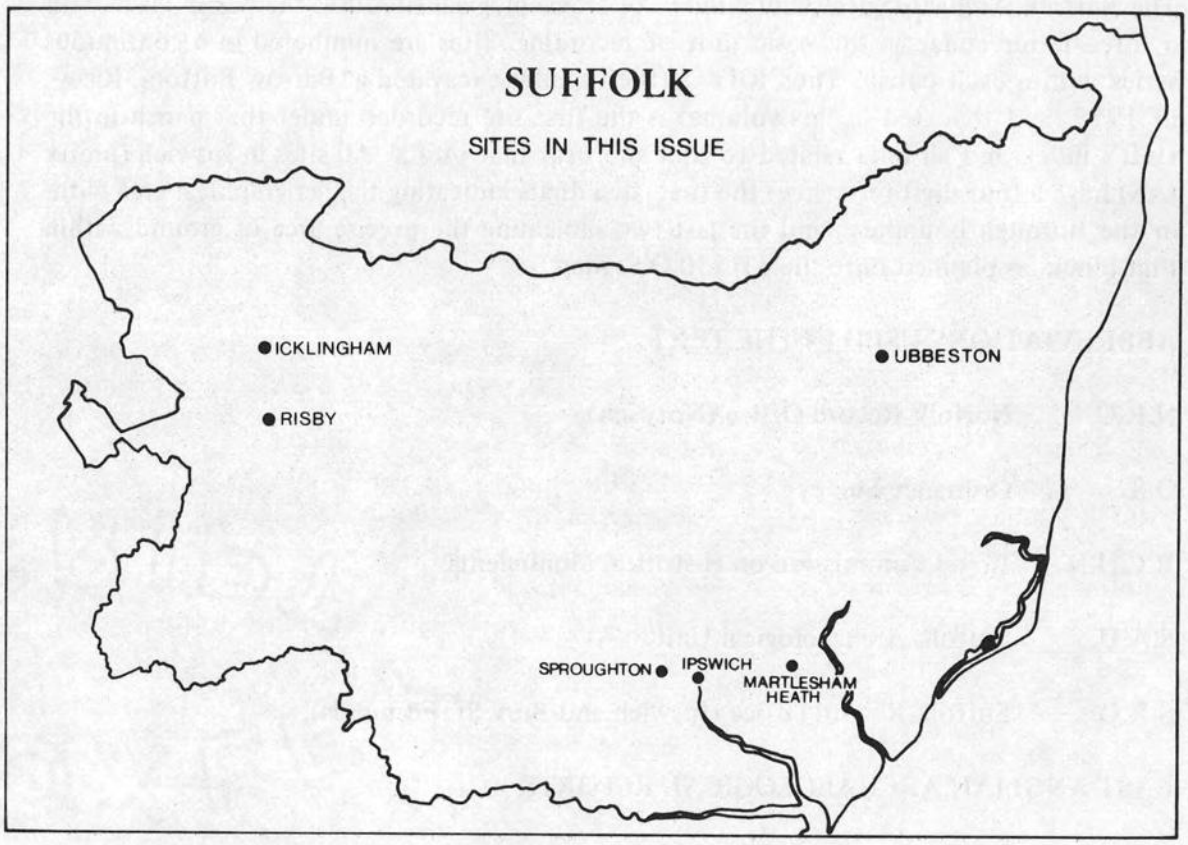
SUFFOLK
SITES IN THIS ISSUE
ICKLINGHAM
RISBY
UBBESTON
SPROUGHTON
IPSWICH
MARTLESHAM
HEATH

A LONG BLADE INDUSTRY FROM SPROUGHTON, SUFFOLK by J.J. Wymer and THE DATE OF THE BURIED CHANNEL DEPOSITS AT SPROUGHTON By J. Rose

SUMMARY

The buried channel of the River Gipping was exposed at Devil's Wood Pit, Sproughton, until 1974. The sand and gravel deposits have produced two barbed points, previously reported in this journal (Wymer 1975), and a long blade industry was recovered from the surface of the buried channel. The latter was investigated in 1972 and the results are described. Radiocarbon dates have been obtained from organic material within the buried channel and suggest that the barbed points were deposited in the final phases of the Late Glacial period or early in the succeeding post-glacial pre-Boreal period (i.e. Pollen Zones III – IV). It is concluded that the long blade industry could be as early as Pollen Zone IV.

THE LONG BLADE INDUSTRY

The site at Sproughton was in a gravel pit worked by Bush Aggregates and known as Devil's Wood Pit, centred upon TM 134443. The map (Fig.1) shows the meander of the River Gipping in this locality, and the discoveries to be discussed have all been made within this loop. On the south-west the river abuts against terrace gravel which has a surface level only 2–3 m. above the flood plain within the meander, and on the south-east it flows against ground which slopes steeply up to 24 m. above the valley floor. There is a minor side valley on the west and a pipe trench cut in 1974 exposed terrace gravel between the river and Church Lane, Sproughton, and immediately west of this lane, at TM 128443, chalk with a thin 'Bullhead' flint band beneath Thanet Sand and hillwash; the 'Bullhead' bed, with its

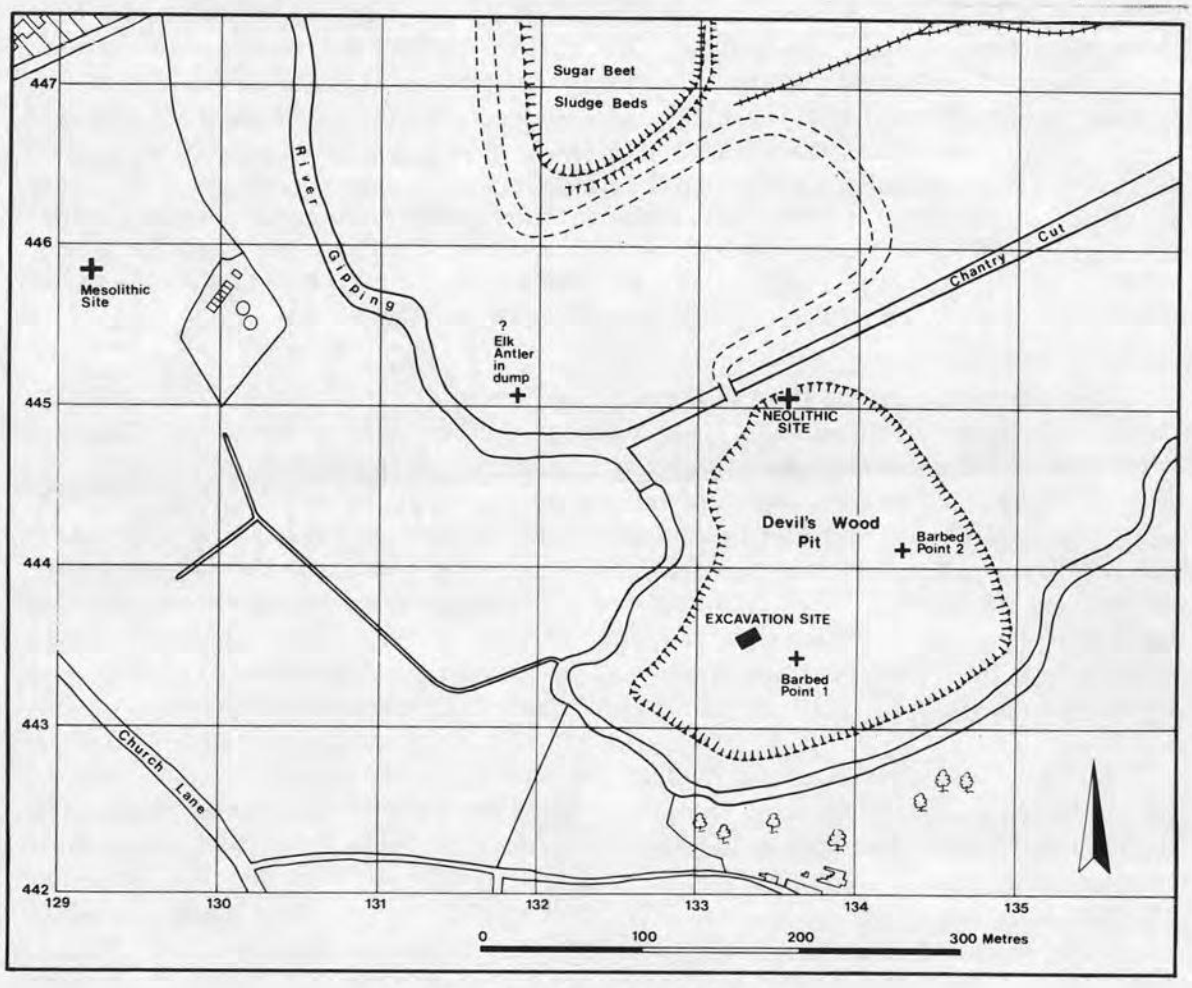

Fig. 1 . Location plan of the site.

characteristic green-coated flint nodules was, in places, less than 2 m. from the surface.

The River Gipping is, at this point, about 2 km. above Ipswich, where it is tidal and known as the Orwell. Prehistoric activity on the flood plain at Sproughton appears to have ceased through inundation after the Late Neolithic period. Nothing more recent than a late Middle Bronze Age dirk and the base of a pot of Bronze/Iron Age fabric has been found in this part of the valley (Owles 1972). This may have been the time when the ground became too boggy for occupation, and it probably remained in this condition until it was drained in historic times. A metre or more of marsh clay formed, with, nearer the river, peat, shelly sands, silts and organic clay. A rich Mesolithic site was discovered and investigated by Mr. J.V. Todd on slightly higher ground to the north-west, at TM 130449 (Owles 1970). Another Mesolithic site is known on the other side of the river, at TM 129445, excavated by Miss D. Garrod in 1928, and the material placed in Ipswich Museum.

The existence of a buried channel of the River Gipping near Ipswich is well known from wells and trial borings (Whitaker 1885; Boswell 1913; Spencer 1967), but the recent workings in Devil's Wood Pit have given a unique opportunity for studying the filling of this channel in section under dry conditions, for pumps were used to drain the pit as it was dug. The marsh clays and other sediments overlying the gravel to be exploited were scraped mechanically to the side, so that they formed a continuous bank fringing the greater part of the meander loop and along the artificial Chantry Cut between the east and west sides. The extraction of gravel formed an imposing pit up to 12 m. deep and afforded the opportunity for the detailed study of the sediments by Mr. J. Rose, published below. Frequent visits to the pit were also made by Mr. J.V. Todd, who was responsible for the discovery of the long blade industry. He also discovered a Late Neolithic site which was later investigated in the Spring of 1974 by Mr. Edward Martin on behalf of the Suffolk Archaeological Unit (publication forthcoming in this journal). The two barbed points were chance finds made by Mr. Russell Game while operating a mechanical excavator. These have been reported on in this journal (Wymer 1975) and elsewhere (Wymer, Jacobi and Rose 1975). Faunal remains in the gravel were collected by Mr. R.A. Markham of Ipswich Museum. Unfortunately, the heavy rain of December 1974 caused the River Gipping to make a breach in the south side of the pit and transform it into a lake, making further geological or archaeological investigations impossible. This breach was later repaired and the pit pumped dry again for a brief period in 1975. Samples of insect remains and pollen were collected at this time by M. Bryan and R. Coope of the Department of Geology, University of Birmingham.

Apart from the chance finds of the two barbed points, very little else was found in the deposits of the buried channel that could relate to human occupation. A skull and articulated cervical vertebrae of a horse were found in a sandy part of the deposit, 15–20m. distant from the more recent of the two points and at about 1–2m. greater depth. Searchings of the sands and gravels before and after this discovery failed to reveal any flint artifacts other than one, small, rolled hand-axe made on a flake of bout coupé form, picked up in tipped gravel by Mr. Paul Ashbee. Mr. S.E. West found one fresh flake from a prismatic core in disturbed black flint shingle at the base of the sands and gravels, overlying chalk – mud and organic silts. Unfortunately, this was not in situ and may have slipped from the top, where such flakes are common in the peaty sediments at the base of the marsh clay.

Mr. J.V. Todd first discovered the industry when the overburden of marsh clay and silt was being mechanically removed from the top of the gravel of the buried channel. He reported to Ipswich Museum the finding of numerous large flakes, long blades and cores, all bearing a distinctive white patina; and the author visited the site with Miss E.J. Owles and Mr. R.A. Markham of Ipswich Museum in November 1972. From the large number of white-patinated flakes and cores lying in the disturbed ground at one particular spot, it was evident that a concentration of material in situ might have survived in the unmoved ground nearby.

The manager of the pit, Mr. Webdell, generously co-operated by deferring any further movement of soil in that area, moving some of the upper marsh clay with a mechanical excavator, and permitting a rescue excavation in December 1972. This was organised through Ipswich Museum, and the assistance of Miss Owles, numerous local helpers and the boys of Ipswich School is gratefully acknowledged.

A trial cutting immediately established the vertical stratigraphy, and the archaeological levels were examined on a metre square grid within a rectangle of 15 x 11 m. Most of the area within this rectangle was undisturbed (Fig. 2). The distribution plans of the patinated flint artifacts found below the marsh clay show one concentration rather than a palimpsest of several, and suggest that the patinated long blade industry belongs mainly or completely, to one occupation or visit. A sparser concentration around square L4 may even indicate where a knapper sat while he flaked, and there is some support for this interpretation in the concentration of flakes, cores and an anvil stone nearby. The flint used had all been brought to the site, for the cortex clearly showed that it was fresh from the chalk. Nodules of 'Bullhead' flint had been utilised, which, as noted above, was available nearby, on the other side of the river. Prior to the formation of later superficial deposits, the 'Bullhead' flints may have been exposed in the banks of the river. Care had obviously been taken in the selection of good quality flint, essential for an industry of such refinement.

The marsh clay covering the area investigated was the stratigraphical equivalent of the 'Peat, gyttja, sand and gravel lenses' of Fig. 5 (based on exposures further south by the river). Immediately beneath the marsh clay was a buried soil with a brown mull humus A horizon grading into a C horizon of clean, yellow river sand. The majority of the patinated artifacts were at the base of the soil or slightly in it, but in two instances were in the clean, sandy fillings of two shallow 'pits', c. 20 cm. deep, scooped out of the sand. There was no trace of humified sand or soil in these fillings, and this is regarded as evidence for the existence of the long blade industry on the sand surface prior to the formation of any soil. Within the A horizon were numerous unpatinated flints which were for the most part, if not entirely, Neolithic (an identification based on a complete leaf arrowhead and sherds of Neolothic pottery). The unpatinated flakes and cores were also typologically quite distinct from the patinated industry and, in spite of their vertical overlap and similar horizontal concentration, there can be no question of their having been contemporary. Sproughton is thus one of the rare sites where patination can be used with confidence to indicate relative age. The patination of the long blade industry was deep and contrasted markedly with the complete freshness of the Neolithic material. Such patination implies a considerable interval of time, probably some thousands of years, between the Neolithic industry and the earlier one, although it is likely that the sand was originally calcified and this could have accelerated the processes of patination. Decalcification was also probably responsible for the destruction of any faunal remains. Soil conditions at Sproughton are likely to vary from one part to another and Mr. Todd found a vertebra and part of an elk antler in a dump of dark grey sand at the same level, nearer the river. Faunal remains within the deposits of the buried channel included horse, elk and reindeer.

Charcoal fleck and numerous burnt flints may have related to the later Neolithic occupation. Pollen, analysed by Mr. R. Hubbard of the Institute of Archaeology, London, indicated an Atlantic age for the soil.

The two shallow pits mentioned above were the only structures associated with the long blade industry. The presence of domestic tools, such as scrapers and gravers, suggests some form of camping site, rather than a flint-knapping site, especially as the raw material had been brought in. The sandy surface at this point was slightly higher than elsewhere nearby, with a slight slope towards the southern part of the meander loop, and this may have been the reason for the choice of the site.

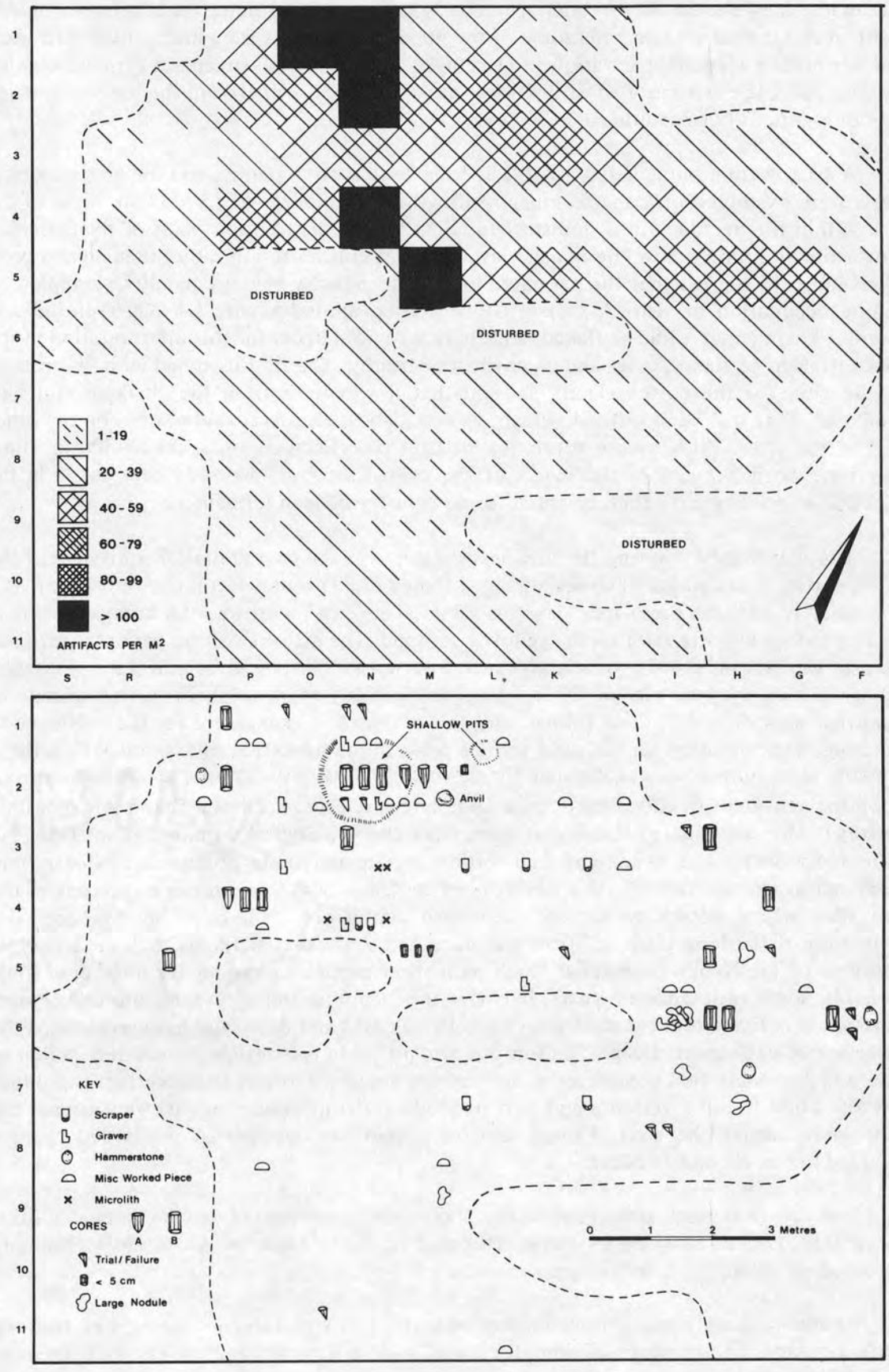

Fig. 2.
Distribution plans of the excavated area.
Upper : Densities of all flint artefacts.
Lower : Distribution of artefact types.

DESCRIPTION OF THE INDUSTRY

The quantities of flint artifacts found under controlled conditions were:

Cores	36
Flakes	3277
Blades	223
Broken blades	145
Gravers	5
Graver spall	1
Scrapers	7
Microliths	4
Miscellaneous worked pieces	22
Hammerstones	3

There were also five nodules of unworked 'Bullhead' flint found within one metre square, part of a large quartered nodule and two large nodules that had been rejected after a little trial flaking.

Only the material found during the controlled excavation is shown on the distribution plans (Fig. 2), but the cores and flakes or blades with secondary working found in the disturbed ground immediately around the excavation site have been included in the classification of these categories. The total amount of material found in the disturbed ground was:

Cores	9
Flakes	338
Blades	57
Broken blades	18
Scraper	1
Miscellaneous worked pieces	3
Hammerstone	1

Burnt flints were collected, counted and weighed. Their distribution varied from that of the worked flints, in that a greater number lay in the southern part of the excavated area. However, as there seemed no way of being sure whether the burnt flints related to the long blade industry or the later Neolithic one, it seems unwise to draw any conclusions, especially as the distribution of the unpatinated Neolithic flints was very similar to that of the patinated, i.e. concentrated in the centre of the northern side of the excavated area.

There is clear evidence that knapping was performed on the spot, for some blades have been matched with their cores. Although there may be a little admixture of material from occupation at some later date, the majority of the patinated worked flints probably belong to one short period of activity, perhaps to be measured in hours or days rather than weeks or months. Many flakes and blades can be fitted together on to their parent cores; it may even be possible to reassemble complete or near-complete nodules. The whole range of knapping debris is contained within the category 'flakes': large outer flakes, ridged blade-cores, preparatory flakes, core rejuvenation flakes, etc. No flint hammerstones were found; those recovered were of quartzite, ranging from 2.80 kg. for primary breaking of the fresh flint nodules, to 0.16 kg. for delicate work. The assemblage (Fig. 3) offers an unusual opportunity for studying the technology of blade production. Such a study is a lengthy task

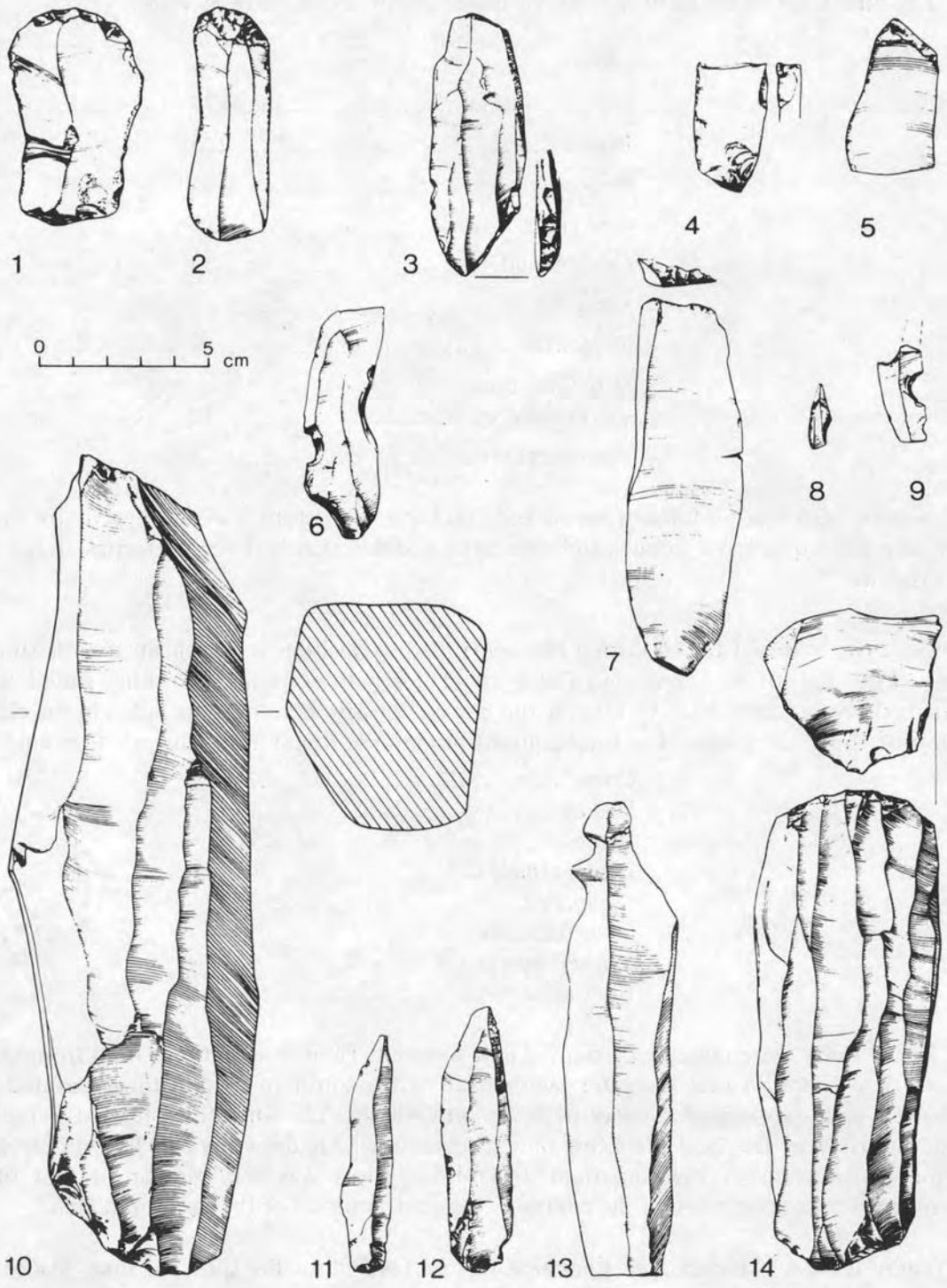

Fig. 3. SPROUGHTON : The long blade flint industry (½).
1 – 2 scrapers; 3, blade worked across bulbous end; 4, transverse plain angle graver; 5, oblique angle multi-faceted graver; 6, notched blade; 7, transverse backed angle graver; 8, microlith; 9, possible reject piece; 10, prismatic blade core with double opposed platforms (type B2); 11 – 13, blades; 14, prismatic blade core with double opposed platforms (type B1).

and of a very specialised nature, and Mr. M. Newcomer of the Institute of Archaeology, London, has kindly offered to do this. The following brief account of the industry is thus given prior to the forthcoming full description.

Cores

Type A1 – Single platform, worked partly round striking platform; length 8–10 cm; weight 0.3 – 0.44 kg. 3

Type A2 – Single platform, worked all round striking platform; length 8.5 – 9.5 cm; weight 0.14 – 0.60 kg. 3

Type B1 – Double opposed platforms, with blades removed from each end on the same face; Length 8 – 27 cm; weight 0.16 – over 3.00 kg. 11
(Fig. 3, No.14)

Type B2 – Double opposed platform, with blades removed from each end on alternate faces; length 7.5 – 25 cm; weight 0.10 – 2.40 kg. 9
(Fig. 3, No. 10)

Microcores (i.e. less than 5 cm. long)

Type A2, but possibly a larger core truncated by a plunging flake 1

Type B1 1

Type B2 (two probably undeveloped) 3

Broken pieces, core failures, etc. 14

Of 24 cores which have some cortex remaining, the type of flint used is:

Black flint with thick white cortex 19

'Bullhead' flint 4

Gravel flint 1

Blades (Fig. 3, Nos. 11–13)

The criteria used to determine a blade as opposed to a flake is the usual one of parallel or near-parallel sides with a length-breadth ratio of 2:1 or more. The non-bulbar side has flake ridges broadly parallel with the edges, and is devoid of cortex except in a few instances where a very small amount would have made little or no difference to the usefulness of the blade. Some of the Sproughton blades are superb examples of the knapper's craft, several attaining a length of 15 cm. or more. Cones and bulbs of percussion are frequently fairly pronounced, and some of the striking platform usually remains on the blade.

Apart from differences in technique of production, the distinction between the blades of this Sproughton industry and the usual British Mesolithic industries is one of size, expressed in the histogram (Fig. 4). Similar large blades occur in Mesolithic industries such as at King's site, Wilde Street, Mildenhall (unpublished material in Cambridge, Ipswich, British and other museums), but they are accompanied by the normal delicate blades and micro-blades such as at Thatcham, Star Carr, Broxbourne, etc., and with a tool component that is essentially Maglemosian. The tool component at Sproughton is different, as can be seen below.

Broken blades are those deemed to have broken in manufacture. They are generally bulbous ends and there seems nothing to suggest there was deliberate segmentation of the blades as in some Mesolithic industries. Some of these broken blades would still have been useful, so they are included in the histogram of blade length when they still satisfy the length-breadth and other criteria. In case this should render comparisons difficult with other blade industries, a distinction has been made on the histogram so that the relative numbers of complete and broken blades can be seen.

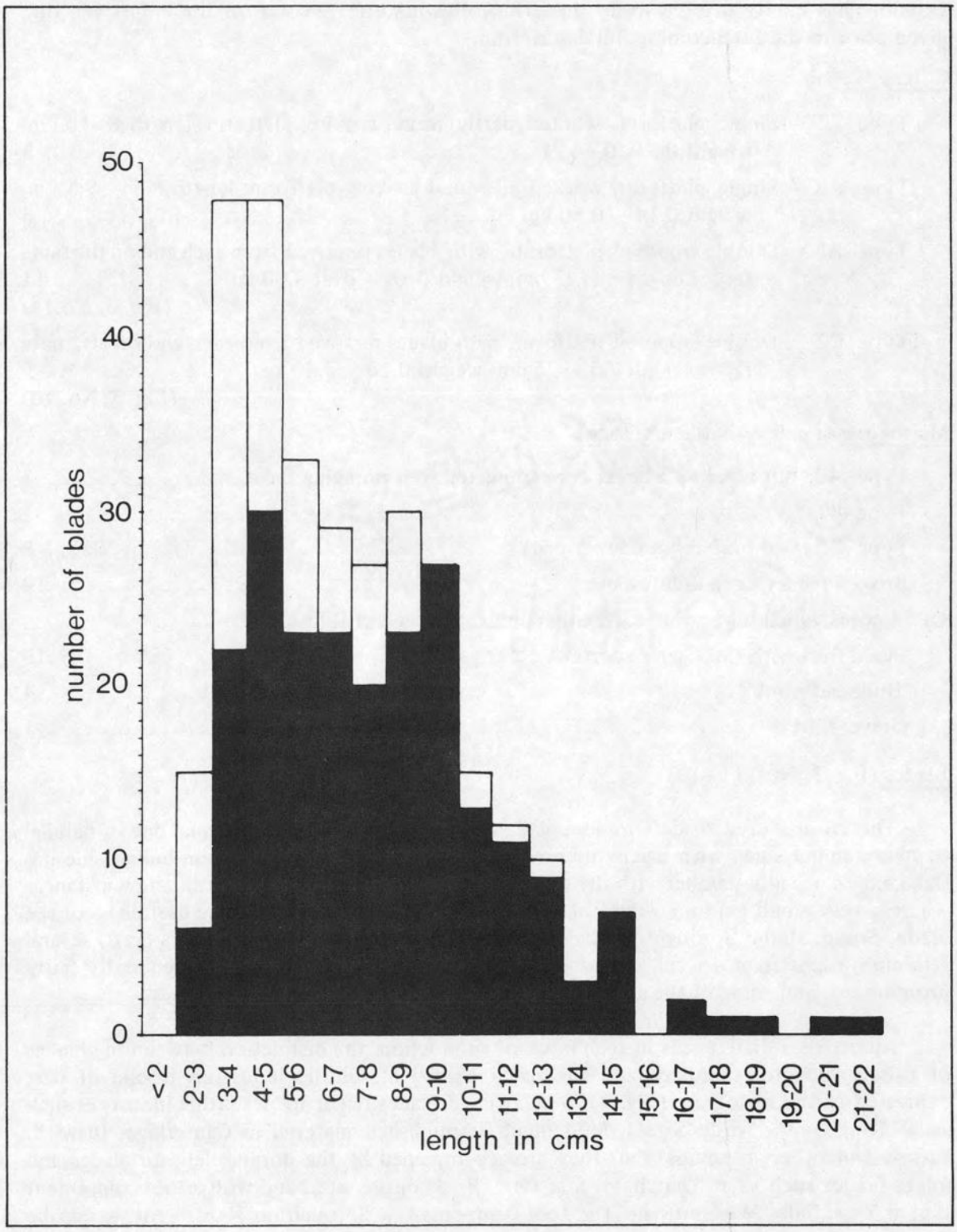

Fig. 4.
Histogram to show lengths of 223 blades (solid black) and 107 broken blades which still have a length/width ratio of $>$ 2:1 (open line).

Gravers

Five gravers were found, and one spall:

Transverse backed angle graver on blade (11 cm.)	1	(Fig. 3, No.7)
Transverse plain angle graver on blade (8 cm.)	1	
Transverse plain angle graver on bulbous end of broken blade (4 cm.)	1	(Fig. 3, No.4)
Oblique angle multi-faceted graver on non-bulbous end of broken blade (4.5 cm.)	1	(Fig. 3, No.5)
? Core graver; the platform of the core is faceted	1	
Graver spall from transverse backed angle graver (7.5 cm.)	1	

Scrapers

End scrapers, symmetrical on end of blade	4	(Fig. 3, No.1)
End scrapers, with oblique bias to right	2	(Fig. 3, No.2)
End scrapers, with oblique bias to left	2	

Miscellaneous

Denticulated flakes	2	
Crude, thick pointed flake used as borer	1	
Thick, crude, scraper/chopper; weight 0.40 kg.	1	
Large blade-like flake with shallow flaking half across the pointed end of the non-bulbar face, but this secondary working apparently undeveloped; possibly the start of a bifacial leaf point	1	
Blade worked across the bulbous end with the striking platform completely removed; signs of heavy use on the opposite edge to the blunting	1	(Fig. 3, No.3)
Various unspecialised worked pieces with notches or limited blunting/flaking on parts of their edges	17	(Fig. 3, No.6)

Microlithic

Four microliths were found, and two miscellaneous pieces which could be described as microlithic. Three of the microliths are only faintly patinated and thus are most unlikely to belong with the long blade industry. However, one is deeply patinated and could be contemporary:

Microlith blunted all down one side and on opposite side near base; patinated	1	(Fig. 3, No.8)
Broken microlith, probably bottom of an obliquely blunted point	1	
Minute scalene triangle-type microliths	2	

Micro-blade worked across one end; slightly patinated 1

An unusual piece with double opposing notches resembling a broken 'strangulated scraper' but possibly a reject piece from microlith manufacture; patinated white .....1 (Fig. 3, No.9)

THE DATING OF THE INDUSTRY AND ITS ASSOCIATIONS

The evidence for the dating of the buried channel deposits is given below. The latest radiocarbon date is 7,930 b.c., and other lines of study support a Late Glacial date for the main filling of the channel. It seems unlikely that deposition continued much after the climate had begun to ameliorate in Pollen Zone IV Pre-Boreal times, so this gives a maximum date for the long blade industry. The patination of the industry indicates that it is much earlier than the fresh, unpatinated Neolithic material found above it. Further support for an early date is the presence of a Mesolithic industry within a well-formed soil in another part of the pit, also completely fresh and unpatinated. However, the two minute microliths found in the course of the excavation within the A horizon soil were slightly patinated. Another was patinated and may be contemporary with the long blade industry.

There are two main reasons for considering that the long blade industry belongs to an occupation on the surface of the buried channel, very soon after it had become dry and available: firstly, it appears to have existed there before any soil had developed and, secondly, similar long blades and a large prismatic core in Ipswich Museum have come from Hadleigh Road Pit, Ipswich. These are rolled and stained, and come from the gravel filling of the buried channel. If it is assumed that this filling is about the same age as that at Sproughton, then the Sproughton long blade industry may be seen as the continuation of a tradition already established in the valley in Late Glacial times. The barbed points of bone and antler, previously reported from the filling of the buried channel, may be part of that tradition. The industry is very different from Mesolithic industries in East Anglia, or Late Upper Palaeolithic industries such as Hengistbury Head in Hampshire. There is no tanged point element.

This is the first time that such an industry has been found in Britain in any quantity or useful context. Its affinities are with the general Upper Palaeolithic traditions of Europe. Claims have been made on several occasions for the presence of Upper Palaeolithic industries in the Ipswich area (Moir 1930), and, in view of the evidence from Sproughton, it now seems desirable to review these claims. This will be done elsewhere.

March 1976

THE DATE OF THE BURIED CHANNEL DEPOSITS AT SPROUGHTON

The sediments associated with the archaeological discoveries fill the upper part of the Gipping buried channel (Woodland 1970). The critical exposures are located at the south side of the valley and underlie the present river flood plain which has a surface at c. 5 m. above O.D. The deposits show the following succession:

LOW ENERGY FLUVIAL SERIES	6) Peat, gyttja, and clay with sand and gravel lenses; present soil at surface.
HIGH ENERGY FLUVIAL SERIES	5) Gravel and sand with soil at the top of the deposit. 4) Unconformity – dissection of colluvial and lacustrine series.
COLLUVIAL AND LACUSTRINE SERIES	3) Chalk and flint head. 2) Laminated calcareous silt with included branches. 1) Chalk head, fine gravel and sand, with a soil at the top of the deposit.

The relative positions of the respective deposits are indicated on the generalized cross section (Fig. 5), along with the position of the barbed points (marked 1,2) and the long blade industry (marked 3).

The colluvial and lacustrine series consist respectively of a chalk head with a soil on its surface, a laminated calcareous silt, and a chalk head. These deposits indicate successively cold-climate gelifluction from the adjacent hillslope; a stable land surface with pedogenesis; inundation beneath a clear, calcareous lake; and lake drainage with renewed gelifluction. Lithostratigraphically this assemblage of deposits may indicate adjustment to successively cold, less cold, and cold climate geomorphic processes. Archaeologically the deposit is significant as the lake marl contains branches of willow (Salix spp.), one of which has been dated to 9,990 b.c. (HAR-260, 11,940 ± 180 b.p., Otlet and Slate 1974). Studies of the coleoptera by Dr. R. Coope and Mr. M. Bryan, and of the flora by Dr. C. Turner, are in progress.

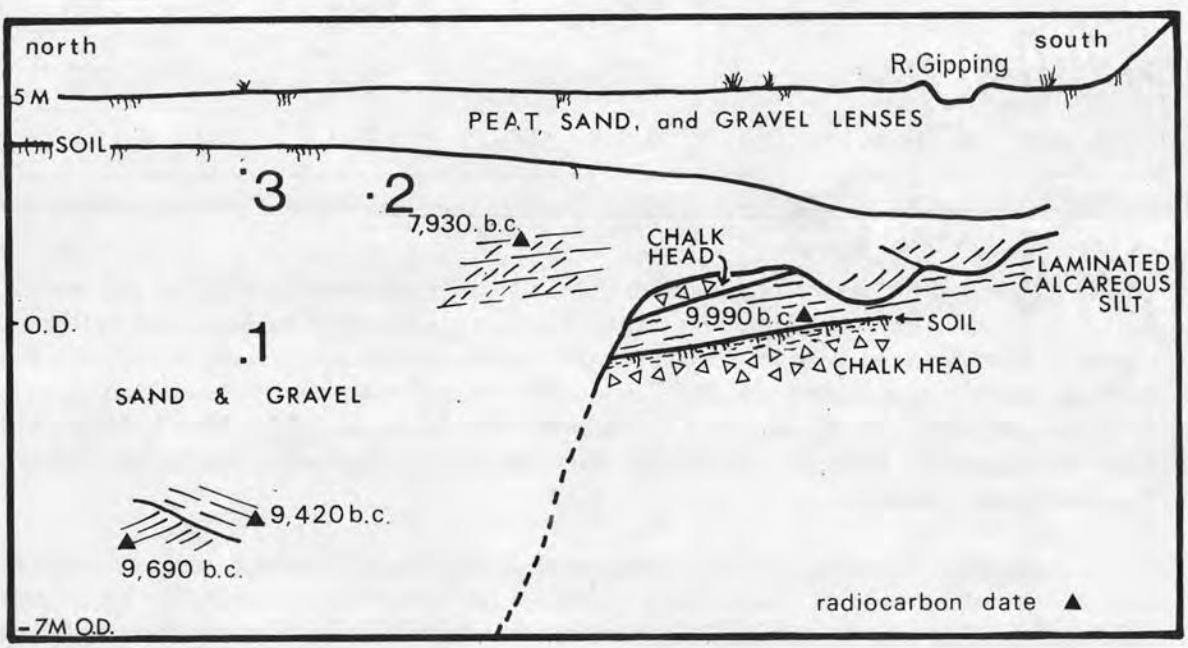

Fig. 5.
Generalised cross-section across part of Devil's Wood Pit with positions of radiocarbon dates and 1, barbed point no. 1; 2, barbed point no. 2; 3, long blade industry.

The gravels and sands fill a channel which has been cut into the colluvial and lacustrine deposits to a depth at least 7 m. below O.D. The lower part of the deposit consists of large-scale gravel and sand cross-set structures with a vertical range of about 3 m. These beds are truncated 4 m. from the top of the deposit, where they are succeeded by sands and gravels forming low-angle, small-scale, cross-set structures with a vertical range of less than 0.25 m. The particle size distributions from a large number of sedimentary units indicate well defined traction and saltation modes (Visher 1969); this, with the structures, indicates respectively point-bar, and riffle-bar sedimentation by high energy meandering and braided streams. The direction of the palaeocurrent slopes indicates that the rivers flowed predominantly towards the south-south-east; and the relatively high frequency of non-durable chalk clasts among the upper gravel beds close to the hillside slope, indicates minimal transport distances and local channel-side erosion.

The barbed points from the upper part of the deposit are part of a traction population that was moved along the bed of the stream by sliding and rolling processes. Their fresh appearance and their association with chalk clasts suggests that they may have been derived quite locally.

The long blade industry is located on a sandy riffle-bar associated with the last phases of sedimentation by a shallow, braided river complex. The position of the artifacts in the sand may indicate that some implements were buried during temporary submergence by shifting river courses; but the general position of the site, immediately beneath a soil, suggests that it was occupied when the braided river system in this part of the Gipping valley had become defunct, and was replaced by a meandering river associated with the overlying, low energy fluvial, and flood plain sediments.

The gravels and sands include large rafts of peat, and seams of willow twigs and leaves. C14 dates obtained from twigs and leaves at different depths in the deposit give the following results:

SAMPLE NO.	MATERIAL	C14 DATE (YBP)	(b.c.)	LEVEL OF SAMPLE
HAR–259	Willow Twigs	9,880 ± 120	7,930	+1.0 m. O.D.
HAR–262	Twigs and leaves	11,370 ± 210	9,420	-3.8 m. O.D.
HAR–261	Twigs and leaves	11,640 ± 500	9,690	-4.1 m. O.D.

Table 1. Results of the C14 Samples.

The twigs selected for dating retained their bark, which suggests recent derivation and limited fluvial transport. This is confirmed by included insect remains which are highly susceptible to weathering processes such as would be associated with a complex derivation. In addition, the material used consists of tree wood and leaves of terrestrial plants which means that there is no chance of error due to hard water contamination (Shotton 1972). Thus although the dates are determined from derived material, they are considered to indicate relatively closely the age of sedimentation.

In summary, the position, character, and included organic remains indicate that the sand and gravel deposits were laid down by a powerful river which initially eroded a steep sided trench. This trench was formed sometime after 9,990 b.c. and was infilled in its lower part by the bed-load of a deep meandering river sometime soon after, or even including the time period, 9,690–9,420 b.c. The channel was finally infilled by a powerful, braided river sometime soon after 7,930 b.c. The small scale cross-set structures, and the lack of deep channels in the upper part of the deposit indicate that barbed point No. 2 must be younger

than barbed point No. 1, and that barbed point No. 1, is probably (even if the estimated depth of the point is only approximately accurate) older than the sediment from which sample HAR–259 was taken.

The low energy fluvial series consist of peat and gyttja with lenses of gravel and sand which increase in frequency and thickness towards the present river channel. These deposits indicate respectively: the growth of topogenous peat; still water organic and inorganic sedimentation; and spasmodic channel sedimentation. Such conditions are typical of an alluvial flood plain with a well defined channel, a high water table, extensive backswamp regions, and occasional levée breaches. The limited spatial distribution of the channel sediments suggests that shifts of channel position have been rare. This is tentatively confirmed by the level of the sand and gravel surface which is lowest close to the present day river channel. Fluvial sedimentation and channel development of this type are typical of river development in a well vegetated environment with high infiltration, small discharge variation, and limited bed-load transport (Knox 1972). This type of environment became widespread in lowland Britain with the development of forest cover and deep soils in the Flandrian.

The C14 date suggests that the lake marl was deposited during the latter part of the Late Devensian thermal maximum (Coope et al 1971; Coope and Brophy 1972), and the sands and gravels accumulated after 9,990 b.c. until at least 7,930 b.c. On this basis the fluvial activity responsible initially for the dissection of the colluvial and lacustrine deposits, and subsequently for the deposition of the sands and gravels took place during the Late Devensian, Late Glacial climatic deterioration and the early Flandrian climatic amelioration. In this respect the evidence from Sproughton is similar to evidence from the North Downs (Kerney et al 1964; Peake and Osborne 1971), the Chilterns (Evans 1966), the Longmynd (Osborne 1972), and the Isle of Man (Mitchell 1965), and reflects the response of fluvial processes to high snow-melt discharge, high overland flow, and limited interception. These conditions progressively diminished with climatic amelioration and the extension of vegetation cover and soil development. Although other sites such as Fladbury (Shotton et al 1970), and Thrapston (Shotton et al 1969) demonstrate that sand and gravel continued to comprise a significant part of fluvial sediments even after vegetation cover was established in lowland Britain in the Flandrian, such deposits are limited in extent, and are not associated with extensive sedimentation typical of that seen at Sproughton and other Zone III sites.

On the basis of this evidence it would appear that the barbed points were deposited during the latter part of Pollen Zone III and the early part of Zone IV, and that the long blade industry at Sproughton could have been established as early as Pollen Zone IV.

March 1976.

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THE EXCAVATION OF BARROWS II, III AND IV, MARTLESHAM HEATH, 1974

by Edward A. Martin

SUMMARY

BARROW II (TM 2551 4530). This is marked on the Ordnance Survey map as 'tumulus (site of)', but no trace of the mound survived. No ditch or graves were found, but over 1,000 sherds of Beaker Pottery, 113 flint scrapers and one arrow-head were recovered.

BARROW III (TM 2549 4529). This was recognised from aerial photographs held by the Post Office Research Centre, Martlesham Heath, but again no trace of the mound survived. A circular ditch c. 12.5 m. in diameter was found in excavation. No graves were located, but two possible post-holes were found within the area of ditch, and a further six outside it. Approximately 100 sherds of Beaker pottery, together with 23 scrapers, the point of an arrow-head and a broken barbed and tanged arrow-head were recovered.

BARROW IV (TM 2557 4536). This standing mound has a diameter of c. 25 m. and a height of 1.84 m. Work was limited to the re-excavation of an unrecorded previous trench in the centre of the mound. From the material in the back-fill of this excavation it seems likely that the trench dates to the period 1939-45 and was military and not archaeological in purpose. Work was not continued below the base of this earlier trench (1.6 m. below the surface) and therefore it was not possible to investigate the old ground surface for any sign of graves. The finds from the excavation only comprised one Bronze Age sherd, a possible Saxon sherd and a Roman sherd, and a number of flint flakes. Following the excavation the mound was reconstituted.

INTRODUCTION

Four barrows on Martlesham Heath were investigated by the Suffolk Archaeological Unit in the summer of 1974. The report on Barrow I has already been published (Martin 1975). The remaining barrows (with a possible further barrow at TM 2550 4534) are grouped in and immediately to the south of Spratt's Plantation, on the eastern edge of Martlesham Heath Airfield (Fig. 6; a general location map of Martlesham Heath is given in Martin 1975, 6). With the exception of Barrow III, these form the scheduled monuments Suffolk 94, and O.S. Nos. TM 24 NE 9A–C.

All three barrows are built on a sand sub-soil and lie at a height of approximately 75 ft. above sea-level, on top of a plateau between two tributaries of the River Deben. Barrows II and III lie on levelled ground, formerly under the plough, but now under grass in the north-east corner of the Post Office Research Centre. Both barrows were presumably levelled during the building of Martlesham Heath Airfield. Barrow IV is still standing in a corner of a small wood called Spratt's Plantation; the other possible barrow in Spratt's Plantation is much disturbed and its outline cannot be traced with any certainty.

BARROW II – THE EXCAVATION

The site of the barrow was excavated in quadrants, forming a 16 m. square, with extension trenches at the corners of the square, giving cross-sections 30 m. long across the site of the barrow (Fig. 7). Baulks 50cm. wide were left between the quadrants. The top-soil, 35cm. of purplish dark brown/black fine sand (very powdery in dry weather) was removed with a mechanical excavator (JCB 3C), revealing lightish brown fine sand containing pottery. The excavated surface was then shovelled and trowelled clean. During this clearance all sherds of pottery and flint tools found were plotted in. Following the initial clearance the

areas that had yielded concentrations of pottery were trowelled down a further 15 cm. (the limits of these areas being shown on Fig. 7 by a dot and dash line), to a clean, light-brown, natural sand. Over parts of the cleared area (especially in the N.W. quadrant), plough marks were visible, going down to a depth of 40 cm. below the ground surface.

No trace of the mound survived in any of the sections and the flattening of it had been absolute: likewise no sign of a ditch was apparent after the site had been trowelled clean. As a check the extension trenches of the S.W. quadrant were deepened by 65 cm. into apparent natural sand (limits of trenches again shown by a dot and dash line in Fig. 7). Neither, however, revealed any sign of a ditch.

No graves or human remains were located. Features A–D (Fig.7) were modern pits probably dating from the period 1939–45 (one of the pits still had the remains of wire in it). The only feature of Beaker date was a small possible post-hole (marked F in Fig. 7) on the edge of pit D, which contained Beaker pottery and flint-flakes in a fill of dark soil. There was much animal disturbance on the site, especially in the N.E. quadrant.

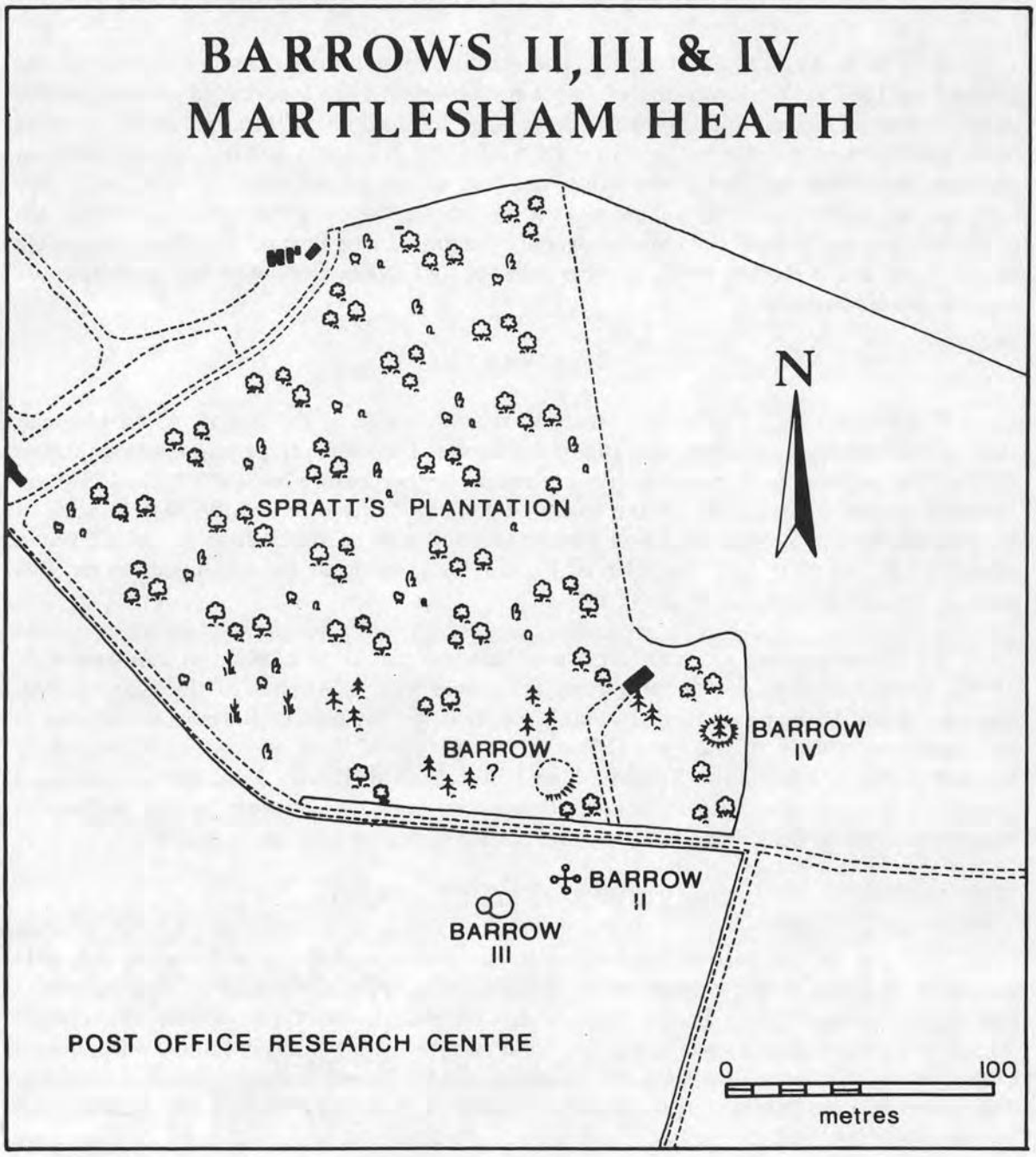
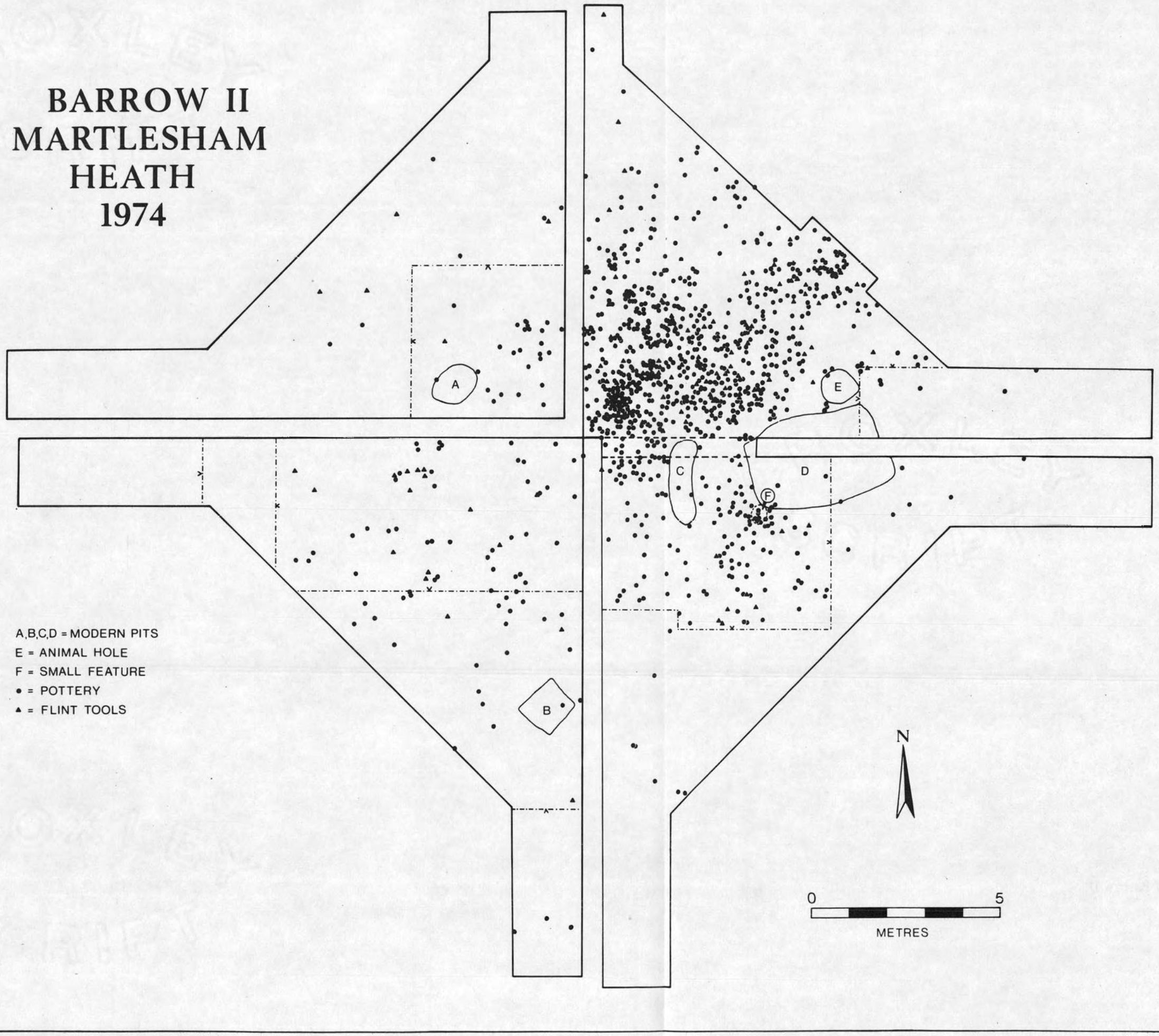


Fig. 6.

BARROW II
MARTLESHAM
HEATH
1974



A,B,C,D = MODERN PITS
E = ANIMAL HOLE
F = SMALL FEATURE
• = POTTERY
▲ = FLINT TOOLS

Fig. 7.
Plan of Barrow II.

BARROW II – THE FINDS

I – FLINT (Fig. 8)

113 flint scrapers, a denticulated flint, a notched flint and an arrowhead were found in an A2 or eluvial horizon below the plough-soil.

1) The Scrapers

Five classes of scrapers were isolated from this assemblage. The classes are, however, not rigid for some scrapers could be fitted into more than one class.

Class I – Secondary working on one side of the flake only. 51 examples (45% of total).
– secondary working on dorsal surface – 45.

– secondary working on bulbar surface – 5.

– secondary working on both surfaces – 1.

Class II – Secondary working on two ± parallel sides. 8 examples (7%).

– secondary working on dorsal surface – 8

Class III – Secondary working on the end of the flake. 11 examples (8%).

– secondary working on dorsal surface – 11.

Class IV – Secondary working on the end of the flake and on one side. 18 examples (16%).

– secondary work on dorsal surface – 17.

– secondary work on both surfaces – 1.

Class V – Horse-shoe shaped reworking. 25 examples (22%).

– secondary working on dorsal surface – 24.

– secondary work on both surfaces – 1.

Below are histograms setting out the various length, breadth and thickness measurements of the different classes of scrapers (Fig. 9). Length being defined as the greatest dimension along the bulbar axis, breadth as the greatest dimension at right angles to the bulbar axis (Smith 1965, 89). From these histograms it is possible to determine the preferred measurements for the different classes.

	Length	Breadth	Thickness
Class I	25 – 30 mm.	15 – 20 mm	5 – 10 mm.
Class II	25 – 30 mm.	15 – 20 mm.	5 – 10 mm.
Class III	15 – 20 mm.	15 – 25 mm.	0 – 10 mm.
Class IV	15 – 20 mm.	15 – 25 mm	5 – 10 mm
Class V	15 – 20 mm.	15 – 20 mm.	5 – 10 mm.

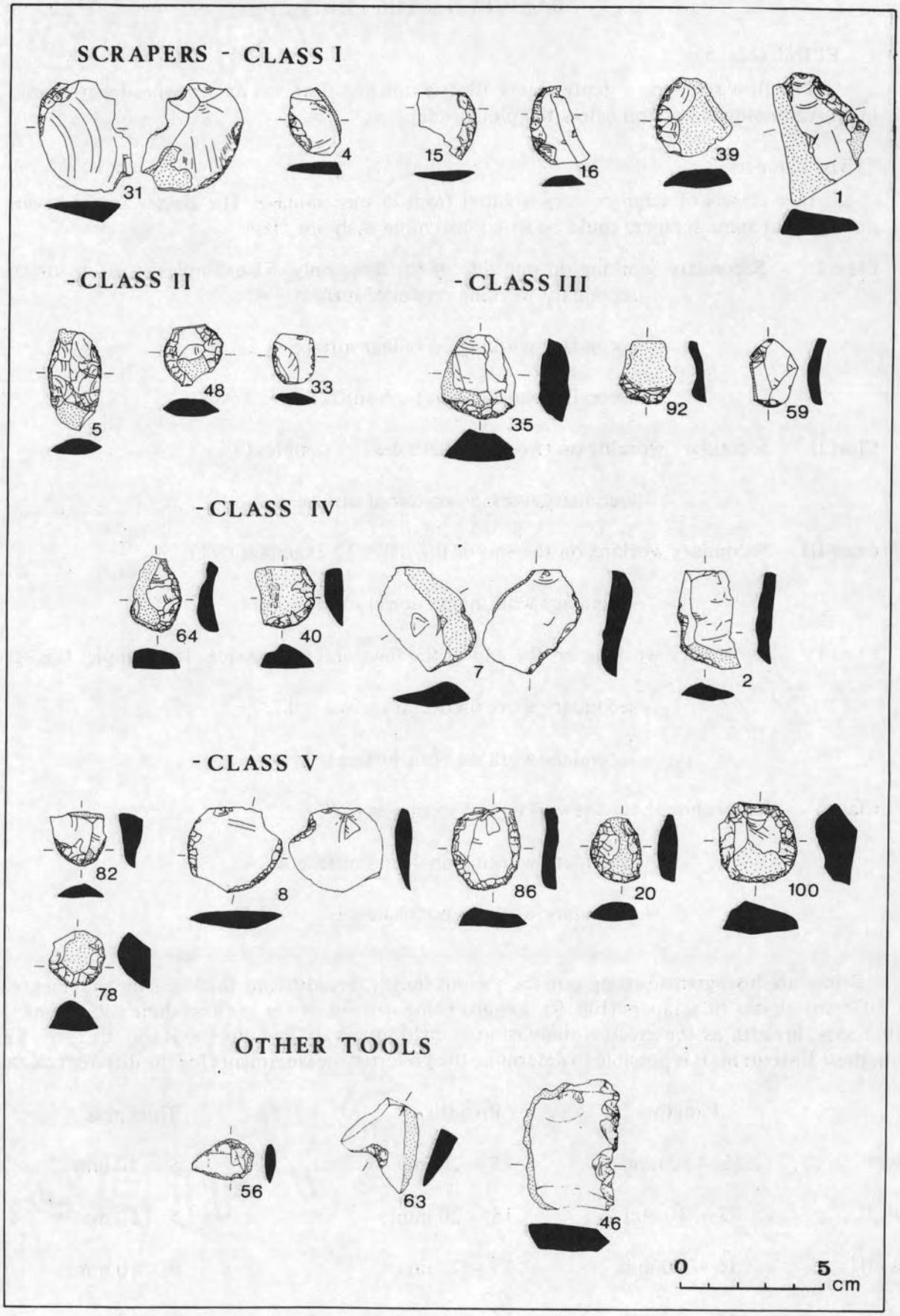


Fig. 8.
Barrow II : Flint tools.

For comparison, the overall figures for all the scrapers are as follows :

Length –		Breadth –		Thickness –	
5 – 10 mm =	2%.	5 – 10 mm =	1%.	0 – 5 mm =	21%.
10 – 15 mm =	8%.	10 – 15 mm =	8%.	5 – 10mm =	63%.
15 – 20 mm =	27%.	15 – 20 mm =	29%.	10 – 15mm =	10%.
20 – 25 mm =	24%.	20 – 25 mm =	19%.	15 – 20mm =	1%.
25 – 30 mm =	27%.	25 – 30 mm =	11%.		
30 – 35 mm =	11%.	30 – 35 mm =	8%.		
35 – 40 mm =	2%.	35 – 40 mm =	4%.		
40 – 45 mm =	0%.	40 – 45 mm =	2%.		
45 – 50 mm =	2%.				

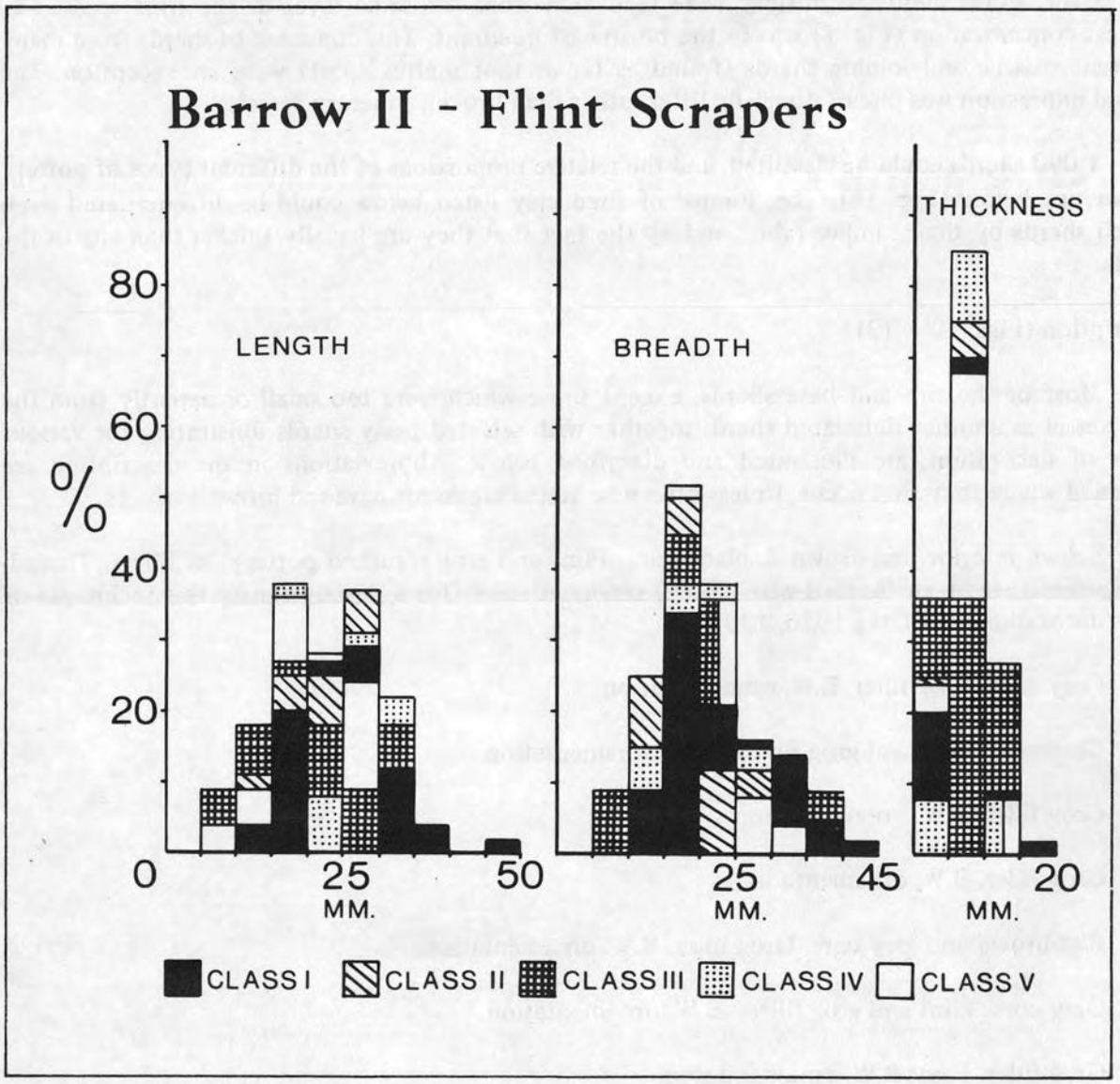


Fig. 9.
Barrow II : Histogram of scraper measurements.

From the figures it would appear that Class I and II scrapers are longer than they are broad; Class III and IV scrapers are as broad or broader than they are long; Class III scrapers may also be less thick than the other classes of scrapers; Class V scrapers are as long as they are broad.

As a group the scrapers from Barrow II are rather small; a comparison with the Beaker scrapers from Windmill Hill in Wiltshire (Smith 1965, 96) reveals that there the preferred dimensions were : length 20 – 40mm. (over 20% being 40 – 50 mm long); breadth 20 – 30 mm. (over 20% being 30 – 40 mm. broad); thickness 7 – 9 mm.

2) Other Tools

One arrow-head of debased leaf form was found, as well as a denticulated flint and a flint with secondary working in a V-shaped notch.

In the drawings of the flint tools (Fig. 8) the point of percussion is at the top. The flints are numbered according to the small finds sequence; those marked + were unstratified.

II – POTTERY

Over 1,000 sherds of pottery were recovered from the same layer as the flint tools. The greatest concentration (Fig. 7) was in the north-east quadrant. This consisted of sherds from many different vessels, and joining sherds (found as far as four metres apart) were an exception. The general impression was one of domestic litter rather than broken funerary vessels.

1,090 sherds could be classified, and the relative proportions of the different types of pottery are set out below (Fig. 14). The 'lumps' of fired clay listed below could be differentiated from eroded sherds by their sandier fabric and by the fact that they are usually thicker than any of the sherds.

Description (Figs. 10 – 13):

Most of the rim and base sherds, except those which were too small or patently from the same vessel as another illustrated sherd, together with selected body sherds illustrating the various forms of decoration, are illustrated and described below. Abbreviations in the description are explained where they first occur. Unless otherwise stated all sherds have red-brown surfaces.

1. Brown interior, red-brown & black core. Flint and grog (crushed pottery) as fillers. Thread-wound stamp or 'Barbed-wire' (B.W.) ornamentation (for a description of this technique of decoration see Clarke 1970, 130).

2. Grey core. Grog filler. B.W. ornamentation.

3. Grey core. Flint and grog fillers. B.W. ornamentation.

4. Grog filler. B.W. ornamentation.

5. Grog filler. B.W. ornamentation.

6. Red-brown and grey core. Grog filler. B.W. ornamentation.

7. Grey core. Flint and grog fillers. B.W. ornamentation.

8. Grog filler. Faint B.W. ornamentation.

9. Grey core. Grog filler. Cordon below rim and B.W. ornamentation.

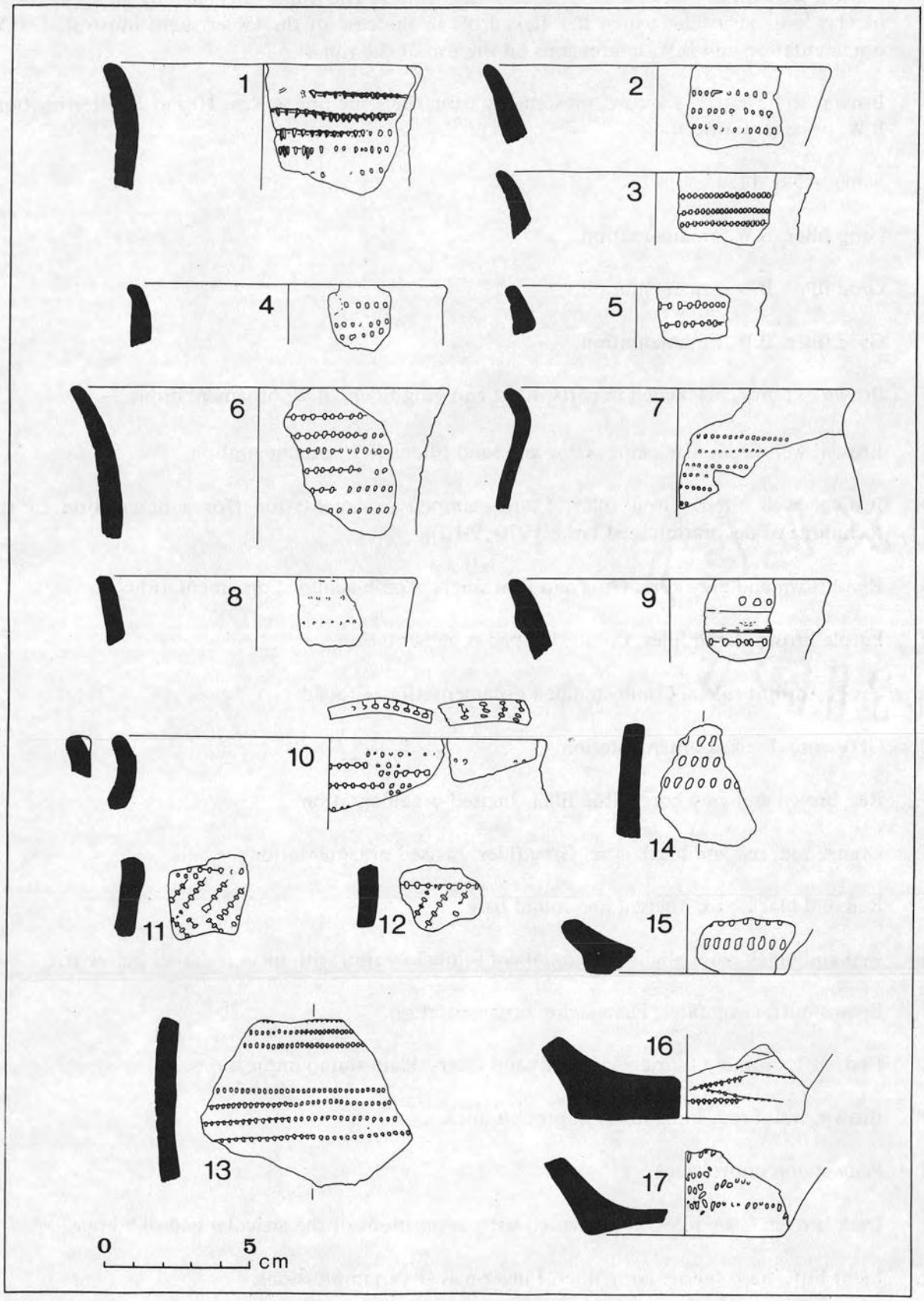


Fig. 10.
Barrow II : Pottery.

10. Brown, well fired, black core. Grog and sand fillers. The rim is thickened by an applied strip of clay on the inside, which has flaked off in the case of the larger sherd illustrated. B.W. ornamentation and B.W. impressions on the top of the rim.

11. Brown, well fired, black core, presumably from the same pot as Nos. 10 and 12. Herring-bone B.W. ornamentation.

12. Same as No. 11.

13. Grog filler. B.W. ornamentation.

14. Grog filler. B.W. ornamentation.

15. Grog filler. B.W. ornamentation.

16. Brown exterior, blackened in parts. Flint and grog fillers. B.W. ornamentation.

17. Brown, well fired, black core. Grog and sand fillers. B.W. ornamentation.

18. Brown, well fired. Grog filler. Comb-stamped ornamentation (for a description of this technique of decoration see Clarke 1970, 9-10).

19. Red-brown and grey core. Grog and flint fillers. Comb-stamped ornamentation.

20. Purple-brown. Grog filler. Comb-stamped ornamentation.

21. Grog and flint fillers. Comb-stamped ornamentation. Eroded.

22. Grey core. Incised ornamentation.

23. Red-brown and grey core. Grog filler. Incised ornamentation.

24. Orange-red, red and black core. Grog filler. Incised ornamentation.

25. Red and black core. Incised line round base.

26. Red and black core. Slight horizontal cordon below rim, with incised slashes below it.

27. Brown-buff. Grog filler. Plain-stamp ornamentation.

28. Red, soft, crumbly fabric. Grog and sand fillers. Plain-stamp impressions.

29. Brown, well fired. Flint filler. Impressed lines.

30. Plain-stamp impressions.

31. Dark brown. Grog filler. Ornamented with impressions of the articular end of a bone.

32. Light buff, hard fabric. Grog filler. Finger-nail (F.N.) impressions.

33. Brown-orange, grey core. F.N. impressions.

34. Grog filler. F.N. impressions and comb-stamped lines.

35. Grey core. Slanting F.N. (?) impressions between comb-stamped lines.

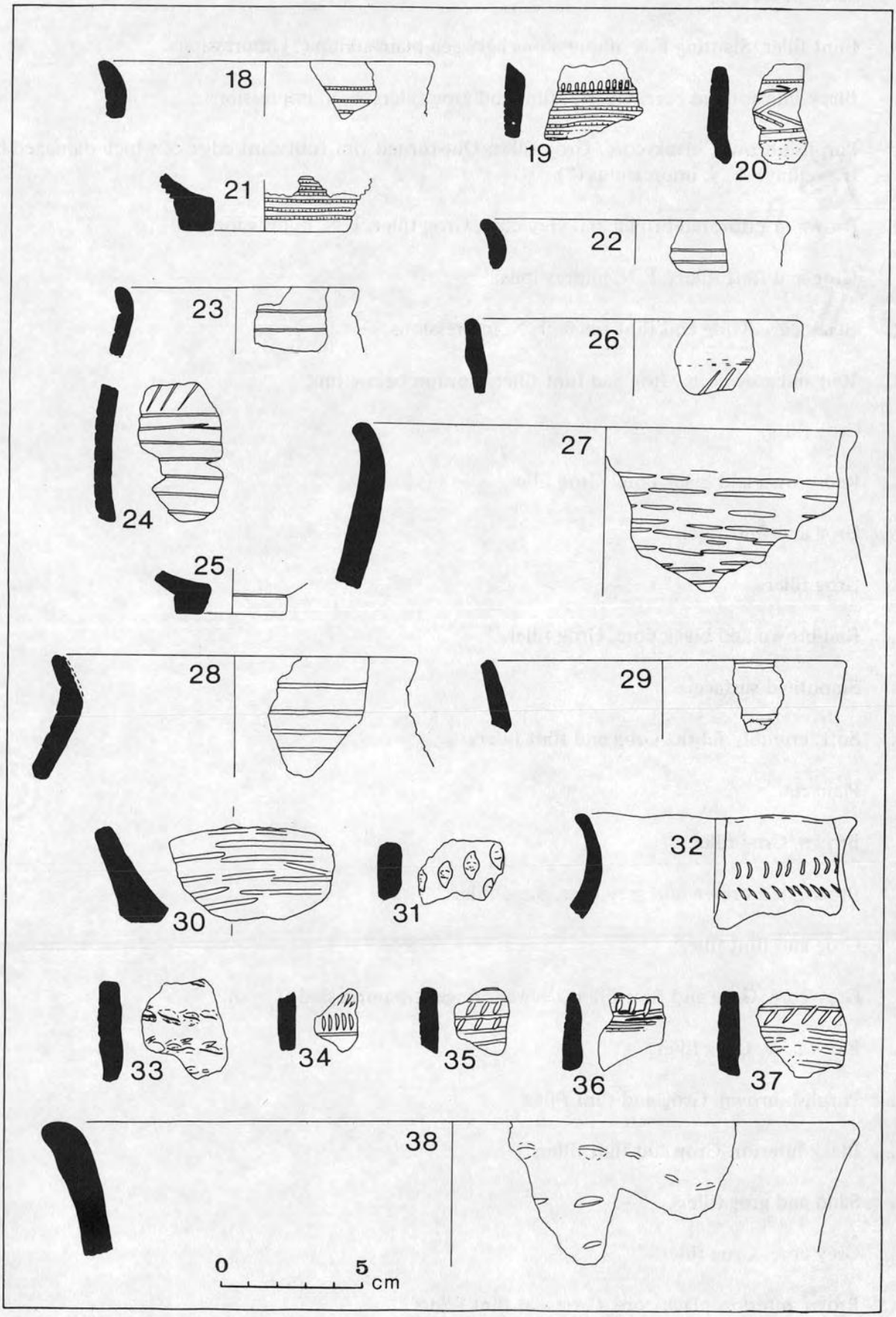


Fig. 11.
Barrow II : Pottery.

36. Same as No. 35.

37. Flint filler. Slanting F.N. impressions between plain-stamp (?) impressions.

38. Black interior and core. Quartz, flint and grog fillers. F.N. impressions.

39. Purplish-brown, black core. Grog filler. Out-turned rim (outward edge of which damaged by trowelling). F.N. impressions (?).

40. Brown interior, red-brown and grey core. Grog filler. F.N. impressions.

41. Grog and flint fillers. F.N. impressions.

42. Black core. Grog and flint fillers. F.N. impressions.

43. Red and grey core. Grog and flint filler. Cordon below rim.

44. Grog filler.

45. Red-brown and black core. Grog filler.

46. Grog and flint filler.

47. Grog filler.

48. Red-brown and black core. Grog filler.

49. Smoothed surface.

50. Soft, crumbly fabric. Grog and flint fillers.

51. Plain rim.

52. Brown. Grog filler.

53. Brown, red-brown and grey core. Sand filler.

54. Grog and flint filler.

55. Grey core. Grog and flint filler. Uneven, finger-tip impressed (?) rim.

56. Black core. Grog filler.

57. Purplish-brown. Grog and flint filler.

58. Black interior. Grog and flint fillers.

59. Sand and grog fillers.

60. Grey core. Grog filler.

61. Brown interior, black core. Grog and flint fillers.

62. Grog and flint fillers.

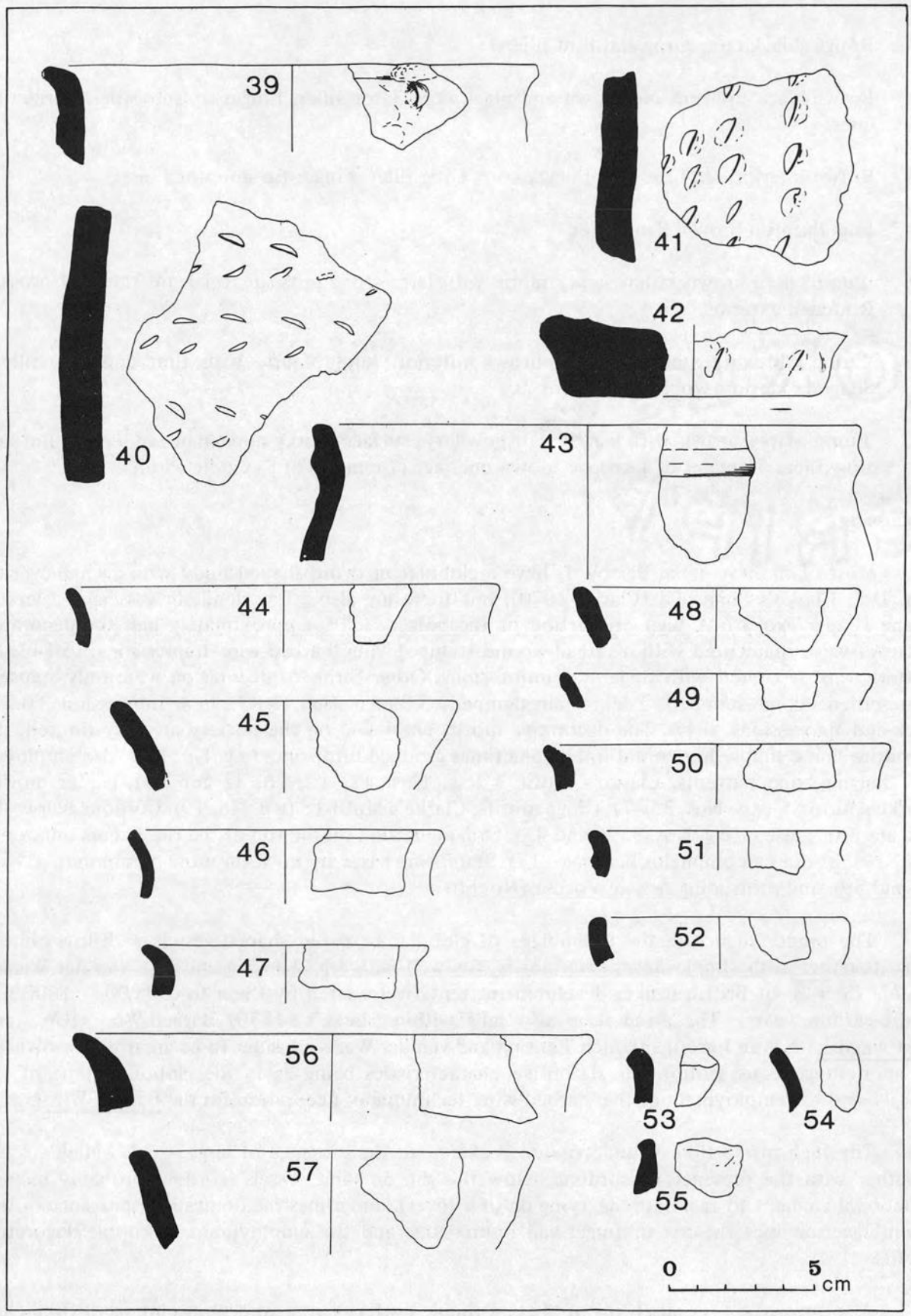


Fig. 12.
Barrow II : Pottery.

63. Black core. Grog filler.

64. Rough; black core. Grog and flint fillers.

65. Brown-black interior, red-brown and black core. Grog filler. Finger-tip smoothed horizontal lines.

66. Brown interior, red-brown and black core. Grog filler. Finger-tip smoothed lines.

67. Lug. Purplish-brown. Sand filler.

68. 'Lump'. Red-brown rather sandy fabric with large stone grits (up to 10 mm.) and also grog(?). Rounded exterior.

69. 'Lump'. Brown exterior, reddish-brown interior, sandy fabric with flint and grog fillers. Shaped exterior (wood impressions ?).

70. 'Lump'. Grey-brown with weathered, powdery, surface, corky appearance in parts. Flint and grog fillers. Remains of a groove down one face (? remains of a spindle-whorl).

Discussion :

Most of the pots from Barrow II have a globular or ovoid shaped body with a small everted rim, D.L. Clarke's Shape III (Clarke 1970), but there are also a few slenderer vessels of Clarke's Shape II (e.g. No. 6). A high proportion of the pottery (21%, approximately half the decorated pottery) was ornamented with a thread-wound stamp, giving 'barbed-wire' impressions; 15% of the pottery was decorated with finger-nail impressions. Other forms of decoration were only sparsely represented: comb-stamped, 2.6%; plain-stamped, 3.8%; incised, 3.8%; bone-impressions, 0.1%; stick-end impressions, 0.1%. The decorative motifs employed on the pottery are very limited, the favourite being simple horizontal lines, sometimes grouped into zones (e.g. No. 13). Also employed are: herring-bone patterns, Clarke's Motif 3 (e.g. Nos. 11, 12, 20, 32 and 40); ladder motifs, Clarke's Motif 5 (e.g. Nos. 35–7); fringe motifs, Clarke's Motif 15 (e.g. No. 19). Cordons below the rim are also present (e.g. Nos. 9, 26 and 43). Ornamentation on the top of the rim occurs only once (No. 10), as does an omphalos base (No. 17). Stand-ring bases are however more common (e.g. Nos. 25 and 59), and protruding feet also occur (No. 60).

The predominance in the assemblage of globular or ovoid shaped vessels with low everted rims, together with simple decorative motifs, fits well with J.N. Lanting and J.D. van der Waals's (1972) 'Step 3' of British beaker development, tentatively dated by them to c. 1900 – 1800 b.c. (radio-carbon years). The assemblage also falls within Clarke's (1970) Barbed-Wire (B.W.) and East Anglian (E.Ang.) groups (which Lanting and van der Waals consider to be an arbitrary division of an homogeneous group), the definitive characteristics being again the globular shape of the vessels, and the employment of the 'barbed-wire' technique of decoration for the Barbed Wire group.

The high proportion of undecorated beakers and the presence of large, thick-walled vessels, together with the presence of cordons below the rim on some vessels (cordons probably being a functional element to facilitate the tying on of a cover), underlines the domestic appearance of this assemblage, as does the use of finger-nail impressions and the employment of simple decorative motifs.

Also present on the site (26% of the classifiable pottery) were amorphous lumps of fired clay, often with a sandier fabric which distinguished them from abraded sherds of normal pottery. Three of these 'lumps' are illustrated (Nos. 68–70). Their function is unknown, though some show signs of shaping, if only into rough balls (e.g. No. 68).

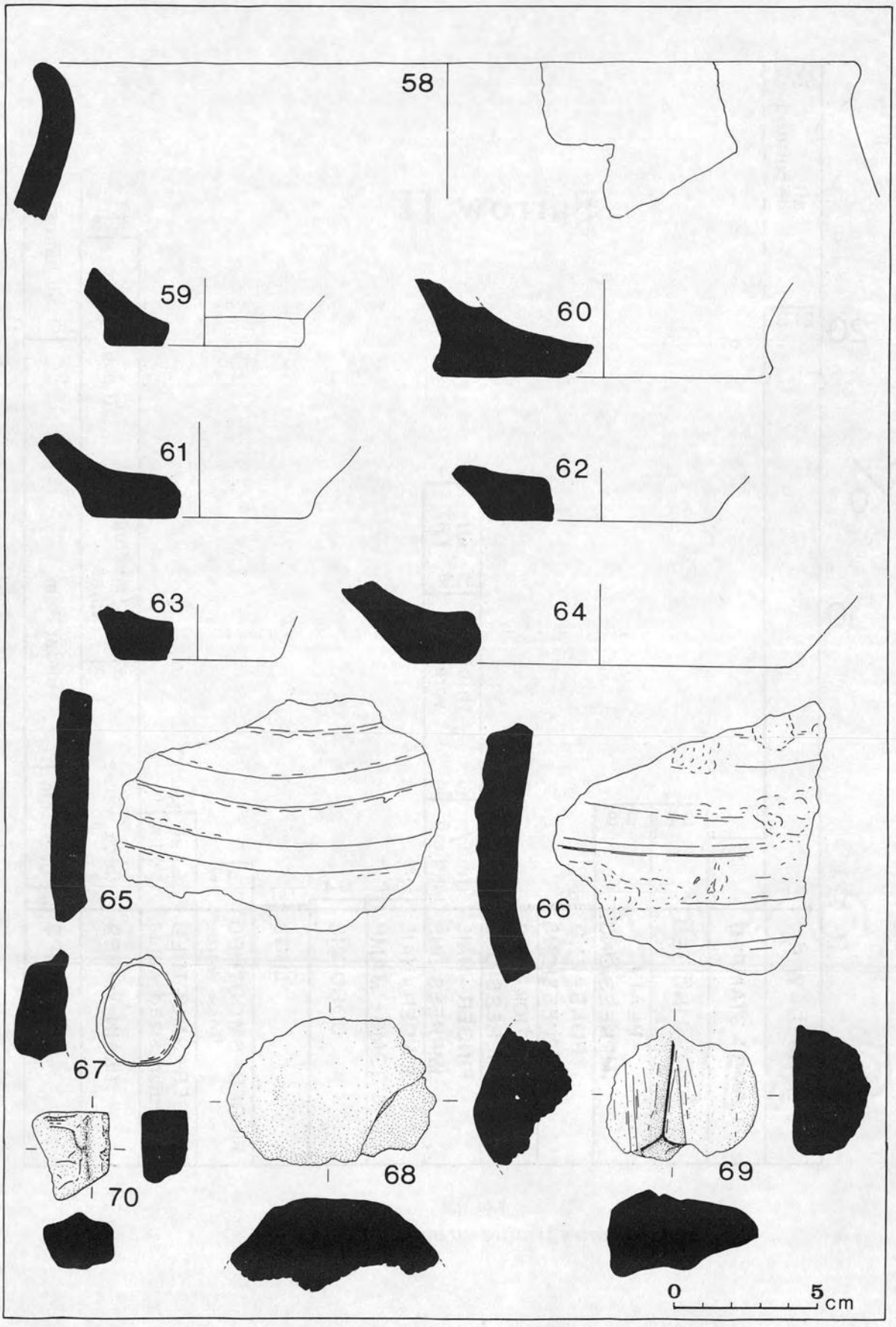


Fig. 13.
Barrow II : Pottery.

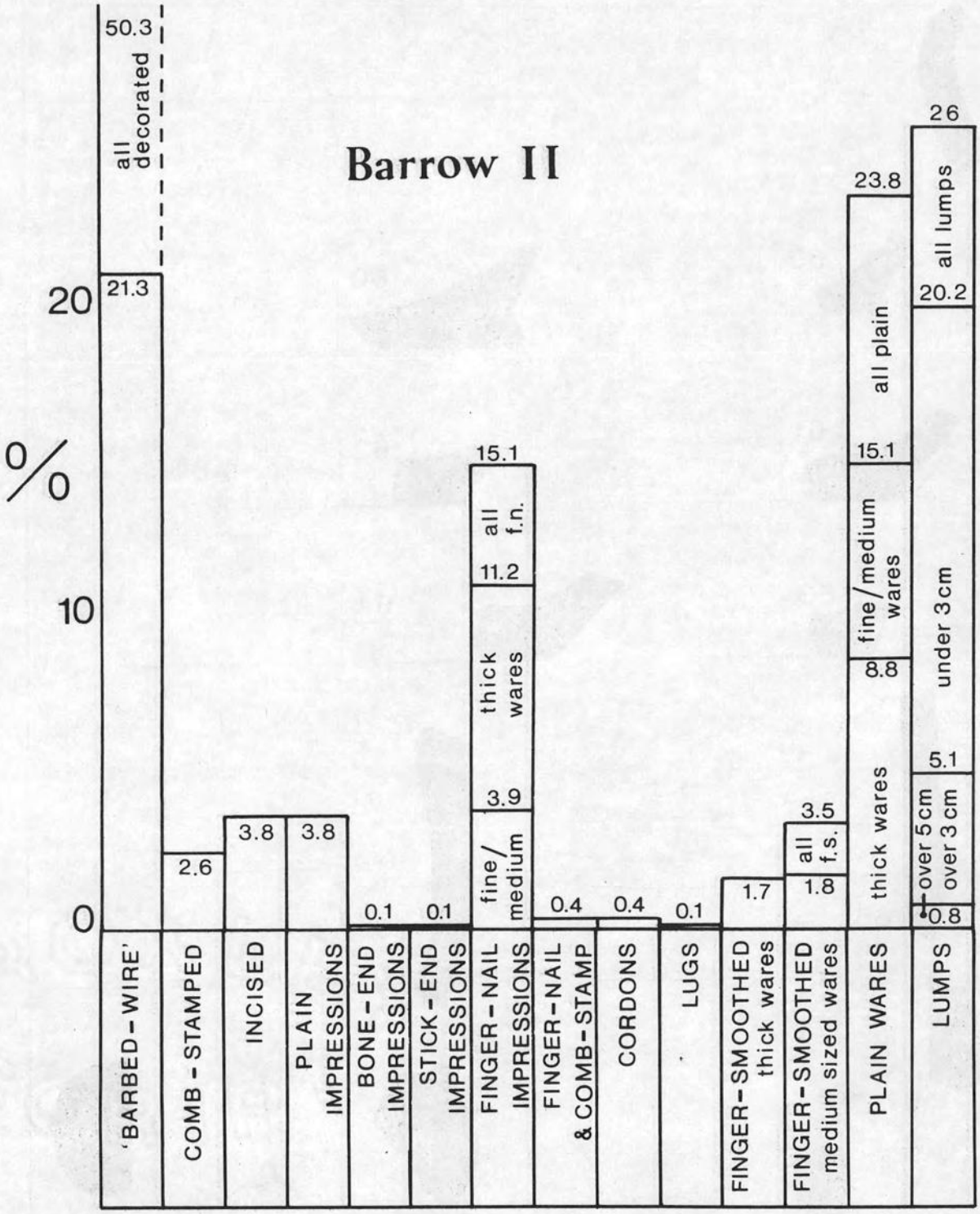


Fig. 14.
Barrow II : Histogram of Pottery.

BARROW III – THE EXCAVATION

The site of the barrow was located by surveying after plotting the position of the crop-mark onto a map. The barrow ditch was found by mechanically excavating a trench across the presumed site of the barrow, after which, as no trace of the mound was seen to be surviving, it was decided to strip the whole site of the barrow. A baulk was, however, left across the ditch on the north side (Fig. 15, section A). In cutting the initial trench a post-hole was found on the west side of the ring-ditch, so a further area was opened up around it to check for more post-holes. Approximately 35cm. of top-soil (purplish-dark brown/black fine sand) was removed by a mechanical excavator. The resulting surface was then shovelled and trowelled clean. After clearance the ring-ditch was clearly visible, as was a large modern pit which cut the western edge of the ditch, and which had been visible as a dark blob on the aerial photograph.

The ditch was sectioned in six places and was found to be widest (1.9m.) and deepest (0.93m. below the excavated surface) on the north side, and narrowest (1.2m.) and shallowest (0.7m) on the south side (see Fig. 15, where the depth of the ditch at each section is given). In section the ditch was unusual in having a 'shovelling-trench' at its base, which is particularly marked in sections C and D (Fig. 16). Five layers were definable in the fill of the ditch: the top-most layer, I, consisted of purplish-brown sand (more or less a continuance of the top-soil) and was only present on the north side of the ring-ditch; beneath this was layer, II, of brown sand and stones, the northern portion being very stony; Layer III was composed of compact brown sand; Layer IV was yellow-brown stony sand; and finally Layer V was the primary fill of yellow-brown mixed sand and gravel.

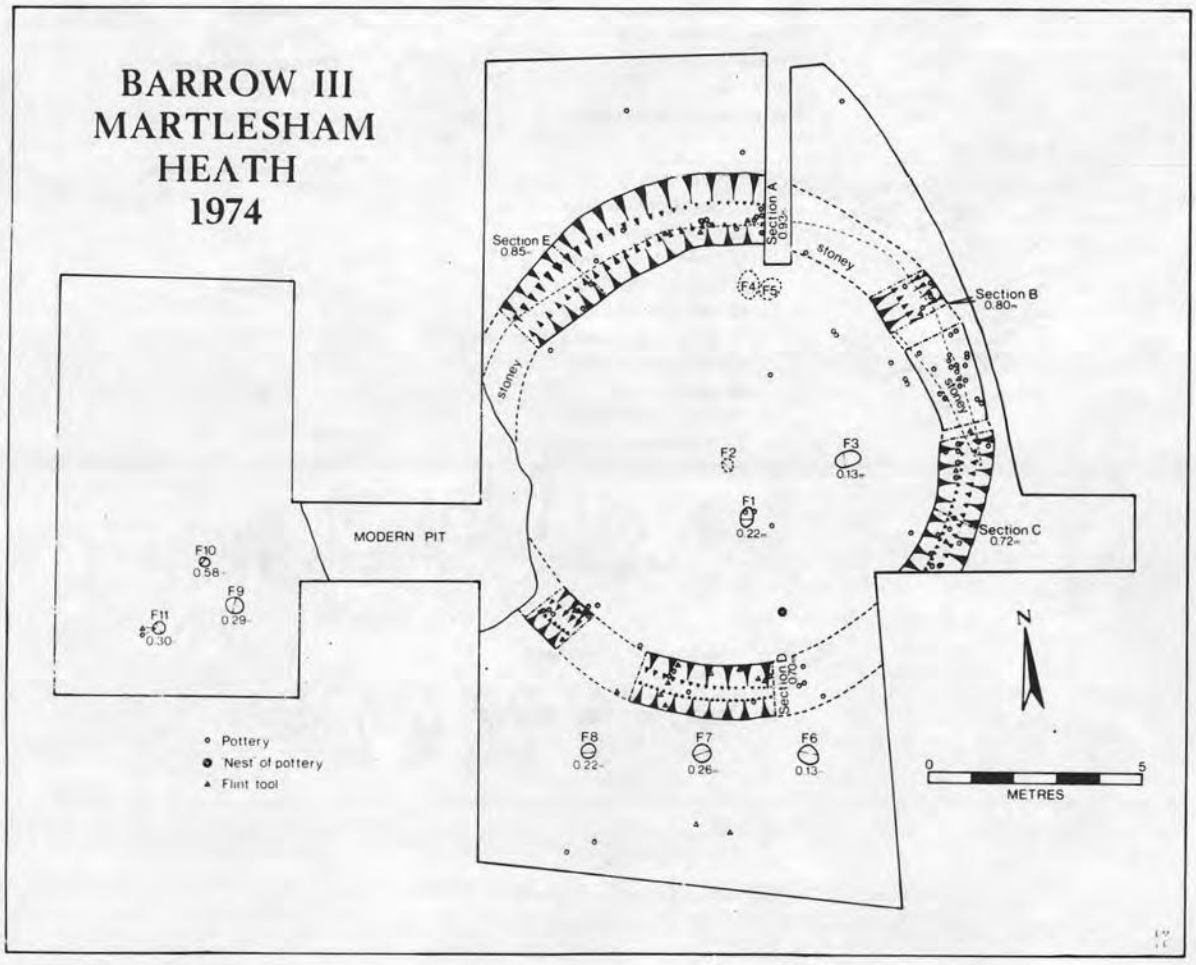


Fig. 15.

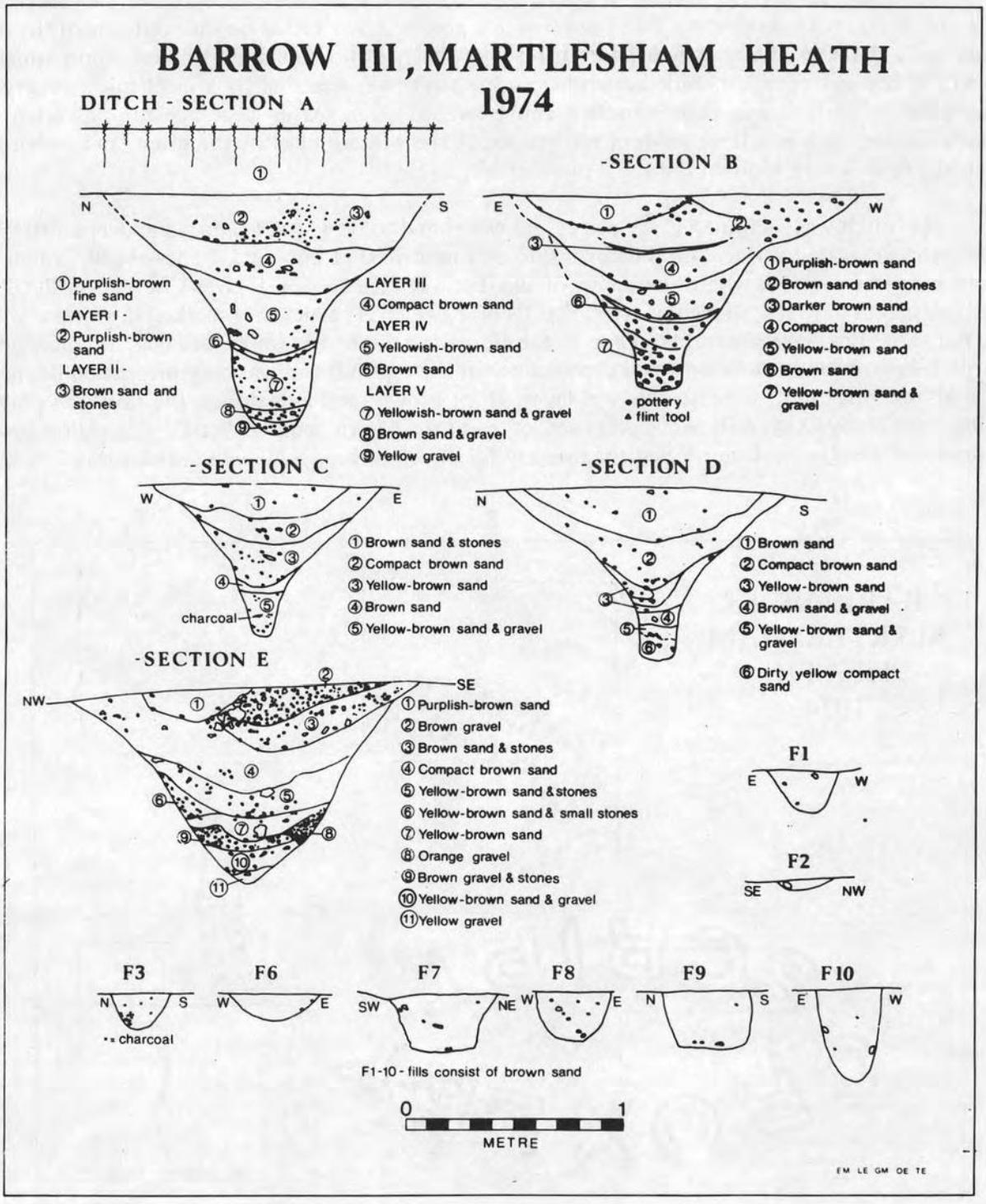


Fig. 16.
Barrow III : Sections.

No sign of any graves was found within the area of the ring-ditch, but during the initial clearance a 'nest' of large sherds was found on the south-east side. Also discovered within the area of the ring-ditch were two post-holes (F.1, and F3 which contained charcoal and had an ashy appearance in parts), and three much shallower features (F.2, F.4 and F.5, the latter two in particular being very shallow).

To the south of the ditch was a line of three post-holes (F.6–8) spaced at approximately 2m. intervals. Another group of three post-holes (F.9–11) lay to the west of the ditch (Fig. 15 and 16).

As with Barrow II the positions of all pottery and flint tools were plotted.

BARROW III – THE FINDS

I – FLINT

Twenty-three scrapers and four other tools were discovered scattered around the site and in the fill of the ditch (Fig. 17).

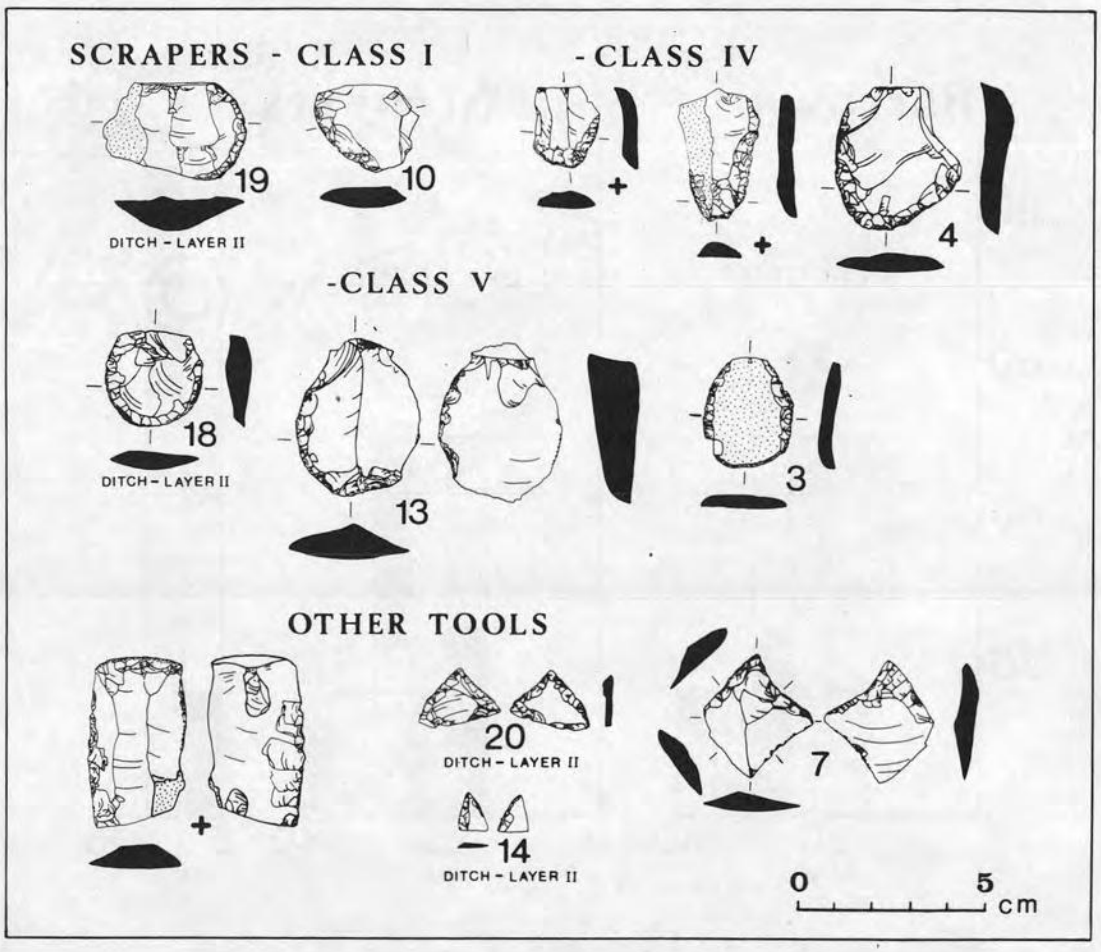


Fig. 17.
Barrow III : Flint tools.

Following the classification of scrapers given above in the report on Barrow II, the scrapers from Barrow III can be divided as follows:

Class I – 8 examples (34%).

Class IV – 6 examples (26%).

Class V – 9 examples (39%).

Except for one scraper which has secondary working on both the dorsal and bulbar surfaces, all secondary working is on the dorsal surface.

Below are histograms (Fig. 18) setting out the various length, breadth and thickness measurements of the scrapers. Although the sample is much smaller than that from Barrow II the histograms are useful as a comparison. From them it would appear that the preferred measurements are:

	Length	Breadth	Thickness
Class I	20 – 25 mm.	25 – 30 mm.	5 – 10 mm.
Class IV	20 – 25 mm.	15 – 20 mm.	0 – 5 mm.
Class V	20 – 25 mm.	20 – 25 mm	5 – 10 mm.

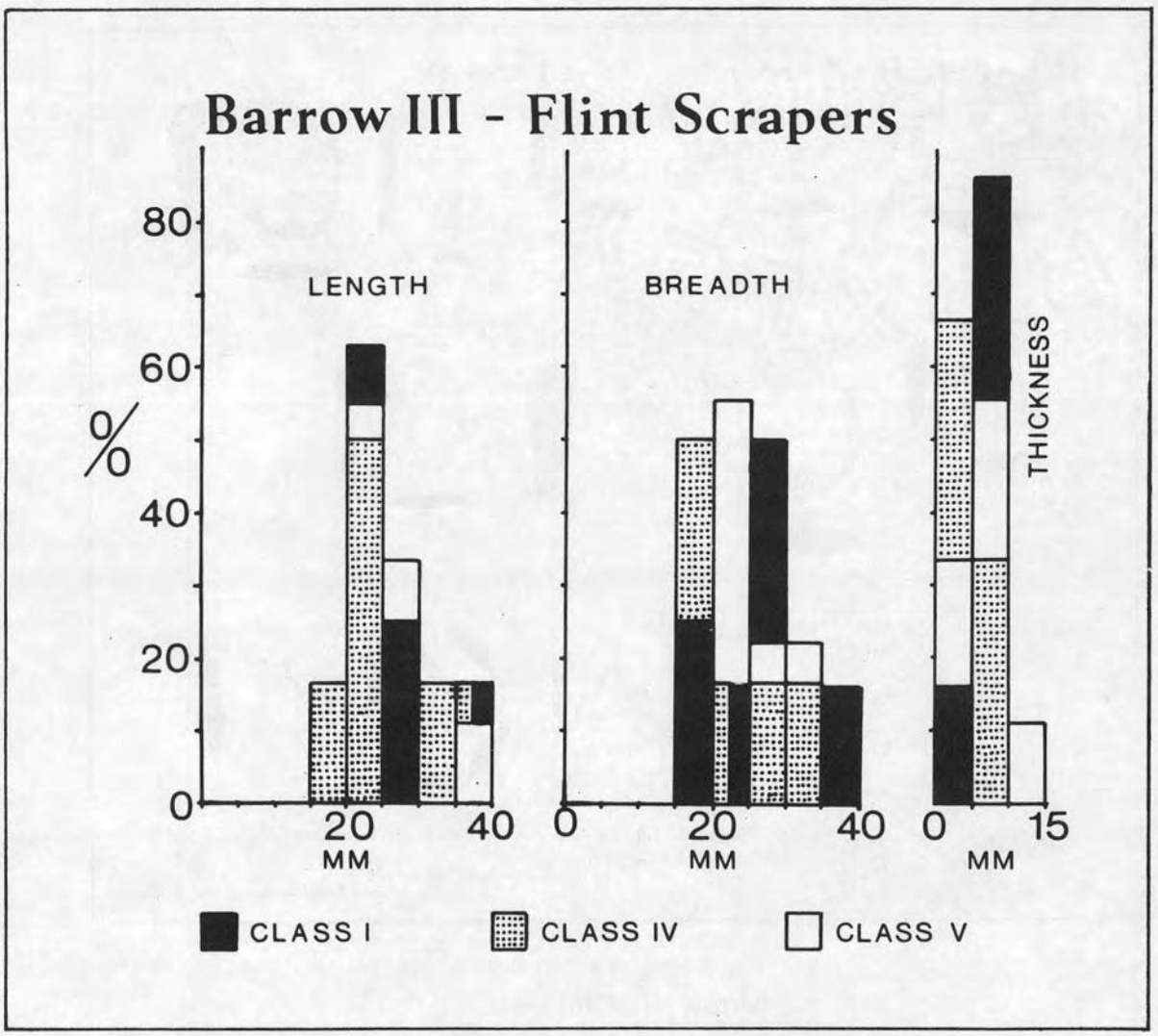


Fig. 18.
Barrow III : Histogram of scraper measurements.

The Class I scrapers differ from those from Barrow II in being broader than they are long, instead of vice versa, whilst the Class IV scrapers are longer than they are broad instead of the reverse. However, there is a second peak in the length of the Class IV scrapers from Barrow III between 25 – 30mm. which would bring them more into line with those from Barrow II. The Class V scrapers are, however, the same in having equal length and breadth measurements.

A broken barbed and tanged arrow-head (Fig. 17, No. 20) was found in Layer II of the ditch, as was what is probably another arrowhead, though it has rather a strange shape (Fig. 17, No. 7). Amongst the unstratified finds was a flint blade with secondary working.

II – POTTERY (Fig. 19)

103 classifiable sherds of pottery were recovered from the site. These were scattered at random, except for a 'nest' of large sherds (Nos. 10 and 15), together with a lump of fired clay, which was discovered on the top of the sub-soil within the area of the ring-ditch (Fig. 15). A sherd (No. 11) similar to No. 10 was found in Layer III of the ditch. Within the ditch the pottery was found mainly in Layers II and III. The only sherd from the primary fill of the ditch, Layer V, was No. 3. A small abraded sherd of Roman pottery was found in Layer II.

1) Description

Most of the rim and base sherds, except for obvious duplicates, together with a selection of body sherds showing the various methods of decoration, are illustrated and described below (Fig. 19). Abbreviations employed in the description are explained in the above pottery report for Barrow II. Unless otherwise stated the surfaces of all sherds are red-brown. The find-spot of the sherd is given in brackets at the end of each description.

1. Well fired, hard, smooth surface, black core. Grog filler. Fine B.W. ornamentation. (Within the area of the ring-ditch – N.E. corner).

2. Brown. Grog filler. B.W. ornamentation. (Within the area of the ring-ditch – N.E. corner).

3. Grog filler. B.W. ornamentation. (Ditch – Layer V, on the bottom of the ditch).

4. Grey core. Grog filler. B.W. ornamentation. Diameter of base uncertain. (Ditch–Layer III).

5. Brown interior, red-brown and black core. Comb-stamped ornamentation. (To the south of the ring-ditch).

6. Brown, black core. Grog filler. Comb-stamped ornamentation. (Within the area of the ring-ditch – N.E. side).

7. Grey centre to core. Comb-stamped ornamentation. (Ditch – layer uncertain).

8. Brown. Grog filler. Plain-stamp impressions. (Ditch-Layer II)

9. Brown. Grog and flint filler. Finger-pinch ornamentation. (Ditch – Layer III).

10. Brown-black interior, red-brown and black core. Grog filler. F.N. impressions. ('Nest' of sherds within area of ring-ditch).

11. Brown interior, grey core. Grog filler. F.N. impressions. Perhaps from the same vessel as No. 10. (Ditch – Layer III).

12. Grey core. Grog and flint filler. Finger-pinch ornamentation. (Ditch – Layer II).

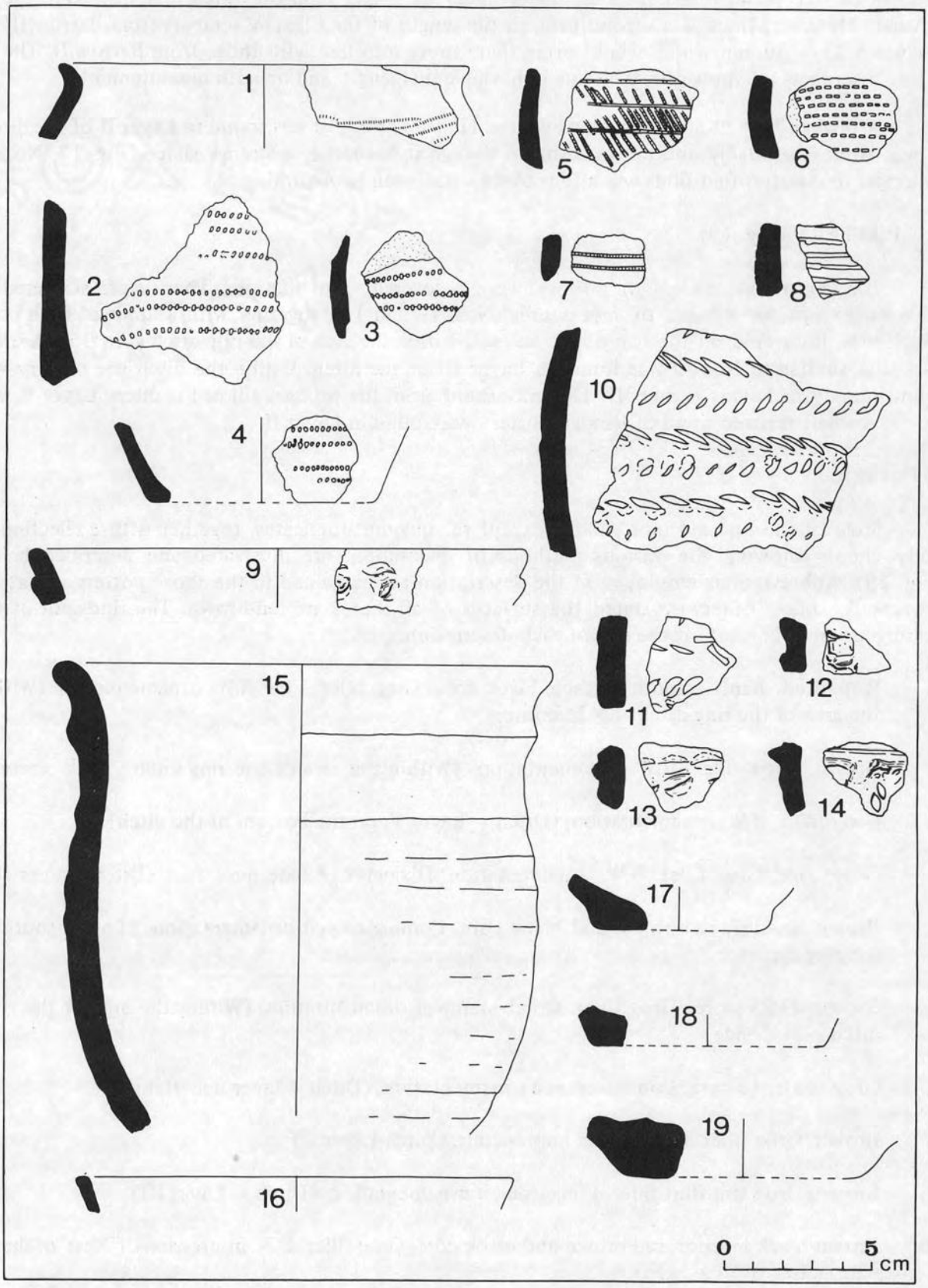


Fig. 19.
Barrow III : Pottery.

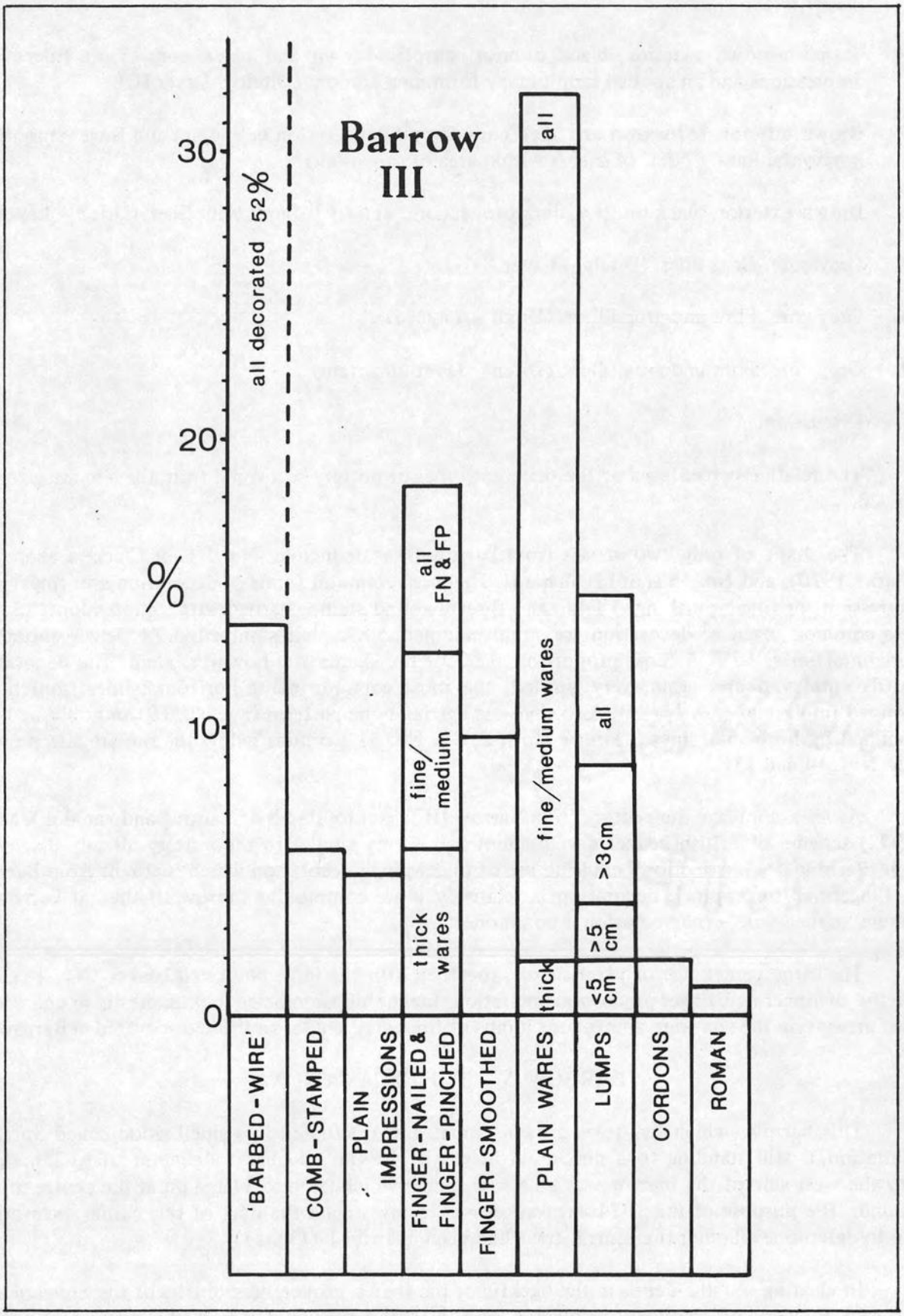


Fig. 20.
Histogram of Pottery.

13. Brown interior, red-brown and grey core. Grog filler. Finger-pinch ornamentation. (Ditch – Layer III).

14. Purplish-brown exterior, black interior, purplish-brown and black core. Flint filler. F.N. impressions and an applied strip of clay forming a cordon. (Ditch – Layer III).

15. Brown interior, red-brown and grey core. Grog filler. Cordon below rim and finger-smoothed horizontal lines. ('Nest' of sherds within area of ring-ditch).

16. Brown exterior, black interior, dark brown core, well-fired, hard. Flint filler. (Ditch – Layer I).

17. Grey core. Grog filler. (Ditch – Layer II).

18. Grey core. Flint and grog fillers. (Ditch – Layer II).

19. Grey core. Flint and grog fillers. (Ditch – layer uncertain).

2). Discussion.

The relative percentages of the different types of pottery recovered from the site are given in Fig. 20.

The shape of only two vessels from Barrow III is deducible: No. 1 is of Clarke's Shape III (Clarke 1970), and No. 15 is of his Shape II. The most common forms of decoration are: finger-nail impressions or finger-pinching, 18.4%; and thread-wound stamp 'barbed-wire' impressions, 13.6%. Less common forms of decoration are: comb-stamped, 5.8%; plain-stamped, 4.9%; finger-smoothed horizontal lines, 9.7%. A large proportion, 32%, of the sherds are, however, plain. The decorative motifs employed are, again, very limited, the most common being horizontal lines, sometimes grouped into zones (e.g. No. 2). Also used are herring-bone patterns (e.g. No. 10) and oblique lines bounded by horizontal lines (Clarke's Motif 2, e.g. No. 5). Cordons below the rim are also present (e.g. Nos. 14 and 15).

As an assemblage the pottery from Barrow III falls into Step 3 of Lanting and van der Waals's (1972) scheme of British beaker development and is very similar to the pottery already discussed from Barrow II, a distinction being the use of finger-pinch decoration which is absent from Barrow II. Finger-nail/finger-pinch decoration is relatively more common at Barrow III than at Barrow II (where 'barbed-wire' ornamentation is commonest).

The large percentage of plain sherds, together with the large cordoned beaker (No. 15) and the use of finger-nail/finger-pinch ornamentation, make this assemblage look domestic in character. Also present on the site were amorphous lumps of fired clay similar to those discovered in Barrow II.

BARROW IV – THE EXCAVATION

This barrow, which has trees growing on it and is situated in a small wood called Spratt's Plantation, is still standing to a maximum height of 1.84m. and has a diameter of c. 25m. Cut into the west side of the barrow was a narrow trench which led into a large pit at the centre of the mound. The purpose of the 1974 excavation was to investigate the date of this earlier excavation and to determine whether the central grave had been disturbed (Fig. 21).

In clearing out the debris in the backfill of the trench broken beer bottles of the Steward and Patteson Brewery of Norwich, corrugated iron, a plastic bead and a broken bicycle brake were recovered. These suggested a Second World War date for the excavation. It was later confirmed by local memory that this part of Martlesham Heath had been used as a military training ground in the Second World War, and that as a result the area abounds in slit-trenches, etc. The earlier excavation

only reached a depth of 1.6m. below the surface of the mound and had not reached the old ground surface beneath it. The base of the trench was approximately 3m. long x 1.8m. wide and the decayed remains of wooden posts were found along its edges, presumably the remains of a retaining structure for the sides. As this barrow is a scheduled monument the 1974 excavation went no deeper than the earlier trench; the primary burial being presumed to be still intact.

The excavation showed that the roots of the trees growing on the mound had caused quite considerable damage, as had extensive rabbit burrows (in some sections very little of the original mound fabric survived, the sections merely showing a multitude of holes), the sand composition of the mound making it an excellent site for a rabbit warren.

After the excavation was completed the mound was reconstituted.

BARROW IV – THE FINDS

Only three sherds of pottery were found: from an undisturbed portion of the mound came a reddish-brown sherd with traces of finger-smoothed lines, similar to sherds from Barrows II and presumably of Beaker date; from the area much disturbed by tree roots came a sherd of black, sand-gritted, hand-made pottery which is possibly Saxon; from the upcast of a rabbit burrow on the side

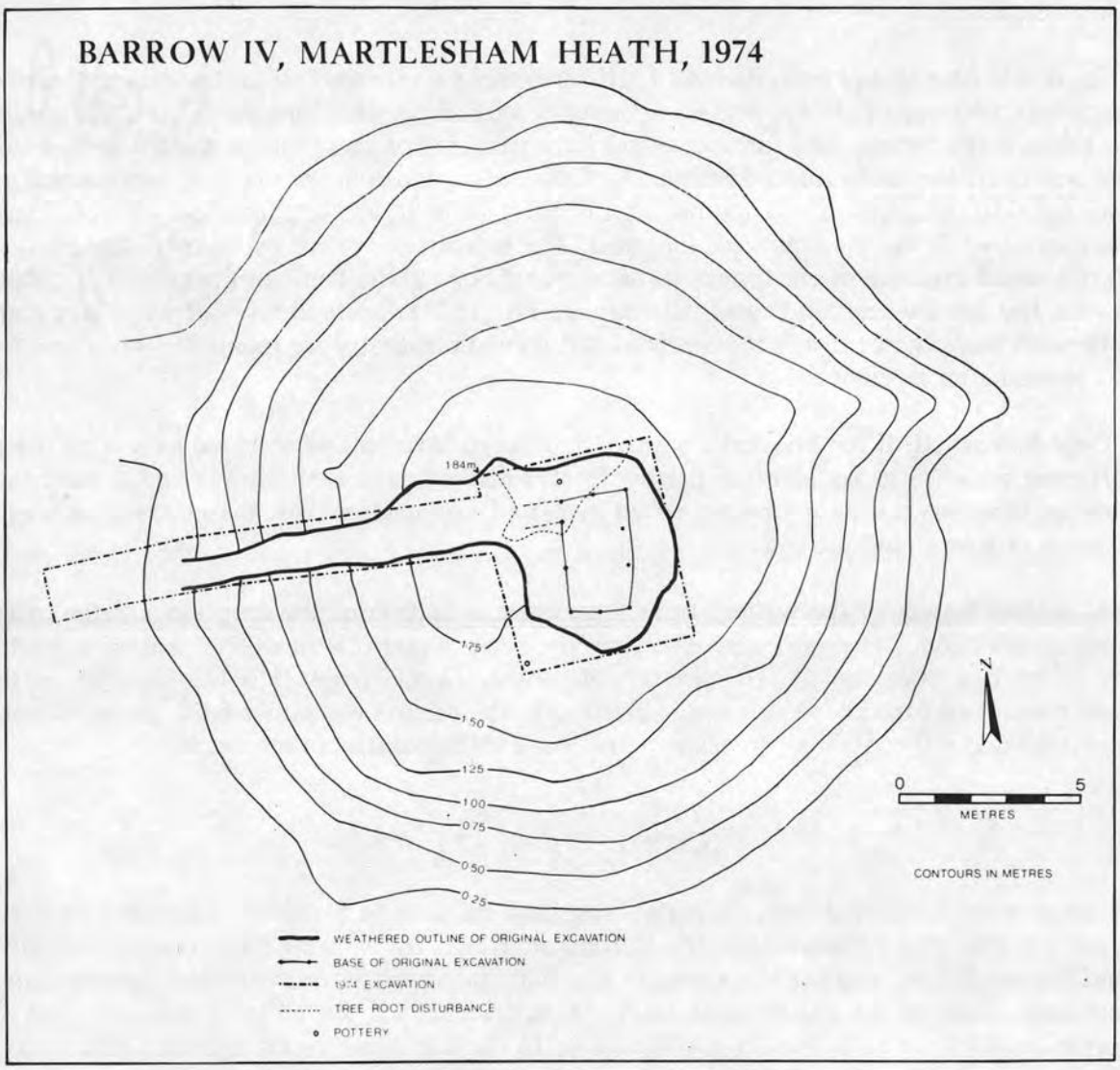


Fig. 21.
Plan of Barrow IV.

of the mound came a sherd of black, wheel-made, sandy pottery with part of a burnished line on it, which is possibly Roman in date.

The only other finds were a few flint flakes.

DISCUSSION

The pottery from Barrows I (Martin 1975, 5–11), II and III suggests that all three are roughly similar in date, Lanting and van der Waals's (1972) Step 3 of British Beaker development, c. 1900 – 1800 b.c. (radio-carbon years). There is insufficient evidence to hazard a date for Barrow IV. Barrow II is possibly the earliest, with no evidence for finger-pinch ornamentation, which is present at Barrow III. Barrow I has some sherds which might possibly belong to Step 4 (c. 1850 – 1750 b.c.) and may therefore be the latest of the group. The barrow excavated by G. Maynard and H.E.P. Spencer (1949) on Martlesham Airfield in 1942 contained a coarse sherd of pottery with finger-nail impressions, similar to sherds from Barrows I, II and III; finger-pinch ornamentation was also present. This suggests that this barrow was also of roughly the same date as Barrows I–III. The Beaker occupation site at Martlesham Plantation, TM 2395 4625 (material now in Ipswich Museum, ICM 1951–156), however, appears to be later in date, the pottery displaying features ascribable to Steps 5 and 6 of beaker development (c. 1800 – 1550 b.c.), and finger-pinch ornamentation is much in evidence.

There was no evidence from Barrows I–III for graves cut into the sub-soil beneath the barrow. It is therefore presumed that the bodies/cremations were either laid directly on the old ground surface beneath the barrow, and that the bones have since rotted away due to the acidic sand sub-soil and any slight remaining traces destroyed by subsequent ploughing; or that they were deposited in graves cut into the fabric of the mound after it had been built, all evidence of which would have been destroyed when the mounds were flattened. The barrow excavated by Maynard and Spencer (1949) did reveal evidence of small pockets of cremated bone in the fabric of the mound. Similarly the Beacon Hill barrow near Mildenhall (Cawdor and Fox 1923) displayed no evidence of a primary burial beneath the mound; all the inhumations and cremations that were found had been inserted into the mound after its completion.

Only Barrow III of the Martlesham group appears to have been surrounded by a ditch (there is insufficient evidence to say whether Barrow IV was ditched or not). Barrows I and II must have been 'scrape-barrows', the mound being formed by material scraped up from the surrounding area, a fairly simple task on a sand sub-soil.

A marked feature of the pottery from these barrows is its domestic appearance: large coarse vessels being common, some with cordons below the neck (a probable functional feature to enable a cover to be tied on securely). The amount of pottery from Barrow II is too great to be the scattered remains of funerary vessels and suggests that the barrow was either built on the site of a settlement, or that soil containing domestic refuse was used to construct the mound.

ACKNOWLEDGEMENTS

I am grateful to the Bradford Property Trust, and Bidwells of Martlesham Aerodrome, their agents, and the Post Office Research Centre, Martlesham Heath, for allowing the excavations to take place and for much help in other ways; and to the Department of the Environment for financing the excavation. I would also like to thank Mr. G. Moss, my assistant, and all those who took part in the excavations for their help. Finally my thanks go to Mr. S.E. West for his assistance and advice.

May 1976

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THE EXCAVATION OF A TUMULUS AT BARROW BOTTOM, RISBY, 1975

By Edward A. Martin

with contributions by Gillian Bussell and Calvin Wells

SUMMARY

The mutilated remains of a round barrow were excavated in advance of their destruction by road-works in 1975. The barrow was ditched and had a central primary grave containing a crouched inhumation, accompanied by a small collared urn, 151 jet beads, a bronze tubular bead, a bronze awl and two flint tools. A secondary, extended, inhumation was found in the ditch fill.

INTRODUCTION

The remains of the barrow at TL 7737 6612 (S.A.U. Index No. RBY 1), marked on the O.S. map as a 'Tumulus (site of)', were located on the false crest of the west slope of the valley at Barrow Bottom, on the 125 ft. contour line (Fig. 22). The valley was formed by a north flowing tributary of the River Lark. The sub-soil of the area is chalk.

The name Barrow Bottom is not associated with the tumulus, but with the parish of Barrow (Baro. c. 1086, Barue, 1201, from OE bearu, dat. bearwe, 'grove, wood'; Ekwall 1960, 28) which adjoins Risby to the south. The parish boundary follows the A.45 (Kentford to Bury St. Edmunds) road through Barrow Bottom, the tumulus lying on the north, or Risby, side of the road. This straight road, which is used as a parish boundary in several places, is regarded as being a possible Roman road (Scarfe 1972, 63–4). John Ogilby's road-map of 1675 (S.R.O. (Bury), Acc.500) seems to show that the road followed the same course before the building of the turnpike road in 1771 as today. The Gentleman's Magazine (1784, 54) gives some information about the tumulus at that date:

> 'In the year 1771, when the turnpike road from Bury to Newmarket was made, in order to continue it in a strait line for two or three miles together, it was necessary to cut away part of the base of the barrow, which stands between the fifth and sixth milestone; on which occasion some bones, to the quantity of about a bushel, were discovered. About two or three years afterwards the writer, going by, saw and handled a skull that had lately fallen out. Some labourers, being employed a few days ago to remove the earth that had fallen down on the side of the road, found an urn, which they instantly demolished in their eagerness to examine its contents; but were much disappointed at finding nothing but mould and bits of bone. According to their account, the urn stood about 6 ft. from the top, and as far from the south side, with its mouth upwards, and no cover of any kind: they judge it to have been 2 feet high, and above 1 foot broad in the widest part, and its mouth 10 or 11 inches; and that it would have held a pailful of any thing. As many of the fragments have been collected as could be; and from them it appears clearly that the urn being of a very coarse pottery, only slightly burnt at first, and since thoroughly moistened, could not have been preserved whole without much care; that though the bottom is only four inches in the clear within, yet that, as it flues exceedingly, they may be right as to its size and capacity, and are certainly so as to the large size of its mouth, there being enough of the rim to settle that. There was a skull whole and perfect, of the common kind, brought away with the urn. Sending in a day or two some other examiners, they found the compleat skeleton of a man, lying with his head towards Newmarket, or East and West, in the direction of the road; they had so distinct a view of it, as to be sure that both the legs were doubled up under the body: the thigh bone, usually reckoned one fourth of a man's height was 17 inches and a half long, and the leg bone 14 and a half, and both put together

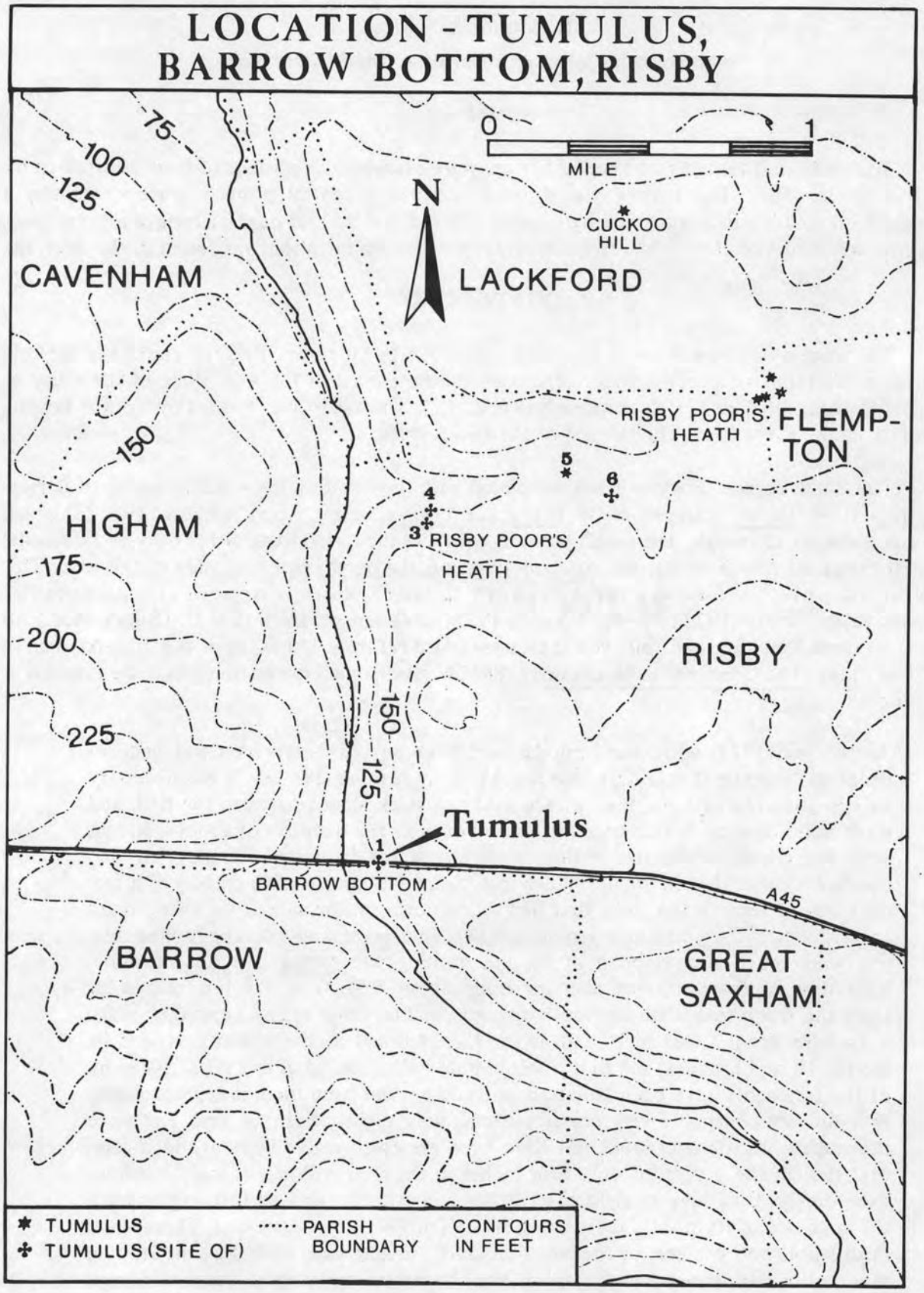
LOCATION - TUMULUS, BARROW BOTTOM, RISBY
0
1
MILE
N
CUCKOO HILL
CAVENHAM
LACKFORD
75
100
125
150
175
200
225
RISBY POOR'S HEATH
FLEMP-TON
HIGHAM
RISBY POOR'S HEATH
RISBY
Tumulus
BARROW BOTTOM
A45
BARROW
GREAT SAXHAM
TUMULUS
TUMULUS (SITE OF)
PARISH BOUNDARY
CONTOURS IN FEET

Fig. 22.

31 and a half. Besides the bones of this skeleton, they brought home two other substances, one of which was black, and may be pronounced to be wood ashes; the other was in large lumps, some as big as a fist, of a pale reddish brown colour, with many white streaks in it, the same as horse-dung charged with mushroom spawn: this was quite soft as a fungus, but the grain of the wood is plainly discernible; and is thought to have been driven downwards as a post. Upon the whole, we may be sure, that the small part of the circumference that hath been cut away had afforded at least three common skeletons and one urn, and its contents are probably the remains of an officer, and the rest those of common soldiers: and as the urn was found not in the centre, with the skeletons lying around, which is most usual, but nearer to one side, it is probable that more urns will hereafter be discovered in the centre, and towards other parts of the circumference: But, unless they prove richer than what hath already been examined, they will afford nothing to gratify avarice, or curiosity. One could have wished for at least one bit of money, to determine it to have been a Roman sepulture, and not Danish, who were the last people in this island that used urn-burial, or burnt their dead; a very excellent method, bating the urn part, to prevent their remains being insulted, or injuries in any shape to the living; and which, tho' only practised by the mob, to prevent their friends falling into the surgeons hands, ought to be done to all, as it might easily be, by means of a bushel or two of unslacked lime above and below. A BARROWIST'

At a meeting of the Institute at Bury St. Edmunds on 4 Jan. 1885 (Proc. Suffolk Inst. Archaeol, II 1859, 207) 'two spear-heads of iron, found in a barrow at Barrow Bottom, 1813' were presented to the Institute by Sir Thomas R. Gage, Bart. This gift was 'accompanied by observations on the barrows noticed in the Hundreds of Thingo and Thedwastry, extracted from "Remains of Antiquity in the County of Suffolk", a MS by the late Sir Thomas Gage, Bart.' This records (p.208) that:

'This tumulus in Barrow Bottom is about half a mile from the Risby barrow (a barrow opened by Gage, perhaps the one that stood on Risby Poor's Heath at TL 7761 6784, S.A.U. Index No. RBY 3), but at present can hardly be traced as the turnpike road from Bury to Newmarket was cut through the centre of it, by which its conical shape was destroyed.

By the kindness of Mr. Bloomfield, I am become the possessor of the articles found on opening the barrow. They are indeed very imperfect, but they are highly interesting, as they establish the fact of a place of sepulture; . . . . The fragments of two iron lances or spears found under this barrow correspond exactly with those discovered in other parts of England . . . . . '

In 1975 the site of this barrow (which was then visible only as a very slight bump in rough grass between the edge of the road and the beginning of the field to the north of the road) was threatened with destruction by road-works to widen the A 45. A contour survey was carried out on what was thought to be the surviving portion of the barrow and a small scale rescue excavation was undertaken by the writer, on behalf of the Suffolk Archaeological Unit, in July 1975.

THE EXCAVATION

Initially a trench was mechanically excavated through the western half of what was thought to be the surviving portion of the mound. An extension trench was also cut into the adjoining field to try and locate the barrow ditch. This was succesful and from the direction of the ditch it became obvious that more of the barrow site survived than had at first been thought. In consequence a larger area was stripped of top-soil to reveal that approximately half the site of the barrow still existed. (Fig. 23).

THE MOUND

The mound only survived on the western edge, where it stood to a maximum height of 0.8 m. above the natural chalk (Fig. 24). Above the chalk was a layer of brown soil with chalk pebbles and flecks, c. 0.24 m. thick, which was presumably the pre-barrow soil. However, no decayed turf-line was visible between this layer and the layer of chalk rubble that lay immediately above it. This chalk rubble layer had a maximum thickness of c. 0.30 m., and was overlain in turn by brown soil, roots and turf, except on the northern side of the section where there was a layer of flint, c. 0.20 m. thick, perhaps thrown there from the adjacent field.

THE DITCH

Four main sections were cut across the barrow ditch (Fig. 24) and all the secondary fill was removed from the eastern portion. The ditch was cut into the chalk and had relatively steep sides. In the section C–D the ditch was 0.97m. deep (from the base of the plough-soil) and 2.10m. wide at the top, with a flat bottom, c. 1 m. wide. On the N.W. side, in section E–F, the ditch was larger, 1.35 m. deep, 3.30 m. wide at the top and 0.97 m. wide at the bottom. The primary fill of the ditch consisted of chalk slurries interleaved with layers of light beige sand, representing the first washings from the chalk sides of the ditch, and perhaps from the chalk rubble forming the mound. In section E–F this layer was 0.45 m. thick, whilst in section C–D it was 0.34 m. thick. Overlying this was a layer of flints which marked the base of the secondary fill of reddish-brown sand, which in turn was capped by the plough-soil.

On the bottom of the ditch in section C–D was a layer of flint flakes (0024). Except for these flakes the primary fill was devoid of finds; all the pottery that was recovered from the ditch was found in the secondary fill.

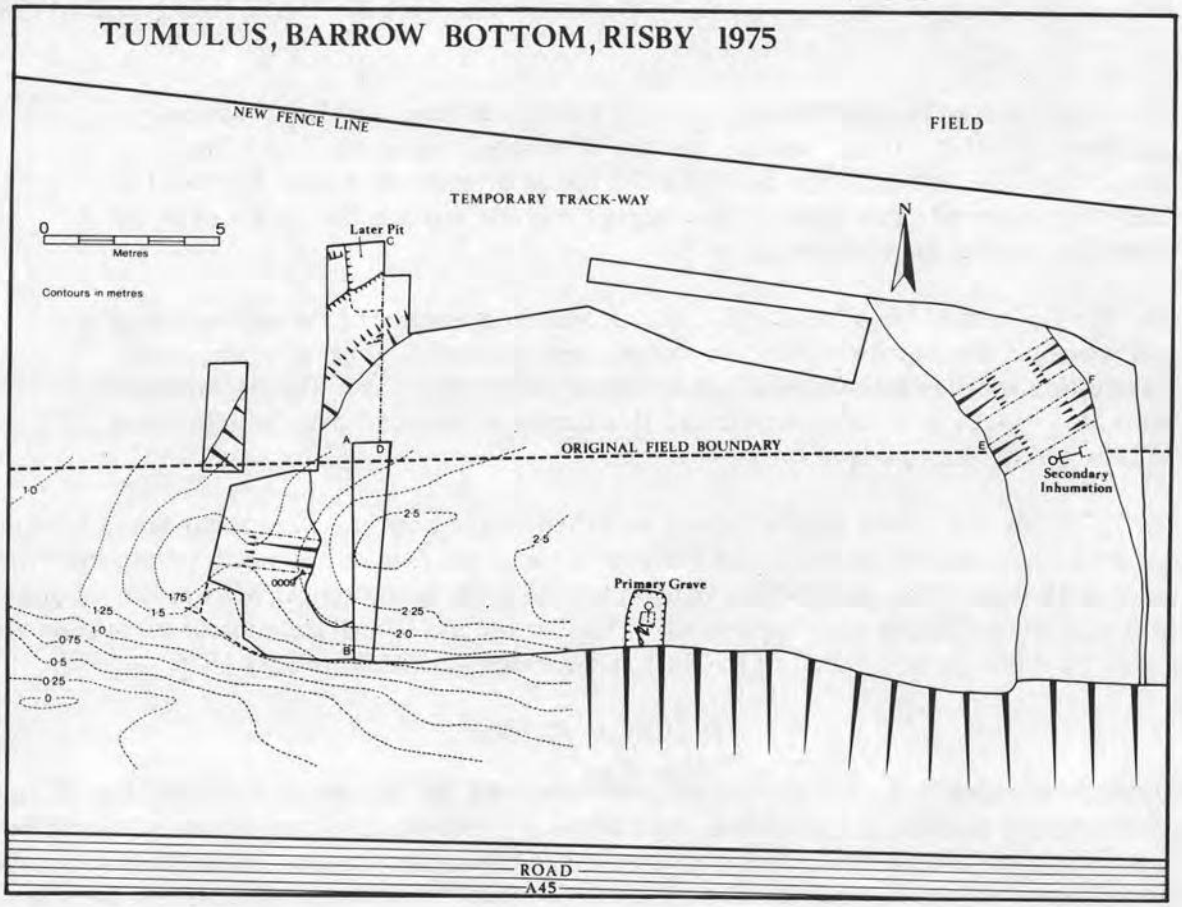

Fig. 23. RISBY :
Plan of Excavation.

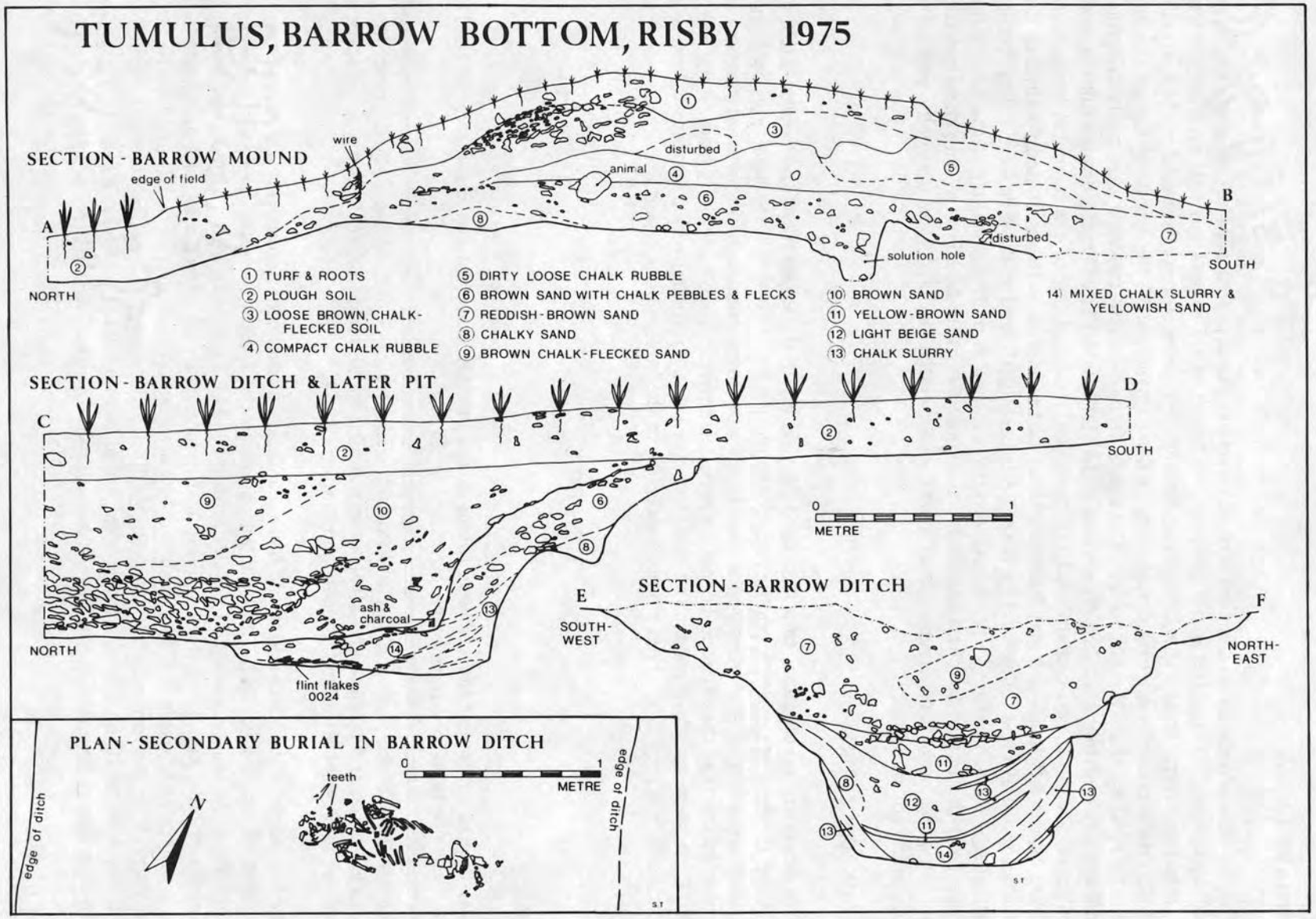

Fig. 24. RISBY :
Sections of the mound and ditch and plan of the secondary burial.

In section C–D the ditch was cut by a later pit, filled with brown sand, with a thick layer (c. 0.35 m.) of large flints at the bottom. Mixed in with this fill were a few fragments of eroded bone, and at the base of the southern edge of the pit was a layer of charcoal and ash that contained three iron nails.

THE PRIMARY GRAVE

This lay almost exactly in the centre of the barrow; the southern edge of the grave had been truncated by the road cutting, but it still survived to a length of 1.5 m. and was 1.05 m. wide, cutting 0.23 m. into the natural chalk. The fill was brown sand with some stones. The skeleton, of a woman aged 40–45, lay crouched on its right side with its head to the north; the left hand lay on the left knee and the right hand on the left elbow. The bones from the chest upwards were badly disturbed by animal activity (section, Fig. 25). A necklace of 151 jet beads (Plate I) and a bronze tubular bead had lain round the neck, but had suffered the same disturbance. Four of the biconical beads were found lying on the left hand and may have constituted a bracelet; near the estimated position of the skull were a bronze awl and a flint tool (perhaps a 'strike-a-light'); and at the feet were a flint scraper and fragments of a small collared urn, mouth downwards, and containing nothing at the time of the excavation. Over the area of the chest and head was a small pile of flints. Mixed in with the disturbed bones in the grave were two fragments of burnt bone, which perhaps were originally part of a cremation in the collared urn.

THE SECONDARY BURIAL

The secondary inhumation, of a man aged 25–35, lay in the upper fill of the barrow ditch, c. 1.3 m. above the base of the ditch, and just under the plough-soil. It was in poor condition; both legs were missing and most of the other bones were in a fragmentary condition. From what survived it was possible to say that the skeleton lay on its back, aligned N.E. to S.W., with its head to the S.W., facing N. There were no grave goods. The skull displayed a cut, inflicted with a sword or a light axe (Plate II), which was probably a fatal wound (see below in the human bone report).

THE FINDS

I – BRONZE

Two bronze or copper objects were found in the primary grave, an awl and a tubular bead (Fig. 26). Their positions in the grave are shown in Fig. 25.

The awl is 4.2 cm. long and has a maximum diameter of 3 mm. It has a square tang, for fitting into a handle, and a rounded shaft. It is very similar to numerous other Bronze Age awls, for example those in Devizes Museum (Annable and Simpson 1964, 113).

The tubular bead is 2.3 cm. long and has a maximum diameter of 3 mm., and was made from a rolled sheet of metal (Fig. 26). The bead was found in the same area as the jet beads and was, presumably, from the same necklace. A tubular bronze bead (1.7 cm. long with a diameter of 4 mm. and having no obvious join along it) was found in the same grave as a small disc bead of low-grade coal, and a beaker of Clarke's (1970) Developed or Late Southern groups (S2 or S3) in a barrow at Waterhall Farm, Chippenham, near Newmarket (Martin, forthcoming). Three sheet copper tubular beads and fourteen small lignite disc beads were found with a beaker of Clarke's (1970) Wessex/ Middle Rhine group at Beggar's Haven, Devil's Dyke, Sussex (Clarke 1970, fig. 167).

IIa – JET BEADS (Plate I)

151 jet beads were recovered from the primary grave, and consisted of two flat, triangular, end-plate beads; a rectangular spacer-plate bead; forty-three biconical or fusiform beads and 105

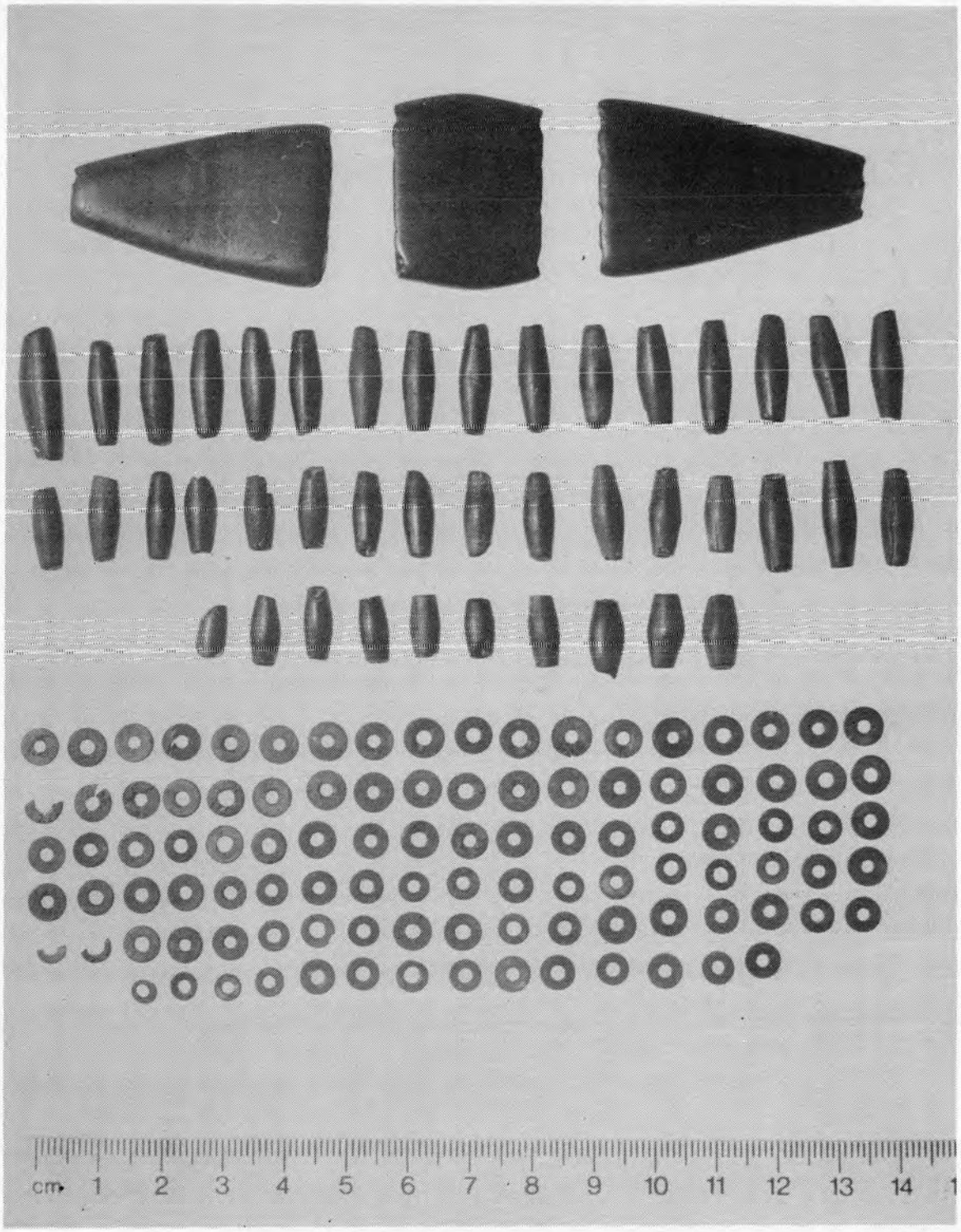

Photo : R. Carr

Plate I. RISBY :
The jet beads from the primary burial.

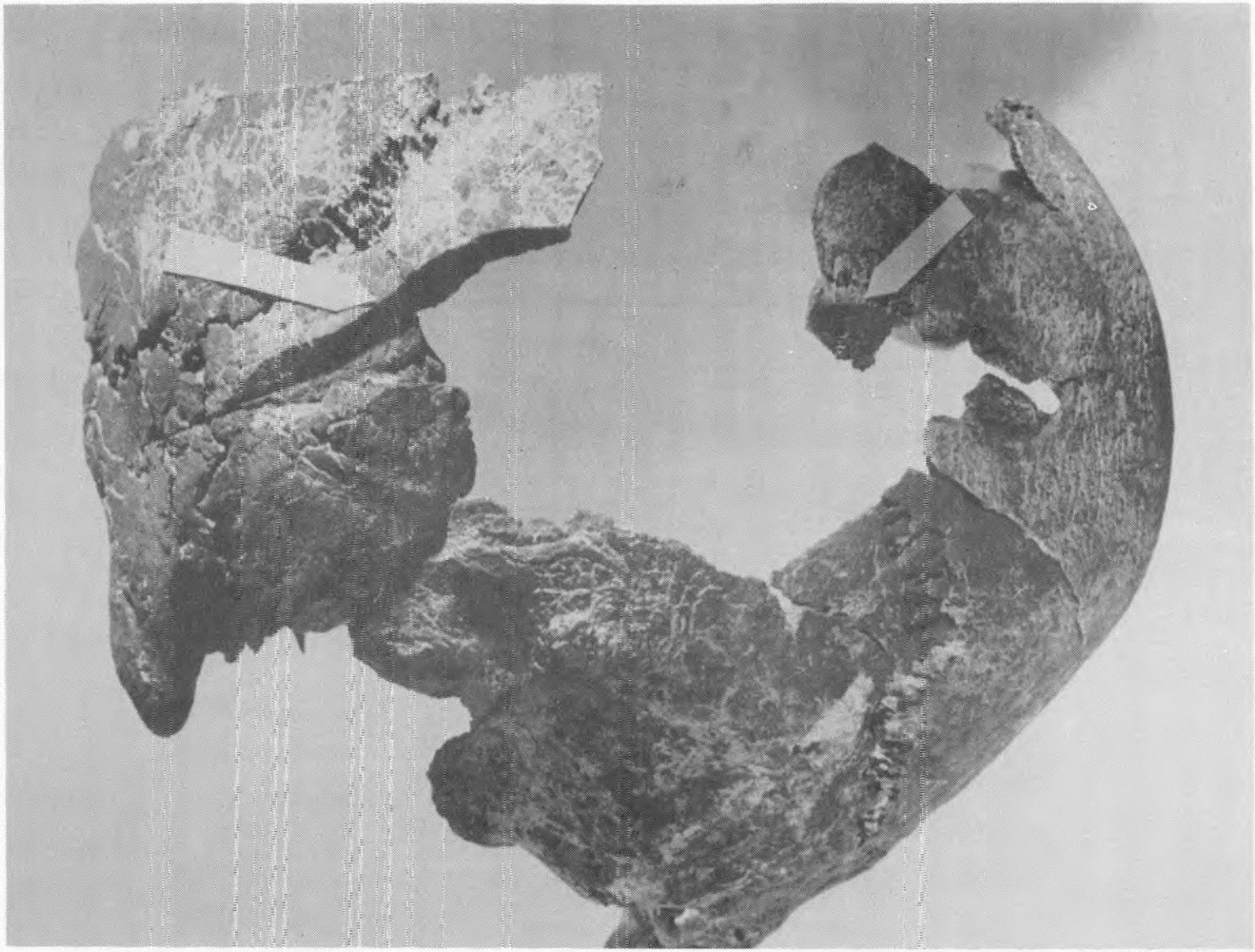

Photo : Mary Kippen

Plate II. RISBY :
Skull from the secondary burial.

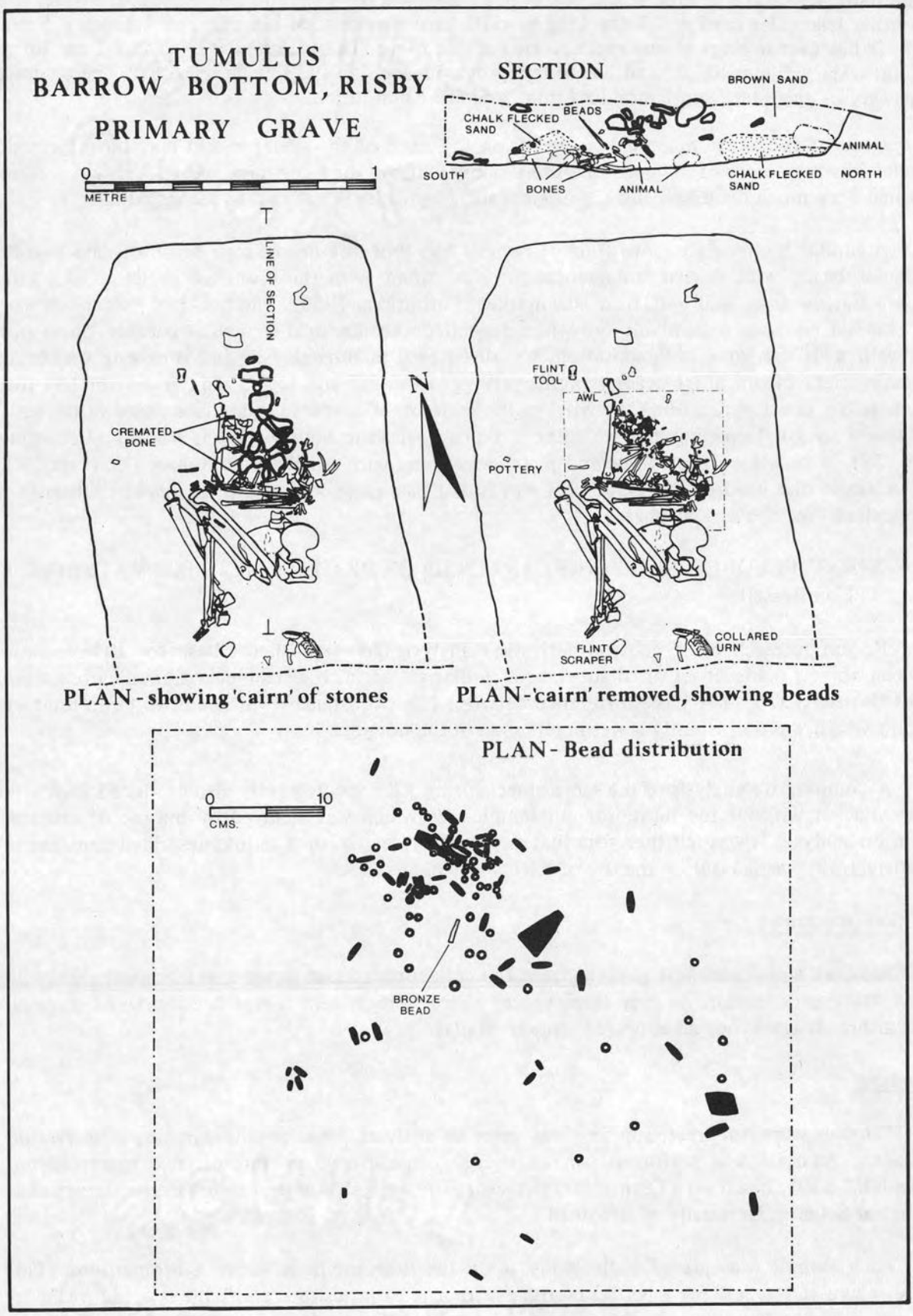
TUMULUS
BARROW BOTTOM, RISBY
PRIMARY GRAVE
0
1
METRE
SECTION
BROWN SAND
CHALK FLECKED SAND
BEADS
ANIMAL
SOUTH
BONES
ANIMAL
CHALK FLECKED SAND
NORTH
LINE OF SECTION
CREMATED BONE
N
FLINT TOOL
AWL
POTTERY
FLINT SCRAPER
COLLARED URN
PLAN - showing 'cairn' of stones
PLAN - 'cairn' removed, showing beads
PLAN - Bead distribution
0
10
CMS.
BRONZE BEAD

Fig. 25.

small disc beads. One of the triangular beads is 4.1 cm. long x 2.1 cm. at its widest end and 9 mm. at the narrowest end x 5 mm. thick. It has five borings at the wide end and three at the other end. The other triangular bead is 4.3 cm. long x width measurements of 2.8 cm. and 1.1 cm. x 5 mm. thick. It has four borings at one end and two at the other. The rectangular bead is 3.1 cm. long x 2.4 cm. wide x 5 mm. thick, and has four borings on one side and five on the other. The biconical beads vary in diameter from 7 mm. to 4 mm., and are 1 mm. thick.

Four of the above biconical beads lay on the hand of the skeleton and may have formed a bracelet; the remainder of the beads are presumably all from the same necklace, though when found they had been much disturbed and the original stringing order is difficult to reconstruct.

A similar jet necklace, consisting of twenty five thin disc beads, four biconical and two flat triangular beads with dotted ornamentation, was found with the crouched skeleton of a child beneath Barrow C at Snailwell, near Newmarket (Lethbridge 1950). The necklace was much worn and chipped and was presumably old when deposited. An identical triangular bead to those from Snailwell, with the same ornamentation, was discovered in Burwell Fen and is now in Cambridge Museum. Eight biconical jet beads (lengths varying from 2.7 cm. to 1.3 cm., and diameters from 9 mm. to 6.5 mm.) were around the wrist of the skeleton of a woman, lying face downwards, which was found whilst deepening and widening a drainage ditch in Southery Fen, Norfolk (Lethbridge 1929–32). A necklace of jet beads and plates was found with a skeleton in Soham Fen (Fox 1923, 55). A single disc bead of low-grade coal was found in a grave with a bronze bead in a barrow at Chippenham (see above – 'Bronze').

IIb – X RAY FLUORESCENCE (XRF) ANALYSIS OF BEADS OF JET-LIKE MATERIAL, by Gillian Bussell.

Recent research using neutron activation analysis has established a basis for differentiation between objects made of jet or of substances similar to jet, such as cannel coals and carbonaceous shales (Bussell 1976). The basic difference between these substances was found to be in their iron content which was consistently lower in jets than in the non-jets.

A comparative analysis of the same objects using XRF spectrometry also produced adequate differentiation without the limitation on sample size which was incurred by the use of neutron activation analysis. It was felt therefore that any future research, such as that described here, could be satisfactorily carried out by the use of XRF spectrometry.

Selection of samples

Samples were chosen at random from the collection of disc beads and biconicals, since all were visually very similar. As only three spacer-plates were present it was decided to examine all these, although again they all appeared visually similar.

Procedure

Samples were not treated in any way prior to analysis, other than undergoing conservation treatment. Analysis was performed on an energy dispersive X-ray fluorescence spectrometer, Laben NIM 8001, based on a Germanium detector. The analysis was performed in the Department of Nuclear Science, University of Bradford.

Each sample was placed individually upon the detector head above a Promethium (Pm) source where it was left for a period of time sufficient to produce identifiable spectral peaks. A note was made of the elements observed as present in each sample, but no attempt was made to quantify the elements observed, since the spectrometer used was of low sensitivity (maximum energy levels detectable with a Promethium source on this spectrometer are K-Beta rays of Barium 56 at 36.4 Kev). The analysis was therefore qualitative rather than quantitative.

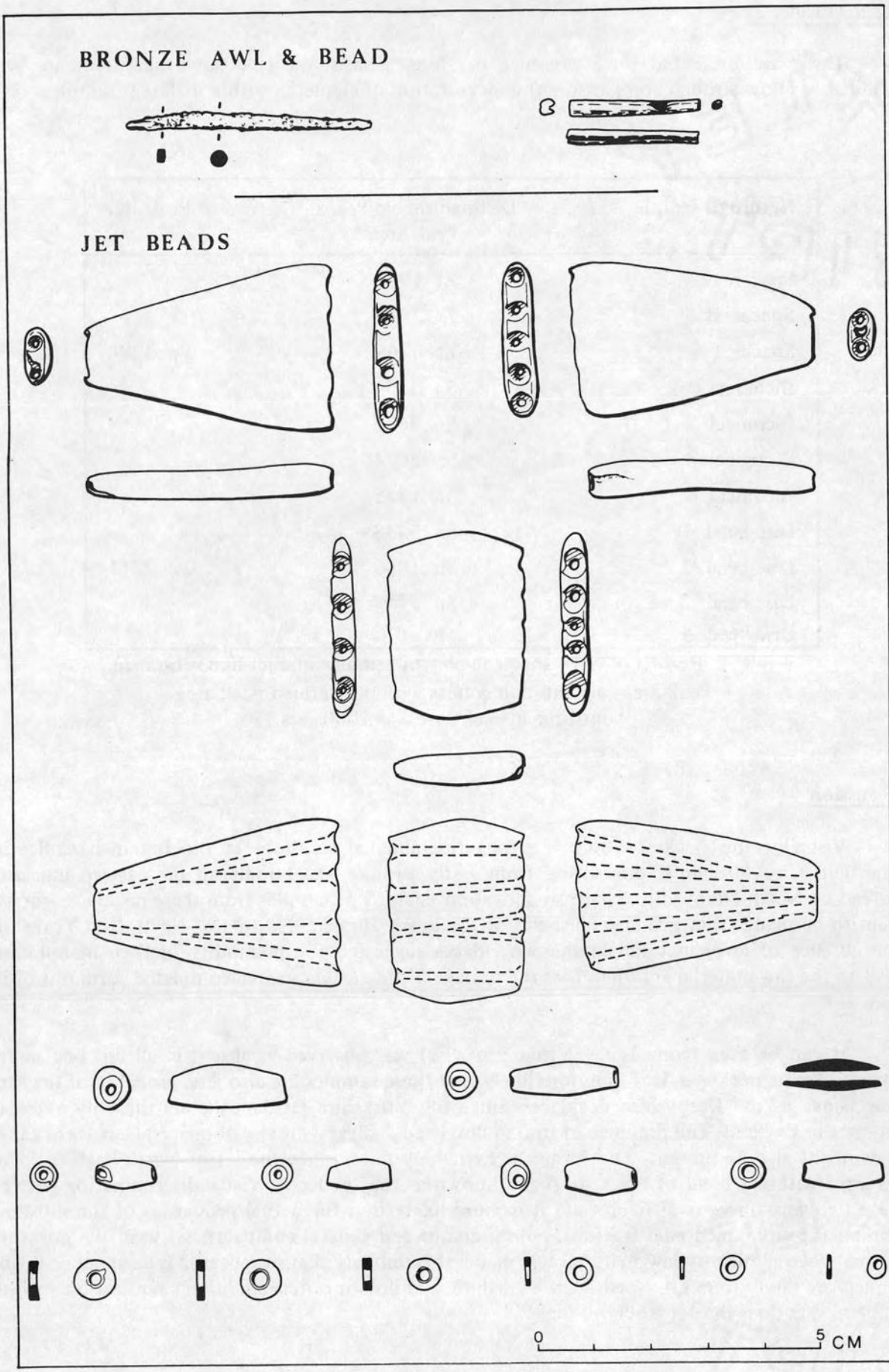

Fig. 26. RISBY :
Bronze and jet objects.

Results (Table 2)

These are presented on a presence or absence basis, the peak area measurements being included to allow a rough comparison of concentration of elements within different samples.

Nature of sample	Distinguishable Peaks Peak area *	Peak area
Spacer A	Zr 1900	
Spacer B	Zr 3999	
Spacer C	Zr 4769	Sn 3288
Biconical 1	Sn 3554	
Biconical 2	Sn 9670	
Biconical 3	Sn 2074	
Biconical 4	Sn 1785	
Disc bead 1	Sn 5438	
Disc bead 2	Sn 1080	Fe 2711
Disc bead 3	Sn 7792	
Disc bead 4	Sn 652	

Table 2. Results of XRF spectrometry of samples of a jet-like substance.
(*Peak area calculated in counts within a defined peak area;
count time in each case was 1000 secs.)

Discussion

Visually, the necklace bore a strong resemblance to those in the Bateman Collection (Sheffield City Museum), originating from Early Bronze Age burials on the eastern limestone plateau of North Derbyshire. Neutron activation analysis of samples from these necklaces showed them to be made from jets and oil-shales of the lower Jurassic deposits of North East Yorkshire. The absence of local material in these necklaces suggested the possibility of their manufacture local to the raw material and therefore the passage of the necklaces in a completed form out of the area.

It can be seen from Table 2 that iron (Fe) was observed as absent in all but one sample taken from the necklace. It is therefore likely that these samples are also jets, probably of the same provenance as the Derbyshire necklaces, since the Yorkshire jet deposits are the only extensive deposits in England. The presence of iron in disc bead 2 suggests that carbonaceous shales or cannel coals might also be present. The former is extremely likely since the jet of North East Yorkshire outcrops within a band of black oil-shales known as the Jet Rock. Visual discrimination between these two substances is difficult, and it is more likely that the actual properties of the substance worked (i.e. its conchoidal fracture, polish, colour and general compactness) were the governing factors when choice of raw material was made. It is unlikely that disc bead 2 is a cannel coal since cannels are rarely found in North East Yorkshire, and do not outcrop in direct association with the jet planks, as does the Jet Rock oil-shale.

Without a more intensive analysis on a spectrometer of greater sensitivity than that used here, it is not possible to identify the usefulness of zirconium (Zr) and tin (Sn) as discriminatory elements. This analysis is therefore based on the presence or absence of iron in a sample. Interestingly, however, tin is absent in two of the spacer-plates, whilst zirconium is present in all three. Tin appears in all the samples of biconical and disc beads, whilst zirconium appears in only one. Further analysis might show these differences to be significant. Alternatively they may be another feature of the general heterogeneity of jet found by neutron activation analysis.

Two of the beads have recently undergone neutron activation analysis. Although a parts-per-million evaluation of their composition is not yet available, initial results agree with those obtained by XRF and show more conclusively the presence of jet within the samples analysed.

III FLINT

The primary grave contained two flint tools: near the feet of the skeleton was a scraper (Fig. 27. No. 1); and near the head was a waisted flint tool (No.2) which may have been used in conjunction with iron pyrites as a 'strike-a-light', which would explain the battering on the edge. In the primary fill of the ditch was a cache of knapping debris (Fig. 24, 0024) which contained a number of worked pieces of flint. These consisted of three triangular sectioned pieces (Nos. 3–5) with reworked edges; a scraper (No. 7); a possible core-scraper (No. 6); and the tip of a broken tool (No. 8) which may have been a fabricator used for pressure-flaking. From the secondary fill of the ditch came a circular tool (Fig. 24, 0009 and Fig. 27, No.9) which may be another 'strike-a-light', as it too has battered edges.

The knapping debris in the primary fill of the ditch contained five cores, which have been classified according to the method used in the Hurst Fen report (Clark 1960, 216):

Class A1 – one platform, flakes removed part of the way round 2

Class B2 – two platforms, one at an oblique angle 1

Class B3 – two platforms at right-angles 1

Class E – keeled, but with one or more platforms 1

In all, 486 waste flakes from this knapping debris were measured for length, breadth and breadth : length ratio according to the system used by Bohmers (1956, 1–5) and Smith (1965, 89). Length is defined as the greatest dimension along the bulbar axis, and breadth as being the greatest dimension at right angles to this axis. The results of these measurements are presented below (Fig. 28), where they are compared with the Late Neolithic assemblages from Durrington Walls (Wainwright 1971, 163) and the West Kennet Avenue (Smith 1965, 90), and contrasted with the Middle Neolithic assemblage from Windmill Hill (Smith 1965, 90). With the exception of the Windmill Hill assemblage the other three are similar in having rather broad, squat flakes, with the breadth equal to, or exceeding, the length. 36% of the flakes from Risby have a breadth:length ratio of, or over, 1:1; which compares with a figure of 21% for the Late Neolithic flakes from Durrington Walls. True blade-flakes (having a breadth:length ratio of 2:5 or less) are rare at Risby, only 8.8% of of the total; similarly only 1% of the Late Neolithic flakes from Durrington Walls are blade-like. In addition 6% of the Middle Neolithic flakes from Durrington Walls and 11% of those from Windmill Hill are blade-like. A further twenty-eight flakes were recovered from the secondary fill of the ditch at Risby and, although a very small sample, they also tend to be broad and squat: 50% having a breadth:length ratio of, or exceeding, 1:1. The peak measurements for the secondary fill flakes are: length, 30–40 mm. and 50–60 mm. (28.6% in both cases); breadth, 40–50 mm. (32.1%); breadth: length ratio, over 6:5 (28.6%).

In view of the Late Neolithic affinities of the knapping debris in the ditch it is of interest to note that both the scrapers from Risby are similar in size and shape to Neolithic scrapers from

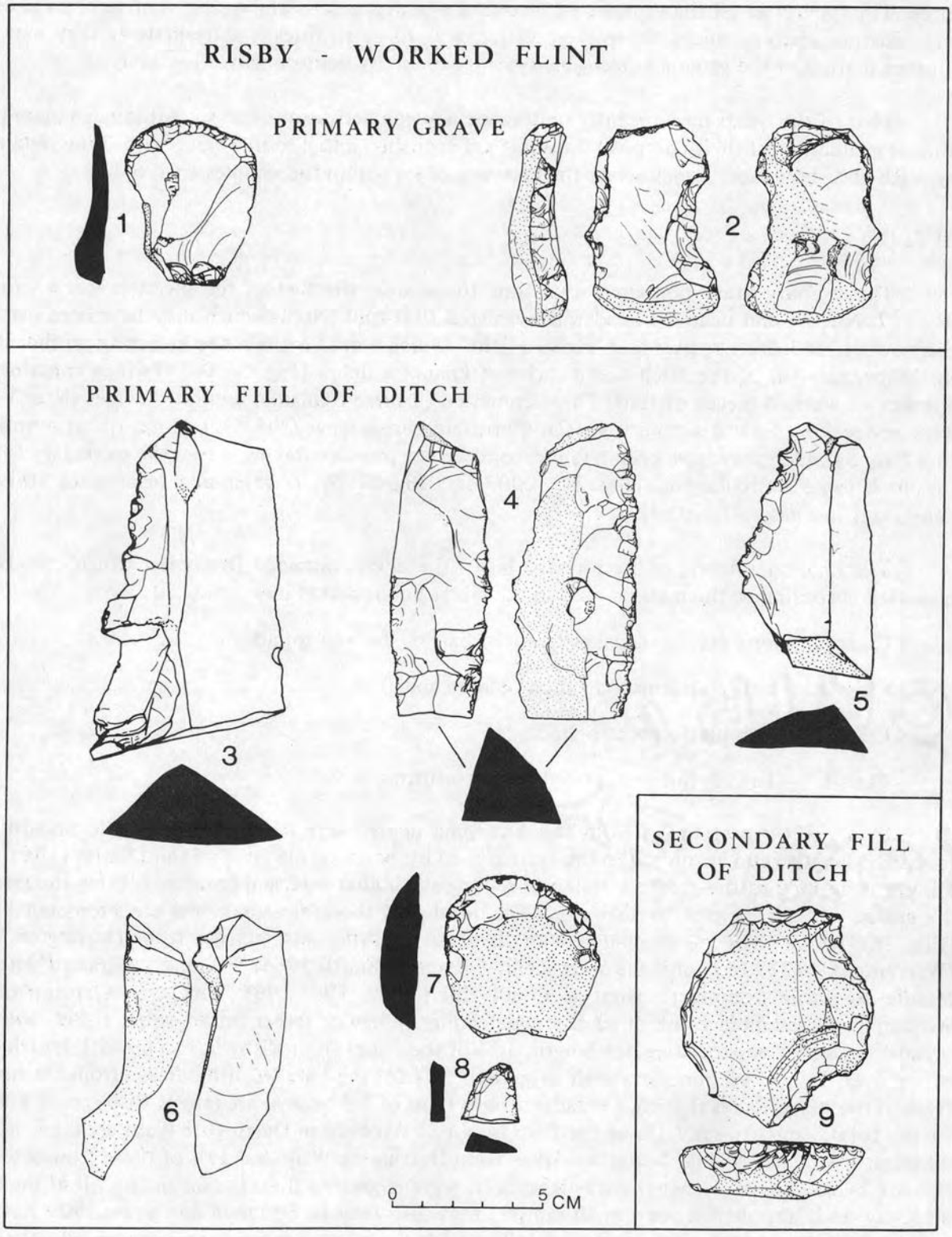
RISBY - WORKED FLINT
PRIMARY GRAVE
1
2
PRIMARY FILL OF DITCH
3
4
5
6
7
8
SECONDARY FILL OF DITCH
9
0
5 CM

Fig. 27.

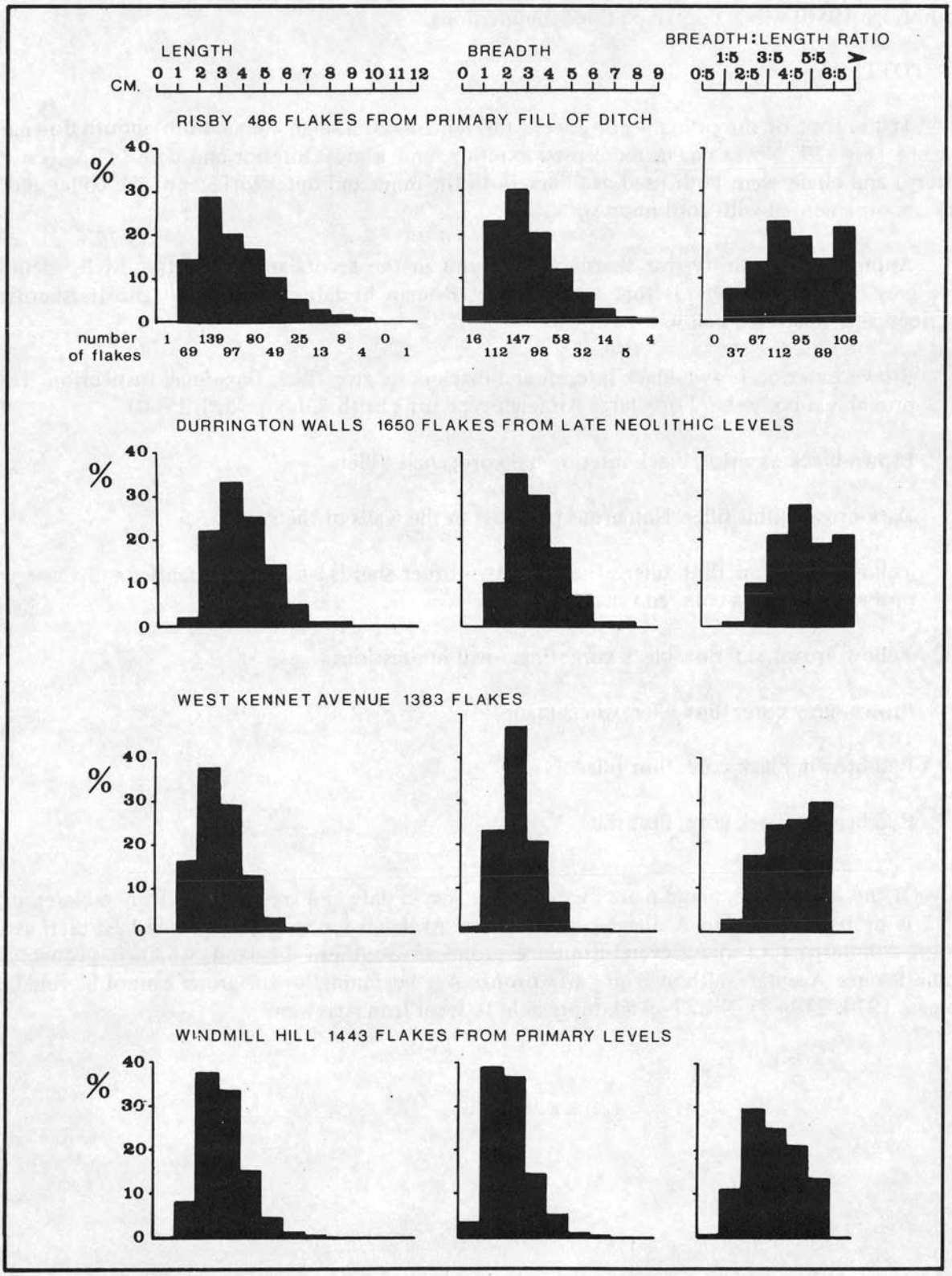

Fig. 28.
Histogram of flint flake measurements.

Durrington Walls and Windmill Hill, and are very different from the small 'thumb-nail' Beaker scrapers, for example those from the barrows at Martlesham Heath (Martin 1976). Similar scrapers to the Risby examples were however found beneath Chippenham Barrows B and 5 (Leaf 1936 & 1940), both of which also contained collared urns; and also under Barrow J of the Snailwell group (Lethbridge 1950) which contained three inhumations.

IV – POTTERY

At the foot of the primary grave were the remains of a small collared urn, mouth downards. The urn (Fig. 29, No.1) had a red-brown exterior, and a grey interior and core. Grog (crushed pottery) and chalk were both used as fillers. Both the inner and outer surfaces of the collar and the neck are ornamented with cord impressions.

Approximately thirty-five sherds were found in the secondary fill of the ditch, including three grey, wheel-made sherds that are probably Roman in date. The more diagnostic sherds are described and illustrated below:

2. Brown exterior, brown-black interior and black core; grog filler; finger-nail rustication. This is probably a body-sherd of a large Ardleigh-type urn (Erith & Longworth 1960).

3. Brown-black exterior, black interior and core; chalk filler.

4. Dark-brown; flint filler. Numerous piercings in the walls of the vessel.

5. Yellow; grog and flint filler. There are two other sherds of a similar fabric, and these were probably part of a collared urn.

6. Yellow-brown exterior, black core; finger-nail impressions.

7. Brown, grey core; flint filler; wheel-made?

8. Red-brown, black core; flint filler.

9. Red-brown, black core; flint filler.

Of the above, Nos. 5 and 6 are Early Bronze Age in date and are probably from collared urns. No. 2 is probably from an Ardleigh-type urn, the Ardleigh group of urns being best seen as the eastern counterpart of the Deverel-Rimbury group in Southern England, which is probably of Middle Bronze Age date, although an Early Bronze Age beginning for the group cannot be ruled out (Burgess 1974, 214–8). Nos. 7–9 are more akin to local Iron Age wares.

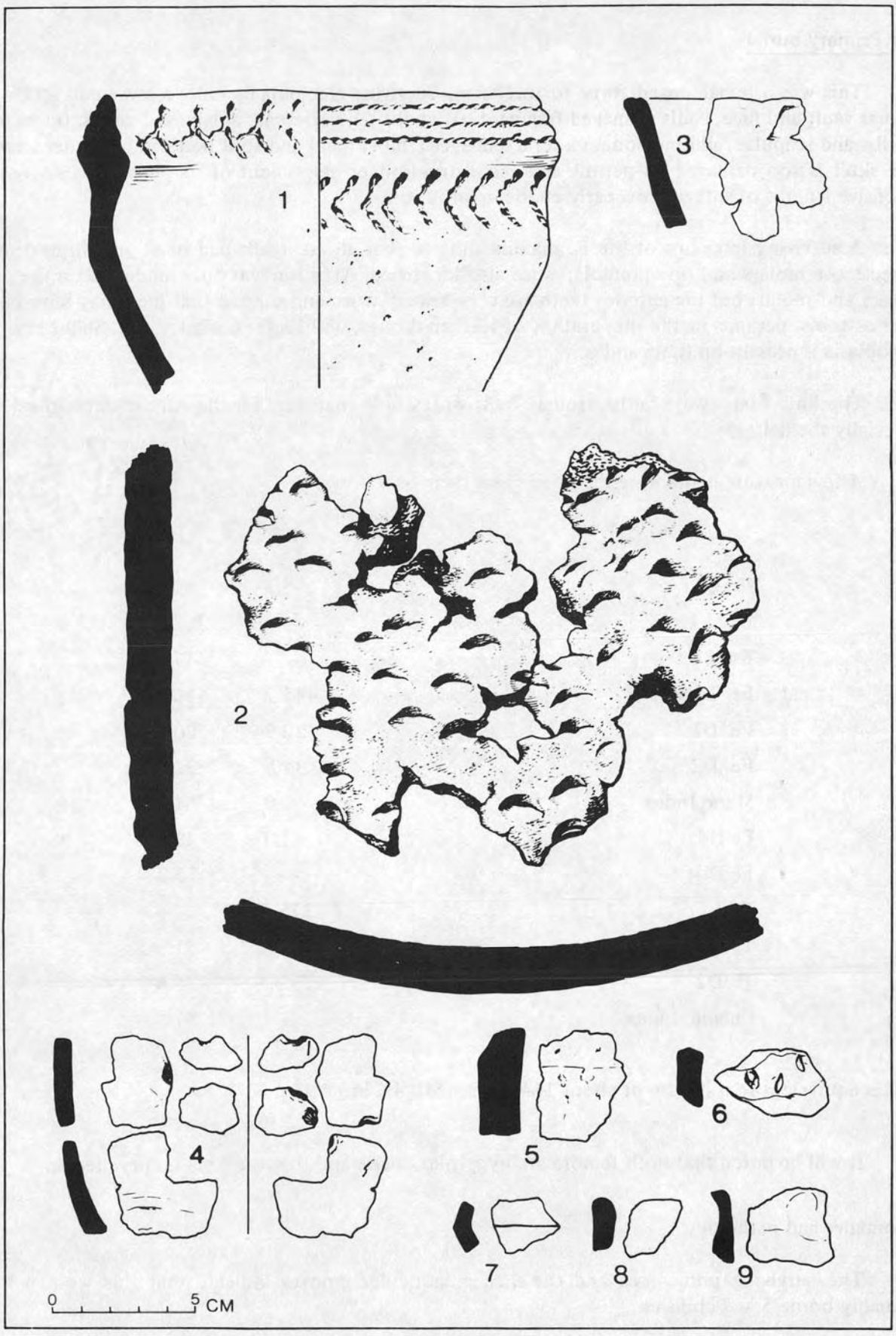

Fig. 29. RISBY :
Pottery.

V – THE HUMAN BONES, By Calvin Wells.

The Primary burial

This was a female, aged forty to forty-five. Surviving elements include: a few small scraps of cranial vault and face; badly damaged fragments of about ten vertebrae; a damaged pelvis; fragments of ribs and scapulae; all long bones (several damaged); most hand and foot bones; a few other scraps. The skull is too damaged to permit any reconstruction or assessment of its physical type. Some extensive lengths of suture show early endocranial fusion.

A surviving fragment of the R. maxilla showed that all its teeth had been present at death. Three loose molars and one premolar were also identified. Attrition was only moderate on the premolars and molars but the anterior teeth are very heavily worn and suggest that they may have been used as tools, perhaps in the preparation of leather thongs, withies for basketry, etc. Slight enamel hypoplasia is present on the\5 and\6.

The limb bones were fairly strongly built with sturdy markings for the attachment of muscles, especially the deltoids.

A few measurements were recorded from them as follows:

	L	R
Hu Qist	58.3	57.1
U1 L1	–	267.5
Ra L1	–	247.7
Fe L1	445.2	446.2
Fe D1	20.9	20.6
Fe D2	34.8	32.1
Meric Index	60.0	64.1
Fe Hd	42.0	42.8
Fe Dist	–	73.3
Ti L1	? 375.0	–
Ti D1	–	31.3
Ti D2	–	25.6
Cnemic Index	–	81.8

This is equivalent to a stature of about 1642 mm. (5ft. 4½ in.)

It will be noted that both femora are hyperplatymeric and that the tibia is eurycnemic.

Anomalies and pathology

The surviving pubic area and the iliac preauricular grooves indicate that this woman had probably borne 5 – 7 children.

Four cervical vertebrae appear to be normal but the L5 has osteoarthrosis of the posterior lumbo-sacral joints and the L3 – L5 have slight osteophytosis of the anterior margins of the body.

There is early oseoarthrosis on both surfaces of the R. sacroiliac joint and on the iliac surface of the L. joint.

A trace of arthrosis is present on the glenoid surface of the R. scapula. This may be related to the powerful development of her deltoid muscle.

Early arthrosis is present on the head of the R. 1st metacarpal.

In the feet both naviculars have small osteochondritic pits, on the L. c. 5 x 3 mm. on the R. 2 x 3 mm.

A small eminence of unknown origin is present on the lateral surface of the L. tibia. It is in mid-shaft and measures 22 x 5.5 mm, rising c. 3 mm. above the surface of the bone.

Both humeri have a septal aperture.

Large squatting facets are found distally on the tibiae.

The Secondary Burial

This was a male, aged twenty five to thirty five. Surviving elements include: fragments of a badly smashed skull – two thirds of the R. parietal, most of the R. temporal, much of the occipital squama, the L. petrous temporal and mastoid process, a fragment of the R. frontal and superior orbital border; fragments of about fifteen vertebrae from atlas to L5; scraps of pelvis, ribs and scapulae, L. and R. clavicles; a few short fragments of the shafts of humerus, radius and femur; some hand and foot bones. Muscle markings on these bones show a moderately sturdy development.

The surviving cranial fragments suggest that the vault was voluminous – broad and fairly high. Nuchal muscle markings are light. The sutures are unfused. Six isolated teeth survive: four maxillary molars, one mandibular molar, one premolar. There are no caries and dental attrition is very slight. The relatively unworn state of these teeth points, perhaps, to a diet containing much milk and cheese rather than tough meat. The absence of caries suggests that it was not predominantly carbohydrate.

Anomalies and pathology

The dens axis has been damaged by an oblique truncation but this is almost certainly due to some post-inhumation effect, not the result of decapitation.

The occiput has also suffered some post-inhumation damage but a wound inflicted by a sharp instrument, presumably a sword or light axe, is present on its L. side (Plate II). This wound begins about 6mm. below and posterior to the asterion and passes medially across the bone almost parallel to the L. lambdoid suture for 55 mm. It must originally have been a few milimetres longer than this. It was delivered from above downwards and the face of its bevel varies from 3 to 7 mm. in width. Medially it cut through the full thickness of the bone and entered the cranial cavity. The plane of the bevel is slightly irregular as though the direction of the blade had changed – probably due to the victim falling when struck. It is impossible to say whether this was itself an immediately fatal wound but there is no trace of healing and it is clear that this man died either from it or from some other wound very soon after it was inflicted.

CONCLUSION

Taking into account the 18th and 19th century records of finds from this barrow (see Introduction), it seems that it contained a primary inhumation grave of a woman, accompanied by a jet necklace and a collared urn, which may once have held a cremation; another inhumation that was probably crouched, for 'the legs were doubled under the body', and therefore possibly pre-

historic in date, and a cremation in a large urn of coarse pottery, c. 2 feet high, with diameters at the mouth and base of 10 or 11 inches, and 4 inches respectively, which sounds very much like a Bronze Age collared urn. There was also a secondary, extended, inhumation of a man in the fill of the ditch, with no grave-goods. The attitude of the body is not inconsistent with an Anglo-Saxon date for the burial, a theory which is strengthened by the presence of a sword or axe cut on the man's skull. Other secondary inhumations, seemingly unaccompanied, are probably represented by the 'bones, to the quantity of about a bushel' found in 'part of the base of the barrow', and the two isolated skulls, found in the 18th century. The two spear-heads found in 1813 are likely to have accompanied secondary graves of Anglo-Saxon date.

. . . The two destroyed barrows (Fig. 22), immediately to the north of the one in Barrow Bottom (RBY 1), on Risby Poor's Heath, were opened by Canon Greenwell (1869). In the northernmost (RBY 4) he discovered a central, flexed inhumation of a 'large and powerfully built male', lying on its left side, with its head to the N.W., in a shallow grave but with no grave-goods. Away from the centre he discovered four flexed inhumations, one on the old ground surface, and the others approximately two feet above it. Also in the barrow was a cremation in an urn of 'the usual British form', and an empty Iron Age vessel which is now in the British Museum. The other barrow (RBY 3) contained a cremation in an urn of the 'British' type, which was found about 7 feet from the centre and 2 feet above the old ground surface. This vessel is now in Moyse's Hall Museum, Bury St. Edmunds, and is in fact an Anglo-Saxon urn. Sherds of another, similar, vessel were found near the centre of the barrow. When the barrow was re-excavated by A.R. Edwardson (1961) in 1959, he discovered a sherd of a Bronze Age urn near the centre, and perhaps the sherds discovered by Greenwell were from the same vessel. Edwardson also discovered a compact pile of cremated bone to the N.W. of the centre, and a barrel-shaped Anglo-Saxon bead of dark blue glass with a crude design in light blue glass. The two barrows (RBY 5 and 6) approximately half a mile to the east of RBY 3 and 4 were also opened by Greenwell. In one he discovered a central, chalk-cut, basin, 2 feet long and 18 inches wide and deep, containing aburnt body. In the other barrow he found nothing.

The Risby group of barrows therefore display quite a range of funerary practices. In RBY 1 and 4 there were primary, crouched inhumations in graves (of a woman and a man respectively). In RBY 3 and 5 (or 6) there appear to have been primary cremations, the one in an urn and the other in a chalk-cut basin. The two inhumation barrows (RBY 1 and 4) also contained urned cremations; that in RBY 1 was in a Bronze Age urn, whilst that in RBY 4 was in an urn of 'the usual British form', that is either Bronze Age or Anglo-Saxon. Crouched, unaccompanied inhumations were also present in both barrows and probably represent secondary burials of prehistoric date. The extended inhumation in the ditch of RBY 1 probably represents an Anglo-Saxon secondary burial. Definite evidence of Anglo-Saxon secondary burials takes the form of a cremation urn and a glass bead from RBY 3, and the two iron spear-heads which probably accompanied inhumation burials in RBY 1.

An interesting feature of the Barrow Bottom tumulus is the Late Neolithic affinity of the flintwork, both the knapping debris in the ditch, and the scrapers. In view of the likelihood that the collared urns of the Early Bronze Age evolved from the Late Neolithic wares of the Peterborough tradition, perhaps with some influence from Beaker pottery (Smith 1966), the occurence of 'Late Neolithic' flintwork in association with a collared urn is a further confirmation of the Neolithic ancestry of the Early Bronze Age urn-makers.

ACKNOWLEDGEMENTS

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The finds from the excavation have been deposited in Moyse's Hall Museum, Bury St. Edmunds.

JULY 1976

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THE ROMANO-BRITISH SITE AT ICKLINGHAM

by Stanley E. West, with Judith Plouviez

SUMMARY

Excavations in the autumn of 1974 on the site of the lead tank with Chi-Rho symbols discovered in 1971 disclosed a late Romano-British, possibly Christian, inhumation cemeteryon an earlier Roman site.

The pre-cemetery evidence included a large pit filled with rubble, evidently from an important building, six human skulls and a stone pillar. A thick layer of chalk then preceded the use of the area as a cemetery. Three buildings were strung out across the site; the most easterly included the remains of a small, tile-built 'apse' associated with the lead tank. Of the forty five inhumations in the cemetery, one was contained in a stone coffin. The evidence suggests that the cemetery was Christian, in use from c. 350, and that two of the buildings and the lead tank were associated with the cemetery.

INTRODUCTION

The earliest recorded discoveries from Icklingham were coins and fibulae (Page 1911, 309; MS.Min.Soc.Antiq.1,1725,35,173) found c.1720. Since that time the site has received considerable attention from antiquaries and archaeologists, with many chance discoveries and several excavations. The fields to the south-east of the village are well known for the scatter of potsherds and coins that occur on them, defining an area of roughly 800 x 275 m. wide along the edge of the flood plain of the River Lark [1].

Three pewter hoards are known from the parish. The first, consisting of nine vessels from an unrecorded site, was found in April 1839 on heathland in the ownership of John Gwilt and subsequently purchased by the British Museum in 1844 (Rokewood 1842, 389; Way 1870, 426–30)[2]. It is likely that this came from the area to the north of the site. The British Museum purchased a further eighteen pewter vessels from a hoard found at Icklingham in 1853 in unrecorded circumstances; four more vessels from the same hoard are in the Ipswich Museum[3]. In the same year the British Museum acquired a bronze cauldron of late Roman date (Smith 1915, fig. 15)[4], but it is not known if this was associated with the second pewter hoard. The third hoard, of nine pewter vessels and a saw blade, was found in 1956 on high land, 3.5 km. north of the site (c. TL 799754); (Liversidge 1959, 6–10). A further hoard of metal-work, consisting of a bronze bowl, a pewter platter and a pottery bowl found in 1962, came from the western edge of the parish (TL 737738) close to a known Romano-British site (Liversidge 1962, 6–7)[5].

There are five groups of references to burials associated with the site. In 1851 skeletons were found in a sand-pit (Roach-Smith 1857)[6]; these may well be from the same cemetery referred to as 'Stone Pit Hill' in the Victoria County History of Suffolk (Page 1911) which mentions the discovery of fibulae and glass vessels. 'Stone Pit Hill' is shown on a map of Icklingham in 1901 (Prigg 1901) as Rampart Field (TL 788714)[7]. Prigg (1888, 56) further mentions a late Roman interment at Mitchell's Hill to the west of the site (TL 777722), together with Anglo-Saxon burials, probably referring to the two Romano-Saxon vessels now in the Moyses' Hall Museum, Bury St. Edmunds and the Ashmolean, Oxford (Myres 1956, 16-39), respectively[8]. The same author describes the discovery and excavation in 1871 of a small but important group of inhumations in a restricted area to the south of the main road at c.TL 78357185 (Prigg 1901, 63–71),[9] :

Burial 1. Male c. twenty-five years. Extended burial in stone coffin. The skeleton was apparently in good condition as it was noted that the calvarium was missing and that only the facial bones and the jaw remained of the head. Ashes and traces of burning were commented upon in the region of the head but no traces of burning were seen on the bones.

Burial 2. Male, c. fifty years. Extended burial in stone coffin; immediately to the north of No. 1. Right hand in pelvis, left arm by side. The head had been supported by a piece of tile and there was a healed fracture of the right tibia. The whole of the lower part of the body had been almost covered with quick-lime and the upper part embedded to a depth of about six inches.

Burial 3. Female, c. forty years. Extended burial in lead coffin with traces of a wooden outer coffin. "Nine great iron nails" were found, together with other, smaller ones. A baluster-shaped object of ivory was found on the lid.

Burial 4. 'Aged person'. Inhumation, without trace of a coffin, but under a pavement of Roman tiles. This grave was placed at the feet of No.2, in a north-south position, with the head to the south.

Burial 5. Scattered bones in the vicinity of No. 3, apparently from an earlier burial.

The first three burials were laid with the heads to the west. Both stone coffins are now in Moyses' Hall Museum; the lead coffin and the bones are now lost. The authority quoted for the age and sex of the burials is not known. Prigg found a large cremation cemetery near Icklingham from which in 1881 a silver ring was recovered, although the description of the urns would indicate a pagan Anglo-Saxon date (Prigg 1881, 154–5, 214).

Five coin hoards are mentioned in relation to Icklingham. The first was found by Prigg during his excavation of the 'villa' site in 1877 (Prigg 1878, 12–15) 'on the northern corner of the thick wall', north of Room 3, which may imply that the building was already decayed at the time of the deposition. The hoard consisted of 'a heap of thirty-three brass Roman coins' and further, that 'the most important[were] a Magna Urbica'. The second, found in June 1877, was ploughed up in the south-east corner of Dix's Charity Land (Prigg 1901, 76–79;)[10] which must be to the north of the site at c. TL 785729. The hoard was contained in a small vase of 'Durobrivian' pottery and consisted of 'not more than' 400 silver coins, of which Prigg was able to examine 349 which ranged from Constantius II to Honorius. The third was found in 1902 in an earthernware bowl and consisted of 1064 coins, mainly bronze, with some silver, ranging from Gallienus to Honorius (Pearce 1929, 319–27; 1933, 159; and 1938, 59–61), of which 361 were of the House of Theodosius. The fourth is mentioned by Moore (1948, 175) as 'about twelve radiate minimi at Moyses' Hall, Bury' [11]. The fifth was found in 1906 and contained coins ranging from Claudius II – Valentinian I (Moore 1948, 175).

Coin scatters are prolific on both Horselands Field and Kiln Field to the east and are also recorded (O.S. Records) from the fields immediately to the north, (Chalk Pit Field and Barn Field), with outliers further away.

The main evidence for buildings came from Prigg's excavation in 1877 of the 'villa' (TL 78067203) which revealed a large hypocausted room, 7.62 m. long, 5.18 m. wide, with walls standing to a height of 0.79 m. and having traces of other smaller rooms to the south-east. Beyond these no buildings could be traced, although these might well have been less substantial. He records evidence of crude repairs to the hypocaust floor with the use of flue tiles as pillars and subsequently 'considerable spoilation' with the removal of tiles from the corners of the walls and from the hypocaust pilae.

Prigg mentions the discovery of an iron axe-head of Saxon type (1901, 72–5) in the remains of the building and cites coins from the soot in the hypocaust as evidence that the destruction took place in the latter half of the fifth century ('fifth' clearly being a mistake for fourth). Other building debris has been noted elsewhere on Horselands Field (O.S. Records), particularly in the southern half; also in the adjoining Kiln Field and in the next field to the east (TL 78837181).

The most remarkable discoveries from the site are three lead tanks with Christian monograms, and part of a fourth. The first is described by Salmon (1730, 1, 161) who says:'About three years ago a Leaden Cistern was found here by a ploughman, the shere striking against the edge of it.

The Treasure it had concealed was gone. The Cistern is in being; it contains about sixteen gallons, perforated on each side for Rings to lift it by. There is ornamental work on the Outside of it, imitating Hoops of Iron, but cast with the Thing itself. On one side is a Mark A, perhaps intending the Measure of the Use of it'. The site of the discovery is not mentioned, but the year must be c.1726/7, and although Salmon states that the tank 'is in being', it cannot now be traced. The second is believed to have been found near the north-east side of Horselands Field in August 1939[12] and subsequently acquired by the British Museum in 1944 (Kraay 1942, 219–20; 1935, 216)[13]. This tank bears Chi-Rho symbols between A and W (reversed) signs on opposite sides and has two perforated lugs for carrying rings. The third was found in 1971 in the south-east corner of Horselands Field and was seen *in situ* [14] in the remains of a light-walled structure. This tank is very similar to the second in design but has no lugs and Chi-Rho symbols only (Fig. 36, page 75). It contained a mass of iron objects and cakes of lead, including a fragment with a perforated lug. The iron objects were, in the main, nails, door hinges and small fittings, possibly from a box; there were also two saws of Roman type [15].

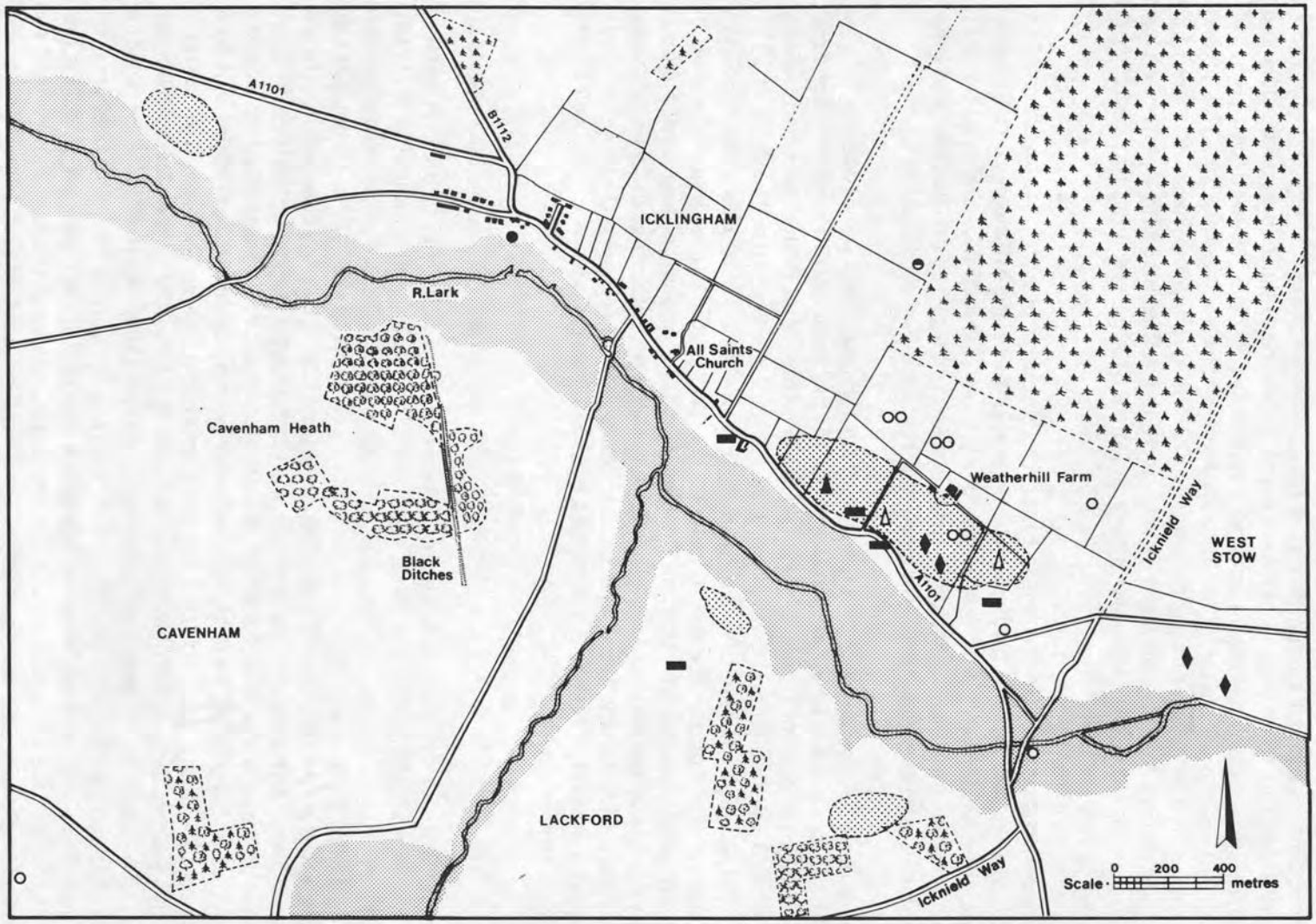
Three pottery kilns of circular updraught type, with a central pedestal, were excavated by the Rev. Tyrell Green in 1937 in the field now known as Kiln Field [16]. Although exact findspots are not recorded, they are said to have been found 'in a line' across the field, parallel to the road. One is described as being four feet six inches in diameter, with two pedestals, each two feet long. A third century date has been suggested for the pottery (Frere and Clarke 1945,213) [17].

The main area of occupation (Fig. 30) stretches from Rampart Field to beyond the 'villa' in Horselands Field, although a scatter of occasional potsherds has been noted along the main street of the village as far as the School House [18] (TL 76927309). Other sites in the immediate vicinity of Icklingham include the first-second century pottery industry on West Stow Heath (West 1952, 35–52), and a considerable scatter of occupation debris on Icklingham Plains (TL 756734). Immediately opposite the site, on the south bank of the Lark, there is a widespread scatter of Romano-British potsherds, and beyond that, on the higher land, the remains of two small buildings in enclosures, on the site of the Anglo-Saxon cemetery excavated by Lethbridge in 1947. Although no burials were found within them, these were interpreted as Roman mausolea (Lethbridge 1951). In the same report Lethbridge (1951, 8) pinpoints this site as the findspot of the well-known bronze 'Cavenham Crowns' found c. 1925.

THE SITE

The Romano-British settlement at Icklingham lies on gently sloping land to the south-east of the present village, immediately above the flood plain of the River Lark (centre around TL 783719).

The local geology is complex. Overlying the basal chalk deposits are patches of boulder clay with mid to late Pleistocene river gravels, containing palaeoliths which bear no relation to the present drainage system. These in turn are overlain with late Pleistocene river gravels in the flood plain of the Lark, and blown sands probably of the last glaciation. Post-glacial alluvium and peat also occur, and recent deposits of wind-blown sands can be seen on Icklingham Plains and West Stow Heath. The broad flood plain of the Lark was presumably less well drained and wetter in Roman times; the river itself may well have been navigable as a tributary of the Ouse and the fen-land canal system (perhaps to be qualified by its Anglo Saxon name, WRIDWELLA or 'winding stream'). Although clearly such a large site suggests intensive agriculture in the immediate area, the potters' kilns both here and at West Stow must imply a plentiful local supply of wood for fuel. The main area of the site lies some 600 m. to the west of the crossing of the Icknield Way and the Lark (Fig. 30). Generally accepted as a prehistoric trackway, or series of trackways, the route is considered by Margary to have been used, and to some extent modified, in Roman times although no evidence for this is to be seen in this area (Margary 1973, 262–4). An approximately east-west road would seem more likely, joining Mildenhall to the west and Ixworth (Pakenham) to the east, in part along the Lark valley; then linking sites at Culford and Redcastle Farm, Pakenham.



Icklingham - Location Map

settlement
potsherds
burials
villa
building debris
pottery kilns
coin
coin scatter
coin hoard

Fig. 30.

THE 1974 EXCAVATION

The excavation, directed by R.J.C. Mowat of the Suffolk Archaeological Unit on behalf of the Department of the Environment, revealed a complex of features (Figs. 31 and 32).

STRATIGRAPHY (Fig. 33)

A thick layer of chalk covered a large part of the area opened and provides a critical factor in the stratigraphy. Features can be related to this chalk layer as follows:

Phase 1: below chalk

Lying immediately above the natural gravel, a layer of occupation soil of varying thickness extended over the whole area examined, sealed by the chalk in the north of the area, and by fragmentary chalk in the north-east corner. The southern half of the site lay outside the surviving

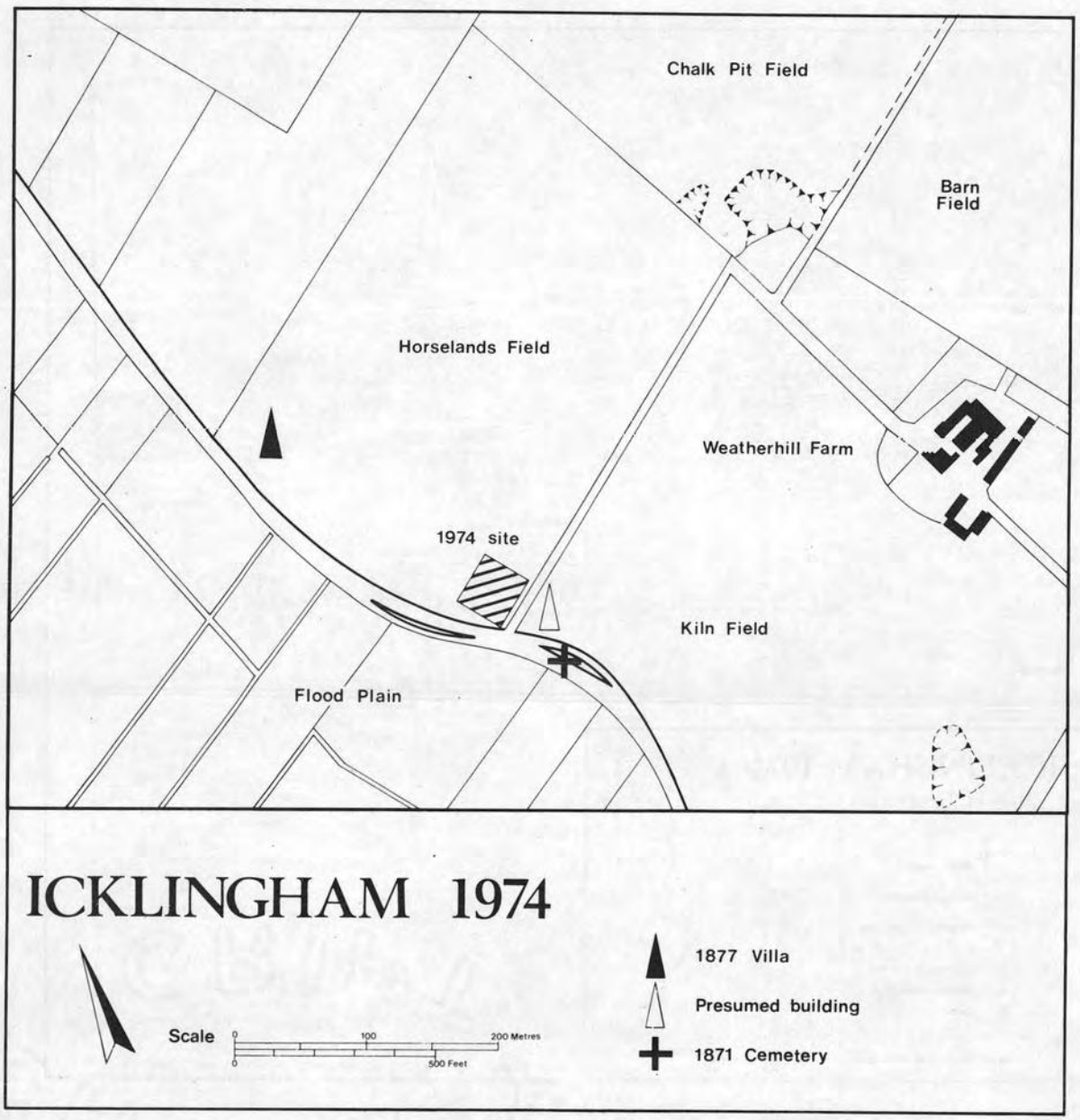


Fig. 31.
Detailed location of the 1974 Excavation.

area of chalk but the pits and features in the south-east corner, apart from the graves, contained pottery of the second – fourth century and are considered to pre-date the chalk layer.

The layer as a whole contained few features; its base dipped to form a considerable hollow in the north-east corner. Stray Beaker and Iron-Age sherds were found in this layer with a small quantity of first – second century Romano-British pottery.

Only one pit (F.47), containing one large sherd of a mid second century wide-mouthed jar (Fig. 43, No. 42) could be attributed to the earlier Romano-British period. Two pits (F.2 and 6), sealed by the chalk, lay on the north edge of the excavation. Neither could be related to any other features.

The most notable pre-chalk feature was the large pit (F.32) close to the rectangular central building of the later phase (Fig. 34). This pit, roughly rounded in shape, was 3.8 m. in diameter and 2.45 m. deep. When first seen, a square-ended extension projected 1 m. from the south-east side. The pit had been dug through an outcrop of boulder clay; there was no silting and it appears

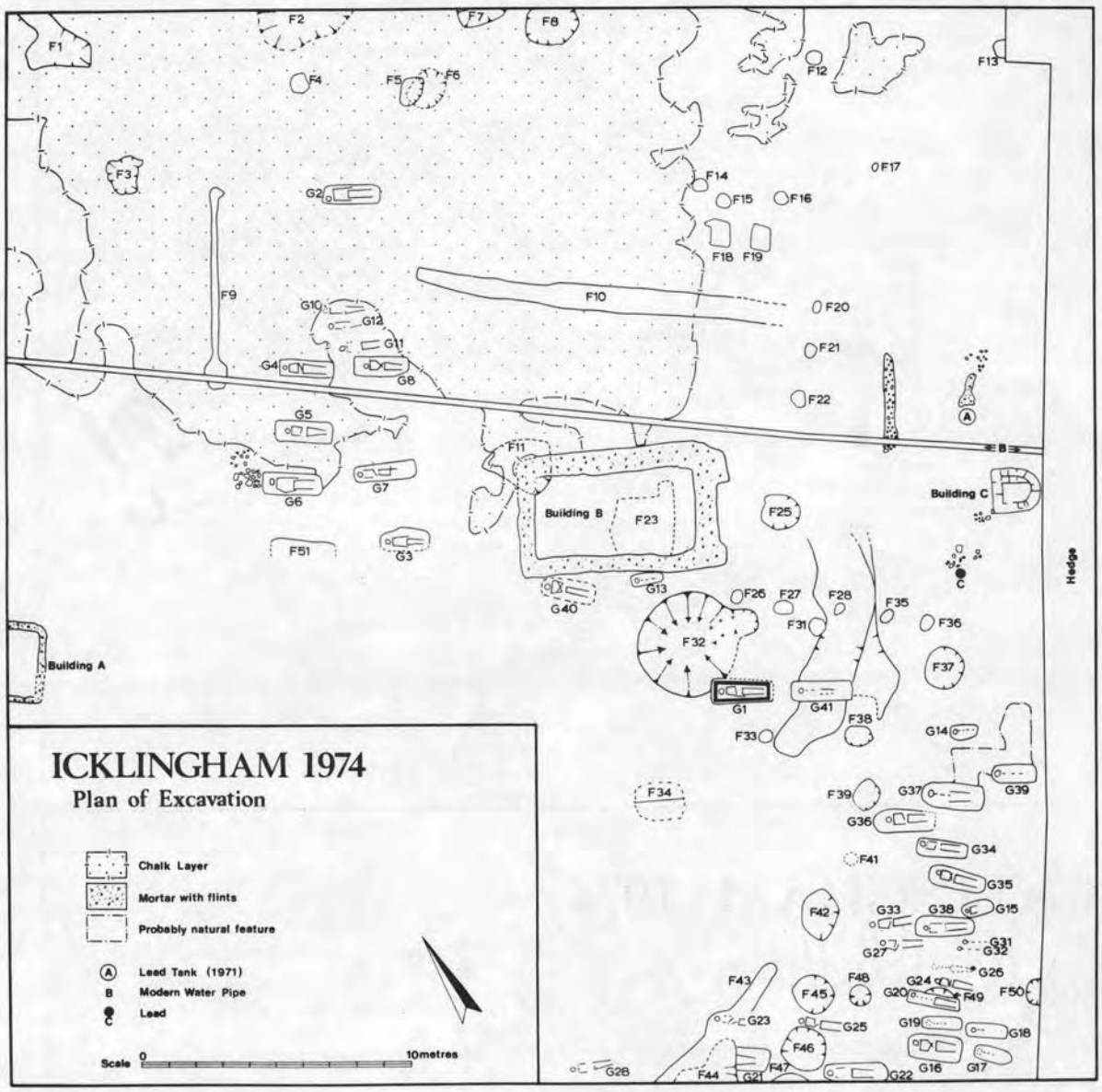


Fig. 32.

to have been backfilled in one operation. At an early stage of the infilling of both the pit and the extension a remarkable series of six human skulls, one a young child, four with mandibles, were included, together with a complete, turned limestone pillar, 1.17 m. long (Fig. 40), and fragments of unusual, decorated roofing tiles (Fig. 44). The pit had been sealed with a thick layer of chalk which had subsided as the filling compressed; the resulting hollow was filled with a dense layer of broken tile and rubble, clearly from the same source as that which had been used to fill the pit originally. The pit and the extension were contemporary as one of the six skulls was found within the extension, at the same level and adjacent to those in the pit itself. Much of the pottery and some of the decorated tile fragments were heavily burnt. The curving, elongated pit (F.29) to the east of F.32 appears to have been filled in at the same time as it contained burnt pottery and some fragments of decorated tile.

Phase 2: Chalk

The chalk layer was found in good condition over the whole of the north-west corner of the site and in a fragmentary state over the hollow area in the north-east. As already mentioned, the large pit to the south of the central building was sealed with the same layer, but no evidence of the

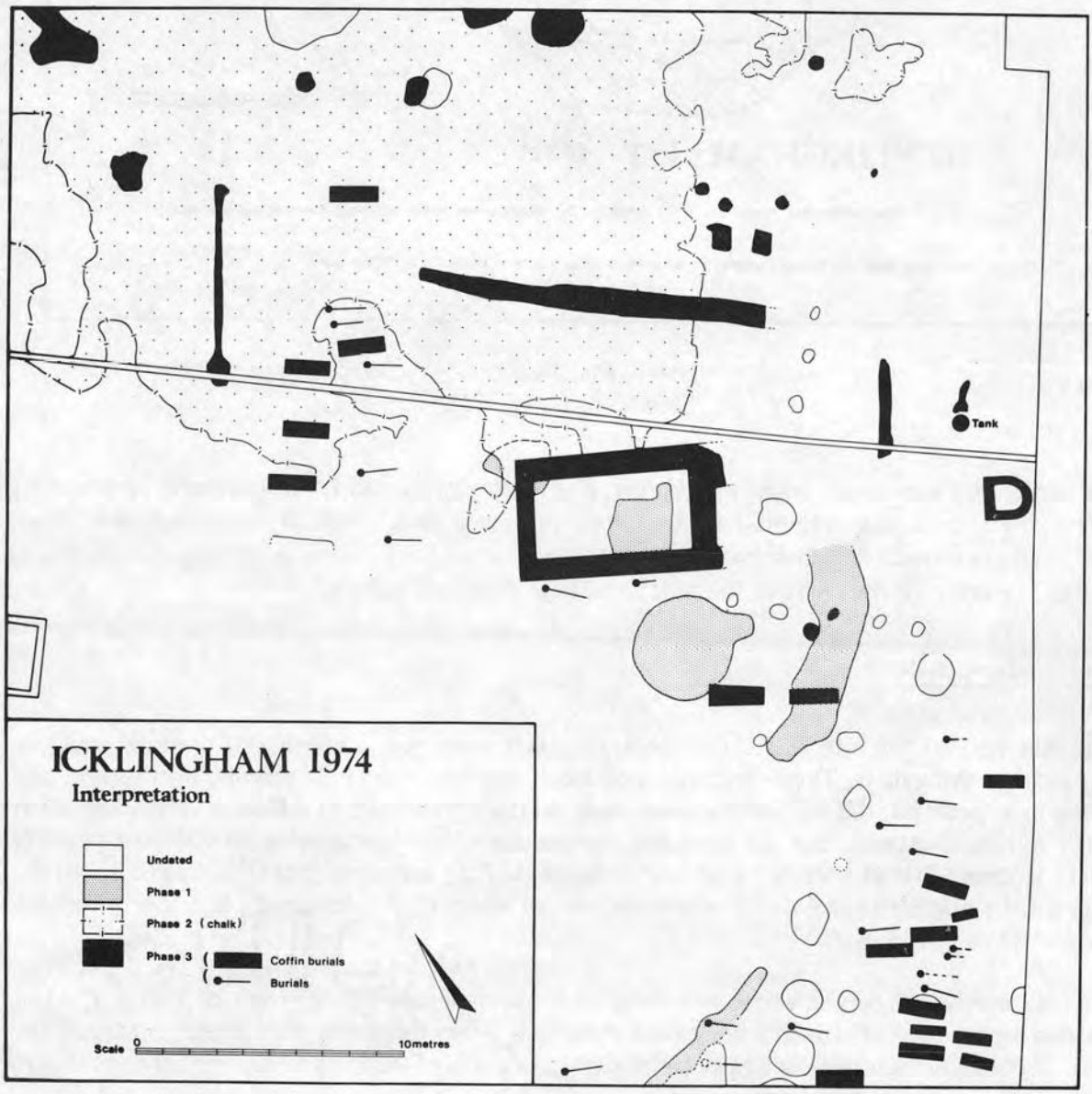


Fig. 33.

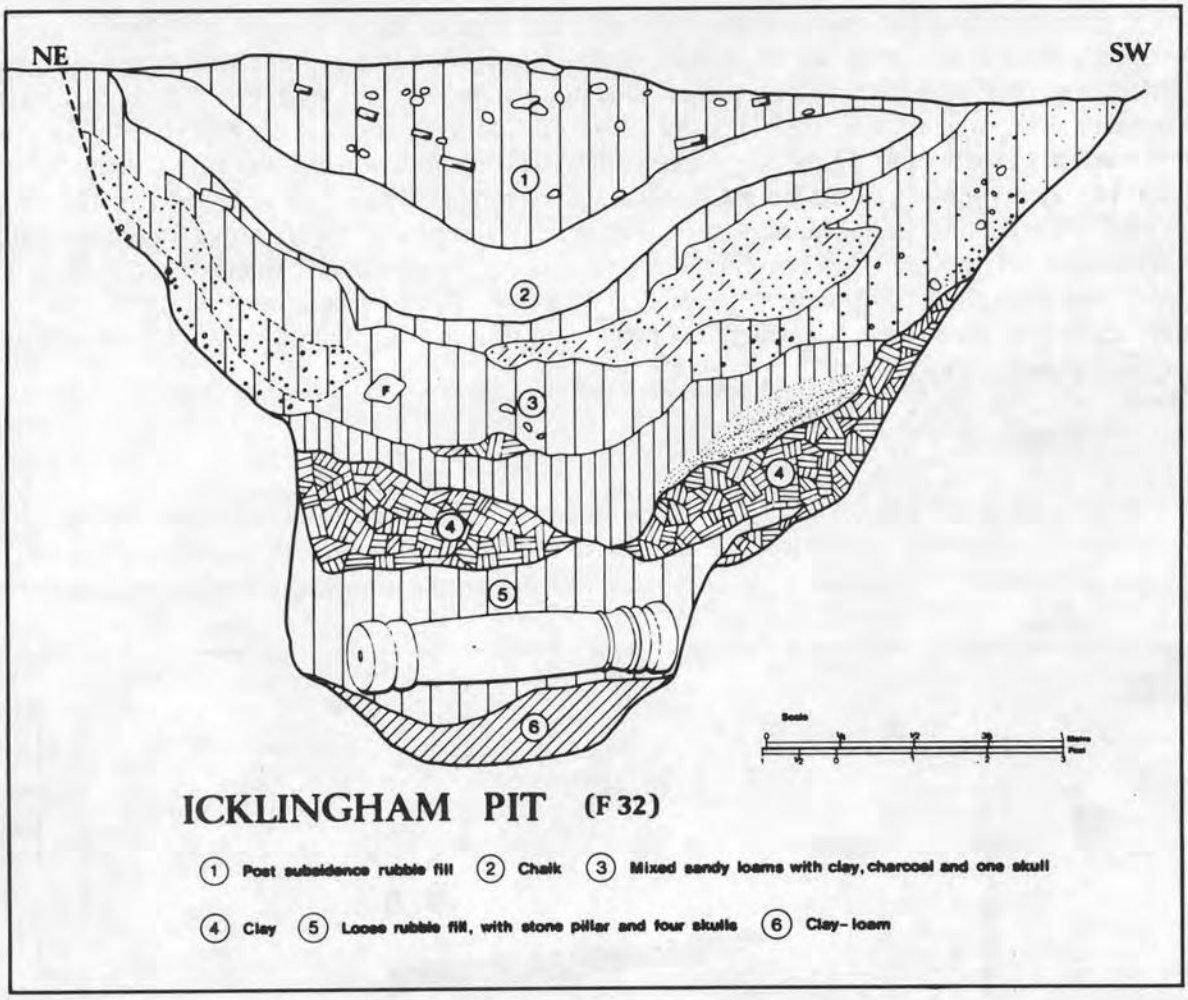


Fig. 34.
Section of pit (F. 32).

chalk layer was found in the south-east corner. The discovery there of truncated graves immediately beneath the plough soil suggests that the chalk may well have originally extended over them. Where well preserved, the chalk was 0.2 m. thick, compact and clean with very few sherds of pottery. The limits of the chalk to the north and west were not defined.

Phase 3: above chalk

In that part of the site where the chalk was well preserved, a number of features could be seen cutting through it. These included two small ditches: one (F.9) running north-south and ending in a small pit, did not contain sufficient evidence to be sure of a Roman origin; the other (F.10) running west-east, but not traceable beyond the chalk, contained a considerable quantity of late Romano-British pottery. Two post holes (F.4, F.5) and three pits (F.1, 7, and 8) cut the chalk on the northern edge of the excavation, one of which (F.7) contained a late fourth century coin (No.8) of c. 383–408.

In the north-east corner where the chalk was poorly preserved, a group of five post holes and two square pits (F.13–19) contained chalk fragments suggesting that these post-dated the chalk. Two alignments of post holes can be seen in the area of Building C but neither appeared to be associated with other features.

Phase 3: Building B

Of the structures, only Building B can be positively assigned to the post-chalk phase, as shallow features (F.23, F.24) under its footings contained decorative tile fragments of the kind found in F.32, and the pottery from within it is comparable to other late groups which post-date the chalk level.

Only the very lowest levels of its 75 cm wide foundations survived to give maximum overall dimensions of 7.4 by 4.6 m. There was no evidence for flooring, entrances, or plaster from the walls. Sufficient evidence was preserved on the north side to show that the walls, or at least the footings, had consisted of mortared flints with occasional fragments of brick and tile. No graves were found inside the building, but two were cut close to the outer edge of the south side. Slight protuberances were noted near the corners of the east wall which may indicate buttressing of a gable end or a projection of the building to the east; although at such a low level in the foundation there must remain some doubt concerning this.

Phase 3: The Inhumations

Forty-one inhumations were found in two groups. The first, to the west of Building B, consisted of ten burials, of which four were cut through the chalk of Phase 2. The second, to the south and south-east of Building B, consisted of twenty-eight burials, including one, an elderly lady, in a dressed stone coffin.

All the bodies were oriented east-west, with heads to the west, and, where sufficiently well preserved to see, all in a supine position. Only one (No.26) in the south-east group, had obviously intentional grave goods: a pile of eight fragmented bronze bracelets and six glass beads apparently deposited in a heap at the foot of the grave. Another (No.37) has a bronze bracelet on the right wrist and a third (No. 6) a bronze coin in the mouth, although it should be noted that five other bronze coins were found scattered in the fill of this grave. Seventeen graves had positive evidence of wooden coffins, either stains or iron nails; one was enclosed in the stone coffin.

UNSTRATIFIED FEATURES

Building A:

On the extreme west side of the excavated area a portion of a rectangular building was uncovered whose main axis, east-west, was in line with that of the central Building B. The building was 3.03 m. wide with mortared flint foundations 0.3 m. thick. The length was not ascertained. Traces of a white internal plastering on an opus signinum base were seen.

Building C: (Fig.35)

Ten metres to the east of the central Building B, a small apsidal structure, built of coursed tiles, and measuring 1.7 m. long and 1.6 m. wide had clearly been incorporated in a larger, more insubstantial building. Traces of this structure had been noted in 1971 in the immediate vicinity of the lead tank found that year. The main axis of this tiny 'apse' was again east-west, with the flattened side towards the west. Internally, about one third of the area of the structure, which survived to a height of 30 cm., was occupied by a 'step', also built of tiles. The damaged tiled floor, the inner surfaces of the apse wall and the step, showed traces of a white plaster lining.

The apsidal structure would appear to have been set into the ground and is probably to be associated with the fragmentary wall footings around it, although a plan of this building could not be recovered. The 'apse' and the fragmentary building lay on the extreme east edge of the excavation; further traces may well lie beneath the track beyond it to the east.

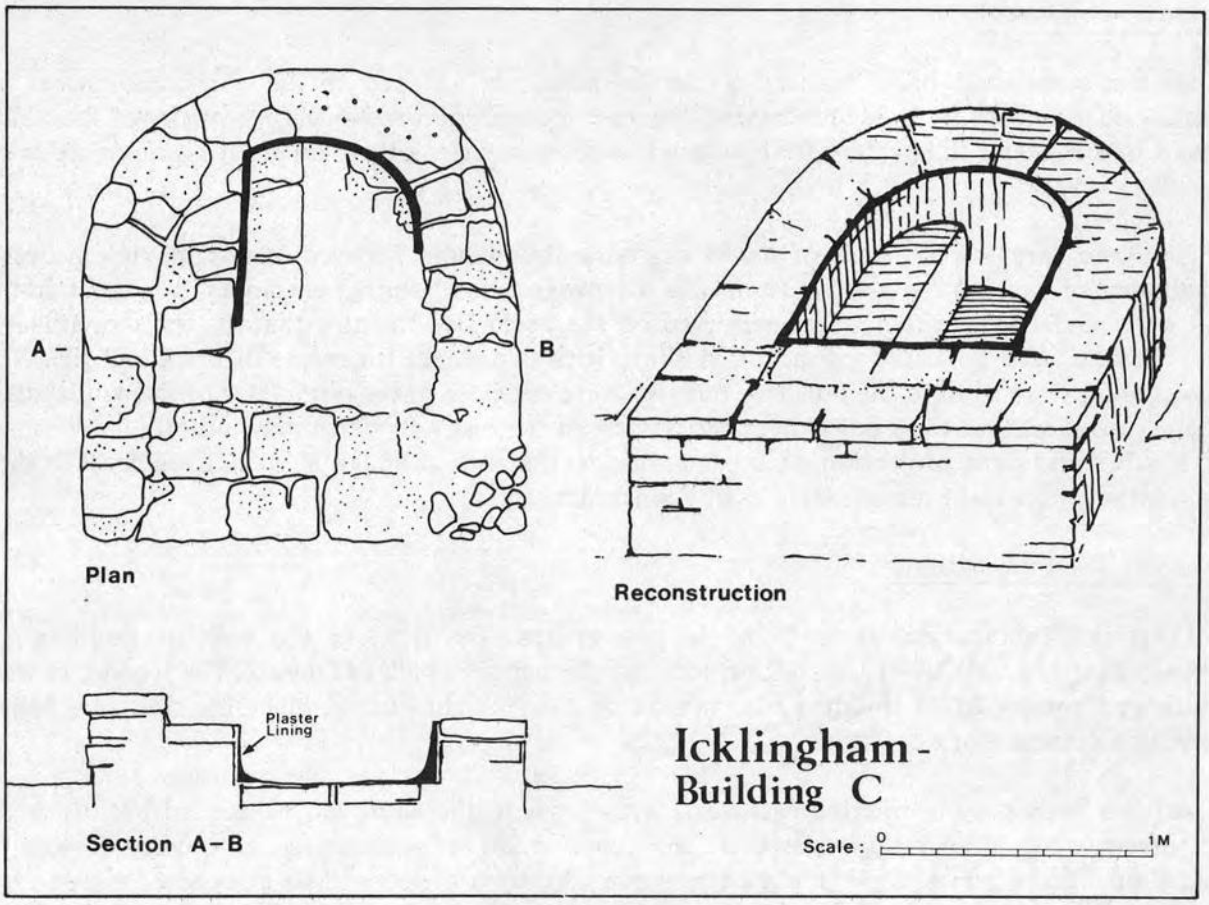


Fig. 35.

LIST OF FEATURES

No. on Plan	Excavation No.	Description	Phase
1	5	Shallow irregular feature, depth 0.15 m	3
2	23/24/31	Pit, depth c. 1.0 m. Chalk subsided into pit.	1
3	25	Subsidence over chalk, depth 0.15 m.	3
4	33	Posthole, depth 0.40 m.	3
5	27	Large posthole or pit, depth 0.35 m. Cut F.6.	3
6	148	Small pit.	1
7	28	Pit, depth 0.30 m.	3
8	29	Pit, steep-sided, depth 0.40 m.	3
9	30	North-south slot, depth 0.15 m., vertical sides, with small features at both ends.	3
10	32	East-west ditch, depth c. 0.40 m. East end not defined.	3
11	152	Irregular pit, depth 0.70 m. from base of chalk layer. Below Building and chalk layer.	1
12	129	Posthole, depth 0.30 m., contained chalk fragments.	Prob. 3
13	133	Probable posthole.	? 3

No. on Plan	Excavation No.	Description	Phase
14	126	Small hole, depth 0.20 m., contained chalk fragments.	Prob. 3
15	125	Posthole, depth 0.25 m., contained chalk.	Prob. 3
16	127	Shallow hole, contained chalk.	Prob. 3
17	134	Small posthole, contained chalk.	Prob. 3
18	123	Sub-rectangular hole, depth 0.20 m., contained chalk lumps.	Prob. 3
19	124	Sub-rectangular hole, similar to F.18, contained chalk lumps.	Prob. 3
20	59	Posthole, probably re-cut, depth 0.35 m.	–
21	60	Posthole, depth 0.15 m.	–
22	61	Posthole, depth 0.30 m.	–
23	150	Pit, outline uncertain, depth c. 0.50 m., runs beneath south wall of Building B.	Prob. 1
24	–	Posthole, poorly defined, depth 0.25 m. below south wall of Building B.	Prob. 1
25	58	Pit, depth 0.30 m	–
26	96	Posthole, depth 0.30 m.	–
27	95	Posthole, depth 0.20 m.	–
28	94	Posthole, depth 0.15 m , cutting F.29.	Prob. 3
29	105	Ditch, approx. north-south, depth 0.45 m.	Prob. 1
30	71/108	Possibly earlier line of F.29, shallow, badly defined possibly natural.	Prob. 1
31	120	Posthole, depth 0.40 m , cutting F.29.	Prob. 3
32	67/102	Large pit with sub-rectangualr projection to the east. Depth 2.40 m. Chalk subsidence in the top.	1
33	122	Posthole, depth 0.20 m.	–
34	137	Pit, depth 0.30 m Poorly defined.	–
35	93	Posthole, depth 0.25 m., possibly re-cut.	–
36	85	Posthole, depth 0.22 m.	–
37	84	Pit, depth 0.40 m	–
38	92	Pit, depth 0.60 m., steep sided, contained chalk.	Prob. 3
39	87	Pit, depth 0.35 m	–
40	103	Area of darker gravel, probably natural.	–
41	113	Small hole with burning. Badly defined. Depth 0.25 m.	–
42	74	Pit, depth 0.30 m.	–
43	45	Small ditch, cut by Grave 23.	Prob. 1
44	–	Feature, lacking in definition, cut Grave 21.	3 (late)
45	72	Pit, depth 0.90 m.	–
46	119	Pit, depth 0.55 m.	

No. on Plan	Excavation No.	Description		Phase
47	46	Feature, possibly pit, on south edge of site.		–
48	73	Small pit, depth 0.25 m.		–
49	116	Pit, depth 0.25 m , cut by Grave 20.	Prob.	1
50	56	Feature on east edge of site – could be a grave. Depth 0.25 m.		–
51	–	Unexcavated feature, probable grave.		–

Unless otherwise stated, depth measurements were recorded from the surface of natural or in stratified areas from the base of the plough soil.
Graves are numbered separately, G.1–G.47, of which nos. G.42–47 are the skulls from pit F.32, G.9 a stray femur in the same pit and G.29 and 30 are not located on the plan.
Buildings are numbered Building A – C.

THE LEAD TANKS

As described in the Introduction, three lead tanks have been found at Icklingham. The first, found c. 1726 has no findspot and has since disappeared; the other two were both found in Horselands Field, although the location of that found in 1939 as 'on the north side' is imprecise and at variance with the O.S. record which seems to place it nearer the centre of the field. The third tank, found in 1971 was seen in situ by the author and was subsequently shown to be close to the small apsidal structure found in the 1974 excavation.

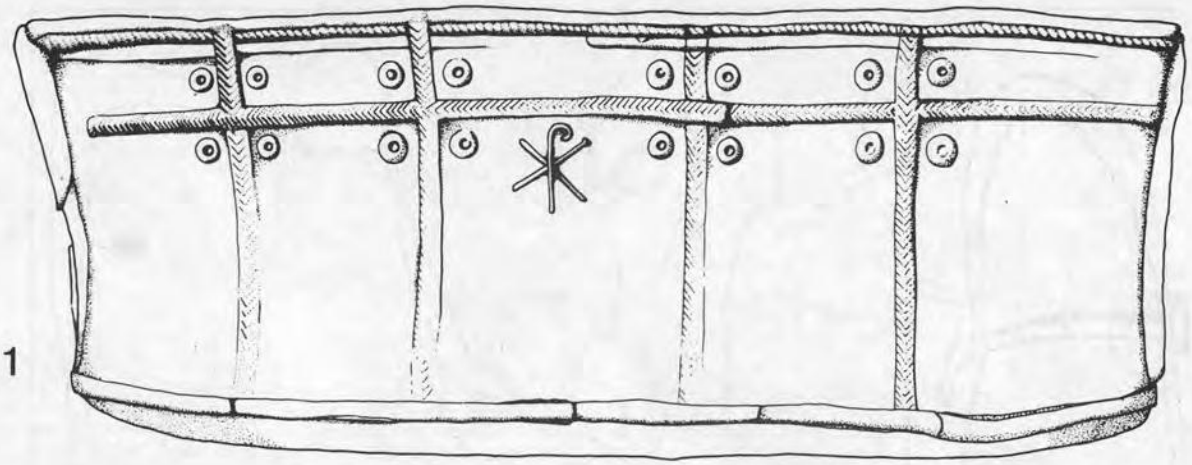
1. Found c. 1726. Measurements not given but stated to hold about sixteen gallons. Perforated on each side for lifting rings. Ornamented with 'hoops' and marked on one side with 'A'.
2. Found 1939. Measurements:– 81 cms. diameter, 33 cms. high. Made in pieces; sides divided in zones by a horizontal band and by vertical bands into ten panels. Chi-Rho symbols between W and A on opposing panels. The bands have herringbone ornament with annular pellets at each intersection and triple pellets in alternate panels bordering these with Chi-Rho symbols. Rim with cable pattern and two squared lugs. (Fig. 36, No.3).
3. Found 1971. Measurements:– 87 cms. diameter, 37 cms. high. Constructed of three pieces; sides divided into two zones by a horizontal band and by vertical bands into ten panels. Chi-Rho symbols only occur on opposite panels. The bands have herringbone ornament with annular pellets at each intersection. No lugs or perforations. (Fig. 36, No.1). The tank contained a mass of iron objects and fragments of melted-down lead, including a squared lug. (Fig. 36, No.2).

CONTENTS OF THE 1971 TANK

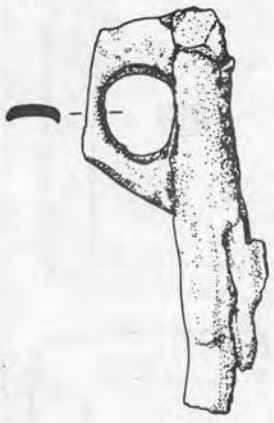
Iron Objects (Figs. 37–38):

1. Large door hinge with one nail still in place.
2. Small hinge, one nail in place.
3. One of two door hinges of identical form to No.1.
4. Hinge pin, small.
5. Hinge pin, one of two.
6. Hinge pin, large.
7. Hinge, damaged, same form as No. 8.
8. Hinge.

The door hinges show that the woodwork to which they were attached must have been burnt



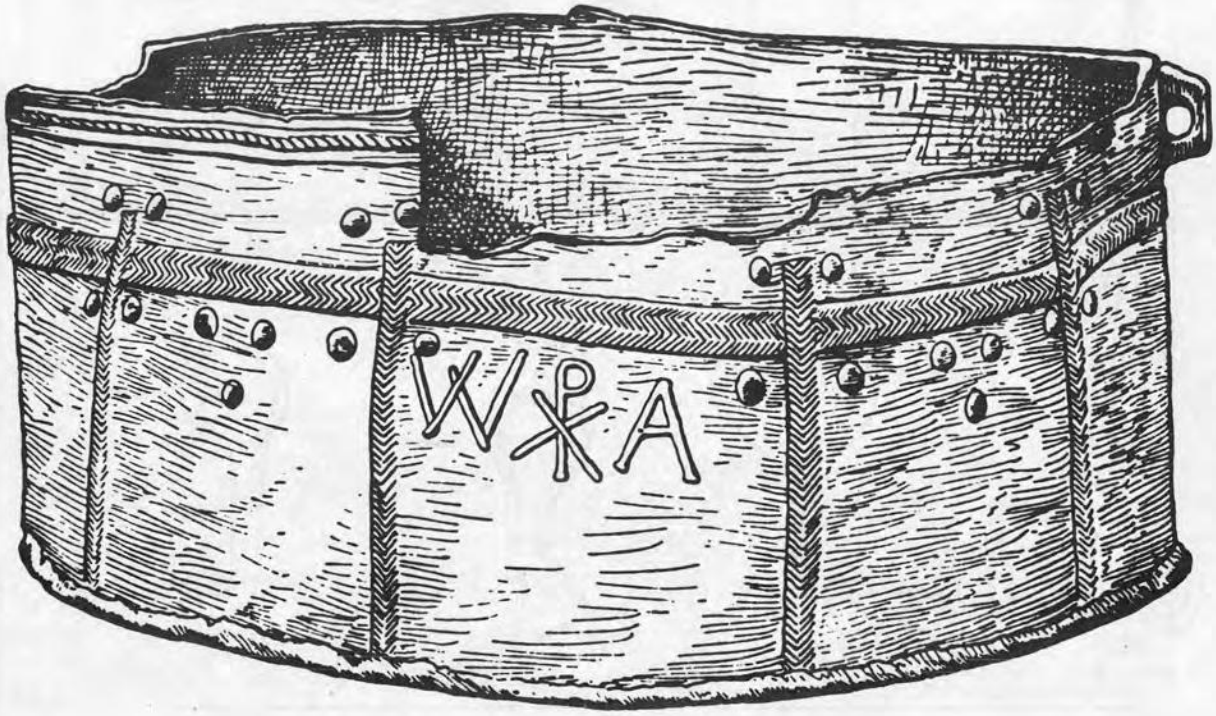
1



2

The Lead Tanks

1. The 1971 tank (1/6)
2. Lug found inside 1. (1/3)
3. The 1939 tank (1/5)



3

Fig. 36.

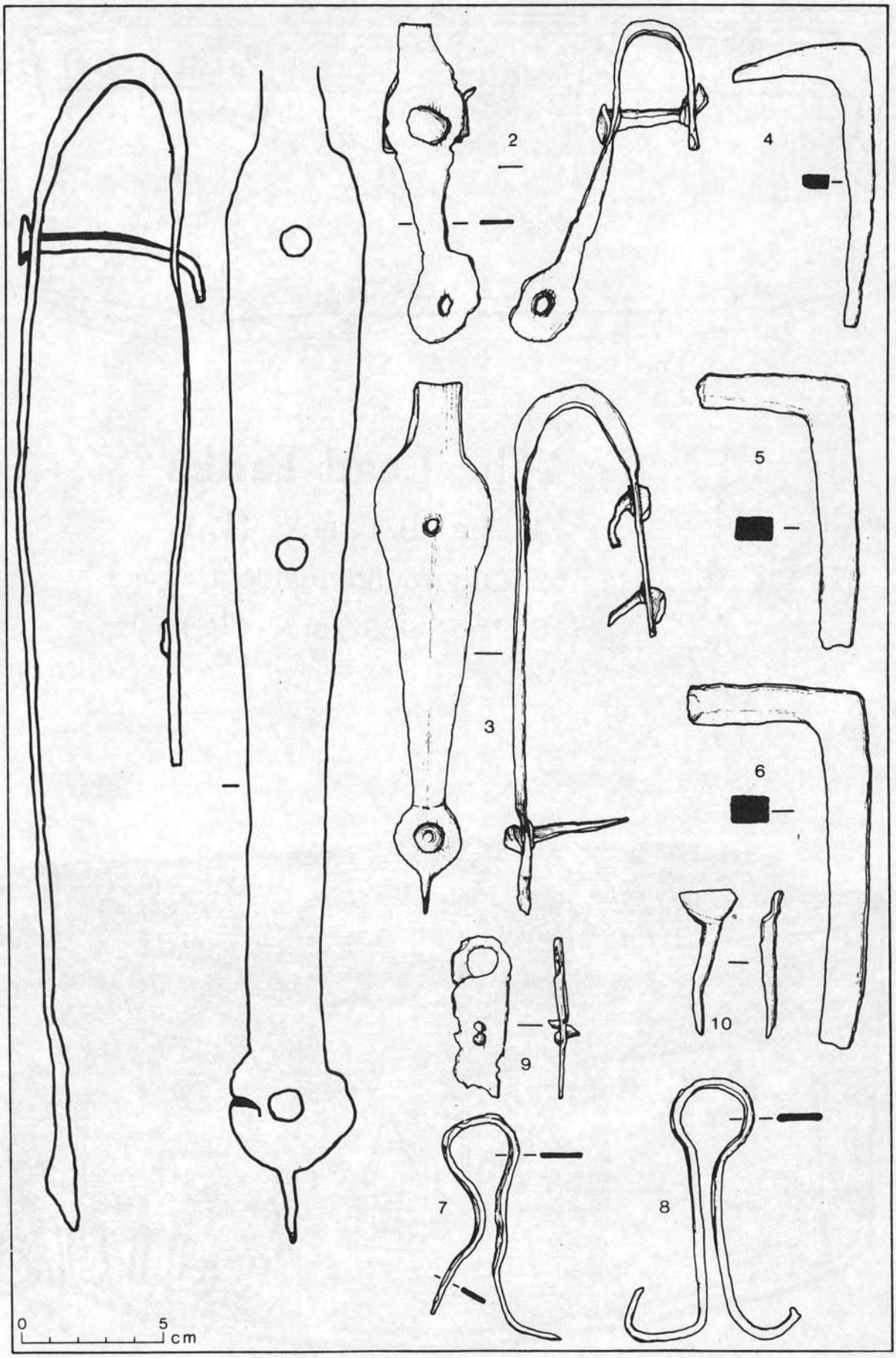


Fig. 37.
Iron objects from the 1971 tank.

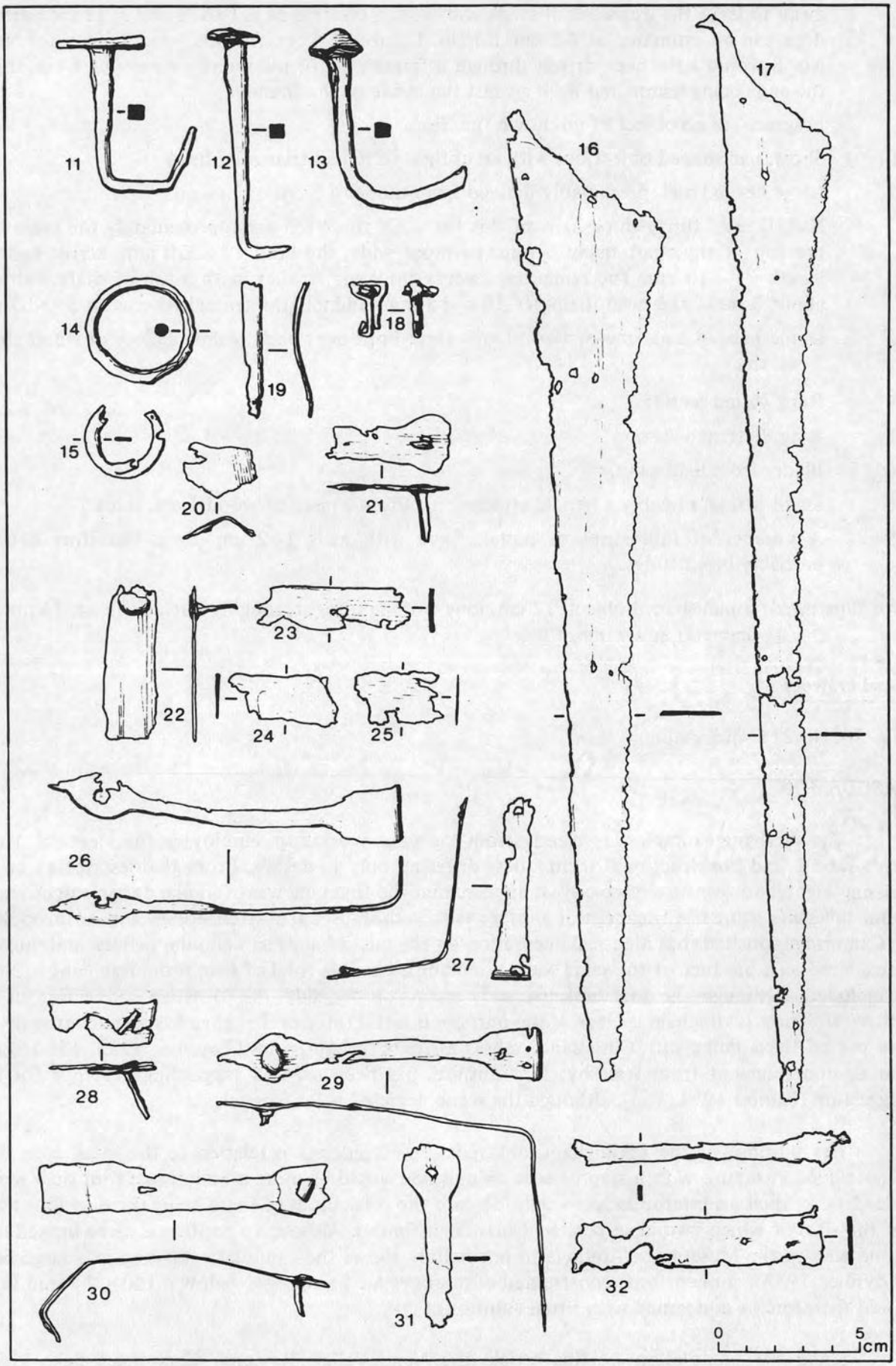


Fig. 38.
Iron objects from the 1971 tank.

away to leave the ironwork in shape and nails in position as in Nos. 1 and 3. Thicknesses of door can be estimated at 4.5 cm. for No. 1., around 4 cm. for No. 3 and 2.5 cm. for No. 2 No. 8 would have been driven through a frame post of a door or gate about 6 cm. thick, the ends being hammered back against the inside of the frame.

9. Fragment of an object of unknown function.

10. Short, nail shaped object but with an upright flattened triangular head.

11. Large headed nail, presumably derived from timber 4.5 cm. thick.

12. Nail. One of thirty-three nails of this form. Of these ten are approximately the same size, the top of the shaft being 6 mm. or more wide, the head 15 – 20 mm. across and the length 7 – 10 cm. The remaining twenty-three are smaller, with a top of shaft width of about 5 mm., the head diameter 10 – 15 mm. and lengths generally between 5 and 7 cm.

13. Dome headed nail, one of two of this form both bent back against a piece of wood about 5 cm. thick.

14. Ring, round section.

15. Ring, flattened section.

16, 17. Blades from light saws.

18. Small fitting, possibly a handle attachment. From a piece of wood 1 cm. thick.

19–32. A number of thin strips of metal, fixed with nails 1–2 cm. long. Furniture fittings, probably box fittings.

Not illustrated: a nail-shaped object, 12 cm. long with an upright, roughly circular, head, 14 mm. in diameter and 4 mm. thick.

Lead Objects

Fig. 36, No.2 : a squared lug.

DISCUSSION

The surviving examples are clearly from the same workshop, employing the identical decorative motifs and constructional techniques, differing only in details. From the description of the missing eighteenth century discovery, it appears that the first tank was of similar design and probably from the same source. A fragment of another tank in the Museum of Archaeology and Anthropology in Cambridge (unsited) has identical decoration on the raised bands and annular pellets, and must be considered as a product of the same source, making a possible total of five, if the fragment in No. 3 is included. Although the first tank had only an 'A' on one side, the Christian connection of the other two from Icklingham is clear, if the purpose is not. Professor Toynbee has argued strongly for the use of these tanks with Christian symbols as fonts or baptistries (Toynbee 1953, 15–16),and the figured fragment from Walesby, Lincolnshire, has been used as supporting evidence for this suggestion (Painter 1971, 163), although the scene depicted is far from clear.

The purpose of the Icklingham tank must be considered in relation to the small apse. This plaster-lined structure with a step or seat on one side would be more practical as a font than would a lead tank; such an interpretation would obviate the difficulties of there being three or four tanks on the site, of which two have positive Christian affinities. Although a baptismal scene incised on a stone slab in the Museum of Aquileia in north Italy shows the candidate standing in a large bowl (Toynbee 1953), sunken fonts constructed of masonry are known (see below p 120); the lead tanks could therefore be concerned with ritual ablutions.

Since the completion of this article the Nene Valley Research Committee have kindly informed me of the discovery in August 1976, near Peterborough, of a further complete tank, with

one Chi-Rho, and fragments of at least one other tank with it. Although the form and dimensions of the complete example are similar to those from Icklingham the panelled ornament is composed of a cable pattern and not herringbone, and cable with ring and dot on one of the fragments, suggesting a different source. More important is the fact that there are at least two tanks represented, which considerably strengthens the suggestion made in this article that these are unlikely to be fonts but concerned with ritual ablutions.

FINDS FROM THE 1974 EXCAVATION

I. STRATIFIED COINS by N.Holmes.

In Graves (Note: In all cases the coins were loose in the fill).

G.2: 1. GALLIC EMPIRE: Ae.antoninianus (18 mm.): A.D. 260–73.
obv. : radiate head r.
rev. : illeg.

2. CLAUDIUS II (A.D. 268–70). Ae. antoninianus.
(22 x 21 mm.) : A.D. 268–70.
obv. : IMP.C.CLAUDIUS AUG. : bust rad.r.
rev. : illeg.

3. HOUSE OF VALENTINIAN : Ae. III(17 mm.) : A.D. 364–75.
obv. : D.N. VAL. . . . . : bust r.
rev. : (GLORIA ROMANORUM) : Emperor draped with r. hand dragging captive r., and holding labarum in 1.
Lyons: (OF) | II : rev. type as LRBC.II, Lyons 275.
LVG. . . . .

4. VALENTINIAN I (A.D. 364–375) : Ae. III (18 mm.) : A.D. 367–75.
obv. : D.N. VALENTINIANUS P.F. AUG. : bust draped, pearl diadem r.
rev. : SECURITAS REIPUBLICAE : Victory walking 1., holding wreath and palm.
Siscia R | : Lrbc ii, Siscia 1425.
k | F
SISC

G.5: 1. TETRICUS I (A.D. 270–273) : Ae. antoninianus.
(19 x 17 mm.) : A.D. 270–73.
obv. : IMP.TETRICUS P.F. AUG. : bust radiate r.
rev. : LAETIT(IA AU)GG. : Laetitia standing l., holding wreath and anchor.
Southern mint : RIC. 88.

2. Barbarous antoninianus of TETRICUS II (A.D. 270–273).
(18 x 21 mm).
obv. : . . . . .CUS CAES. : bust radiate, draped r.
rev. : SP(ES AU)GG. : Spes walking 1., holding flower and raising robe.
Copy of RIC. 270/271.
Workmanship crude, but lettering correct; although badly struck, this is a much better attempt at a copy than is usually found in this period.

3. CONSTANTIUS II (A.D. 324–361) : Ae.IV (16 x 15 mm.); A.D. 335–341.
obv. : FL.IUL.CONST. . . . . .: bust r.
rev.: (GLORIA EXERCITUS) : 2 soldiers standing l. and r.; one standard between.
Mint-mark illeg.; rev. type as LRBC. I. 87.

G.6: 1. GALLIC EMPIRE : barbarous radiate (14 mm.) : A.D. 260–273.
obv. : bust radiate r.
rev. : female figure standing l.

2. CONSTANTINE I (A.D. 306–337) : Ae. III (18 x 16 mm.) : A.D. 330–335.
obv. : CONSTANTINUS MAX.AUG. : bust laureate (and rosettes).
Cuirassed r. in paludementum.
rev. : GLORIA EXERCITUS : Two soldiers standing l. and r. ; two standards between.

Arles :  : LRBC. 1, Arelate 367.
P CONST

3. CONSTANTINE II (A.D. 317–340) : Ae. III (17 x 16 mm.) : A.D. 330–335.
obv. : CONSTANTINUS IUN.NOB.C. : bust laureate cuirassed r.
rev. : GLORIA EXERCITUS : two soldiers standing l. and r.; two standards between.
Lugdunum : _____ : LRBC. l, Lugdunum 187.
*PLG

4. HOUSE OF CONSTANTINE : Ae. IV (16 x 15 mm.) : A.D. 330–341.
obv. : URBS ROMA : Helmeted bust l.
rev. : Wolf and twins.
mint – mark illeg. : type as LRBC.I, 51.

5. HOUSE OF CONSTANTINE : Ae. IV (14 mm.) : A.D. 335–341.
obv. : illeg. : Bust r.
rev. : (GLORIA EXERCITUS) : two soldiers standing l. and r.; one standard between.
mint marking illeg. : rev. type as LRBC.I, 87.

G.7: 1. CONSTANS (A.D. 333–350) : Ae.IV (15 mm.) : A.D. 337–341.
obv. : CONSTANS P.F.AUG. : bust diademed, (pearls and rosettes), cuirassed r. in paludementum.
rev. : GLORIA EXERCITUS : Two soldiers standing l. and r.; one standard between.
Trier: M : LRBC.I, Trier 133.
TRSU

G.10: 1. QUINTILLUS (A.D. 270) : Ae. antoninianus (19 x 18 mm.) : A.D. 270.
obv. : IMP.C.M.AUR.CL.QUINTILLUS AUG. : bust radiate, draped r.
rev. : AETERNIT.AUG. : Soldier standing r., r. hand raised, l. holding globe.
Rome : N| : RIC 7.

2. HELENA (A.D. 324–328) : Ae. IV (15 mm.) : A.D. 337–341.
obv. : FL.IUL.HE) LENAE AUG. : bust laureate (and pearls) draped, mantled, r.
rev. : PA) X PUBLICA : Pax standing l., holding branch and transverse spear.
Trier: _____ : LRBC I, Trier 112.
·]T R P

3. CONSTANS (A.D. 333–350) : Ae. IV (14 x 16 mm.) : A.D. 341–348.
obv. : CON)STANS.P.F.AUG. : bust pearl-diademed, r.
rev. : VICT)ORIAE DD.AUGG. Q NN. : two Victories standing face to face, each holding wreath.
Trier: _____ : LRBC I, Trier 164.
T R P

4. ? CONSTANS (A.D.333–350) Ae. II (18 x 15 mm.) : A.D. 348–350.
obv. : D.N.C.) ONSTA (. . . . .; bust draped, pearl diademed, r.
rev. : F)EL. (TEMP.REPARATIO) : soldier spearing fallen horseman.
Trier: (A)| : type as LRBC II, Trier 47, but break in obv. legend is of Constans type.
Note: LRBC lists no coins of this type for Constans at Trier.

Coins from features and stratified layers

1. ?GALBA (A.D. 68–69): Ae. as (27 x 25 mm.).
   obv. : bust laureate, or head bare r.
   rev. : illeg.
   Rome
   From pit F. 32, Phase 1.

2. Unidentifiable Ae. dupondius (26 mm). : late first – second century.
   obv. : bust r., probably radiate.
   rev. : illeg.
   Rome.
   Can be identified as dupondius rather than an as by weight and thickness only.
   From occupation layer below chalk.

3. CARACALLA (A.D. 198–217) : Ag. denarius (18 mm) : A.D. 198.
   obv. : IMP.CAE.M.AUR.ANT.AUG.P.TR.P. : bust laureate draped (cuirassed) r.
   rev. : FIDES PUBLICA : Fides standing l., holding corn ears and basket of fruit.
   Rome: RIC 24A.
   From F.29, Phase 1.

4. Unidentifiable Ae. III (18 mm.); probably late third century.
   obv. : illeg.
   rev. : illeg.
   From pit F.2, Phase 1.

5. SALONINA (A.D. 253–268) : Ae. antononianus (19 x 17 mm.) ; A.D. 260–268.
   obv. : illeg. : bust r. on crescent.
   rev. : illeg. : figure standing l.
   From occupation layer below chalk.

6. GALLIC EMPIRE: Ae. IV barbarous radiate (13 x 14 mm): A.D.260–273.
   obv. : radiate head r.
   rev. : figure standing l., holding ? wreath and ?
   From pit F.1, Phase 3.

7. Unidentifiable Ae. minim (10 x 9 mm.) : probably late fourth century.
   obv. : illeg.
   rev. : illeg.
   From pit F. 1, Phase 3.

8. HOUSE OF VALENTINIAN OR THEODOSIUS : Ae.IV (11 x 12 mm.):A.D. 383–408.
   obv. : head diademed (pearls and rosettes) r.
   rev. : (SALUS REIPUBLICAE) : Victory to l., trophy on shoulder, dragging captive.
   mint uncertain: $\frac{\text{P}|}{?}$: rev type as LRBC II, 796.
   From pit F.7, Phase 3.

August 1976

II. GRAVE 26.

A collection of objects found in a group near the foot of the grave comprising fragments of eight bronze bracelets, one shale bracelet, five glass beads, one bronze and one silver pin.

Fig. 39. No. 1. Glass bead, green, elongated.

No. 2. Glass bead, dark blue, square with facetted corners. (One illustrated of four found.

No. 3. Glass bead, yellow.

No. 4. Bronze pin.

No. 5. Silver pin with carinated knob head.

No. 6. Bronze bracelet, round section. Two hook terminals.

No. 7. Bronze bracelet, round section, simple cross-cut ornament. Hook and hole terminals.

No. 8. Bronze bracelet, flattened section, alternate side excisions ornament. Terminals missing.

No. 9. Bronze bracelet, square section, twisted. Hook and hole terminals.

No. 10. Bronze bracelet, round section, simple cross-cut line ornament. One hook terminal.

No. 11. Bronze bracelet, round section, slightly twisted. Two hook terminals.

No. 12. Bronze bracelet, flattened section, simple cross-cut ornament in groups of five. Terminals missing.

No. 13. Bronze bracelet, round section, simple cross-cut ornament. Hook and hole terminals.

No. 14. Shale bracelet fragment.

III. METAL, BONE, AND STONE ARTEFACTS (Fig. 39).

Copper Alloy

Fig. 39: No. 15. Bracelet, round section, twisted over terminal. Found on the right wrist in Grave 37.

No. 16. Bracelet fragment, flattened section, simple cross-cut ornament. Unstratified.

No. 17. Tinned rat-tailed spoon. Unstratified.

No. 18. Pin with human head terminal, apparently wearing a head dress. On such a small scale it is difficult to determine the intention of the design but the full face could be meant to be male, possibly bearded. Unstratified.

No. 19. Loop handle fragment. Unstratified.

No. 20. Penannular brooch with simple knob terminals. From occupation layer under the chalk.

Iron

Fig. 39: No. 21. Stylus. From large pit F.32.

No. 22. Stylus. From occupation layer below the chalk.

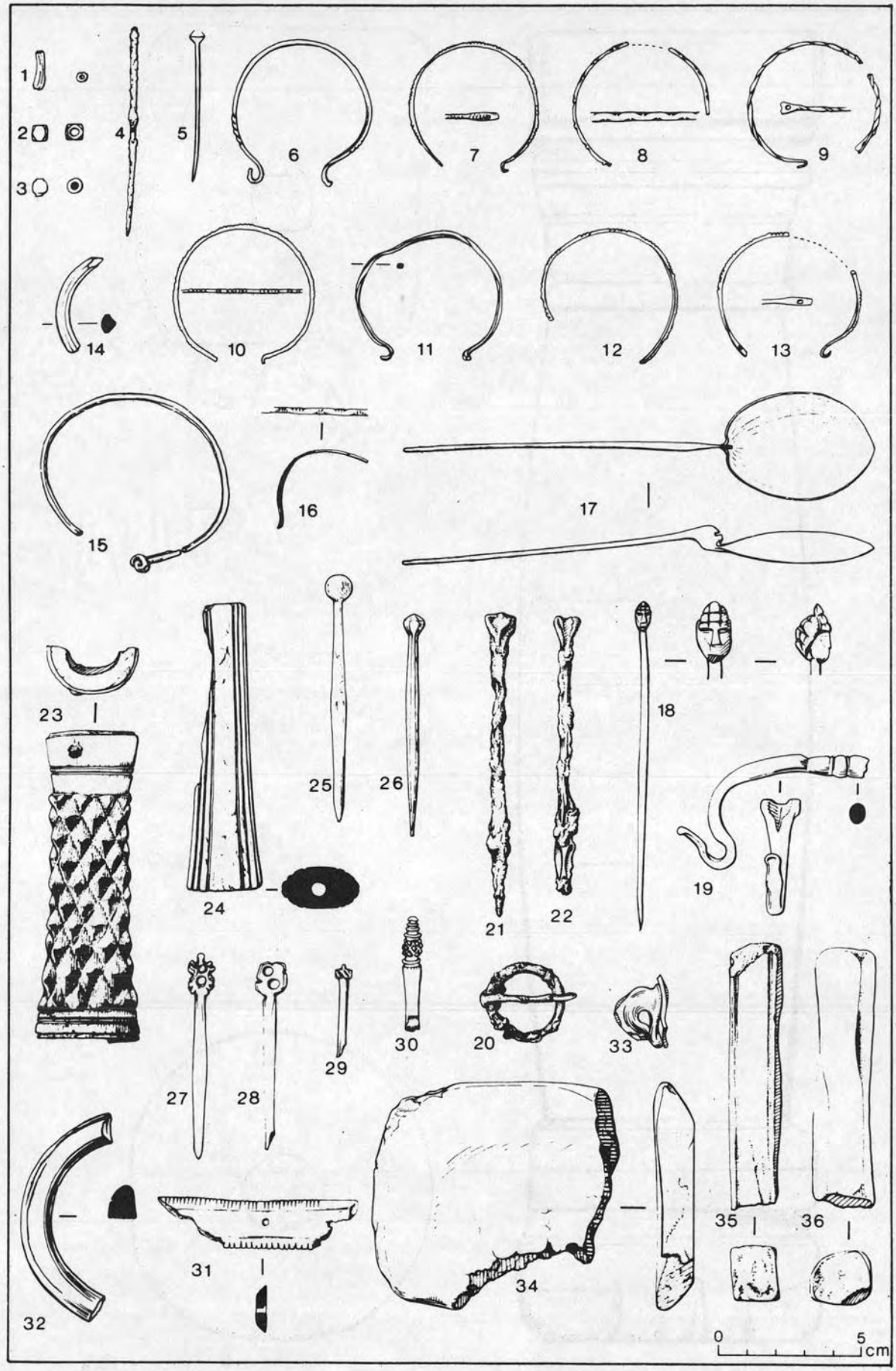


Fig. 39.
The small finds.

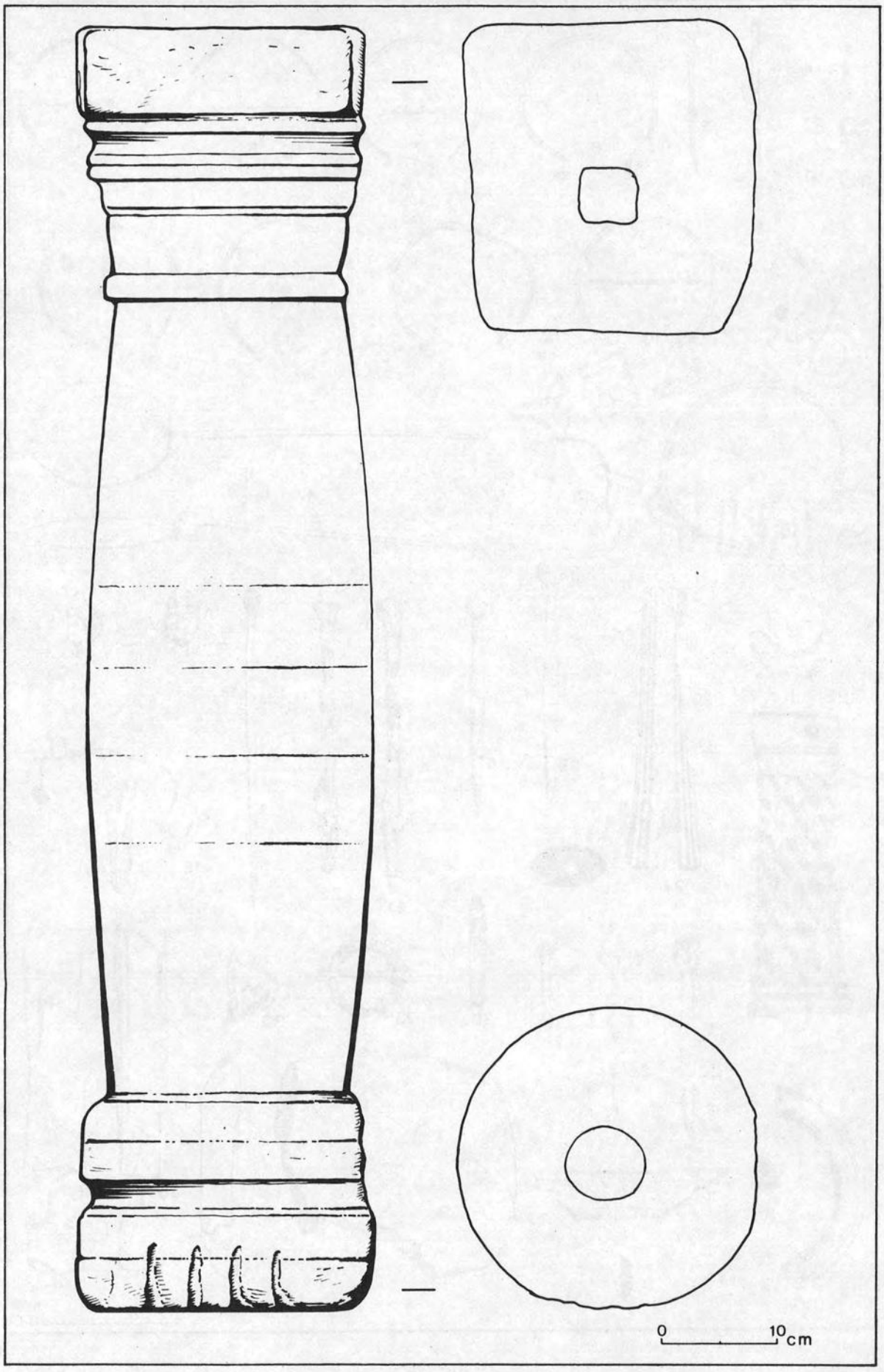


Fig. 40. The Stone Pillar.

Bone

Fig. 39: No. 23. Part of an elaborate turned handle. Unstratified.

No. 24. Part of handle, incised line ornament. From the fill of Grave 7.

No. 25. Pin, spherical head, central swelling in shaft. From pit F.5.

No. 26. Pin, conical knob head. From the fill of Grave 6.

No. 27. Pin, frilled head with double piercing. From the chalk layer.

No. 28. Pin, point missing, notched head with double piercing. From the chalk layer.

No. 29. Pin fragment, flat slashed head. From occupation layer below the chalk.

No. 30. Pin fragment, horizontal lines and cross-hatching on head. From occupation layer below the chalk.

No. 31. Double-sided comb, part of central rib, chamfered edges. From ditch F.10.

Shale

Fig. 39. No. 32. Bracelet fragment. From the fill of Grave 2.

Glass

Fig. 39. No. 33. Fragment of vessel with suspension loop, uncoloured glass. From pit F.5.

Stone

Fig. 39: No. 34. Rectangular palette of Purbeck Marble, bevelled underside, well-worn central 'dish' on top. From large pit F.32.

No. 35. Hone stone. Unstratified.

No. 36. Hone stone, worn. Unstratified.

Fig. 40: Turned pillar of Barnack limestone from F.32, length 1.11 m. Squared abacus and deeply grooved torus. Square socket in the top and circular socket in the base.

Unillustrated: Coffin of dressed Barnack limestone, tapering with squared ends, 2.08 m. long. The lid is a flat slab 5.5 cms. wider than the coffin at the head end, 1 cm. wider at the foot, with slightly bevelled edges.

IV. THE POTTERY by Judith Plouviez.

Introduction

The first part of this account gives a summary of the types and stratigraphical occurrence of the various fine and coarse wares present. This is followed by illustrations and descriptions of the material arranged in approximately chronological order.

The pottery has been divided into two main groups corresponding to Phases 1 and 3, below and above the chalk layer. Within these were very few good sealed pit groups with the exception of pit F.32 which was filled shortly before the deposition of the chalk.

Samian Ware by B.R. Hartley.

Note: This report deals with the Samian as a single group of probably residual material without reference to stratigraphical position. The bulk of it was derived from Phase 1 and unstratified contexts.

None of the Samian merits detailed publication for its intrinsic interest, but a general summary may be of interest.

The sole piece of South Gaulish ware does not necessarily prove first-century occupation nearby, but the evidence does suggest some use of the area by about A.D. 120–130. The Samian clearly shows more intense occupation in the later second and third centuries. Almost all the Central Gaulish ware is Antonine and assignable to Lezoux, with only one or two sherds from Les Martres-de-Veyre. As usual in East Anglia, East Gaulish ware is common. Most of it is likely to be from Rheinzabern and it all belongs to the period A.D. 160–260. It is noticeable that the proportion of decorated to plain ware is slightly higher than usual (at over 21 percent.) Table 3 lists the minimum number of vessels in each category.

Colour coated wares of Nene Valley type

A high proportion of the fine ware is attributable to the Nene Valley production area, having a hard off-white fabric with colour coats ranging from reds through browns to black. Forms are compared to the general Nene Valley range illustrated by Hartley (Hartley 1960) and the villa destruction level at Gt. Casterton (Corder 1951) which illustrates types current in the later fourth century.

Beakers :

Many pieces of plain, rouletted and barbotine beakers were found in Phase 1 contexts. The only reconstructable type is that illustrated (Fig. 41, No. 1) which is similar to Hartley 1960, figure 4, no. 4 and Brixworth 304 and 306 (Woods 1970) dated to the third to early fourth century. No substantial pieces of Nene Valley beakers were found in Phase 3 contexts.

Jars :

There are various rim forms, mostly squared (No. 85), and sometimes undercut (No. 75). The colour coat is dark brown or black except for the base of a jar (No. 53) which is reddish brown with a metallic sheen. All examples are from Phase 3 contexts except for F.29 and F.32 which are late Phase 1. Very similar types were found in the late fourth century layer at Gt. Casterton (Corder 1951, 29, nos. 14–16).

Bowls and Dishes :

Types of colour coated bowl are very similar to those in grey wares.

(1) Plain, straight sided. Brown and black colour coats. Occurred in Phases 1 and 3 (No. 30).

(2) Thickened rim, straight sided, imitation of Samian Dr. 31. Red colour coat, one piece with white slip decoration. Not common; Phase 3 contexts (No. 63).

(3) Grooved or flanged rims, straight sided. Reddish brown to black range of colour coat. Common in late Phase 1 and Phase 3 contexts (Nos. 6, 31, 68). Dated (Hartley 1960, fig. 4, no. 16) to the late third century onwards, becoming deeper in proportion to diameter in the later fourth century.

Forms	South Gaulish	Central Gaulish	East Gaulish	Totals
18/31	–	2 (Hadrianic)	–	2
18/31R	–	1 (Hadr. – Ant.)	–	1
30	–	1 (Antonine)(1)	4(2)	5
31	–	10 (Mid-to late Antonine)	5(3)	15
31R	–	6 (– do)	5	11
32	–	–	1	1
32?	–	–	1	1
33	–	16 (Antonine)(4)	5	21
35	–	1 (Traj. – Hadr.)	–	1
36	–	6 (1 – do –) (5 Antonine)	3	9
37	1 (Flav. – Traj.)	16 (1 Hadr.; 15 Ant.) (5)	2	19
38	–	1 (Ant.)	1	2
38 or 44	–	2	2	4
45	–	–	5	5
79	–	1	1	2
79 or Curle 23	–	1	–	1
Curle 21	–	1	–	1
Mortarium fragments	–	2	2	4
Uncertain	–	4	4	8
	1	71	41	113

Table 3. Samian Ware: Minimum number of vessels in each category.

Notes to Table 3:

(1) Style of Do(v)eccus of Lezoux c. A.D. 160–190.

(2) All late second or third century, one in the style of Primitius of Rheinzabern.

(3) One stamped VITA(LISFE) by Vitalis viii, of Rheinzabern.

(4) One variant with rim strongly everted, amost in a bead.

(5) One Hadrianic, the rest Antonine, including bowls in the styles of Casurius ii, Cinnamus ii, Divixtus i, Iullinus ii and Paternus v, all potters of Lezoux.

(4) Reverse S-profile. Only two examples (Nos. 64, 86) with brownish colour coat having a metallic sheen, one with stamped, the other with white slip decoration, both in Phase 3 contexts.

Flagons :

Very few flagons were found (Nos. 5, 51) in both phases. They are similar to Gt. Casterton examples (Corder 1951, 29, Nos. 1 and 2).

Castor boxes :

Pieces of Castor box occurred infrequently in both phases (Nos. 4, 70). Hartley dates these to the whole period of production without chronological differentiations.

Other colour coated wares

Colchester :

Pieces of bag shaped, colour-coated beakers with rough casting and rouletting in a pinkish-orange fabric similar to products of the Colchester kilns were found, mainly in Phase 1 layers. It is not clear whether Colchester production continues into the fourth century but at Icklingham virtually all colour coated types in Phase 3 are in Nene Valley fabric with the possible exception of No. 67 (which is closer to Colchester in fabric colour although a Nene Valley form) and No. 73.

'Rhenish' :

A small number of pieces of very fine, hard light grey fabric sometimes oxidised, with a shiny black or dark brown colour coat. Decorated with bands of rouletting and trailed white slip designs. Mostly from Phase 1 contexts (occupation layer and pit F.32). Produced in Central Gaul (Lezoux) and the Mosel (Trier).

East Anglian :

Two colour coated beakers (Nos. 2,3) from Phase 1 are very similar in fabric and finish to those from third century kilns at Pakenham (Smedley and Owles 1960). No other examples were noted.

Oxford Ware

Typical Oxford type colour coated wares having a reddish brown fabric sometimes with a grey core and a shiny red colour coat were found, though in smaller quantities than Nene Valley products. Much of it is fragmentary; recognisable forms are imitations of Samian Dr. 31R and Dr. 38 (Young 1973, 115, nos. 28 and 30; Fulford 1975 at Porchester, nos. 40 and 32) and reverse S profile bowls (Porchester no. 36). One unusual form which may be Oxford from an unstratified position is also illustrated (No. 91.). Decoration is commonly bands of rouletting; one stratified sherd has stamped rosettes (F.2 Phase 3 layer); several unstratified pieces have white painted decoration. Rather less common are white fabric painted pieces (parchment ware) most of which were unstratified except for occasional sherds and a rim fragment from the graves.

The stratigraphical contexts for this material are almost all Phase 3 (eight graves and four other features) except for substantial pieces from F.29 and F.32 (No. 29) in late Phase 1, and sherds from F.23 probably just below Building B. Although production at the Oxford kilns began in the late third century on a large scale, recent work has shown some chronological differentiation of types (Fulford 1975 at Porchester) and it seems possible that East Anglia was not part of the market

area until a later date in the fourth century. Unfortunately the types represented are the commonest and longest lived Oxford forms except for the stamped decoration from F.2 which probably began around 250 A.D. at Porchester.

The scanty evidence available from other East Anglian sites does not seem to contradict a date within the fourth century for the appearance of Oxford ware. At Caister-on-Sea Oxford type ware is recorded only in the latest groups, probably the second half of the fourth century (Higgins 1972). A similar situation was noted at Brampton, Norfolk (C.J. Green forthcoming).

Orange burnished ware

This ware is distinguished as having a light red (Munsell range 2.5 YR 5/8 and 6/8), hard fabric and a highly burnished exterior surface. It is distinguished from Oxford ware as being lighter, non-micaceous and never slipped or burnished on the interior except just inside the rim. It is slightly more common than Oxford ware and probably included a greater range of forms: beakers (No. 28), bowls (No.49) and most commonly jars (Nos. 88, 89). There is also an unstratified flagon neck of similar form to No. 74. Decoration is scarce apart from horizontal grooves and cordons but three unstratified (probably Phase 3) sherds have pushed out bosses, and stamped decoration of the type known as 'Romano-Saxon' (Nos. 92–94).

Like the Oxford wares it was mostly found in Phase 3 with a few late Phase 1 contexts. Similar material is known from other sites in East Anglia such as Caister-on-Sea (Higgins 1972), Brampton, Norfolk and Scole in late Roman contexts. It is suggested that this material derives from the kiln site at Much Hadham, Herts., (note in J. Roman Stud., LIX, 1969, 221).

Mortaria

The majority of substantial pieces of mortaria were products of either the Nene Valley (pale fabric, black grits, usually reeded rims) or of the Oxford kilns (red fabric, rounded pinky quartz grits mostly with a whitish slip and flanged rim). Typical examples are illustrated (Nos. 21,32). A few pieces of red colour coated wall sided Oxford mortaria (imitations of Samian Dr. 45) came from Phase 3 contexts.

In Phase 1 Nene Valley mortaria were found in the layer below the chalk and in F.2 and F.32. Oxford mortaria like the other Oxford wares occurred only immediately before Phase 3 in F.32 and in the layer group from within or just under the chalk. In Phase 3 the proportions of Oxford and Nene Valley mortaria were roughly 50 : 50.

Coarse Wares

No detailed petrological analysis has been made of fabric types from this site. Some distinctive groups were noted:

(1) Shell gritted ware – discussed as a separate category (see p. 91)

(2) A hard sandy fabric, partly or entirely oxidised red (2.5 YR 5/6 – 5/8) in colour, with occasional larger inclusions of chalk and flint. Jars in this fabric occur only in the Phase 1 occupation layer (Nos. 9, 10, 11).

(3) A black burnished ware, generally dark grey, fairly hard with medium sized white quartz grits. Mostly bowl forms (Nos. 25, 34, 59) and one cooking pot (No. 83). Mainly black burnished ware, Category 1(BB1) (Gillam 1970).

(4) Grey wares with a moderate to high mica content suggesting manufacture in the central Suffolk kiln groups such as Wattisfield.

Coarse ware forms

Jars :

Medium and wide mouthed jars are the commonest class of pot present. Rims are most often thickened and everted with a rounded or slightly flattened end, the body slightly larger in maximum diameter than the rim (Nos. 34, 41). Jars of fabric group (2) mostly have a flattened rim with a squared end (Nos. 9, 11) a type also found in shell gritted ware (Type 2). A number of everted jar rims are sharply undercut (Nos. 45, 55), a feature which is more common in shell gritted ware. No chronological distinctions in jar types were noticed.

Bowls :

Subdivision of bowl types is based on rim form; the majority of bowls are uncarinated and include forms referred to in other pottery classifications as dishes, pie-dishes and dog bowls.

1. Plain bowls : Straight or convex sides, usually shallow, no projection at the rim. Some have a horizontal groove below the rim. Occurred in all phases and in various fabrics (Nos. 20, 34,35, 59).

2. Bowls with thickened or out-turned rim, often triangular in section: Occurred in all phases, probably commoner in Phase 1 (Nos. 18, 19, 60). Grey fabrics imitating black burnished (BB2) forms (Gillam 1970, nos. 222, 223, 311).

3. Bowls with out-turned rim with groove on upper surface of rim. Sometimes decorated with burnished line designs. Occurred most frequently in late Phase 1 contexts (Nos. 16, 17, 25). Various fabrics.

4. Bowls with flanged rim: Where complete profiles survive these are deeper than the previous types. Decoration, in the form of incisions or burnished lines, is found on the upper surface of the flange. Occurred much more frequently in Phase 3 than Phase 1; decorated flanges found in Phase 3 only (Nos. 22, 44, 61, 65, 69, 81).

Other distinct types:

1. Flagons: these are uncommon; pieces of one handled necks came from F.32 and the Phase 1 occupation layer; a disc rimmed type was found in Building B (No. 74).

2. 'Cooking pots': jars with a simple everted rim and burnished decoration on the body; some sherds of lattice decoration were found but vertical lines seem to be more common (Nos. 43, 79). Fabric is usually medium to light grey, often micaceous. One black burnished (BB1) example was found (No. 83).

3. Beakers: pieces of grey ware, folded beaker were frequent in Phase 1 layers and uncommon later. One group of folded beaker sherds is decorated with parallel burnished lines across the indentations (Nos. 12, 13, 14).

4. Large storage vessels: Pieces of at least two large hand made pots were found in Phase 1 contexts. One has a large globular body combed all over both surfaces but no surviving rim or base. The other (No. 40) is a smoother fabric and combed all over externally and in criss-cross bands internally.

Shell Gritted Ware

A large number of jars were made in a fairly soft red/brown/grey fabric with much shell included. This late Roman product in Southern Britain has been studied recently (Sanders 1973) and it was suggested that it was made of shelly clays occurring in eastern central England and distributed over a wide area in the fourth century. The jars were divided into types by rim form which correspond

to those found at Icklingham.

1. Simple everted rim (No.58).

2. Everted rim with a thickened, square end (Nos. 7, 8, 82).

3. Everted rim, flattish on the outside and undercut (Nos. 26, 27, 57, 66).

Bowls are much less common, having a down turned, sometimes almost flanged, rim not comparable to other coarse ware forms (No. 71).

Shell gritted jars of Type 2 were found in the Phase 1 occupation layer. Late Phase 1 contexts (including F.32) contained all the types and these continue in Phase 3, with Type 3 being the commonest.

The only excavated kiln site for this ware is at Harrold, Beds. Fabric and forms from Icklingham are similar to Harrold products. Types 1 and 2 are earlier than Type 3 at Harrold and are probably late third to early fourth century. Type 3 is established by the 340's and continued in production into the fifth century, as did the bowls. (Information kindly supplied by the excavator, A.E. Brown, M.A.).

Although no accurate analysis of quantity except sherd counts has been attempted, it seems that shell gritted ware became much more common during the later fourth century. In the Phase 1 occupation layer shell gritted rims formed about 7% of total rim sherds (4% of all pieces) rising to 12% of rims in late Phase 1. In Phase 3 shell gritted ware was well over 10% of the total in most features (e.g. in F.10, 16% of rims, 20% of all pieces) including the graves. This is comparable to the late fourth century destruction layer at Gt. Casterton where shell gritted ware formed 20% of the total (Corder 1951; Sanders 1973).

Pottery descriptions

The illustrated pottery is arranged in roughly stratigraphical order. Descriptions are fairly subjective; "hard" indicates that the piece could not be scratched easily with a fingernail. Colours are given a Munsell description where possible. Unreferenced attributions e.g. "Nene Valley type", "orange burnished ware", refer back to the preceding discussion.

Occupation layer sealed by the chalk. Phase 1 (Fig. 41):

1. Beaker, rim and body sherds, hard, fine, off white fabric, very dark grey (7.5YR 3/0) colour coat with barbotine scale decoration applied before slip. Nene Valley type (Hartley 1960, fig.4, no.4) probably late third century.

2. Beaker, rim and body sherds, hard, fairly fine, reddish brown (5 YR 5/4) fabric, very dark grey (5 Y 3/1) colour coat with rouletting. Probably from Pakenham kilns (Smedley and Owles 1960, 214 (a)). Third century.

3. Beaker rim, sherds and base, hard, fairly fine, reddish yellow (5 YR 6/6) fabric with colour coat identical to No. 2 and barbotine decoration. Graffito B scratched post firing on base. Probably from Pakenham.

4. Castor box, rim, hard, cream fabric, reddish yellow (5 YR 6/8) colour coat with deep rouletting. Nene Valley type.

5. Flagon, rim and neck, hard, cream fabric, very dark grey (10 YR 3/1) colour coat. Scar of a single handle below flange. Nene Valley type.

6. Bowl, flanged rim, hard, off white fabric with red brown (iron?) inclusions, brown (7.5 YR 4/2) slightly metallic colour coat. Nene Valley type.

7. Jar, rim, soft, shell gritted, grey fabric, partially oxidised on interior. Two incised lines at base of neck. Shell gritted ware Type 2. Probably late third – early fourth century onwards.

8. Jar, rim, soft, shell gritted grey fabric, oxidised red (2.5 YR 5/6) surface. Shallow grooves on shoulder. Shell gritted ware Type 2.

9. Jar, rim and body sherd, hard, mixed temper including chalk and flint, red (2.5 YR 5/8) fabric with light grey (5 Y 7/2) surface. Two grooves on shoulder, combing on body below. Coarse ware fabric No. 2.

10. Jar, inturned rim, fabric similar to No. 9 but finer, red (2.5 YR 5/6) with light reddish brown (5 YR 6/4) surface.

11. Jar, rim, fabric as No. 9, dark grey (5 YR 4/1) surface. Groove at base of shoulder.

12. Beaker, rim, hard, sandy, micaceous, grey (5Y 5/1) fabric, burnished exterior.

13. Folded beaker, base and body sherds, hard, fairly micaceous, grey (5 Y 5/1) fabric, exterior darker at base. Graffito X scratched on base after firing.

14. Folded beaker, sherd, hard, micaceous, grey (2.5 Y 5/1) fabric, darker exterior with sooting. Exterior burnished between indentations with burnished line decoration across indentations.

15. Wide mouthed jar, rim, hard, sandy, fairly micaceous, greyish brown (10 YR 5/2) fabric. Slashed cordons on rim and neck, horizontal burnished bands on rim and neck, zigzag burnished lines below cordon.

16. Bowl with grooved rim, rim and body sherds, hard, very light grey (10 YR 7/1) fabric, grey (7.5 YR 5/0) surface. Exterior burnished, with burnished wavy lines on interior and under rim, burnished lattice on top of rim.

17. Bowl with grooved rim, complete profile, hard, micaceous, dark grey, partially oxidised fabric. lightly burnished all over.

18. Bowl with thickened rim, hard, micaceous, light grey (7.5 YR 6/0) fabric. Burnished surface.

19. Bowl with out-turned rim, hard, micaceous, grey (7.5 YR 6/0). Surface burnished in horizontal bands.

20. Plain bowl profile, fairly soft, sandy, light reddish brown (5 YR 6/4) fabric, dark grey (7.5 YR 4/0) surface. Burnished all over.

Not illustrated:

a) Bag shaped beaker, base and body sherds, hard, fine, pink (7.5 YR 7/4) fabric, reddish brown colour coat. Horizontal bands of rouletting. Probably from Colchester kilns.

b) Beaker, body sherds only, fine, hard, light grey, partially oxidised fabric, shiny black colour coat with horizontal rouletting and trailed white slip decoration. "Rhenish" type from Central Gaul or the Mosel.

c) Mortaria, rim fragments and sherds of Nene Valley type.

Material from in or immediately below the chalk layer, Phase 1/2, (Fig. 41):

21. Mortarium, rim, hard, grey core, oxidised orange surface. Thin cream colour coat. Rounded pinky quartz grits. Oxford ware (Young 1973, 129, no.10).

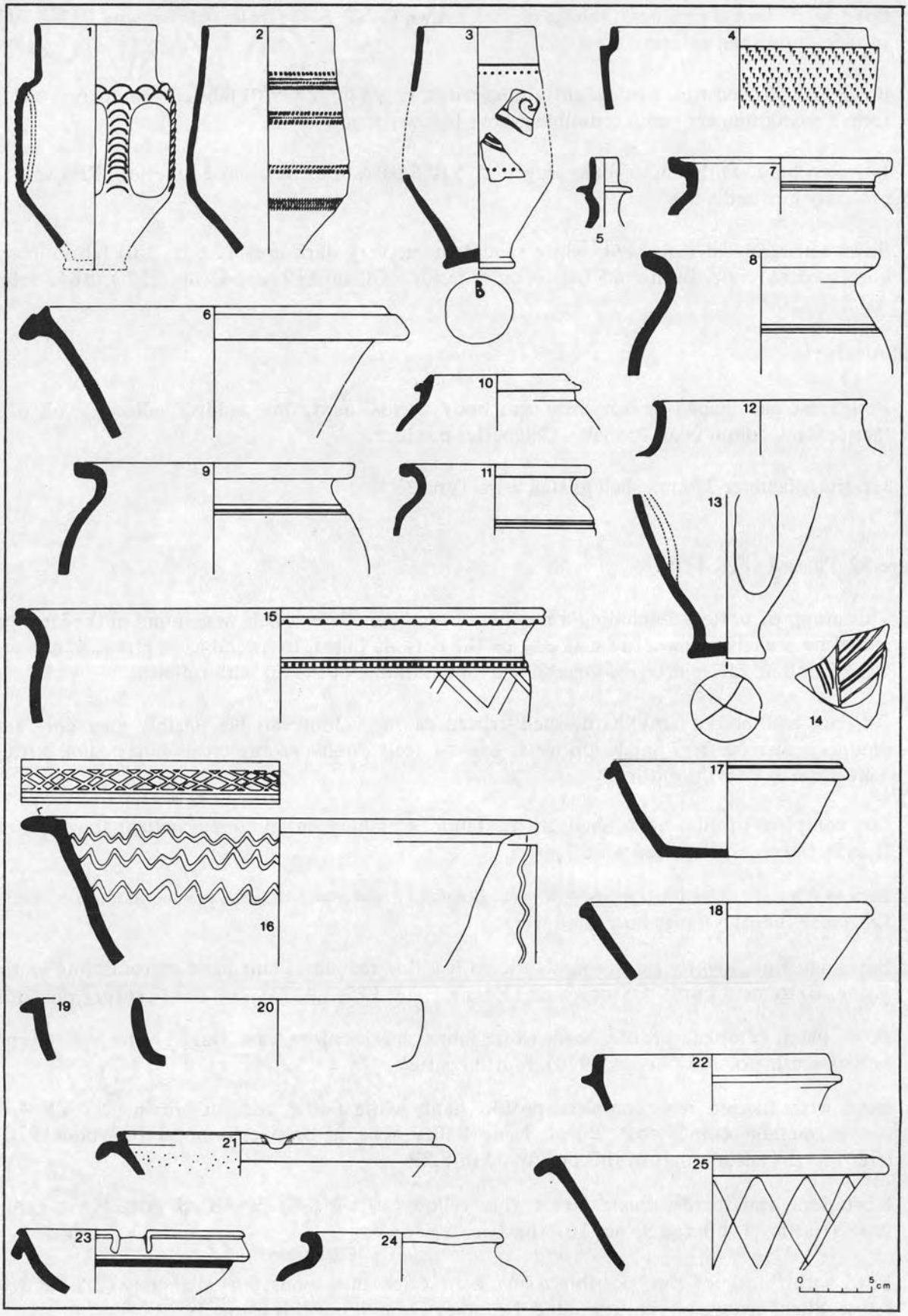


Fig. 41. ICKLINGHAM :
The pottery (¼).

22. Bowl with flanged rim, hard, sandy, reddish brown (5 YR 5/4) fabric, pale brown (10 YR 6/3) surface. Burnished exterior.

23. Bowl with flanged rim, hard, slightly micaceous, grey (7.5 YR 5/0) fabric. Rim opened out to form a mortarium type spout; double groove below flange.

24. Jar, rim, hard, fairly micaceous, grey (7.5 YR 6/0) fabric. Burnished exterior. Rim sags – probably misfired.

25. Bowl with grooved rim, hard, white sand temper, very dark grey (2.5 Y 3/0) fabric, black burnished exterior. Burnished lattice on exterior. Gillam (1970, 64, no. 227) BB1, dated AD 210–300.

Not illustrated:

a) Roughcast bag shaped beaker, base and body sherds, hard, fine, reddish yellow (5 YR 6/6) fabric, black colour coat. Probably Colchester product.

b) Jar, rim, diameter 21 cm., shell gritted ware Type 3.

Feature 32. Phase 1 (Fig. 42):

This group of pottery, including a number of semi-complete vessels, was found in the large pit sealed by a chalk slump. The majority of the pots are burnt. In several cases pieces of one pot were found in different layers suggesting a rapid infilling of the pit with rubbish.

26. Jar, rim and body, fairly hard, shell gritted fabric; colour variable, mainly grey core and reddish brown surface. Single groove at base of neck, double groove on shoulder. Shell gritted ware Type 3. Fourth century.

27. Jar, complete profile, hard, shell gritted fabric. Combing on the upper half of the exterior. Heavily burnt. Shell gritted ware Type 3.

28. Beaker, rim, hard reddish brown fabric. Burnished exterior, double groove at base of neck. Extremely burnt. Orange burnished ware.

29. Bow, rim, fine, slightly micaceous fabric with a fine red slip. Faint band of rouletting on the inside. Extremely burnt. Oxford ware (Young 1973, 115, no. 28), late third century onwards.

30. Bowl, plain, complete profile, hard, white fabric, black colour coat. Burnt. Nene Valley type, as Brixworth no. 308 (Woods 1970), fourth century.

31. Bowl with flanged rim, complete profile, hard, white fabric, reddish brown (2.5 YR 4/4) uneven metallic colour coat. Burnt. Nene Valley type, as Brixworth no. 310 (Woods1970), later fourth century. part of this pot found in F.29.

32. Mortarium, rim sherds, cream fabric, thin yellow (10 YR 8/6) slip. Black grits. Nene Valley type, (Hartley 1960, fig. 3, no. 10), third century on.

33. Bowl with thickened rim (possibly a lid), hard, fairly micaceous, very dark grey (2.5 YR 3/0) fabric. Slight groove on rim, carinated. No other examples of this form.

34. Plain bowl, profile, hard, sandy (white inclusions), dark brown (7.5 YR 4/2) fabric, black surface. Lightly burnished exterior, groove under rim. Probably BB1.

35. Plain bowl, complete profile, fairly hard, sandy, red (2.5 YR 5/6) fabric with black slipped and burnished surface.

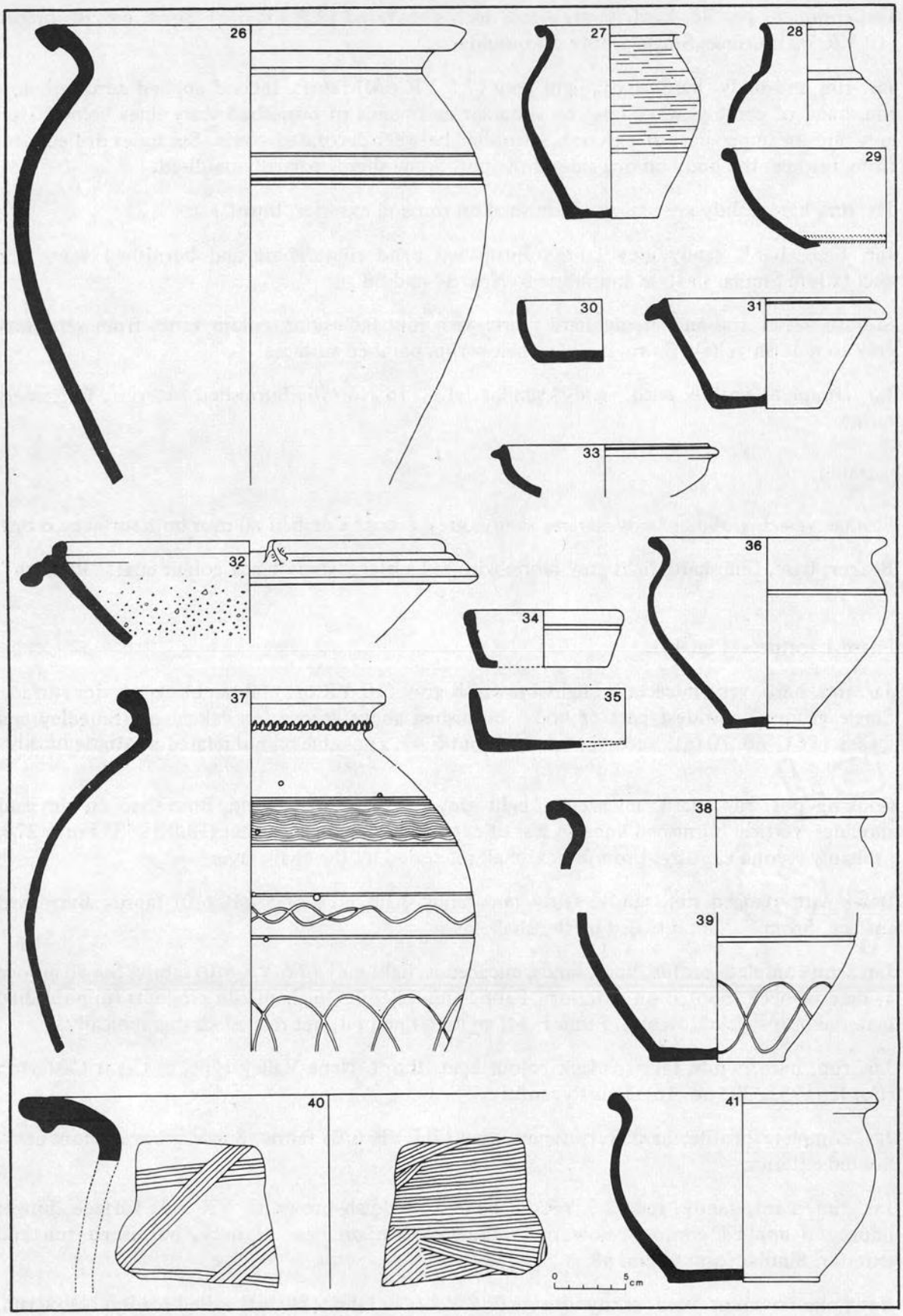


Fig. 42. ICKLINGHAM :
The pottery (¼).

36. Jar, complete profile, hard, sandy (dark inclusions), red (2.5 YR 5/6) fabric, greyish brown (10 YR 5/2) surface. Single groove on shoulder.

37. Jar, rim and body, hard sandy, light grey (7.5 YR 6/0) fabric. Incised applied cordon below rim, band of combed wavy lines on shoulder and bands of burnished wavy lines below. Thin grey slip on upper part of exterior, burnished between decorated zones. Six holes drilled after firing through the body on one side of the pot. Some sherds partially oxidised.

38. Jar, rim, hard, sandy grey fabric. Burnished on rim and exterior. Burnt.

39. Jar, base, hard, sandy grey fabric. Burnished band round base and burnished wavy line decoration. Similar in style and fabric to Nos. 37 and 38.

40. Storage vessel, rim and sherds, hard fabric with flint inclusions, colour varies from very dark grey to reddish yellow (burnt). Flange below rim, combed surfaces.

41. Jar, complete profile, hard, sandy, similar fabric to No. 36. Burnished exterior. Extremely burnt.

Not illustrated:

a) Storage vessel, globular body, coarse sandy, grey fabric. Combed all over both surfaces. Burnt.

b) Beaker, base, fine, hard, light grey fabric with red surface, shiny black colour coat. "Rhenish".

Other Phase 1 features (Fig. 43):

42. Jar, rim, hard, very micaceous, light brownish grey (10 YR 6/2) fabric, black interior surface. Single groove on widest part of body, burnished above groove. As Pakenham (Smedley and Owles 1961, no. 70 (g)), second century. From F.47, a possible pit not related stratigraphically.

43. Cooking pot, rim, hard, micaceous, light grey (7.5 YR 6/0) fabric. Burnished on rim and shoulder, vertical burnished lines on rest of exterior. Roman Colchester (Hull 1958) Form 278, probably second century. From F.6, a small pit sealed by the chalk layer.

44. Bowl with flanged rim, sandy, fairly micaceous, light grey (7.5 YR 6/0) fabric. Burnished surface. From F.2, a pit sealed by the chalk layer.

45. Jar, semi-complete profile, hard, sandy, micaceous, light grey (7.5 YR 6/0) fabric. Single groove at base of neck. Sooted on exterior . Fabric similar to Icklingham kiln products (unpublished material in Ipswich Museum). From F.34, an undefined pit, not related stratigraphically.

46. Jar, rim, hard, white fabric, black colour coat. Burnt. Nene Valley type, as Great Casterton (Corder 1951, 29, no. 16). Fourth century.

47. Jar, complete profile, hard, very sandy, grey (7.5 YR 6/0) fabric. Single groove below neck. Sooted exterior.

48. Jar, rim, hard, sandy, red (2.5 YR 5/8) fabric, reddish brown (5 YR 5/4) surface. Finger impressed applied cordon below rim, raised cordon on base of neck, burnished rim and exterior. Similar form to No. 88.

49. Bowl, rim fragment, hard, sandy, orange (2.5 YR 6/8) fabric. Slightly raised cordon below rim, highly burnished exterior. Orange burnished ware. Nos. 46–49 from F.29, a feature probably contemporary with F.32 as it contained joining pieces of pottery and a similarly high proportion of burnt pottery.

Not illustrated from F.29:

a) Two Oxford ware bowl rims similar to No. 29.

b) Bowl, rim fragment, shell gritted ware. Form as No. 71. Fourth century.

c) Jar, base, flat, diameter 8 cm., shell gritted ware. Hole drilled through the middle of the base after firing.

Layer over F.32 Phase 3 (Fig. 43):

Layer 1 of the pit which overlay the chalk but may include further dumping from the same source as the main pit backfill (especially pieces which are burnt).

50. Jar, rim, hard, white fabric, brown colour coat. Shattered and discoloured by burning. Nene Valley type.

51. Flagon, rim and body, hard, white fabric, dark reddish brown (5 YR 2.5/2) colour coat. Single handle, double cordon below rim. Slightly burnt. Nene Valley type, as Great Casterton (Corder 1951, 29, no. 2),fourth century.

52. Lid, hard, white fabric, dark reddish brown (2.5 YR 3/4) colour coat. Burnt. Unusual form, possibly a Castor box lid. Nene Valley type fabric.

53. Jar, base and body, hard, white fabric; reddish brown (5 YR 5/3) colour coat. Heavily burnt. Nene Valley type, base of jar similar to No. 50.

54. Jar, rim, hard, white fabric, dense black colour coat. Nene Valley type, as Great Casterton (Corder 1951, 29, no. 14).

55. Jar, rim, hard, grey (7.5 YR 5/0) fabric. Single groove at base of neck.

56. Jar, rim, hard, sandy (dark inclusions), grey (7.5 YR 6/0) fabric. Burnished on rim and shoulder.

57. Jar, rim, fairly soft, shell gritted, variegated colour fabric. Burnt. Shell gritted ware Type 3, fourth century.

58. Jar, rim, fairly soft, shell gritted, light red (2.5 YR 6/6) fabric. Burnt. Shell gritted ware Type 1, late third century on.

59. Plain bowl, rim, fairly hard, sandy (white inclusions), very dark grey (7.5 YR 3/0) fabric, black burnished surface (BB1). Graffito VA scratched after firing on exterior.

60. Bowl with thickened rim, hard, sandy (dark inclusions), light grey (7.5 YR 6/0) fabric. Burnished surface except for narrow band on exterior below rim.

Not illustrated:

a) Mortarium, rim and sherds, Oxford ware, similar form and fabric to No. 21. Very burnt.

b) Flagon, rim fragment, white fabric, reddish brown colour coat. Plain straight neck and rim, handle attached at rim level. Nene Valley type fabric.

c) Bowl, rim fragment, diameter about 20 cm., shell gritted fabric. Fourth century.

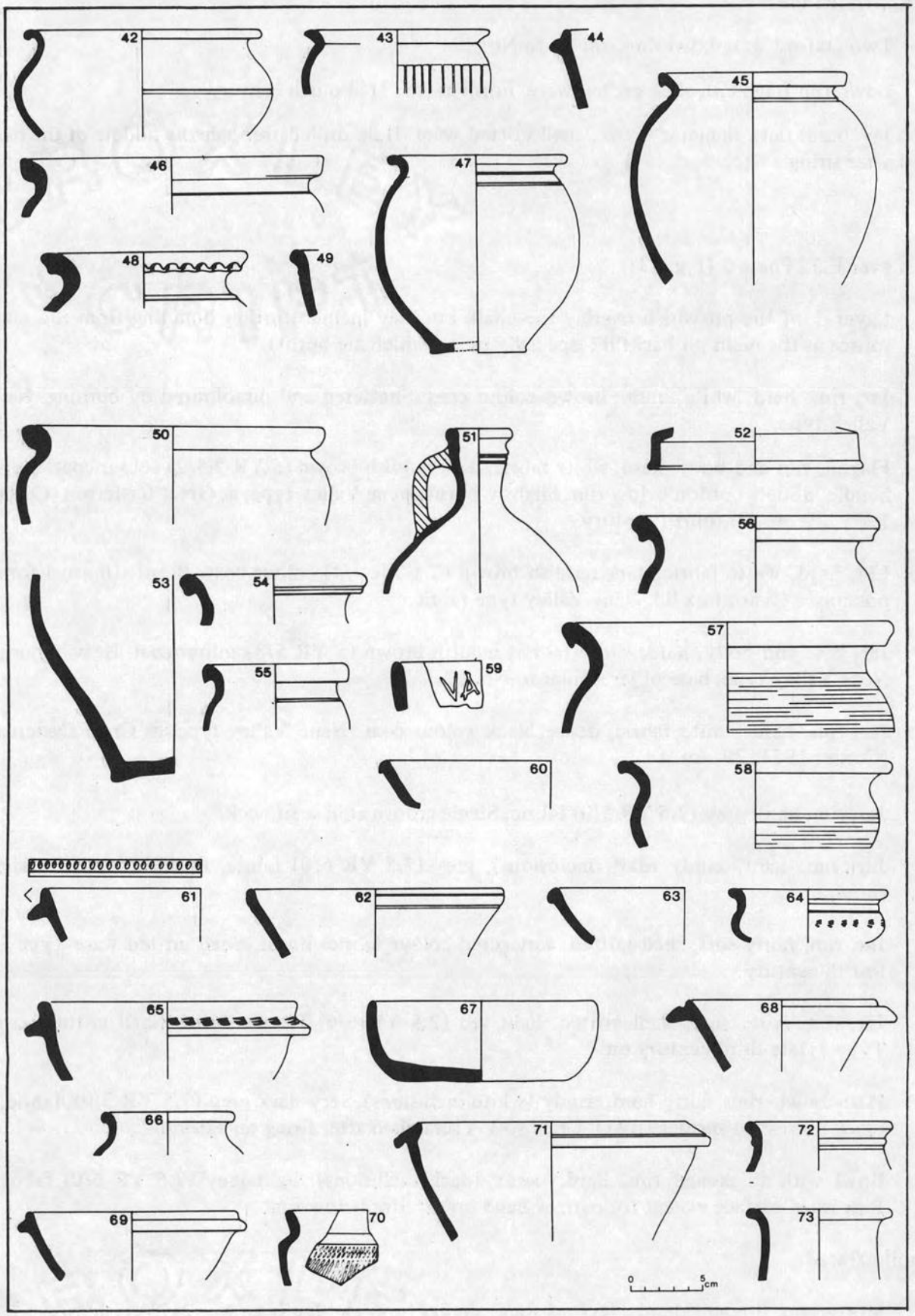


Fig. 43. ICKLINGHAM :
The pottery (¼).

Layer over chalk in Pit F.2. Phase 3 (Fig. 43):

61. Bowl with flanged rim, hard, micaceous, red (2.5 YR 5/8) fabric, very dark grey surface. Burnished surface. Stab decoration on flange.

62. Plain bowl, rim, hard, sandy (white inclusions and chalk fragments) reddish brown (2.5 YR 5/4) fabric, black burnished surface. Two grooves below rim.

63. Bowl with thickened rim, hard off white fabric, reddish brown (2.5 YR 4/4) colour coat. Nene Valley type, imitating Samian Dr. 31.

64. Bowl, reverse S profile, hard, white fabric, metallic, brownish grey colour coat. Stamped wedge shapes giving a crude demi-rosette decoration. Nene Valley type.

Not illustrated:

a) Oxford ware sherds, including one fragment with a rosette stamp. At Porchester (Fulford 1975) dated AD 350 onwards.

Ditch F. 10. Phase 3 (Fig. 43)

65. Bowl with flanged rim, hard, sandy, dark grey (10 YR 4/1) fabric. Groups of incised lines on top of flange.

66. Jar, rim, fairly soft, shell gritted, dark grey fabric, light brown (7.5 YR 6/4) surface. Shell gritted ware Type 3, mid fourth century on.

67. Plain bowl, hard, reddish yellow (5 YR 7/8) fabric, brown (7.5 YR 5/4) metallic colour coat. Similar to Nene Valley type but possibly Colchester fabric.

68. Bowl with flanged rim, hard, off white fabric, black (10 YR 2/1) colour coat. Nene Valley type, as No. 31, fourth century.

Not illustrated:

a) Mortarium, rim fragment, wall sided, red slipped, Oxford ware (Young 1973, 113, no. 19).

b) Bowl, reverse S profile, red slipped with rouletting. Oxford ware, as No. 76.

c) Castor box lid sherd, very similar to No. 70.

d) Orange burnished ware, numerous sherds and one heavy pedestal base.

Other Phase 3 Pits (Fig. 43):

69. Bowl with flanged rim, fairly hard, slightly micaceous, very dark grey (7.5 YR 3/0) fabric. Smoothed surface. From F.1.

70. Castor box, rim, hard, cream fabric (with ironstone inclusions), dark reddish grey (5 YR 4/2) colour coat. Nene Valley type.From F.1.

71. Bowl, rim, fairly hard, shell gritted, dark grey (10 YR 4/1) fabric, light brown (7.5 YR 6/4) surface. Light combing below rim on exterior. Fourth century. From F.5.

72. Beaker, rim, hard, red (2.5 YR 5/8) fabric. Raised cordon below rim. Burnished exterior. Orange burnished ware. From F.38.

73. Large beaker, rim, hard, pale yellow (2.5 Y 8/4) fabric, dark reddish brown (5 YR 3/2) colour coat. Possibly Nene Valley. From F.7 (which contained a high proportion of pottery derived from the layer below the chalk).

Building B, Phase 3 (Fig. 44):

Much of the pottery from this group is fragmentary and worn. It is not clear whether it is contemporary with the occupation of the building or a post destruction accumulation.

74. Flagon, rim and body sherds, fairly hard, grog tempered, off white (10 YR 8/2) fabric. One handle, double groove on shoulder. Burnished exterior. Incomplete graffito scratched on body after firing. This form at Colchester (Hull 1963, 125 no. 4 and 149 no. 7) occurs in first and second century contexts.

75. Jar, rim, hard, off white fabric, reddish black (10 R 2.5/1) colour coat. Nene Valley type.

76. Bowl, rim, slightly micaceous, red fabric, red slip. Rouletted bands on neck and below carination. Oxford ware, fourth century.

Building C, Phase 3 (Fig. 44):

77. Carinated bowl rim, hard, light grey (7.5 YR 6/0) fabric, darker grey (7.5 YR 6/0) surface. Burnished surface. No other examples of this form found.

Graves, Phase 3 (Fig. 44):

78. Jar, rim, fairly hard, sandy, reddish brown (5 YR 5/4) fabric, brown (7.5 YR 4/2) surface. Double groove at base of neck and on shoulder with a band of burnished lattice decoration. Exterior burnished above and below lattice band. From Grave 23.

79. Cooking pot, rim and body sherds, fairly hard, very micaceous, light brownish grey (10 YR 6/2) fabric, grey surface (10 YR 5/0). Burnished on rim and shoulder with vertical burnished lines below. Sooted exterior. Very similar to No. 43, probably second century. From Grave 23. It seems likely that Nos. 78 and 79 derive from the ditch F. 43 rather than being in any way contemporary with the cemetery.

80. Jar, rim, hard, micaceous, grog tempered, light grey (7.5 YR 6/0) fabric. Band of incised stabs on shoulder. From Grave 22.

81. Bowl with flanged rim, hard, micaceous, light grey (10 YR 6/1). Decorated on top of flange with sharp stabs. From Graves 4 and 5.

82. Jar, rim, soft, shell gritted, largely oxidised fabric. Single groove on shoulder. Shell gritted ware Type 2, late third century on. From Grave 6.

83. Cooking pot, rim, fairly hard, white inclusions, dark grey fabric, black burnished surface. Gillam (1970, 57, no. 148) BB1, fourth century. From Grave 37.

84. Sherd (from jar or flagon), white fabric, dark grey colour coat with faint bands of rouletting and trailed white slip decoration. Nene Valley type, fourth century. From Grave 23.

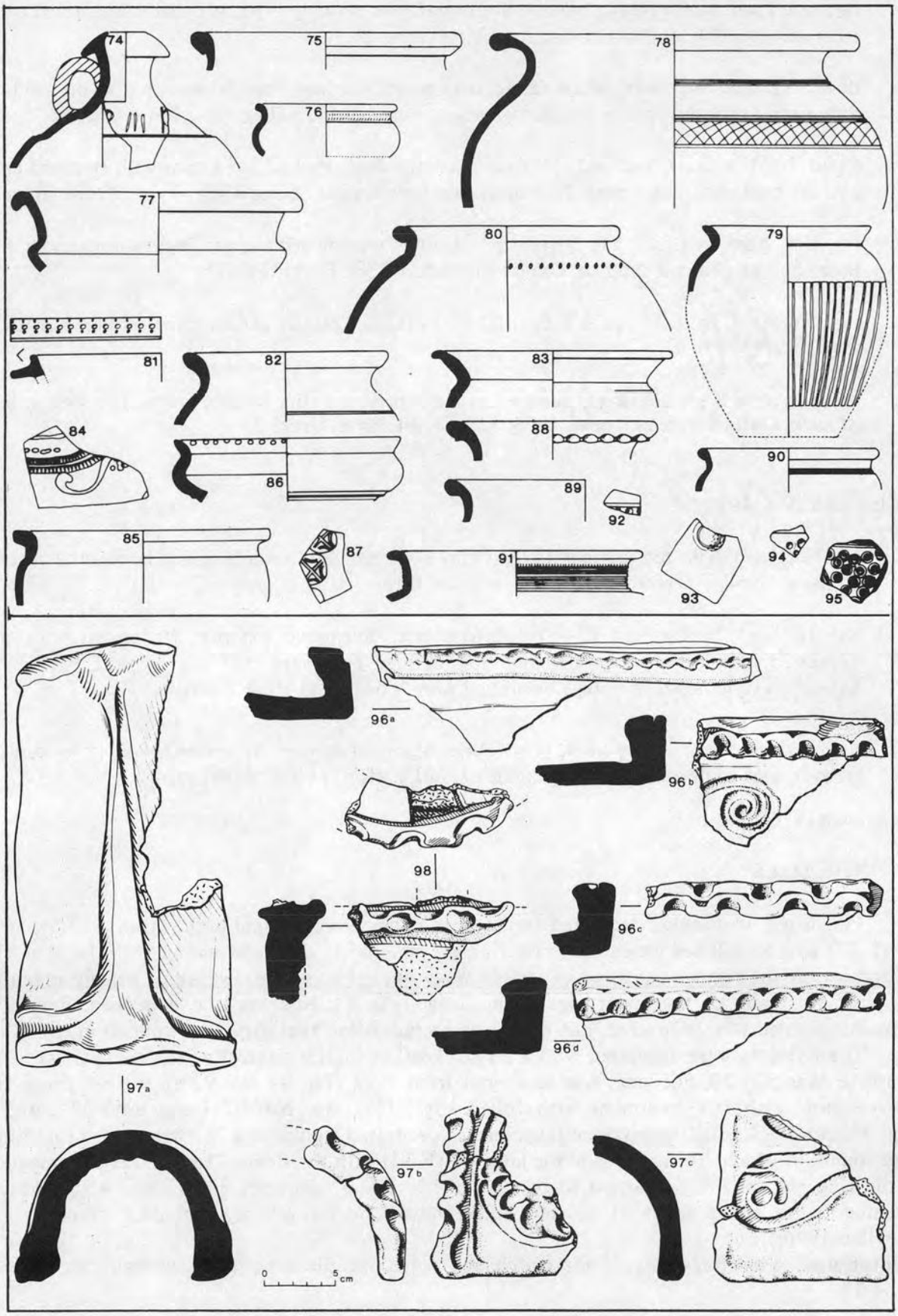


Fig. 44. ICKLINGHAM :
Pottery and decorated tiles.

85. Jar, rim, hard, white fabric, black colour coat. Nene Valley type, as Great Casterton (Corder 1951, 29 no. 16), late fourth century. From Grave 24.

86. Bowl, rim and body, hard, white fabric, dark metallic colour coat. White slip dots on inside of rim, double grooved cordon below carination. Burnt. Nene Valley type. From Grave 2.

87. Sherd, hard, white fabric, red (10 R 4/6) colour coat. Pushed out bosses with stamped cross pattern on them, done prior to colour coat application. Nene Valley type. From Grave 5.

88. Jar, rim, hard, red (2.5 YR 5/8) fabric. Applied cordon with finger impressions under rim. Burnished on rim and exterior. Orange burnished ware. From Grave 7.

89. Jar, rim, hard, light red (2.5 YR 6/8) fabric, burnished on rim and exterior. Orange burnished ware. From Grave 6.

90. Bowl, reverse S profile, hard, micaceous, red fabric, red slip. Double grooved cordon at base of neck. Oxford ware as Young 1973, 115 no. 34. From Grave 2.

Unstratified (Fig. 44)

91. Jar, rim, hard, light red fabric with light grey core, red slip. Rouletting and horizontal grooves on neck. Possibly Oxford ware fabric, unusual form.

92.–4. Sherds, hard, sandy, red (2.5 YR 5/6) fabric. Burnished exterior. Decorated with small impressed dimples and a pushed out boss defined by a burnished line. Typical "Romano–Saxon" in style; made in orange burnished ware, possibly at Much Hadham.

95. Anglo-Saxon sherd, fairly hard, grey fabric. Stamped concentric circles bordered by double grooves, part of pendant triangle; the Illington-Lackford potter, sixth century.

September 1976

V. THE TILES

Fragments of unusual, decorated tegulae and imbrices were found in the infilling of the large pit (F.32) and to a lesser extent in grave fillings, pits and in a general scatter over the site. The decoration on the tegulae consisted of incised wavy lines (Fig. 44, No. 96 a), or heavily indented 'pie-crust' treatment on the upper edge of the flange (Fig. 44, Nos. 96, b, c, d,). No complete or restorable tegulae were recovered, but there was no indication that they were unusual in any other way. The imbrices were decorated with a raised 'keel' or midrib bifurcating at the lower end. One complete example, 30 cm. long, was recovered from F.32 (Fig. 44 No. 97 a). Fifteen fragments showed more elaborate treatment with frilled edges (Fig. 44, No. 97b) and grooved patterns (Fig. 44, No. 97c). In all, twenty-one fragments of decorated tegulae and 267 fragments of imbrices were found, of which 70% came from the large pit (F.32) with the stone pillar. One further fragment of tile (Fig. 44, No. 88) appeared to be part of a cylinder (diameter c. 22 cms.) with a heavy, indented flange and a series of squared holes above, and is probably part of a 'chimney-pot' (Lowther 1976).

Unillustrated: Two fragments of lozenge-shaped sandstone tile with nail hole from the base of Grave 37.

THE HUMAN BURIALS

by Calvin Wells

Numbers

Forty-seven burials are recorded from the Icklingham cemetery. Of these, one (Inh. 17) comprised only a soil stain with no surviving bone. Four (Inhs. 8, 16, 21 and 22) contained parts of at least two individuals. This total of fifty skeletons forms the basis of the present report.

Condition of skeletons

This varies greatly. A few (e.g. Inhs. 8 (a) and 25) are almost complete; most are very defective broken and eroded; ten, of which five are children, consist only of skull fragments; several comprise nothing more than a single piece of bone. Their average condition might be described as poor to medium. This greatly limits the information which can be derived from them and introduces uncertainties of sex, age, physical type and much else.

Age and Sex

Of the fifty identifiable persons at Icklingham thirty three (66.0%) are adults; seventeen (34.0%) are juveniles less than eighteen years old. One adult is unsexable, the remaining thirty two have been sexed with various degrees of confidence and of these nineteen (59.4%) were diagnosed as male, thirteen (40.6%) as female. To these can be added a juvenile aged about seventeen years who was also assessed as probably female, giving a ratio of nineteen to fourteen (57.6%) to 42.4%) for all sexed individuals. This proportion of 3 male: 2 female is not a 'demographically normal' one, but in view of the smallness of the sample no great significance need be attached to it. Many possibilities might account for the preponderance of men and without further evidence it would be unsafe to guess the reason. In contrast to many Anglo-Saxon sites (e.g. Red Castle, Thetford and Kingsworthy, Hants.) where females often outnumber males, there is a common tendency for Romano-British cemeteries to yield more men than women. At Cirencester the ratio was 201 male: 83 Female, and at Trentholme Drive, York, it was 220 male: 46 female. In a colonia such as York, which was partly established as a retiring place for pensioned-off legionaries, a preponderance of males could be expected. It is doubtful whether an explanation of this sort fits the circumstances of Icklingham.

The percentage of juvenile deaths here (34%) is not unusual in early populations, which commonly range from 20–40% in this respect. Among the juveniles only two (11.8%) were teenagers, fifteen (88.2%) were less than eight years old, nine (52.9%) were under four and three (14.3%) were small infants, at least one of whom was probably newborn. This distribution of juvenile mortality is not especially noteworthy, although if the series had been larger occasional deaths in the later part of childhood would have been likely.

The age at death of the Icklingham adults is often difficult to estimate. In the six of the thirty-three no greater precision than 'Adult' is justifiable. In six others, with good evidence from the pubic symphysis and other diagnostic areas, an estimation within five years has been made. But in most of them a wide range of possible ages must be tolerated. This range is ten years or more in twenty-one instances. The average age at death has been calculated by taking the mean of the range given for each person. This is unsatisfactory in several ways and tends to overestimate a number of burials. On the other hand no evidence of extreme senility was recognised in any skeleton and it is possible that the upper limit has been underestimated in a few cases. These two uncertainties may cancel each other out to some extent to produce an approximately correct final calculation; but palaeodemographic inferences of this kind should always be viewed with caution. The result of this procedure shows an average age at death for twenty seven adults of 44.5 years. Splitting the sexes gives an age of 47.1 years for sixteen males and 40.8 for eleven females. This difference of 6.3 years in favour of the men is typical of early populations, in most of which the men outlive the women by anything from one to ten years or more (Wells 1975). The combined average age of 44.5 is a

Inh.	W1	GoGo	RB′	ZZ	H1	CrCr	L GnGo	R GNGO	Cyl	M2P1	IH	CrH	Cyh	M2H	ML	CpL	RL	∠M°	∠R°	100 CrH/ML	100 CrCr/ML	100 GoGo/CpL	100 GoGo/CrCr	100 RB′/RL
2	107.2	98.1	31.2	45.0	31.3	90.1	85.3	87.8	20.9	23.7	51.8	67.4	63.5	28.0	117.7	80.2	74.3	127.8	63.8	60.3	80.7	122.3	108.9	41.9
6	115.7	85.8	27.3	43.7	30.0	99.1	76.8	81.2	19.3	27.0	55.5	73.1	69.4	30.8	95.8	77.8	72.5	109.8	76.6	76.3	103.4	110.3	86.6	37.7
11	122.0	–	29.0	43.3	30.8	–	72.2	–	21.6	–	50.2	67.5	62.4	29.2	90.8	64.3	63.4	122.1	–	74.3	–	–	–	45.7
16	–	–	29.3	40.0	32.1	81.2	–	–	19.8	25.1	39.1	50.1	47.2	25.8	–	–	–	–	–	–	–	–	–	–
23	123.8	96.7	30.2	43.8	27.2	98.0	77.8	79.2	17.4	–	52.4	65.5	62.7	25.2	94.1	73.2	68.8	114.2	77.6	69.6	104.1	132.1	98.7	43.9
25	117.2	101.0	31.0	48.1	30.8	–	81.6	80.4	21.3	26.0	51.8	66.3	60.6	27.9	108.1	74.3	64.8	130.1	–	61.3	–	135.9	–	47.8
36	124.1	89.9	29.6	43.0	28.7	107.3	75.2	74.3	20.6	27.5	50.1	61.4	65.0	26.8	93.5	71.3	67.7	112.7	65.7	65.7	114.7	126.1	83.8	43.7
38	–	–	30.9	38.4	27.1	–	–	–	–	24.5	40.0	57.9	–	23.5	–	–	–	–	–	–	–	–	–	–
46	118.6	85.1	35.2	40.1	32.2	89.1	80.2	80.4	20.2	–	47.7	64.5	61.4	30.0	99.4	80.2	64.8	111.6	72.7	64.9	89.6	106.1	95.5	54.3
47	118.7	–	35.3	46.1	30.1	–	–	–	20.1	26.2	51.3	–	63.4	26.3	99.3	81.2	67.7	109.0	–	–	–	–	–	52.1
x̄	118.4	92.8	30.9	43.1	30.0	94.1	78.4	80.5	20.1	25.7	48.9	63.7	61.7	27.3	99.3	75.3	68.0	117.2	71.1	67.5	98.5	122.1	94.7	45.9

Table 5 (a) Mandibular measurements and indices (Male)

Inh.	W1	GoGo	RB′	ZZ	H1	CrCr	GnGo	GnGo	Cyl	M2P1	IH	CrH	Cyh	M2H	ML	CpL	RL	∠M°	∠R°	100 CrH/ML	100 CrCr/ML	100 GoGo/Cpl	100 GoGo/CrCr	100 RB′/RL
1	119.2	97.0	27.2	39.4	27.8	–	75.7	72.3	18.1	–	41.5	59.4	51.6	–	99.3	66.8	65.1	129.6	–	59.8	–	145.2	–	41.8
3	105.0	89.7	27.1	49.0	33.8	95.2	75.3	74.8	18.5	27.1	42.0	55.3	47.7	26.2	105.1	72.4	60.2	129.5	66.8	52.6	90.6	123.9	94.2	45.0
4	115.3	85.0	24.8	39.1	–	90.4	76.8	76.2	18.4	–	41.1	55.8	52.3	–	103.8	76.3	59.5	124.1	63.7	53.8	87.1	111.4	94.0	41.7
5	112.1	93.8	29.3	41.3	28.3	99.0	82.2	82.1	16.4	24.0	40.7	53.2	49.1	22.5	100.2	77.4	59.2	120.6	65.2	53.1	98.8	121.2	94.7	37.9
8	112.0	–	25.2	41.7	23.6	95.3	–	–	16.0	25.3	40.5	56.5	44.6	21.1	93.2	68.8	55.0	123.8	79.5	60.6	102.3	–	–	45.8
24	–	–	29.0	40.1	31.2	92.1	–	–	17.5	30.2	42.2	61.0	50.2	23.5	–	–	–	–	–	–	–	–	–	–
35	109.8	79.3	26.0	43.2	30.1	94.0	74.3	73.1	17.1	–	44.7	60.8	52.4	–	104.8	71.7	65.6	130.4	64.2	58.0	89.7	110.6	84.4	39.6
x̄	112.2	88.9	26.9	41.9	29.1	94.3	76.8	75.7	17.4	26.6	41.8	57.4	49.7	23.3	101.1	72.2	60.8	126.3	67.9	56.2	93.7	122.4	91.8	41.9

Table 5 (b) Mandibular measurements and indices (Female)

Inh.	L	B	B′	B″	H′	OH	Q′	S	S_1	S_2	S_3	S_1'	S_2'	S_3'	GL	G′H	LB	NH	NB	G_1	G_1'	G_2	EOW	1OW	GB	J	O_1	O_2	U	100B/L	100H′/L	100H′/B	$1000_2/01$	100NB/NL
2	203.8	146.1	104.7	129.1	131.7	116.7	326.2	403.0	132.7	132.5	137.8	113.3	117.0	103.7	–	–	106.1	–	–	–	–	–	110.1	103.0	–	–	–	–	562.3	71.6	64.6	90.1	–	–
6	184.8	141.9	92.3	112.4	128.6	111.7	308.3	372.4	127.6	121.7	123.1	108.6	110.4	93.2	92.6	74.0	95.3	54.0	27.2	52.0	47.1	38.5	99.6	93.5	91.1	125.1	42.4	32.9	517.7	76.8	69.6	–	81.6	50.4
16(a)	177.1	150.3	93.7	122.7	133.5	117.6	333.8	375.2	125.3	127.5	122.4	105.3	111.0	92.0	94.8	69.3	101.8	49.7	21.5	45.1	41.0	–	100.3	95.7	83.2	124.7	42.7	36.7	517.7	84.8	75.4	88.8	85.9	43.3
20	185.2	146.0	101.2	114.1	–	–	–	386.0	137.4	128.3	120.3	115.3	117.4	90.0	–	–	–	–	–	–	–	–	102.8	94.3	–	–	–	–	524.1	78.8	–	–	–	–
25	192.0	142.1	95.0	114.3	133.1	109.5	300.2	367.9	117.5	126.3	124.1	102.2	115.6	99.8	102.1	75.2	108.1	51.8	23.4	49.8	47.1	41.9	97.0	89.2	90.2	131.0	40.6	31.1	528.3	74.0	69.3	93.7	76.6	45.2
27	197.0	145.3	102.9	123.1	126.6	112.6	321.5	387.0	134.2	133.5	117.3	114.2	120.1	90.8	84.2	71.1	98.0	49.8	23.3	46.2	42.0	39.2	106.2	99.1	89.1	–	41.0	37.2	547.3	73.8	64.3	87.1	90.7	46.8
36	–	–	93.0	117.3	–	–	–	–	136.1	114.3	–	–	–	–	–	–	–	50.1	22.7	46.2	41.5	41.3	103.7	94.1	–	–	–	–	–	–	–	–	–	45.3
38	190.3	143.7	97.7	119.2	135.5	106.5	316.2	381.4	131.5	123.7	126.2	113.2	112.7	102.6	87.0	68.2	101.0	51.3	27.1	49.0	43.8	39.9	104.3	99.8	–	–	42.0	33.6	533.8	75.5	71.2	94.3	80.0	52.8
46	186.7	138.2	90.6	113.6	133.2	111.8	307.2	382.1	133.3	121.7	127.1	115.7	109.1	95.3	90.0	67.3	94.1	49.8	21.6	46.4	42.8	–	97.0	90.2	–	–	41.3	34.7	518.8	74.0	71.3	96.4	84.0	43.4
47	176.3	141.1	96.7	131.4	132.8	109.4	305.7	365.5	129.5	124.3	111.7	104.5	110.8	88.9	84.1	69.2	97.0	53.9	26.4	40.4	37.2	41.6	101.7	94.1	91.3	131.1	39.6	33.5	513.2	80.0	75.3	90.6	84.6	48.9
–	188.1	143.8	96.8	119.7	131.9	111.9	314.9	380.1	129.9	127.8	122.4	110.2	113.8	95.1	90.7	–	100.2	51.3	24.1	46.9	42.8	40.4	102.3	95.3	99.9	127.9	41.4	34.2	529.2	76.6	70.1	91.6	83.3	47.0

Table 4 (a). Cranial measurements and indices (Male)

Inh.	L	B	B′	B″	H′	OH	Q′	S	S_1	S_2	S_3	S_1'	S_2'	S_3'	GL	G′H	LB	NH	NB	G_1	G_1'	G_2	EOW	1OW	GB	J	O_1	O_2	U	100B/L	100H′/L	100H′/B	$1000_2/01$	100NB/NH
3	185.6	137.8	92.3	119.8	135.6	110.6	310.3	378.1	132.1	118.5	127.5	111.6	116.0	100.3	–	–	92.3	–	–	*	–	–	98.2	90.1	–	–	40.0	34.8	523.3	74.2	67.7	91.2	87.0	–
4	174.2	137.2	92.7	114.2	125.5	109.7	305.1	369.0	128.7	116.6	123.7	109.0	103.2	99.7	77.1	57.6	90.2	46.3	22.3	38.2	–	–	94.0	90.1	77.9	119.3	38.9	35.3	502.3	78.8	71.7	91.5	90.7	48.2
5	186.8	140.1	103.0	126.7	126.5	110.1	312.8	376.1	141.2	110.3	134.6	118.1	103.4	100.5	83.7	68.0	93.6	52.2	23.0	42.1	40.8	40.6	106.5	99.2	89.0	130.1	39.6	34.7	530.7	75.0	67.7	90.3	87.6	44.1
7	167.8	135.3	83.1	106.1	–	–	268.6	–	104.9	120.3	–	93.8	105.6	–	–	67.1	–	47.5	20.7	44.0	38.1	36.0	93.2	86.1	77.8	117.2	40.5	29.0	475.3	80.6	–	–	71.6	43.6
8	170.4	138.2	92.4	113.2	123.6	105.0	298.8	348.6	117.5	114.0	117.1	101.0	100.2	93.1	78.7	62.2	89.3	45.3	25.0	41.2	37.5	40.6	95.6	87.6	90.3	122.0	37.5	31.6	493.8	81.1	72.5	89.4	84.3	55.2
35	181.8	140.0	98.5	119.7	125.1	110.8	300.2	–	123.5	118.7	–	104.8	107.6	–	99.8	78.0	94.1	54.1	23.4	51.3	48.2	–	103.0	96.8	94.0	125.4	43.8	35.6	516.2	77.0	68.8	89.4	81.3	43.3
–	177.7	138.1	93.7	116.6	125.3	109.2	299.3	367.9	124.6	116.4	125.6	106.4	106.0	98.4	84.8	66.6	91.9	49.1	22.9	43.4	41.1	39.1	93.4	91.6	85.8	122.8	40.0	33.5	506.9	77.8	69.7	90.4	83.7	46.9

Table 4 (b). Cranial measurements and indices (Female)

fairly high one and it is interesting that no deaths could be confidently asserted to have occurred between the ages of seventeen and thirty five years. Deaths from violence – especially battle wounds in men – tend to be concentrated in that age range and the absence of any evidence of such casualties or even of deaths within that period goes some way to suggest that this was a peaceful rather than a belligerent population.

Physical type

In only ten males and six females are the skulls well enough preserved to allow some of the standard cranial measurements to be taken on them. This is too small a series statistically to give a clear picture of the physical type and relationships of these people. Tables 4 and 5 record a few calvarial and mandibular measurements and indices. These show, what is at once apparent when the material is handled, that the Icklingham population was far from being a homogeneous group or one which drew on a narrowly restricted gene pool. A glance at the tables shows that even within the small sample available there was a wide variation of cranial architecture. The Cranial Index ranges from a low dolichocranial level of 71.6 (Inh.2) to a brachycranial of 84.8 (Inh. 16(a)). Similar differences are found in the Length–Height Index which ranges from the low chamaecranial of 64.3 (Inh.27) to the hypsicranial 75.4 of Inh. 16 (a). The Orbital Index includes the chamaeconch 71.6 of Inh. 7 and the hypsiconch 90.7 of Inhs. 4 and 27. Similar diversity is found in other measurements and indices. It seems that some of these persons were derived from the old British Iron Age population, others were probably immigrants from a variety of continental groups.

Stature.

The very small sample of limb bones which is available for the estimation of stature greatly restricts the information which can be obtained. Table 6 records the average stature and range for males and females and shows that they were people of medium height.

Sex	No.	Average	Range		
Male	7	1652 mm	1553	–	1753 mm
Female	7	1599 mm	1509	–	1683 mm

Table 6. Stature

In noting this, however, there remains the uncertainty as to how fully their height represents their genetic potential for this feature or to what extent an adverse environment as regards diet, disease, etc. limited the expression of their biological potential.

Platymeria and platycnemia

The Meric Index is a measure of the antero-posterior flattening of the femoral shaft; the Cnemic Index measures the side-to-side flattening of the tibial shaft. The extent of these flattenings (which appear to be independent variables) differs widely but, in general, seems to be greater in early populations and modern primitives than in peoples of advanced civilizations. The significance of the features is uncertain; so, too, is the extent to which they are a direct expression of genetic determinants or influenced by environmental factors. Increased flattening has been interpreted as a response to the habit of squatting, as a physiological device to economize in the use of minerals for bone formation, as related to mechanical stresses on the bones, as a product of various pathological conditions and much else. No theory is completely satisfactory and it is likely that multifactorial causes operate. For the small sample available at Icklingham it will suffice to record the number of femora and tibiae in each of the categories which are commonly used to define these features.

Tables 7 and 8 do this:

Category	Index	Male		Female	
		No.	%	No.	%
Hyperplatymeria	x – 74.9	4	40.0	3	30.0
Platymeria	75.0 – 84.9	4	40.0	4	40.0
Eumeria	85.0 – 99.0	2	20.0	3	30.0

Table 7. Meric Index Distribution

Category	Index	Male		Female	
		No.	%	No.	%
Hyperplatycnemia	x – 54.9	2	18.2	0	0.0
Platycnemia	55.0 – 62.9	0	0.0	0	0.0
Mesocnemia	63.0 – 69.9	6	54.5	2	16.7
Eurycnemia	70.0 – x	3	27.3	10	83.3

Table 8. Cnemic Index Distribution

The difference between the male and female Meric Indices is negligible for the Cnemic Index there is a considerably greater frequency of tibial flattening in men than women and this would suggest a functional rather than a genetic cause.

Squatting facets

The squatting facets referred to here are small areas on the distal ends of the tibiae. They are, in effect, upward extensions of the antero-lateral aspects of the ankle joint and are due to an articular contact between that part of the tibia and a facet on the neck of the talus immediately proximal to to the head of that bone. As their name implies these features are thought to result from an extensive use of the squatting position. There seems little reason to doubt that this is so.

Tibial squatting facets vary in size from barely perceptible structures to areas which may be half as large as a man's thumb nail. A simple and convenient way to classify them is according to the amount of proximal extension they show, antero-superiorly, from the normal anterior tibial border of the ankle joint: 1st degree = X – 1.9 mm; 2nd degree = 2.0 – 4.9 mm; 3rd degree = 5.0 – X mm. Table 9 shows the number and size of these features in the Icklingham population.

Sex	Absent		Degree 1		2		3	
	No.	%	No.	%	No.	%	No.	%
Male	13	81.25	2	12.5	1	6.25	0	0. 0
Female	3	18.75	0	0.0	4	25. 0	9	56.25

Table 9 Squatting facets

A very clear distinction is apparent between males and females: four-fifths of the men lacked these features, presumably because they spent little time in a crouched position. Less than a fifth of the women were without them and we must assume that most of the females spent a large part of their lives in a squatting posture. Moreover, when present, male squatting facets are much smaller than female ones.

Categorised as above, thirteen females score 35 degrees – an average of 2.7 per facet; three males score 4 degrees – an average of 1.3 per facet. This sexual difference is one which is often found in early populations. At North Elmham 88% of the women had them but only 40% of the men, and similar differences were found at Monkwearmouth and Caerwent. At all these sites the females averaged much larger facets than the males. At Martyrs' Bay, Iona, 100% of the female tibiae had huge squatting facets.

The explanation of these articular extensions is to be sought in differences of occupation, preferred position of rest, perhaps rank and prestige considerations of permitted use of chairs or benches as opposed to floor grovelling, and other habits of this kind. It will be noted that in this population the postulated relationship between squatting and platymeria or platycnemia is a strongly negative one. Squatting facets are commonly found on juvenile tibiae and the final adult picture is probably partly influenced by the age at which they start to develop. (Though in this context it should be noted that they are found in foetal bones, no doubt because the embryo normally develops in a squatting position).

Non-metrical variants

'Non-metrical' variants, as defined here, are anatomical anomalies or alternatives which are assessed on a 'present or absent' basis – regardless of the fact that they are all measurable in some way. Many of these variants are very common and, in some populations, can be considered the 'norm'. Others are extremely rare. In some instances the reason for the variation is obscure. In some it appears to depend on functional or environmental factors. In many, the feature is genetically determined and it is these that are convenient to use, especially when the sample is a small one, because it is then permissible to combine males and females for statistical purposes. Children may also be added if the variant is one, such as septal aperture of the humerus, which is present early in life and should not, like metopism, disappear later.

Table 10 shows the combined male, female and juvenile frequency for a few non-metrical variants. Most of the features recorded in this Table are thought to be of genetic origin. In a few cases the character may be sex linked or dependent on differences between male and female behaviour: gonial eversion, of the mandible is perhaps one of these. However, apart from gonial eversion, cf which the frequency was male 68.4% and female 20.0%, the combining of males and females in Table 10 is justified in all other examples because they were tested separately and in no case was a significant difference of frequency found. It is, of course, possible that this was due to the few skeletons available and the rarity or non-occurrence of some of the sought for variants. Had more been available, sexual differences might have been found, as was the case at North Elmham, where in ninety six male humeri two (2.1%) had a septal aperture compared with eighteen (20.4%) of eighty eight female humeri.

Within its narrow limits Table 10 shows no very exceptional features. The frequency of metopism (17.9%) is higher than in many early groups in Britain but not markedly so. That of double hypoglossal canal is also high. Malar tuberosity, although assessed as 'present or absent' is much more influenced by subjective judgements and its moderately high frequency here (34.2%) may be partly the result of personal bias. Like femoral third trochanter, malar tuberosity is a variant which is likely to be diagnosed on different criteria and so with differing frequencies according to the bias of the observer.

At North Elmham, where more than 200 skeletons were available, it was found that several of these non-metrical variants, instead of being randomly scattered through the burial ground, were clustered in small enclaves – sometimes in adjacent inhumations. This suggested that family burial plots may have been a feature of the cemetery. It does not seem possible to recognise any such grouping at Icklingham.

It is certain that the study of non-metrical variants will be very rewarding in identifying racial affinities and will probably yield information about the relative influence of genetic and environmental factors. So far little work has been done on this subject and Table 10 is included as a small addition to the meagre data which are at present available.

Variant	n	Present	%
Metopism	28	5	17.9
Bregna bone	21	0	0.0
Coronal wormian bone	39	2	5.1
Sagittal wormian bone	20	0	0.0
Lambdoid wormian bone	43	14	32.6
Asterionic bone	36	1	2.8
Inca bone	24	1	4.1
Epipteric bone	31	2	6.5
Supraorbital notch	41	27	65.8
Supraorbital foramen double	40	3	7.5
Supraorbital grooves	37	16	43.2
Parietal foramen	36	18	50.0
Paramastoid process	28	2	7.1
Infraorbital foramen double	29	1	3.4
Foramen of Huschke	46	3	6.5
Double or hour glass occipital condyle	34	0	0.0
Hypoglossal canal double	41	12	29.3
Post-condylar canal	27	11	40.7
Pre-condylar tubercles	40	6	15.0
Sagittal sinus turns left	29	3	10.3
Pterygoid spurs	22	5	22.7
Blurred sub-nasal border	42	6	14.3
Sub-nasal fossiculae	42	3	7.1
Malar tuberosity	38	13	34.2
Marginal tubercle	38	1	2.6
Zygo-maxillary tubercle	37	3	8.1
Multiple mental foramina	45	1	2.2
Gonial eversion	34	16	47.1
Infero-lateral mental tubercles	44	9	20.4
Atlas bridge	35	2	5.7
Ossified apical axis ligament	10	0	0.0
Septal aperture	27	3	11.1
Acetabular crease	22	3	13.6
Femoral third trochanter	28	2	7.1
Vastus notch of patella	15	0	0.0

Tale 10. Frequency of Non-metrical variants (male, female, and unsexed).

Congenital anomalies

Few congenital anomalies were found among the Icklingham skeletons beyond those anatomical features noted under Non-metrical variants.

An os epactale, about 54 x 49 x 47 mm, is present in the R. side of the occipital bone of Inh. 2 (male). The same skeleton had a flat, expanded 'button'-shaped tip to the T11 and T12 vertebrae. Inh. 25 (male) has a six-piece sacrum.

Pathology

(a) Osteoarthrosis.

The commonest identifiable disease at Icklingham is osteoarthrosis which is usually the case with early populations. At least eight (42.1%) of the nineteen males and three (23.1%) of the thirteen females had the disease – a difference in incidence which is also fairly typical. But these figures ignore the actual number of articular surfaces which were involved by the disease. Even where the same numbers of men and women are affected the men usually have a more widespread distribution of lesions. If vertebrae are excluded from this material fifty four male and twenty three female bones are affected.

Arthrosis of this kind reflects the 'wear and tear' of joints from long continued, but often minor, strains and injury. Its anatomical distribution gives much information about which joints were most affected by chronic trauma and therefore about the probable range of activities which damaged them.

Among the women the site of election for arthrosis was the spinal column, including the heads and lateral articular facets of ribs. But this is largely due to the presence of one elderly lady (Inh. 1), with extensive vertebral disease, who had fusion of the T2 – T6 segments into a solid bar – a condition sometimes referred to as 'poker spine' (Plate III). In this instance the synostosis involves the posterior inter-vertebral joints as well as the margins of the bodies. Arthrotic changes in the vertebral column are, perhaps more than anywhere else in the skeleton, likely to be due to simple senile processes – the result of a lifetime spent in maintaining an upright posture and often aggravated by the initial handicap of some congenital anatomical defect in one or more it its component segments.

It is probable that the vertebral lesions of Inh.1 had been worsened by her relatively advanced years; it is less clear what her spinal column had been like when she was a child or young adult. There is some evidence that early developmental defects had led to a mild kypho-scoliosis which would have thrown abnormal strains on her vertebrae and been conducive to the onset of arthrosis and spondylosis. Anomalies of this kind are sometimes the result of postural deformities due to weak para-vertebral muscles which, in turn, are due to living an unduly coddled, sedentary or recumbent life with insuffficient exercise to develop good muscle tone and a well poised trunk. It is likely that this woman had always been physically frail. Her muscle markings are weak throughout her skeleton. This may have made her 'accident prone' and could, indirectly, have accounted for a bad fracture of her R. clavicle and what appears to be a fracture of her L. fibula. She had slight osteoarthrosis of the glenoid fossae and humeral heads of both shoulders. The shoulder is a dependent, not a weight bearing, joint and arthrosis in it is sometimes the result of accidental or deliberate twisting of the arm in its socket. Both her knee joints are severely arthrotic, with the femoral condyles, tibial heads and patellae involved. The cartilage of the L. knee must have been largely destroyed because areas of ivory eburnation are present on the femoral condyles and the medial surface of the patella. In her feet the heads of both first metatarsals are severely arthrotic, again with eburnation. It is possible that this was consequent on bilateral hallux valgus – perhaps from wearing tight shoes rather than loosely fitting sandals. If so we can picture her hobbling painfully around, a style of gait which could have aggravated the

arthrotic condition of her knees. To these lesions can be added a form of osteochondritis, shown by multiple small pits, in the lateral articular surfaces of both patellae (Plate III) and it is to be noted that osteochondritis usually indicates that whatever stress may have caused it began at least in the early teenage period, if not in childhood, and this gives some further support to the suggestion that she had weakly developed muscles from an early age. In addition to her arthrotic lesions this woman had probably had a well healed fracture of the proximal quarter of her L. fibula. (The bone has been damaged postmortem and some slight doubt remains). But there is no doubt that she sustained a severe fracture of her R. clavicle. It has healed firmly but in very bad position (Plate IV) and remains 23.2 mm. shorter than the L. clavicle. It is interesting that as well as the fusion of the T2 – T6 vertebrae, this woman also had ossification of some of her supraspinous ligaments (Plate III). One other feature should be recorded: she had gross thinning of the symphyseal surfaces of both pubic bones, which have been reduced almost to a knife edge appearance with the L. side obliquely overlapping the R. The bones are slightly damaged and it is uncertain to what extent this may have been due to frequent childbearing.

The remaining arthrotic lesions at Icklingham are distributed more evenly. Two men (Inhs. 12 and 36) have very early changes, each in one shoulder. Two others (Inhs. 6 and 27) have slight wrist lesions, a low incidence which suggests that, in general, these people did not greatly use their arms for heavy work. In contrast to this their lower limbs are more extensively affected. Three men (Inhs. 2, 23 and 27) had moderate to advanced arthrosis of the hip joints, two of which (Inhs. 2 and 27) were bilateral. Four (Inhs. 2,6, 20 and 27) had well marked changes in several bones of one or both feet. Whether these lesions were chiefly the result of digging, ploughing and other agricultural tasks or reflect extensive marching over rough ground with the legions cannot be determined.

Finally, it should be recorded that two persons (Inhs. 25 and 46), both males, had early arthrosis of a mandibular condyle which in each case appears to confirm the dental evidence of heavy use of their jaws and muscles of mastication.

(b) Fractures

In contrast to arthrosis, which mostly reflects the chronic wear and tear of bones, fractures are usually the result of a single episode of trauma. At Icklingham five persons have certainly nine, probably ten, fractures between them.

The fractured clavicle and ? fibula of Inh. 1 have already been noted, and Inh. 4 (female) has a fracture in the anterior third of a middle L. rib. This could have been due to a fall or other accident but it is also a fracture which is typically caused by a right handed punch to the chest. Among the men Inh. 36 had four separate rib fractures, all well healed, and these also might have been due either to accident or aggression. Inh. 25 (male) had a fracture of the L. radius, just proximal to the wrist joint. This is the common Colles' fracture and is almost always due to falling forward on to an outstretched pronated hand. The present example is excellently healed. There must have been little original displacement of the two fragments of bone and after repair he would have had only trivial disability. Inh. 20 (male) had a much more crippling injury. There is a severe fracture in the distal third of his L. tibia and fibula. Both bones broke obliquely and the distal fragments were drawn proximally by muscle spasm so that overlap of the two parts has left this tibia 20 mm.shorter than its fellow. The broken bones have healed firmly with an excess of callus which has led to cross union between them, and the tibia and fibula are not synostosed through 42 mm. (Plate V). Widespread arthrosis in this man's L. foot, which involved almost all the tarsal bones, was almost certainly due to or aggravated by this fracture. An exostosis on the lateral side of the head of the L. talus was probably the result of tearing part of the talonavicular ligament at the same time.

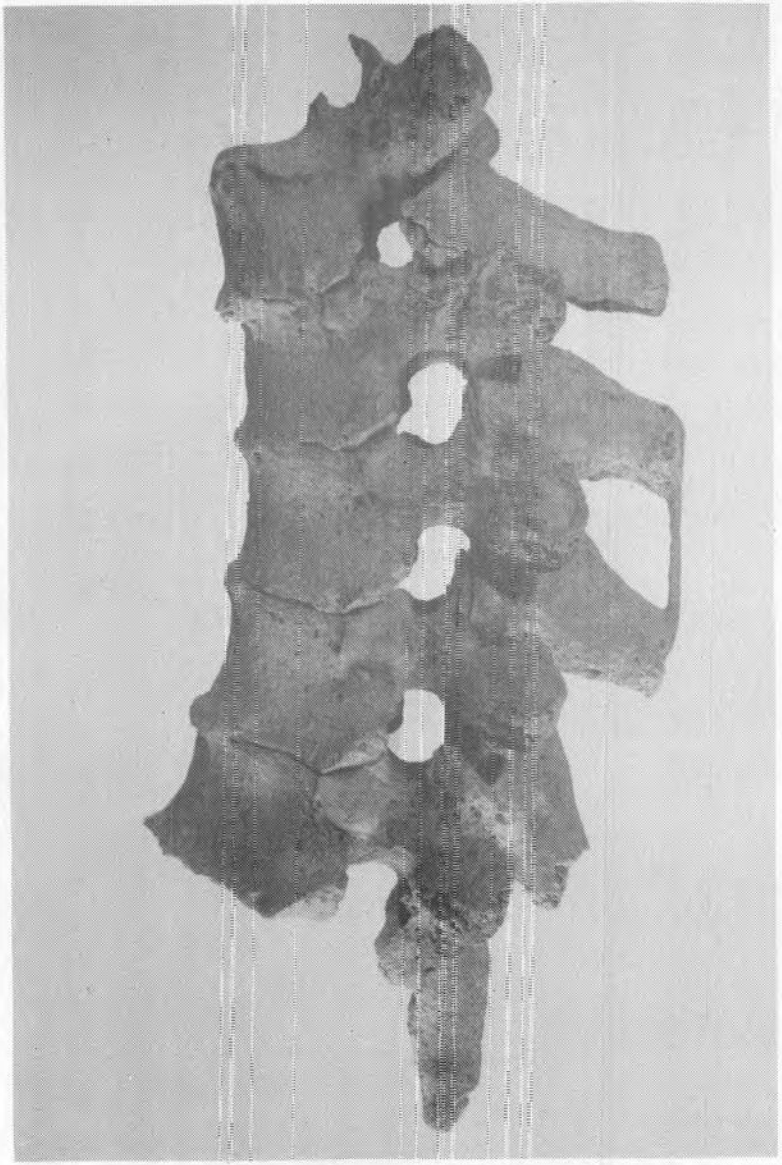


Photo : Mary Kippen

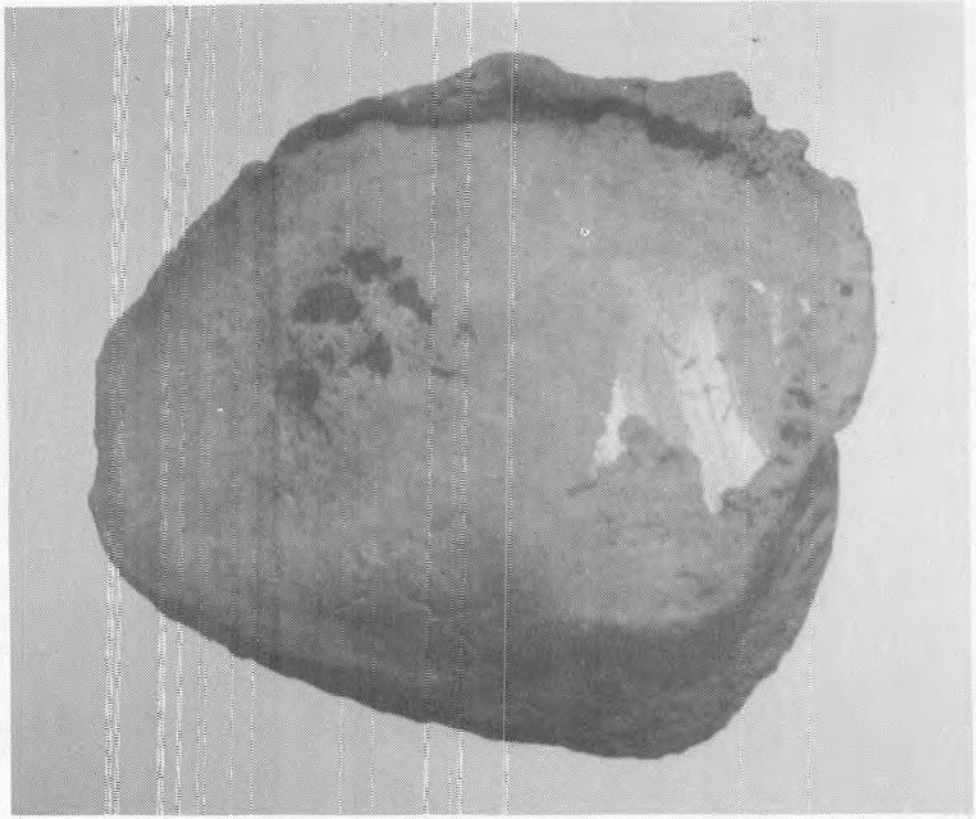


Photo : Mary Kippen

Plate III. ICKLINGHAM :
Inhumation 1, Backbone (left) and L. Patella (right)

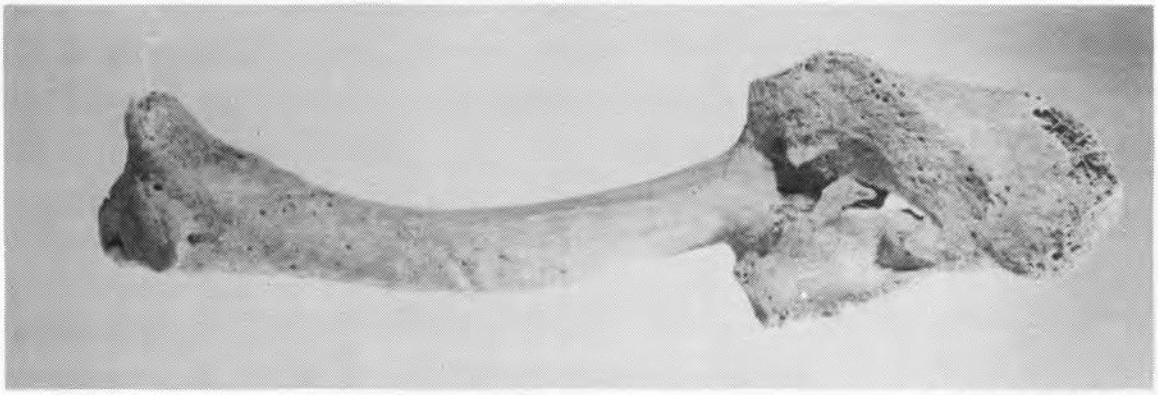


Photo : Mary Kippen

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Plate IV. ICKLINGHAM :
Upper, Inhumation 1, R. Clavicle.
Lower, Inhumation 6, Ulnae and Radii.

The frequency of fractures varies greatly in early populations, as does their relative distribution. It is important, therefore, to record negative as well as positive evidence. Table 11 shows the total number of jaws and limb bones in which it was possible to decide whether a fracture was present or not.

Bone	Total	No. Fractured	Bone	Total	No. Fractured	Bone	Total	No. Fractured
Mandible	19	0	Radius	23	1	Tibia	31	1
Clavicle	23	1	Metacarpal	86	0	Fibula	24	?2
Humerus	24	0	Femur	33	0	Metatarsal	82	0
Ulna	22	0	Patella	15	0	Phalange	111	0

Table 11. Frequency of fractures.

The frequency is not high by early standards. Apart from the ambiguity of the fractured ribs, which has already been mentioned, there is nothing to suggest that these people were unduly aggressive. No ulna 'parry' fractures were found. Broken jaws or noses, both of which commonly result from a punch in the face, are also absent. It seems certain that most of these fractures were due to simple mishaps.

(c) Osteochondritis dissecans

One other condition which is probably associated with trauma is osteochondritis dissecans. It has already been mentioned in discussing Inh. 1. The precise cause and significance of this disease are not fully understood and it has been virtually neglected by palaeopathologists (Wells 1974). It consists of an avascular necrosis in the subchrondral bone of a joint followed by degenerative changes in the overlying cartilage. In modern clinical practice most cases develop between twelve – eighteen years of age and involve the femoral condyles. It is the commonest cause of a loose body in the joint. In early groups the femur is involved much less exclusively than it is today. Apart from Inh.1. the only other persons to have the disease was Inh. 27 (male) who also had both patellae affected. It is difficult, in this material, to give accurate negative frequencies but the lesion was absent from the condyles of thirty four femora.

The overall picture from the various lesions of acute and chronic trauma indicates that these people were physically active and vigorous but were, in general, not subjected to environmental or occupational conditions of extreme severity. Among the women, Inh. 1, may have been weak from childhood and pampered as a result. But this did not stop her surviving to old age and acquiring a number of arthrotic lesions which, especially those of her vertebrae, may have been largely senile degenerations. Of the men, Inhs. 2, 6, 23 and 27 had an extensive range of pathology and were perhaps of serf class.

(d) Synostosis

Synostosis of bones was found in only four skeletons. As noted above, Inh. 20 (male) had cross union of the L. tibia and fibula after they had been fractured. Inh. 1 (female) had fusion of the T2–T6 vertebrae. Inh. 23 (male) also had three fused vertebrae, probably T8–T10. Inh. 35 (female) had synostosis of the L. iliac bone and the sacrum in the inferior half of the L. sacroiliac joint.

(e) Neoplasms

Malignant neoplasms, either in the form of primary bone tumours such as sarcomata or secondary deposits of carcinomata, etc. were not detected among the Icklingham material. Inh. 23 (male) has a fusiform mid-shift swelling of the R. femur which is about 40 mm. long, with slight roughening of its surface near the middle of the lesion. It bears some resemblance to an osteoid

osteoma but the radiographic appearance is ambiguous and it is perhaps more likely that this is an osteitis of unknown cause.

(f) Dislocations

No typical dislocations were found such as jaws, shoulders or congenital dislocations of the hip. However, Inh. 2 (male) which has a mild degree of osteoarthrosis of both acetabula also shows a small lesion in the superior quadrant of the R. acetabular rim. This is about 8 mm. long and consists of a flow 'flange' or interruption of the normal curve of the rim. This lesion is occasionally found in early hip joints and there is some evidence that it is due to a sudden partial, but transient, dislocation of the femoral head from its socket. The femur rapidly returns to the acetabulum and is undamaged but a small arc of acetabular rim is cracked and displaced upwards leaving a notch or flange as residual evidence of what took place. The lesion in Inh. 2 is of very slight extent and some doubt about its aetiology must remain.

(g) Infections

Inh. 23 (male) has been noted as a probable osteitis of the femur. Few other inflammatory or infective lesions are detectable here but an exception is Inh. 20, the man with the fractured and synostosed L. tibia. His tibia shows a slight periosteitic reaction along much of its shaft. This was almost certainly due to the fracture but the mildness of the periostitis suggests that, although there was much displacement of the bones, it remained a simple fracture not a compound one.

(h) Miscellaneous lesions

In many early burial grounds maxillary sinusitis is common and probably reflects a combination of climatic conditions, house design, central hearths, absence of ventilation, etc. No evidence of this condition was found at Icklingham but two men (Inhs. 6 and 27) had very marked deviation of the nasal septum, in both instances to the right. This would have had the effect of greatly obstructing the airway on that side of the nose.

Inh. 36 (male) has a collapsed body of the L2 vertebra, with marked 'cupping' of its superior surface and slight cupping inferiorly, leaving a depth of only 7 mm. between the two surfaces as compared with 21 mm. at the anterior face of the bone. At least three thoracic vertebrae are also wedged anteriorly and slightly cupped. Unfortunately they are badly damaged by post-inhumation erosion and it is impossible to offer a firm diagnosis in this case. The lesions do not resemble a tuberculous infection. They are probably spondylotic in origin but might possibly be due to an infection by an unidentifiable organism.

There remain three burials which are exceedingly puzzling. Inh. 6, an elderly man, has an extensive osteitic thickening in the distal quarter of both radiii, a thickening and granular irregularity of the bone which is most evident on the dorsal surface. Both ulnae are similarly, though somewhat less, affected, also in their distal quarter and especially on their dorsal and medial surfaces (Plate IV). A slight 'grained' appearance extends proximally from these lesions for a few centimetres up their shafts. The L. tibia has some periosteitic graining along most of its shaft but with a thickened zone of osteitis involving most of the cortex in its distal third (Plate V). The L. fibula has a similar and well marked zone of osteitis in its distal quarter. The R. tibia is also affected by the same process but to a lesser degree. Periostitis and osteitis of tibiae and fibulae are extremely common conditions in Anglo-Saxon, Romano-British and other early cemeteries. They are also very perplexing and of unknown cause. In the great majority of cases the reaction extends fairly uniformly in the middle third of the bone and tends to fade away at the upper end and also as it approaches the malleoli. A ring shaped zone just proximal to the ankles, as found here, is not at all typical of it and it is never accompanied by similar changes in the forearms such as those in this skeleton.

Photo : Mary Kippen

Photo : Mary Kippen

Plate V. ICKLINGHAM :
Inhumation 6, Tibia and fibula (left); Inhumation 20, L. Tibia and fibula (right).

The general appearance and localization of these changes in Inh. 6 are very strongly suggestive of shackle lesions in which close fitting metal gyves had been applied just above the wrists and ankles, leading to ulceration of the skin and subcutaneous tissues, with eventual infection and irritation of the periosteum and underlying bone.

Inh. 35, a middle-aged woman, is much eroded by post-inhumation soil damage but well marked pathological changes can be seen. There is widespread inflammatory reaction – a fluted or grained appearance with some pitting and reparative changes – along the shafts of both ulnae and radii. In the distal third of these bones there is considerable thickening and just proximal to the wrists they are surrounded by a 'crust' of new periosteitic bone. Both tibiae and the R. fibula have similar periosteitic changes along their shafts and all have a zone of increased thickening for a few centimetres proximal to the malleoli. There is a great tendency for the new formed subperiosteal bone in this skeleton, and also in Inh. 6, to flake off as a result of soil erosion, giving the impression that even in life the new bone had not been firmly integrated with the original surface of the shaft. Here, again, the total appearance of these pathological changes, especially in view of the forearm involvement, is quite unlike the usual form of periostitis that is so well known in early tibiae. Again, a most compelling suggestion of 'shackle lesion' is given by this skeleton.

Finally, Inh. 38, a middle-aged man with an extremely defective skeleton has gross osteitis of the R. tibia and fibula which extends through the distal two-thirds of both shafts. The bones are much thickened, swollen and irregular. In this case they resemble an ordinary osteitis or low grade osteomyelitis much more than those of Inhs. 6 and 35 but, once again, the most obtrusive part of these lesions is in the distal fifth of the fibula and in a zone extending proximally for about 10 cm. from the tibial malleolus – precisely where shackles would embrace, ulcerate and infect the limb. Could this be such a case? Only the R. leg is affected and if this were produced in this way we should need to think in terms of a 'ball and chain' or tethering by one leg only. The forearms of this skeleton are too defective to reveal if they were abnormal or not and in the absence of any such evidence the diagnosis here must be left open.

As a group these three persons present a remarkable and unusual set of lesions. It is unfortunate that they are all incomplete and in poor condition as a result of post-inhumation damage but I do not think it would be possible to make an unassailable diagnosis for any of them even if they had been perfect. The suggestion that in each of these burials (especially Inhs. 6 and 35) we may be looking at shackle lesions is not one to accept lightly but it is perhaps significant that, in the course of examining many thousands of early long bones – many with inflammatory lesions – I have never previously seen a group such as these. Table 12 summarises the distribution of the pathology.

(i) Teeth

Many of the Icklingham jaws are damaged and incomplete. Omitting small scraps with no alveolus, parts of twenty five adult jaws (13 male, 12 female)survive. If these were complete with normal dentitions 800 identifiable tooth positions should be present. But 119 positions are,in fact unidentifiable owing to damage leaving only 681 which can now be examined. Of these 681 identifiable positions thirty-two (4.7%) contained unformed or unerupted teeth, leaving 649 teeth which had erupted.

Of the 649 erupted teeth ninety-nine (15.3%) had been shed antemortem. The difference between the rates of antemortem male loss (16.3%) and female loss (13.9%) is not significant in view of the smallness of the sample. This combined 15.3% loss is a fairly high one. It can be compared with a loss of 6.8% at Kingsworthy (Early Saxon), 7.9% at Jarrow Monastery, 11.1% at North Elmham (Late Saxon), 15.9% at Red Castle, Thetford and 6.1% at Caister-on-Sea (Middle Saxon). It suggests a rather poor level of oral health for the Icklingham population.

	Male Burial												Female Burial				
Lesion	2	6	9	12	16(a)	20	23	25	27	36	38	46	1	4	7	22	35
Congenital	+							+									
Torus												++			++		
Osteophytosis: vertebrae		+					+		+				+	+	+		
Osteoarthrosis: vertebrae		+							+				+	+	+		
O.A. Head of ribs		2											3	2			
O.A. Tubercular facet of ribs	2	4								1			1	3			
O.A. Scapula				+						+			++				
O.A. Head of humerus													++				
O.A. Wrist/Hand		+							+						+		
O.A. Sacrum (S.1. joint)														++			
O.A. Ilium (" ")														++			
O.A. Acetabulum	++						++		+								
O.A. Head of femur							++										
O.A. Femoral condyle	++								+				++				
O.A Patella									++				++				
O.A. Tibial condyle													++				
O.A. Ankle/Foot	+	+				+			++				++				
O.A. Jaw								+				+					
Schmorl's nodes							+										
Osteochondritis dissecans									++				++				
Exostosis			+		+	+											
Fracture						2		1		4			?2	1			
Synostosis						+	+						+				+
Periostitis/osteitis		++				+	+				+						++
Miscellaneous	+	+					+		+	+	+		+			+	+

Table 12. Distribution of Pathology

N.B. – Where two crosses appear in a column these represent L. & R. sides of the skeleton.

Of the 649 erupted teeth a further seventy-nine (12.2%) had been lost postmortem, leaving 470 teeth present in the jaws. Of these 470 teeth twenty-six (5.5%) are carious. Split for the sexes the figures are: 251 male teeth with sixteen (6.4%) carious and 219 female teeth with ten (4.5%) carious. By modern standards this would be a very low rate but it is not remarkable for an early group. Table 13 gives some perspective to the figure by comparing it with a few other populations.

Population	Date	Author	Caries %
Icklingham	R.B.		5.5
York	R.B.	Cooke et al. (1958)	4.6
England (pooled)	R.B.	Emery (1963)	11.4
Kingsworthy	E.S.	Wells (In press)	3.2
England (pooled)	E.S.	Hardwick (1960)	8.1
Jarrow Monastery	A.S.	Wells (In press)	2.8
Monkwearmouth	A.S.	Wells "	0.4
North Elmham	L.S.	Wells "	6.4
Thetford	L.S.	Wells (1967)	1.5
Norwich	c.1750 –1858	Wells (1968)	18.9

Table 13. Adult dental caries frequency

The above details refer to permanent dentitions. Only twenty three deciduous teeth survive none of which are carious.

In four teeth the caries cavity was occlusal; in five it was cervical on the buccal surface; in eight it was a contact caries; and in the remainder its site of origin could not be detected owing to the advanced or total destruction of the crown of the tooth.

Periodontal abscesses were uncommon here. Only five were found, all of them small, and of these only two were associated with a carious tooth. The others were propably due to recession of the alveolus from an excess of tartar. These abscesses, which were distributed among four men and one woman represent an incidence of 0.7% in the 649 erupted teeth.

Dental attrition was universal in these jaws. The small sample hardly justifies a complicated analysis of the attrition affecting each separate tooth so a broad classification of each jaw was adopted instead. A five point scale was used ranging from 0 = Absence of attrition to 4 = severe attrition which had opened the pulp cavity. This is a subjective and somewhat crude assessment but it is enough for our present purposes. Twenty three adults score a total of 63 degrees, giving an average of 2.7 degrees per person. There is a slight sexual difference with men averaging 3.1 and women 2.4. This is a high degree of attrition by modern standards but not by early ones. The combined male and female value at Jarrow was 2.6, at Kingsworthy 2.7 and at North Elmham 3.1. These figures are quoted, although they do not come from closely similar populations, because they were assessed by me on the basis of identical criteria – an important consideration with a feature as subjective as attrition.

Deposits of calculus or tartar occur on about half the jaws. They are mostly slight although Inhs. 36 (male) and 45 (female) have it extensively. There seems to be little difference between males and females in its incidence or severity. Compared with modern jaws, in which deposits of

calculus tend to be concentrated close to the orifices of the salivary ducts, the distribution of tartar at Icklingham is more evenly scattered over the teeth. There is no evidence here that oral hygiene was practised by the use of toothpicks or other devices but it cannot be proved that no such custom prevailed.

At least eight (32%) of the jaws (4 male, 4 female) had some degree of enamel hypoplasia. This is a condition due to some adverse factor which affects the developing tooth germ so that it is finally marked by ridges, pits and other irregularities of the enamel. In modern dentitions the most commonly affected teeth, in descending order of frequency, are the central incisors, lateral incisors and first molars. This implies that the causative factors of hypoplastic enamel affect the child chiefly during the first eighteen months of life. At Icklingham the distribution of the lesions is more widely scattered, with the canines involved as often as the incisors and the premolars and second molars also affected. This indicates that the infective, nutritional or other factors which produced these defects were also operative through the two – four year period of childhood.

As far as could be judged dental occlusion was good among these people and anomalies of tooth morphology were few and of no great consequence. Overcrowding of the anterior teeth occurred in several burials (e.g. Inhs. 24 (female), 47 (male) and 1 (female) but it was not severe. Inh. 36 (male) had extensive overbite with much bevelling of the incisors. In Inh. 22 (a) (female) the $\underline{2}\rfloor$ appears to be congenitally absent, and all other unformed or unerupted teeth were third molars.

Tori of the jaws (or elsewhere) were uncommon in this material. Inh. 7 (female) has a palatal torus about 18 mm. long in the posterior half of the palate and a low maxillary torus on the lingual side of $\underline{\lfloor 7}$. Inh. 46 (male) has small bilateral mandibular tori.

The total dental evidence from Icklingham permits several inferences to be made. The overall level of oral health as shown by antemortem tooth loss, dental caries and alveolar disease was moderate. The amount of attrition suggests a fairly coarse diet but not an excessively tough or abrasive one. The culinary skill of these people was probably above that of many early groups and as far as the limited evidence goes their preference seems to have been for roasts and baked meals rather than soft stews or porridges. In contrast to what is found at many early sites there is no clear evidence here which suggests the extensive use of teeth as tools to perform special tasks.

Table 14 summarises the dental state.

Fertility

One of the results of pregnancy and parturition is to stretch and tear some of the pelvic ligaments and muscle attachments, especially those around the pubic symphysis and the pre-auricular groove of the ilium. Permanent changes in the bone follow and from these it is possible to recognise that a woman has produced children and, more importantly, to form some estimate of the number of pregnancies she has had. This clearly has great significance when studying the demography of early populations.

At Icklingham most of the female pelves were too badly damaged to assess their obstetric history but in six cases it was possible to do so. (Table 15)

Burial	Age	Probable range of births	Average
1	55–70	4 – 6	5
3	35–45	1 – 3	2
4	35–55	3 – 5	4
8	25–30	2 – 4	3
24	42–46	1 – 2	1½
33	40–45	4 – 6	5
6 women	–	15 – 26	20.5
		2.5 – 4.3	3.4

Table 15. Number of pregnancies per woman.

Inh.	Male Maxillae																Male Mandibles															Inh.
	R						Tooth Position									L	R														L	
	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	
2	?	△7	△6	5	4	3	0	?	?	?	?	?	?	?	?	?	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	2
6	0	7	0	5	△4	△3	0	1	1	2	3	4	.	6	.	.	.	▽	.	0	4	3	2	1	1	2	3	4	5	6	7	△8	6
11	0	.	.	.	.	0	0	0	0	0	0	0	.	.	.	0	?	?	0	0	0	0	0	0	0	0	0	0	0	△6	7	8	11
12	–	7	.	5	4	△3	2	0	1	2	3	4	△5	6	7	–	–	7	.	.	△4	3	?	1	1	2	3	4	5	.	△7	–	12
16(a)	8	0	.	5	▽▽	3	2	1	1	2	3	4	5	6	.	–	8	△7	6	5	4	3	2	1	1	2	3	4	5	.	7	8	16(a)
23	?	.	.	.	.	0	0	0	0	0	3	4	.	.	.	?	?	.	.	0	4	3	0	0	.	2	3	.	△5	0	.	–	
25	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	8	7	6	5	4	3	2	1	1	2	3	4	5	.	7	8	25
27	–	7	.	▽	4	3	2	0	0	2	3	4	.	.	△7	–	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	27
36	△8	7	6	5	4	0	2	1	1	2	3	4	5	6	7	–	–	7	.	5	4	3	2	1	1	2	3	4	5	6	7	–	36
38	.	7	6	5	4	3	2	0	0	2	3	4	5	6	.	8	8	7	.	5	4	3	2	1	1	2	3	4	5	6	7	8	38
44	?	?	?	.	.	0	.	.	.	.	0	.	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	44
46	?	?	.	.	.	0	0	0	?	0	0	.	.	.	.	?	8	▽▽	.	5	4	.	2	1	1	2	3	4	5	.	.	8	46
47	0	0	6	5	4	3	2	1	1	2	3	4	5	6	7	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	–	47

Inh.	Female Maxillae																Female Mandibles																
1	–	7	▽6	5	4	3	2	1	1	2	3	4	5	6	7	–	–		6	5	4	.	0	0	0	0	0	4	5	.	.	?	1
3	?	?	?	?	?	?	?	?	?	?	?	0	0	6	7	0	8	7	6	5	0	3	2	0	0	0	3	4	5	6	7	8	3
4	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	?	4
5	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	–	–	7	6	5	4	3	2	1	1	2	3	4	5	6	7	–	5
7	?	7	0	.	4	3	1	1	1	2	3	.	5	6	7	–	?	?	?	?	4	3	2	1	1	2	3	4	5	6	7	–	7
8(a)	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	8	7	6	5	4	0	2	1	1	2	3	4	5	△6	7	8	8(a)
22	–	7	6	5	4	3	–	0	1	2	3	4	5	0	7	–	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	22
24	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	–	7	6	5	4	3	2	1	1	2	3	4	5	6	△7	–	24
33	–	7	6	5	4	3	2	1	1	2	3	4	5	6	7	–	?	7	6	5	4	0	0	0	0	0	3	4	5	?	?	?	33
35	–	0	6	5	4	3	2	1	1	2	3	△4	5	.	.	8	△8	.	.	5	4	3	2	1	1	2	3	4	5	.	△7	△8	35
43	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	–	△7	△6	5	4	3	2	1	1	?	?	?	0	△6	7	–	43
45	–	7	6	5	4	0	0	0	0	0	3	4	.	6	7	–	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	45

Table 14. Summary of Dental State.

Coding: 1,2,3,etc. = Tooth present
. = Tooth lost antemortem;
0 = Tooth lost postmortem;
– = Unformed or unerupted;
? = Indeterminable;

△ = Tooth carious;

▽ = Paradontal abscess.

By taking the average of the estimated ranges it will be seen that about twenty children may have been born to these six women – an average of 3.4 per woman. If the minima and maxima of the ranges are taken the average for the group could be 2.5 to 4.3 children per woman. (This refers to births, not to undiagnosable pregnancies which had terminated in early miscarriage). Although this figure may appear to be a low one, it is typical of many other early communities as far as it is possible to estimate them. The absence of widespread contraceptive techniques need not imply an almost continuous succession of pregnancies for women: many factors combine to impose a limit on fertility. To the full term births an approximate 20% should be added to cover spontaneous abortions, thus giving a range of about eighteen – thirty one pregnancies for the six women or a likely average of twenty four between them. It is interesting that most of these women had probably already fulfilled their reproductive potential and were close to or already past the menopause, which almost certainly occurred much earlier in Romano–British than in modern English women. Only Inh. 8 is likely to have had a substantial part of her reproductive life still ahead of her when she died.

With this low birth rate and what must have been, by modern standards, a high infant death rate the population at Icklingham could have increased only very slowly if at all. It must, indeed, have been precariously poised, barely holding its own and extremely vulnerable to any adverse pressures upon it.

Gnawing of bones

In many early cemeteries e.g. some of those at Cirencester (Wells, in press) it is common to find bones which have been gnawed by dogs, rodents or other animals. No such bones were identified at Icklingham and from this it may be reasonably inferred that these inhumations were buried fairly deeply and that the graves were afterwards guarded against predators until decomposition of the corpse was substantially complete.

Cause of death

Apart from manifestly fatal wounds it is seldom possible, in ancient skeletons, to know what was the cause of death. Occasionally, as in the case of malignant tumours, a very strong presumption is justified but even in the most convincing examples there is almost always uncertainty. A man whose skeleton is riddled with secondary carcinoma may have succumbed to a coronary thrombosis or cerebral haemorrhage not directly related to his cancer.

At Icklingham there is no burial in which the cause of death can be even tentatively suspected. The few examples of osteitis seem to have been old well healed lesions. No fatal wounds are detectable. No specific diseases which might have been potentially lethal were identified.

Absent diseases

The absence here of any trace of malignant tumours has already been noted. It may also be said that among infections there was no firm evidence of osteomyelitis, and nothing to suggest the presence of leprosy, tuberculosis or syphilis. Cribra orbitalia, a condition probably due to certain forms of iron deficiency anaemia and one which is perhaps related to hyperostosis spongiosa was absent from forty two orbital roofs. Unlike Cirencester (Wells 1974) no evidence of gout occurred in these people. Frostbite or other gangrene of toes and fingers was not found. No evidence of an obstetric death was detected. No definite weapon wounds occurred. It is possible that some of the teeth which had been lost antemortem had been deliberately extracted but apart from this there was no evidence of any surgical operation such as amputation or trephination.

The burials from F.32

A group of six skulls and other bones (Inhs.42to47) were found clustered together in the lower level of the deep pit, F.32. They were sealed under the chalk and immediately predate the cemetery. A puzzling fact about these six inhumations is that they all virtually consist of isolated skulls and this suggests the possibility that they may have been deposited in this pit as trophy heads from decapitated enemies, that they are relics of a cult of head veneration, or that some other ritual practice led to their assemblage here.

No consistent pattern emerges when these skulls are examined individually. Nothing but the cranium is present in Inhs. 42, 45, 46 and 47 but fragments of the axis vertebra occur with 43 and of the atlas with 44. Inhs. 43–47 were adult, 42 was a child aged three or four years. Inhs. 44, 46 and 47 are males,43 and 45 females, 42 is unsexable. No evidence of decapitation is detectable on the base of any of the skulls; nor is it present on the broken vertebrae of 43 and 44, although the possibility that post-mortem erosion of these latter bones has masked a wound cannot be unequivocally excluded. Of the surviving mandibles only that of Inh. 47 offers any clue. It has a truncated gonial angle on the right side. This, too, is slightly blurred by post-inhumation damage but it was almost certainly due to a cut when the bone was fresh. If so, it is in a position that is very typically wounded as a result of decapitation, especially when the blow is delivered from behind by a normally right handed man. In so far as such a wound indicates a powerful stroke from a sword or axe it is perhaps more likely to indicate a lethal beheading of the living than a leisurely dismemberment of the already dead.

The predominant colour of most bones from most of the Icklingham burials is a light sandy or buff tint. At least four of the skulls from the pit (Inhs. 42, 45, 46, 47) have various amounts of grey, dark brown or blackish discoloration upon them which is distinctly different from the prevailing colour of the series as a whole. This may give some slender support to the idea that these skulls had been kept, perhaps cached in a burial trench or exposed to flame and smoke, before they were finally interred in the pit F.32. However, undue weight should not be placed on this because a few bones in some of the other burials also show a similar discoloration. The change may be due to nothing more than carbonization of algae, fungal mycelia or other post-inhumation organic invaders of the Haversian canals and other intraosseous spaces.

October 1976

DISCUSSION

INTERPRETATION

Although there was a scatter of first and second century material (including Samian) from the excavation, no features of that period were found.

A considerable quantity of third and fourth century pottery was sealed by the chalk layer, although few features could be identified. The most intriguing was the largest pit (F.32) close to the later central building (Building B). The presence of unusual, decorated tegulae and imbrices both above and below the chalk sealing layer would seem to indicate an initial, deliberate infilling of the pit, its sealing with chalk and, eventually, a further levelling of the subsided fill from the same source. The source of this building rubble cannot be the central building itself as fragments of the same type of decorated tile occurred in levels below it. The complete pillar from below the chalk in the fill is indicative of a most important structure somewhere nearby. The pillar was already of some age when buried, as the weathering on one side clearly shows and is likely to have stood on a low wall as part of a portico. If the central building was not a rebuild on an earlier site, and there seems no real evidence of this, the building indicated by the discovery of tesserae in the next field to the east during the laying of a water-pipe some years ago may well prove to be the origin of this pillar and the fragments of unusual decorated roof tiles found in the large pit and scattered around

the site. The purpose and significance of this, obviously major, building cannot be ascertained before excavation, but three factors may be related to it. Firstly, the presence of the six skulls in the primary levels of the pit which pre-date the inhumation cemetery. One of the skulls showed signs of decapitation (see p. 119), and four had the lower jaw associated. The circumstances are unusual and difficult to interpret without detailed knowledge of the building in the next field. Secondly, the area of the later inhumation cemetery, stretching from Prigg's inhumations in stone coffins to the 1974 excavation, includes the site of the suspected building and the pit with the skulls. Thirdly, the chalk layer, although now incomplete, may well represent a deliberate 'cleansing' of the entire site.

Is it possible that the skulls, the pit (F.32), and the building from which the pillar was derived, are concerned with a pre-Christian sanctuary?

The pottery from the pit belongs to the pre-chalk phase, with very few Oxford ware sherds among a considerable quantity of potsherds and several fairly complete vessels. Many of the sherds show considerable signs of burning; a feature only matched by pottery in a similar condition in the elongated pit (F.29), just to the east. No independant dating evidence was found.

The possible purpose of the chalk layer has already been mentioned in terms of a 'cleansing' of the site. The date of its deposition can be at least suggested. The graves in the western area of the cemetery were cut through the chalk and five of them contained a total of nineteen coins loose in the fill, ranging in date from Quintillus (A.D. 270) to Valentinian (364–75). Only a single coin of c.383–408 was found in a post-chalk pit (F.7). Although the arrival of Oxfordshire pottery in East Anglia cannot be closely dated, it is noticeable that it is virtually absent from levels below the chalk and present in those above, (with the exception of a few fragments from the big pit (F.32) filled in at the time of the deposition of the chalk). As there were no mid to late fourth century coins from below the chalk, the later issues loose in the graves could provide a date for them, suggesting a mid-fourth century date for the chalk layer.

The generalised east-west orientation of the graves, the lack of grave goods, and the association with the lead tank strongly suggests a Christian cemetery.

There is no direct evidence of the purpose of Building B, which dates from the period of the chalk, but, as no burials were found within it the building was not a mausoleum of the Poundbury type. The apsidal structure to the east and the fragmentary walls around it were on the same axis with the central building (of which only the very base of the foundation remained); there was some indication of a possible extension on the east wall of Building B, which may relate the two structures. There was no evidence for the small apsidal structure, lined with plaster and having a step or seat on one side, being incorporated into foundations of a comparable nature; the timber foundation slot on the south side could at most only have been a minor partition wall. This structure would appear then to have been free-standing; probably within a larger building to the east of, and in line with, if not actually joining, Building B. Although the lead tank was discovered close to the 'apse', the internal 'step' precludes the positioning of the tank within it. This structure, although different in overall shape, has features in common with the hexagonal structure at Richborough reconsidered by Brown (1971, 225–31) and compared with continental fonts at Cologne, Boppard and Zurzach. All are plaster lined; Richborough, Boppard and Zurzach are about the same size (c. 1 m. internally); Cologne twice as large (2.03 m. internally). Richborough is hexagonal, Cologne octagonal, Boppard heptagonal, but Zurzach was square originally. The continental examples all have an internal step, but at Zurzach on the north side only; that at Cologne has second steps on the north and south sides. All are dated to the late fourth or the early fifth century. Although there is an apparent preference for these fonts to be many sided, there is no absolute consistency in the arrangements, or for the actual position in relation to the body of the Church; the example at Boppard is at the west end of the Church and separated by a partition; the others all appear to be incorporated in buildings (baptisteries) to one side.

The recent re-examination of the Silchester Church (Frere 1976, 277–97) emphasises the differences that existed in Christian Churches of the late fourth century, where no trace of a sunken font was found; but a foundation facing the entrance is suggested as a support for a basin for ritual ablution. If the apse at Icklingham is a font the lead tanks may then have fulfilled that purpose.

CONCLUSIONS

Icklingham, from its size alone, was clearly an important settlement in Romano–British times: similar to other large, open sites in the county, notably Pakenham (Ixworth), Long Melford, Coddenham, Stonham, Hacheston, Capel St. Mary, and Wenhaston together with Scole and Hockwold immediately adjacent in Norfolk. Such excavations as have been conducted on these sites show a general pattern of similarity: they are large, sprawling settlements with evidence of buildings, often of some quality (tesserae tiles); very rich in coins, brooches and other objects; each dominating an area of the countryside as unwalled towns, rather in the manner of later, medieval, market centres. Many of them in fact are adjacent to such later markets although continuity cannot be claimed as many of the medieval markets concerned are quite late foundations.

Local pottery industries are another common feature with kilns from Coddenham, Hacheston, Pakenham and Icklingham. Although 'Iceni and other British coins' (Prigg 1901, 64) have been found at Icklingham and a scatter of sherds in the area excavated, little is known of an Iron age occupation of the site. Indeed, although coins and pottery of the first and second centuries are also recorded, the extent and nature of the site is unknown until the third century. For the 'late' period there is an impressive list of finds including two major hoards containing Honorian coins; and four metal hoards with a total of thirty-seven pewter vessels, and a one-piece bronze cauldron. The site of the discovery of the pagan ritual regalia from Lackford (the 'Cavenham' crowns) overlooks the settlement at Icklingham, and must be associated with it in some way.

The significance of the large pit containing six skulls, a stone pillar and quantities of unusual, decorative roof tiles is suggestive of an older, pagan significance to this site. possibly emphasised by the 'purification' of the area with the chalk layer – if that is what it implies. The presence of tesserae in the next field, and the absence of a substantial building in the pre-chalk phase in the excavated area, may well mean that the answer to the pre-Christian usage of the site lies there; with an important building, possibly a temple, as the focal point. There can be no doubt about the importance of Icklingham as a Christian centre in the latter part of the fourth century however, with the discovery of three lead tanks with Christian monograms, and the presence of a large cemetery attributable to that faith, associated with buildings. The use to which the tanks were put is a problem unresolved by the excavation; that there are three tanks, or possibly four, is even more embarrassing as it makes even the solution that they were for ritual foot-washing ceremonies unlikely. The fragment from Cambridgeshire, in the same style, and probably from the same workshop, strengthens the possibility that these objects were being made at Icklingham, and that Icklingham was an important centre of Christian worship. It is worth recalling that in the 1956 hoard (Liversidge 1959, 8) one of the pewter vessels had a badly drawn fish as decoration.

The buildings associated with this phase are, unfortunately, too fragmentary for detailed interpretation. However, the central structure does not appear to have been a mausoleum in the Poundbury (Green 1974) style; it does share the same axis as the apse and may conceivably have been connected to a building which housed that structure. In the light of the Richborough and continental evidence it is suggested that the apse was a font, and that either Building B is a small Church to the west (e.g. Silchester) or that another, possibly more elaborate building lies unexcavated to the east, and that Building B could be interpreted as an ante room for novitiates. In one respect the Icklingham Church is unusual. As Radford (1968, 31) has pointed out, the Churches in the forts and towns were built for congregational worship and would therefore include baptism; those associated with cemeteries were primarily concerned with the cult of martyrs; Icklingham appears to be a congregational Church within a cemetery.

This may be explained by the nature of the settlement itself, which, like similar sites in East Anglia, was a sprawling, unenclosed settlement with apparently unrestricted development. In such a situation the positioning of the Church in the cemetery, close to at least one major building (the 'villa') might well be reasonable.

The Christian cemetery and the associated buildings all belong to the last phase of activity of the site; the end of organised Romano–British settlement being reflected in the deposition of the two coin hoards of the Honorian period, the pewter hoards, and the dismantling of the buildings – highlighted by the collection of door hinges and nails found in the 1971 lead tank – suggesting that Icklingham came to a rapid, if not violent, end. Although the date of that end cannot be fixed with precision because of the problems concerning late Roman coinage, a date c.400 would seem to be the earliest of a possible range, which might conceivably extend to beyond the 420's. The importance of Icklingham as a Roman Christian centre may well be significant in relation to the Christian aspects of the Mildenhall silver, only six miles away.

Late Roman military equipment is known from Icklingham (Hawkes and Dunning 1961, 60) but the implications cannot be gauged as to whether this implies some sort of garrison, or simply a retired veteran. The skeletal evidence indicates a non-belligerent community, in general not subjected to conditions of great severity but with three possible examples of individuals being shackled for a considerable time.

The early date for the initial settlement of Anglo-Saxons at West Stow is obviously pertinent to the discussion of the end of Roman Icklingham. There, although the date of the all-important facetted-angled pottery is debatable, opinions are hardening to c.380. The evidence for an overlap between the arrival of the Anglo-Saxons at West Stow and doubtless at other sites, is strengthened by the occurrence of a quantity of late Romano-British pottery on the otherwise unoccupied Anglo-Saxon site: far more than could be reasonably explained as the result of scavenging from a destroyed Roman settlement. The preference for the Roman pagan burial ground, and possible sanctuary, at Lackford in the Anglo-Saxon period points to a strong local tradition creating a situation where that cemetery became a focal point for cremations in an area where inhumation was the favoured rite. The size of the Lackford cemetery has parallels with Spong Hill (Norfolk) and Loveden Hill (Lincolnshire) and must have served an area rather than a single community.

One fragment of decorated Illington-Lackford pottery of the sixth century was recovered from the plough soil on the site; other evidence of Anglo-Saxon involvement is not yet forthcoming apart from the inhumation cemetery at Mitchell's Hill, immediately to the south-west.

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NOTES

1. Suffolk Archaeological Unit Records.
2. British Museum Registration No. 1844. 2–23, 1–9.
3. British Museum Registration No. 1853. 4–11, 1–18.
   Ipswich Museum Accession No. 1936. 244, 14, 15, 16, 18.
4. British Museum Registration No. 1853. 4–11, 19.
5. Both hoards in Mildenhall Museum.
6. Finds exhibited at Ipswich Congress; J. Brit. Archaeol. Ass., XXI, 345.
7. Described as Ram's Pits Field in Salmon, N., 1730; 160.
8. Moyses' Hall Museum, Bury St. Edmunds, Accession No. H.34.
   Ashmolean Museum, Oxford, Registration No. 1930.
9. Road widening has now moved the road immediately to the south of the site.
10. Tithe Map of Icklingham, 1839; Suffolk Records Office (Bury St. Edmunds) 55/42.
11. Now lost.
12. Col. Browning, Weatherhill Farm, personal communication.
13. British Museum Registration No. 1946, 2–4.1.
14. Author's observation.
15. Now in the Ipswich Museum, Accession No. 1972–43.
16. This field has been known as 'Kiln Field' only since the discovery of the Romano–British pottery kilns.
17. Some pottery in Ipswich Museum.
18. M. Lindsey, Old School House, Flempton, personal communication.

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THE PLACE–NAME ICKLINGHAM : A PRELIMINARY RE-EXAMINATION

by Norman Scarfe

with an Appendix on the Iclingas, by Edward A. Martin

To place-name experts, specialists in language, Icklingham looks a straightforward enough name, and perhaps it means no more than they say, in, for example, The Oxford Dictionary of English Place-names: 'probably' the ham (homestead) of Yccel's ing (Yccel's people). E. Ekwall, author of that invaluable dictionary, goes on to explain that the cc of Yccel would be palatalized (i.e. presumably, would be pronounced ch, or perhaps almost k.y as in cute) but that it would of course remain stopped (i.e. remain a hard k sound) before the letter l when followed by -ingham. There seems to be an element of hypothesis in Yccel. However, Yccel is on no account to be identified with Icel. Professor Kenneth Cameron, the leading authority, is unequivocal: 'A personal name Icel does not explain the forms.'

At least two reasons seem to justify the intrusion of an amateur into this highly skilled linguistic field. One is that the amateur linguist may have a more useful professional knowledge of the place, which is, after all, a vital element in any place-name. Looking at the pattern of place-names beginning with Ick– and its relationship with the Icknield Way, on the one hand, and the known settlement area of the Iceni (which itself seems unlikely to be unrelated to the Icknield Way) on the other, historians of East Anglia may perhaps be forgiven for wondering that such conspicuous coincidences of pattern seem not even to have been glanced at by the place-name experts themselves. A second reason is that neither the professional students of place-names nor those of East Anglian archaeology and history seem ever to have examined at all fully the evidence of the way the name of the Iceni would have been pronounced by those people themselves and by their contemporaries. Thirdly, in the absence of any progress of a Suffolk volume in the Place-name Society's great Survey, one takes courage from the thought that the only considerable study specifically devoted to Suffolk since World War II is Place-names of the Deben Valley Parishes (Ipswich, 1946) by W.G. Arnott, who fortunately did not feel that he was undertaking more than the amateur can sustain. Finally, the emphasis and the meaning given to Icklingham's name in a powerfully argued recent book (John Morris, 1973) invite a response from all of us involved in a fresh archaeological interpretation of the place.

Briskly disposing of the philological argument, the intrepid historian of Britain from 350 AD to 650 AD, John Morris (1973, 271–3 and 298), equates the Yccel of Icklingham with that Icel who was decended from Offa the Great (over in Angel, in N.W. Germany), and who was himself the direct ancestor of Kings Penda and Offa of Mercia. On the strength of Icklingham and other East Anglian place-names (see, at the end of this article, the Appendix on the Iclingas by Edward Martin, who kindly drew my attention to this passage in John Morris's book), Mr. Morris with courage and ingenuity invents a precursor of the Wuffinga Kingdom in East Anglia, places it in 'Norfolk and the Lower Ouse', at the northern end of what he calls 'the Icknield region', and puts it into the hands of the dynasty of Icel.

These dashing hypotheses – in so many ways persuasive – depend upon an association of fifth century inhumation grave-goods, notably the Anglian cruciform brooch, with places whose names appear to him to contain a reference to Icel; especially Icklingham 'among the new settlements on the Lark'. Yet Professor Jackson, head of the Department of Celtic at Edinburgh University, in a recent letter to me, says, of Icklingham, 'nor is it likely that an –ingham village name would be based on a line of Kings'. Indeed, a ham does seem perhaps a rather homely establishment for so powerful a family to inaugurate: it is usually taken to mean the homestead of a family-group of working farm-settlers. Morris spoils his case by claiming that 'it was in later times a royal residence where a King's daughter was born'. He has obviously confused Icklingham with Exning, but perhaps that confusion may in the end turn out to be not so inexcusable.

The real trouble with this 'ham of Icel's people', as I see it, is that it is immediately brought into serious question by all four of its earliest recorded forms. Three of these are the references to the place in Domesday Book, where it is twice spelt ECCLINGAHAM, and once ETCLINGAHAM (the 't' is clearly a slip of the scribe's pen, and meant for a 'c'). At about the same date, 1086, the name appeared in the Inquisitio Eliensis with no variation in the initial vowel, as ECHELINCGHAM. In short, although a century after this (c. 1188–1200, Davis 1954, 143), this place-name had become, as it has ever since remained, Ikelingham with an I, its earliest recordings unfailingly suggest to the layman the ham of ECCEL's people. Professor Kenneth Cameron, of Nottingham University, Director of the Survey of English place-names, who has with great kindness commented on three early drafts of this paper, explains that both E and I are developments of the Old English Y. The implication is that, if you start with Yccel, both Ecclingham and Icklingham are equally to be expected. Professor Cameron adds: 'It all depends upon what the Domesday Book E and the subsequent I forms represent in Old English'. This still leaves one wondering whether there is any alternative to Yccel. One cannot help noticing another very curious confusion of E with I connected very precisely with this neighbourhood, though with a tribal name as distinct from a place-name, as I will try to demonstrate below.

Mr. Stanley West has shown that when the English first settled at West Stow, in the decades round about the year 400, the adjacent settlement in Icklingham, separated from them only by the Icknield Way, was a Romano-British one of high significance and importance (West with Plouviez 1976). One might expect that at least down to the time of the English revolt against Romano-British authority in the 440's (to use John Morris's convincing dating) the English farmers in Stow were the contemporaries, not the successors, of the Romano-British farmers in Icklingham. These are the circumstances in which Icklingham itself is likely to have acquired its English name. (If John Morris were right about Icel, then it had to wait for its English name until 'the later 5th century' (Morris 1973, 272), when Icel 'moved his royal centre and the remainder of his subjects from Angel to Britain', and when, presumably, members of his family or household settled near the Romano-British site).

But another explanation seems just possible, in view of the unanimity of the earliest spellings of the place-name, with the initial E. The English at West Stow may be presumed to have provided an element of continuity in preserving the name of the settlement across the road at Icklingham; and they would presumably have called it something, given it some name, before Icel and his people came over to Britain in the later fifth century. The question that I would like thoroughly examined is whether their Romano-British neighbours (whom they were perhaps first introduced into the district to defend), thought of themselves as Iceni or as Eceni, and whether the ham of those Iceni or Eceni could, by 1086, by any process acceptable to the place-name experts, have become Ecclingaham.

It was Stanley West who first saw the significance of their coin-inscriptions in this inquiry. At Eriswell, four miles from Icklingham, a hoard of 255 of their coins, from about the time of the Roman conquest, contained sixty two inscribed ECEN, and thirty eight inscribed ECE. ECE coin-inscriptions came, also, from a hoard at Lakenheath, from Santon Downham, from March and Wimblington across the fen, from Market Weston, and from Honingham, over towards Norwich (and Venta Icenorum), (Fig. 45). A small number of coins appear to have been inscribed, in full, ECENI. Here the first and last strokes of the name are hard to read, but these readings are very significant since it has been assumed (Frere 1967, 48) that these inscriptions refer to one of the kings of the tribe, which indeed is possible.

Professor Jackson has explained that British (and primitive Irish) was an inflected language, i.e. the word-endings changed, as in Latin: and, 'as Common Celtic was rather close to Latin, it is not surprising that in British the plural would have been Iceni (pronounced Ikěni, with stress on the short e); singular Ikěnos'.

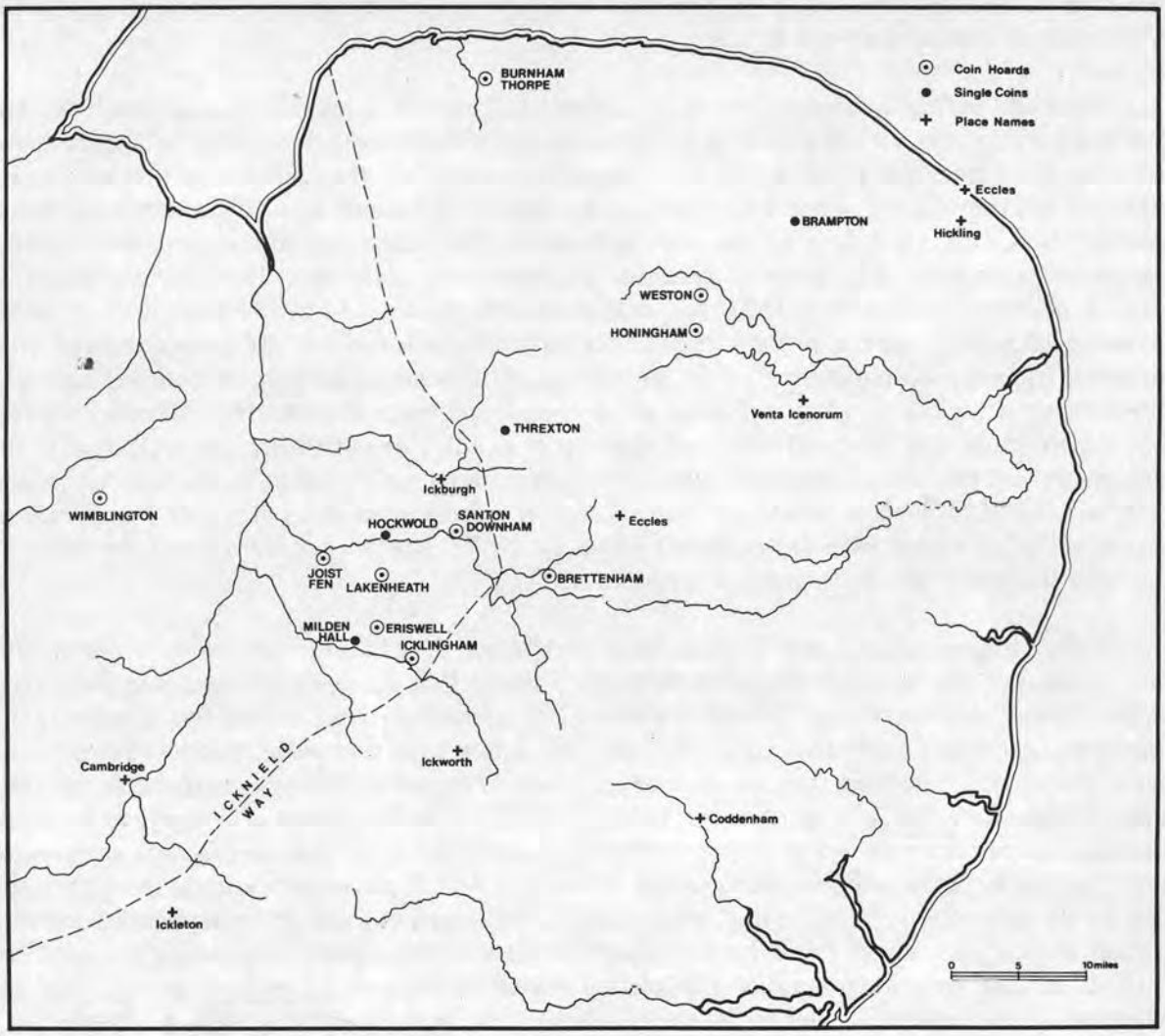

Fig. 45.
Distribution of ECEN and ECE inscribed coins and place-names mentioned in the text.

However, from the coins, it seems likely that, whatever the Imperial Romans may have called them, they called themselves ECENI. Knowing as little as we, inevitably, do about their actual pronunciation, is it perhaps possible to infer that this C, too, may at some time have been palatal, with the word sounding like Ek-yenni? It is noticeable that Caesar, the earliest Roman who appears to mention them, half a century B.C., was non-committal about the initial vowel, and called them the CENIMAGNI. The possibility that he was referring to the Iceni is recognised by Professor Frere (1967, 48), and it is hard to think who else could be intended. The initial I seems to have been introduced by literary Romans, by Tacitus,who was followed by Ptolemy and by the compiler of the Antonine Itinerary. But it seems questionable whether so proud a tribe, who demonstrably called themselves Eceni, would have altered their name to Iceni to suit the Romans; also questionable whether they would ever have forgotten their tribal identity, even after (? especially after) the smashing of Boudicca's terrible revolt and the later enjoyment of citizenship of Rome. The Cornish still think of themselves as Cornish, Cherokee Indians as Cherokee, and so on.

Faced with my suggestion that the Iceni of the Roman historians thought of themselves as Eceni, Professor Jackson, with monumental patience, comes to the rescue of the accepted form, Iceni. He says: 'It is quite possible that the British short i was a lower and more retracted vowel than the Latin short i, and the natural Latin letter to represent this might well be felt to be e. In fact, Classical Latin short i became short e in Vulgar Latin, and quite early, and is commonly so spelt. The managers of the mint, in their effort to spell Iceni, might very likely spell it Eceni, hence all these coins'. But in so doing, his authoritative linguistic explanation seems to me to confirm,

rather than refute, my original suggestion that the Romans thought of the tribe as Iceni, while they thought of themselves more as Eceni.

Tribal and personal names are regularly abbreviated on British coins. This explains ECE. The important question, which can probably never be conclusively resolved, is whether this tribal name was liable, like a personal name, to be abbreviated in speech; whether, for instance, their English neighbours might not have abbreviated their name, either affectionately or derisively (one thinks of Yanks, Brits, Iti's, etc.). It is certain that nicknames found their way into place-names, though much more commonly into Scandinavian and Norman ones than into Old English examples (Mawer & Stenton 1924, 121 & 167). The closest analogy to what I have in mind is the Norfolk place-name Shimpling, where, just north of Dickleburgh, there is incidentally an important British farm site. Originally Shimplingham, it is interpreted by Ekwall as the ham of Scimpel's people, Scimpel being a nickname formed from a word corresponding to the Old High German scimph, 'joke'. At any rate, if it is conceivable that a group of Eceni, living at Icklingham well on into the fifth century and perhaps beyond, thought of themselves, or were thought of by their Early English neighbours, as ECE, then it would be a small step for those English to attribute them with an ancestor or tribal leader with the personal name Eccel, Eccel being a derivative of the personal name Ecca (Ekwall 1960, 159), and being related to Yccel.

Eccles, fifteen miles from 'Ecclingham', just short of Attleborough, bears a place-name which is one of an unexpectedly large number in this district that are agreed by philologists to have possible British connnections. Though Ekwall (1960) envisaged an alternative possiblity ('a personal name Eccel, a derivative of Ecca'), Eccles has lately been very authoritatively pronounced to be a place-name 'implying the existence of some sort of British population-centre with organised worship' (Cameron, 1975, 1, quoting Jackson 1953, 227). Professor Cameron's article heads an indispensable collection of recent studies refreshingly introduced by Margaret Gelling as, to some extent, 'a reaction against assumptions which dominated British place-name studies from the early 1920s to the late 1950s.' In accepting, unreservedly, this interpretation of the name as 'place with a British church', one notes Professor Cameron's admission: 'No British church-site has yet been identified on the ground at any of the places whose names contain eglēs, but sometime the archaeological evidence may well be available'. 'Perhaps the most interesting feature I have noted,' he adds, 'is that many are close to Roman roads'. One cannot help asking him to consider whether, if the name finally can on no account be related to the Eceni, it is truly impossible that Ecclingham means something like 'the ham of the British people with the church', for the British church here at Icklingham, with its remarkable baptistry, must have been a conspicuous, or at least a well remembered, feature of the district. To laymen it certainly seems at first sight ironical that no archaeological evidence of a British church has yet been found at a place named Eccles, while traces of such a notable centre of British Christian worship have emerged at a place with a name of such apparently irrelevant affinity.

In her introduction to these recent studies, Margaret Gelling refers to the 'perennial controversy' about the extent to which the British population survived the English settlement, and the way place-name evidence has caused place-name experts to be, 'on the whole, believers in less rather than more British survival'. At least, for Icklingham's neighbourhood they can hardly doubt extensive survival.

Brettenham (with Shadwell, 'St. Chad's well') adjoins Thetford, itself only two parishes (eight miles) distant from Icklingham. And Brettenham seems to be one of the key English words to denote a ham of the British. Here the attribution is especially convincing since the site there of a British village, near the boundary with West Harling, where Peddars Way crosses the Thet river, is known to have been occupied from the first to the fourth centuries, and continues on into the English period. Then, immediately across the Lark river from Icklingham lies Tuddenham, and it is agreed that Tuda is from a British Toto– name (as Chad, see Brettenham above, is from a British Catu– name, Jackson 1953, 554–5). A mile or two south-west of Tuddenham, Kentford parish begins and the Kennet river flows, and Kennet, too, is a surviving British name.

While scanning Icklingham's neighbourhood for British parishes, my eye keeps lighting upon Cavenham, and facts relating to both it and Icklingham that may be relevant.

Icklingham (Ecclingham) has, as we saw, three separate entries in Domesday Book. The most significant one (Page 1911, 428), far from showing its royal status, which John Morris claimed (1973, 272), described it specifically as a large berewick, a subordinate grange, of the royal manor of Mildenhall. In registering the subordinate status of Icklingham (whose dimensions it gives as 3¾ miles x 3¾ miles), may not Domesday Book have unwittingly recorded the prolongation of a servile status clamped upon a community of British in the early days of the East Anglian Kingdom? Domesday Book registered eight serfs still in Icklingham in 1086, a very high proportion for a Suffolk village, though nothing by West Country standards.

In addition may not that community of British have adjoined a neighbouring community of British in Cavenham? For Domesday Book recorded (Page 1911, 529) that Cavenham was also a berewick, subordinate to the Earl of Clare's great manor of 'Deseling', now Desning, in Gazeley, a parish originally contiguous with Cavenham, though now divided from it by the parish of Higham, set up in 1861.

If both Icklingham and adjacent Cavenham (with its remarkable linear earthwork defences) represent a concentration of British inhabitants, this perhaps strengthens the case made by I.D. Margary (1955, 245) for placing the Camboricum of the Antonine Iter V 'at or near Icklingham'. This is not perhaps the moment to examine the possibilities of a transformation of Camboricum into Cavenham, but we certainly need not recoil from the idea that traces of British communities may survive in the eleventh century Domesday record of the area.

The most vivid of the testimonies of their survival into the eighth century comes in the Life of St. Guthlac of Crowland (c. 674–714), written in the 730's by a monk called Felix (Colgrave 1956). Guthlac, like the Mercian Kings, descended from an original Icel (see appendix by Edward Martin, below). But what I want to emphasize here is Felix's description of Guthlac's hermitage in the fen, and of an episode that occurred there. The hermitage was established in the side of an apparently Roman tumulus, which incidentally had already been robbed by 'greedy frequenters of the wilderness in search of treasure'. One night, the hermit was awakened from his sleep to find a crowd of Britons trying to cross the swamp to attack his home. Felix says Guthlac understood their sibilant speech 'because he had once been in exile among them'. (They fled at his singing of the 67th Psalm!). In view of the contemporary Mercian troubles in the west, Felix naturally regarded the British as 'those implacable enemies of the Saxon people'. If there were any question of Icel's being identifiable with Eccel, then we have a confusion of origins indeed, with a common origin for both the British of Eccles and Ecclingham/Icklingham, and for the Mercian Kings. But my object in quoting from Guthlac's Life was to show the British in lively form in the fenland edge of eighth century East Anglia.

In 1953, Professor Jackson (1953, 236) wrote that an enclave of Britons 'may perhaps have existed in the heath and forest country of West Suffolk and Essex, where . . . . . the archaeological and place-name evidence for very old English occupation is comparatively meagre. . . . . The neighbourhood seems to have included some elements still recognisably British even in the 10th century, if we may judge from the fact that the regulations for the Guild of Thanes at Cambridge belonging to that period, specifically lay down, the fine for the killing of a Briton as distinct from that of an Englishman'.

If I am right in thinking that those serfs in eleventh century Icklingham were British, then it is to be hoped that some fine, at least, was payable for the killing of them too. There is no doubt that some Britons were once slaves, whatever their role may be in the future, or however they may have pronounced the name of their once famous tribe.

APPENDIX: THE ICLINGAS by Edward Martin

The royal dynasty of Mercia traced their descent from a man named Icel and were therefore known as the Iclingas, 'the decendants of Icel'. In the life of St. Guthlac of Crowland (c. 674–714), a member of this family, it is said that his ancestry ran back to an original Icel, ab origine Icles, (Colgrave 1956).

The Anglo-Saxon Chronicle (Whitelock et al. 1961) under the year 626 records the accession of Penda of Mercia and gives his ancestry as: – Penda – Pybba – Creoda – Cynewold – Cnebba – Icel – Eomaer – Angeltheow – Offa – Waermund – Wihtlaeg – Woden. The same genealogy down to Pybba is again given under the year 757 on Offa of Mercia's accession.

Offa the son of Waermund, otherwise known as Offa the Great, was king of Angel in Schleswig, Germany, in the 4th century A.D. Both Offa and Eomaer are mentioned in the Anglo-Saxon poem Beowulf (Wright 1957, 73), 'Offa of the house of Hemming' and 'Offa, a notable soldier, ruled his native land wisely, and was famous for his victories and generosity. From him sprang Eomer, grandson of Garmund of the house of Hemming, a skilful campaigner and a bulwark of fighting-men'. It will be noted that here Eomaer is given as the son, not the grandson of Offa, and that Offa's father is given as Garmund instead of the similar Waermund. The implication of this reference is that both Offa and Eomaer ruled on the Continent, and therefore Icel must have been first to rule in Britain, and probably for that reason was looked upon as the founder of his line.

Except in these genealogies Icel is unrecorded historically. Icel's descendant Penda of Mercia came to the throne in 626 A.D. according to the Anglo-Saxon Chronicle, and was then aged fifty; for reasons given by the editors of the Chronicle (Whitelock et al. 1961, 17) it is likely that this is erroneous and a birth-date of c. 600 A.D. for Penda is more acceptable. If the genealogy of the Mercian line is trustworthy and if we allow for a thirty year gap between generations we get a birth date for Icel c. 450 A.D.; if we allow only a twenty-five year generation gap we get a birth date of c. 475 A.D. This would place Icel in the second half of the fifth century or the early sixth century, a period when several Anglo-Saxon kingdoms appear to have been founded, or, at least, saw their first beginnings.

The fact that the Mercian kings regarded Icel as the founder of their dynasty seems to imply that Icel founded a kingdom, but if so the location of his kingdom is unrecorded. His great-grandson Creoda of Mercia died in 593, for in that year the Chronicle records that 'Ceawlin, Cwichelm (of Wessex) and Crida perished'. Creoda's involvement with the kings of Wessex has resulted in him being intruded sometimes into Wessex genealogy as a son of Cerdic. Creoda is also regarded as the founder of a kingdom in Lindsey, 'One list records the early rulers of Lindsey. It regards Creoda as its first king and notes his origin. The first name after Woden is "Cretta Vinting", and Vinta "son of Woden" is the name of no person in English or in British, but of a place, Venta (Icenorum), the Roman name of Caister-by-Norwich, the centre of the 5th century East Anglian kingdom of Icel. It may be that Creoda was himself the East Anglian king whom Uffa of Ipswich expelled; or that he was heir of a cadet branch of the dynasty, whose origin in the Norwich area was remembered', (Morris 1973, 298). However it should be noted that Professor Jackson of Edinburgh thinks that it is unlikely that the name Vinta should simply be the place-name Venta.

ACKNOWLEDGEMENTS

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John Morris goes on to see Icel's name commemorated in several East Anglian place-names (Fig.45): Hickling, on the Norfolk coast near Norwich (which Ekwall (1960) gives as meaning 'Hicel(a)'s people'); Icklingham, Suffolk, (the hām of Yccel's people; though note above the reservation of Professor Cameron in equating Yccel with Icel) and Ickleton, Cambridgeshire (the tūn of Icel's people). There are however other place-names which appear to contain the name Icel which are outside East Anglia: Ickleford, Hertfordshire (the ford of Icel's people); Icklesham, Sussex (Icel's hamm); and Hickling, Nottinghamshire (Hicel(a)'s people), and could only be associated with later descendants of Icel or another individual.

Hickling in Norfolk is quite close to the presumed centre of the kingdom at Caister-by-Norwich. Icklingham may represent an expansion of the kingdom down the Lark valley. The -ing- portion of the name implies 'people of, descendants of' which may mean that some of Icel's descendants lived at Icklingham, or that the population owed direct allegiance to Icel. At the time of Domesday (c. 1086) Icklingham was royal property, being a subordinate berewick of the royal manor of Mildenhall. Morris (1972, 272) says that a king's daughter was born at Icklingham, however, this is presumably in error for Exning where St. Etheldreda, the daughter of King Anna, was born.

It is, perhaps, just possible that the name of Icel's son, Cnebba, is incorporated in an old name for Burgh Castle, Norfolk. Bede says that a site for a monastery was given to Fursey by King Sigebert 'in a camp (castro) which is called in English Cnobheresburg (Cnobheresburg, id est Vrbs Cnobheri), that is the city of Cnobhere,' (Colgrave & Mynors 1969, 270). Cnobhere is a dithematic name, however, many Anglo-Saxon dithematic names are often found in a hypocoristic or shortened form, e.g. the Chronicle version C,records that in 571 'Cuthwulf fought against the Britons', version E however records that in 571 'Cutha fought against the Britons'. Similarly the Chronicle records, in 597, a Ceolwulf the son of Cutha, and in 611 it records a Cynegils, the son of Ceola the son of Cutha. The shortened form of Cnobhere would have been Cnobba, which is just one vowel different from Cnebba. Following in this trail of royal names incorporated in place-names, and assuming that Morris is correct in equating Creoda of Mercia with Cretta Vinting of Lindsey, it is tempting to see the name Creoda in several Suffolk place names: Crecting St. Mary & St. Peter (which Ekwall (1960) gives as 'Craeta's people'), and Cratfield (Craeta's field). However there are dating difficulties in this.

Creoda, who was probably born c. 540–550 A.D., was, as we have seen, regarded as the founder of a kingdom in Lindsey and as a Mercian king with no recorded ties with East Anglia. The Iclingas, if they originally ruled East Anglia, were replaced by the Wuffingas, a dynasty that arose in the Ipswich area of Suffolk. Wuffa, after whom the dynasty is named, and therefore perhaps the founder of the kingdom, (even though a gloss against the name of his father, Wehha, in the Historia Brittonum says that he was 'the first to rule over the East Angles in Britain'), was probably born c.525 A.D., which would make him a contemporary of Creoda's father Cynewold. It is therefore likely that Cynewold, or just possibly Creoda, was the last of the Iclingas to rule in East Anglia. Creoda seems to be firmly placed in the Mercian orbit and is possibly commemorated in some place-names in the area of Mercia: Credenhill, Herefordshire, (Creoda's hill) Cradley, Herefordshire (Creoda's lēah), and Cratley, Nottinghamshire, (Crāēta's lēah).

However a case could also be made for an original Iclingas kingdom in the Hertfordshire area, for, as we have already seen there is an Ickleford (the ford of Icel's people) in Hertfordshhire, and there is also a place called Knebworth (Cnebba's worth) in the same county.

Thus it is possible that in the second half of the 5th century A.D. an Anglian prince called Icel crossed over to England to rule over his fellow countrymen already settled in Britain. The Angles in Britain, on the final collapse of whatever British rule that may have survived up to the middle of the 5th century, could hardly have made a better choice for a king to rule over them than a descendant of Offa the Great, for as we are told in the Anglo-Saxon poem Widsith (Alexander 1966, 39), 'before all men Offa stands'. On the basis of place-names and the epithet 'Vinting'

applied to his descendant Creoda, Icel's kingdom may possibly have been centred in Norfolk with an extension into Suffolk (but note above the possible Hertfordshire claim), a kingdom which disappeared with the rise of the Wuffingas, a process which must have been completed by the end of the reign of Wuffa's grandson, Redwald, the fourth Bretwalda, who died in 624 or 625. The Mercian Iclingas may represent the displaced East Anglian dynasty or they may be a junior line that founded a new kingdom for themselves in the west prior to the destruction of the senior East Anglia line, though the possibility still remains that they arose from the Angles of Lindsey or Middle Anglia and that their only link with the East Angles was their Anglian blood. The attacks on East Anglia by Penda of Mercia c. 640 and again in 654, when King Anna of East Anglia was killed, now take on renewed interest: were these merely expansionist raids or was Penda trying to regain his ancestors' kingdom? It seems that Penda was temporarily successful in regaining East Anglia, for King Anna's brother and successor, Aethelhere, died fighting as one of thirty 'duces regii' or 'royal ealdormen' of Penda of Mercia, in 655, (Colgrave & Mynors 1969, 290).

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IPSWICH ARCHAEOLOGICAL SURVEY: SECOND INTERIM REPORT

By Stephen Dunmore, Tom Loader, and Keith Wade

SUMMARY

In 1975, the Suffolk Archaeological Unit investigated four sites in Ipswich. Excavations at the Magistrates' Court site, Elm Street, revealed what is interpreted as a pre-Conquest town defence. South of the River Orwell, in the suburb of Stoke, further Middle Saxon occupation was examined, including a ditch interpreted as a possible bridgehead defence. At 24 St. Helen's Street a Thetford-type ware pottery kiln was excavated, extending the known manufacturing area some 100 m. eastward. Finally, excavations at 15–17 Lower Brook Street produced a useful group of medieval skeletons, and evidence of occupation which may suggest a Middle Saxon origin for the main north-south street of the town.

MAGISTRATES' COURT (IAS 3902) TM 1591 4452

An open area of 400 square metres and four trenches were excavated. The earliest activity (1st century) was represented by a shallow ditch and a possible grave containing the upper part of a human skull. Two small ditches were probably Middle Saxon (c. 650–850), but the most intensive occupation on the site was Saxo-Norman (c.850–1150), and can be divided into three principal phases of activity (Fig. 46), each associated with Thetford-type ware.

The first Saxo-Norman phase comprised a north-south ditch, 7 m. wide and 2 m. deep, with evidence of a pallisade on the inner edge, and post or stake-holes irregularly spaced along the outer edge. A similar arrangement of post or stake-holes on the external lip of a ditch has previously been identified in the 'pre-A.D. 913 ditch' at Tamworth (Gould 1968–9, 33–6), although the function of such posts remains uncertain.

Despite the lack of evidence for an associated bank, it is suggested that the ditch represents a Late Saxon town defence, on account of the defensive elements present in its construction and its position in relation to the medieval town defence further west (Fig. 48). A similar interpretation is also suggested for the Late Saxon ditch discovered in 1959 under the medieval rampart on the east side of the town (West 1963, 291–4).

Precise dating for the construction of the ditch at the Magistrates' Court site is impossible, but occasion for it might have been provided by the Danish incursions of 869–70, the 'reconquest' of East Anglia by Edward the Elder in 917, or the renewed Danish raids in 991 and 1010. The fact that the ditch was superseded by two further phases of Saxo-Norman occupation indicates disuse well before c. 1150 (the approximate terminal date for the production of Thetford-type ware).

In the second phase, a cellared building, 4 m. wide and over 6 m. long, had been cut through the east side of the completely infilled ditch (Fig. 47). The total length of the building is unknown, since the north end lay beneath a modern road. At the south end of the building, the natural clay had been removed to form a gentle slope with three shallow steps down to the cellar. Traces of wood suggested that the cellar walls had been timber-lined. The base of the cellar was clean natural clay, and the distinct division between this clay and the later infilling material indicates the possibility of some form of floor covering. Both the long sides of the building were represented by continuous trenches containing post impressions left by vertical timbers. Along the south end of the building, two lengths of trench were separated by a gap representing access to the cellar via the steps.

Immediately outside this opening, at the foot of the steps, a large post-hole, sealed by the backfilling of the cellar and steps, appeared to pre-date the use of the south entrance. The size and position of this post-hole suggest that it once held a ridge-post. If this was the case, the insertion of the south entrance must have necessitated an alternative arrangement for supporting the roof at this point.

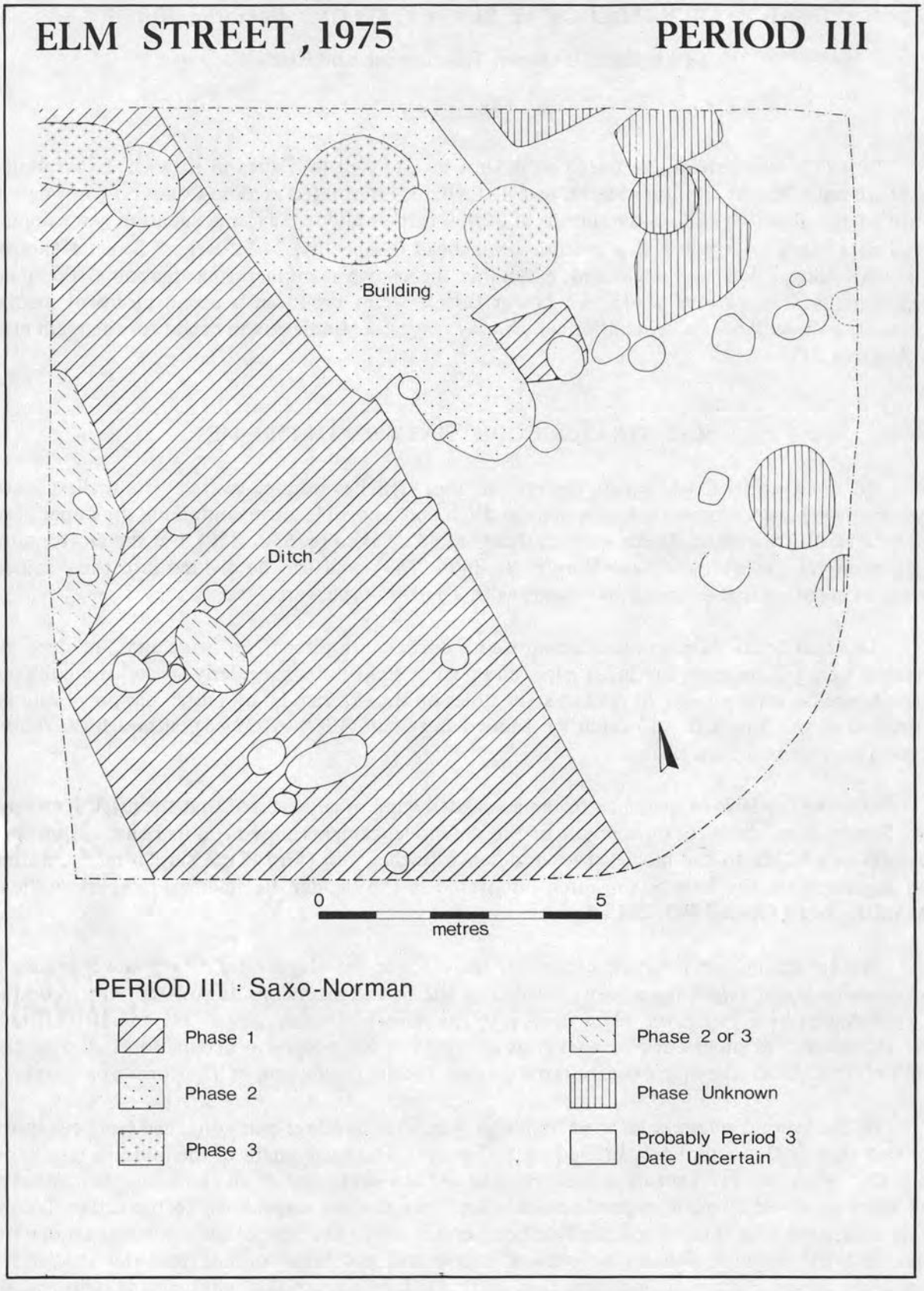

Fig. 46. MAGISTRATES' COURT EXCAVATION, IPSWICH :
The main area during the Saxo-Norman period.

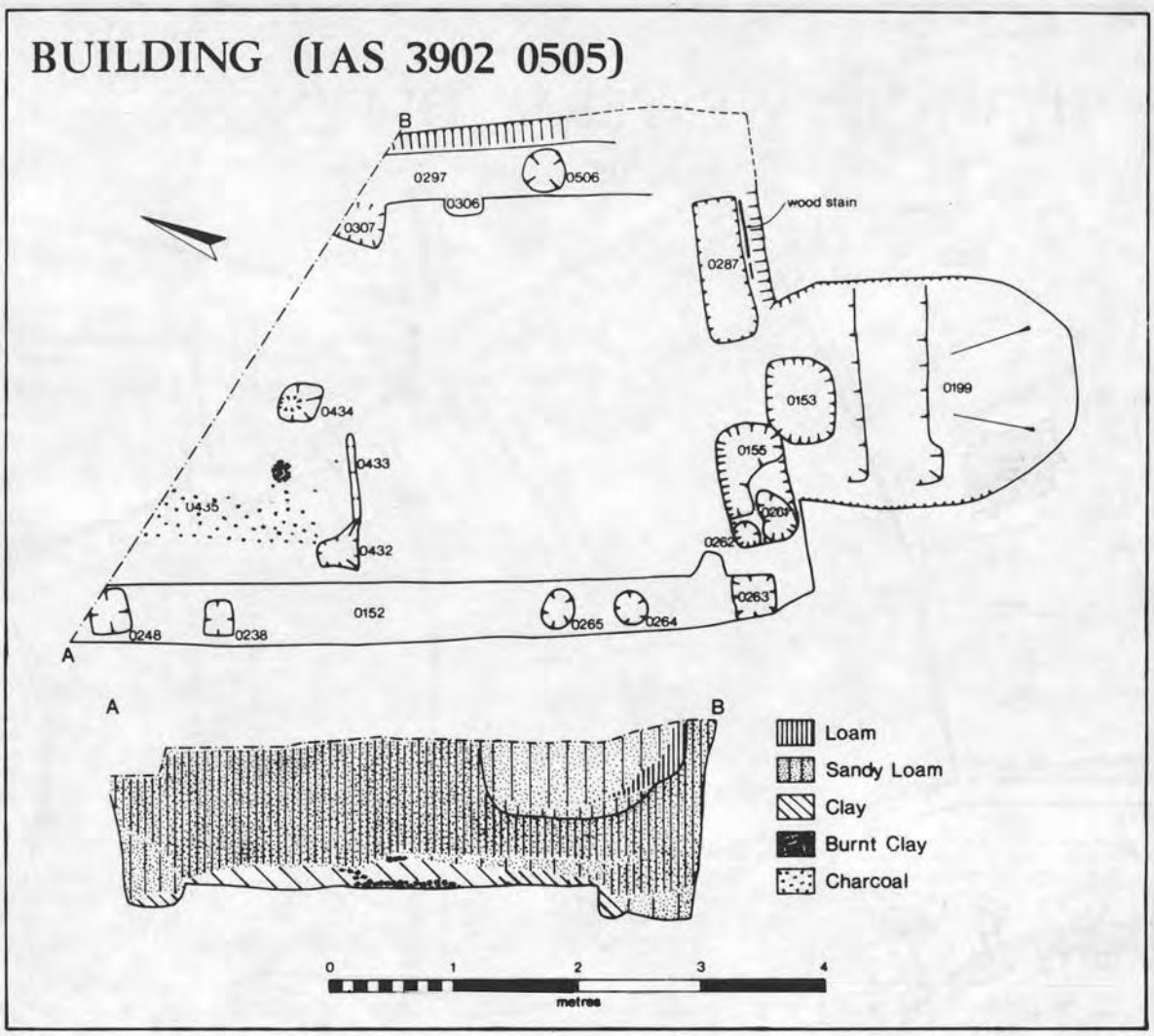

Fig. 47. MAGISTRATES' COURT EXCAVATION, IPSWICH :
The cellared building.

The fill of the cellar included both raw and fired clay which may have been the remains of a hearth from the floor above. Similar Saxo-Norman cellared buildings have been excavated at Thetford, Norfolk (Davison 1967, 205–6).

The third phase of Saxo-Norman occupation consisted of two rubbish pits cut through the infilled cellar. Further Saxo-Norman pits on the site could not be stratigraphically related to the phased sequence.

Medieval occupation was lacking, but by the late 15th or early 16th century the possibility of houses fronting the west side of Currier's Lane was indicated by a few pits associated with very slight remains of flint, tile and mortar walls.

THE WESTERN DEFENCES

The earliest recorded evidence for the existence of defences at Ipswich is an entry in the Ipswich Domesday concerning their proposed construction in 1204 (Charman 1963, 301). It is probable, therefore, that since the Saxo-Norman ditch appears to have been abandoned before c. 1150, the town was undefended for a period until 1204, when the later defences were constructed.

The line of these defences, running south from the Westgate, is suggested by the maps of Ipswich produced by John Speed (1610) and John Ogilby (1674), and further supported by the

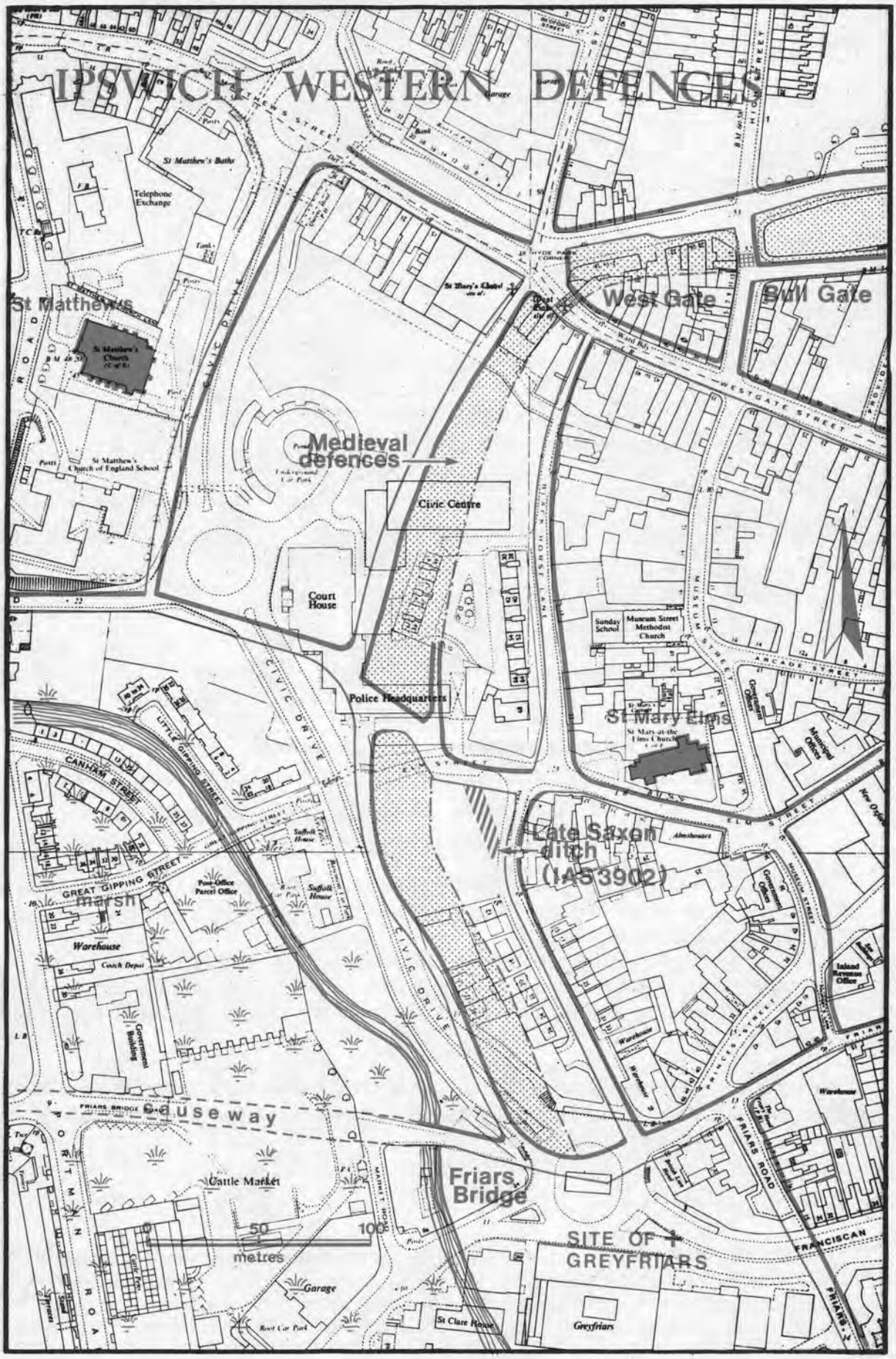

Fig. 48.
Ipswich western defences in relation to the probable late Medieval street plan.

documentary evidence of common soil grants (Dunmore et al. 1975, 66), from which a complete lay-out of the 15th and 16th-century plots leased by the Corporation along the defences can be drawn up (Fig. 48). These deductions were confirmed in September 1975 by observation of contractors' trenches at the west end of the Magistrates' Court site, adjacent to Civic Drive (overlying the old course of Tanner's Lane), which revealed a north-south ditch up to 5 m. deep, backfilled with 17th-century material.

24 ST. HELEN'S STREET (IAS 3601) TM 1678 4456

Contractors' footings at the rear of the site uncovered a Saxo-Norman kiln producing Thetford-type ware. Excavation, carried out by suitably enlarging the contractors' trench, revealed a sub-rectangular oven-pit with a single flue at the south end and no kiln furniture. Unfortunately, the stoke-pit lay under an existing building and could not be examined. The oven walls, which survived to a height of 80 cm., had been made by lining a pit with clay, the internal surface of which had become vitrified in the firing process. Fragments of fired clay and other debris, including Thetford-type ware sherds and a few sherds of Ipswich ware, overlay a layer of complete pots, presumably remnants of the last kiln load. The latter consisted of one spouted pitcher together with between twenty and thirty flat-based cooking pots; all had everted, rolled rims, and most displayed 'girth' grooves on their shoulders. The oven-pit was cut through a Middle Saxon rubbish pit, and two Ipswich ware wasters, as well as quantities of Thetford-type ware, were retrieved from contractors' footings elsewhere on the site.

The evidence now suggests that the Late Saxon pottery industry extended at least 65m. to the E. of the area of kilns discovered in Cox Lane in 1961 (Smedley and Owles, 1963).

VERNON STREET, STOKE (IAS 7402) TM 1641 4380

An area of 430 square metres was excavated, lying 100 m. to the west of the site at Great Whip Street examined in 1974 (Dunmore et al. 1975, 61–2). The site was situated on sand and gravel sloping away on the north to Stoke Bridge and the River Orwell, and on the east beyond Great Whip Street to an area which, until the 18th century, consisted of marshland adjacent to the river (Dunmore et al. 1975, 58, fig.32). The northern part of the site, nearest to the river, showed no trace of occupation earlier than the late 15– early 16th century, when a number of sand pits had been dug. Post-medieval occupation consisted principally of footings and rubbish pits associated with recently demolished 19th– century terraced housing on Vernon Street.

The southern part of the site revealed four pits containing Ipswich ware pottery, and a 9.5 m. long, north-south, foundation trench, probably of Middle Saxon date, and presumably once associated with the timber posts of a building or a fence. The principal feature, however, was a Middle Saxon ditch, 4 m. wide and 1.5 m. deep, running from north-east to south-west across the site, and containing large quantities of Ipswich ware, animal and fish bones. This probably represents a property boundary of some importance but a defensive role, at least in part, cannot be ruled out.

15–17 LOWER BROOK STREET (IAS 5502) TM 1652 4431

An area of 450 square metres was excavated, 40 m. south of the site recorded in 1974 (Dunmore et al. 1975, 63) and once again behind the east frontage of Lower Brook Street. The upper levels produced over 100 burials of 13th to 16th – century date, associated with the chapel of St. Edmund de Pountenay, which stood adjacent to the excavated area on the south-east corner of

Rosemary Lane and Lower Brook Street (Kirby 1764, 37).

Beneath the medieval cemetery lay a series of Middle and Late Saxon features including three wells and two outbuildings of Saxo-Norman date. Contents of the Middle Saxon pits included imported glass and Badorf-type wares. Samples of seeds and fish bones were retrieved by flotation analysis. The evidence from this site, together with that from the 1974 site further north (IAS 4502), implies a continuity of land-use for rubbish pits and outbuildings behind the Lower Brook Street frontage from the Middle Saxon period to the 13th century, and even, with the exception of the medieval cemetery, until the 19th century. This in turn indicates a continuity of domestic occupation on the street front from the same date, suggesting that Brook Street, as the main north-south road of the town, probably originated in the Middle Saxon period.

ACKNOWLEDGEMENTS

The sites were made available for excavation through the interest and co-operation of Suffolk County Council, Mr. Ivan Baker, Ipswich Borough Council, and Landlink Properties Ltd. Thanks are also due to the many individuals without whose participation the excavations could not have taken place.

MAY 1976

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THE TIMBER-FRAMED BUILDINGS OF IPSWICH: A PRELIMINARY REPORT

by Sylvia Colman

SUMMARY

Some general introductory remarks on the timber-framed buildings of Ipswich are followed by detailed descriptions of seven buildings, with ground plans and photographs. A final section summarises the findings, and draws some provisional conclusions.

INTRODUCTION

This preliminary report relates to a very limited amount of survey work on the timber-framed buildings of Ipswich; the work was done under the auspices, and with the assistance, of the Suffolk Archaeological Unit, and with the help and co-operation of the Ipswich Borough Council. Some of the buildings were not at the time listed by the Department of the Environment as being of historic or architectural interest, and were looked at for this reason. None had been archaeologically investigated before. Because of its limitations, the conclusions suggested by the survey are likely to need modification as investigation proceeds.

The historic core of Ipswich has a compact irregularity in which the towers of the churches, in spite of modern high-rise buildings, are still important focal points. Its layout presents the greatest possible contrast to the planned grid-pattern of Bury St. Edmunds, the only other Suffolk town to which it can be compared in terms of size and historic importance; but its seemingly haphazard intersection of streets and lanes is far more typical of town plans in general than that of Bury. As the largest medieval town in Suffolk its old buildings are of considerable importance for the evidence they may provide of the modification of ground plans and layouts as a result of urban conditions. It might be expected, too, that foreign contacts through extensive trade would have resulted in stylistic variations.

It is important to emphasise how many timber-framed buildings still remain in Ipswich, since this is far from being the general impression. An acquaintance with the extensive pictorial records of the town's buildings in the early nineteenth century inevitably creates a mood of nostalgic regret over the number of fine timber houses which have been demolished since that time, and it is easy to imagine that the successive waves of destruction which have swept over the town centre in the past century or so have left little behind them. Nothing could be further from the truth: while none could fail to regret the loss of so many splendid structures, the amount that has survived still remains remarkable. It is only by placing the town in a purely local context that it appears denuded, for it is so only in a Suffolk sense: the overall survival rate of old buildings in the county is so high as to distort our appreciation of the more general pattern, particularly in towns. As a single instance of comparison we might consider the city of Leicester, with its two remaining timber buildings, as being more typical of the overall urban picture.

The extent of past investigation into the town's timber-framed buildings has been minimal, and the vast majority of those demolished have had no more than their picturesque features recorded, and sometimes rescued. Contemporary newspaper reports of demolitions are tantalisingly vague, and often overlaid by spurious historical details. The selective rescuing of components, many of them now housed in Christchurch Mansion, means that we have a large body of material on the decorative aspects of the sixteenth-and seventeenth-century town; but valuable as these carved and moulded bressummers, fireplace lintels and corner-posts may be in indicating the high quality, visual attraction and stylistic range of much that has been lost, they are considerably less valuable when divorced from the more mundane, but equally important, plan-forms and structural details of the houses from which they were taken. Nevertheless, it is clear that Ipswich contained a remarkable number of houses which, although not necessarily large, had ornamental woodwork both inside and out, and also,very often, a wealth of plasterwork in high relief. Even today, the amount of ornate plaster which survives within standing buildings is remarkable – an important

point in assessing a justly-famous structure like the Ancient House in the Buttermarket, 'the most spectacular house in Ipswich' (Pevsner 1971, 276); it was outstanding amongst, but not untypical of, Ipswich buildings of its period.

Few medieval houses survive and all the buildings examined were of post-medieval form, and storeyed throughout. The implications are of a comprehensive wave of replacement and new building from the early sixteenth century onwards, while many of the sixteenth-century buildings were enlarged and remodelled during the seventeenth century. Where alterations, such as the underbuilding of a jetty, the addition of a porch, or the building out of brick foundations for bay windows, encroached on the street, they were subject to rents or fines; and in the pages of Bacon's 'Annalls of Ipswiche' (1654) the relative entries read like retrospective planning applications, legalising the status quo. Other equally familiar alterations, because they did not cause encroachment, went without comment – heightening buildings to make better upper rooms, or puncturing rows of dormers through earlier roofs, to make garrets for storage or sleeping; but it was this last in particular which created the familiar angular roof-lines of the seventeenth-century town. It is interesting to find how early many of these alterations were being made: Bezaleel Sherman underbuilt the jetty of his house 'nigh Lawrence church' with brick in 1616 (Bacon 1654, 460), and the roof-raising at 6 St. Helen's Street, with its insertion of upper windows with ovolo-moulded mullions, and butt purlin roof, can also be assigned to the early seventeenth century. At the 'Old Neptune' in Fore Street the medieval hall was heightened and an upper floor inserted in 1639; the date is set amidst the ornate carvings which embellished the modernised facade (McDowall 1951, 146).

The Georgian period, one of decline in the town (McDowall 1951, 146), is little represented, either by completely new buildings or the refronting of old structures; it is the nineteenth and early twentieth centuries which, by a combination of destruction, the re-use of old components, and the occasionally gifted faking of new ones, have created here a conglomeration of genuine and spurious which is unique in Suffolk. Indeed, the importance of this last phase in producing the final form of so many of the buildings should not be underestimated. It was a period during which population pressure led to the subdivision of many of the older properties within the town, and to a vast amount of shop-conversion, the latter in particular leading to the gutting of ground floors of all earlier features. The way in which many of the changes took place, cutting across established boundaries and ignoring the basic structural divisions of the houses, could only have been possible where large blocks of property had been accumulated into single ownerships; we are reminded of a time when the owning and renting-out of buildings was a respectable and recognised form of capital investment. The point is well illustrated by the picturesque group on the corner of St. Nicholas Street and Silent Street: the positions of the four front doors on the Silent Street frontage sufficiently indicate the alterations and partitioning that have gone on within.

Because of lack of medieval buildings, a familar urban form is absent from Ipswich: the half-H. Instead, the larger houses commonly have an L– or T–shaped plan, in which two separate ranges are set at right-angles to each other, one running down the length of the plot. As a type it is in no way specific to Ipswich, although a distinguishing mark of the larger examples in the town is the overall width of their street frontages. As a form, it admits of great variation in size and internal layout, and no two examples so far seen completely resemble each other.

It is not really possible to assess the larger houses without the assumption that they had warehouses and workshops associated with them, in a way only fully demonstrated today by 80, Fore Street, with its surrounding group of outbuildings directly accessible from the quay. For those merchants living in Fore Street and Key Street, whose goods came mainly by water, such a quayside group, either behind their house or on the opposite side of the road, must have been the norm, and invites immediate comparison with the riverside mercantile complexes of King's Lynn (Parker 1971). But something of the same kind would have existed within the town centre also, and the remains of long, substantially framed storeyed buildings, unpartitioned throughout, with

unglazed, diamond-mullioned windows, are still to be found in the town. A derelict and partly roofless building behind No. 14 St. Nicholas Street is of this type, and an L-shaped group, now partly demolished, in Salthouse Lane, appeared to have had a dwelling within one range and a warehouse in the other. Such purpose-built, functional structures are particularly subject to neglect and destruction, and remains are likely to be fragmentary. The amount of accommodation these large composite groups offered made them eminently suitable for conversion to inns. Documentary research may well show how many of the town's larger buildings have gone through such a phase.

An alternative to a group of outbuildings was to use part of the house itself for storage and working purposes. Cellars were important storage areas; roof spaces were being brought into use, and new houses were likely to have a built-in garret or 'vance roof' at least by the 1590's.[1]

Evidence for the functions and uses of rooms comes from probate inventories; for the 1580's and 90's many of these are for poor craftsmen and traders with goods and chattels worth under £20, and sometimes under £10. [2] Their houses almost invariably include a shop or workshop, and had few service rooms, the most usual being a buttery, while cooking might be done in the hall or the kitchen. Although cluttered with stock-in-trade, but otherwise sparsely furnished as many of them were, they were not cramped. Indeed, the number of rooms they contained was often surprising, five or six not being unusual. Examples of these humbler houses are scattered all over the town with a noticeable concentration in St. Nicholas Street. Often, though not always, of a basically rectangular form, they are comparable in layout to rural buildings, and show little evidence of restriction of space. 6 St. Helen's Street, is a rare example set with its gable-end to the street.

The roof over the Silent Street frontage of 47 St. Nicholas Street is highly unusual and reminiscent of an early sixteenth-century double-framed church roof. Principal rafters are linked by arch-braced collars and surmounted by a ridge-piece. There are two rows of butt-purlins, and all main components are moulded. Apart from this one, a typical example, the commonest roof structure found was a late form of crown-post roof: with the crown-posts plain, and braced only to the collar-purlin. Where roofs have subsequently been raised there may be evidence, as at 17 Fore Street, that the earlier roof was of crown-post type. Crown-post roofs seem to have persisted here, as elsewhere in Suffolk, in this unadorned form well into the sixteenth century. Overlapping in date with the crown-post roofs are those with various forms of side-purlins, clasped (as in the rear wing of 9 Northgate Street) or butted (as at 6 St. Helen's Street). Both forms persist into the seventeenth century.

Where ceiling-beams are ornamented, a multiple roll-moulding is the most usual form; at 7–9 Crown Street this was used in conjunction with ogee-mould; but the prevalence of ornate plastering from the end of the sixteenth century onwards may well mean that many earlier mouldings have been concealed.

THE BUILDINGS

40 & 42 BUTTERMARKET

These two properties formed one large sixteenth-century timber-framed house, although the different treatment of the facades makes this difficult to recognise (Plate VI). The wide frontage is remarkable, and indicates, as does its structure, that it was built for a wealthy man.

The house consisted basically of a long double-jettied front range with a single-jettied range running southwards from the rear of its east end (Fig. 49). Conversion into shops has resulted in the virtual gutting of the ground floor of No. 40, and the partial obscuring of original features in No. 42, but in the latter a number of heavy ceiling beams with roll-mouldings can be seen. The overall height of the ground-floor rooms is particularly noticeable. Because of alterations, the position of the entry is not clear, but it seems likely that there was a carriage entrance at the west end, giving access to the yard at the back. This yard has now been almost completely infilled with buildings.

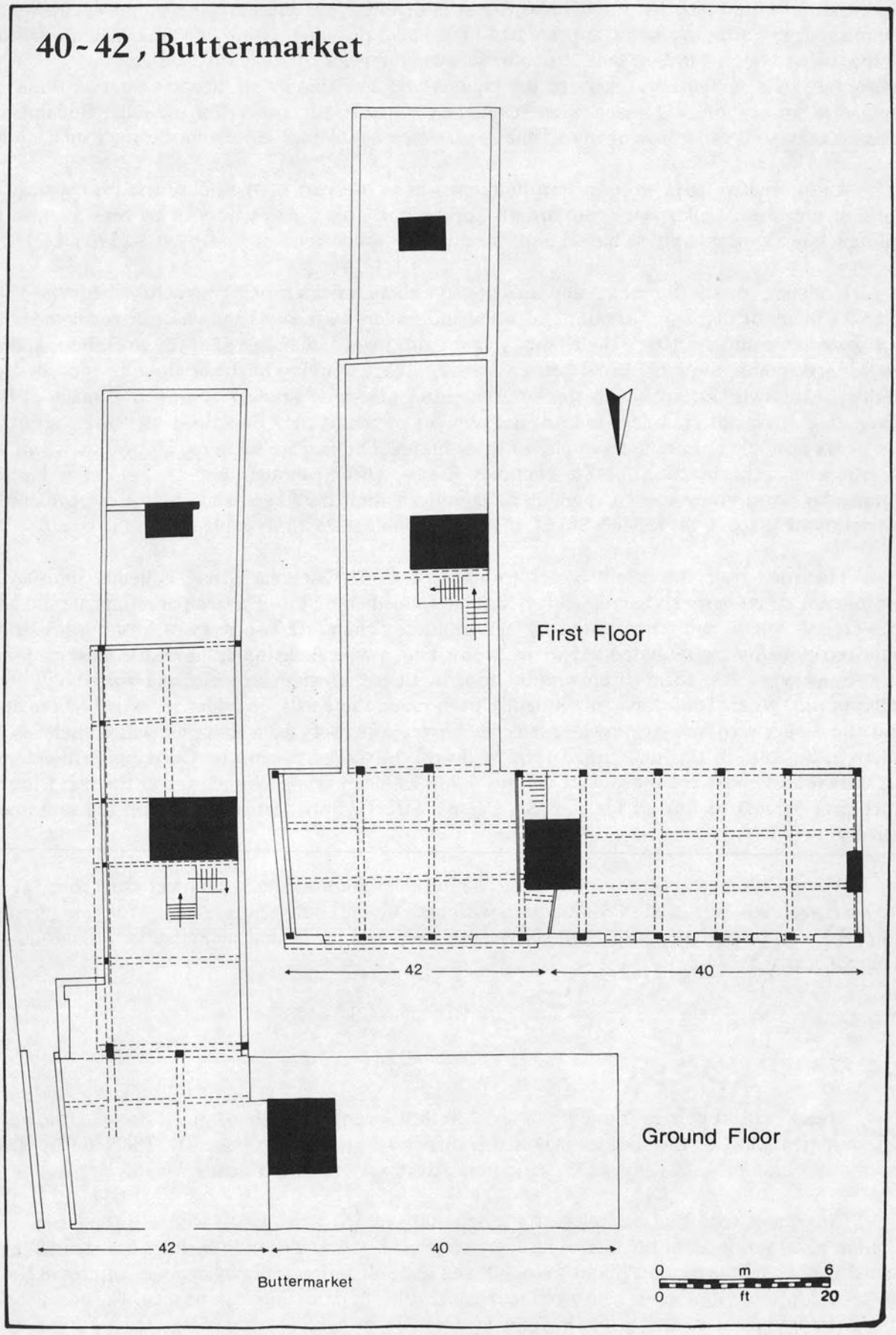


Fig. 49. Nos. 40 – 42 BUTTERMARKET, IPSWICH :
ground and first floor plans.

Photo : T. James

Plate VI. 40 and 42 BUTTERMARKET, IPSWICH.

Photo : T. James

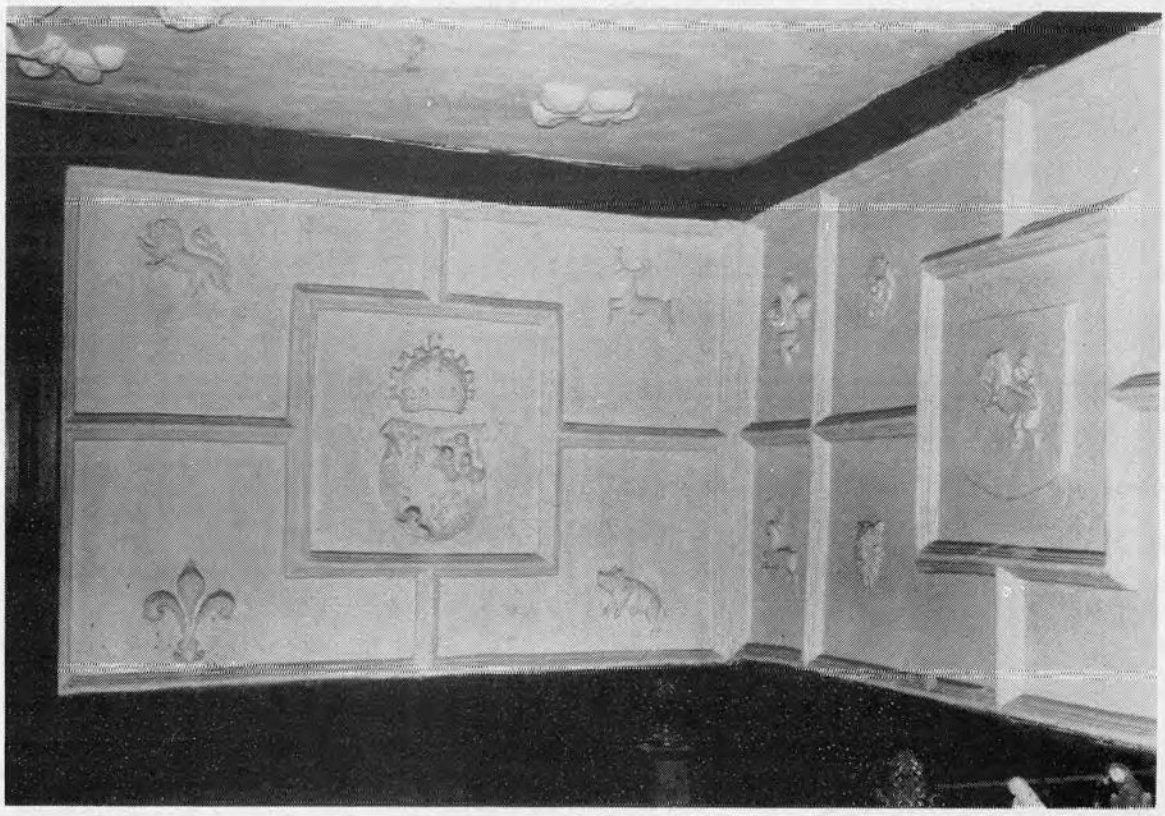


Photo : T. James

Plate VII. 9 – 13 ST. PETER'S STREET, IPSWICH :
exterior (upper), and upper room at north end (lower).

Below No. 42 there is a large original cellar (which may also run below the front of No. 40). It has been almost completely reconstructed, but a block four-centred supporting arch under the main chimney-stack is built of Tudor brick, and seems contemporary with the structure above.[3]

The main interest of the front range now is in the upper storeys. On the first floor, two large rooms with slightly irregular bay lengths have exposed timber ceilings with heavy roll-mouldings on main beams and joists. Both rooms are heated by an internal chimney-stack, which also originally heated the two ground-floor rooms. On the south wall all studding and infill have been removed, leaving in the west room (above No. 40) only the main posts, one of which carries a mortise for a window-sill; in the east room (above No. 42) a pair of large replacement posts support the junction of the frames for the front and rear ranges. All the windows along this half of the street frontage are late nineteenth – or early twentieth-century replacements with leaded panes, and there is a considerable amount of reproduction Jacobean panelling.

Contrary to first impressions, the second-floor jetty over No. 42, which looks so extraordinarily fake, is an over-restored part of the original structure, which extended along the whole frontage. The ends of the joists forming the jetty are covered by a carved and moulded fascia board. A photograph taken in the 1890's [4] shows the upper jetty removed from No. 40; the refronting appears to be of the early nineteenth century. Because of it, the roof over No. 40 has had some alteration, but that over No. 42, apart from some later partitioning, appears to be as first built. Not a great deal is visible: the rafters are plastered over, and the trusses are formed with arch-braced tie-beams. It seems likely that the top storey, apart from being an eye-catching external feature, was used as a storage area.

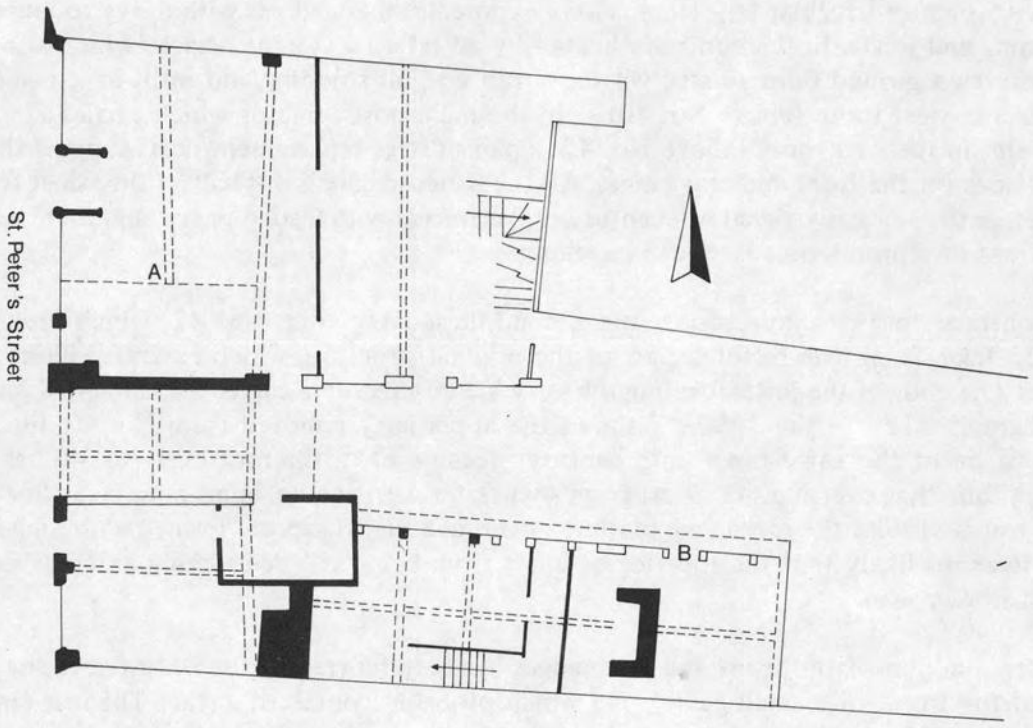
The junction of the front and rear ranges has been blurred by the addition, to the south-east corner of the front, of a small gable wing which probably contained a stair. The rear range, jettied along the east side, is plastered externally with only the main components of the frame visible. The main posts have decorated shafts with capitals, and carry an unusual cross saltire motif. The jetty has solid supporting brackets. The mould sills of three blocked original windows can be seen on the ground floor, and there is one three-light original window with moulded mullions on the upper floor. This part of the building contains two rooms on each floor, divided by an internal chimney-stack. The northern room now forms part of the shop, and the main ceiling-beams have roll-mouldings similar to those in the front range. A reproduction Jacobean staircase has been placed against one side of the chimney-stack. In the southern room the ceiling-beams are plain, but there is a handsome though somewhat damaged seventeenth-century overmantel, with carving and marquetry work. It seems likely that this was the kitchen of the original house, converted into a second parlour at a later stage.

Two further bays to the south are unjettied, and of later date. Divided into two rooms on each floor, with an internal chimney-stack, they were probably built as a service area, and may have replaced an earlier section.

9–13 ST. PETER'S STREET

This group, now mainly given up to shops, but originally one house, illustrates well the way in which nineteenth-century alterations and restoration can obscure an earlier layout (Plate VII). It is basically an L–shaped sixteenth-century building, with a three-bay front range extending westwards as far as point A on plan (Fig. 50), and a wing at the rear jettied along its west side. It was enlarged in the early seventeenth century, when an extension was added at the west end, consisting of a single large room on the ground and first floors of the street front, with a further block behind, overlapping the older structure on the east side. This rear block was raised and re-roofed at the end of the last century, using a single span and shallow pitch; but the overall width of the frame implies that it must initially have had two or even three parallel ranges of roof, probably aligned north-south.

9-13, St. Peter's Street



17, St. Stephen's Lane

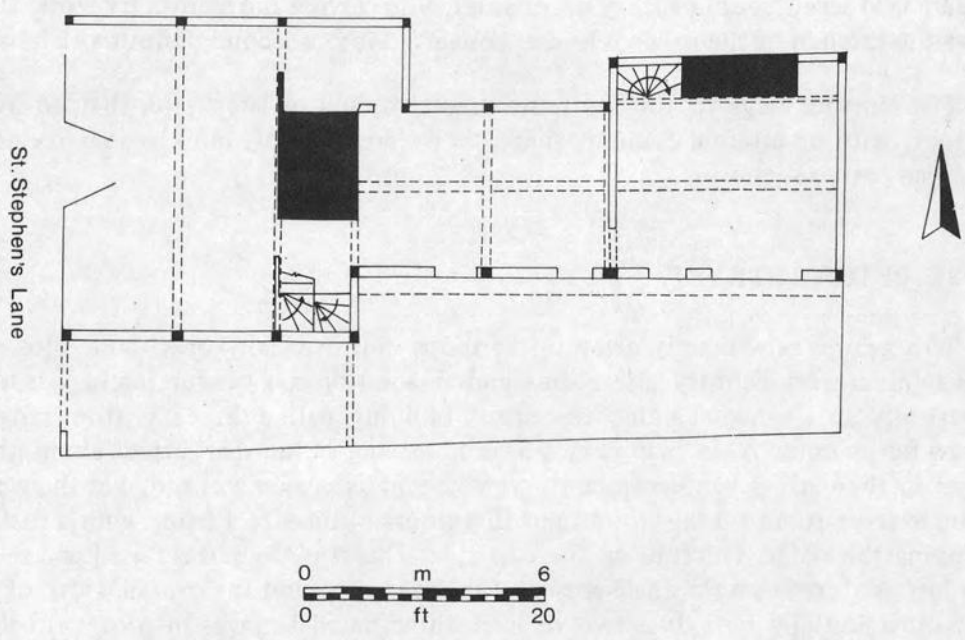


Fig. 50. Nos. 9 – 13 ST. PETER'S STREET and 17 ST. STEPHEN'S LANE, IPSWICH.
Ground plans.

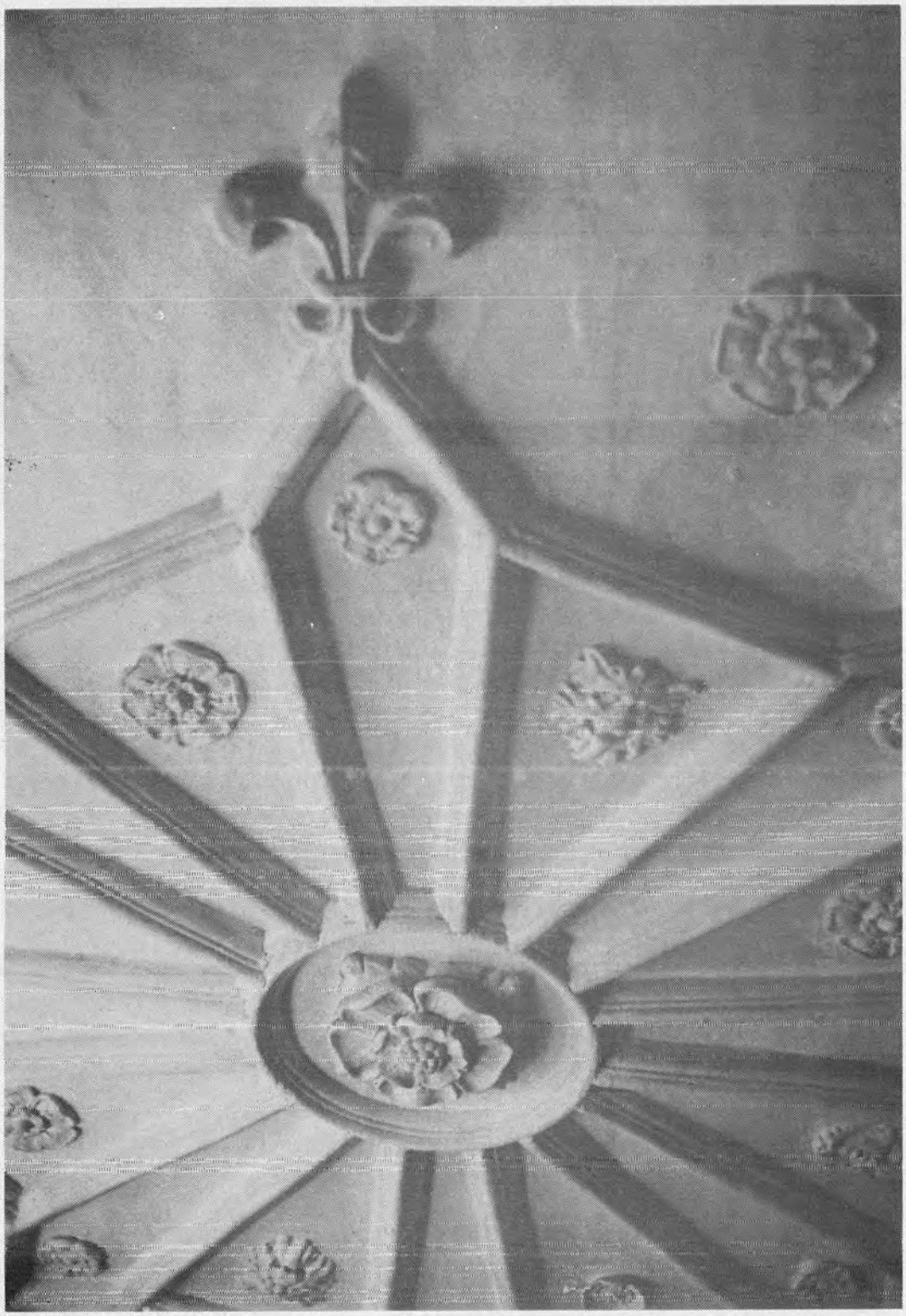


Photo : T. James

Plate VIII. 9 – 13 ST. PETER'S STREET, IPSWICH :
part of plaster ceiling in upper room at north end.

The original division into rooms along the older part of the street frontage is not clear, because an entry cut through the ground floor of the building in the 1890's, to give access to the yard, resulted in the removal of partitions and the insertion of new walls. The room at the east end appears to have been reduced in size, and in the ceiling a series of small rampant boars in relief give the impression of having been reset in later plaster. This room, and the southern-most room of the wing, which also has a simply decorated plaster ceiling, were heated by an internal stack set between them. The next room northwards was heated by a stack with a single hearth, and the final northernmost bay was unheated.

The exterior of the jettied rear range has had considerable timber replacement and later brick-nogging on the ground floor, and an arrangement of entries and mullioned windows which are largely spurious; the doorway at B on plan may, however, be genuine. There is also a gabled extension at the back of the entry which is entirely made up of reused timbers. It has a bay window flanked by small side-lights, all of which have mullions and diamond-leaded panes.

It was the seventeenth-century extension to the front which led to the present street frontage of the building, with its characteristic arrangement of three gables. The gables are of irregular size, and the barge-boards with twisted-cord ornament are original. The remaining decoration of the front, and in particular the mock timbering, is Victorian. The principal interest of the building today centres on the seventeenth-century section, and on the upper floor. The large room which runs partly over the entry has been lined with square Jacobean panelling, while the upper room at the west end has walls covered with plaster panels containing a series of heraldic devices (Plate VII). On the ceiling is a raised circle with radiating ribs, all the interstices ornamented (Plate VIII). In the opinion of Dr. E.A. Gee, the motifs (which include the fleur-de-lys, Tudor roses, lions rampant, running stag, lion's mask, boar, and thistle) and the heraldry proper (consisting of two shields 'trying to show quarterly France three fleur-de-lys and England three leopards') are all royal; an expression, presumably, of the extreme loyalty of the house's occupant. The use of the thistle indicates a date after the union of England and Scotland in 1603. As an interesting link with work going on in other areas, and underlining the tendency to use royal devices, Dr. Gee points out that: 'The pattern of the ceiling ribs, and the lion rampant, the lion rampant on a shield, the running stag, the lion's mask and the boar are all found virtually in the same shape in a school of plasterers who did work at various houses in Caernarvonshire – e.g. Plas Mawr, Conway, 1577; Maenan, a great cruck house with plaster, nearby, 1582; and Gwydyr Castle'.[5]

In a little upper room at the east end is an eighteenth-century fireplace in the Chinese style.

No part of the roof structure is visible in the garrets of the front range. The jettied rear range has a form of side-purlin roof.

No attempt has been made to describe or put on plan the additions in nineteenth-century brick and twentieth-century mock timbering which extend down the yard behind each of the rear sections.

44 BUTTERMARKET

This is a sixteenth-century building, with a narrow street frontage (Plate IX) and a long wing at right angles to it, in contrast to 40 and 42 Buttermarket where the whole of the main structure is of one date, the two sections here are not contemporary, the front being lower, and apparently earlier than the rear (Fig. 51). A false plaster facade was added in the early nineteenth century, and the present shop windows on the ground floor date from the 1920's. The front range now consists of two bays only and gives the impression of having been truncated; but since little of the structure is visible, and the roof inaccessible, its initial layout is obscure.

The rear range is of considerable interest for, in spite of heavy restoration and the removal of all partitions on the ground floor, a substantial amount of the original structure remains. It consists of six irregularly spaced bays, jettied along the west side, with a further unjettied bay at the extreme end. To judge by the similarities in the framing, this end bay was added after a very short interval. On the ground floor, the three southernmost bays are narrower, but this appears to be a modern alteration.

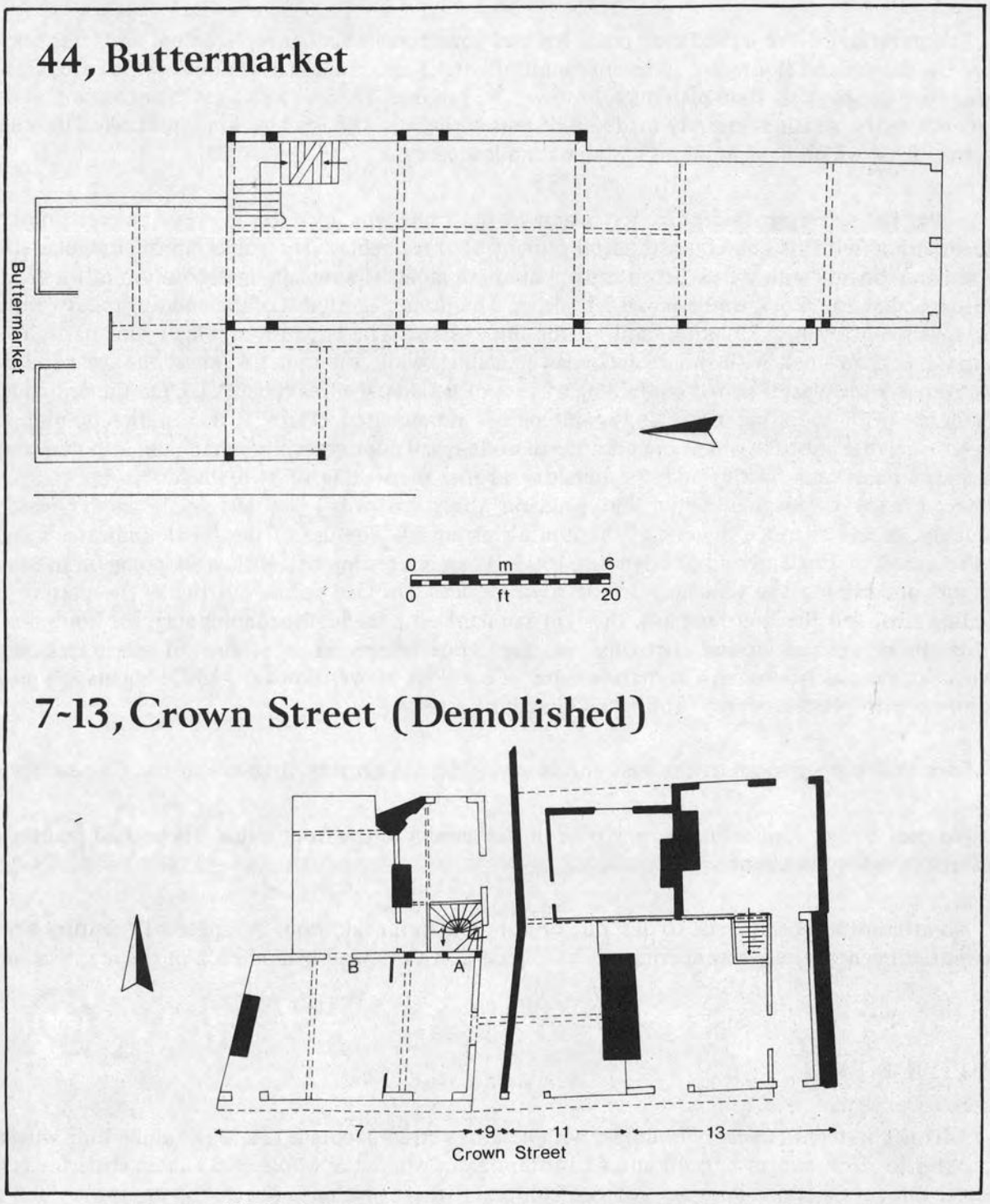


Fig. 51. No. 44 BUTTERMARKET and 7 – 13 CROWN STREET, IPSWICH : Ground plans.

Photo : T. James

Photo : T. James

Plate IX. IPSWICH BUILDINGS :
No. 44 Buttermarket (left) No. 17 St. Stephen's Lane (right).

Photo : T. James

Photo : T. James

Plate X. IPSWICH BUILDINGS :
No's. 7 – 13 Crown Street (upper)
No. 9 Lower Brook Street (lower)

The ground floor, which has the same high ceilings as Nos. 40 and 42, was apparently divided initially into three rooms, and following the addition at the south end, into four. The main beam and joists of the northernmost room have a multiple roll-moulding, while the remaining beams and joists visible are plain, with only the beams chamfered. The last two bays at the south end have a plaster ceiling which appears to be modern.

The whole upper floor of this rear range was open, forming one large storage and working area. However, a section of square Jacobean panelling, found during restoration work, which had been used to make a partition on the line of the third truss from the north end, indicates that the three northernmost bays had become part of the living accommodation by the early seventeenth century.

The exterior, in spite of being obscured by modern alterations and extensions, shows evidence of lavish treatment. The bressummer supporting the jetty on the west side has the remains of embattled ornament, and the main posts have ornamental shafts, very similar in design to those on the jetty at the rear of 42 Buttermarket. There are the same niches with trefoil heads, and crosses, but the crosses are not saltire. It seems possible that windows ran along the whole of this side of the building.

The roof is of crown-post type, the collars halved into the rafters with a barefaced dovetail halving; the crown-posts are square and completely plain, braced only to the collar-purlin, and in some instances braced only on one side. The crown-post construction continues into the added bay at the south end, which terminates at a hip.

A particularly interesting set of objects found during the restoration of the property in the 1920's included an eighteenth-century shoe, a child's horn book, and an early knife and fork set in a case.

17 ST. STEPHEN'S LANE

This is a timber-framed and plastered building with mock half-timbering on the upper storey of the street frongage, and shop windows below (Plate IX). The complex consists of a range parallel to the street (with a carriage entrance at the south end, leading into a yard) flanked by a jettied range, at right-angles to the front, which is in two distinct structural sections (Fig. 50). Built as a house, it subsequently became the Sun Inn. On the upper storey of the rear range are the damaged remains of pargetting, with a rayed sun as the focal point. Nineteenth-century prints of the inn show a similar sun pargetted on the front, and also, at the north end, a doorway which has now gone.

The basic building is of sixteenth-century date, consisting of one two-bay room on the ground floor (now used as a shop), with two rooms above it. No framing, apart from the main ceiling-beam, is visible in the upper rooms. In the wall on the first floor at the north end are alterations to the framing which indicate that a doorway has been blocked; and from the evidence of old maps, particularly Joseph Pennington's (1778), it seems that the front range has been truncated, and extended originally for at least another bay northwards. This would account for the absence now of any service area. The door shown in nineteenth-century prints at the north end probably led into a cross entry, dividing the hall from the service rooms. The roof of the front range is inaccessible. The cellars have been completely rebuilt. The carriage entrance, and the small loft room over it, are separately framed and later in date than the rest of the front. At the rear is a narrow two-bay room, aligned down the yard, and linked to the front by an internal chimney-stack with two back-to-back hearths. Wall framing is exposed in the ground-floor room, with the remains of shutter-slides for the windows on the south side overlooking the yard. This room has a plaster ceiling, with floral motifs of a formal, late seventeenth-century, type. The upper room has exposed framing, with the ceiling above tie-beam level, so that the cambered ties for the open truss and the two end walls are visible, supporting the bases of crown-posts. The roof above is complete, the crown-posts plain, and braced only to the collar-purlin.

A further jettied block, higher than the rest of the building, was added at the east end during the seventeenth century. It contains one room on each floor and an original garret. The ground-floor room has its walls entirely covered in nineteenth-century vertical boarding. The upper room has a plaster ceiling with floral motifs of the same kind as those in the ground-floor room to the west of it, but with raised roundels in addition. The roof has butt-purlins. Various workshops were attached on the north side of this block during the nineteenth century which have not been recorded on plan.

There is a small extension on the north side of the main chimney-stack, which forms a tiny linking room between the shop and the room behind it, with a little room, perhaps originally used as a closet, above it.

7–13 CROWN STREET

These formed a pair of timber-framed and plastered houses, with tiled roofs and continuous jetties (Plate X). Their layout and appearance at the time of demolition were the result of nineteenth-century alterations, when the dividing brick wall, brick extensions at the rear and east end, and shops on the ground floors, were introduced (Fig. 51). It is possible that, in each case, the accommodation originally included a shop or workshop.

Nos. 7–9 were basically one three-bay building of mid-sixteenth-century date, with a gable-end chimney; probably divided into two rooms on the ground floor, and with a single room above. The last stages of demolition were too rapid for the division of the ground floor to be established with certainty; but it seemed very likely that the easternmost bay formed a separate buttery, chamber or shop, partitioned off from the hall, and that a stair led up from it to the room above. A small seventeenth-century stair wing containing a newel stair had been added at the north-east corner of the house; access was from the eastern bay, where there was a blocked secondary doorway (marked A on plan). The main beam spanning the hall had a much-damaged multiple roll-moulding. It was not possible to determine where the entry from the street had been, but there was an original doorway, with rectangular head and hollow-chamfer moulding on its outer side, at the back of the hall (B on plan). The gable-end chimney-stack was small and of late brick, and appeared to be a nineteenth-century replacement of an earlier and larger stack, possibly timber-framed.

The upper room had markedly cambered tie-beams with ogee mouldings, linked by cross-beams with roll-mouldings. Supporting braces to the ties had been removed. The contrast in the mouldings, and the cambered form of the ties, gave the initial impression that the upper rooms had been open to the roof, and that the ceilings there were a later insertion. The similarity, however, of the mouldings on the upper cross-beams with those on the main ground-floor beam made it more likely that the two were contemporary, and the upper ceilings therefore contemporary with the rest of the structure. The upper room appears from this to have been treated as a rather grand apartment.

The roof was of a late crown-post type: the crown-posts plain, apart from chamfering, and braced with narrow braces to the collar-purlin only. At the west end, the collar-purlin stopped short of the brickwork of the chimney-stack and appeared to confirm the previous existence of a larger stack.

A small timber-framed wing, with rafter roof, had been added to the rear of the hall. Although associated at the time of demolition with two chimney-stacks, it was not clear whether it was originally heated, or what the initial function of the ground-floor room had been.

Nos. 11–13 had far less of their basic structure surviving, but appeared to be of later date than Nos. 7–9, and were probably early-to mid-seventeenth century. They were built as one house with two rooms on the ground and first floors, and probably with original use of the roof space. An internal chimney-stack, only about four feet deep, was designed to heat only one of the ground-

floor rooms. The main ceiling beams, with plain chamfer, were visible on the ground and first floors. Demolition provided little detailed evidence. The roof had been very largely renewed, but at the east end there was evidence that it had been of a clasped-purlin type, with principal rafters.

9 LOWER BROOK STREET

This is a timber-framed building in three structural sections, brick fronted in the eighteenth-century, with a substantial nineteenth century extension to the north-east (Plate X).

The basic house, which now forms the north-west end of the building, was of a three-bay jettied structure, divided into three rooms on the ground floor (Fig. 52). A chimney-stack on the north gable wall heated the hall; the two other rooms were unheated. A moulding on the main ceiling-beam of the hall has been hacked off. The joists are close-set, flat and unchamfered. The main beam in the middle bay has a simple chamfer. The mortise-holes for the brackets which supported the jetty are numbered for assembly. The brackets themselves were removed, and the jetty underbuilt, when the house was fronted in brick. On the east wall of the hall and the adjoining room are two large blocked window openings, with rebates for folding shutters above, which probably contained mullion-and-transom windows set into a separate frame. During Georgian alterations to the building the two internal partitions were removed, and a chimney-stack inserted into the southernmost bay, backing on to a wide hallway.

To the south of the original house, and not long after its construction, two further jettied bays of irregular length were added. All the framing and most of the ceiling-beams are covered here, but in the passage-way which has been made at the extreme south end a small section of main beam with ogee-mould is visible. It is not clear whether these two additional bays were initially heated. The fact that the south end of the house and garden follow the line of a parish boundary suggests that the building never extended southwards further than it does now.[6]

On the first floor, the timber-framed front range has been partitioned into a series of small bedrooms. Only the wall at A on the plan appears to follow the line of an original wall, and the wall at B marks the end of the oldest three bays. The roof over these three bays was removed, and the walls heightened, when the house was re-fronted. The remaining two bays to the south retain their original roof-line, but the roof is inaccessible.

The basic arrangement of a further timber-framed section in the south-east corner is puzzling, although it is clearly secondary to the two bays at the south end, which are aligned at right-angles to it. Backing on to a blocked window at C is a chimney-stack of late brick, probably eighteenth or nineteenth century. The roof has a high and unusually wide gable to the rear. It seems likely that there was considerable remodelling here, in conjunction with the nineteenth century extensions, and that initially this section was narrower.[7]

CONCLUSIONS

All of the examples dealt with in detail bring out different aspects of Ipswich houses from the sixteenth century onwards. Six of them are variants of the L– or T–shaped plan, and demonstrate it in a descending scale of importance; but in three cases (44 Buttermarket, 7–9 Crown Street, and 9 Lower Brook Street) it was a secondary development. 40 and 42 Buttermarket illustrates it at its grandest, in the only sixteenth-century double jetty remaining in the town. Since the whole of this building appears to have been given up to living accommodation we may assume it to have been

9, Lower Brook Street

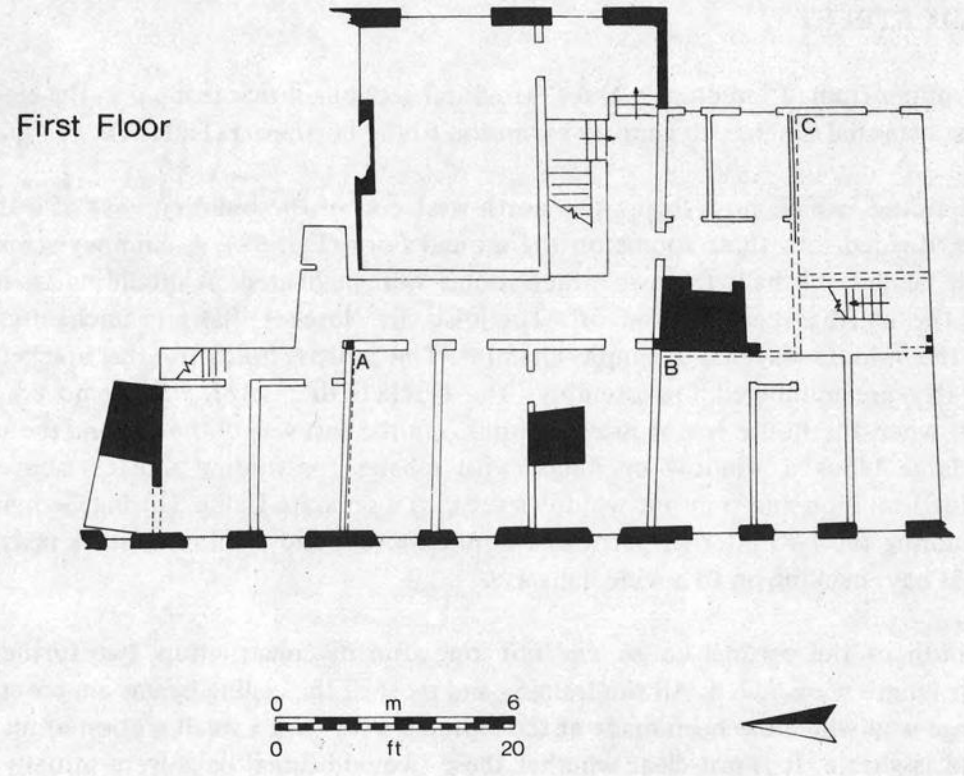


Fig. 52. No. 9 LOWER BROOK STREET, IPSWICH :
Ground and first floor plans.

associated with subsidiary structures sited within its large yard. No. 44 shows the alternative: a house in which living and working areas are juxtaposed. Within living memory the upper floor at the rear was still being used as a workshop, where the goods sold in the shop below were produced.

The two examples from the Buttermarket are notably urban in form, and so, in its development, is 9–13 St. Peter's Street; the other buildings described are, in origin, less specifically linked to town conditions. On a small scale, as at 17 St. Stephen's Lane with the rear range containing initially only one room, the L– or T–form can be found in rural areas; and so can the end-chimney house with two rooms on the ground floor, like 7–9 Crown Street. A close parallel to 7–9 Crown Street from a very small town is 61 High Street, Bildeston. An arrangement as at 9 Lower Brook Street, where an end-chimney hall has two unheated rooms next to it placed side by side, is most unusual, but 16 St. John's Street, Bury St. Edmunds, is comparable. 11–13 Crown Street was an internal-chimney house in which the stack had only one hearth; this is a far less familiar variant than with two back-to-back hearths, but it, too, can be found in a rural setting. A good example is in the front portion of Mott's Farm, Chilton Street, Clare. Both the demolished Crown Street houses fitted well in scale and layout with the pattern indicated by the probate inventories for craftsmen and small shopkeepers.

It seems that Ipswich is unlikely to produce any specific house-types of its own. Although many of its houses, as might be expected, are distinctively urban, they can be matched by examples in other Suffolk towns. This is particularly the case with the smaller dwellings which show little variation from rural layouts, except in the absence of a secondary sprawl of single-storey lean-to's. Nor do the houses give much general indication of foreign influences; instead, they fit stylistically into the same pattern as those of the surrounding areas. Christchurch Mansion, a great house outside the scope of this study, is the only one to show markedly Dutch features. Elsewhere, ornate brick gables and chimney-stacks, or indeed anything but a minimal use of brick, are absent.

The interest and importance of the town's historic timber buildings is not, however, reduced by these conclusions. The emphasis has, however, shifted, and one aim of further investigation will be to establish not only how much the Ipswich buildings of the sixteenth and seventeenth centuries resemble those of the smaller Suffolk towns, but also how little some of them vary from their contemporaries in the countryside. Since there is a tendency to put the study of town houses and farmhouses into separate watertight compartments, it would be of considerable value to be able to establish likenesses between them here.

With all the similarities, there still remain two ways in which Ipswich seems to differ from other Suffolk towns: one is in the virtual absence of medieval buildings, in which places like Bury St. Edmunds are so rich; the other is in an upsurge of new construction which continued throughout the sixteenth century, whereas elsewhere as, for example, at Lavenham, it tended to die away after about 1550. At Ipswich work was going on right through the time when Renaissance designs and ornamentation were merging with, and gradually superseding, earlier forms; and it is precisely in this particular field that the town is so rich. There is still much work to be done both on the surviving and stored-away details of Ipswich buildings. It is here, one suspects, more than anywhere else, that foreign influences may show themselves.

ACKNOWLEDGEMENTS

We should like to thank all those owners and occupiers of buildings in Ipswich who allowed them to be looked at in detail, and on occasion lent plans. Without their co-operation and interest none of this information could have been collected. Miss J. Sherman generously passed on information, photographs and drawings in her possession; Mr. Victor Gray gave valuable assistance with the documentary background, and Mr. Peter Northeast provided the extracts from Bacon's 'Annalls'; Mr. John Field and Mr. Rodney Lay drew our attention to some of the buildings examined; Dr. Erick Gee gave an expert opinion on the heraldic plasterwork at 9–13 St. Peter's Street; and Mr. David Jones showed us the important collection of housing remains on view and in store at

Christchurch Mansion. Finally, but by no means least, members of the Archaeological Unit and Adrian Cook of Ipswich School, helped with measuring, and Mr. Trevor James took innumerable photographs, some of which are used here. Only a part of the material collected in these various ways has found a place in this preliminary report.

May 1976

NOTES

1. Cf. probate inventory of John Cumberland, 1590. S.R.O. (Ipswich): FE/1/2/88.

2. Ipswich inventories for this period are found amongst those under refs. FE 1/1 and FE 1/2.

3. A complete record of the brickwork has been made by Mr. G. Hines for the Brick Society of the British Archaeological Association.

4. Photograph in the Cowell Collection, ref: K 400.

5. Letter dated 25th February, 1976.

6. Information from Mr. V. Gray.

7. A record of the bricks in this house has been made by Mr. G. Hines.

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A SURVEY OF THE CHURCH OF ST. PETER, UBBESTON

by Bob Carr

SUMMARY

Ubbeston is an isolated church declared redundant on pastoral grounds and likely to be converted into a dwelling. At first glance the building is typical of many small village churches, an amalgam of architectural styles and repairs which might be expected to completely mask the form of the earliest structure. However, at Ubbeston, sufficient architectural detail survives to show that the original building was a Romanesque church of three cells: an apsidal chancel, a central tower with a window on both north and south walls, and a nave with opposed north and south doorways and two windows on each wall.

INTRODUCTION

The parish church of St. Peter, Ubbeston, was the first in the county to be declared redundant under the Pastoral Measure of 1968, and is about to be sold as a private dwelling. It was for this reason that the church was surveyed. It seems certain that redundancy will occur more and more frequently (Fitch 1972; Carr 1975) and that the necessity of recording these buildings before and during conversions will present a problem in terms of time and money. Thus the work at Ubbeston was partially undertaken as an exercise to establish the time needed to record a small church threatened with redundancy.

Neither excavation nor stripping of wall plaster was feasible at Ubbeston so the survey was confined to superficial features. The preparation of accurate scale drawings on site which constitute the basis of the record was the work of a team of three in fifteen days. Because many of the problems encountered in surveying a church were new to us time was inevitably wasted, but with the experience gained we hope to reduce the time spent on a comparable building to ten days. The preparation of the final report and working up of site drawings was a considerably more lengthy process and may well prohibit publication of future work in such an extended form.

St. Peter's stands on a high bluff dominating the valley of one of the tributaries of the river Blyth (Fig. 53) (TM 323 725) . The community which it served is diffuse and the church isolated. Fieldwork in the area has revealed Romano-British occupation along the valley sides to the east and west of the church, while the Roman road from Peasenhall to Weybread cuts the valley just to the east. 12th to 13th century pottery has been found in well separated scatters from further up the valley, from a large ditched enclosure, presumably a moat, directly north of the church, and, most notably, along the northern boundary of Ubbeston Green. On present evidence it seems that the focal point of the village from at least the 12th century was around this green across the valley from the church.

A church is recorded in Domesday Book, and later, c. 1165, when it was granted to St. Neot's Priory (Copinger 1904).

Parish records show restorations in 1865 – principally of the nave with the new pews and floor and a new churchyard fence; 1879 – the exterior and windows; and 1892 –the chancel floor was relaid.

The building stands within a fenced churchyard, which was surveyed and the gravestones plotted (Fig. 54), and transcribed.

ARCHITECTURAL DESCRIPTION

The church consists of nave and chancel in flint with ashlar quoins and vestry, south porch and west tower of red brick. The interior of both nave and chancel are plastered.

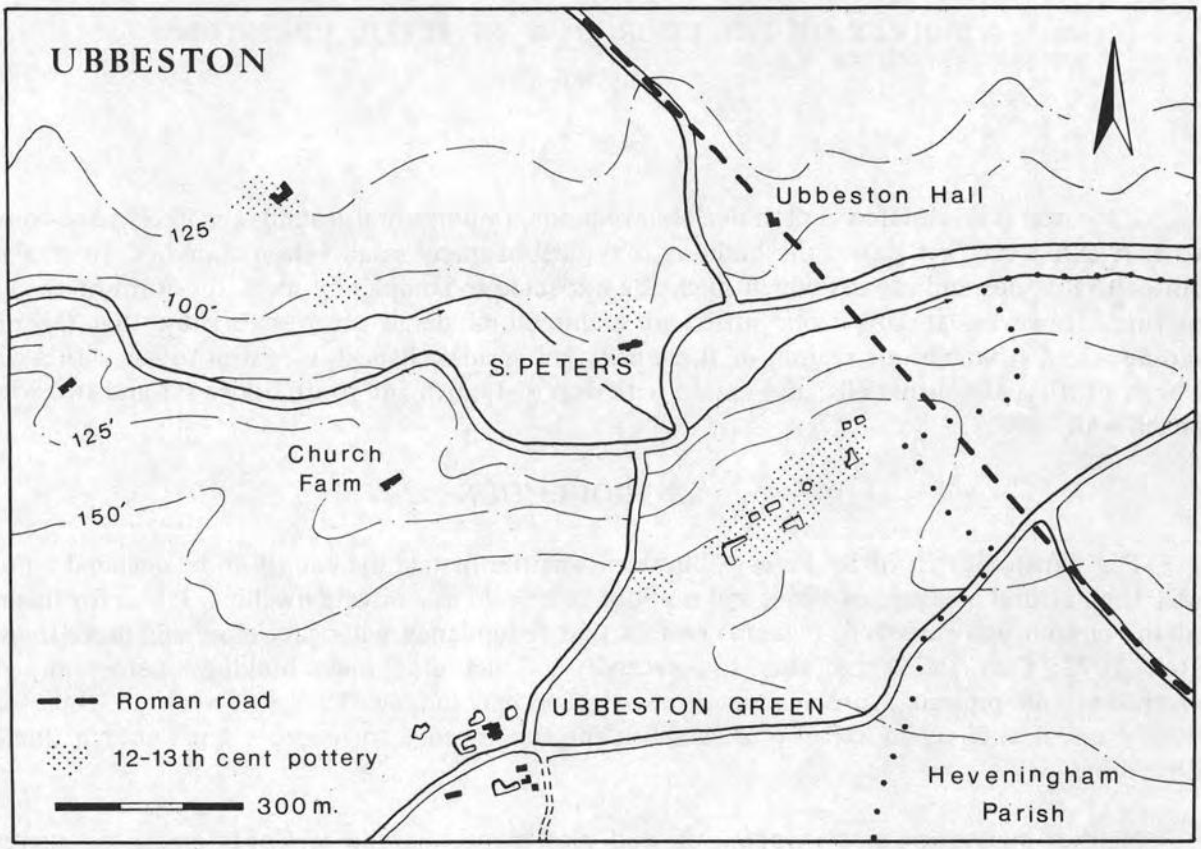

Fig. 53.
The church in its setting.

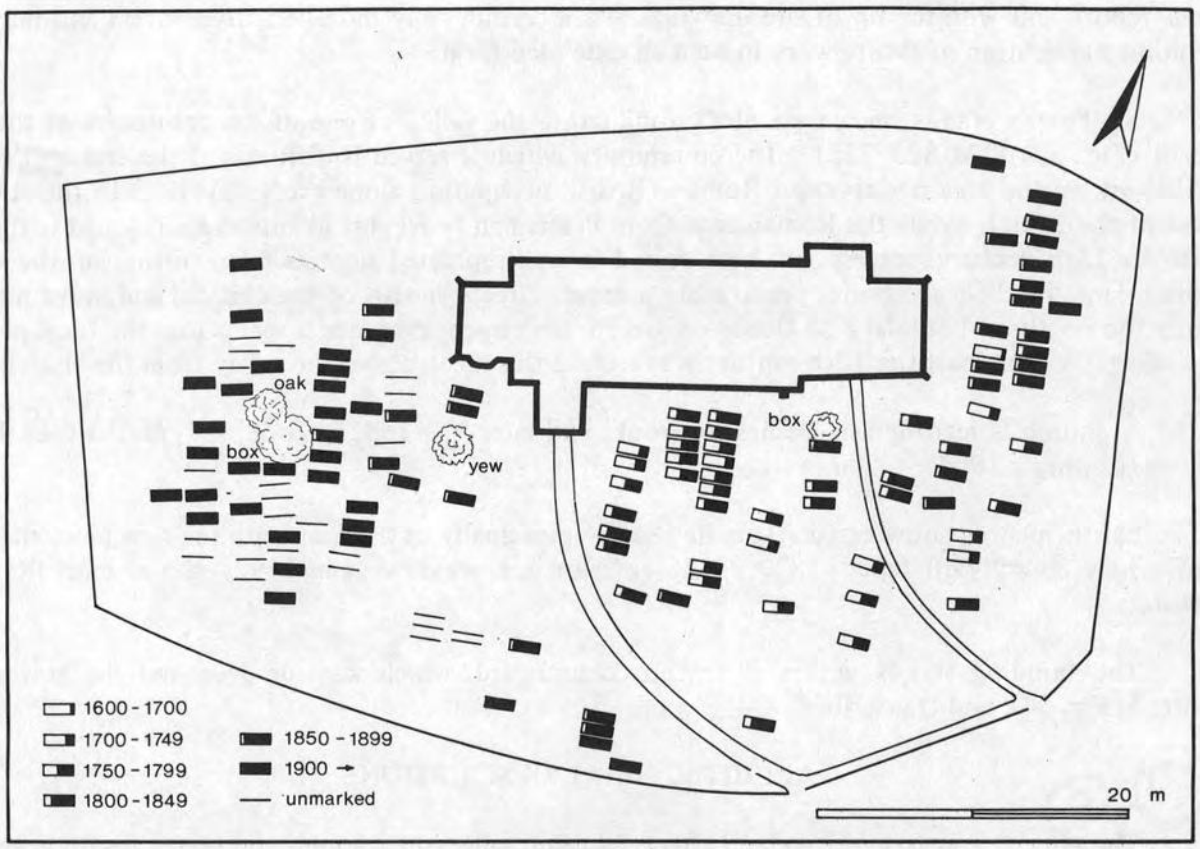

Fig. 54.
The churchyard.

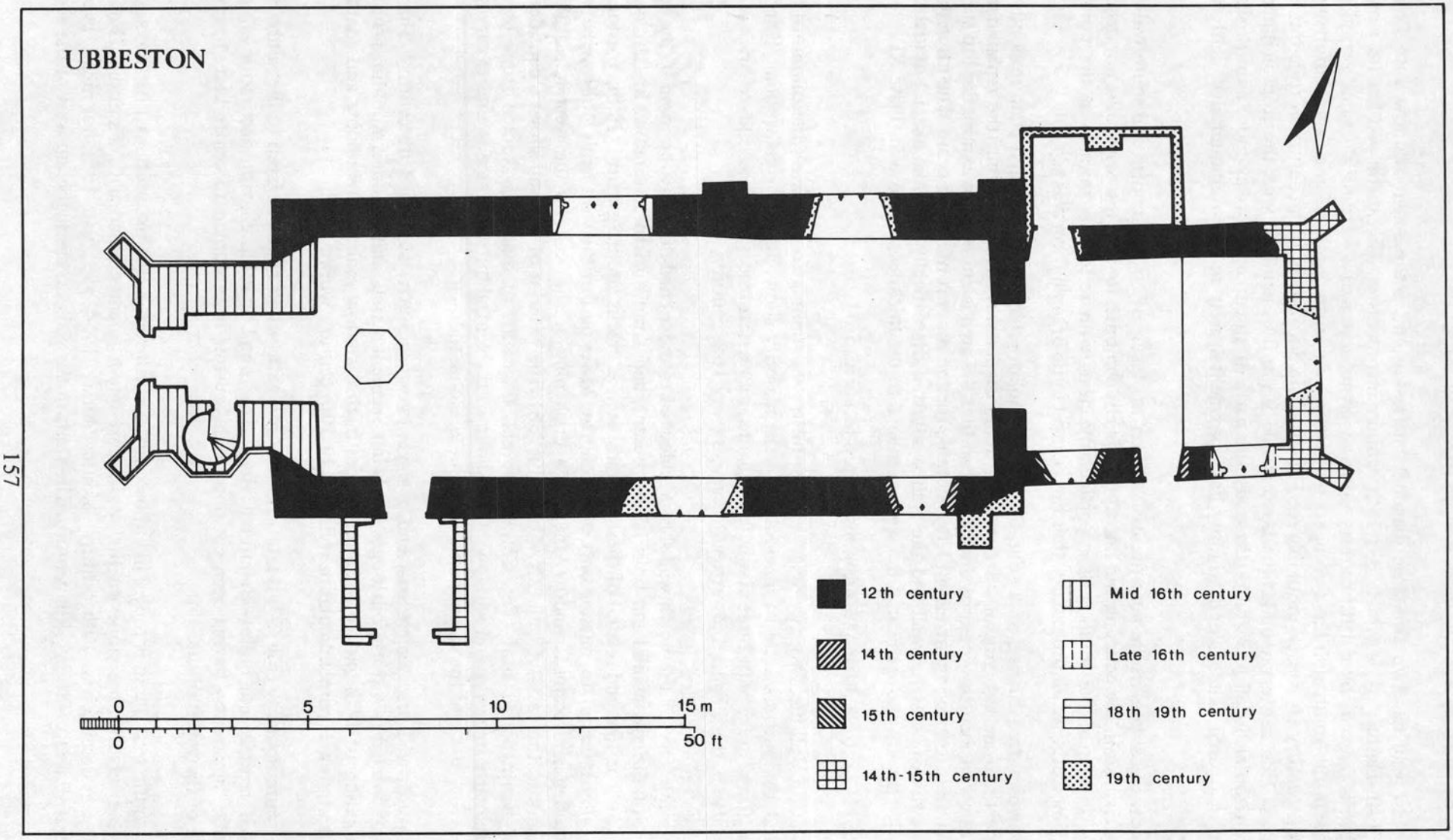

Fig. 55. UBBESTON :
Ground plan with suggested dating.

THE CHANCEL (6.90 by 4.95 m.; 22ft. 8 in. by 16ft. 3 in.) (Fig. 56)

The east wall has two two-stage diagonal buttresses, and a three-light window with flowing tracery in 14th century style which is a 19th century introduction. The north wall has no window openings, but is pierced by a 19th century doorway giving access to a vestry of the same period. The first window in the south wall has two lights beneath a four-centred arch of brick and is probably of the late 16th century (for brick moulding see Fig. 60). The doorway is 14th century in style but is, in part at least, a 19th century rebuild; the hood mould is poorly assembled with the stops inclined up from the horizontal. In all probability these are the parts of an earlier doorway more akin in size to the present rear arch. The second window has a segmental arch and two cinquefoiled lights with vertical tracery.

Vertical cracks are visible near the east end on the inside of both the north and south walls. On the outside changes in the coursing and line of both walls demonstrate that the east end is not original. The change in line of the south wall is particularly clear, with it turning inwards at the point of truncation, indicating in all probability that the chancel in its original form was aspidal.

The two-centred chancel arch (Fig. 58) rests on hollow-chamfered abaci and plain responds. On its east face there are two voissoirs decorated in relief diaper work (Fig. 59), but the remainder are plain. On the west face the voissoirs are missing so that the arch is cut back to expose the top surface of the abaci, thus forming a convenient ledge suitable for the support of a rood beam. The discrepancy between the thickness of the wall and the arch is adjusted dramatically near the abaci, but gradually lessens until vertically above the arch the wall is reduced to the thickness of the arch (Plate XI).

THE NAVE (17.75 by 6.30 m.; 58ft. 3in. by 20ft. 8 in.) (Fig. 56)

The north wall has two, two-stage, pilaster buttresses running to the eaves, the quoins of both the wall and the buttresses are of limestone and the majority show close diagonal tooling. The first window is 19th century with three cinquefoiled lights and vertical tracery. The second, of brick with a four-centred arch, three lights and vertical tracery, is early 16th century.

The inside face of the north wall shows a blocked round-arched doorway, opposed to the south doorway, with all its voussoirs and both jambs present, and a range of three windows high up on the wall (Fig. 56). The first and second of these are only seen as cracks and irregularities in the plaster, but the third is almost complete, missing only its sill and the lower part of the west jamb. Midway between the present first and second windows there is a thickening of the wall: to the west it is 1.05 m. (3ft. 5in.) and to the east 1.18 m. (3ft. 11in.) (Fig. 55). The exterior of the wall shows a considerable amount of herringboned flint (Fig. 62), and several fragments of diagonally tooled stone used in blocking the early doorway and windows. On a quoin of the central buttress there is a relief carving of two figures (Fig. 59), and the surrounding stone has diagonal tooling.

The south wall has, near its east end, a single two-stage buttress of the 19th century. The first window is of two lights with trefoiled ogee heads in a segmental arch, and the hood moulding is square. The combination of 14th and 16th century styles in this window indicates rebuilding and adaption. The second window is perpendicular in style, but of 19th century workmanship.

The south doorway (Fig. 57) is late 12th century with single shafts engaged to the jambs rising to decorated capitals and hollow-chamfered abaci. The round arch has chevron decoration which is very irregular, apparently having been cut onto each voussoir from corner, to centre base, to corner irrespective of the width of the stone.

The south west quoin is tooled like those on the north wall, while the south east has the appearance of being rebuilt. One stone on the south west quoin is embellished with a sun dial (Fig. 59) which has been described as 12th century (Munro Cautley, 1954, 193; plate 195), but might, because of its decorative treatment, be 17th century. The flints in the wall are herringboned west of the second

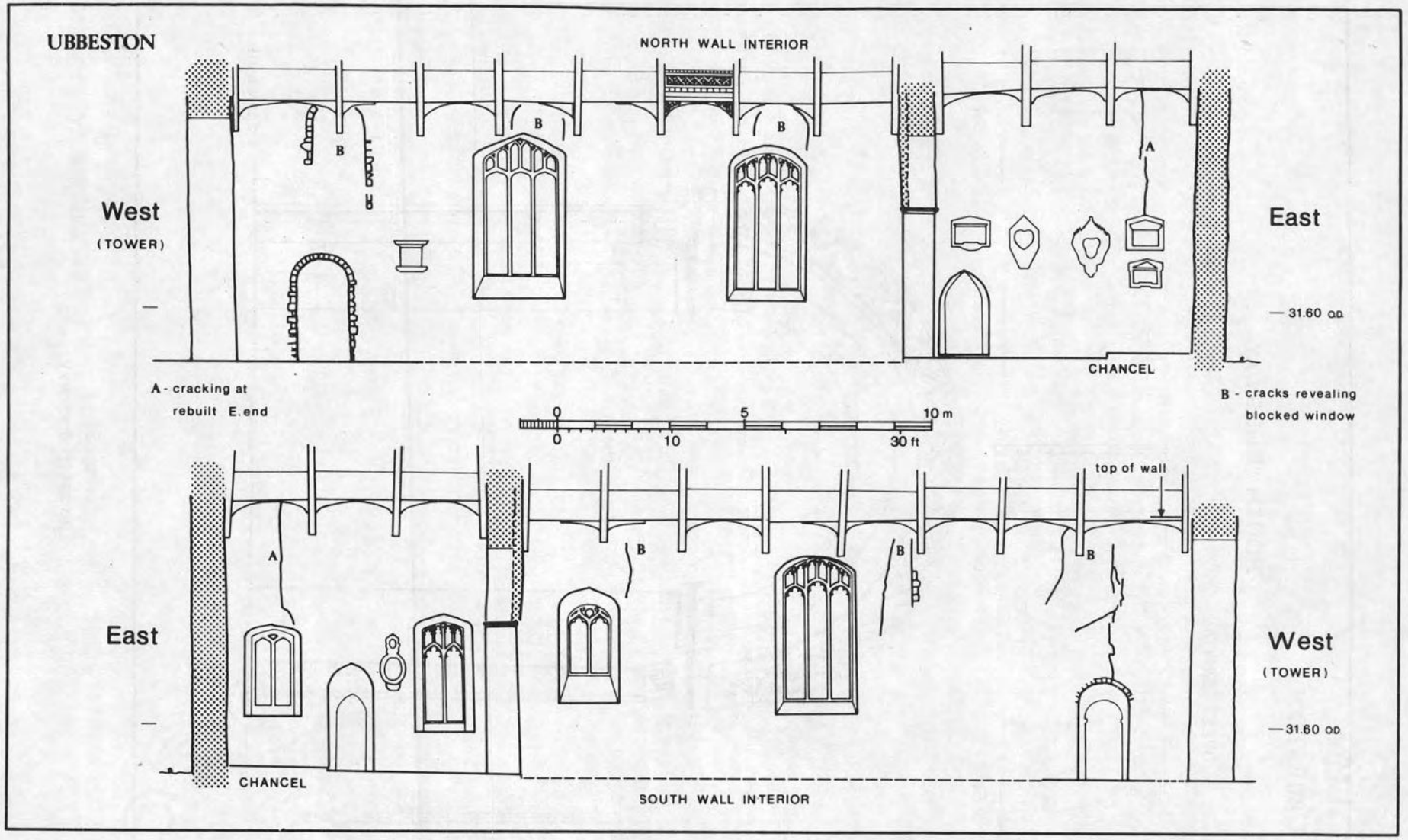

Fig. 56.
Elevations of the interior faces of the north and south walls.

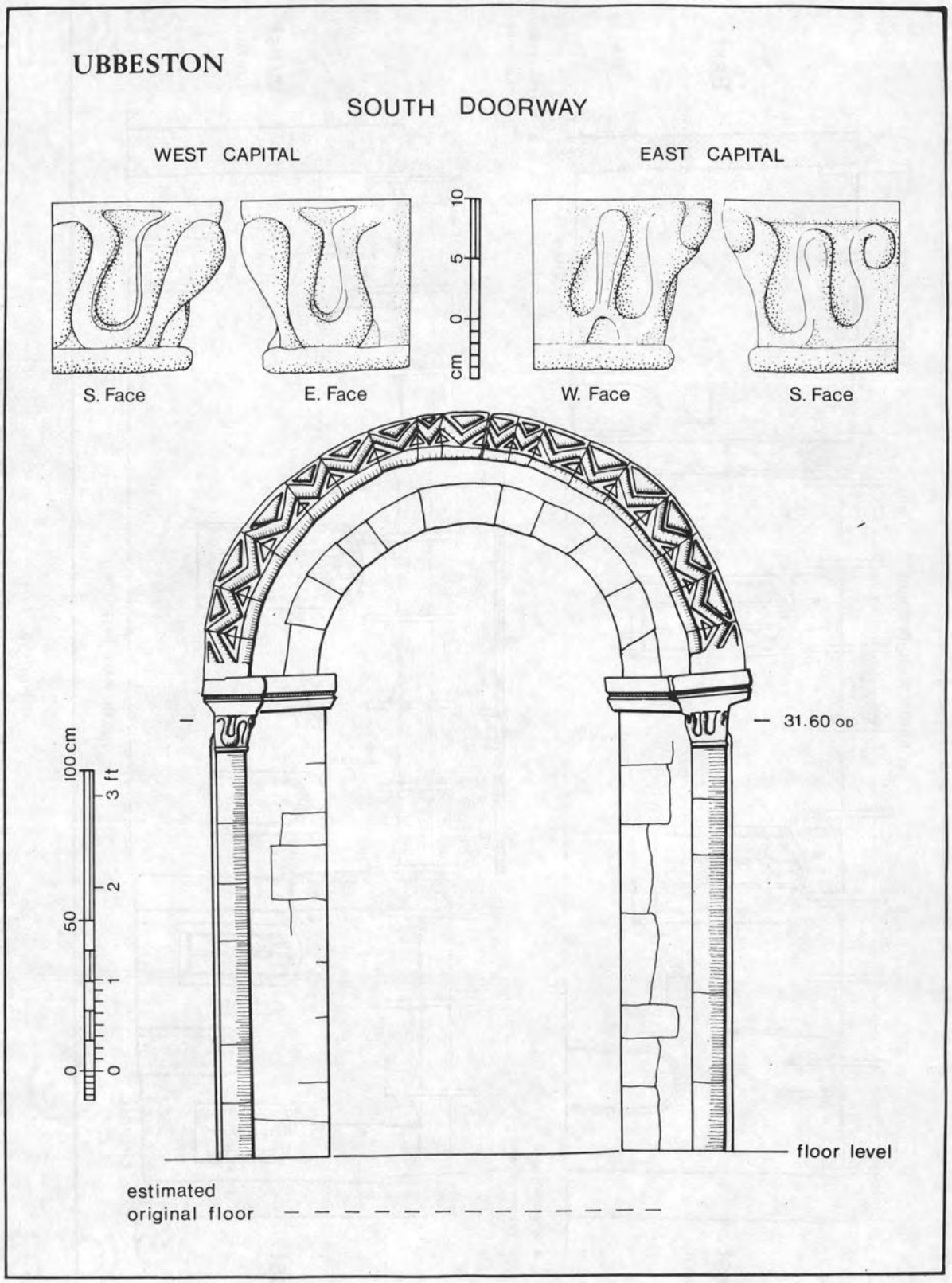

Fig. 57.
The south doorway.

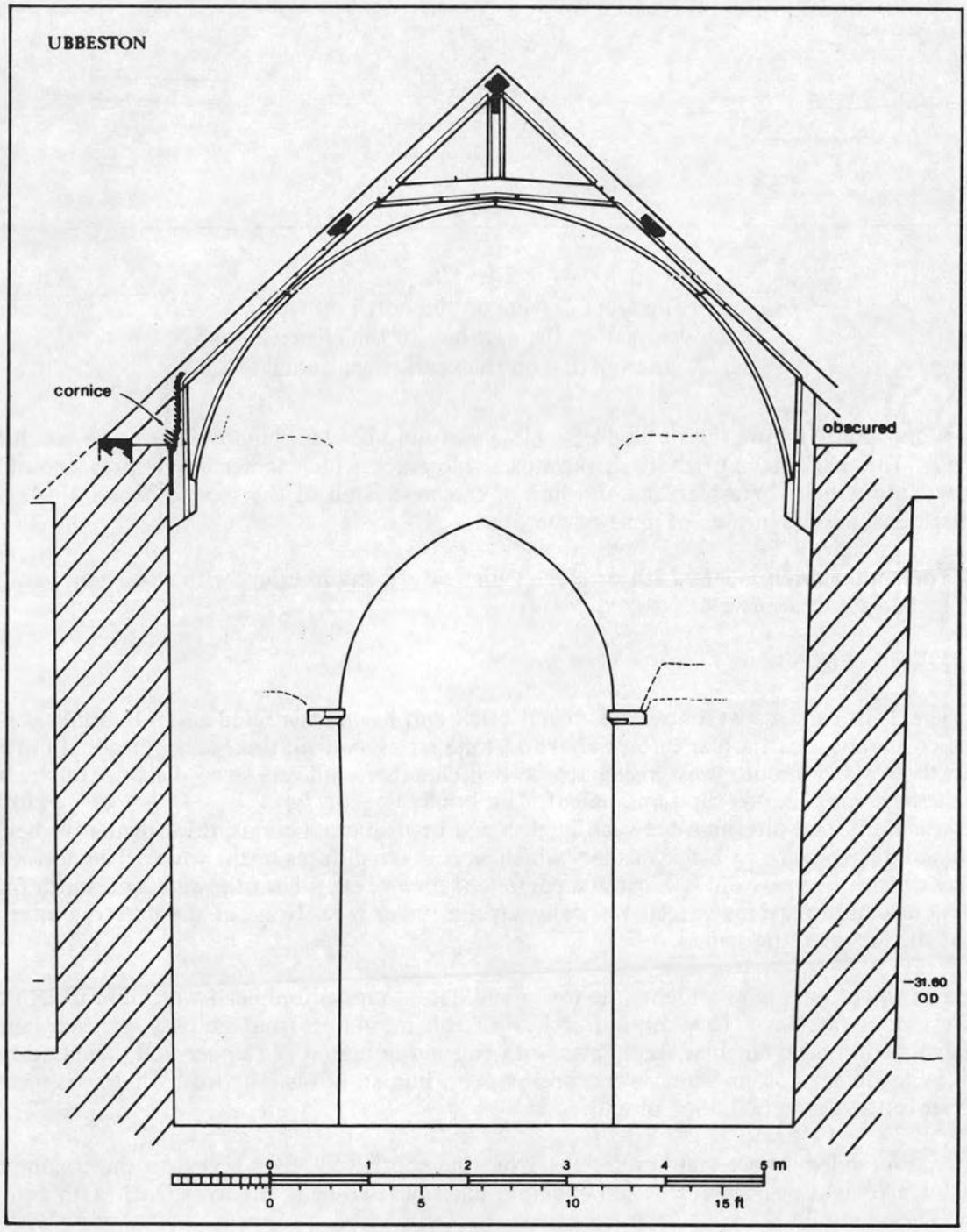

Fig. 58.
Section across the nave showing the west face of the chancel arch and the first truss of the nave roof.

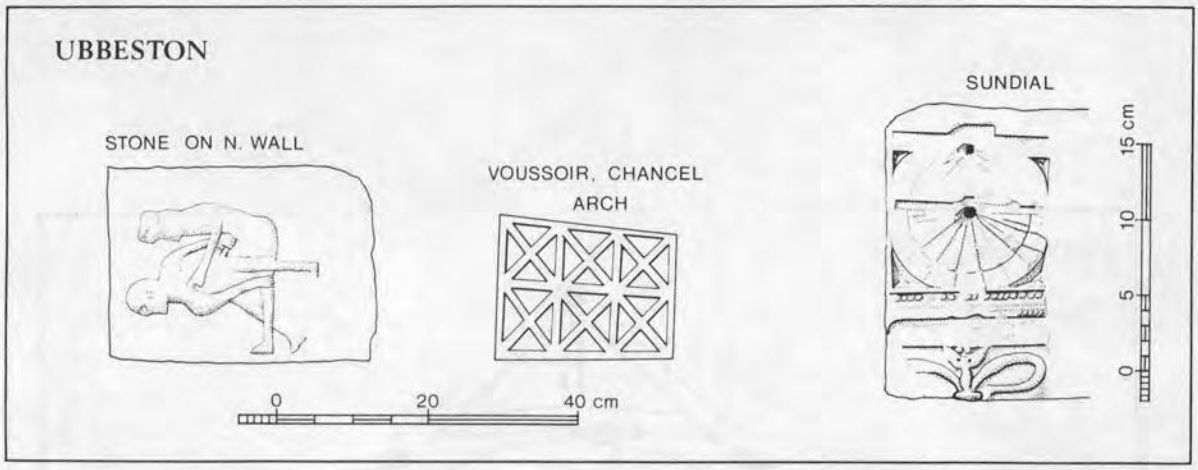

Fig. 59.
The relief carving on the north buttress;
a voussoir from the east face of the chancel arch;
the sun dial on the south-west quoin.

window and faintly show the outline of a blocked round-headed window above the south doorway (Fig. 62). The inside face of the wall shows a single crack which indicates the presence of the first window; four blocks of ashlar and the line of the west jamb of the second; a series of cracks and irregularities trace the outline of most of the third.

The south porch is late 18th or early 19th century and in brick, with embattled parapet and a round arched south doorway.

THE TOWER (Fig. 60).

The 16th century west tower is of red brick and has a chamfered and roll moulded plinth; an embattled parapet with ashlar quoins above a stone string course; three-stage diagonal buttresses on the north west and south west rising to the bell chamber, and one stage diagonal buttresses rising from the nave roof line to the same height. The bricks ($9\frac{3}{8}$ or $7\frac{1}{8}$ x $4\frac{1}{8} - 4\frac{1}{4}$ x $2 - 2\frac{1}{8}$in.) are not laid consistently and alternate between English and English cross bonds, this irregularity being partly due to the diaper work in black headers which occurs on all faces of the tower. The decoration is in lozenges of various sizes, and is without a consistent theme. On the north, west, and south faces there are three separate patterns spaced vertically up the tower face. None of the patterns interlink, and none of the faces are the same.

The tower arch is as wide as the tower and has a four-centred head with run-through chamfer. The west doorway has a four-centred arch with roll moulding from midway up each jamb and is contained within a rectangular frame also with roll moulding on the upper half. The hood mould is square, with defaced stops which were, presumably, human heads. The west window is of two lights with four-centred arch and hood mould.

A three-sided turret stair projecting from the south wall gives access to the ringing chamber with its single-light window. The bell chamber has four two-light windows, each with four-centred arch and hood mould.

THE ROOFS (Fig. 58 and Plate XI).

The 15th century roof is of arch-braced collar construction in eight bays. Between the wall posts there are panels forming a cornice decorated with a pierced quatrefoil motif. The chancel roof is in three bays and of the same form. On the first collar west of the chancel arch there is a wooden pulley with two wheels 'possibly to serve both rowell light and veil' (Munro Cautley 1954, 328).

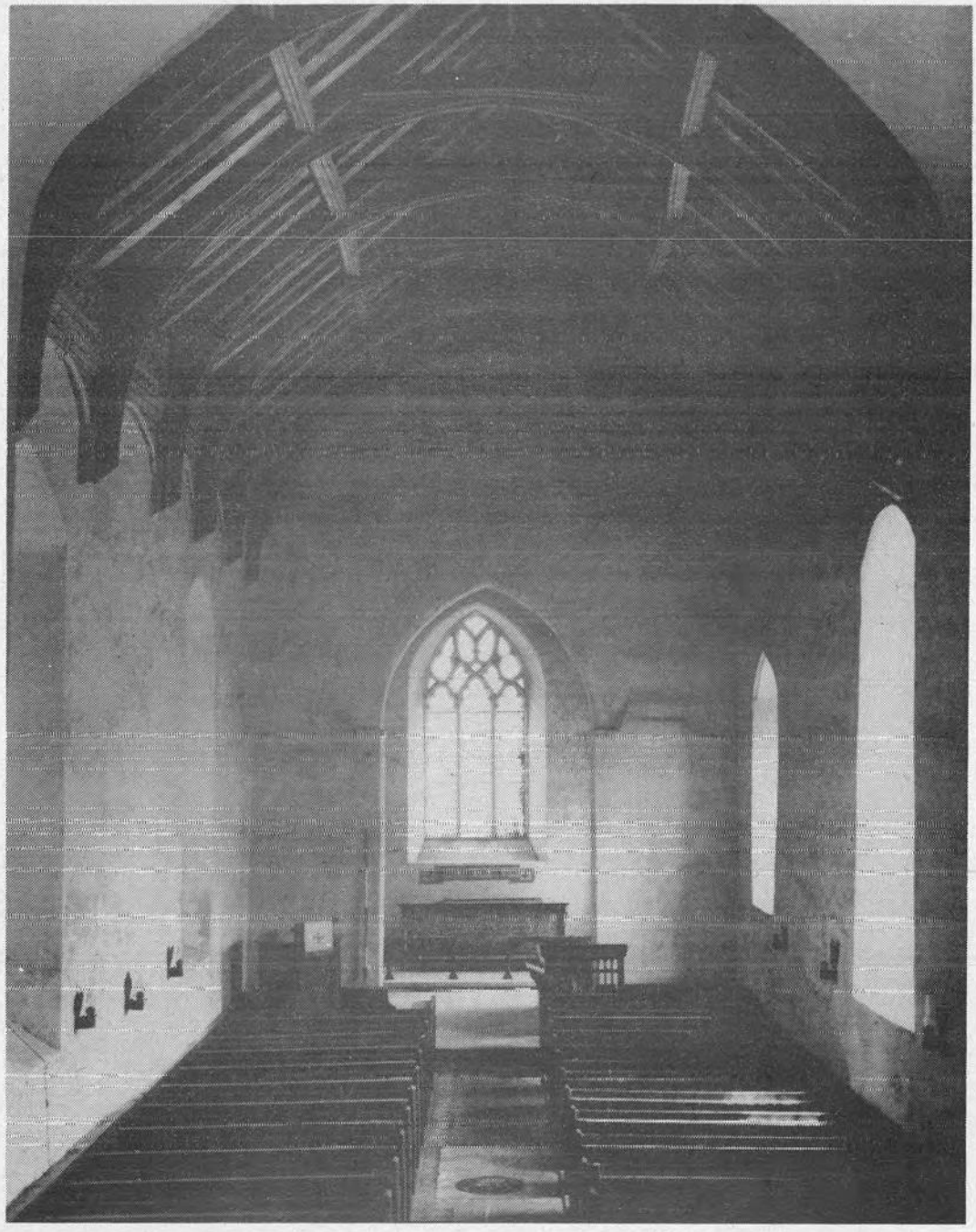

Photo : R. Carr

Plate XI. THE CHURCH OF ST. PETER, UBBESTON :
interior looking east.

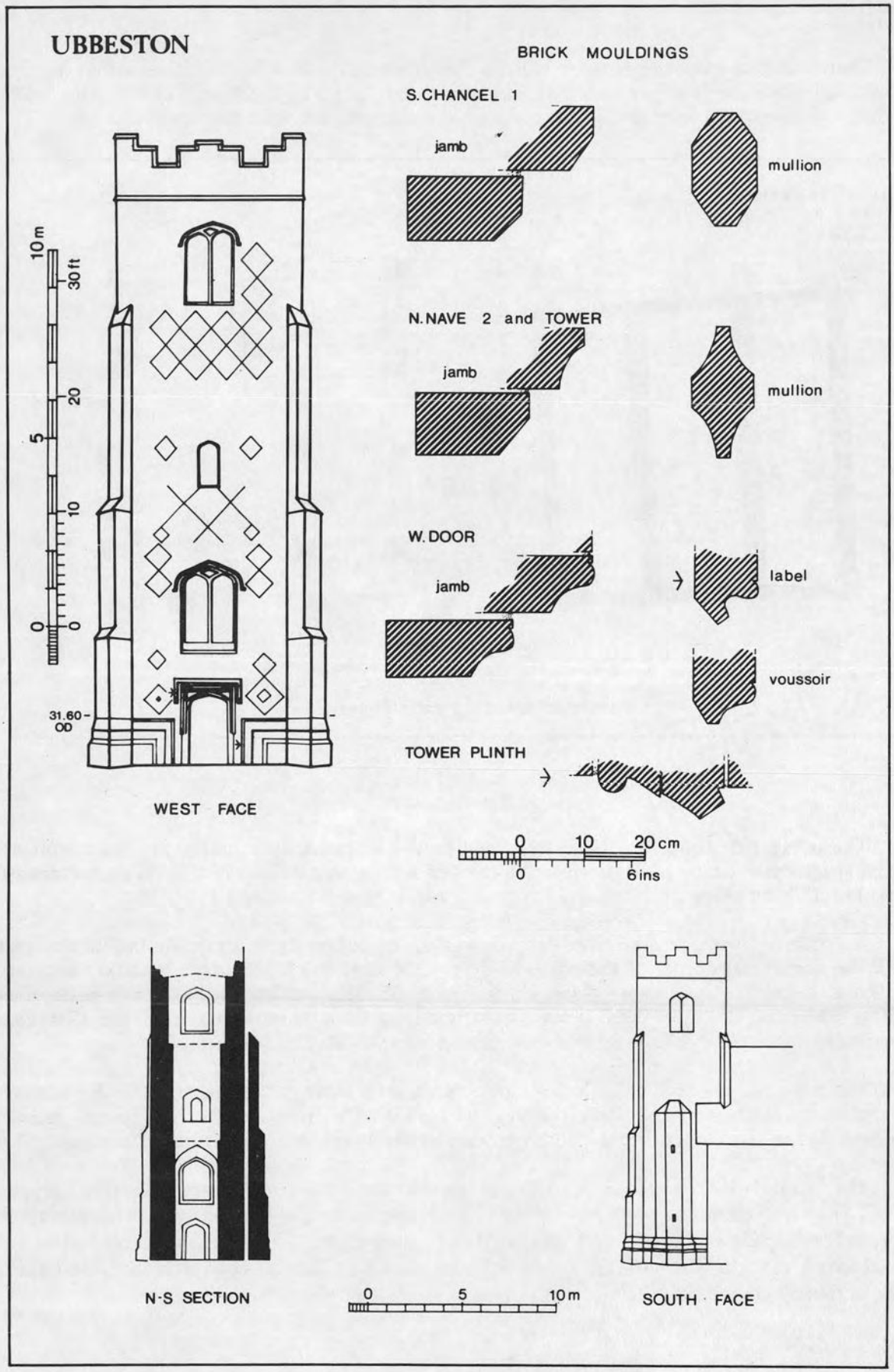

Fig. 60.
The tower with details of brick mouldings.

FITTINGS

There are two bells; the first by William Calverden of London is pre-Reformation, the second, a treble, by Stephen Tonni of Bury St. Edmunds and dated 1573 (Raven 1890). The bellframe (Fig. 61) has mounts for three bells and seems to be contemporary with the tower.

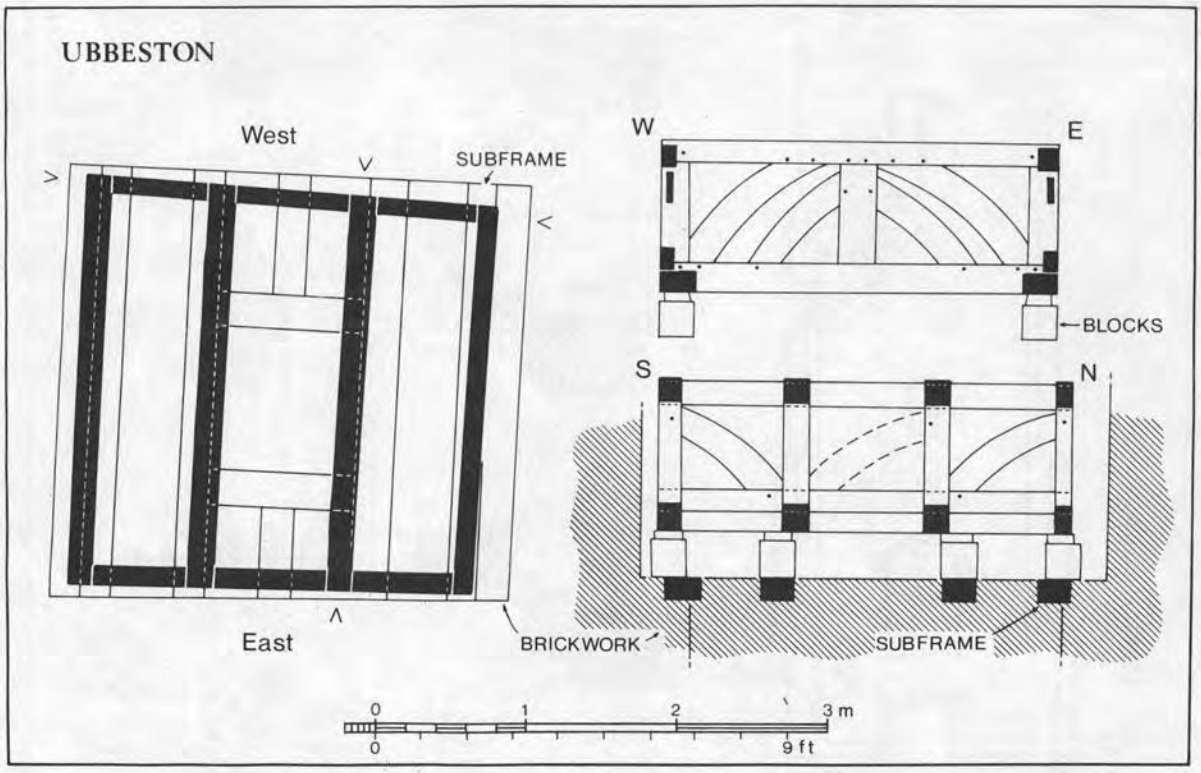

Fig. 61.
The bellcage.

The octagonal stone font (Fig. 62) has a bowl decorated with quatrefoils and trefoiled arch motifs on alternate faces, a shaft with cinquefoiled arches on all faces resting on an octagonal base with quatrefoils on alternate faces, and dates to c. 1400 (Munro Cautley 1954, 328).

A coffin lid with a raised floreated cross of 13th century type, probably in Purbeck marble, lies in the north-west corner of the nave. Kelly's directory, 1892, records 'a remarkable stone slab was found under the pavement of the church' in 1865. Restoration in that year was confined to levelling the nave floor for new pews. Other wall and floor monuments from the 17th century onwards record members of the Sone, Gent, Alexander and Clouting families.[2]

The nave and chancel stalls, lectern and pulpit, altar table and doors are all 19th century. The lighting is by wall mounted 19th century oil lamps with circular reflecting plates behind the chimneys. In the last years of its use oil heaters replaced coke stoves as the form of heating.

The chancel floor was tiled in 1892 and the old 'tiles' relaid in the nave aisle (they are, in fact, bricks). The area behind the pews and the porch had new bricks laid in 1865. Munro Cautley (p. 328), records a collecting shoe of 1683 and a Stuart chair, both of which have been removed to Heveningham church. The bell by Tonni is to be moved to Moyses Hall, Bury St. Edmunds, the other to Henley church.

CONCLUSIONS

Although a church is mentioned in Domesday Book nothing we recorded can be dated that early. However, a later Romanesque church can be almost completely reconstructed (Fig. 63). The

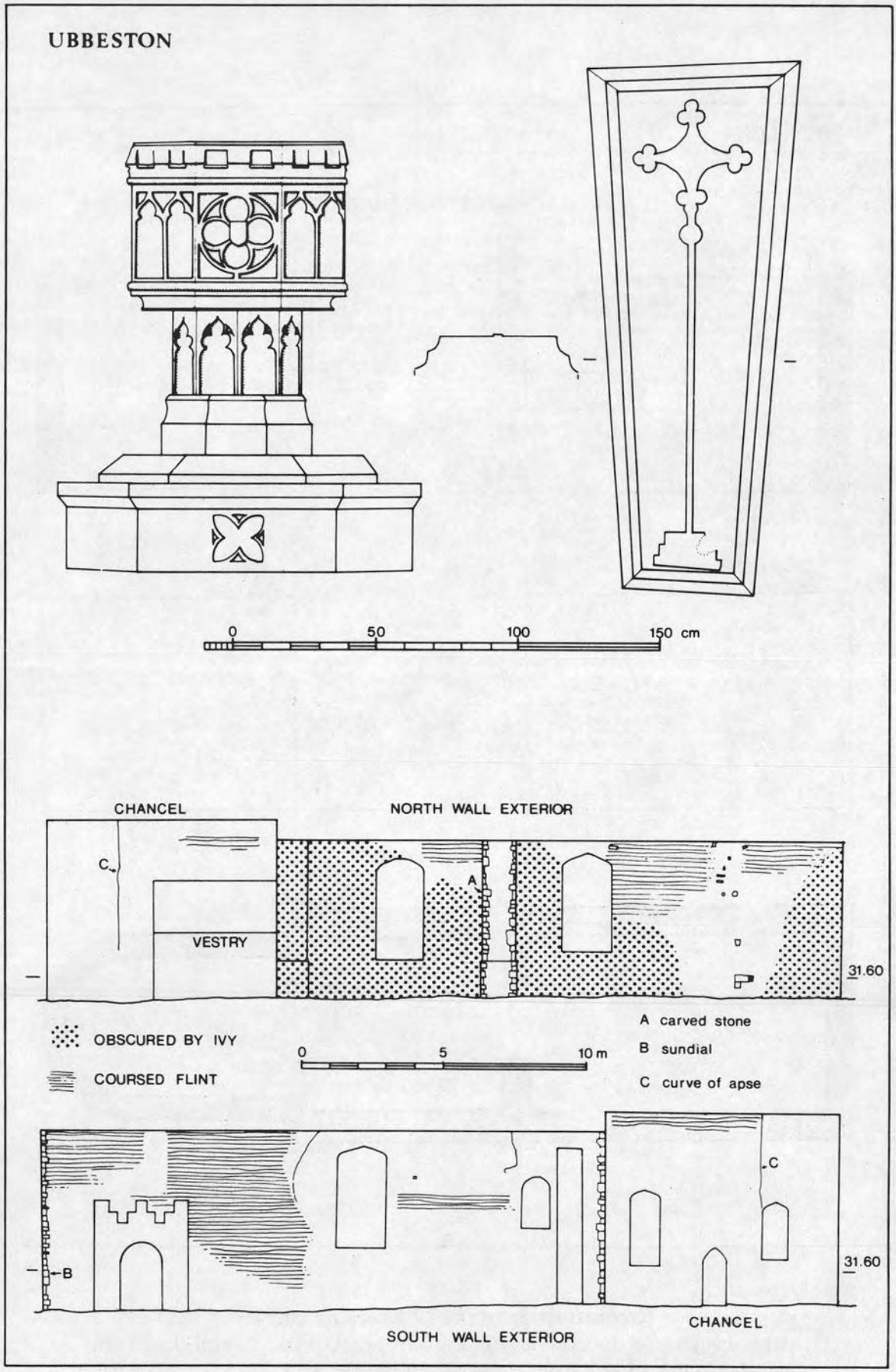

Fig. 62.
The font; coffin lid from the north-west corner of the nave; elevations of the external faces of the north and south walls.

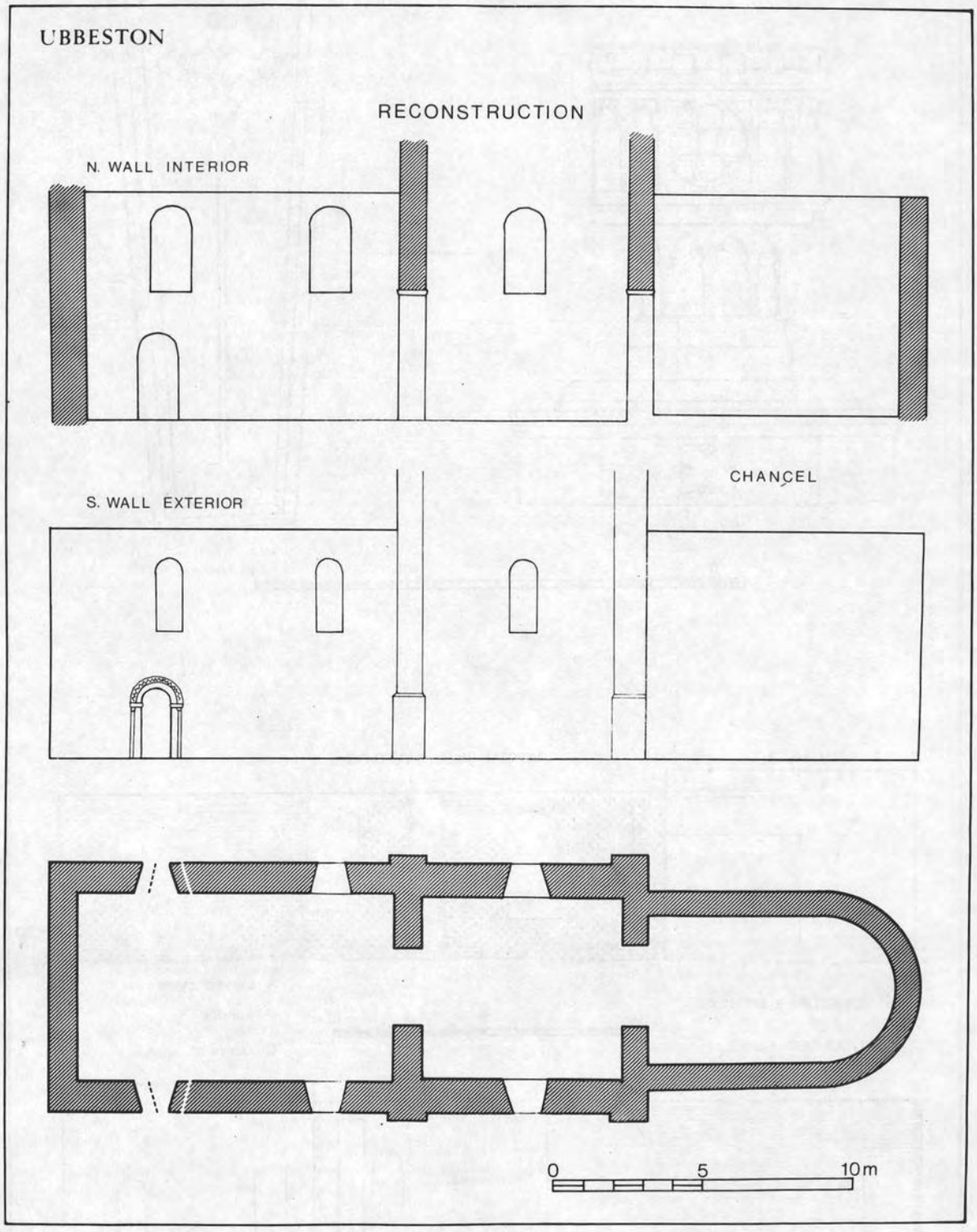

Fig. 63.
Reconstruction of the 12th century church.
All the evidence is discernible with the exception of the chancel floor level, nave and chancel wall height, and the buttressing of the south nave wall. There is no evidence for the location or size of windows in the chancel.

chancel was apsidal, but so little of the original fabric remains – represented on the exterior by the herringbone flintwork (Fig. 62) – that there is no evidence for the number or location of the windows.

The present chancel arch is a hybrid. The shape of the arch is probably best suited to the 13th or 14th centuries, while the extreme height of the jambs, and the simple abaci belong to the 12th century, not with a gothic arch. The two parts are of different dates. What is interesting, however, is that the voussoirs which go to make up the east side of the arch are not typical of the 13th or 14th centuries. One would expect moulding and embellishment, not plain ashlar. This, together with the two decorated voussoirs, and the irregularities in the nave gable above the arch, suggest that these voussoirs were from an original round arch on the present jambs which was rebuilt in the gothic style.

The irregular spacing of the six round headed windows in the nave, and the position of the doorways unusually far west can be explained if the nave was originally divided into two cells. This is supported by the thickening of the east end of the north nave wall on the inside, and the position of the pilaster buttress on the outside; these coincide (Fig. 55) and indicate the position of the partition wall. Assuming that the buttresses and thickening of the wall were originally repeated on the south side, we then have a square (6.25 m.) central cell with thickened walls and buttresses which must have supported a low central tower.

The single splay windows, judging by the best preserved example above the north doorway, had an internal opening of 1.38 m. by c. 2.90 m. (4ft.6in. by 9ft. 7in.). The only window showing clearly on the external wall is above the south doorway with an opening c. 0.90 m. by c. 2.40 m. (3ft. by 7ft. 11in.). The base of the openings was very nearly horizontal, with the splay confined to the top and sides.

The floor of the 12th century church was probably 15 – 20 cm. lower than the existing one. This is suggested by the absence of bases to the columns of the south doorway, which are covered by the brick floor of the porch. It is interesting that the rear arches of the doorways and window are the same width, while the vertical dimensions of the windows are c. 20 cm. greater than those of the existing doorways.

The original height of the walls is uncertain. The nave walls have been truncated and the crests of all the windows are missing. It seems probable that this was done in conjunction with the erection of the 15th century roofs. The chancel walls are higher than those of the nave and probably approximate the original height.

Herringboned flintwork survives around the window above the south doorway, which confirms that this was the original treatment of the exterior fabric. Similarly coursed flintwork runs up to the south west and north west quoins of the nave wall, the central north wall buttress and also to the site of the conjectured central south wall buttress (Fig. 62). The quoins of both the buttresses and walls show the same diagonal tooling.

The west end of the original church was largely destroyed by the present west tower which projects right through the nave end gable. However, both quoins and short lengths of external walling are preserved and offer no evidence to contradict the normal interpretation of a straight gable wall.

It may be that the Romanesque church was built in two phases, the simple mouldings of the abaci of the chancel arch contrast with those of the fairly certainly late 12th century south doorway, and may well be earlier. A division of the structure into two phases may be borne out by the difference in alignment of nave and chancel (71^{o} and 70^{o} east of grid north respectively).

Whatever the date, however, all the evidence points to a church with a longitudinally tripartite plan and raised central compartment, similar to a small group of tripartite buildings which Pevsner notes in his introduction (Pesvner 1974, 28).

The later development of this early church is piecemeal: the re-built chancel arch and the introduction of the 14th century window into the south nave wall probably mark the demise of the tower. The erection of the 15th century roofs in nave and chancel post date the reduction in height of nave walls, the reduction in thickness of the south nave wall, and the replacement of the apse with a square east end. There were also various minor introductions represented by the surviving chancel doorway and 15th century window.

The 16th century saw the building of the west tower and two brick-built windows. We have two wills which refer to the tower:

> 'to the making of a new steeple, to be made within the church-yard of Ubbeston so that the town will help make it up, 10 marks' (Will of Thomas Cowall, Vicar of Ubbeston, dated 28 June, 1529 [3]).

> '(to the reparation [4] of the windows in the steeple' (Will of John Hamone, dated 26 April, 1541[5]).

The tower, then, can be dated to the second quarter of the 16th century. It seems that Cowall's bequest was not enough to finish the job, and this separation of the tower into work of at least two phases is borne out by the three stage diaper work.

The bricks and mouldings of the tower are identical in size and fabric to those of the second window in the nave. The south chancel window, however, does not have the hollow chamfers of the others, and the bricks are somewhat larger, probably indicating a later date (Fig. 60).

The south porch is built of larger bricks consistent with a late 18th or early 19th century date; there are, however, earlier bricks incorporated into the fabric, particularly on the inside, which may indiciate that this is a rebuilding.

The mid to late 19th century saw the building of three windows, nave buttress, vestry, roof coverings and floors and internal furniture.

At a time when so many churches in the county are threatened by redundancy their future may often be conditioned by their architectural worth. Despite the good coverage of architecture by past authorities the value of re-examining churches likely to be made redundant is emphasised by the amount of new information found at Ubbeston without either excavation or the removal of wall plaster. A small church which has been regarded as an architectural nonentity, only partly redeemed by it beautiful setting, Norman doorway and fine roof, can now be seen in a new light.

In cases similar to Ubbeston where redundancy and change of use has been decided upon, such a survey must be extended in time and cost to include measured drawings, and, if possible, excavation.

ACKNOWLEDGEMENTS

I am grateful to the Diocese of St. Edmundsbury and Ipswich, to the vicar the Rev. F. Brown, and the prospective purchaser Mr. C. Southin, for their co-operation in allowing the survey. Mr. S. West, whose original insight into the true nature of the building caused us to make the survey has been constantly available for discussion. Mr. A.P. Baggs made many valuable suggestions which have been incorporated in the text. Mr. P. Northeast was kind enough to supply me with the documentary reference to the tower.

The actual survey was only possible through the help of Jude Plouviez and Bruce Induni who, like the other members of the survey team, shared the novel problem of recording a church, Miss Janet Tacon who did the fieldwork for the parish, and Mr. and Mrs Stuart Meek who recorded the churchyard.

NOTES

1. This section follows the broad model of recent R.C.H.M. volumes. The windows are numbered from the east.

2. Transcriptions and photographs in the Suffolk Archaeological Unit records, Bury St. Edmunds.

3. N.R.O. 48, Altmere.

4. A term often used for new work.

5. N.R.O. 171, Mingaye.

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PRINCIPAL CONTENTS