



*Excavations at a large
Romano-British settlement at
Hacheston, Suffolk, 1973 - 74*

*Archaeological Service
Suffolk County Council*

East Anglian Archaeology 106

EAST ANGLIAN ARCHAEOLOGY



Frontispiece: Aerial view of the site in 1974 , looking north-east, during road construction — trenches still visible in Area III and 1974 excavation areas. *Photo: R. Mowat*

Excavations at a large Romano-British settlement at Hacheston, Suffolk in 1973–4

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Cover photograph:

Locally-made face pot from pit 21. *Photo: J. Plouviez*

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Thanks are due to the very many local volunteers who helped on both excavations and carried out subsequent recording work, most notably Mr and Mrs Meek of Wenhamston (now sadly both deceased), also Mike Atkinson, Peter Froste and D.J. Nicholls. A particular debt is due to R. Gearing and H. Jeffery who spent a huge amount of their time metal detecting during and after the 1974 season.

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Where the text is not specifically attributed it is the combined product of the three main authors. The data for Chapter 1 was collected by Jude Plouviez and the vast bulk of the 1973 excavation analysis and interpretation which forms the core of Chapter 2 was the work of Andrew Tester.

Dedication

This volume is dedicated to Thomas Blagg who sadly died in August 2000. Tom directed the 1973 excavation and made strenuous efforts to move the project to completion in subsequent years. He read, corrected and improved all

parts of this volume and was always willing to provide help and advice despite his many other commitments. We are glad to clear his field publication backlog with this volume while deeply regretting the loss of a friend.

Summary

The volume presents the results of excavations during 1973 and 1974 on the line of the Wickham Market bypass (A 12) in the parish of Hacheston. The new road crossed a large Roman settlement of the type usually described as a 'small town'. The report also draws on both earlier and more recent work on the site where this contributes usefully to the picture.

The core of the settlement is established in the first half of the 1st century, almost certainly before the conquest in

43, and seems to consist of circular buildings, enclosed by ditches and a palisade. During the later 1st century a gravel road line is laid out and insubstantial rectangular buildings were erected alongside it. This basic layout continues throughout the Roman period, with a driveway and partial field enclosures to the south. Pottery was manufactured at Hacheston between the later 1st and mid 3rd centuries — substantial groups from kilns found in the 1960s and 1970s have been examined alongside the 1973 excavated

material. The excavations also produced areas of iron smithing debris and related structures.

In the 4th century there is a marked drop in activity, particularly in the central area, and it is abandoned or at least extremely impoverished by 370. Early Anglo-Saxon structures were found in two areas, to the south and to the north-west of the Roman settlement.

The site was one of the first on which metal detecting was carried out, both during the 1974 excavation and afterwards during roadworks. The large assemblage of metal objects adds significantly to understanding both the chronology and the status of the settlement as a market and a manufacturing centre.

Résumé

Ce volume présente les résultats des fouilles entreprises au cours des années 1973 et 1974 sur l'autoroute A12 le long de la rocade de Wickham Market dans la commune de Hacheston. La nouvelle route a traversé une grande implantation romaine du type que l'on qualifie habituellement de « petite ville ». Le rapport de l'EAA se réfère à la fois à des études sur le site antérieures et postérieures aux travaux actuels, lorsque celles-ci contribuent à clarifier les explications.

La partie centrale de l'implantation fut établie pendant la première moitié du premier siècle, très probablement avant la conquête de l'an 43. Cette partie se compose de bâtiments circulaires, entourés de fossés et d'une palissade. A la fin du premier siècle, on construisit une route en gravier bordée de bâtiments légers de forme rectangulaire. Cet agencement subsista pour l'essentiel pendant toute la période romaine; il convient d'y ajouter une voie ainsi que l'enceinte de champ en direction du sud. Des objets en poterie furent fabriqués à Hacheston entre la fin du premier et le milieu du troisième siècle. De grands ensembles de fours, trouvés dans les années 60 et 70, ont

été étudiés ainsi que les objets découverts en 1973 à l'occasion de fouilles. Les recherches entreprises ont également permis de mettre à jour des déchets de fer liés à l'activité d'une forge ainsi que les structures correspondantes.

Le quatrième siècle fut marqué par un net ralentissement des activités, et en 370, l'implantation était abandonnée ou pour le moins très diminuée. Des structures datant du début de la période anglo-saxonne ont été trouvées dans deux zones, au sud et au nord-ouest de l'implantation romaine.

Le site fut l'un des premiers sur lequel des opérations de détection de métal ont été effectuées, à la fois pendant les fouilles de 1974 et ultérieurement lors des travaux d'entretien des routes. Le nombre important d'objets métalliques qui ont été découverts permet de comprendre plus facilement la chronologie et la situation de l'implantation comme centre de commerce et de fabrication.

(Traduction: Didier Don)

Zusammenfassung

Der vorliegende Band enthält die Ergebnisse von Grabungen, die 1973 und 1974 entlang der Ortsumgebung von Wickham Market (A12) in der Gemeinde Hacheston durchgeführt wurden. Die neue Umgehungsstraße verläuft über eine große römische Siedlung, deren Typus gewöhnlich als Kleinstadt bezeichnet wird. Dort, wo es der Abrundung des Bildes nützt, werden auch frühere sowie spätere hier durchgeführte Arbeiten mit einbezogen.

Der Kern der Siedlung wurde in der ersten Hälfte des 1. Jahrhunderts angelegt — mit ziemlicher Sicherheit vor der Eroberung im Jahr 43. Er bestand offenbar aus runden, von Gräben und einer Palisade umgebenen Gebäuden. Im späteren Teil des 1. Jahrhunderts wurde eine Kiesstraße angelegt, an der entlang einige kleinere rechteckige Gebäude entstanden. Dieses Grundschema blieb, zusammen mit einem Viehweg und partiell eingehegten Feldern südlich davon, während der gesamten römischen Periode unverändert. Zwischen dem Ende des 1. und der Mitte des 3. Jahrhunderts wurden in Hacheston

Töpferwaren hergestellt. Größere, in den 1960er und 1970er Jahren sichergestellte Funde aus Brennöfen wurden neben dem 1973 ausgegrabenen Material untersucht. Bei den Grabungen kamen auch Bereiche mit Schmiedeabfällen und verwandte Strukturen zum Vorschein.

Im 4. Jahrhundert ließ die Aktivität merklich nach, besonders im Zentrum der Stätte, die spätestens 370 aufgegeben wurde oder zumindest extrem verarmt war. In zwei Bereichen wurden frühe angelsächsische Merkmale gefunden — im Süden und im Nordwesten der Römersiedlung.

Hacheston war eine der ersten Stätten, wo Metalldetektoren zum Einsatz kamen, sowohl während der Ausgrabung 1974 als auch bei späteren Straßenbauarbeiten. Die umfangreichen Metallfunde sind für das Verständnis der Chronologie und des Status der Siedlung als Handels- und Manufakturzentrums ausgesprochen hilfreich.

(Übersetzung: Gerlinde Krug)

Chapter 1. Introduction

I. Topography and geology

(Fig. 1)

The Roman site at Hacheston lay on the north side of the river Deben and stretched from the edge of the floodplain almost to the watershed between the Deben and the river Ore to the north. However the density of occupation undoubtedly varied and the original nucleus of the site appears to have occupied the dry valley of a former tributary of the Deben. The surface geology above the floodplain is glaciofluvial drift which is characterised by loamy soils with slowly permeable or well drained subsoils (Soil Survey of England and Wales 1983). The subsoil identified during the excavations consisted mostly of sands with some gravel and patches of boulder clay which became more common during the 1974 excavations as they progressed up the hill. The tithe map of 1839 records an 'Upper Pit Piece' a 'Lower Pit Piece' and a 'Sand Pit Field'; this last field covered most of the site designated Area II during the 1973 excavations (Fig. 3 No.188). The land was all identified as arable on the tithe map but the field names would account for the quarrying pits discovered during the 1973 excavations. There are other disused sand pits elsewhere in the parish, the closest at Gallows Hill, a promontory which overlooks the Deben on the western edge of the settlement (Fig. 2, r).

The site is nine miles from the present coastline. It may be of some significance that the settlement was located at a point where the rivers Deben and Ore have converged to within a mile of each other. From Hacheston the Ore meanders north and east and eventually south to the sea, whereas the Deben runs for eighteen miles south and then east.

II. Archaeological and historical background

The site was first noticed in 1964 when features and finds were observed and reported by Mr D.J. Nicholls, an interested local resident, in a water pipe trench (Fig. 2, a). This was followed up with non-systematic fieldwalking and trial holes dug by Mr M.J.Campen (an amateur archaeologist, now deceased, who also worked in Essex) during the years from 1964 to the mid 1970s, which showed the site extended into all five fields around the Fiveways crossroads. Small-scale excavations were carried out by the late Miss E.J.Owles for Ipswich Museum in 1965, 1966 and 1971, and the surviving records of Mr Campen's finds are a result of Miss Owles maintaining an interest in the site.

None of these investigations were fully published and some of the records now held by Ipswich Museum appear to be incomplete. Current resources did not permit a thorough search of the museum archives for accurate details of the finds and features; the following summary is based on a combination of the museum accession cards, the published lists and summaries in the 'Archaeology in Suffolk' section of the annual Proceedings of the Suffolk Institute of Archaeology and the county Sites and Monuments Record (on which the settlement has an overall

reference number HCH 001). Wherever possible the Ipswich Museum accession number has been included.

During the 1960s the fields around the Fiveways junction were numbered 1 to 5 for the Museum records. This system was also used for separating the 1970s metal detected finds after the excavations and the same numbers are used here (as shown in Fig. 2).

Features and objects from a recorded location

(Fig. 2)

a. TM 3125 5687–TM 3164 5697 Field 1, 1964. Pipe trench. Occupation layer recorded by D.J. Nicholls along 350m of section from the crossroads with pits, areas of burning and a stretch of rammed chalk 8m wide.

b. TM 3118 5694 Field 5, 1964. Pottery kiln with central pedestal, investigated by M.J.Campen. Sherds of oxidised plain folded beakers and jars (Ipswich Museum 'Kiln 1'). Probably cut a pit containing late 2nd or 3rd-century pottery.

c. TM 3108 5689 Field 4, 1965. Pottery kiln, double ended, 8ft (2.4m) long and 4ft 6ins (1.4m) wide, with two curved pedestals, found by M.J.Campen and excavated by E.J.Owles (Fig. 123). Associated with grey ware jars and indented beakers (see Chapter 5 for a discussion of the products). Other finds in the vicinity included coins, brooches, pins, a miniature copper-alloy axe, nail cleaner, tweezers, copper-alloy studs, iron knife, glass fragments and West Stow type pottery (Ipswich Museum 965–67).

d. TM 3118 5692 Field 5, 1966. Flint rubble wall foundations forming three sides of a rectangle about 5m wide, enclosing a clay floor. A tinned copper-alloy spoon was found in the footings and an unstratified Colchester type brooch; there was evidence of metalworking, including fragments of pewter. Excavated by E.J.Owles (Ipswich Museum 966–93).

e. TM 3128 5691 Field 5, 1966. A long narrow furnace, 5ft by 6ins (1.5m x 0.15m) and 1ft (0.3m) high, of burnt clay, excavated by E.J.Owles. Coins of Constantine I, Helena, Constantine II, Constans and Arcadius were found in the upper layer of this area (Ipswich Museum 966–93).

f. TM 3109 5699 Field 5, 1966. A pit containing the skeleton of a dog and a copper-alloy ligula, excavated by E.J.Owles (Ipswich Museum 966–93).

g. TM 3118 5690 Field 5, 1966. A square cess-filled pit, excavated by E.J.Owles. Finds in this area also included a copper-alloy ligula and an iron stylus (Ipswich Museum 966–93).

h. TM 3142 5698 Field 1, 1970. A pit containing a chalcedony intaglio (15mm x 13mm) originally set in an iron ring and samian sherds of Flavian to Antonine date were found by M. J.Campen. The gem shows a goatherd watching a goat browsing on a tree (see Henig 1978, 249 and pl. xlvii no. 500). Dated by style to the end of the 1st century, it may be compared in cutting and subject with a green jasper intaglio set in an iron ring from the Antonine I demolition layer at Strageath (Henig in Frere and Wilkes 1989, 179 no. 2, pl. 37b). Another pit in the vicinity

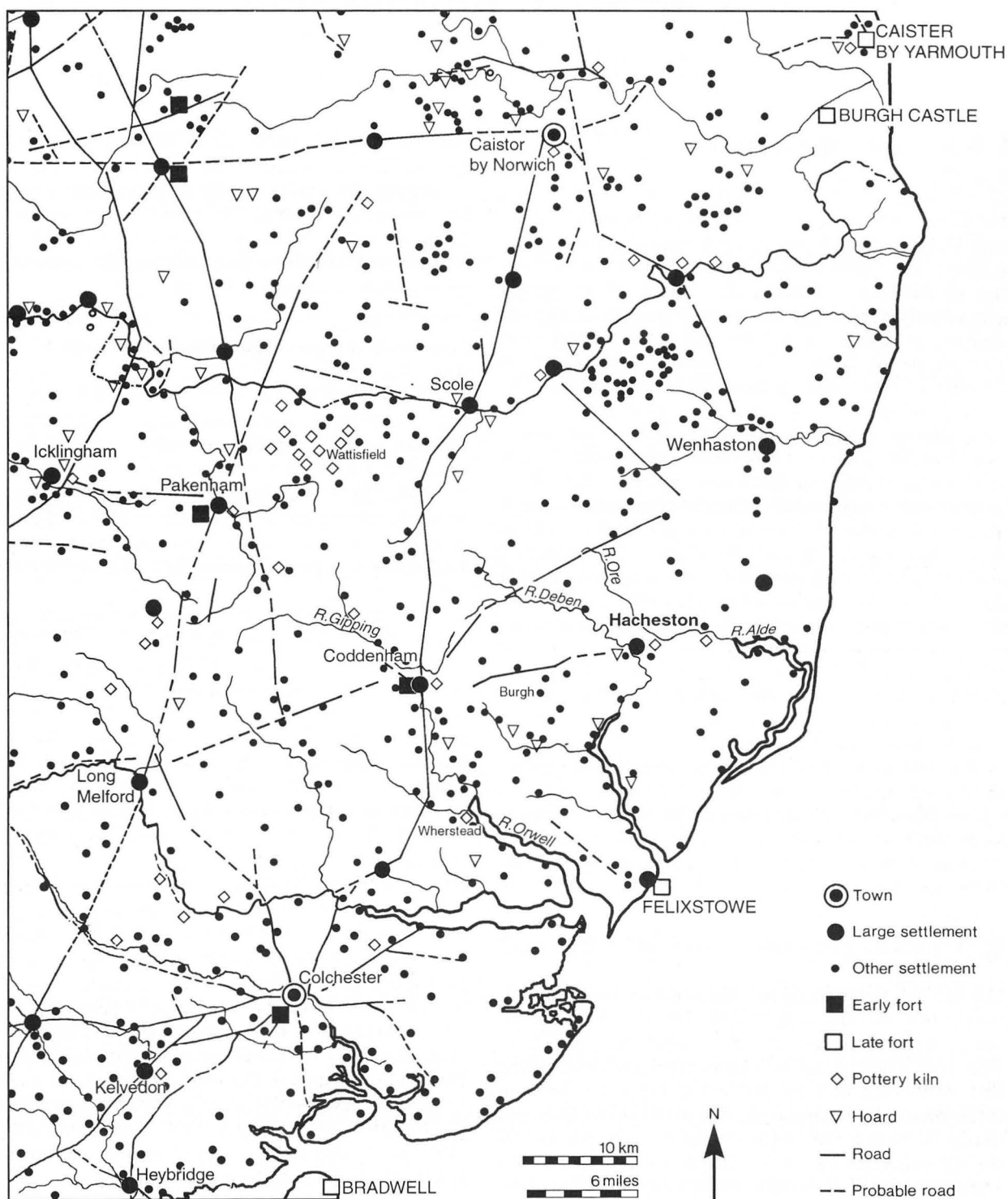


Figure 1 Hacheston within Roman East Anglia

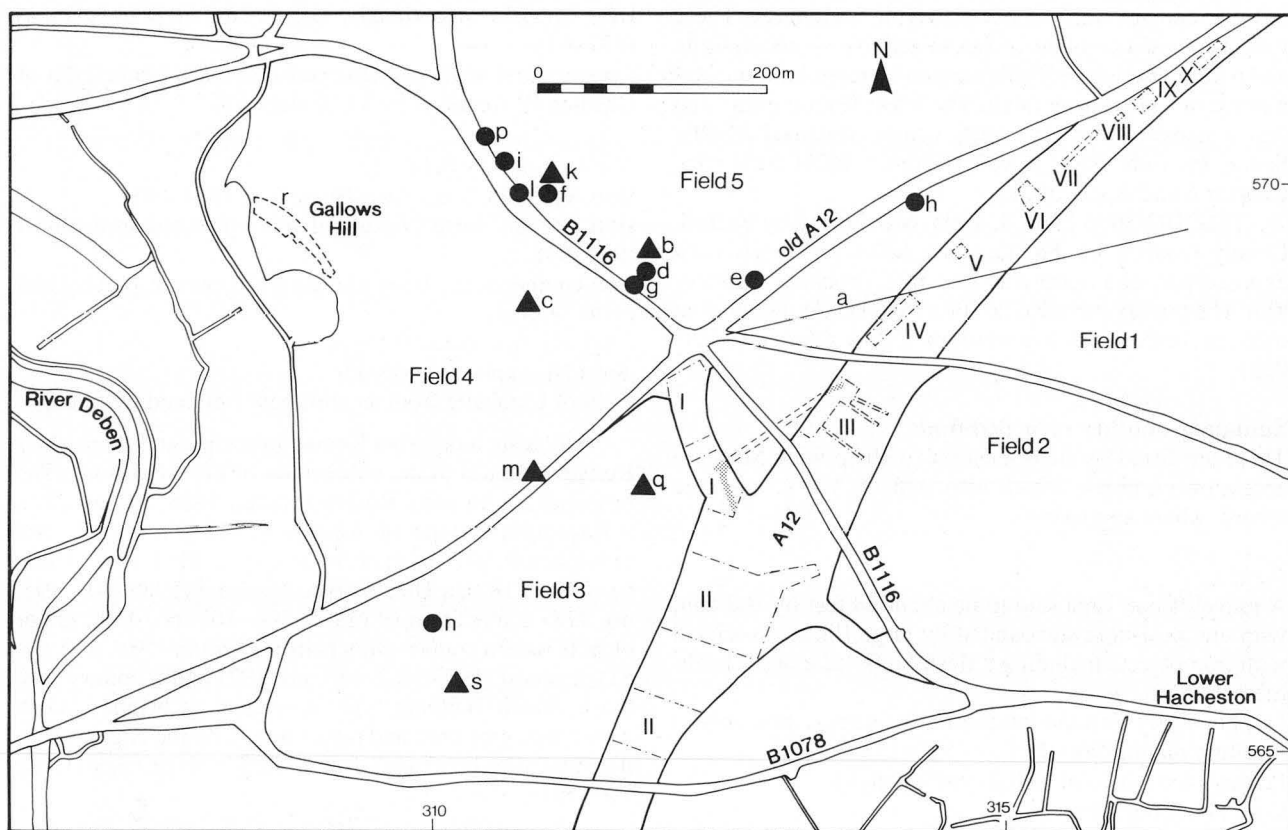


Figure 2 Location of finds in the fields around the Fiveways junction (triangles are pottery kilns, circles other finds spots), with the outline of the new road and the excavated areas within it

produced pottery including a black burnished latticed cooking pot (Ipswich Museum 1970–65).

i. TM 3105 5702 Field 5, 1970. A 'bowl furnace', 3ft 6ins in diameter and 1ft 6ins deep, with pottery of the 1st to late 2nd centuries, investigated by M.J.Campen who also found a pipeclay figurine of Apollo (see Fig. 100, No. 320), two bone pins, a small copper-alloy bracelet, earring and pin (Ipswich Museum 1970–102). Nearby a rubbish pit contained late 1st or early 2nd-century pottery, a Hod Hill type brooch, a copper-alloy nail cleaner and an enamelled brooch (Ipswich Museum 1970–103).

k. TM 3110 5701 Field 5, 1970. Stokehole of a kiln found by M.J.Campen. Predominant forms are simple beakers and hollowed-rim jars in grey and orange, micaceous, flint and grog tempered fabrics mainly unburnished. Also present were pieces of mortaria in a pinkish-white flint tempered fabric with mixed flint grits, some of which were burnt (see Chapter 5 for this group). (Ipswich Museum 1970–104).

l. TM 3107 5700 Field 5, 1971. A large pit, about 12ft (3.7m) across, containing burnt clay features, was found in road widening and partially excavated by E.J.Owles. Finds included carinated bowls, probably 1st- and early 2nd-century, bone pin, three copper-alloy pins, nail cleaner, tweezers and a fragment of a Colchester type brooch (Ipswich Museum 1971–140).

m. TM 3109 5674 Field 4, 1974. A possible kiln stokehole found by M.J.Campen. The pottery seems to be 1st-century. The predominant form is a necked jar (as 1973 type series Fig. 111 Nos 29A, 29B), with some sherds of carinated vessels with burnished lattice cordons (as Area III kiln, Fig. 115 Nos 1–3) and one probable butt beaker

rouletted piece. Pieces of burnt clay support the identification as a kiln. (Ipswich Museum 1974–79).

n. TM 3099 5661 Field 3. Romano-British pits noticed in the construction of a barn (undated note on map in Ipswich Museum).

p. TM 3104 5703 Field 5. A possible road (perhaps a pair of ditches running south-west to north-east) marked on a map in Ipswich Museum. Undated entry but other features shown on the same map were found in the mid-1960s. Other features marked on this map include some possible kilns or hearths, probably information from M.J.Campen in 1964–65.

q. TM 3118 5672 Field 3, 1973. During the 1973 excavation a gas pipeline was laid to the west of the new A12. The pipelaying was monitored and a pottery kiln was recorded in the very edge of the trench. Although the main structure was not exposed a small excavation into the side of the trench uncovered a flue with concave sides, the top having collapsed in. There was very little debris in the feature itself but a gully running alongside the flue contained a lot of charcoal and several large grey ware sherds. A small concentration of pottery wasters in the area seemed to confirm it was a pottery kiln. The products are discussed in Chapter 5. It is also believed that human bones, probably the remains of a single undated inhumation, were found much further west along this trench.

r. TM 3088 5696 Field 4, 1986. An area of about 1000 square metres on the edge of an old quarry was stripped of topsoil for ballast extraction (for construction of the Saxmundham bypass). Features were observed and a salvage excavation undertaken by Suffolk County Council. Roman cremation burials were found, three with pottery

vessels, and several without surviving containers. There was also evidence of early Saxon activity — one definite and part of another probable sunken featured building and a grave in a small ring ditch. The latest feature excavated was a narrow ditch or trench which contained Middle Saxon Ipswich ware. (SMR reference HCH 013) (See Chapter 6 and Appendix 1).

s. TM 3102 5656 Field 3, 1995. Monitoring by Suffolk County Council of the stanchion holes for a new barn exposed part of a burnt clay structure, probably a pottery kiln. The pottery included jar forms and single sherds of an indented beaker and a mortarium. (SMR reference HCH 023).

Summary of other recorded finds

These are listed by field location (with Ipswich Museum accession numbers, which also indicate the year of the record, where applicable).

Field 1

A gravel 'floor' area said to be about 18 feet by 108 feet, with one post-hole surrounded by large flints; associated with iron objects including a flesh-hook/ladle and a latch-lifter (965-4).

Copper-alloy female statuette, headless, possibly a furniture mount (966-1).

Pottery face mask 'of Celtic type' (966-1).

Coin of Gratian (966-1).

Pit containing a carved bone knife handle (retained by M.J.Campen).

Iron stylus (971-64).

Field 2

Butt beaker and Terra Nigra sherds (965-4).

Imitation Terra Nigra stamp (966-1).

Dark layer with gravel above it observed in a GPO trench along the road between Fields 1 and 2 (965-4).

Field 3

Iron Age sherds including large storage jar (possibly early Roman?) (966-1).

Terra Nigra platters (966-1).

Terra Nigra stamp MEDI (966-1) discussed below by V. Rigby, Chapter 5 p.159.

West Stow type bowl (966-1).

Iron Age coins, one copper alloy, one Iceni Boar-Horse type (c.1982, retained by finder).

Early Saxon gilt copper-alloy Style I mount (c. 1982, retained by finder).

Field 4

Imitation Terra Nigra stamps (966-1).

Whetstone (965-4).

3rd to 4th-century sherds from a garden (966-38).

Samian stamp GABRVS (971-64).

Field 5

Samian stamps: BASSVS, GNATIVS, MAMMIVS, MARTINVS, REGVLVS (964-68).

Coin of Domitian (Owles 1972, 284).

Pot with a female bust applied below a frilled rim (965-4).

Coin (Constantinopolis), samian, stamped mortarium (966-1).

Iron brooch, arrowheads, sherds and a pottery lamp (971-64).

Copper-alloy scale pan stamped BANNA, ligula, coin of Gordian III (retained by M.J.Campen.).

Not recorded by field

Iron Age coin, Iceni Face-Horse type (964-68).

Butt beaker, Terra Nigra and three-pronged iron object (964-68).

Iron candleholder, bone pin, gaming counter, pottery and coins (965-4).

Anglo-Saxon sherds (965-4).

Terra Nigra platter (966-1).

Coin of Caracalla from an allotment (retained by finder).

Hattatt included five Roman brooches and three other Roman artefacts in the publication of his collections. The brooches are an early Rosette (Hattatt 1985, 39, no. 277), a Bagendon C type of Aucissa (1985, 54-55, no. 308 renumbered 842 in later volumes), a Hod Hill (1985, 61-62, no. 182), a Thealby type headstud (1985, 104-105, no. 428) and a Trumpet (1985, 106-107, no. 430). Other objects were a copper-alloy hairpin (Hattatt 1989, 440, no. 81), a scoop (1989, 482-483, no. 197) and a pottery face mask, Much Hadham type (described as bright reddish with a thin grey core and rather soft, with the edges neatly trimmed after breakage), from a flagon or jar neck (1989, 490-491).

Historical information about the Fiveways area

(Fig. 3, Table 1)

The 1839 Tithe Map and other information about field names in the parish of Hacheston has been collected together in the Deben Valley Place Names volume for Hacheston and Glevering (Suffolk Local History Council 1984). This includes some work on an extent (a written survey) of 1433 by Gwen Dyke.

Frequently referred to in the 1433 extent is 'Fulsti Strete', identified by Gwen Dyke as the Ashe Road from Wickham Market Bridge along the south side of Field 3. The 'street' element might refer to a Roman road.

Most of the 1839 Tithe Map field names refer to relatively recent activity, particularly the existence of sand or gravel pits within the Roman settlement area. Stoneylands also probably refers to the gravel content of the land to the north of the settlement. However, as Gwen Dyke pointed out (Suffolk Local History Council 1984, 24), the association of Wicklaw, the 10th-century name for the five and a half hundreds which became the Liberty of St Etheldreda, with Gallows Hill, does strongly suggest an early moot site in the vicinity of Fiveways. She also stressed the possibly related focal nature of the area, with numerous routes converging at or near Fiveways, as shown in Figure 3.

III. Archive deposition

The complete archive of the 1973 and 1974 excavations, both records and finds, is currently held by Suffolk County Council Archaeological Service at Bury St Edmunds. Most finds from earlier work on the site are in Ipswich Museum, as listed above, but some of M.J.Campen's finds are now in Framlingham Museum.

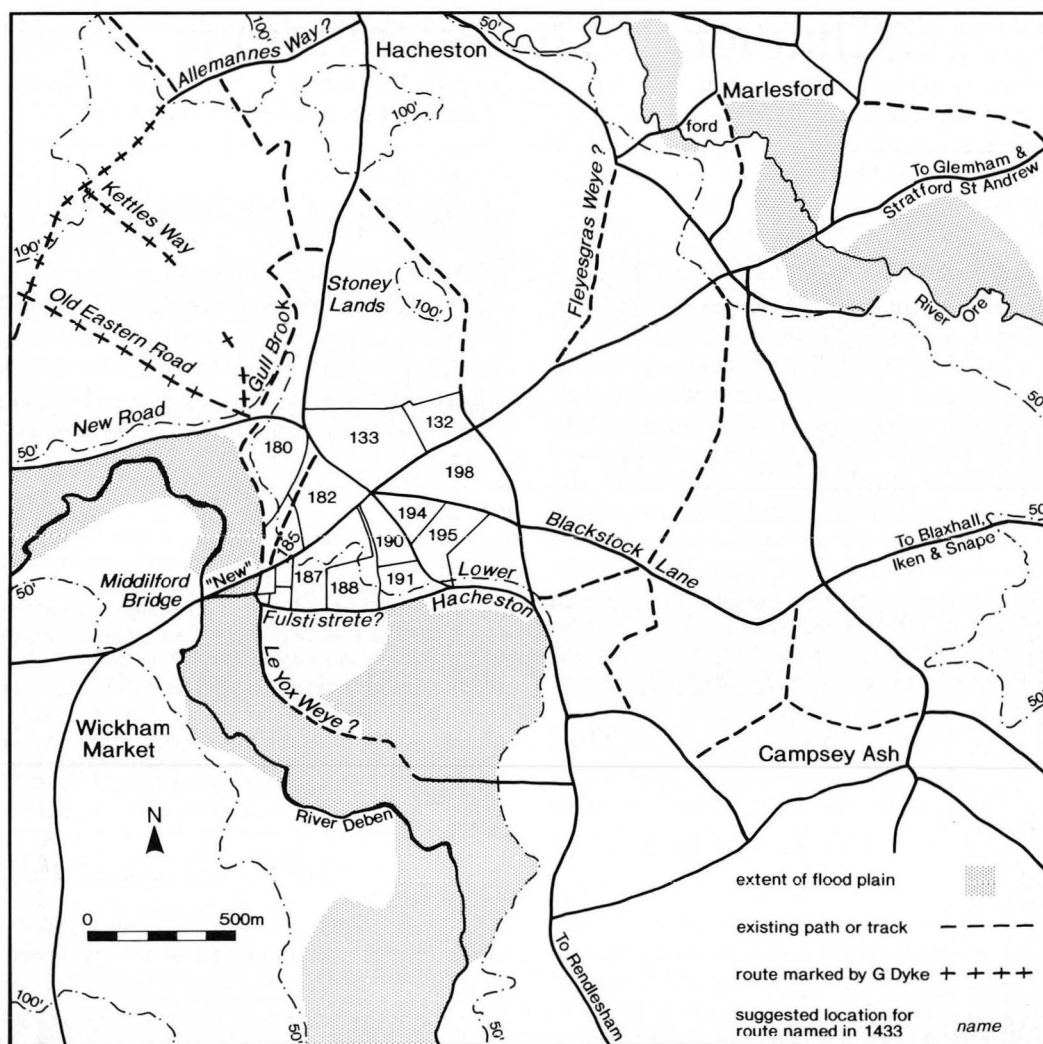


Figure 3 Place names and routes around the Fiveways junction showing the 1839 tithe map field numbers in the immediate vicinity of the junction

Field	1839 number	1839 name	Comments
Field 1	198	17 Acres	
Field 2	194	Upper Pit Piece	
	195	Lower Pit Piece	
Field 3	187	School House Piece	
	188	Sand Pit Field	Pit not located on map
	190	Long Field	
	191	Backhouse Field	
Field 4	180	Gallow Hill	1433/1487 Wittlow Galowes/Wicklōw Gallows. 1791 Repton refers to view of the gibbet
	182	Kiln Field	Usually refers to post-medieval brick or hop kilns, though here might refer to evidence for Roman potting
	185	Capons Field	1433 Land of John Osborn. The Capon family recorded in a cottage here in 17th century
Field 5	132	Stoney Lands	Also the 1839 name for a field to the north. 1433 Stoneylande. Probably a large medieval common field across the whole area between the roads
	133	Mill Lands	1433 Le Melle Post Land. Should include a windmill site, location not now apparent

Table 1 Information about the Fiveways fields from Suffolk Local History Council (1984)

Chapter 2. The Excavations

I. The site

The excavations in 1973 were a response to the proposed re-routing of the A12 trunk road to bypass the town of Wickham Market. It was clear that the existing finds represented a large Roman settlement similar to several others in East Anglia, whose character was not well understood. The new road line provided an opportunity to excavate a substantial area of the settlement in Fields 2 and 3. In recognition of this research opportunity the Department of the Environment funded the excavation through the Scole Committee for Archaeology in East Anglia. At that time Suffolk had a County Archaeologist (Stanley West) but no other archaeological staff, so a team was recruited specifically for the Hacheston excavation under the direction of Thomas Blagg. Further work was done by Suffolk County Council (directed by Robert Mowat) in 1974 in Field 1 to the north east.

The 'new' A12 crosses the river to the east of Wickham Market and as the road leaves the floodplain it cuts a spur of land before following the dry valley which runs to the north-east. The 1973 and 1974 excavations commenced below the spur, immediately north of Ash Road (then the B1078) at 12m OD and stretched intermittently for 850m ending about 200m from the watershed between the rivers at 24.5m OD. The stratigraphy was best preserved in Area I, along the new link road north to the old Fiveways junction. Nowadays Fiveways is a roundabout and the link road crosses over the A12 cutting. The site is at the eastern edge of the parish of Hacheston with the village centred about one and a half miles to the north-west of the site, while the subsidiary settlement south and east of Fiveways is known as Lower Hacheston.

II. Geophysical survey

by Andrew David
(Fig. 4)

In October 1972, in advance of the excavations, a magnetometer survey was undertaken over the road route by the Geophysics Section of the Ancient Monuments Laboratory (AML).

The instrument used was a Plessey fluxgate gradiometer, with a base length separation between the fluxgate sensors of 1.0m, as was then in regular commission by the AML. Three separate areas, covering a total of some 2.88 hectares (Fig. 4, A–C), were surveyed in detail. The magnetometer was walked along successive 30m traverses spaced at 1.0m intervals; its analogue signal was recorded simultaneously on paper in a battery-powered chart recorder at a scale of 1:200.

In addition, those parts of the road route that were not covered in this detailed manner were examined by more rapid 'scanning'. In this case the surveyors traversed the area methodically at more widely spaced intervals (5–10m) observing the instrument response and examining anomalous areas in more detail. The latter were measured

in but no recorded survey, as for the other areas, was carried out.

The field recorder charts were later assembled into scaled plans of the survey areas and scrutinised for significant magnetic anomalies. Together with the anomalies found by scanning these were then outlined on reduced scale interpretative diagrams and submitted with a brief report as a guide for the forthcoming excavations (archive).

Results

Magnetic activity, much of which was felt to be archaeologically significant, was found to be widespread throughout the proposed road route. Much of this activity consisted of sub-circular to amorphously-shaped anomalies, 2–10m across, with magnetic strengths reaching 20 nanoTesla (nT). Some linear anomalies, perhaps lengths of ditch, were also detected, as were a number of stronger anomalies (20–70nT) some of which were interpreted as the responses to industrial features such as kilns.

Area A, the largest single area surveyed (c. 2.4 ha) has a dense distribution of anomalies in its northern part, and was later investigated as Area I. From the plans and survey details available at the time of writing (1997) it is not possible to make detailed comparisons between the anomalies and their excavated counterparts. However, it is apparent that the pattern of magnetic anomalies does not fully reflect the quantity and complexity of features actually present. The hearths, post-holes and over sixty pits found in the excavations indicate an area of intensive occupation and it is probable that the magnetic survey was unable to resolve the separate detail of much of this, instead detecting generalised areas of magnetic enhancement. Some of the stronger magnetic anomalies, then tentatively interpreted as possible kilns, may instead be hearths or pits.

The central part of the main survey area (Area A) contained a much more diffuse spread of magnetic activity. This included a string of linear anomalies running east-west for approximately 90m which was later confirmed by excavation (in Area II North) to be a ditch (F40). However, other ditches and pits found in the excavation to the south and west of this seem not to have been detected. Other magnetic anomalies, particularly a strongly defined group (with maxima up to 70nT) in the southern extension of the survey area were not found in the partial excavation there, but there was evidence in this area of post-medieval quarrying. Therefore, apart from the ditch referred to, there is only a poor correlation between survey and excavation results in this area. It should be noted though that excavation here was not intensive and surface definition following topsoil stripping was very poor; also, the excavations revealed that substantial parts of the area had been damaged by gravel quarrying.

Survey Area B, measuring 60m x 60m located a similar spread of activity to that already encountered to the south and west in Area A. It is again difficult to correlate survey and partial excavation findings here (Area III), but the latter located features which included a hearth and a kiln as well as further evidence for intensive occupation. The magnetometer survey has certainly responded to the generalised presence of archaeological features, but it seems that exact correlation was again poor.

A similar level of magnetic response was encountered in Area C (30m x 30m) which was sampled in 1974 as Area IV. The latter produced 170 features, mostly post-holes with pits and burned clay areas. Once again it is perhaps not surprising that the magnetometer was only able to indicate ill-defined areas of activity rather than any particular pattern from amongst this palimpsest.

The remainder of the route was 'scanned'. To the south of Area II magnetic activity was noted as slight. Going north of Area IV, dense magnetic activity continued to be detected for some 150m, tailing off northwards (Areas V, VI and VII). Beyond this, anomalies were encountered sporadically. Two distinct groups were noted (with magnetic field strengths of up to approximately 20nT and 30nT respectively). One of these (Fig. 4, D) was examined by excavation (Area IX) and shown to be a response to pits, hearths and burnt clay probably related to iron smithing. Another group of anomalies (20nT) at the northern extremity of the road route (Fig. 4, E) was shown to be caused by modern features (Area X).

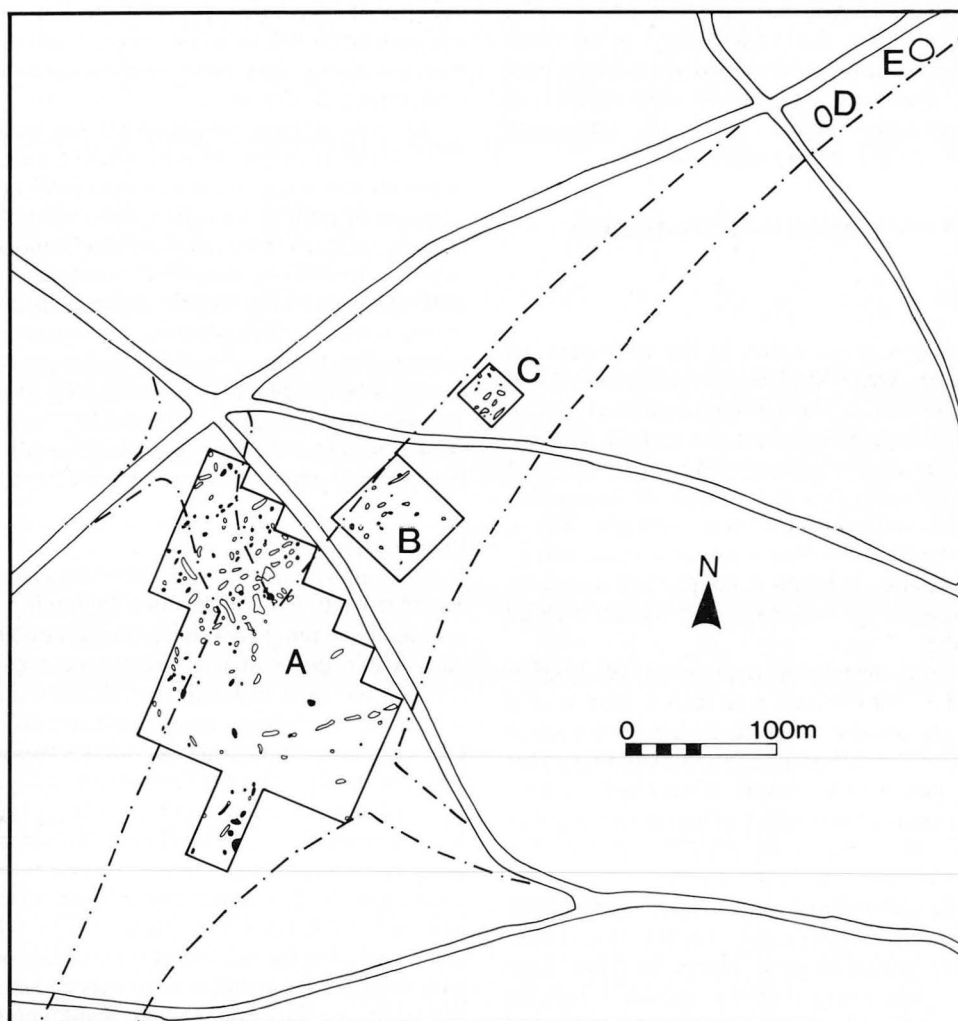


Figure 4 Results of the geophysical survey in 1973. Scale 1:5,000

Summary and conclusions

The magnetometer survey found abundant evidence for archaeological activity along much of the road route. Although there was no obvious pattern to this, some anomalies were of a strength to suggest kilns, and at least one ditch was located. Also, the presence of dark soil and slag in places reinforced the interpretation of the findings as reflecting 'random and ill-planned industrial development, grouped, as earlier workers have thought, around the old road junction'. A geological origin for some of the weaker anomalies was not ruled out.

Although no magnetic susceptibility measurements of topsoil were made there seems little doubt that local soils were much enhanced magnetically by the settlement and industrial activities of the early centuries AD. The prevalence of a 'black soil' and direct evidence of industrial activities, as well as very numerous surface finds, all indicate that this site was highly amenable to magnetometer survey. Subsequent excavations only sampled a relatively small proportion of the area under threat. They nevertheless showed that, whilst the survey had correctly indicated the generality of the distribution of archaeological features, it had not succeeded well in identifying specific detail or patterns. It would seem that

the density of archaeological features and their intensive magnetic response did not allow more than an indistinct image of their real character to be obtained.

This survey was one of a limited number that were carried out at this time, when the AML provided almost the only geophysical survey capability in such 'rescue' situations. As such it was quite ambitious and the general approach was not too dissimilar from that which might be adopted nowadays by a survey contractor brought in under the auspices of PPG 16. Twenty-five years later on though, survey instrumentation and methodology, digital recording and the advent of sophisticated computer processing have greatly improved the abilities of such surveys. The standards of field procedures, presentation and reporting have also much improved.

If approached afresh, the Hacheston site would undoubtedly have benefited from detailed magnetometer survey coverage. The whole road route, and more, could have been surveyed in 2-3 days and the resulting grey-scale plots would undoubtedly have revealed a much higher grade of detail and patterning than was apparent in 1972. The capacity of modern surveying to reveal details of Suffolk 'small towns' has been amply demonstrated by results obtained from magnetometer survey of

approximately 40ha at Icklingham, near Bury St Edmunds (English Heritage Centre for Archaeology, in archive). When similar sites come to be threatened in the future, then survey on this scale and intensity is now capable of achieving a radically higher level of subsurface information than was feasible a generation ago.

III. The 1973 excavation — introduction

Excavated areas

(Fig. 5)

The 1973 excavations are described in four main parts, of which Area I South, Area I North and Area II were in Field 3 and Area III in Field 2. The 1974 excavations (IV–X in Field 1) are treated separately later in this chapter. The two parts of Area I were close together (with a gap of 15m) but they were managed separately and proved very distinctive when excavated. Area II in contrast was divided by 70m of disturbed ground and is therefore referred to in the text as Area II North and Area II South although they were very similar archaeologically and consequently are treated under one heading.

The excavations began in September 1973, after harvest, in Field 3. They started with the excavation of a rectangular trench, using a wheeled digger with a small ditching bucket, in Area II around grid square Q26. This initial work was guided by the results of the magnetometer survey where an area of very high readings was thought to have a high potential for producing kilns (the south part of Area A in Fig. 4). It soon became clear however that the subsoil had been disturbed with evidence of post-medieval quarrying accounting for the survey results. It was also clear that where archaeological layers had not been quarried away they were heavily eroded. This is unsurprising given the slope of ground to the west and south. The main A12 roadline, including the whole of Area II, was then stripped of ploughsoil by large 'graders' by the road contractors; although this was done under archaeological supervision the limitations of the machinery produced a rather crude finish. The position of features was marked as the machining progressed and this was used as the basis for the selective cleaning and excavation which characterised the work in this area.

After the trial trench in Area II the 'back acting' machine was used to strip the topsoil in Area I South. The top surface of the Roman road (CN) formed the benchmark for machining in this area (although more was taken off towards the end of the 1973 season on either side of road CN). The unexpected depth of stratigraphy meant that full excavation was only achieved in limited areas, as shown by the extent of the earliest features (Fig. 6).

Area I North was subsequently also stripped by 'back acter' in one operation which removed ploughsoil and any underlying deposits onto the top of the natural sand. Here the existence of a structured dark soil was not established. This may have been a consequence of the extra erosion caused by the ground rising away from the dry valley which was centred in Area I South. However hearths were excavated on the natural surface at this level and it seems more likely that the archaeology and particularly the dark soil was less dense here than alongside the road to the south.

After the completion of their work in Area II this digging team moved into Area III. This site was evaluated with a pattern of machine-cut south-east to north-west

trenches at 20m intervals and from this an area of 2000 square metres was selected for excavation. The area was complex with a 'dark earth' over the Roman road and deep stratigraphy alongside it.

Local volunteers continued to work on the site in early 1974 digging out the second halves of pits, the lower part of a well and other features, particularly in Area I. Large amounts of pottery were recovered but unfortunately the records for much of this work are slight and unreliable. One large group of finds, described as HJ, can be located with grid square G10 but derives from both later occupation layers and early ditches below. An important contribution to the excavation by volunteers was the metal detecting of the spoil heaps which were created by the road builders. This occurred during and after the 1974 excavation season and has provided the bulk of the metal small finds and coins from the site which are described in Chapters 3 and 4.

Recording systems

A single alphabetical context labelling system was applied across all the 1973 excavation beginning with AA and eventually running into three letters, although there were gaps within the sequence. During the excavation context letters were used in blocks which were applied for well defined areas of site, to avoid duplicate allocation. In Area I the collective numbering of contexts was achieved using separate lists of descriptive components. The categories were: pits, ditches and post-holes. This contrasts with the system applied in Areas II and III where the broader designation of 'feature' was used and numbered from a single list. In this report the original descriptive group numbers have been maintained even where doubt is expressed over the on-site interpretation. New ones have only been given out where none existed before. In Areas II and III the on-site designation of feature numbers has been abbreviated and a suitable noun added. For example Feature 35 appears in the text as ditch F35. During post-excavation work, new components have been added using the system already applied in that area of site; these new components include the complex sections.

The main site grid covered Areas I and II. It was a 10 metre grid and aligned north-east to south-west with the 'northings' numerically labelled and the eastings alphabetically. The Area III grid was independently established as were those used during the 1974 season. In Area III the grid was labelled numerically using a separate sequence of numbers. A scale of 1:20 was used for all site plans and a scale of 1:10 for sections. Comprehensive site notebooks were maintained which included sketch drawings. These were particularly useful in Area I where hand excavation of the stratigraphy took place and more detailed recording of the layers was required.

The bulk finds (pottery and animal bone *etc.*) were recorded by the alphabetical context system. Individually significant finds (small finds) were allocated numbers in sequence by material (Ae1, Fe1 *etc.*) and all coins were listed separately (C1 *etc.*).

Simple databases (currently in MS Access format) were created of site context and finds data and are held as part of the site archive.

Phasing summary

The phasing of Area I South was used as the basis for the site as a whole, except for the final phase (E) which occurs only in Area II. In Area I key features are the road CN,

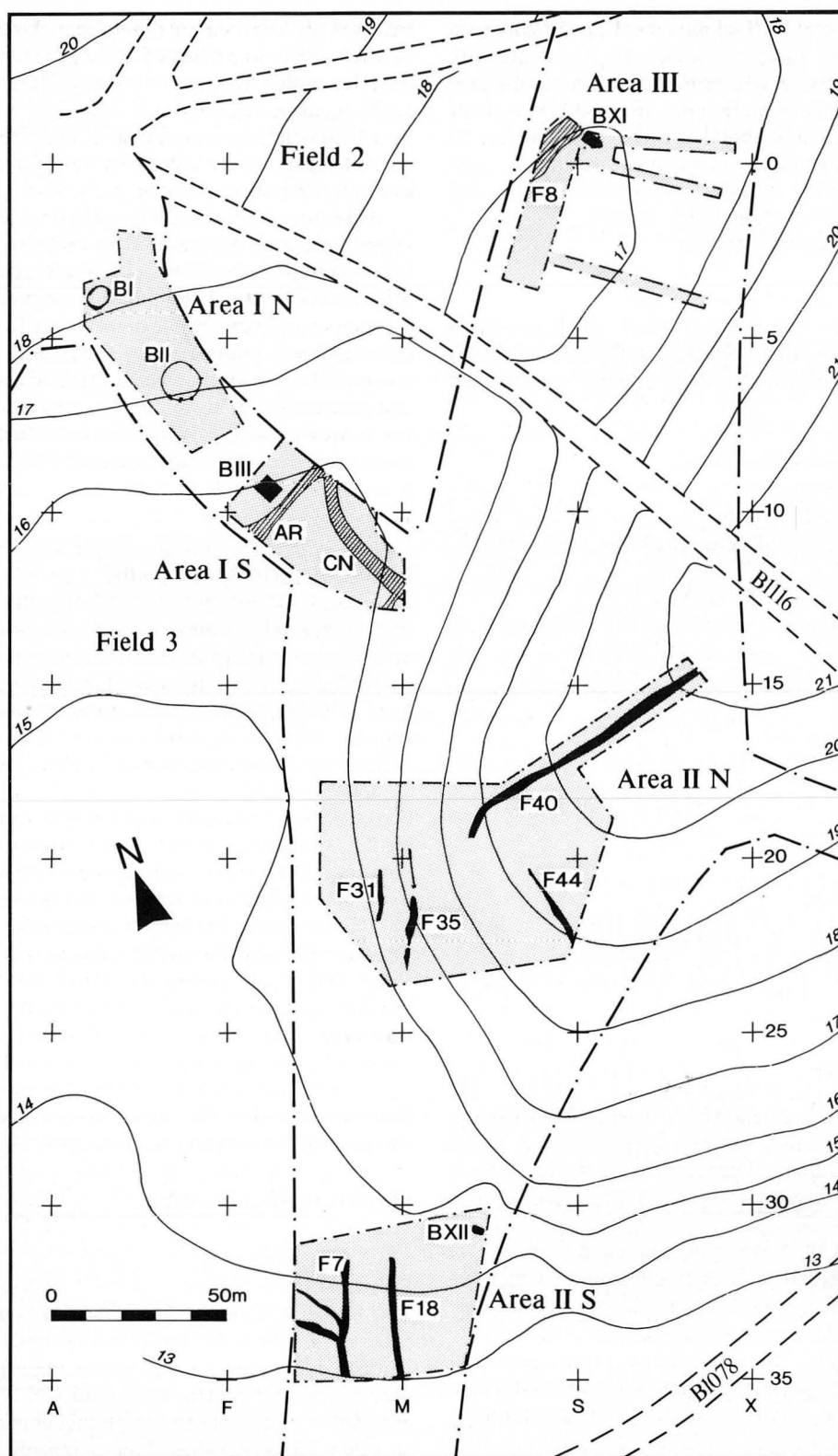


Figure 5 The areas excavated in 1973 (in Fields 2 and 3) shown stippled, with key excavated features, within the new road boundaries. Contours are at 1m intervals. Scale 1:2,000

possible road AR and the sequence of ditches which they seal; this has been taken as marking a significant stage in the development of the site (Phases A to B). A second key stage was the excavation of ditches along the edge of road CN (Phase D). The remainder of the 1973 excavated areas were linked to this mainly on the basis of finds-dated individual features as there was little stratigraphy. Area I

North was the easiest to associate as most of the datable finds derived from pits. In Area II the majority of features were ditches. There was little sequential evidence and the question of how long ditches were open and in use was difficult to assess. The coins which were recovered in context have provided some valuable information particularly about the later period in Area I South although

these amounted to only 11% of the total during that season (the majority were recovered after the excavation by volunteer metal detectorists). With the exception of Phase A in Area I South the site areas are discussed as a whole with the suggested phasing breakdown presented at the end of each section. A summary of the main features of each phase across the entire excavation is presented at the end of this chapter (Section IX and Figs 54–57).

The phases are summarised as:

Phase A: up to the later 1st century AD

Those features (ditches and palisades) which pre-dated road construction in Area I South, mainly mid to late 1st century. Earlier prehistoric features in Area II are included in this phase.

Phase B: late 1st to mid 2nd century

Begins with the construction of possible road AR, and the probably contemporary construction of road CN in Area I South. Pre-dates the identifiable structures in this area.

Phase C: mid 2nd to late 3rd century

The separation of Phase C from Phase B is presented with caution as there were gaps in the excavation and the stratigraphy is generally poor even in Area I South.

Phase D: late 3rd and 4th century

In Area I South this phase begins with the cutting of deep ditches alongside road CN. These appear to mark a change in the pattern of use of the area which may also be reflected in other parts of the site.

Phase E: post Roman

Structural evidence is restricted to Area II with an isolated Anglo-Saxon sunken-featured building and the very limited remains of a ditch system which may be medieval in origin.

Dating information

Dating evidence for each area of the 1973 site has been discussed within the text following the general description. Further details of selected contexts are presented in tables for ease of reference. These include basic pottery quantifications (where these figures were available) with spot dating and samian pottery dating where it may be relevant and a list of those small finds and coins which appear in the catalogues. It is freely admitted that the association of pottery quantification with a suggested date is rather crude and leaves much unsaid, as does the bare listing of small finds. This is primarily a consequence of the longevity of the project with many reports completed before the general use of computers in archaeology, combined with the need to avoid lengthy and expensive updating of earlier work.

Within the text each area is summarised initially. Following this in reduced type is the more detailed description and discussion of the features and their relationships.

IV. Area I South

Introduction

This was the most intensely occupied and best preserved area of the excavation and as such was accorded the most attention during excavation.

Area I South covered the southern half of the link road between the new A12 and the old Fiveways junction (Fig. 5). It extended for approximately 50m, covering about 1,400 square metres and was separated from Area I North by a 15m wide unexcavated area. The site was fairly level with the centre of a shallow dry valley running north-east to south-west across the site.

This area contained the deepest stratigraphy on the site including a large stretch of the metalled road, CN. Beneath the modern plough soil was a substantial layer of dark soil between 0.15m and 0.40m thick, described as 'a black sand with pottery, tile *etc.* No features visible in it.... stonier than the overlying plough soil'. This 'dark earth' layer is comparable with similar deposits found elsewhere on rural and urban sites; its formation process is a vexed question but it was undoubtedly formed in antiquity. Below this deposit were several structured rubbish heaps and sand and gravel layers which in turn overlay earlier occupation deposits.

Methodology in Area I South

The excavation began in September 1973 with archaeologically supervised soil stripping using a 'back acting' machine; this removed the plough soil and some of the dark earth although most of the latter was removed by hand. The exposed archaeological surfaces were cleaned and planned showing surface rubbish heaps and occupation rubble partly covering the metalled road, CN.

Identified features were excavated and a series of hand dug trenches were run through the upper surfaces to expose elements of a multi-phase ditch complex below. Towards the very end of the excavation some of the area was lowered to natural by further machining but no attempt was made to extend the recorded lengths of the early ditches. Most of the excavation effort was directed to recording the upper levels and in attempting to clarify the rather nebulous building remains, particularly in grid squares F11–H11 and F10–G10. The difficulties of identifying sill beam structures, which seem to have predominated at Hacheston, are well known and this, combined with the quantities of finds uncovered in the higher levels, affected the course and pace of the excavation in this part of the site.

Phase A in Area I South

(Fig. 6)

Summary

The Phase A features are discussed separately because there is a relatively clear stratigraphic division, with features belonging to this phase underlying the sandy gravel layer, AR, and the main road, CN. The features were exposed in a series of hand dug trenches and in an expanded area between two trenches of approximately 50 square metres.

A sequence of ditches and two timber palisades (either contemporary or in close succession) aligned south-west to north-east are interpreted as probably enclosing an area to the north-west. Pottery from these ditches was predominantly mid 1st-century 'Belgic' coarse wares with some early Flavian in the later part of the sequence. A further pair of ditches parallel to this group turned through 90° to run north-west to south-east. The third, very poorly defined, group of ditches also followed this alignment. It is suggested that these lines may be bounding unmetalled trackways leading towards the enclosure and around the enclosure.

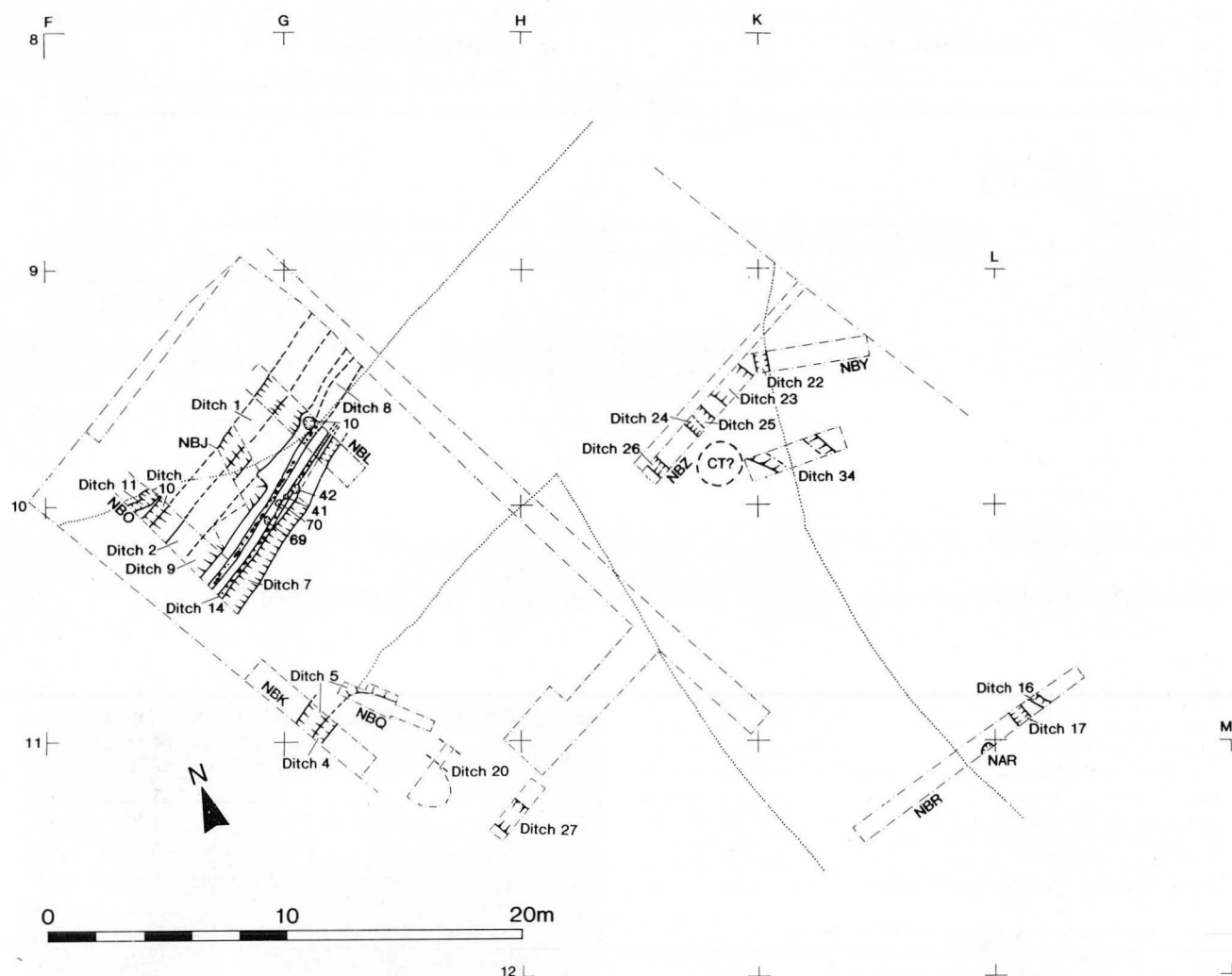


Figure 6 Area I South in Phase A. The outline of later gravel roads AR and CN is shown by a dotted line. Scale 1:300

North-east to south-west ditch complex

The main ditch sequence in this phase is shown in Figure 6 in plan and Figure 7 in section. The most comprehensive record is section NBO, which provides the basis for the simplified matrix shown below (Table 2). This also includes the two palisade trenches (which were numbered within the ditch sequence — ditches 8 and 14), and the evidence from a related section NBK.

The combined evidence shows a sequence of parallel ditches: 9, 2 (with a close recut) and 1 which aligned south-west to north-east and shifted towards the north-west over time. A complete profile in section was only visible for ditch 1, which suggests dimensions of 0.6m deep by 1.3m wide, ditches 2 and 9 were probably similar. Ditch 10 continuing the shift to the north-west was much smaller, being just 0.3m deep by 0.7m across. It was cut by ditch 33, which directly overlies ditch 1 in section NBO, and was 0.35m deep and 0.8m wide, similar in size to ditch 10. Ditch 11 was even smaller than ditch 10, only 0.2m deep by 0.4m wide and the section suggests that it may have been a post trench rather than a ditch, similar to the palisade ditches 8 and 14.

The picture from section NBO is clear but the evidence to the north-east of this section is less so. Ditches 11 and 10 were largely cut away by the well (Phase B) and not sufficiently clear to be certain of either their shape or identity. Ditch 33 is also lost, not appearing in Section NBL or on plan. It may equally have been invisible within the section or finished, as ditch 9 did, in the 8m gap between the baulks. This caused some confusion during the excavation being thought a pit at first. The absence of the gravel layer AR sealing the ditches much to the north-east of section NBO made the untangling of the ditch fills difficult; also a large part of this area was 'disturbed' during the excavation of the later well; a factor to be considered when the dating evidence for this area is examined. Section NBL, east of the well, cut through pit 5 which obscured the course of ditches 1 and 2.

Separated from the sequence of ditches are two features originally defined as ditches 8 and 14 which excavation showed to be palisade trenches. Ditch 14 was cut by ditch 7 which was up to 0.9m wide by 0.35m deep. The two palisade 'ditches' were very similar in profile and in the placing of timbers within them (Plate I). The trenches were approximately 0.3m deep by 0.2m wide, and the timbers were centred between about 0.2m and 0.5m apart and set a further 0.1m–0.12m below the base of the trenches. No post stains were observed but a mixture of round and elongated holes suggests both stakes and planks or halved roundwood were used. The gap between the two lines of posts was only about 0.35m.

Post-holes 41, 42, 69 and 70 could be evidence of repair work to the alignment in ditch 14 and post-hole 10, offset from the line of ditch 8, may have been a near contemporary support. It was the largest of the group, measuring 0.46m x 0.56m and was 0.33m deep. However, during the post excavation analysis of this area it became apparent that post-hole 70 lay directly beneath post-hole 3 and that post-hole 42 was overlapped by post-holes 4 and 5 (Fig. 12) so there must be a distinct possibility that post-hole 70 was the unexcavated lower fill of post-hole 3 with a similar association between post-holes 42, and 4 and 5. On the other hand, no such association can be suggested for post-hole 10 and the case remains unproven.

The relationship between palisade ditches 8 and 14 is unclear, but they are close together and so unlikely to have been contemporary. However ditch 7 and palisade ditch 8 could have been associated, in which case palisade ditch 14 which was cut by ditch 7 would have to have been earlier (but any similarly associated ditch must have been removed by ditch 7).

Sections NBK and NBQ (Figs 7 and 8) record four ditches, two of which are assigned to Phase A, ditches 5 and 4. Ditches 3 and 6 also appear in these sections but ditch 3 was filled with gravel and sand from gravel layer AR. It was not clear whether the ditch cut AR or was infilled by its

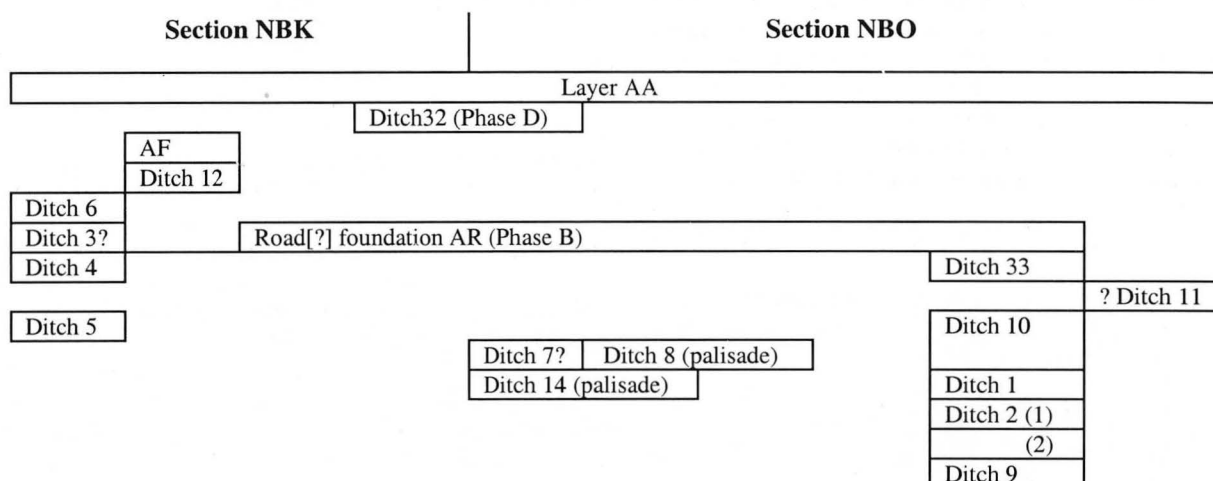


Table 2 Diagram showing the ditch sequence in Area I, based on sections NBK and NBO (Fig. 7)

deposition. Either way it was later than ditches 4 and 5, which had a brown sand fill. Both ditches 4 and 5 appear to turn through 90°, the bend partly shown in plan next to section NBQ; the same ditches were almost certainly excavated on their new alignment as ditches 20 and 27, although the limited extent of the trenching and the amount of intervening baulk precludes any exact pairings. All these ditches were in a similar size range being between 0.7m and 0.8m deep and perhaps 1.3m to 1.6m wide. The continuation of ditch 3 to the east along the edge of layer AR (Fig. 11) also distinguishes it from this earlier group.

North-west to south-east ditches (16, 17, 22–26, 34)

Three trenches dug across the course of the road CN sectioned earlier ditches. Connecting sections NBZ and NBY (Fig. 10) provide the best evidence.

Running at right angles to the section, ditches 24 and 25 were respectively 0.8m wide by 0.4m and 0.3m deep and ditch 26 was not seen in section, lost under pit 70, but was probably of similar dimensions. Ditch 23 was the largest, 1.8m wide and 0.65m deep. Ditch 22 was 0.5m deep by 0.9m wide and on a different alignment; it may be, however, that this ditch was turning, a suggestion supported by the plan of ditch 34, just 3m to the south. Here the apparently converging ditches (22, 23, 24 and 25) are indistinguishable.

Thirteen metres south of ditch 34, two stratigraphically early ditches, ditch 16 and ditch 17 appear in section NBR (Fig. 10). The latter ditch had an uneven base which suggests it was re-cut at least once. The fills were a fairly indistinguishable grey brown sand and dimensions (at the highest visible point in section) of approximately 1.2m wide by 0.5m deep are suggested for ditch 16 and the two phases of ditch 17. Generally these ditches appear to align with those to the north although extrapolating the course of ditches from trenches less than a metre wide is clearly hazardous. From the evidence these ditches may have been linked to Phases A or B (possibly as early roadside ditches associated with the construction of CN, see Phase B below) and so have been included on both plans (Figs 6, 11).

Features other than ditches

There was very little evidence for early features other than the ditches, however there was evidence for a structure in a trench, NBW (Fig. 10) which sectioned the later road CN. The feature consisted of a spread of burnt clay NCD which lay directly on the natural sand next to the road. It was unclear from the drawn section whether this clay abutted the road or had been cut by ground clearance during the construction of the road. The presence of a post-hole group intruding onto the edge of the road at this point suggests that at a later date there was a building on this site (Building VIII Phase C) and the clay is shown on this plan (Fig. 12) although its position in the sequence and its character is uncertain.

A second feature which could have its origins in Phase A is CT. This was seen as a circular indentation in the surface of road CN (Fig. 17). The road surface did not appear worn within the circle which leads to the suggestion that the slumping of an earlier feature, possibly a pit, caused



Plate I Palisade ditches 8 and 14 in Area I South, looking north-east

the surface of the road to subside. The position of CT has been projected onto the Phase A plan (Fig. 6) to make the reader aware of this possibility only, as the interpretation could not be tested.

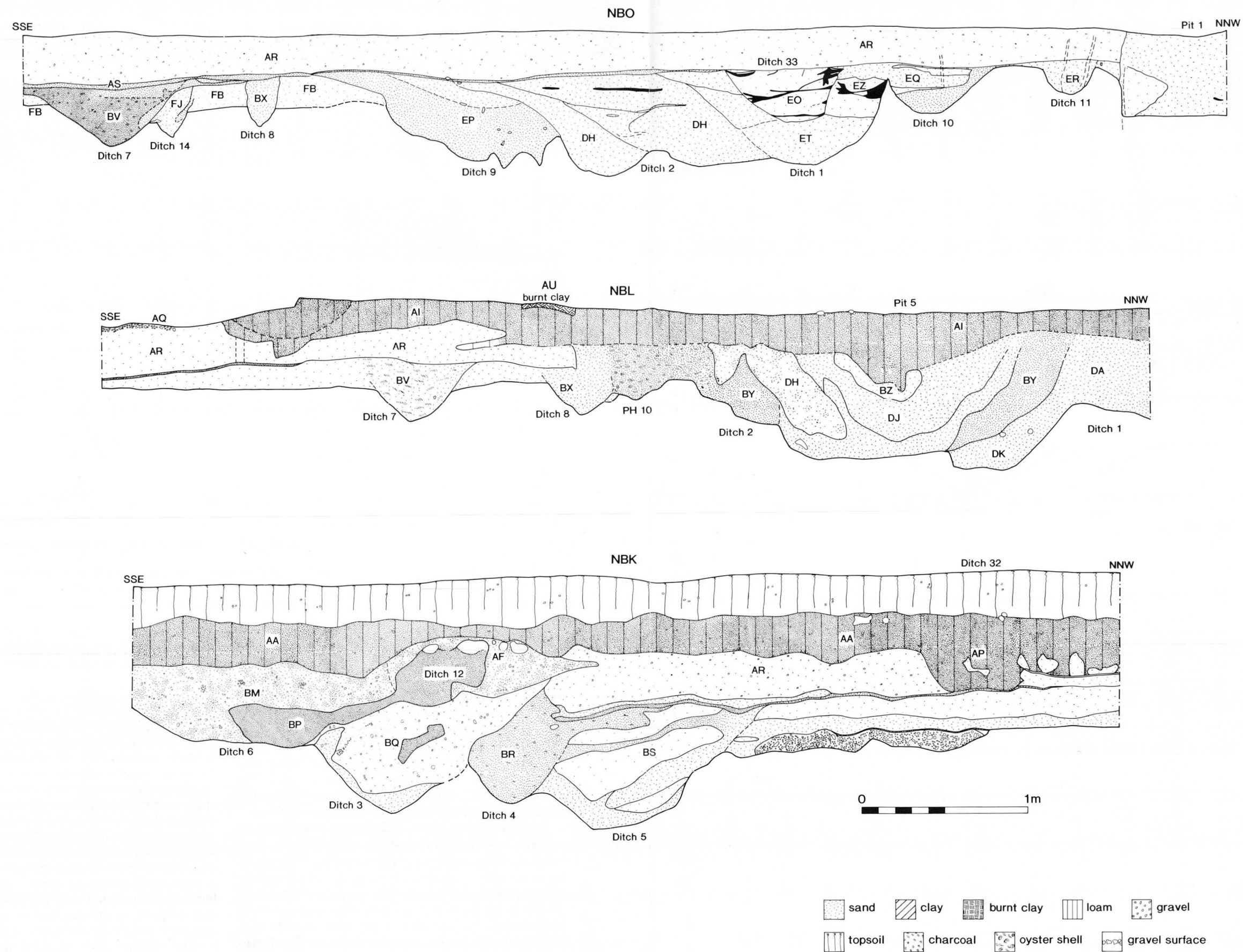


Figure 7 Sections NBO, NBL, NBK showing the early ditches. Note that section NBL has been reversed for ease of comparison with NBO. The key is applicable to all section drawings. Scale 1:25

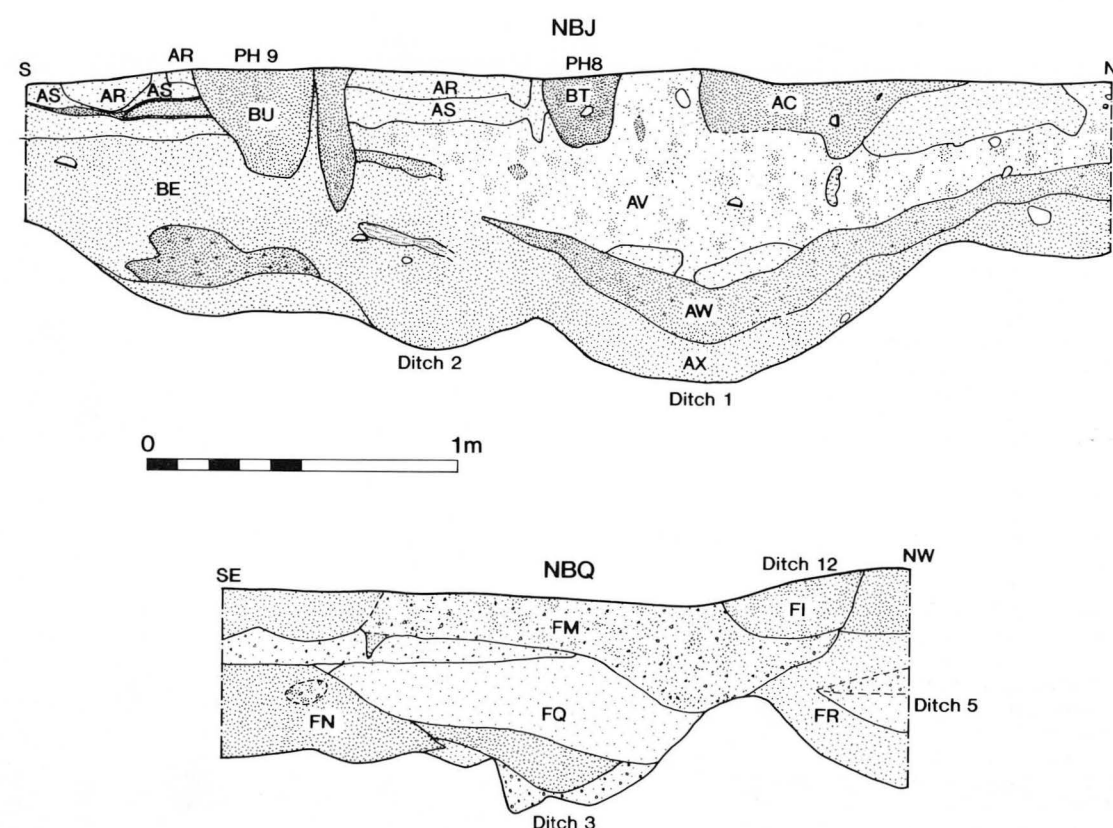


Figure 8 Sections NBJ, NBQ showing ditch sequences. Scale 1:25

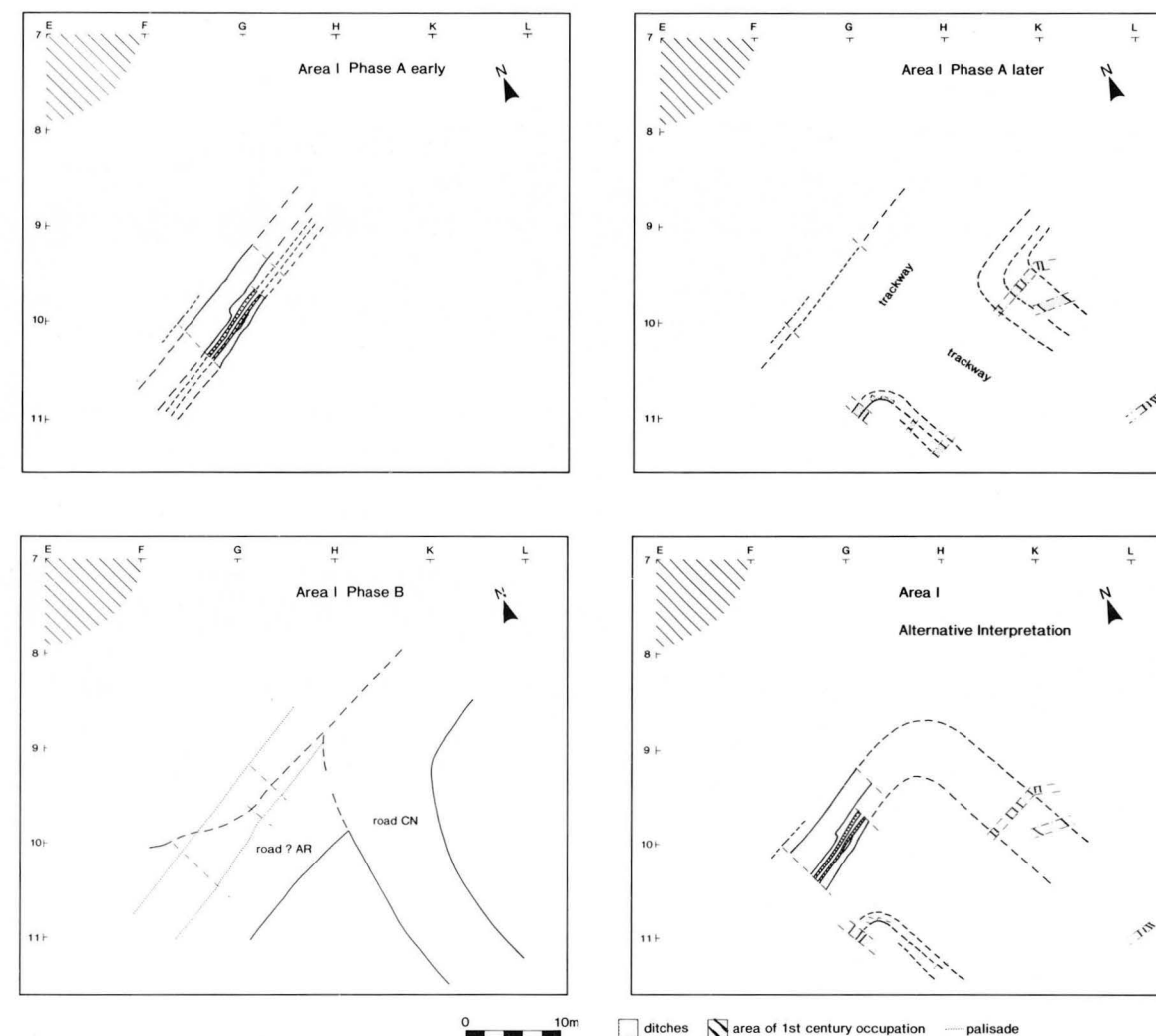


Figure 9 Phase A layout interpretations — either a complex enclosure boundary (Phase A early) and ditched trackways (Phase A later) replaced by gravel AR and road CN (Phase B) or the north corner of a multiple-ditch rectilinear system

Dating evidence

A breakdown of the dating evidence for the main ditches is presented in Table 3. Despite careful excavation some of the contexts were difficult to separate, particularly where they were not sealed by the gravel layer AR, and even here there were intrusive features which were probably not always fully excavated as in the case of the post-holes discussed above cutting ditch 8. The mechanics of excavating the well also caused problems and an area of a little over two metres around it was unrecorded. This certainly affected the excavation of ditches 1, 10, 11 and 33 and may have had implications for the recovery of finds.

The coarse pottery was spot dated in 1979 and the Phase A groups were recently re-assessed. Only ditches 1, 7 and 9 contained acceptable size groups of pottery for dating. In the north-east to south-west sequence of ditches the stratigraphically earliest, ditch 9, contains a 1st-century 'Belgic' group, likely to be pre-60 in date. Similar material was found in the later ditch 1 but with probable early Flavian material also present. It seems that the first ditches (and palisade) were constructed in the mid 1st century, but no group was identified as definitely pre-Conquest. The sequence end is fixed by the dating of overlying gravel layer AR to within the Flavian period (see Phase B discussion).

The south-east to north-west aligned ditch group was sealed by road CN, also thought to be 1st-century, and a small group of mid 1st-century sherds was found in ditch 23.

Phase A interpretations

Before interpreting the evidence for Phase A a qualification must be made. The tactics in this area resulted in a 'keyhole' picture of the ditches and there is an inherent danger in over extrapolating the results. On the other hand very little else was seen in the sides of excavated features or exposed in the later stages of machining. The recorded evidence does seem to show a significant concentration of early ditches. The distinctive character of the area in this respect is emphasised by comparison with the picture in Area I North where an open area excavation took place and a contrasting pattern of early features was revealed; building evidence and early pits predominated with very few ditches. In conjunction these areas provide a significant insight into the layout of the early site.

The sections which recorded the ditches were not randomly located; they were laid out to record the later Roman evidence of roads and buildings. That they also revealed the early ditches may not be coincidental but could imply an element of continuity in the arrangement of the site.

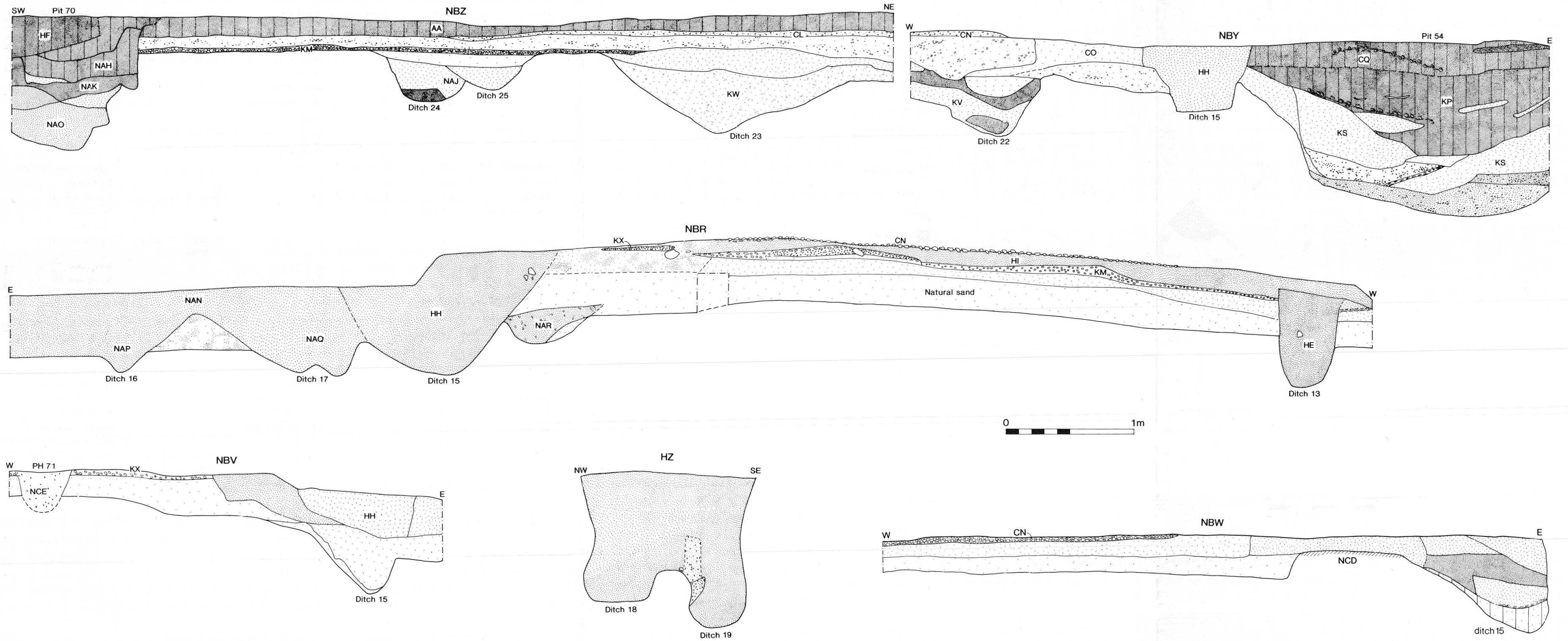


Figure 10 Sections NBZ, NBY, NBR, NBV, HZ, NBW showing the road and adjacent features. Scale 1:25

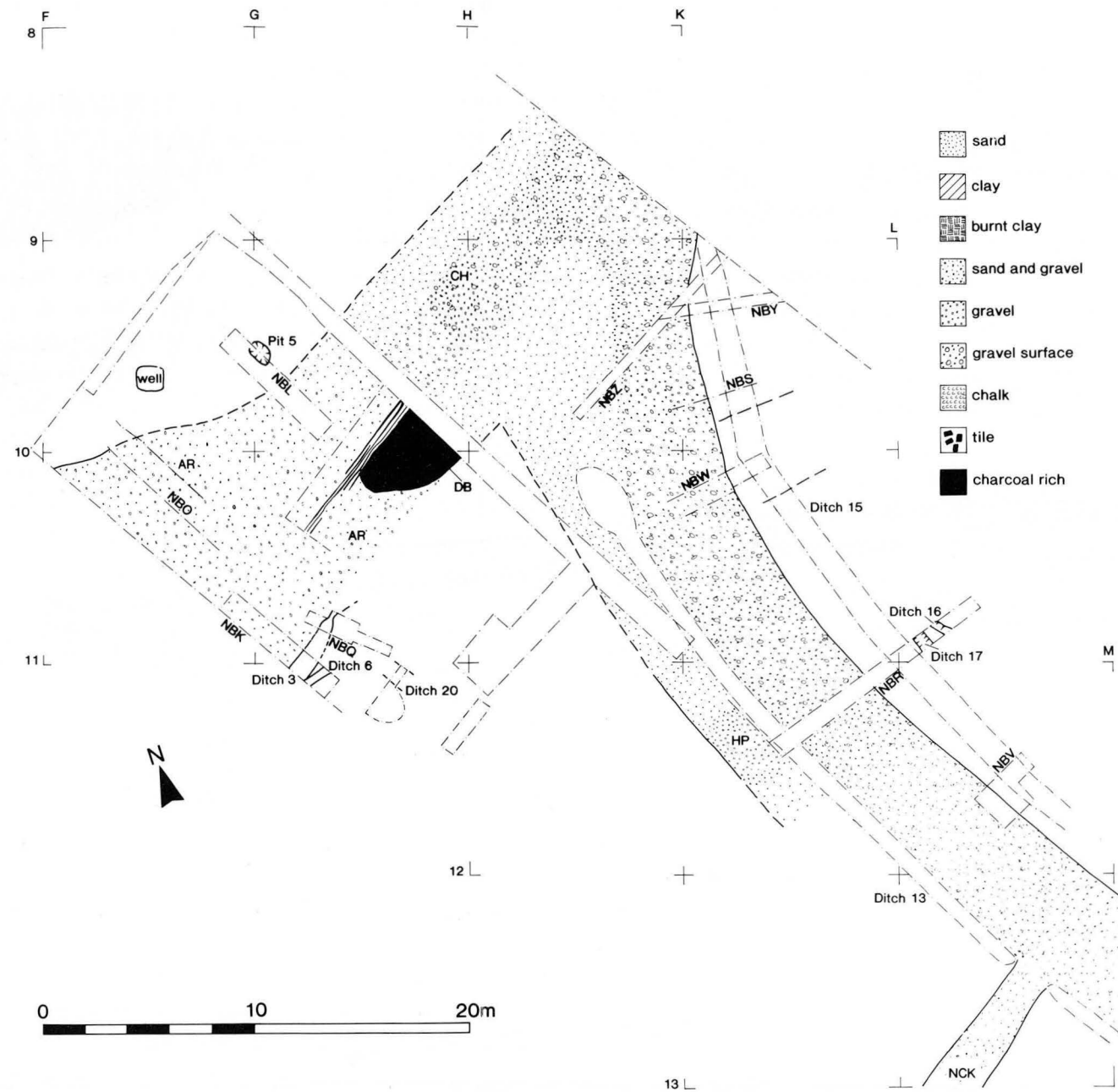


Figure 11 Area I South in Phase B. The key also refers to Figs 12, 13, 17, 18. Scale 1:300

Ditch	Context	Pottery No. sherds	Pottery date	Samian and Gallo-Belgic etc.	Context description
Ditch 1	AV	69	Roman	Antonine (intrusive?)	Dark brown sand
	AW	19	1st C	Coarse ware stamp No.6	
	AX*	8	Probably 1st C		
	BY	34	Mid 1st C 'Belgic'		
	DK*	64	1st C, Flavian, early		
Ditch 2/Pit 5 ?mixed	ET*	1	Roman		
	DH	124	Late 1st C; mortaria stamp (No.5) 2nd C (Pre-Antonine)	TN stamp COTTOS	Light brown sand
Ditch 3 (Phase A/B)	FQ				Light brown sand and gravel
Ditch 4	BR	2	1st C		Brown sand
Ditch 5	BS	1	1st C	Nero – E Flavian	Light brown sand
Ditch 6 (Phase B)	BP + BM	6			Brown sand
Ditch 7	BV	38	1st C 'Belgic'		Brown sand
Ditch 8	BX	7	Little 1st C 'Belgic'	Hadrianic – E Antonine (intrusive?)	Light brown sand
Ditch 9	EP	72	1st C 'Belgic'		Brown sand
Ditch 10	EQ	5	Roman		Brown sand
Ditch 11	ER	2	Roman		Mixed sand
Ditch 14	FJ	5	Late 1st C		Purple sand
Ditch 16? (Phase A or B)	NAP				Grey brown sand
Ditch 17? (Phase A or B)	NAQ				Grey brown sand
Ditch 20	FY	3	Roman		Brown sand
Ditch 22	KV				Mixed brown sands
Ditch 23	KW	21	Mid 1st C		Mixed brown sands
Ditch 24	NAJ	5	1st C or later		Light brown sand
Ditch 27	NAZ	?	Possible 2nd C		Greenish sand
Ditch 29	MAP	?	1st C Flavian or later		Mottled brown sand
Ditch 30?	MAQ				Dark brown sand
Ditch 33	EO	4	1st C or later	Hadrianic – Antonine (intrusive?)	Yellow sand
Ditch 34	NAE	81	1st C		Brown sand

* indicates the more secure contexts

Table 3 Dating evidence from the early ditches in Area I South

One explanation would indicate the main north-east to south-west ditch group and palisade trenches represent phases of a settlement enclosure containing the early occupation focus in Area I North, with the other ditches flanking an unmetalled trackway which approached the enclosure before opening out into a 'T'-junction. (Fig. 9)

Various factors support this interpretation:

i) The palisades suggest that the main (north-east to south-west) ditch groups formed a settlement enclosure rather than an elaborate field system.

ii) The pottery and spatial evidence suggests that all three ditch groups were relatively close in date and subject to re-digging and are, therefore, related.

iii) Ditches 4 and 5 are between 5m and 10m from the main ditch and palisade trench group, which suggests they defined the second side of a trackway. Ditches 4 and 5 then turn through 90° to run parallel to the group to the east, with ditch 26 about 13m away. This might indicate a T-junction of two trackways. When some of the intervening area between ditches 4 and 26 was stripped down to natural by machine towards the end of the excavation no early features were recorded. The extent of this work is not recorded however, so it should not be taken as proven that there were no early features in the gap between the ditches.

The two trackway layout can also be seen as related to the subsequent Phase B with two gravelled roads or tracks (AR and CN) following the same routes.

However a T-junction arrangement is hard to explain satisfactorily. It does not make practical sense for the principal road to approach a fenced enclosure other than at the entrance. If the general interpretation is correct a more complex relationship between the ditch groups, and the individual ditches, is required to explain the recorded pattern. One possible sequence would be:

i) A mid 1st-century enclosure with a sequence of two palisades and three or four separate ditches.

ii) A marked decline in the status of this boundary as evidenced by the larger ditches being replaced by small ditches 10, 11 and 33.

iii) The development of the trackways indicated by the digging of flanking ditches, groups 4 and 5 and 22 to 26.

The most significant feature of this interpretation is the importance of the early enclosure, and the respect shown to it by subsequent road builders. The metalled roads are only permitted to skirt the enclosure which, if correct, has implications for the political and social development of the settlement into the Roman period.

Alternative interpretations

An alternative arrangement could see most of the main ditch group turn through 90° to become 23–26, thereby forming an 'L' shape. However there is no sign that the palisades followed this pattern (although it would put the fences on the inside rather than the outside of the main ditch group). This arrangement looks at the ditches in isolation, ignoring the subsequent layout of roads and putting the early settlement in Area I North outside the enclosure which would now be centred to the south.

There are other possibilities, for example ditches 22 to 26 could continue in a north-west direction beyond their projected junction with the main ditch and palisade group 9–33. Again this would not relate well to the early occupation in Area I North, and bears no relation to the later road layout.

Phases B to D in Area I South

Introduction and summary

Phases B to C span the period from the construction of the roads to the 3rd century AD. Phase D begins in the late 3rd century and is particularly linked with the digging of roadside ditches 13 and 15. These phases are presented together, by areas, with a phasing breakdown and discussion at the end. This format has been chosen as the best way of indicating the varied intensity of excavation at different stratigraphic levels in this area and for dealing with the shortage of sealed contexts which has made the close dating of features difficult. This last problem is in a large degree due to the superficial nature of most of the structural evidence. The presentation of the data in plan, discussed below, is designed to allow a more objective view of the evidence and to allow its relative merits and limitations to be weighed more easily.

The main details for this area have been divided onto four plans (Figs 11, 12, 17, and 18). On all these plans the main section lines are shown to allow easy cross reference. Phases B and C largely appear on two plans. Figure 11 shows the primary evidence for the road and a few short-lived and early features attributed to Phase B. Figure 12 includes both Phase B and Phase C features and other features which may belong to these phases but which are undated. Details for possible buildings VIII, IX and X are shown in Figure 18. Phase D features are in Figure 17 with several undated features which also appear in Figure 12. There is a schematic breakdown of the dark earth deposits in Figure 20. A further sequence of simplified phase plans for this area is presented in the discussion of the dating evidence at the end of this section (Figs 22–24).

The key elements of the Phases B–D layout are the road CN and the sandy gravel layer AR — the latter is interpreted as a minor road but might be a yard. Both were open and accessible throughout, but organic debris accumulated at times in parts of the AR area (layers DB and particularly AJ). Another gravel track, NCK (grid square L13) was planned but not further investigated.

Timber structures proved to be very elusive and none could be dated earlier than Phase C. Eight structures are identified, of which the best preserved and the most thoroughly excavated was Building III — here there was evidence for a clay and chalk floor, a clay hearth and some wall lines. Similar structures are suggested to the north of road CN (Building IV) and along its east edge (possible Buildings VIII, IX, X), based largely on post-holes and cobbled areas along the edge of the road. Buildings VI and VII comprise two phases of structure to the south of road or yard AR but these and a small post-hole group, Building V, are very difficult to interpret coherently.

The construction of a timber-lined well (grid square F10) pre-dates any of the identified structures, but suggests that there might have been an earlier phase of Building III. Evidence for rubbish disposal in pits and surface layers and the accumulation of the 'dark earth' over the whole area is discussed after the detail of the different parts of the area.

Although some small ditches ran parallel to the road in Phase B (ditches 3, 6, 16, 17) it is only in Phase D that road CN is bounded by apparently open ditches on both sides (ditches 13, 15 and 18). These would have affected access and there were gaps in the system for track NCK and the road or yard area AR.

filled with a dark soil deposit (probably part of layer AA). The likely explanation of this feature as slump into an earlier pit has been noted in Phase A; alternatively it represents compression of the surface due to some particular function which would post-date the use of the road. Just to the north of CT was another rather enigmatic surface feature, NCC (Fig. 17). This was seen as a void in the surface gravel, it had a regular geometric shape and was 2m across and between 0.3m and 0.6m deep. To the south and east of this shape, was a less well defined area of crushed chalk. There was also a cluster of post-holes, 22, 23, 24, 47, 48, 51, 52, 53 and 58, (Fig. 12) towards the eastern edge of the road in this area (which are described below with other features in the area north-east of CN). No explanation for feature NCC or the chalk is offered. A further 2m to the north was a pronounced concentration of flints with broken tile and sandstone blocks (CG, Fig. 17). These have no obvious function and they may just indicate a stage in the decline of the road. As they lay on top of the intact road surface they seem unlikely to constitute a crude repair.

Several gravel and sand contexts were interleaved with the road,

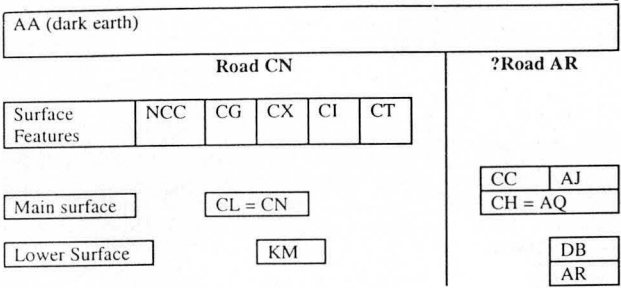


Table 4 Diagram showing the principal layer contexts associated with road CN and layer AR in Area I

particularly along its borders, but their positions within the matrix are less secure. These contexts include CO, CK, CY, CB, KA and CD.

The west edge of the road was not recorded in section and there is some uncertainty about its extent. Gravel deposit HP (Fig. 11) was planned as a discrete entity but is referred to in the written record as part of the road, and can be seen in a photograph as part of a wider area of sand and gravel. In Phase D ditch 13 cut through part of the most obvious metallated surface. This suggests that the earliest alignment of the road was much closer to a right-angle with AR and that the course of the road moved to the east through time, as shown on the plans (Figs 11, 17).

A gravel track, NCK, was exposed projecting south-west from road CN at the south edge of Area I. It ran parallel to AR approximately 35m to the south and it was 2m wide and traced for 8m. Its full extent was not recorded and it was not excavated but access to it was respected by ditch 15 (Fig. 17) and therefore it was in use during the 4th century.

Possible road AR and overlying dumps

(Pls II, III; Figs 11 (plan), 7, 8, 20 (sections))

This layer largely consisted of an homogeneous deposit of sand and gravel 0.3m deep. It was up to 8m wide at the junction with road CN broadening to 13.5m at the west edge of the excavated area.. No section was cut showing the direct relationship between AR and road CN. A single layer of cobbles, CH, extended approximately 3.5m to the west of road CN. The full extent of CH was not exposed as it was covered by CC, a layer of tile fragments and flints, which marked the east edge of a rubbish layer, AJ. It seems likely that AR was contemporary with CN although AR had a poorer surface than CN. AR was a single very sandy gravel layer with an insubstantial capping layer, AQ, which was added after the accumulation of an occupation deposit DB (described below). AQ did not survive west of the limits of rubbish layer AJ. AR was bounded on the south side at the edge of the excavated area by ditch 3, which it infilled (Fig. 7 section NBK). It also sealed all of the Phase A ditch sequence running south-west to north-east; there was no evidence of sandy gravel slumping into these ditches which shows that their fills had consolidated before AR was laid.

Embedded in the upper surface of AR (below AQ and AJ) was a dark sand with charcoal layer DB (shown in plan on Fig. 11, not drawn in section). It had a straight edge on the north-west side and separated into a series of parallel lines between 0.25m and 0.05m apart which were traced for approximately 7.5m and continued into the unexcavated baulks. This layer thickened out over part of AR (depth c. 0.07m) and produced an important group of finds for dating AR. Despite being very regular the dark lines were not substantial. Their appearance can best be seen in Plate II.

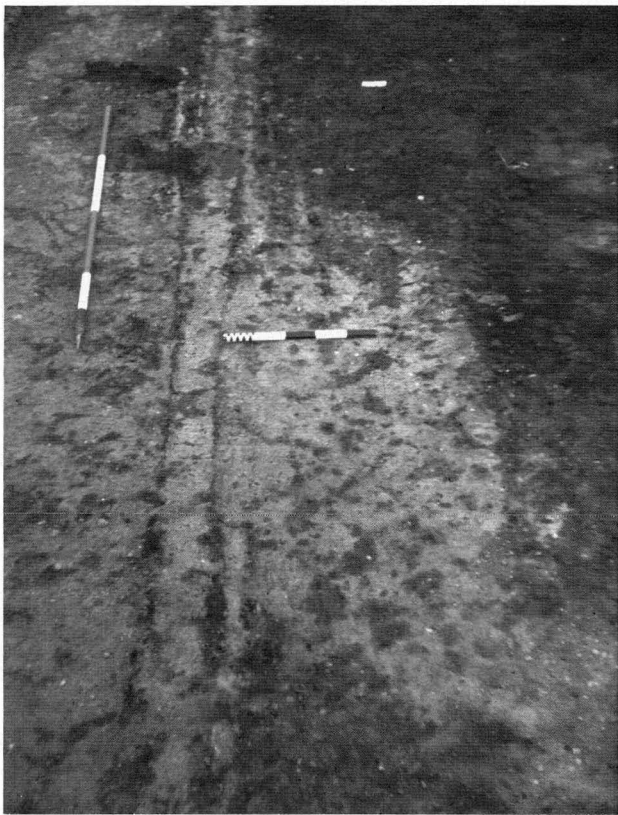


Plate II Dark soil lines DB in Area I South, looking north-east

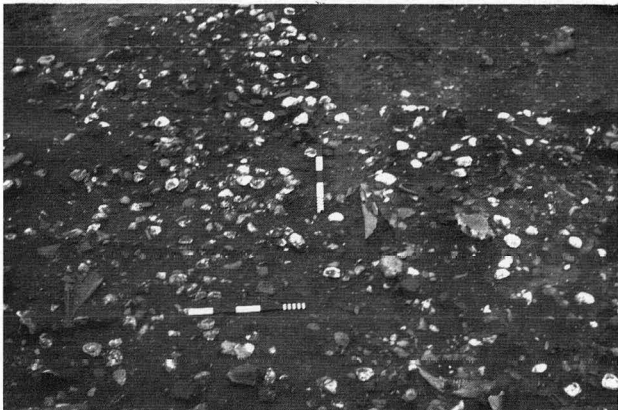


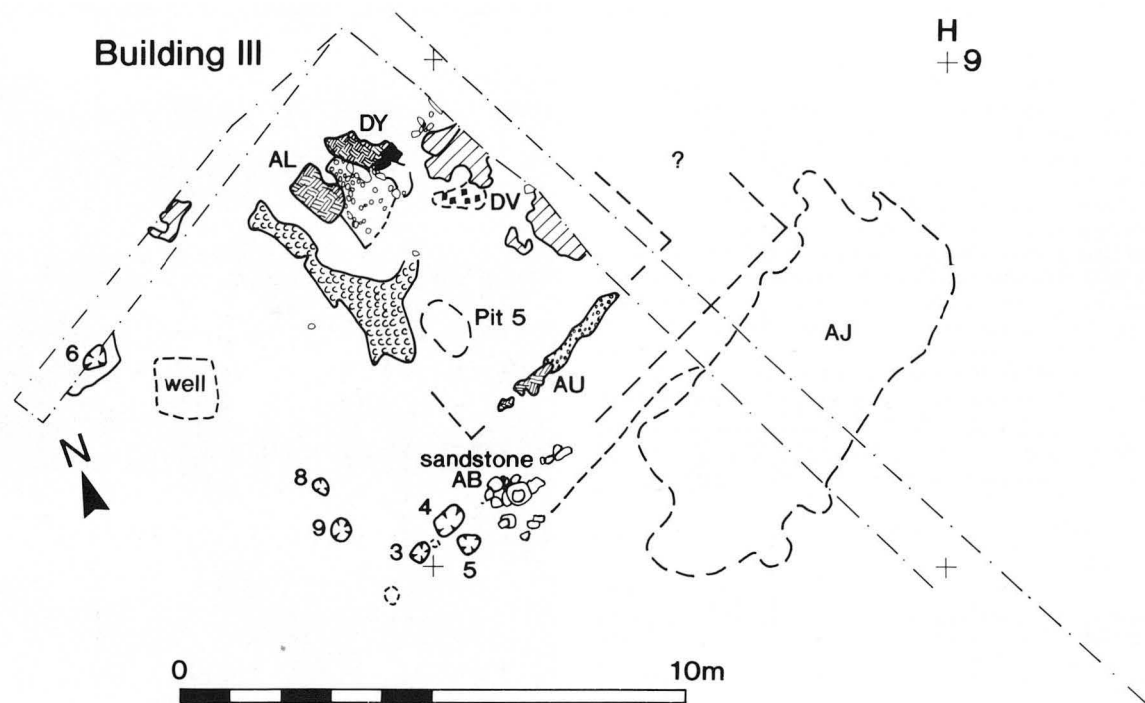
Plate III Detail of layer AJ in Area I, looking west, showing density of food debris, particularly oyster shells

The thicker part of layer DB coincided with the eastward limit of the later layer AJ, a brown soil layer containing very numerous oyster shells mixed with other rubbish (Plate III). Layer AJ extended for up to 11m across the surface of gravel AR in front of Building III during the early 3rd century. AJ also produced twenty-four ferrous objects, five of copper alloy, three of bone and two of glass (see Table 7) — overall the quantity of finds was comparable to the most prolific of the pits (pit 1) which was roughly contemporary and to the later dark soil layers. During excavation it was described as a midden because of the high shell content.

Interpretation of layers AR and DB

During the excavation AR was referred to as yarding but it seems more likely to have been a minor road. The interpretation of AR as yarding rather than as a road was based on:

- i) Its contrasting appearance to road CN, lacking a good metallated surface and a camber.



ii) The accumulation of rubbish layer AJ across the front of Building III obstructing the possible road.

iii) The shape of AR which spread out once past the area of Building III. A possible parallel for this might be Skeleton Green in Hertfordshire where a gravel surface formed a cul-de-sac for buildings which stood on gravel (Partridge, 1981, 49, fig. 17).

The principal argument for interpreting AR as a road is the suggested continuity with the earlier period, with AR replacing an earlier unmetalled trackway. It is certainly clear that the gap between ditches 5 and 7 *etc.* in Phase A was maintained in Phase B by gravel layer AR. However if AR was a road it was undoubtedly of minor significance in comparison with CN during all stages of its life as it was both less well surfaced and poorly maintained. Its longevity is suggested by the gap left in the Phase D ditches which flank road CN (Fig. 17) apparently to provide access to AR. This kind of evidence, relying mainly on a gap in occupation activity, has been shown to indicate the line of minor roads in other settlements in the region (such as Pakenham, Plouviez n.d.). Without investigation of a larger area the interpretation has to remain uncertain.

The unusual appearance of the lines which were part of layer DB over a part of the surface of AR is difficult to explain. During excavation it was suggested that this might be the result of an eaves drip but this would not explain the duplication and regular alignment of the lines. However this pattern would be achieved if silt fell between a series of planks or logs lining the edge of the road and forming a simple pavement; a similar effect has been encountered elsewhere with wooden floors at Canterbury (Blockley *et al.* 1995, 204) and St Albans (Frere 1972, 75). The lines occur in a band between 3m and 4m from the edge of the gravel and it is possible a superficial structure extended into this area. There is no other evidence for this, and to the south of DB beyond the edge of AR there was a sequence of pits spanning Phases B to D.

It should be noted that opinion was divided amongst the authors of this report about the interpretation of AR as a road rather than a yard. It would however be very cumbersome to repeat the alternatives every time the feature is mentioned in the subsequent text and so the description 'road AR' should be understood to mean 'road or yard sandy gravel layer AR'. In either case this was an open area which was almost certainly accessible from road CN.

Area north of roads AR and CN

Building III

(Figs 12, 13)

Fronting onto road AR (and perhaps onto CN) was a sill beam structure, Building III. There is good evidence that it had a clay and chalk floor, and a least two phases of a substantial hearth built with tile (DY) towards the rear of the building. A series of post-holes, 8, 9, and 3, 4 and 5, and a concentration of sandstone rubble, AB, (Fig.13) are evidence of a structure at the southern corner of the building, possibly a porch or veranda. A spread of clay and pebbles seems to mark the position of a front sleeper beam (AU). Possibly this was the selective survival of an earlier surface which had been protected by the beam from wear and tear, or simply the packing used to level the ground during construction. The north-west wall of the property must lie beyond hearth DY, which suggests it was at least 8m deep. The estimated width of the building is between 5m and 7m, this is based on the distribution and shape of the 3rd-century rubbish deposit, AJ, which accumulated against the front of the porch leaving an impression of the building.

Stratigraphically this building is a little hard to tie down. However in section NBL (Fig. 7) the line of pebbles and broken clay, layer AU, which is associated with the front of the building overlies a dark soil (AI) and the edge of road AR. Rubble AB and post-holes 3, 4, 5 and 8 and 9 also encroached on the edge of AR. The fill of pit 5 below Building III has been spot dated to the mid 2nd century (Table 5). Another feature presumably either associated with this building or pre-dating it was pit 6, again spot dated to the mid 2nd century, which lay directly in front of the building cutting the edge of the road. It was 0.75m wide and 1m deep. The relationship of the building to rubbish layer AJ suggests that it was standing during the 3rd century.

Well

The principal feature to the west of Building III was a well (pit 2) which was set back 4–5 m from the edge of gravel AR and a little under 3 m from the south western wall of Building III. During 1973 it was excavated to a depth of 3 m (Fig. 14) at which level an almost square outline of preserved wood measuring 0.86 m x 0.8 m was exposed.

Excavation of the well was completed in 1974 and this account by D.Nicholls was recorded:

It was 5.18m deep and 0.83 x 0.76m between the boards which were preserved for the bottom 0.91m. The well was therefore fairly shallow. It probably served this area of the site for some time as re-lining had been carried out at least once. In this process accumulated silt and debris had been cleared leaving few finds.

<i>Pit</i>	<i>Plan</i>	<i>Depth</i>	<i>Context</i>	<i>Pottery no. sherds</i>	<i>Pottery date</i>	<i>Samian (s = stamp)</i>	<i>Coins and small finds Cat. Nos</i>	<i>Context description</i>
1	Fig.12	1.9m	AN	?		Had-E Ant		Brown sand with ash and a layer of flint rubble
			AO	81	Late 2nd onwards	Had-E Ant, Ant (6), Mid-L Ant, L2nd-E3rd	95, 128, 129, 335	Clay fragments, dark ash in soil
			BA			S26 155-190	Brooch 37: SF 112, 193, 251, 292, 299, 317, 329	Ash and charcoal and orange sand
2 (Well)	Fig.12	Over 3m	BG					Burnt clay, tile with dark soil above
			BJ	21	possibly early 2nd	Flav (2), Had-Ant, Ant; Dec 15, 100-125	IA Coin (No.1) 70-50 BC	Grey sand with pebbles
			BK	2	possibly late 1st			Grey brown sand
			BL					Black brown sand
			BO	2	Roman			Orange grey sand
5	Fig.11	0.7m	DC					Orange grey sand
			BZ	4	Late 1st onwards			Light brown sand
6	Fig.12	1.0m	DJ	8	Mid 2nd			Brown sand
			DL	11	Mid 2nd ?			Brown orange sand
7	Fig.12	1.5m	DM				264	Burnt soil and clay
			DN	16	Early-mid 2nd	Had-Ant		Grey brown soil
			DQ	1	Roman	Had-EAnt		Brown grit
7	Fig.12	1.5m	DU	119	Late 2nd onwards	Ant, mid-L Ant	244	Dark soil
			DZ	76	3rd	Ant (2)		Dark green sand
			EB	22	Late 2nd to mid 3rd			Similar to above
			EC	31	Early 3rd ?	Ant	282	ditto
			ED	71	Late 2nd to mid 3rd	Mid-L Ant		ditto
			EE					Clay sand
			EF	29	Late 2nd?			Sticky ash
			EH					Charcoal lens
			EG	71	Late 2nd	Mid 2nd		Burnt sand, charcoal and ash
			EJ	9	prob. Late 2nd			Yellow sand
			EI	48	Late 3rd ?, mortaria 160 to early 3rd	Ant (2)	180, 186	Green-brown silt with charcoal
			ES	5	2nd , Gallo-Belgic 14 early to mid 1st			Sandy clay ash and charcoal
Pit 7 produced a lot of finds and was very finely divided to separate these. It is clear from the section most of the upper layers had slumped								
8	Fig.17	1.7m	DW	87	Late 3rd	S 17 150-175; Ant (5)	88, 280	Dark soil — upper very dark fill
			EK	39	Late 3rd		242	Dark soil
			EL	92	Late 3rd	Late 2nd-early 3rd	131	Charred clay, much oyster shell in dark soil
			EM	12	2nd onwards	Mid-L Ant		Greenish clay lens
			EU	42	Early 3rd			Brown sand with charcoal and clay
			EV	2				Brown sand
			EX					Yellow sand
			EY					Grey-brown sand with ash

Table 5 Dating evidence for the pits in Area I South (cont'd over)

<i>Pit</i>	<i>Plan</i>	<i>Depth</i>	<i>Context</i>	<i>Pottery no. sherds</i>	<i>Pottery date</i>	<i>Samian (s = stamp)</i>	<i>Coins and small finds, Cat. Nos</i>	<i>Context description</i>
9	Fig.12	1m	EA	74	Mid 2nd	2nd, Mid 2nd; Dec 130–150, 125–145, 130–160, 125–150	33, 181	Homogeneous fill of green brown sand with some charcoal
27	Fig.12	0.65m	HR HS HU	20 21	Late 2nd–early 3rd Probably late 2nd		Brooch 118	Brown sand ditto More gravelly than above with green tinge and ash and charcoal
33	Fig.17	1.25m	HQ HT KJ KT KN KQ KU NAA NAB	35 13 35 47 11 39 4 5 3	Probably 3rd Later 3rd Mid–late 3rd Early 3rd Late 2nd onwards Late 2nd onwards	L2nd–E3rd Ant, L2nd; (Join with AJ)	349 198	Grey brown soil with ash and charcoal Similar to above Very dark, lots of charcoal, ash, clay and oyster Hard ‘green’ layer (KN is similar to NAC which merges with ditch 13. Pit 33 interleaved with ditch 13 and several other contexts were designated affecting both)
54	Fig.12	1.4m	CQ KP KS	199 137 10	Early 3rd (incl. mortaria) Early 3rd Late 2nd to early 3rd	S35 155–190; Dec 28 160–190; 2nd (4) S23 165–200; Dec 160–190; Had–E Ant (2), 2nd, Mid 2nd (5), Ant, Mid–L 2nd Had–Ant	Coin C41 330–335, C42 179, SF 328	Dark soil with burnt clay Charcoal with burnt clay in sand and oyster shells, is really a continuation of layer CQ Sandy fill
69	Fig.17	1.6m	AK FS	264 123	Early 4th onwards 3rd (up to 275)	Had–Ant, Ant (5), 2nd, L2nd–E3rd S24 150–170; Ant (7), L2nd–E3rd	Coin C12 318–320, Brooch 208, SF 7, 8, 127, 190, 191, 306, 336, 337	‘Sticky black soil’ mixed clay with ash, burnt charcoal and oyster shells above green brown sand More charcoal and less clay than top layer. This layer also produced a large number of mussel shells
70	Fig.12	1.05m	HF NAH NAK NAO	58 65 4	Late 2nd to mid 3rd Mid 2nd onwards Roman	Ant	213 5, 307, 360	Dark black soil Brown soil Dark brown loam Green brown loam
73	Fig.12	1.10m	FZ	?	Probably 3rd	Ant (2)		Greenish crumbly soil. An homogenous fill
74	Fig.12	0.23m	NAW					Grey-brown sand
75	Fig.12	unexcav	NAY					

(The pottery dating of these pits was done by context and there is no group dating)

Table 5 Dating evidence for the pits in Area I South

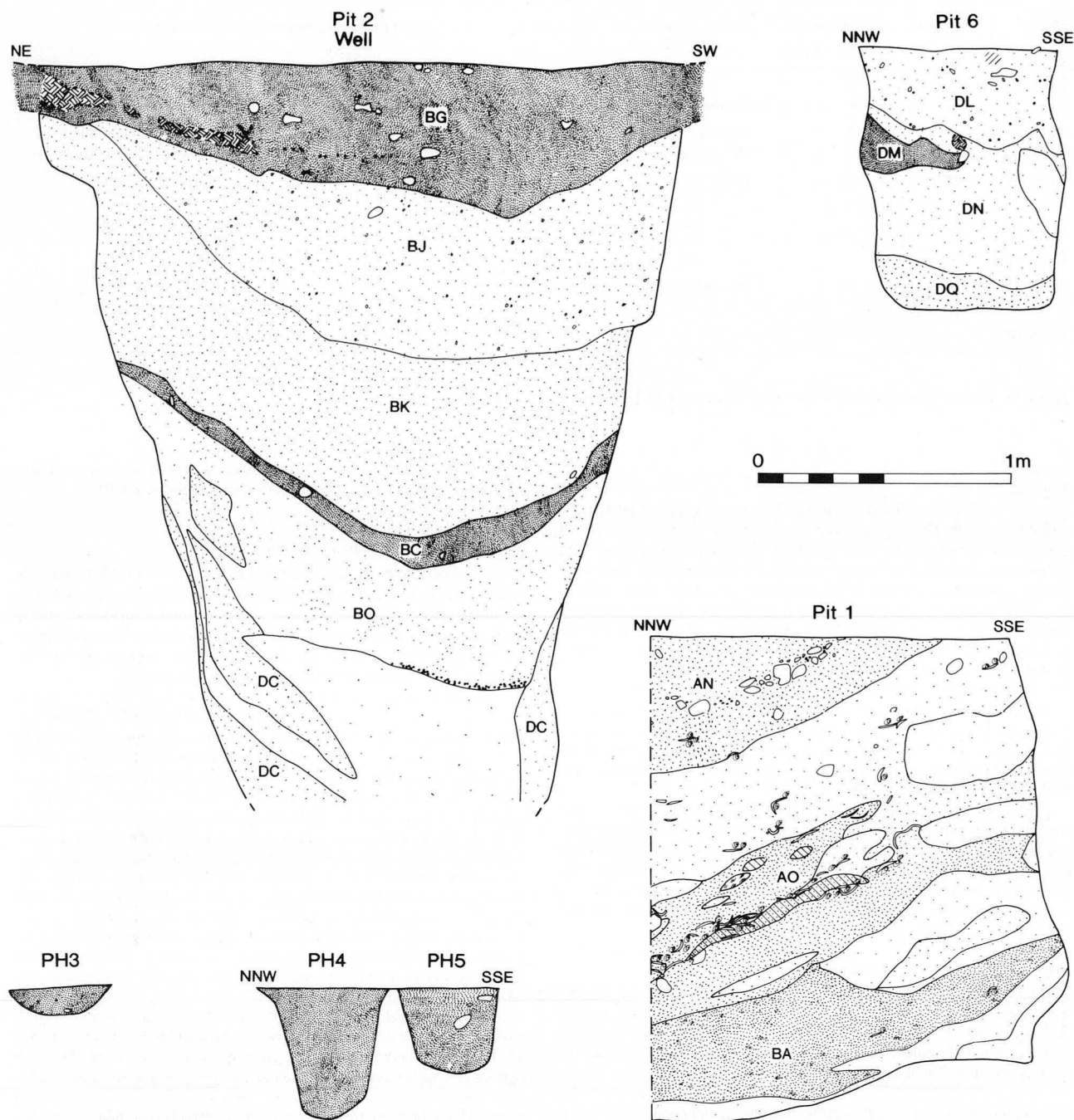


Figure 14 Sections of features in the vicinity of Building III: the well, pit 1, pit 6, post-holes 3–5. Scale 1:25

Preservation conditions were excellent; the oak lining boards revealed two methods of jointing (1) earlier — shoulder slotted, (2) later — half width shouldering and butting. Board sizes were on average 81 x 33cm wide x 3.8cm thick, split radially from the log and extremely well added to a good true face. The water table was met at 15'9" (4.8m) a level which appeared to be at most six inches (0.15m) lower than in Roman times.

Finds were listed as:

- fifteen complete pieces of wood
- 1st-century pottery sherds
- Unclassified sherds
- Leather offcuts
- Organic material: insects, seeds, wood shavings, silt, fungus
- Wooden wedge
- Metal bucket handle
- Bone and small items

An overall date is given as 'tentatively early 1st to mid 2nd-century', and finds from the upper fill layers (Table 5) seem to suggest it could have been out of use by the later 2nd century. It seems possible that there was an earlier building which left very little trace, either on the same site as Building III or close to it, making use of the road AR for access.

Post-hole 6 was 1m north of the well and consisted of a large pit that contained a post pipe 0.3m across. The upper fill of the pit contained clay and flint rubble which may have been the remains of a surface that had worn away over the wider area. The post-hole could have been associated with the well but there was no direct evidence. Pit 1, 2m west of the well, was backfilled in the late 2nd century or later, and may have been associated with Building III or a structure beyond the excavation. A spread of coarse flints towards the top of pit 1 in layer AN (Fig. 14) may have been an attempt to consolidate the surface although it was not a very substantial deposit.

<i>Ditch</i>	<i>Context</i>	<i>Pottery No. sherds</i>	<i>Pottery date</i>	<i>Small finds</i>	<i>Context description and comment</i>
Ditch 12	FE FI	1 4	Roman		Wall foundation trench for Building VI
Ditch 13	HE	?	Possibly late 2nd–3rd; samian stamp 50 late 2nd early 3rd		Late roadside ditch. Connects with pit 33 which is late 2nd–early 3rd (see Table 5)
Ditch 15	HH	13	Later 2nd		Dark sand fill. Paired with ditch 13, therefore late 3rd
Ditch 16	NAP				Grey brown sand (Pase A or B)
Ditch 17	NAQ				Grey brown sand (Pase A or B)
Ditch 18	HZ	36	Probably 3rd; samian Had-Ant (2)		‘Green brown earth’. Dated 3rd–4th by association with ditches 13 and 15
Ditch 19					Identical to ditch 18

Table 6 Dating evidence for the ditches in Area I South, Phases B–D

Building IV (Figs 12, 19)

The area north-east of Building III was largely unexcavated apart from surface clearance. This exposed four post-holes (54, 55, 57 and 56) which impinged on the edge of the road, spanning 3.5m and roughly aligned with the middle pair projecting forward slightly. It is suggested that they were similar in purpose to the post-holes associated with Building III, and that they formed part of a veranda attached to a sill beam structure stretching back from the road. Set back 8.5m from the post-holes was an area of hearth remains, 3.5m in length, which may have been related to a building although this was not proven.

The post-holes were separated from the main body of the road by ditch 18, which contained 3rd-century pottery (Phase D, Fig. 17; Table 6). The dating bracket for the post-holes forming the suggested Building IV is thus provided by the road gravel, and by ditch 18 — almost certainly later than the building which it obstructed and isolated from the main road. Building IV is therefore assigned to Phase C.

Ditch 18 was 1m deep and about 0.5m wide. Its south edge merges with ditch 19, which was 1.2m deep and between 0.3m and 0.4m wide and probably terminated close to the north-east excavation baulk. Their common fill was an homogeneous dark ‘green-brown earth’ and they were both similar in character to ditch 13 which ended in a soak-away pit. It is reasonable therefore to assume that they were all open ditches, despite their narrowness relative to their depth.

Area south of road AR and the junction with road CN

This area was largely taken up by pits as seven (7, 8, 9, 27, 33, 69, 70) were excavated which spanned the 2nd and 3rd centuries, with a soak-away, pit 33, in use in the 4th century (pits 8, 33 and 69 are shown on Fig. 17, the remainder on Fig. 12). Details of the dating evidence for the pits appear in Table 5.

The pits in this area were the largest in Area I South, with the exception of pit 1. Pit 9 had an homogeneous ‘green sand fill’ and it is suggested this was almost exclusively a cess-pit, the others produced mixed layers with general domestic waste, including clay and ash and no indications of any industrial functions. Within this admittedly small area, pits 7, 8 and 9 look to have been in a cluster. The dating evidence suggests that they were successive, probably serving one of the adjacent buildings. Pit 8 cut pit 9, agreeing with the pottery dating which suggests the chronological sequence 9, 7, 8, spanning the mid 2nd century to late 3rd century. The late, upper fill of pit 8 appears to be a slumped deposit but in the section it looks like a rubbish layer rather than a separate overlying soil which has fallen into an unstable pit. Although no relationship was established during the excavation pit 8 may have been a soak-away for ditch 32, which was more of a gully than a ditch and enclosed Building VII in Phase D.

Building V (Fig. 12)

At the junction of the roads was a small group of six post-holes, 59–64. They cut into layer CK, a sand and gravel deposit, which was similar to AR and the foundation layers below road CN. The sections were not recorded but from the regular outlines it is possible to propose that they represent a slight building approximately 3m by 3m in extent. Post-holes 61, 62 and 63 align with road AR with post-holes 59 or 60 possibly pairing with 62. The evidence for the structure may be complete, but whether the area to the south-west was fully investigated is not known and it is possible

we are seeing one end of a small strip building. The area to the south was obstructed by road CN and in the early 3rd century by pit 70.

Buildings VI and VII

(Figs 12, 15, 16, 17, 19, Plates IV, V)

A complicated structural sequence was defined south of AR at the edge of the excavation. Ditch 6 and probably ditch 3 ran alongside AR (Fig. 11) and they were followed by a range of features including two successive wall foundations and an irregular cluster of post-holes. From this group two structures emerge, buildings VI and VII; however they are far from complete and a number of post-holes remain unexplained.

The identification of Building VI is based upon ditch 12 (section NBK, Fig. 7) which had a rectangular wood impression at its north-east end. Ditch 12 joins at right angles an alignment consisting of post-hole 27 to the north-west, and a rectangular clay patch and post-holes FP and 72 to the south-east. The form of this building is not clear but the use of shallow post-holes such as FP (surviving depth 0.1m) and the clay pad suggests it was a free standing building rather than a fence line. If ditch 12 marks the front wall of the building it may have been as little as 2.5m in depth. This assessment is based on the limit of the excavated evidence, and comparison with the replacement structure, Building VII (Fig. 16), which also looks to have been quite narrow. The length of the frontage could not be gauged because it continued beyond the excavated area, but it was at least 4.5m. Like most of the buildings from the site Building VI is difficult to define but circumstantial evidence for its existence can be seen in the construction of a replacement building, VII, on the same site, for which there is firmer evidence.

In Building VII an alignment of flints, AF, overlay ditch 12 (Fig. 7, section NBK) and provided the base for a ground beam. Two post-holes, 32 and 31 (and another, post-hole 30 very close to 31), were aligned at right-angles south-east of that feature and two, very small post marks, align with the north end of the wall. Measuring from the centre of the stones AF the building may have been 3.5m deep and of unknown width. Both ditch 12 and rubble AF were enclosed by ditch 32 which appears to isolate Building VII from the neighbouring pit group and the road AR. That ditch 32 was relatively late can be seen clearly in section NBK (Fig. 7) where its fill is indistinguishable in appearance from the dark earth layer AA.

A group of ten post-holes (7, 11–19, Fig. 12) was found along the road frontage to the north-east of the buildings. They exhibit no clear pattern, and their sequence and phasing is largely conjectural. Two of them, post-holes 17 and 16, were exposed beneath ditch 32 and the fills were indistinguishable. These post-holes probably relate to Building VI, and were comparable to post-holes 3, 4, 5, 8 and 9 which were adjacent to Building III. They are unlikely to have been of any major structural significance given the extensive pit digging which occurred to their immediate south-east over a considerable time.

Fronting onto the south side of gravel AR and exposed directly beneath the dark earth, was rubble spread AE (Fig. 17). It overlay ditch 32 but had an edge which coincided with the positions of some of the group of ten post-holes discussed above. However, the connection is likely to be circumstantial as the post-holes were probably earlier in the sequence. It is possible that the rubble outlines a shallow gully (to the north) which stops short of Building VII and drained towards the road junction, if this was the case it must have been a very insubstantial feature. If it was associated with Building VII then ditch 32 must have been infilled at that time.

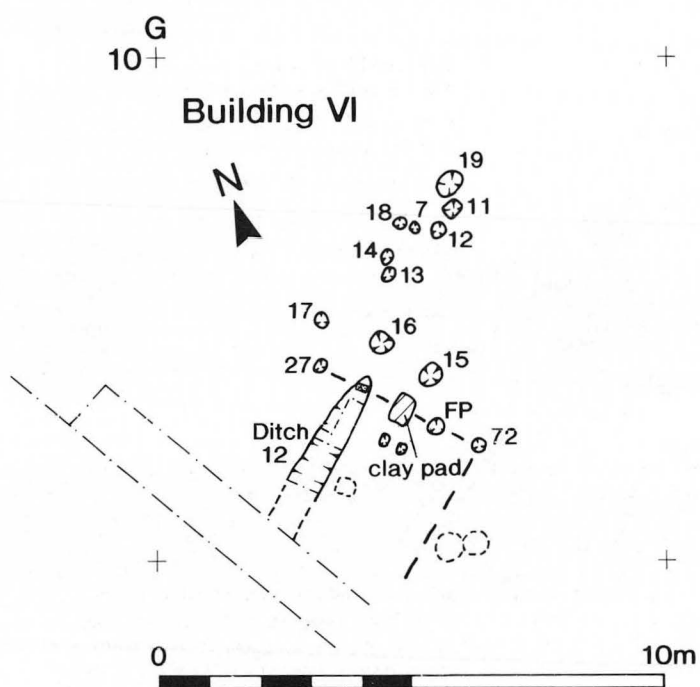


Figure 15 Building VI plan. Scale 1:150

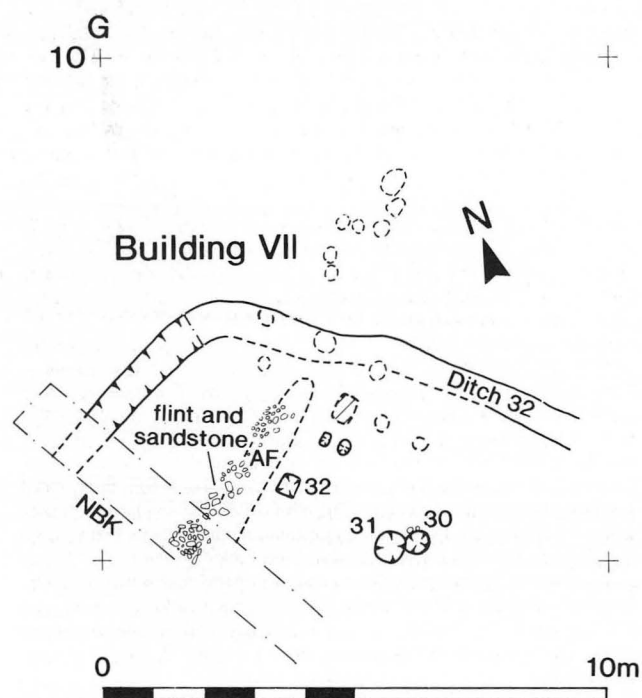


Figure 16 Building VII plan. Scale 1:150



Plate IV Part of section NBK in Area I South showing the sequence of early ditches 5, 4 and 3 overlying layers including elements of Building VII



Plate V Flints and sandstone AF in Building VII

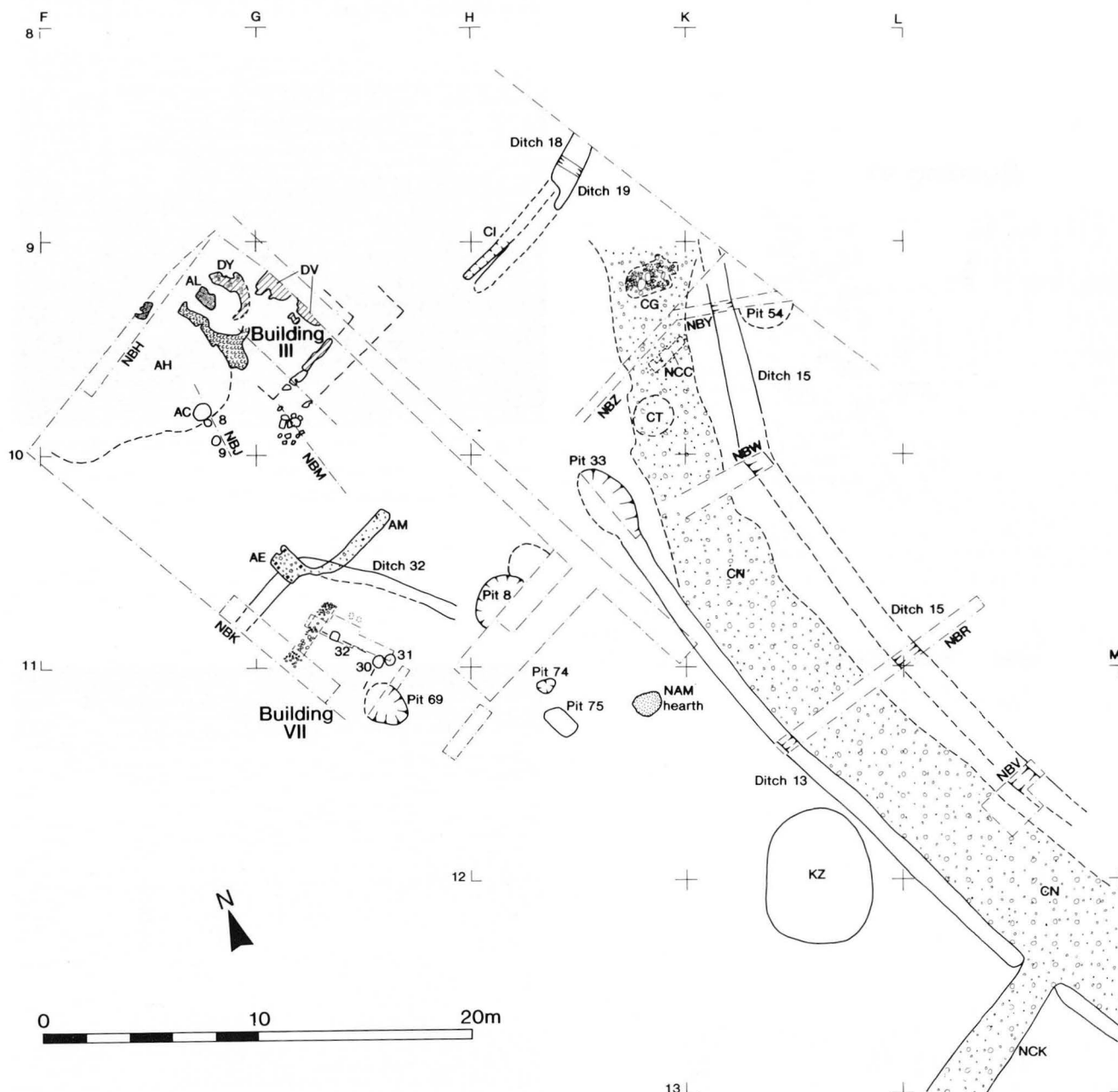


Figure 17 Area I South in Phase D. Scale 1:300

Area south-west of road CN

This area was not fully excavated, particularly towards the south end. The area was separated from the road CN during Phase D by ditch 13, which was the best recorded feature in the area. A 1m length was excavated (Section NBR, Fig. 10) and a short length at its junction with pit 33 (the section is not illustrated) which showed the two to be contemporary, with pit 33, acting as a soak-away for the open ditch. In section NBR the ditch was 0.5m wide and 0.7m deep, although the surface plan suggests it was actually 0.7m wide at the top. The ditch was partially sealed by a dark soil in this section.

Other features include hearth NAM, a gravel surface HP to the south and a slot NAS to the north (Fig. 12, 19). The slot NAS has been extrapolated from the site description and the section which allowed it to be traced for 1m. It was not recorded in plan but its projected course has been indicated with dashed lines. It had a flat, 0.35m wide base, and was very shallow. It was aligned at right-angles to road CN and was cut by ditch 13. The section shows a sandy upper fill over a charcoal base; the sand fill could be an accumulation of eroded material from the surface of the road. Unfortunately there is no corroborative evidence to prove this was a part of a roadside building, but its form and position make it a

possibility. Hearth NAM was 5m to the south of this slot; it was quite solid, measuring 1.35m x 1m and composed of baked clay 0.10m thick and it was intact beneath the dark earth. There is no evidence to place the hearth within a building and its general completeness may indicate that it was a late feature (although it has been shown on both Figures 12 and 17). A cobbled spread HP (Fig. 12) 2m to the east of the hearth was up to 3m long and over 1m wide and cut by ditch 13 which isolated it from road CN. The possibility that HP was part of the early road has been discussed above. Other features in this area are pits 73, 74 and 75; (pit 75 was not excavated).

No features were excavated south of pit 73 in this area, but a well defined area of dark loam, KZ, containing large amounts of bone and pottery was planned (Fig. 17). It was oval in shape, 5m by 7m in diameter. Surface finds were collected but it was not excavated. It was interpreted as a rubbish heap during the excavation and is discussed with the other dark soil layers below. A gravel track, NCK, at the south edge of Area I, was respected by a gap in ditch 13. It was 2m wide and was traced for 8m to the south west of its junction with road CN.

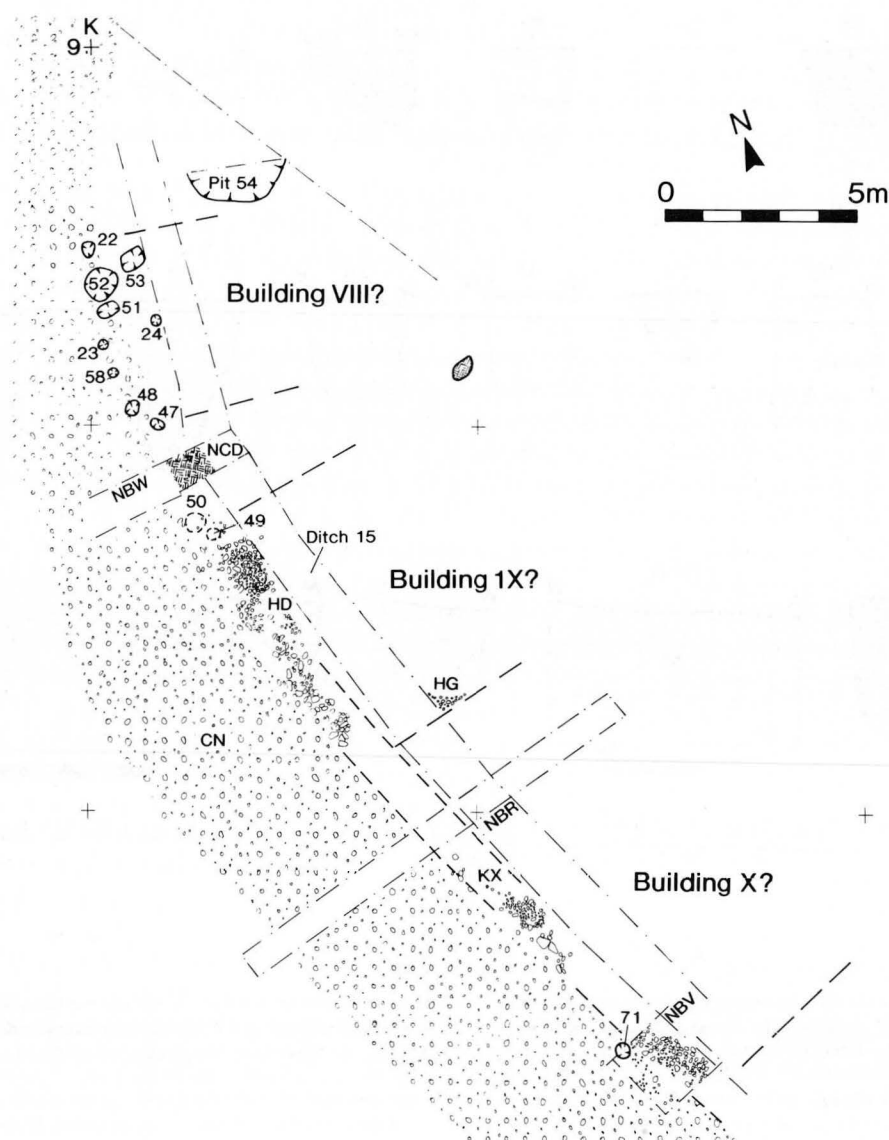


Figure 18 Plan of possible buildings along road CN. Scale 1:200

Area north-east of road CN (Fig. 18)

Excavation in this area was also very limited. Surface planning was followed by the excavation of five trenches which cut into the road at right angles and were designed to record a series of representative profiles. These were supplemented by selective cleaning of the roadside stones, HD and KX and one post-hole group was examined; however we cannot be certain that all the features beneath the upper gravel layer of the road CN were discovered as this layer was never entirely removed. The area as a whole was never lowered to natural as is most clearly shown in the untraced course of ditches 16 and 17 (Fig. 11) beyond section NBR as discussed for Phase A. Despite these limitations there is evidence that at least one building fronted on to road CN in this area.

The clearest feature in this area was ditch 15 which flanked road CN on the eastern side; it is on the phase D plan (Fig. 17) and is shown as a dotted and dashed line on Figure 18 where it truncated earlier features. It ran more or less parallel to ditch 13, a contemporary feature, until it reached a point opposite soak-away pit 33 (the end of ditch 13) where it changed orientation towards the north. At its largest, ditch 15 was 1.8m wide by 1m deep in section NBR (Fig. 10). The northern part was much smaller, only 0.5m deep by 0.8m wide (section NBY, Fig. 10). As the change in size of the ditch coincides with its sudden change in direction it is suggested that two separate phases of excavation are represented. A scatter of fragmentary flint and tile was the only material above this feature, although a substantial depth of soil was removed by machine in this area which could have destroyed some of the evidence.

The other features are examined from north to south. Ditch 15 cut the upper fill of pit 54 (layer CQ). This pit, which ran under the north-east edge of the excavation, had a layer of burnt clay in its upper fill (CQ) and a mixture of charcoal with burnt clay below (KP, section NBY Fig. 10). The upper layer of clay only intruded 0.6m onto the site and it could be speculated that this was the remains of a slumped area of clay floor.

A little to the west of ditch 15 was a concentration of post-holes, spread over about 5m and impinging on the edge of the road CN, which are all illustrated on Figures 18 and 19. From north to south they were post-holes 22, 53, 52, 51, 24, 23, 58, 48 and 47, with post-holes 50 and 49 a further 2m to 3m to the south. The post-holes varied in shape, alignment and depth. Post-holes 53 and 24 were set back from the edge of the road although they appeared at the same level during cleaning as the post-holes which did cut the road. Post-holes 51, 58, and 48, were all overlain by the road's upper cobbled surface, CN, but cut the lower surface KM. Post-holes 50 and 49 were similarly described on site but, their location was a little to the east of the road proper and their relationships appear to have been with the mixed sand layers which bordered it, a view which is confirmed by photographic evidence. The stratigraphic evidence for post-hole 23 was unclear and post-hole 52 appeared to cut the latest road surface. These post-holes were not all contemporary but they could for the most part have been associated with the same building if some are interpreted as replacements.

Burnt clay surface NCD was uncovered in the base of trench NBW (Fig. 10). It lay between post-holes 47 and 50 and was exposed over a width of about 0.9m extending back 0.8m from the road, at which point

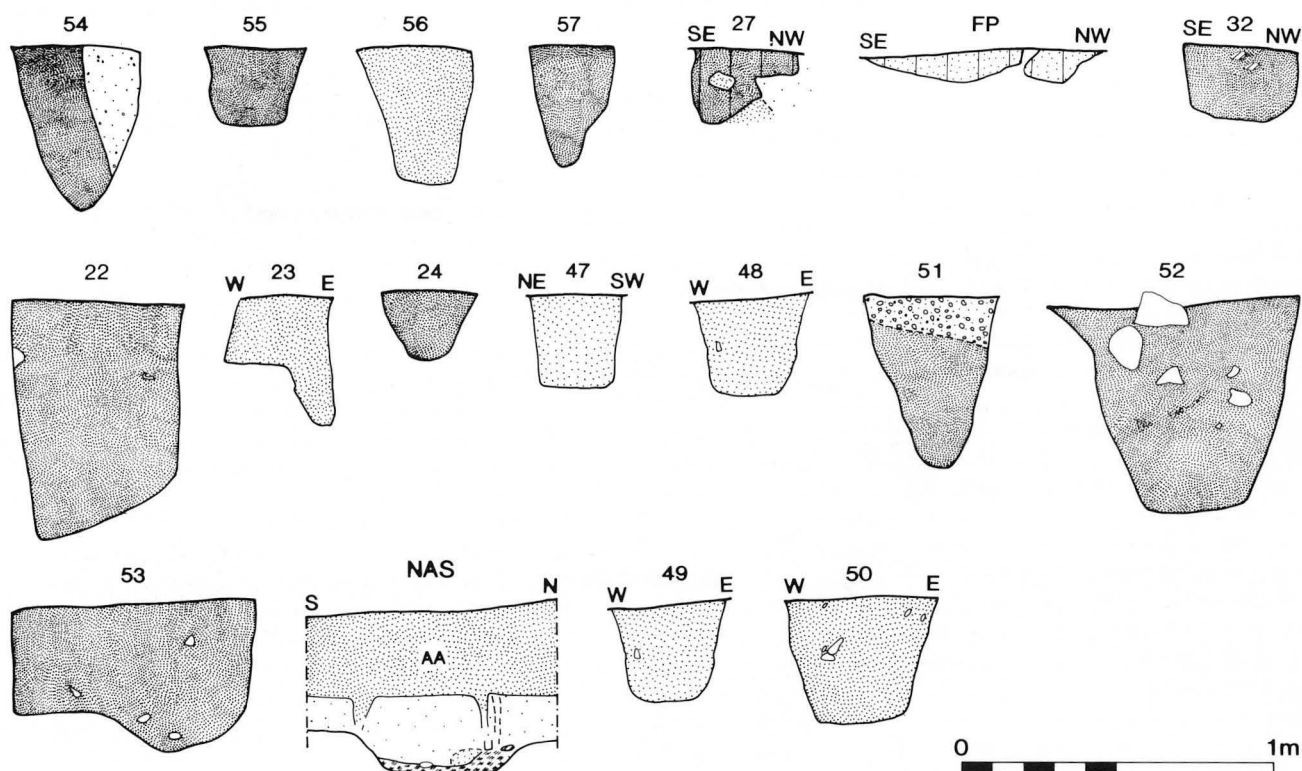


Figure 19 Sections of post-holes: Building IV (54–57), Building VI (27, FP), Building VII (32), Building VIII (22, 23, 24, 47, 48, 51, 52, 53), Building IX (49, 50), Slot NAS. Scale 1:25

it was cut away by ditch 15. The clay was not visible in road section NBS to the north, and no excavation took place beneath stones HD, 1.5m to the south, so its extent in this direction is unknown. No interpretation of the clay was suggested beyond calling it a surface during the excavation and it could have been either a hearth or the remains of a floor. The post-holes adjoining the clay NCD were cut through layers which were higher than the clay, although they did not seal it. The post-holes are therefore, unlikely to have been contemporary with the clay, which could, as discussed previously, be as early as Phase A.

To the south post-holes 49 and 50 may have aligned with the edge of rubble HD. This rubble consisted of sandstone lumps which were between 0.20m to 0.30m across, and flints up to 0.10m in size. A 6m length was exposed which was up to 1m wide, although its width may have been trimmed by ditch 15. The best-preserved length of rubble, at the north western end of HD was 1.5m by 1m. It was described as a doorway during excavation because it appeared to be a selectively compressed section of a continuous spread. The stones may have originally extended further than 6m to the south-east; one piece of evidence for this is that at the point where HD terminates a corresponding gap occurred in the upper layer of road stones (not shown on the plan), suggesting that both the surface of HD and the road suffered comparable levels of erosion.

To the south-east of stones HD a layer of gravel incorporating a single large flint, and distinct from the road, was recorded in section NBR (Fig. 10). This corresponded with a second roadside spread of flints and sandstone, KX, which showed on the surface extending for about 4m, to the south-east of this section. A further 2.5m to the south-east of where KX was last visible on the surface, within trench NBV, a thin band of dark soil was trowelled away to expose a cobbled surface. In the section (Fig. 10) post-hole 71, which had not been visible on the surface, was also exposed. The section also appears to show ditch 15 cutting the cobbled layer, which did not appear on the north-east side of the ditch. Taken together, the evidence for HD and KX suggests that they either formed a continuous cobbled layer, or a series of layers, which stretched for at least 19m following the gentle curve of road CN. The south-east limit of the cobbles was not defined, but it was not visible on the surface beyond section NBV.

To the east of stones HD and ditch 15 was an isolated triangular patch of metallurgy, HG. It was cut by ditch 15 on its south-west side but it had a very straight south-east edge which was at 90° to the road. This could

have been caused by a slot, or perhaps a gully, projecting back from the road either containing the gravel, or cutting its edge, and might indicate the side of a building or of a property. However it is also possible that the edge was created artificially by the blade of the machine when soil was excavated back from the road as was done in this area.

Other than pit 54 no pits were recorded. However, the area was not fully investigated and no firm conclusions can be drawn from this absence.

Interpretation of the structural evidence north-east of road CN: possible Buildings VIII–X

Although there probably were buildings in this area fronting the road, the evidence is rather sketchy. But in evaluating this it must be remembered that the amount of evidence one can expect to find from sill beam structures is very small, and this is compounded by the general use of simple earthen or possible wooden floors, which often leave no trace. The outline for Building III, for example, was established from very fragmentary remains located through intensive trowelling and a fortuitous accumulation of rubbish against the porch, creating an outline for the front of the structure. Excavation in this area was more limited particularly to the north-east of ditch 15 and this ditch truncated any deposits related to either the flints HD and KX or the post-holes. However, there is sufficient evidence to suggest structures pre-dated ditch 15 in this area.

The firmest structural evidence was the group of ten post-holes between post-holes 22 and 50 (possible Building VIII). They could indicate a structure spanning up to 8m directly behind the post-line. The posts could have formed a simple porch or veranda and the possibility that some were replacement posts would explain their slightly irregular appearance. The structure proper may have begun with a sill beam set a little further back from the road. An alternative scenario would view the post-holes as secondary to the main structure which was based on the cobbled surfaces to the south-east beginning with HD (possible Building IX). This interpretation is comparable to Buildings VI and VII which were barely 20m away. Here the post-holes, which extended beyond the structure to the north-east, were clearly subsidiary to the main building.

If the stones east of road CN functioned as a sill beam in providing a base on which posts were set, the worn stones in HD would span the doorway. An alternative explanation for the stones would see them as a pavement in front of a main wall line. This could work in two ways; either the pavement was open or it was roofed as a veranda (or a covered

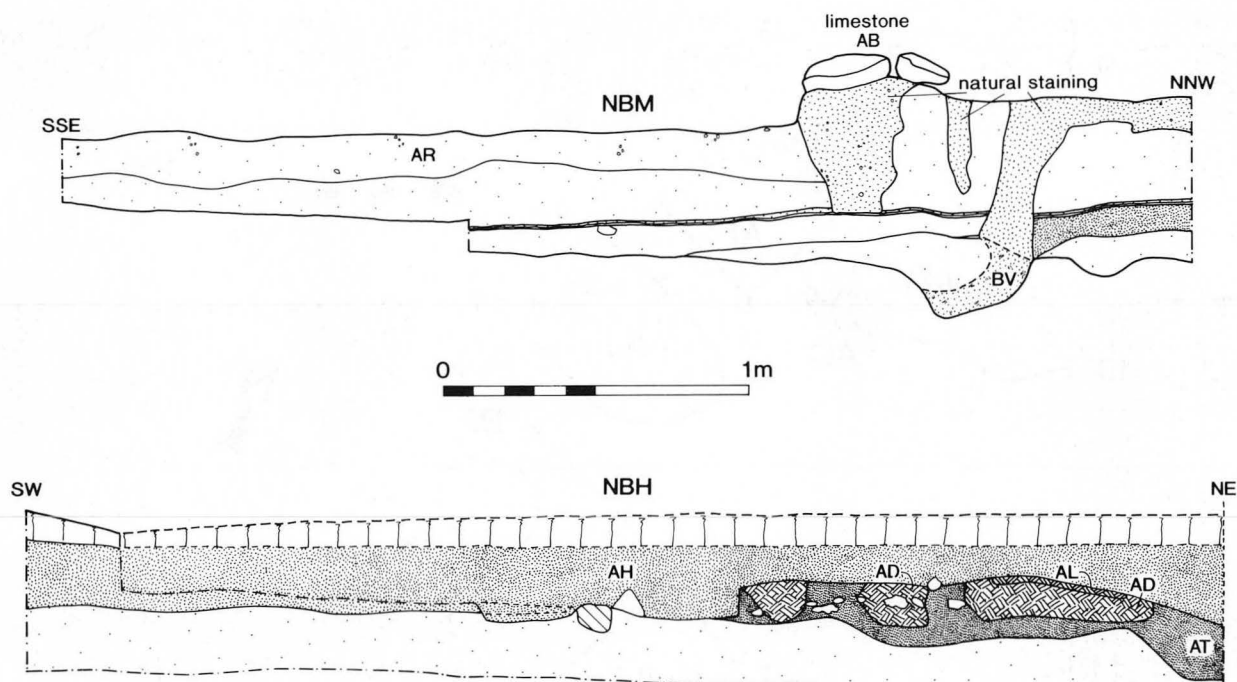


Figure 20 Sections NBM, NBH across Building III. Scale 1:25

walkway). To support this second interpretation we might expect to find post-holes between the stones and the road but the only evidence for this was post-hole 71 and its identification was due specifically to the digging of trench NBV. It might be argued that this post-hole was one of several hidden by the build up of sand and gravel associated with the road and therefore never uncovered, or that the posts could have rested on the ground in front of the stones and were not earth-fast. There is insufficient evidence to resolve these questions, but what can be suggested more positively is that if the stones HD indicate the position of a building, which seems possible, similar buildings probably extended up to, and perhaps beyond, the south-east edge of the site.

How many buildings were there and what form might they have taken? The overall alignment of the stones in a wide curve following the road would appear to suggest two things: firstly the importance of the road frontage to any structures and secondly a flexibility of construction. Either a strip building or a terrace of buildings providing mutual support could satisfy both these requirements. Similar road front structures based on clearer evidence have been proposed for the small town site at Neatham in Hampshire where Structure 4 measured 3.5m by at least 13m (Millett and Graham 1986, 16–19, fig. 15). The three buildings indicated in Figure 18 present one possible breakdown of the evidence. Building VIII is based on the post-hole group and Buildings IX and X are divided along the line of cobbles HG.

Pits and rubbish deposits in Area I South

Of the thirteen recorded pits only pit 75 was not excavated. Most were oval or round and contained within their fills domestic type waste, pottery, bone and oyster shell, with fragments of clay and ash in a general mix. Pit 33 is confirmed as a soak-away by its association with ditch 13 and this was probably the function of many others, although evidence for surface gullies is lacking. Similarly pit 8 was probably a soak-away from ditch 32. Various fills were described as 'green' and were suggested to be 'cess' during the excavation, and it may be assumed that some pits were used as latrines at some stage. Oyster shells were recovered from many of the pits, which is not surprising given the proximity of the estuaries to the site and the ubiquity of oysters on Roman sites generally, but a higher density seem to be found around (and over) gravel layer AR. Although not quantified they are mentioned as plentiful in the descriptions of pits 1, 7, 8 and 69 and they occurred in particularly large amounts in midden layer AJ. Pits 8 and 69 also contained numerous mussel shells. The head of an ox and an articulated dog skeleton were found in pit 7.

The pits also produced a considerable number of small finds. These were recovered in part as a result of the intense hand excavation but the area as a whole was clearly very productive and the trend can be followed

through the accumulation of material in the many rubbish and dark soil layers discussed below. A list of the catalogued material appears in the Table 5 but one group of finds is worthy of special mention: pit 1 produced seven glass fragments of which one was bottle glass and one other vessel glass, the remaining five were all window glass (see p.130) of 1st- to 2nd-century type. The likelihood is that at least one of the adjoining buildings had glazing. However whether this was Building III to the north-east of the pit, or an unknown building outside the excavation area to the south-west, we cannot tell. Pit 8 also contained a residual sherd of window glass.

Some idea of the quantities of material recovered from the pits in this area can be gained from the primary finds catalogue (this list includes some copper-alloy and many ferrous finds which have deteriorated beyond recognition over the years since they were excavated). Pit 1 was the most productive, yielding eleven ferrous finds, nine of copper alloy, six of bone as well as the seven pieces of glass already mentioned. Pits 7, 8 and 9, and pits 69 and 33 also produced many finds which may be taken as evidence for activity throughout the 2nd and 3rd centuries in this locale. Generally in Area I South the pit fills date from the mid 2nd century to the late 3rd century. It is possible that earlier pits remained undiscovered in areas which were not fully excavated. The lack of pits dated to the 4th century seems to be real, however, and emphasised by the presence of late 3rd to 4th century material within the dark soil deposits.

Surface rubbish and 'dark earth'

(Fig. 21)

Alongside the material found in pits there was evidence for the disposal of rubbish on the surface. About 100 square metres of a dark soil deposit located directly beneath the ploughsoil were removed by hand (context AA) mainly in the north-west part of Area I. Up to 0.4m deep, it was described as a 'black sand with pottery, tile etc., no features visible in it, therefore, in part could include the top fill of pits ... is stonier than the overlying plough soil'.

Less well known and studied than its urban cousin, this type of soil has since been recognised on other Suffolk 'small town' sites such as Pakenham (Plouviez, unpublished) and Scole (Rogerson 1977, 120–121; Ashwin *et al.* forthcoming). The urban dark soil seems to occur in most of the major Roman towns including Colchester. It has attracted a range of interpretations and Brian Yule has compared the evidence from a variety of London sites (Yule 1990). He characterises the London Dark Earth as having no stratigraphy (with some exceptions claimed), being either dark brown or black, having variable amounts of finds and accruing to depths of several feet in places. The chronology is not consistent but it seems to appear between the late 2nd and 4th century on different sites

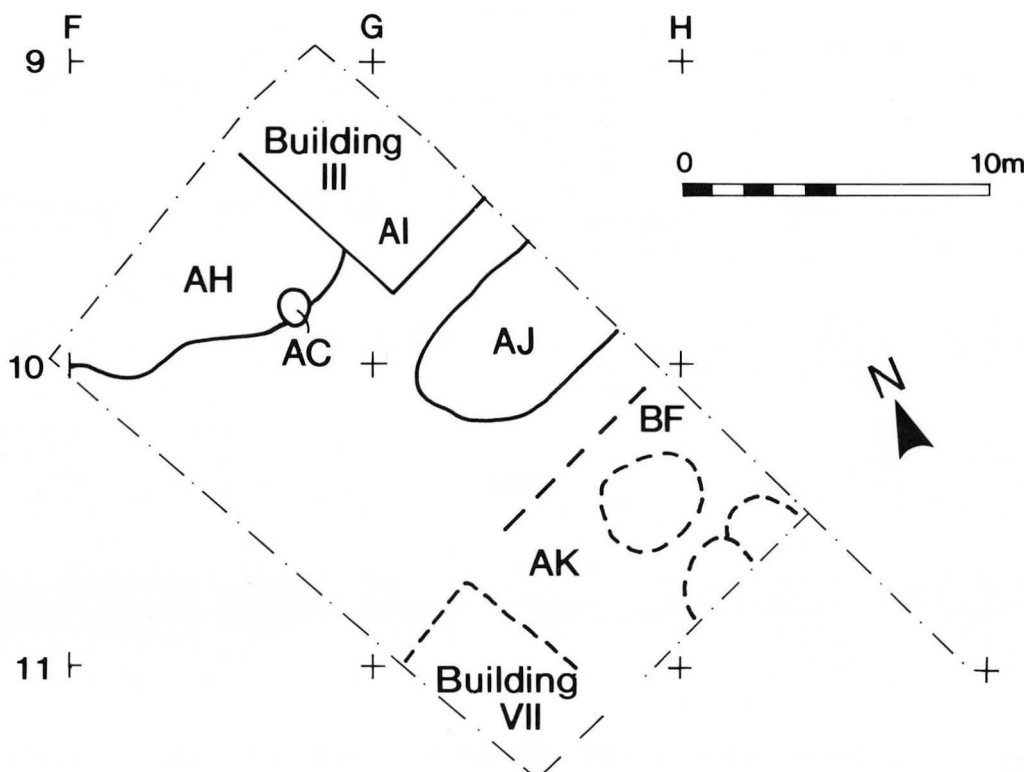


Figure 21 Location of dark soil layers and midden between Buildings III and VII. Scale 1:250

and usually marks the end of recognisable stratigraphy in that area. It has been associated with horizontal truncation but not consistently, sometimes occurring around upstanding masonry. Explanations include Roman or medieval ploughing leading to soil truncation and allotment gardening in urban areas. Natural processes may be at work with the surface dumping of rubbish and organic waste causing accelerated soil formation through biological reworking. Yule concludes by suggesting multiple factors may be at work with some variation between sites. The hand excavation of a relatively large sample of a rural dark earth offers a new perspective on the better-studied urban soil.

The bottom of the Hacheston dark earth context AA was uneven and the more solid features, such as stone alignment AF (Building VII), projected up into it. It was also indistinguishable from the fill of ditch 32 below. This lower level of dark soil was separated into a number of contexts (Table 7). These included layers AH and AC north west of AR with AI and AD over Building III and layers BF and AK between the angle of the roads. Some of these layers differed very slightly in description from the dark earth AA with small amounts of clay visible within BF for example. A circular depression AC, which was filled with an unusually large amount of pottery, was interpreted as the centre of a midden. It was overlain by AH, which was a more extensive but similar layer and the distinction between these contexts was only made because of the increase in the amount of pottery and uneven contour of the underlying soil; there was no change in the dark soil matrix.

A layer which may have been similar to AC was KZ; this was a spread of very dark soil c. 25m south-west of AA (Fig. 17) with a concentration of finds which was left proud of the site after machining. Although finds of pottery and an illegible 4th-century coin (S.F. No. C52, see Table 15 p.80) were recovered from the surface, it was not excavated. This layer and those immediately beneath the blanket of homogeneous dark soil differ substantially from layer AJ in Phase C (Fig. 12). It too contained much pottery and bone (with a preponderance of oyster shell) and a large number of small finds but was light brown in colour, presumably incorporating more sand and clearly differing in a fundamental way from the later layers.

It is unsurprising to find that these dark soils also produced the greater proportion of the small finds from the excavation although this must owe something to the intensity of the hand digging. From the 1973 excavations forty-eight coins were recorded in context and, of the thirty-eight which came from Area I, twenty-six came from either the dark earth layers or others which overlay the roads. Table 7 gives some idea of the quantities

of finds but specific layers are hard to compare as the excavation strategy was selective and layers AA, AB, AC AD, and AH, were more thoroughly excavated than adjoining layers which were similar in character.

Following the excavation, context AA was not considered secure for the purposes of pottery analysis, however it has since been re-examined and spot dated. It produced a large group of pottery, the bulk of which was 3rd-century with a few 4th-century forms such as flanged rim bowls (Chapter 5 Fig. 112, Type 44). There was comparatively little earlier residual material. Layer AA produced eight coins, the latest was 307–317 and five of the remainder were 3rd-century. From the layers below AA, AH AC AK and AD contained some 4th-century pottery forms and included two coins of Constantine dated 320 and 318–320 and one of Constantine II, 353–360 (from context AD). AE and BF produced only 3rd-century pottery. Only AI had a sizeable collection of 2nd-century pottery, and although similar in structure to the other dark soil layers it relates stratigraphically to Building III (see section NBL, Fig. 7). When these layers were assessed as a whole the absence of any Oxford ware pottery and the generally low count of 4th-century pottery forms stood out. It is possible, particularly as the coins were recovered by trowel rather than by metal detector, to make a broad comparison of the coin stratigraphy between AA and the separated layers beneath. This shows a mixture of 3rd- and 4th-century issues; the majority of 4th-century coins actually appearing in the lower dark earth contexts (there were comparatively few intrusive finds even from AA although a medieval button (Chapter 4 Fig. 76 No. 86) recovered from the top of AC is evidence that these layers were not sealed). Although coins may move vertically within the soil this is surely evidence for some stratigraphic mixing. However, there can be little doubt from the general artefact collection that the dark soils contain a certain amount of stratified information which relates to occupation from the end of the 2nd through to the 4th century even if much of it is contained within a single broad horizon.

Interestingly the coin dating contrasts with the unstratified coin assemblage which was metal-detected from the site-wide machine spoil, which showed a much higher proportion of mid 4th-century coinage than could have been anticipated from the evidence of the 1973 excavations (see Chapter 3). If coins of a similar date had existed in Area 1 we might expect them to appear in the AA collection, even if the majority had been incorporated into the overlying ploughsoil, in the same manner that the 3rd- and 4th-century issues were intermixed within the dark layers. Although there might have been some vertical movement of finds, there does seem to be significant chronological variation across the site. The

<i>Context</i>	<i>Pottery No. sherds</i>	<i>Pottery date</i>	<i>Coin Ref (with latest coin date)</i>	<i>Small finds</i>	<i>Context description</i>
AA	937	Mid 4th; 3rd mortaria; samian St 6, 11, 33	C2, C3, C4, C5, C7, C9, C20, C28, C29, C51, Constantine I, 307–17	52, 135, 147, 160, 164, 171, 172, 215, 216, 236, 238, 253, 255, 257, 258, 356	Black sand with pottery, tile etc. immediately below plough soil. Could include the top fill of pits. 0.10–0.15m thick. Hand excavated.
AD	142	Mid 4th	C13, C14, Constantine II, 353–360		Although designated a hearth this context consists of finds from a 'dark sand' over clay floor/hearth AL within Building III. Hand excavated.
AC	215	First half 4th; samian St 18, 19, 39; Dec 1–3 Ant (joins AB AJ)	C6, Constantine I, 320	86, 290, 347	Black sand within hollow. Probably base of AA but containing a high ratio of finds. Hand excavated. 0.12m deep.
AE	46	3rd		64	Area of flint rubble with general finds below AA. 0.10m thick. Hand excavated.
AH	512	3rd; samian Dec 4 125–150	C7, C8, C10, C19, 3rd–4th	165, 169, 263, 357	Black sand containing many finds. Thicker layer of AA. North-west of 'road' AR? Up to 0.35m deep. Small area hand excavated.
AK	269	Early 4th	C12, Constantine 318–320	136	Similar dark sand layer to AH south-east of 'road' AR. Small area hand excavated.
BF	353	Late 3rd– early 4th; mortaria post 250; samian Dec 5–9 125–150; Late 2nd–mid 3rd		177, 179, 247, 302, 341, 358	Similar dark sand layer to AK adjoining AK. Small area hand excavated.
AI	542	Late 2nd; coarse ware stamp 2		184	Dark sand layer, the base of AA? in area of Building III. Hand excavated.
KC	66	Late 2nd–early 3rd		188	Dark sand layer north of Building III. Lower dark sand layer?
HJ		Mixed; mortaria 3rd–4th (incl. Oxford)	C53, C58, C59, Constantine I, 322	1, 107, 199, 224, 281, 283, 235, 289, 300, 330, 359, 392, 394, (Brooches 3, 69, 95, 159)	Context HJ described a dark sand spread to the north-east of Building III (beneath AA) but was used for all finds within the area (post 1973 excavation). It includes a large group of mid 1st century pottery and small finds probably from underlying deposits.
KZ		samian St 15	C52 4th very worn	31, 46, 138, 195, 261, 363, 391	Unexcavated midden, finds from machining only.
AJ	1,289	Late 2nd–mid 3rd; mortaria stamps 150–200, 175–210	C11, C24, C38, Hadrian, 125–128	18, 22, 148, 168, 173, 214, 219, 228, 237, 239, 262, 275, 276, 286, 297, 326, 355, 389	Brown sand midden deposits with much oyster shell, pottery and bone. In front of Building III.

Table 7 Dating evidence for the main hand-excavated layers in Area I South

identification of specific finds concentrations such as AC and KZ (and those found elsewhere on the site particularly in Area II) tends to support this view.

Ploughing can be ruled out as a factor in forming the lower dark earth because the profile of the soils followed the contours of the underlying stratigraphy too closely. A more plausible explanation might be the formation of dark soil from materials accumulated on the surface for manuring. In this scenario organic and other waste is allowed to compost down before being carted away to be spread on fields or 'allotment' sites. The use of surface heaps is surely more efficient than processing in pits which eventually require excavation. An Iron Age antecedent for this practice involving the use of pits has been suggested at Birchanger in Essex (Medlycott quoted in Sealey 1996, 64). The practice of manuring has long been suspected around Roman sites (Bowen 1961). The results of surface survey work in Essex were interpreted as showing re-deposition from manuring (Williamson 1984, 228).

This would explain the homogeneity of the soil with intensive biological reworking as suggested by MacPhail (Yule 1990, 626) across the site, while offering an explanation for the patchy but not entirely random distribution of artefacts (the relationship of the pottery and coarse

animal bone to the manure heap is open to speculation; presumably it formed a proportionally much smaller percentage of the whole but in any case it is always likely to have differentially survived by natural selection and by a tendency to sink to the bottom of the heap as it decomposed). However, this does not fully explain the sheer bulk of soil and its blanket coverage of the site including large areas of the road in Area III. There must be a high probability that late Roman or medieval ploughing was another factor which contributed to the structure of AA.

Although the dark earth presents many problems for stratigraphic analysis it would seem to contain most of the artefactual evidence for the later Roman period. The sample excavated at Hacheston suggests activity sufficient to generate vast amounts of waste, including artefacts, continuing through the 3rd and into the 4th century. The difficulty in identifying building plots or associating recognised plots with dark earth soils is an archaeological problem and should not detract from the economic indicators in the small finds which suggest a sustained period of high activity.

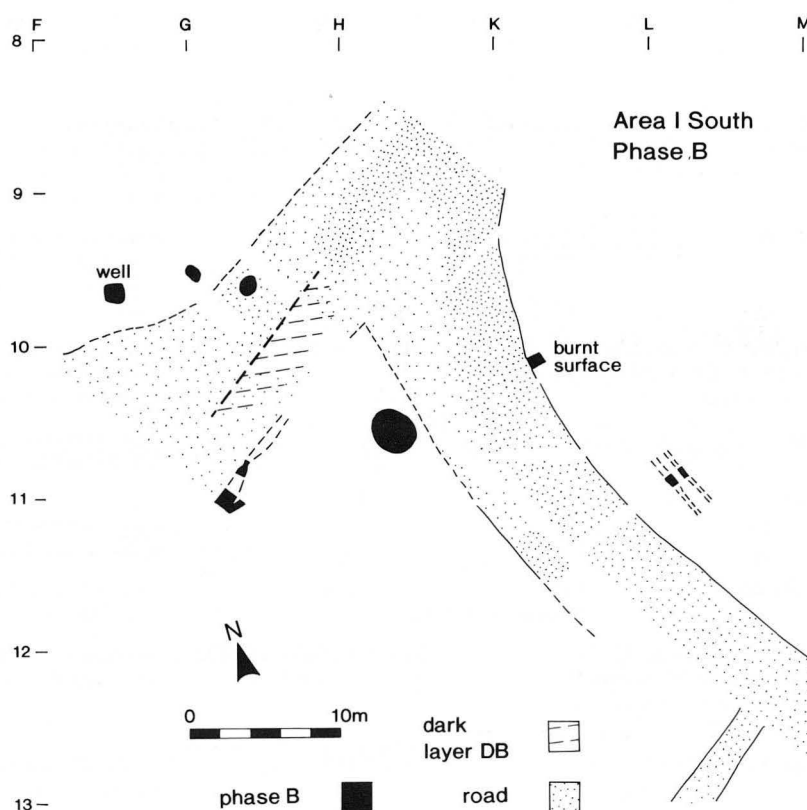


Figure 22 Summary plan of Area I South in Phase B. Scale 1:500

Phases B–D dating and chronology

The principal events on which the phasing has been based are:

Phase B — the building of roads AR and CN before the end of the 1st century.

Phase C — the development of structures adjacent to this system during the 2nd and 3rd centuries.

Phase D — the excavation of roadside ditches through the settlement in the late 3rd century and the accumulation of dark earth layers.

Unavoidably on a site where many of the contexts were open and the dating uncertain, some features are offered places within the sequence which seem likely but are not definite. The placing of post-hole groups is particularly difficult. The pits tended to provide the best dating evidence.

Dating evidence for Phase B (late 1st to mid 2nd century) (Fig. 22)

The primary features associated with Phase B are the roads AR and CN; other features thought to be associated with this development are:

- Well (pit 2)
- Pits 5 and 6
- Layer DB
- Ditches 3, 6, 16 and 17

Dating evidence for the construction of CN is scant as most of the ditches beneath it were only sampled. Ditches 22 to 26 and 33 sealed beneath the road produced a little 1st-century pottery from the small sections excavated, providing a *terminus post quem* for the road. The spatial

arguments for it being either contemporary with, or slightly earlier than, AR are very strong.

AR is better dated as it sealed so many of the Phase A ditches and was cut by pits 1 and 6. The ditches in the main north to south group shown in section NBO (Fig. 7) had all been backfilled when AR was deposited. Most of the pottery from the ditches was demonstrably 1st-century, with a significant quantity described as 'Belgic', as discussed previously. The best dating evidence is provided by the rubbish layer DB which lay directly over part of AR. It produced 229 sherds of coarse pottery considered to be of Flavian (and possibly early Flavian) date, with one sherd of decorated samian of 60–80 (Chapter 5 No.12). This deposit places the construction of road AR in the 1st century.

Ditches 3 and 6, 16 and 17 are dated by their association with the roads and relative stratigraphy only, as they produced insufficient finds to allow close dating. It is suggested that clay 'structure' NCD may be contemporary with the early phase of road CN based on their relative height and close proximity, although the clay could be earlier.

The well (pit 2) had 1st-century pottery in its lower fill and a residual Iron Age coin of the 1st century BC. The upper backfill produced 2nd-century pottery including Trajanic and Antonine samian, showing that it was probably out of use before the end of Phase B.

Pit 5 is tentatively dated early to mid 2nd century. Although the plan might suggest that it was cut through the rudimentary chalk and clay floor of Building III, a gap in the centre of an insubstantial floor such as this is probably just the result of wear.

Although there was clearly considerable activity around road AR there is no direct evidence to suggest that

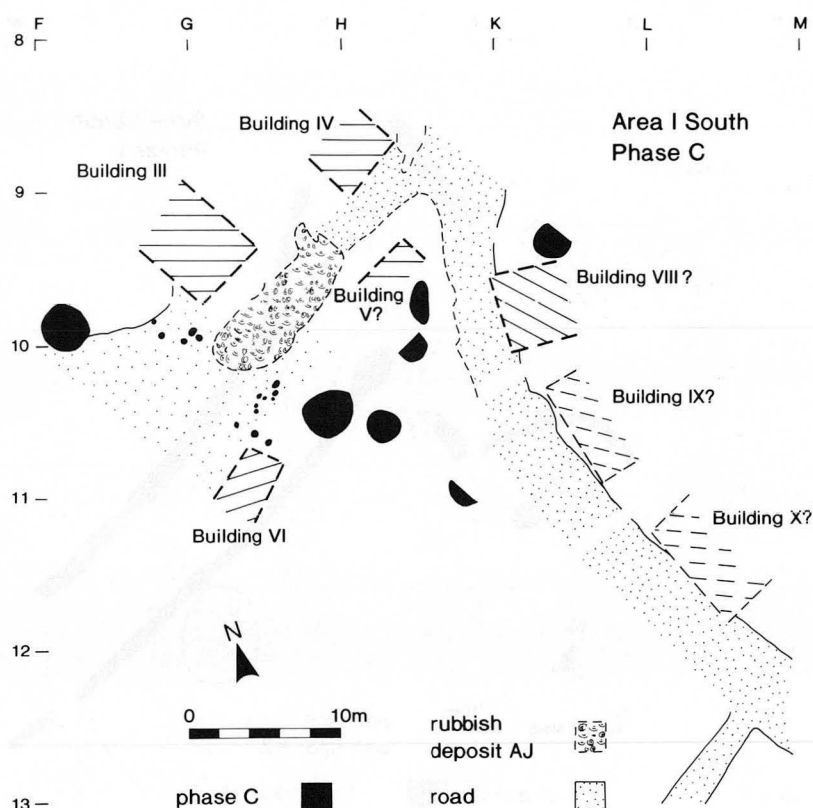


Figure 23 Summary plan of Area I South in Phase C. Scale 1:500

any of the identified buildings were in use at this time. However the deposition of rubbish in layer DB and the construction of the well suggest a building in the vicinity.

Dating evidence for Phase C (mid 2nd to 3rd century) (Fig. 23)

Features associated with this phase include:

Buildings III, IV, V, VI
possible Buildings VIII, IX and X
pits 1, 9 and 7; 27, 54, 70 and 73 and midden deposit AJ. These deposits provide the key dating evidence for the phase and for several of the buildings by association. This evidence is presented in Tables 5 and 7.

The stratigraphic position of Building III, elements of which encroached over road AR, has been described above. Pit 5, probably below the floor, gives a *terminus post quem* in the mid 2nd century. Rubbish deposit AJ accumulated against the porch or veranda on the south side; a substantial amount of pottery suggested an end date in the 3rd century for this layer although many 2nd-century fabrics were present.

Building VI sealed ditches 3 and 6, (the former contained spillage from road AR). Its wall foundation (ditch 12) was also relatively high in section NBO which suggests it did not follow immediately after the deposition of gravel AR. Spatially it can be related to the adjoining pit group particularly pit 9 and pit 7. These pits have been dated, respectively, to the mid 2nd century, and mid 3rd century. At least some of the post-hole group lining AR to the north-east of this structure are thought to have been related. In Phase D Building VII was built directly above Building VI.

Building IV is speculative and dating evidence is provided by relative stratigraphy. The post-hole sequence 54 to 57 was visible close to the surface of road CN and could not, therefore, be early, although it could, of course, be quite late. Building V is also poorly dated. It is thought unlikely to have been early as it intruded quite a long way into the angle of the junction between AR and CN.

In the area east of road CN, the possible buildings VIII, IX and X were truncated by ditch 15 (see Phase D), which also cut the upper fill of pit 54. Within the structures only post-hole 52 produced datable finds, probably residual 2nd-century pottery. The level of the stones HD, KX and the post-holes relative to the later road surface, with only dark earth layers over them, suggests that the structures are fairly late in the sequence. Pit 54 contained a large group of pottery dated to the first half of the 3rd century; the top layer included a coin of 330–335 which is likely to be intrusive, and a coin of 179.

Dating evidence for Phase D (later 3rd to 4th century) (Fig. 24)

This phase sees the digging of roadside ditches through the centre of the settlement. Its principal components are:

ditches 13 and 15; ditches 18 and 19 with 'slot' CI
pits 8, 33 and 69
Building III (abandonment?)
Building VII and ditch 32
rubbish deposits AC, AH and KZ and the dark earth layers.

The latest datable evidence from the cut features is provided by ditch 18 and pit 33, the soak-away connected to ditch 13. Both produced flanged-rim bowls (Chapter 5 Type 44) of late 3rd to 4th-century date, although the

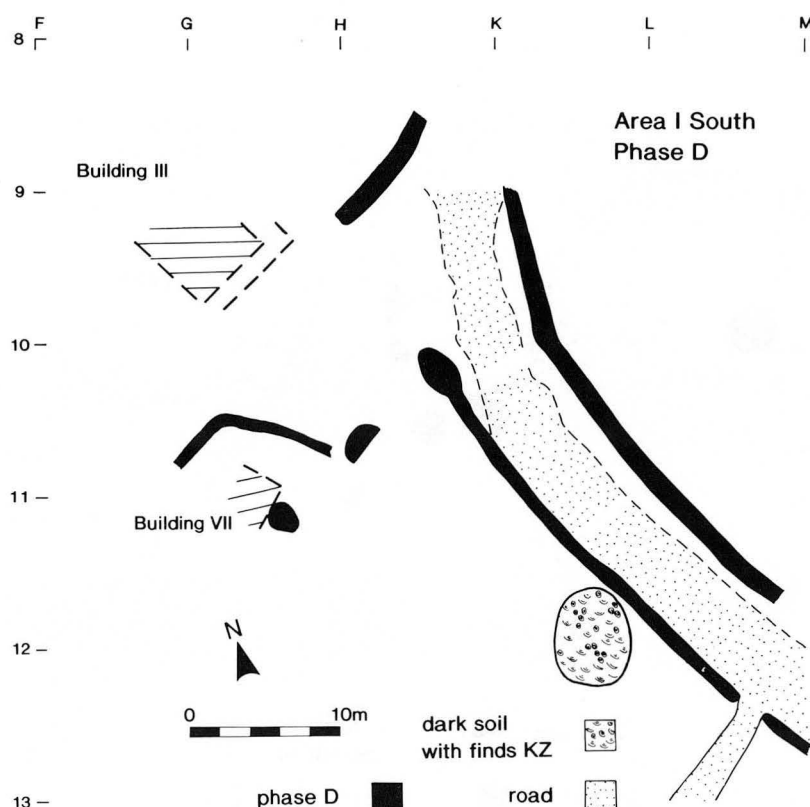


Figure 24 Summary plan of Area I South in Phase D. Scale 1:500

majority of the pottery from pit 33 is attributed to the late 3rd century. Ditch 19 and slot CI can only be dated by association with ditch 18, and by comparison with ditches 13 and 15 which were similar in appearance and use. The arrangement of ditches suggests the continued use of gravel AR as a road or other open space.

Evidence of a date for the abandonment of Building III is provided by the dark soil with rubbish deposit AD which accumulated over the central floor area and almost certainly post-dated the occupation. It produced some 4th-century coarse ware pottery and a coin of 353–360. AJ was the latest deposit which can be definitely associated with this building and this accumulated during the early 3rd century. Around the building the various dark soil layers (AC, AH and overlying these AA) indicate activity in the area in the late 3rd and first half of the 4th century but do not directly relate to use of the structure and eventually, sealed it.

The construction of Building VII replaces Building VI, with beam support layer AF as the main recognisable element over ditch 12, the earlier timber wall line. The structure is enclosed by ditch 32 which probably drained into pit 8. Both ditch 32 and pit 8 contained later 3rd-century pottery, and layer BF, immediately over pit 8, contained 4th-century oxidised wares (possible Oxford or Much Hadham). Pit 69, immediately outside the probable south-east wall, also contained 3rd-century material, with 4th-century (including a piece of shell tempered ware) in the upper fill. Whether Building VII was abandoned before the end of activity in this area of the site is difficult to determine but the stones of layer AF projected into dark soil layer AA (section NBK, Fig. 7). Ditch 32, which is also high in the stratigraphy in the same section, had further

insubstantial structural evidence (rubble layers AE, AM) above it, but these could be contemporary with late use of Building VII.

The evidence for dating the dark earth layers (AA and underlying) has been discussed above in the interpretation of these deposits (summarised in Table 7), where it was suggested that these were accumulating over time in the 3rd and early 4th centuries. The scarcity of coins post-330 and of Oxford ware implies a sharp reduction in activity in this area of the site sometime in the first three decades of the 4th century, in contrast to the picture in Areas II and III.

V. Area I North

Introduction

(Figs 5, 25)

1,200 square metres were opened up in Area I North which extended for 70m north from the central area of the excavation towards the Fiveways junction. Topographically the ground rose evenly from the south by about 2.5m. Plough soil was removed by a 'back acting' machine and in places by shovel, and the survival of hearths suggests that little erosion had occurred. The natural sand was exposed over most of the site and all features were planned in detail. Only a selection of the pits were sampled and most features were incompletely excavated.

Pits were by far the most numerous features in this area, sixty-six in all, of which forty-three were partially excavated. Although they occur widely over this part of the site there may have been significant groupings with spaces between them, probably associated with buildings. At the south end were four small ditches in a rectilinear arrangement. Two buildings can be identified, both of

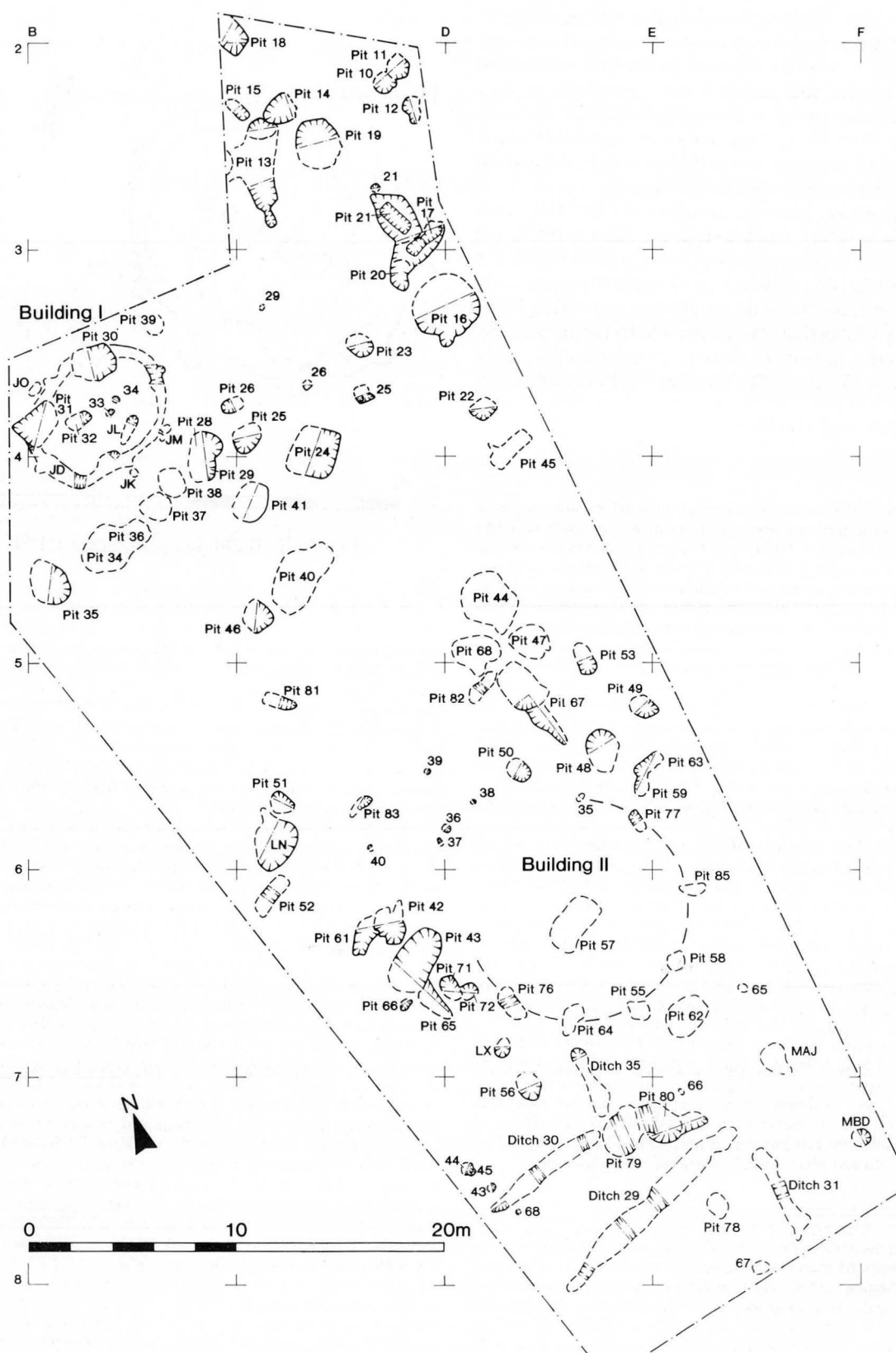


Figure 25 Area I North. Features with no section line were not excavated. Scale 1:300

roundhouse type. Building I, oval in plan with one flat end, consisted primarily of a wall trench. Building II was only identified as a possible structure in the post-excavation study of the site and survived as a semicircle of very shallow possible post pits. Although both were probably 1st-century in origin their locations were respected by later pit digging, which suggests that they or their building plots may have survived into the 2nd century.

A suggested phasing breakdown for this area comparable to Area I South is shown in Figures 29–31 and discussed after the description of the excavated features. It is suggested that the pits which produced no finds are likely to have been early, based on the absence of residual finds. The pottery spot dating was the main basis for the phasing. The pattern recorded shows predominantly early occupation with a sharp decline after the 2nd century.

Excavated features in Area I North

Building I (Fig. 26)

Building I was visible as a continuous small ditch, JD, enclosing an ovoid area which was aligned on a north-east to south-west axis with the rather flattened narrower end facing south-west. Its maximum internal dimensions were 6.2m in length by 4.9m in width and the ditch was typically V-shaped in profile and 0.35m wide by 0.25m deep, although there are some clear anomalies visible in plan. The ditch almost certainly represents a wall line. The excavated length provided insufficient data for reasoned speculation on the detailed structure of the wall; no post-holes or stake impressions were recognised and no clay was recorded in the fill.

Internally there were two post-holes, 33 and 34, which were 0.18m deep by 0.32m wide and 0.16m deep and 0.27m wide respectively. Their edges were about 0.3m apart and they were slightly east of the centre of the structure. Other possibly related internal features were: sub-rectangular pit 32, which measured 1.26m by 0.7m (aligned with the main axis) and 0.7m deep, and shallow 'scoop' JL, which was 1.4m long and up to 0.5m wide. Both features contained brown sand and produced no finds.

Externally, there were no earth-fast type post-holes but on the east side there was a shallow brown sand filled feature, JO, and on the south side there were three small scoops, JK and two adjoining ones, JM. All three were identified as post-holes on the surface but judged to be too shallow upon excavation. Both JO and JK are next to anomalies in the main trench JD and it is plausible that they indicate post positions which were not independently earth-fast but were still part of the structure. Whatever their function they cannot be dismissed lightly given the significance of shallow post settings in the construction of Building II. The internal features, pit 32 and scoop JL, may also have had structural functions.

There is no clear indication of an entrance. Possible post settings JK and JM could form a doorway but they stand on the long side of the building, and appear to face a group of pits. Although these were mostly unexcavated and so undated it is clear they could not have been contemporary with an entrance on this side. Equally convincing as openings could be the east end, with an absence of pit digging around this side, or the west end which has a flattened face about 2m wide.

Building II (Fig. 27)

Building II is the larger of the two roundhouses and is identified with some caution as such. Its main elements are: six features of which two were excavated, forming a little more than half of a circle approximately 10m in diameter, and five or six smaller post-holes grouped to the north-west of the semicircle. The six features were initially identified as pits; this was clearly based on their surface area which was smaller than most of the other identifiable pits but much larger than all the post-holes. Only pits 76 and 77 were excavated and their depths were recorded as very shallow and the sections were not drawn. Both had a grey brown fill and pit 76 was described as being irregular. It is suggested that these features indicate the position of posts which were not necessarily earth-fast from a circular building and that the other features in the series were similar. They were various shapes, pits 55 and 58 were sub-square being approximately 0.85m in diameter; pits 76 and 77 were sub-rectangular and respectively 1.85m and 1.2m long by 0.8m and 0.6m wide. They also varied in alignment, pits 76 and 77 were aligned fairly closely with the circumference of a circle projected through the centre of the features, whereas elongated pits 64 and 85 were aligned transversely to the

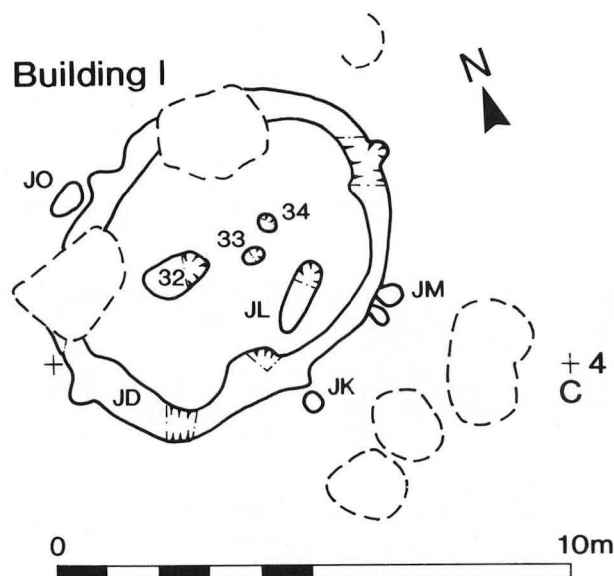


Figure 26 Building I plan. Scale 1:150

circumference. The spaces between the features have been measured roughly from centre to centre as these are less likely to vary than the shallow sloping sides. The gaps vary between 4.15m and 3m but it is noticeable how similar the gaps are between pits 58, 55, 64 and 76 at 3m, 3.1m and 3m. It is also noteworthy that post-hole 35 was 3m from pit 77 and pit 50 was a further 3.25m from post-hole 35 but is not on the circumference of the circle if projected. On the north side, therefore, evidence did not survive for any post-hole features which may have completed the circular structure.

Post-holes 36 to 40 to the north of the building do not seem to make any particular pattern and they vary between 0.12m and 0.38m in depth. Being much smaller in plan than the pits they display the more familiar width to depth ratios of earth-fast type post-holes, albeit truncated ones. They may have formed a porch or other adjacent structure of some sort.

The distribution of the pits in this area also suggests that the two feature groups form a structure. There is a clear gap in the area of the suggested roundhouse with open spaces to the north-west and possibly to the east. This would make practical sense if the entrance or entrances to the building faced in either of these directions. If the former were the case the earth-fast type post-hole group to the north-west could indicate a porch or outline an entrance. Pit 50 and post-hole 35 may have been directly related to the structure. Post-hole 35 is not far off the projected wall line although it is smaller in plan than the main wall line features. Pit 50 is out of position but looked similar in plan, with the same brown sandy fill as the rest of the group and it was suggested as a post-hole during the excavation despite being shallow (0.14m deep). Pit 56 and feature LX might also be considered as post-holes, situated to the south of the building, as they were similar upon excavation to the main category although their structural function is not immediately clear. Pit 57 was central to the structure but was not excavated and no finds were recorded. It is, therefore, open to speculation whether it was a structural feature or a miscellaneous pit which it resembles in plan.

Interpretation of Building II

The survival of the base of a hearth, LN, north-west of the building suggests that truncation in this area was no more than 0.2m or 0.3m. This depth added to the smaller post-holes on the north side of the structure would make them viable as independent earth-fast posts. This does not seem to be the case for the larger post pits comprising the main semicircle. As less than half of pit 76 and only half of pit 77 were excavated, it is entirely possible that the remaining fills held substantial post settings. On the other hand, the incompleteness of the circle outline suggests several post settings have been eroded away and so, albeit tentatively, it is suggested that these post pits are on the line of a low wall. Presumably the strength of the building was derived from its internal structure combined with the considerable weight of a thatched roof.

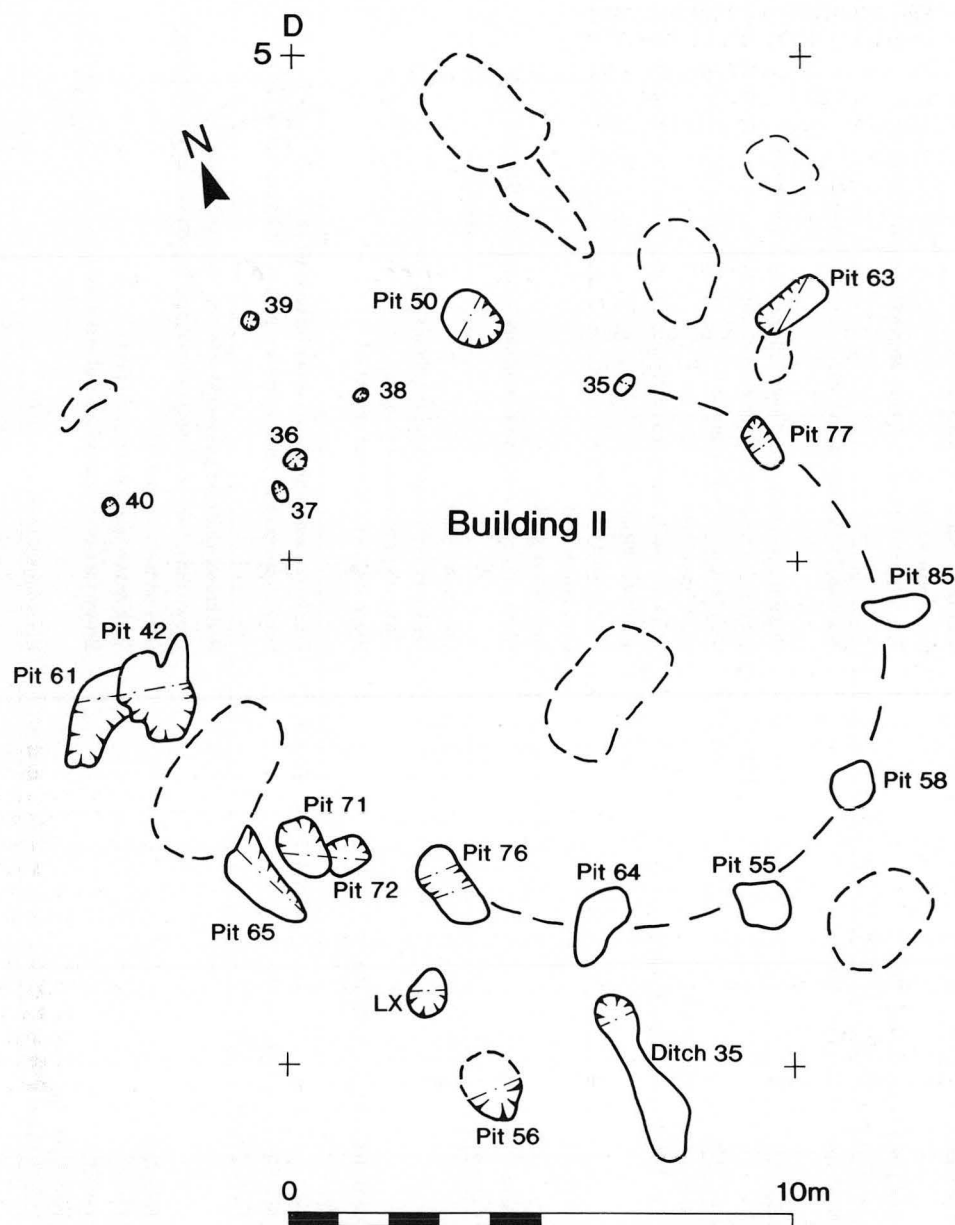


Figure 27 Building II plan. Scale 1:150

The pits

Pits were the predominant feature in this area of the site and the excavated information is summarised in Table 8. A selection of drawn sections are presented to illustrate the range of types in Figure 28. In plan most shapes are represented from rectangles and squares to oval and round with the deeper features tending to be quite regular with steep sides below the surface. Features identified as pits on the surface varied in depth from just a few centimetres to 1.8m (pit 16). There appears to have been an increase in depth over time, for many of the shallower pits which produced pottery were demonstrably early. However large pits, by virtue of their size, are more susceptible to slumping, depending on the composition and organic content of the primary fill, and it is possible that the evidence for the upper fills may have been a little distorted by later contamination. The available evidence does seem to reveal a genuine association between size and date: on average the 1st-century pits were 0.47m deep contrasting with 0.97m deep for the 2nd-century and later examples.

The fills tended to be fairly similar with orange or grey and brown sand often interspersed with small amounts of ash and charcoal which probably originated in domestic hearths. However pits 41 (grid square C5) and 49 (grid square D6) contained smithing hearth bottom and fuel ash slag resulting from iron smithing (see Chapter 4). Other fill types were

much darker with higher concentrations of finds, pottery, bone and oyster shell; again there seems to be a chronological correlation with the richer deposits being later. Pit 21 (grid square C3) produced an unusually large amount of local grey ware pottery (743 sherds, weighing 18kg) which probably came from a nearby kiln (see Chapter 5) although it included only one definite waster.

The combined evidence from the form of the pits and their fill types suggests that they could all have been for domestic use, as latrine pits and soak-aways dealing with general household waste and rainwater. The smithing debris and pottery dump found in pits 41, 49 and 21 were probably secondary deposits and a pointer to activities in the wider area rather than an indication of the function of the pit.

Pit groups and open spaces

The human eye has a tendency to pick out apparently ordered groupings in what are often random distributions and identifying an overall pattern in this instance is made difficult by the linear shape of the excavation because any number of pits, buildings and pathways could be bordering the site. Taking this into consideration the combination of pit groups, open spaces and buildings does seem to form a pattern.

<i>Pit</i>	<i>Depth in m</i>	<i>Context</i>	<i>Pottery no. sherds</i>	<i>Pottery date</i>	<i>Samian and Gallo-Belgic</i>	<i>Coins</i>	<i>Small finds</i>	<i>Context description</i>
10}	0.35	GD	33	Mostly mid 1st. A single 2nd				Grey brown sand with flints
11}	0.45			sherd intrusive?				
12	0.36	GC	2	Roman?				Grey brown sand, possibly two small pits
13	0.47	GB	294	Some early 2nd, mostly 1st	Dec 20 145–175; Gallo-Belgic 1, 12, 15 early–mid 1st		Brooch 2	Dark grey brown sand, pit with drainage gully
14	0.85	GK	403	Mid 2nd or slightly earlier	Gallo-Belgic 8 mid 1st		221	Grey brown sand with charcoal lenses
15	0.6	GL	12	2nd little dating				Green brown sand
16	1.8	GH	154	Late 2nd to mid 3rd	St 8 130–155, dec 21 145–175, Ant (6), L2nd–E3rd		21	Two fills not distinguished. Grey brown over yellow brown sand.
17	0.57	GA			St 45 160–190; Had–Ant, Ant(5)			Black sand with charcoal and ‘daub’. Grey brown sand
		GI	88	2nd				
18	0.6	GJ	51	Late 2nd onwards	Had–Ant			Upper fill grey brown sand lower fill charcoal rich with sand
19	1.4	GN	332	2nd (and modern scrap)			354	Grey brown sand with charcoal flecks and building rubble — some slumping?
		JC	187	Flavian onwards	Dec 22 70–85		Brooch 205	Grey brown sand with charcoal
21	1.6	GP	437	Mid–late 2nd (joins with GT	St 21, 44 165–200; dec 23			Black brown sand with daub (sic)
		GQ	204	and GQ below); possible kiln	130–160; Had–Ant, Had–E Ant			Black sand with ‘steely’ green fill, also ash and charcoal with lots of pottery
		GT	101	group see Ch.5 Mortaria				and oyster shells.
				140–180				Orange sand with some ash.
22	0.85	GO	24	Late 2nd to early 3rd				Grey brown sand
23	0.35	GR	17	Possible early 2nd				Grey brown sand
24	1.1	GX	260	Early to mid 2nd; Mortaria 2nd	Nero–E Flav; Ant (2); Gallo-Belgic 7 50–85			Upper grey brown sand with burnt clay or daub over sticky ash layer
25	0.98	GY	8					Grey brown sand
		GZ	51	Possible late 1st				Dark grey brown sand beneath yellow sand lenses
26	0.26	JB	0					Dark grey brown sand with bone
28	0.95	GF	56	Mid to late 2nd	St 10 160–190, St 23 160–190, dec 26 Flav–Traj			Black sand, with browner central fill
29	1.3	JH	12	Possibly mid 2nd		C48, 117–138	98, 109, 121	Fine brown sand with a stony upper fill (cuts pit 28)
30	0.80	JE	59	Late 2nd but including 1st	St 4 140–170, Had–E Ant (2), L2nd, Ant (4)			Grey brown gravelly sand. 1st pottery probably from cut feature JD?
31	1.20	JF	39	1st half of 2nd?				Red brown sand over green sand with clay and charcoal
32	0.70	JG	0					Brown sand. Lack of residual material may suggest this feature was early?
34	?	JQ	77	2nd onwards	Had–Ant		102	Only partially excavated?
35	0.80	JR	76	2nd	Flav (2)			Dark brown sand with charcoal flecks
41	0.90	JP	194	First half of 2nd	Dec 24 125–150, Had–E Ant, Had–Ant			Brown sand over charcoal ash and oyster shell
42	?	MAT	88	Nero-Flavian?	Dec 25 60–80		196, 197	Black brown sands. Cuts pit 61

Table 8 Dating evidence for the pits in Area I North (cont’d over)

<i>Pit</i>	<i>Depth in m</i>	<i>Context</i>	<i>Pottery no. sherds</i>	<i>Pottery date</i>	<i>Samian and Gallo-Belgic Coins</i>	<i>Small finds</i>	<i>Context description</i>
43	1.10	MAW	78	Probably late 2nd	St 20 160–180, Had, Ant (3), Mid Ant (2), Dec 27 Mid–L Ant	2, 20	Grey brown sand with charcoal, quite stony over various grey green sands with charcoal
46	1.06	GE	27	Late 2nd to 3rd	Ant (3), L 2nd/3rd	IA coin 3, early 1st	Mixed brown sand with orange sand
48	0.80	LI		Late 1st / early 2nd			Black brown sand
49	0.65	LJ		Mid 1st; late 1st –early 2nd			Black brown sand
51	0.82	LS					Mixed red brown sand over black sand with charcoal over a grey sand with ash
52	0.28	LT					Black brown sand with charcoal
56	?	LZ?	little	Possibly mid 1st			Brown sand. Very shallow therefore not drawn (sic). Probably less than 0.10m
59		MAC		Little dating	Ant–mid 3rd		Dark brown sand
61	0.25	MAU	21	1st			Red brown sand
63	0.30	MAG	11	Possible 1st			Brown sand
65	0.40	MAV	9	Mid 1st?			Mottled red brown ssand
66	0.31	MAX		Little dating, 2nd?			Mottled yellow brown sand
67	?	LB	61	Late 2nd			Gulley leading into pit only (therefore very late)
71	0.24	MBF	6	Mid 1st			Mottled red brown sand
72	0.23	MBG	5	Probably late 1st			Black brown sand
79	0.65	MAR	23	4th		C49 270+ 144 C50 348–364	Dark brown sand
80	0.55	MBC	21	Possibly mid 1st		IA coin 2, early 1st	Brown sand
81	0.20	JX	0				Brown sand
83	-	JY	14	2nd or later		273	Brown sand. Section no: drawn because it was very shallow.

Table 8 Dating evidence for the pits in Area 1 North

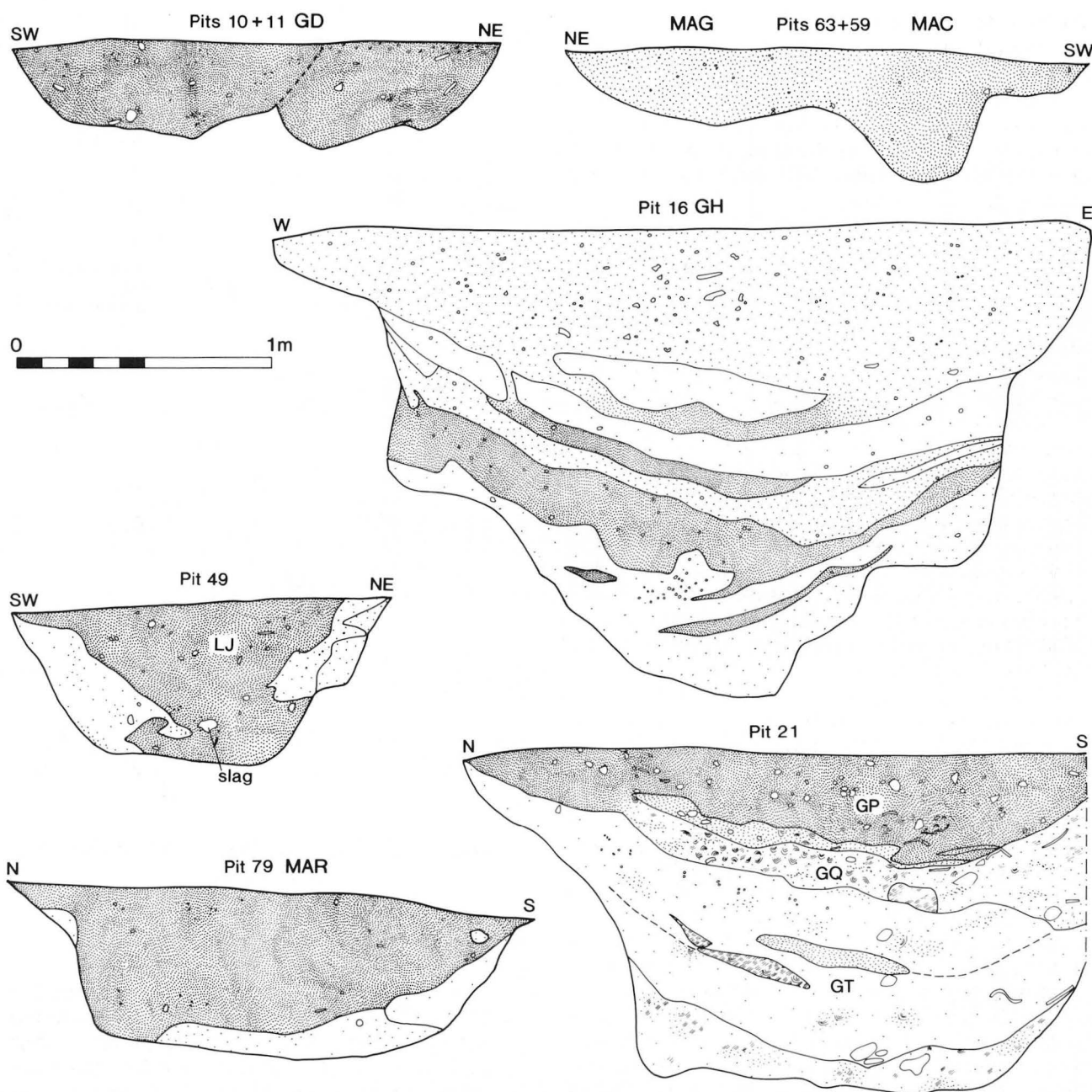


Figure 28 Sections of pits in Area I North. Scale 1:25

Four pit groups have been identified:

- i. A linear pattern south of Building I
- ii. A second linear group, north-east of Building I
- iii. A cluster west of Building II
- iv. A cluster north of Building II

Each group displays a range of pit sizes and date ranges, and very few of the pits overlap — those that do tend to be chronologically well apart, except for the third group, where the dating is closer.

Between Building I and the pit group to the north-east there was a space with no surviving archaeological features, apart from post-hole 29, and this could have been occupied by a superficial surface structure. The alignment of the first group of pits suggests that there may have been some sort of boundary feature south of Building I, such as a hedge, not otherwise detectable archaeologically, and the second group may follow a similar boundary at right angles. This pattern broadly aligns with the ditches in the south of the excavated area and again with the general layout of road CN (see Fig. 55).

A considerable gap is visible between the building areas lying approximately west to east across the site. Of the two excavated pits, 46

and 81, which interrupted this pattern, 46 has been spot dated to the late 2nd or early 3rd century, thereby post-dating the most intensive period of activity. Possibly this gap was a pathway between the building plots, later encroached upon by a few pits. Such pathways presumably existed, but of their nature are difficult to prove.

Other features

At the south end of the site four shallow ditches, 30, 35, 29 and 31, appear to form two L-shaped alignments. No functions are indicated but the alignment is similar to those in Area I South. They could, therefore, be part of an early boundary system.

Occasional post-holes and small pits occur throughout the area. Of these, three post-holes (44, 43, and 68, grid square D8) align across ditch 30.

There was one definite hearth, LN. It consisted of an oval burnt clay spread 0.09m thick and at least 2m wide. A single sherd of early Saxon pottery from this context may indicate post-Roman activity. South-east of Building II two clay spreads, MAJ and MBD, may represent hearths. MAJ was identified as such on site but it is not clear whether either had a burnt surface.

Dating evidence in Area I North

The finds dating information for the pits in this area is presented in Table 8.

Building I was cut by two pits, 30 and 31. Both were substantial, pit 31 was probably the earlier with early 2nd-century pottery and pit 30 contained late 2nd-century material. The wall trench (JD) produced a few mid 1st-century sherds. The adjoining pit group to the south was only partly excavated, the dates varying from the late 1st (pit 25) to the later 2nd century (pits 28, 30). Some of the pits thus post-dated Building I, as the evidence suggests that the building was constructed in the mid 1st century and was demolished before the early 2nd century. The pits to the north-east of Building I included some mid 1st-century material, from pits 10 and/or 11, and part of pit 13; the latest here is pit 16 with 3rd-century finds.

Building II produced no datable pottery and lacked any direct stratigraphic relationships. The proximity of so many pits respecting the building area provides the best evidence for its period of occupation. This evidence has to be used with some caution since in the case of Building I a *terminus ante quem* provided by the two pits which cut its wall line was earlier in date than some of the pits in the neighbouring pit group to the south. Clearly there can be other factors such as the archaeologically invisible features alluded to earlier, pathways or hedges, which may account for the position of the later pits.

Of the two pit groups flanking Building II to the north and west, the latter was the most comprehensively examined. Six pits could be readily dated, pits 61, 42, 43, 65, 71 and 72; of these the largest, pit 43, was dated to the late 2nd century. However the other five seem to have been mid to late 1st century. The northern pit group was the larger of the two, comprising ten pits. Pits 68, 44 and 47, the furthest from Building II, were unexcavated. From the remainder two pits, 82 and 53, are undated, pits 48, 49 and 63 were later 1st-century or early 2nd-century (pit 49 had a large residual collection of mid 1st-century pottery). The largest pit in this group, 67, was late 2nd-century and the smallest, pit 59, was late 2nd or 3rd-century.

The proximity of Building II to the west group of pits which mainly date from the mid or later 1st century would support the assumption based on its form that this was a 1st-century structure. It is uncertain how long it survived.

Phasing in Area I North

Phase A (mid to late 1st century)

(Fig. 29)

Both buildings I and II were probably constructed early in this phase. Pits 10, 11, 13, 25, 42, 56, 61, 63, 65, 71, 72 and 80 were spot dated to the 1st century. It is suggested that the pits which produced no finds are likely to have been early, based on the absence of residual finds and these are shown as 'interpreted' on Figure 29. A group of imported Gallo-Belgic sherds dated to the first half of the 1st century was found in pit 13 (see Chapter 5 for detailed report) — unfortunately the plan and the presence of a small group of 2nd-century sherds suggests that two contexts were mixed. The group of small ditches to the south of Building II is largely undated but ditch 35 contained an earlier 1st-century bowl (Fig. 110 No.20A) as well as a possible 2nd-century sherd; they are included with the 'interpreted' group in this phase as well as in Phase B.

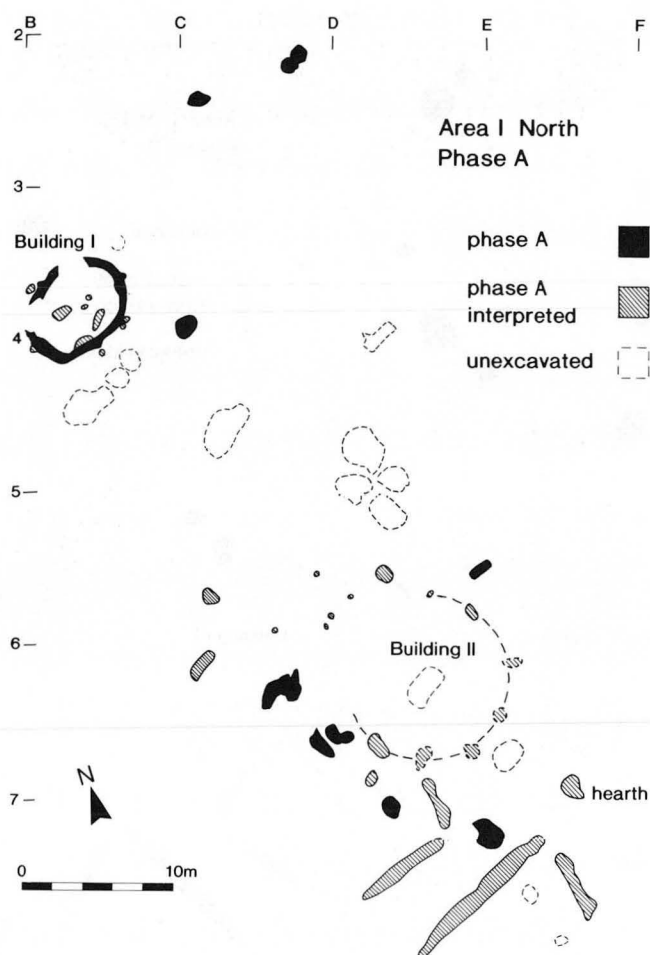


Figure 29 Summary plan of Area I North in Phase A.
Scale 1:500

Phase B (late 1st to mid 2nd century)

(Fig. 30)

Building I was demolished by the early 2nd century. Pits 14, 15, 19, 23, 24, 31, 35, 41 and 49 were dated to this phase; they are mostly around and over the former Building I area. To the south the small rectilinear ditch group may be contemporary as ditches 29 and 35 produced possibly 2nd-century sherds. Iron working debris was found in pits 41 and 49.

Phase C (mid 2nd to late 3rd century)

(Fig. 31)

Pits 16, 17, 18, 21, 22, 28, 29, 30, 43, 46, 59 and 67 were widely distributed across the area. Compared to Area I South material of this phase seems slightly (though not quantifiably) less plentiful. Possible pottery manufacture debris was dumped in pit 21 in the second half of the 2nd century.

Phase D (late 3rd to 4th century) and phase E (post-Roman)

(Fig. 31)

Only pit 79 in the south of the area can be dated to Phase D. There was also a lack of general clearance finds of late date which strongly suggests a marked lack of activity in contrast to Area I South. The only significant post-Roman find was a single sherd of early Anglo-Saxon pottery from hearth LN.

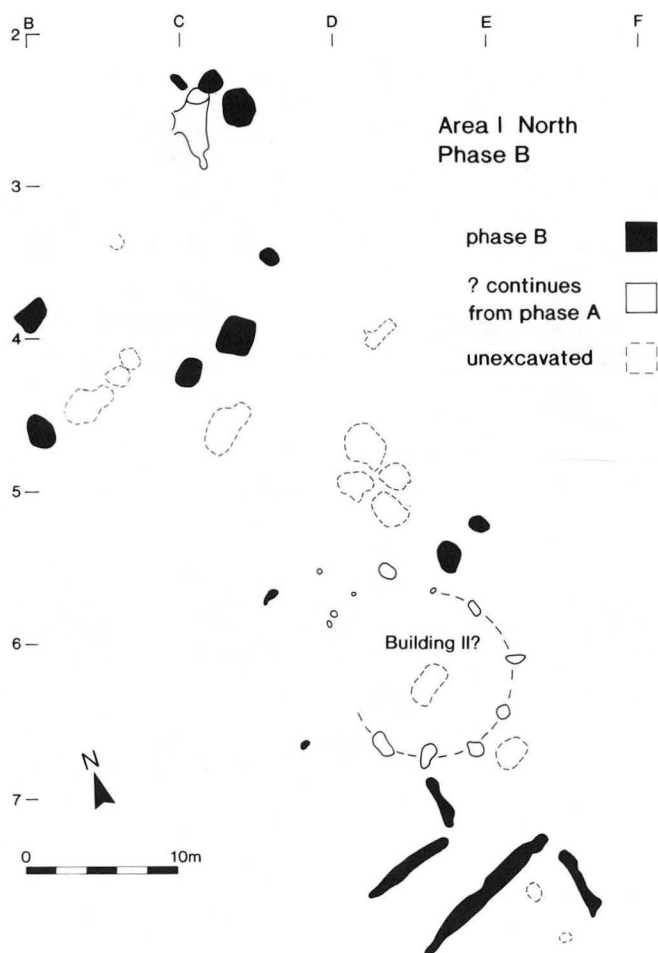


Figure 30 Summary plan of Area I North in Phase B.
Scale 1:500

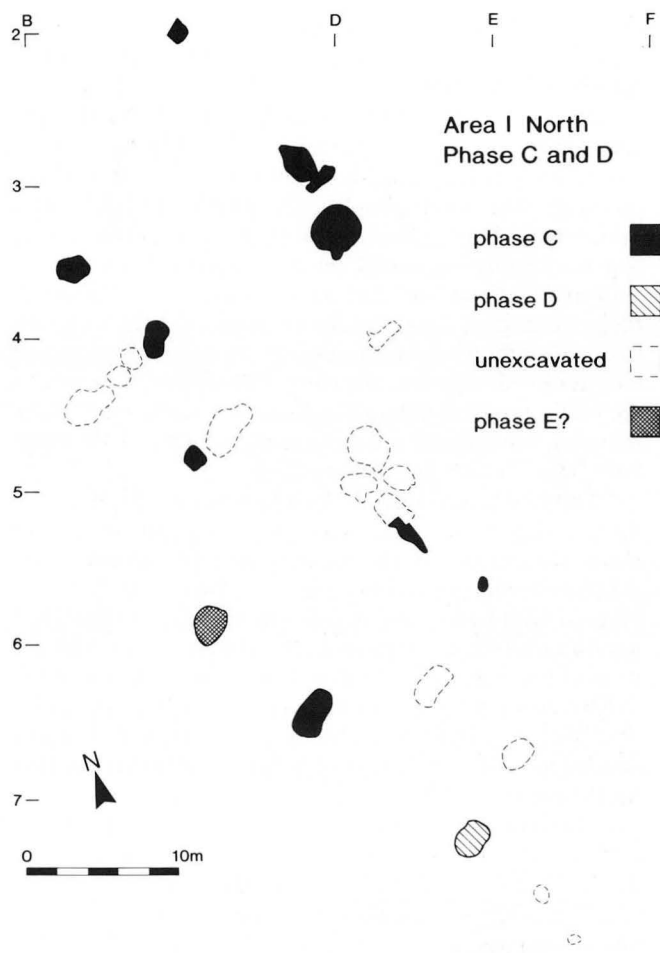


Figure 31 Summary plan of Area I North in Phases C and D. Scale 1:500

VI. Area III

Introduction and summary

Area III is discussed here before Area II because of the similarities of deposit and the common road relating it to Area I. It was the most northerly length of the new A12 excavated during the 1973 season (Fig. 5). It was selected for excavation following the results of a series of trial machine trenches which had been excavated on an east to west axis at approximately 20m intervals along the length of the new road. These showed a concentration of occupation material beneath an extensive dark soil and evidence of a clay floor and road metalling. This resulted in a 500 square metre area being selected for excavation. However, whereas up to 0.8m of dark earth and occupation soil was removed within the machine trenches, elsewhere only those features which were prominent on the surface were investigated.

Almost none of Area III was taken down to the level of the subsoil, which leaves a gap in the archaeological record for the early phases. Only one feature (ditch F56) was identified which definitely pre-dated the construction of a metalled road (F8) which can be equated with road CN in Area I South. Two areas of industrial activity were identified south of the road, a late 1st- or early 2nd-century pottery kiln (F2) and a sequence of two ovens (F4, F71)

and pits relating to iron smithing in the 3rd century. A well preserved rectangular clay floor was the principal evidence for Building XI which fronted onto the road and was in use during the 4th century. As in Area I South there was a late Roman accumulation of dark soil which extended over the road. The few pits and ditches sampled in selected areas give some impression of the density of activity which was not recorded in between.

While not being in any way a comprehensive archaeological record of the area something of the flavour of the occupation can be gathered and its status within the settlement assessed, particularly in relation to Area I located just 75m to the south-west.

Recording

During the excavation of this area and Area II, 'feature' numbers were issued from a single list providing 'group' or 'component' numbers for the alphabetical context numbers. For clarity and continuity within the text this system has been retained with the word 'feature' abbreviated to 'F' before the number and an appropriate noun added; for example ditch feature 35 is designated ditch F35. The area was planned on a separate grid which is shown in Figure 32; the relationship of this to the main grid is shown in the site phase plans (Figs 55-57).

Excavated features in Area III

Road F8

(Fig. 32)

Road F8 was aligned south-west to north-east in the north part of the excavated area; its position and alignment show it is almost certainly the continuation of road CN from Area I (Figs 5, 55–57). It was 6m wide over the short length where both edges of the road were visible. The east edge was traced for 21m, although up to 0.15m of a dark earth layer (AAJ) concealed much of the surface and was never wholly removed. A single section, NCF (Fig. 33), was cut through the road surface to natural. It appears to show a single layer of cobbling three to four centimetres deep overlaying a 0.2m of 'greenish gravel with stones' interleaved with thin layers of black soil. A natural yellow sandy gravel lay beneath. It is unclear from this whether the greenish gravel was a single mixed deposit or an accumulation of layers.

Shown in section, the various road deposits appear to be cut into either a pit or more likely a ditch (F56) filled with natural yellow sand; interestingly this feature appears to cut a greater depth of natural on the side away from the road, which would imply the existing topsoil beneath the road had been removed during construction. The section even suggests the road was slightly sunken with a black midden deposit later accumulating over the hollow. Feature 56, which was clearly earlier than the road, was almost square in profile measuring 0.65m wide x 0.65m deep. Although unproven by excavation it seems possible that this was a ditch, inviting comparison with the trackways bounded by ditches which preceded the roads in Area I.

Feature F56 was also cut by a smaller possibly linear feature F57, containing dark soil and cobbles, which may have run alongside the road. It is not clear from its profile whether this was the remains of a later open ditch or a structural feature.

Building XI

(Figs 33, 34)

This building fronted on to the south-east side of the road. It was not fully excavated but is one of the clearest on the site due to the survival of the clay floor. The main area of clay measured just 3m in width with a minimum length of 7m. Where it can be traced in section NCH (Fig. 33), it was up to 0.10m deep.

The northern edge of the building was defined by a 'V' shaped gully, F68, which was 0.35m wide by 0.20m deep. A slightly more mixed clay deposit lay to the north and it is not clear whether the gully represents the edge of the building or an internal feature. The southern edge may also have been defined by a slot which was recorded in plan but does not appear to show in section NCH. This area was partly obscured by spoil, and there appears to have been a clay spread beyond the suggested south wall line.

The green clay floor had a well defined central hearth of hard baked clay, oval in shape and 1m long, with a reddened area to the north-east. Two features appeared to cut the clay. F59 was a dark loam filled hole set slightly off centre on the north edge of the building, however the clay was shown to have slumped into this feature. Whether this was caused by an early feature pre-dating the building, perhaps with a later post set on top, remains unclear. F58 was a square gap in the clay floor which when sectioned proved to be merely a gap or a cut in the clay rather than a deeper hole. There was a gap between the clay front of the building and road F8 but no sign of a porch or entrance was unearthed during the limited excavation. F70 appears to have been a gully or slot of some sort located close to the west corner of the building and possibly running under the edge of the floor. Also exposed within section NCH (Fig. 33) was the profile of either a pit or a ditch, F67, which was definitely sealed by the clay floor of the building.

Pottery kiln F2

(Fig. 35, Plates VI, VII)

The kiln was located 12m south of Building XI and 5m from the edge of road F8. It was a circular clay structure with two opposing stokeholes and flue arches orientated south-east to north-west: the structure, including part of a pedestal, had been removed on the north-east side by a later pit, F1.

Within the chamber two sausage-shaped clay pedestals were aligned along the main axis; there was no indication of any other supports for the pots in the firing chamber. A thin clay furnace floor (0.03m thick) had broken off beneath the flue arches but the walls were up to 0.12m thick. The internal diameter of the chamber was 0.8m. The intact pedestal measured 0.24m by 0.64m and the design appears to have been symmetrical. The whole structure was about 0.4m deep. The stokepits were not particularly substantial, about 1m in length and up to 0.5m deep.

The south-east stokepit (AAV) cut a separate feature, F60, which was probably a pit although it was not fully investigated. The main depth of

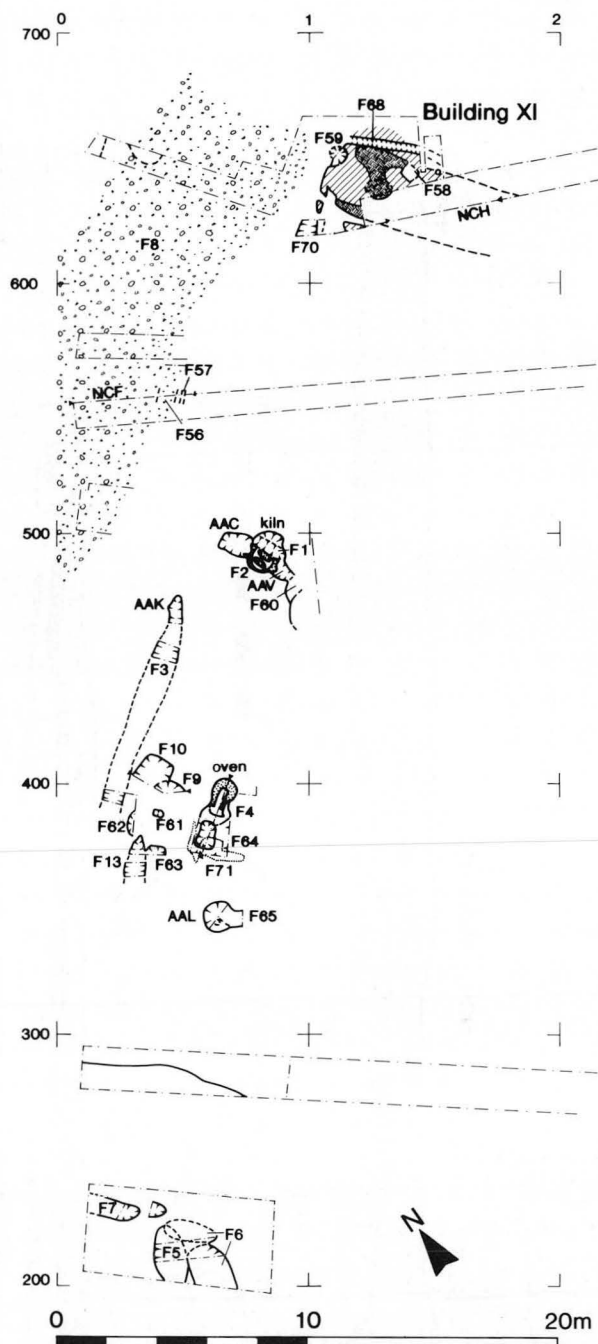


Figure 32 Area III. Scale 1:300

the later pit F1 consisted of a slot about 0.65m deep and 1.5m long and it had a fairly uniform brown loam fill. No function is suggested although it is interesting that it aligns with the kiln which it cuts. The pottery recovered from the kiln and the stokepits is analysed in Chapter 5.

Ovens F71 and F4

(Figs 36–37, Plate VIII)

A surface feature (F71) consisted of an oval spread of unfired clay with a horseshoe of burnt clay in the centre (Fig. 36), but was only 5mm thick maximum. The clay partly overlay pit F64 (Fig. 37). Just to the east F4 was a well preserved oven with a simple straight flue approximately 0.75m in length set in a bulb-shape of clay up to 0.25m thick. The clay was all reddened with a hard face in the flue and the open structure was 0.25m deep. A shallower scoop containing a brown 'sticky earth', AAZ at the mouth of the oven obscured the relationship of F4 with the sub-rectangular pit F64; in depth, position and general alignment pit F64 appeared to be associated with oven F4.

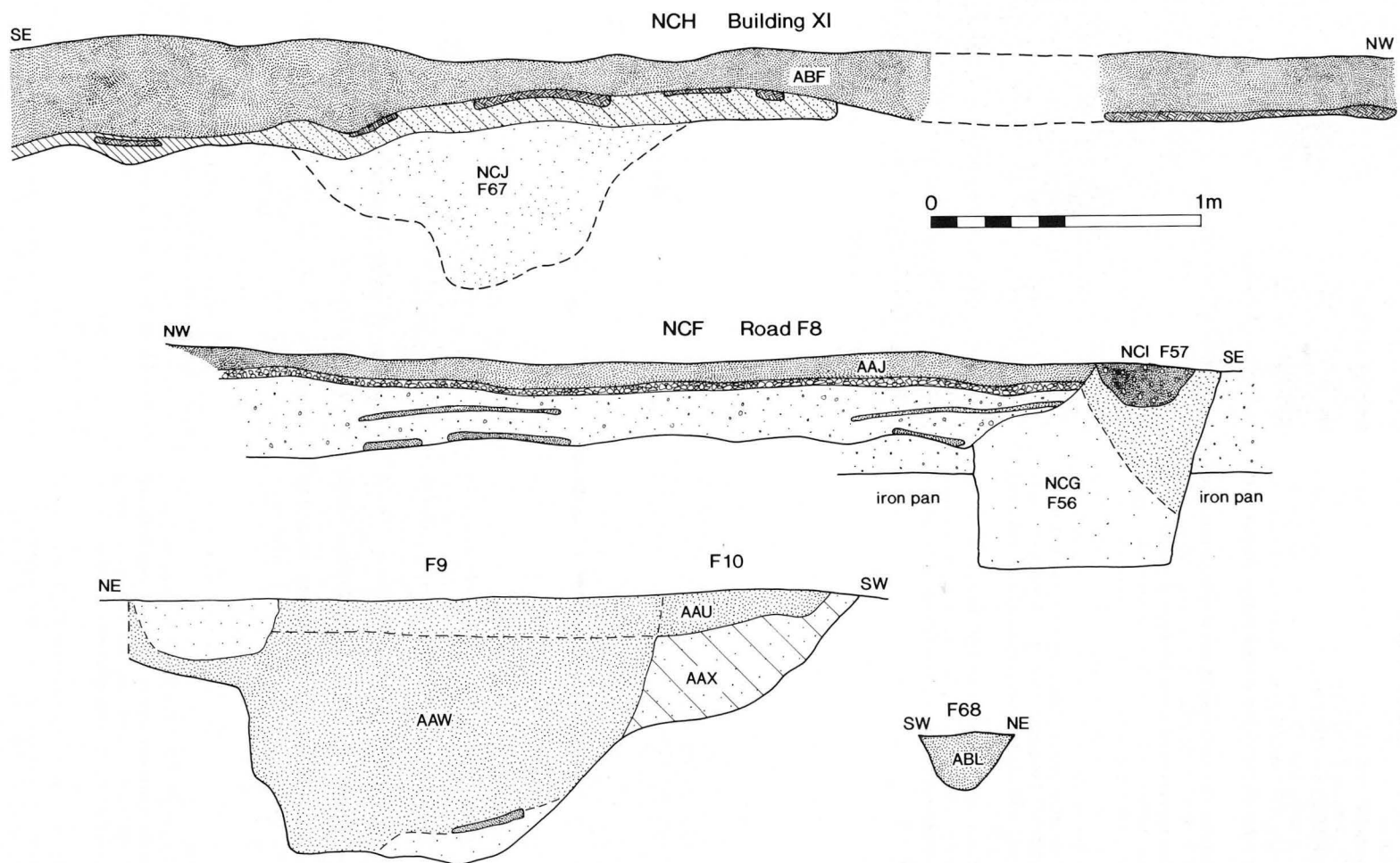


Figure 33 Sections across Building XI (NCH, slot F68), road F8 (NCF) and pits F9, F10. Scale 1:25

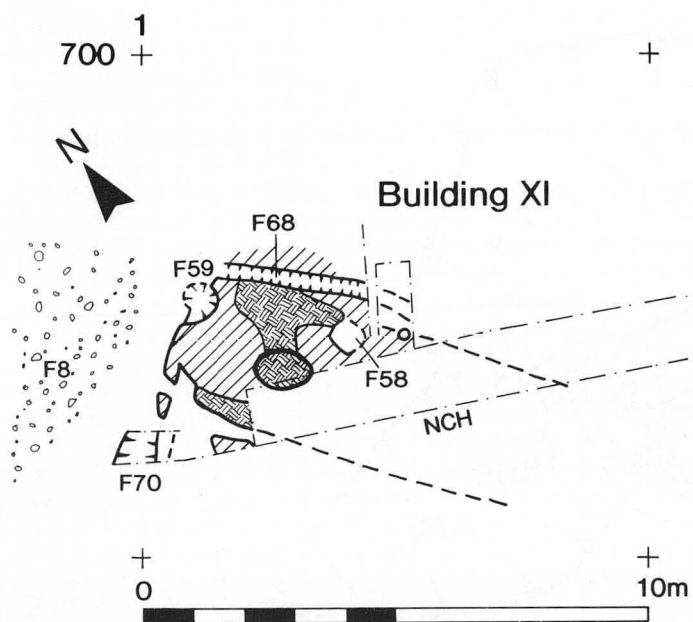


Figure 34 Building XI plan. Scale 1:150

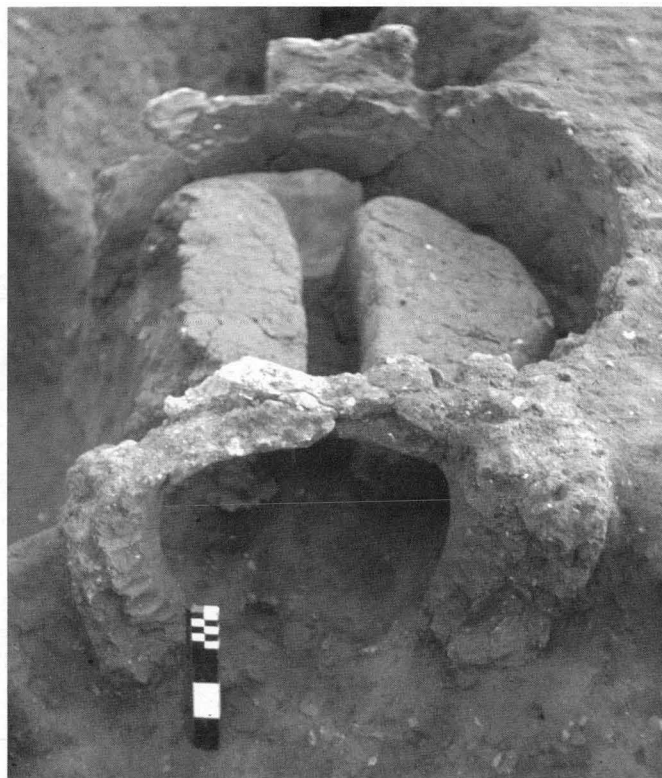


Plate VII North-west flue arch of pottery kiln F2 in Area III

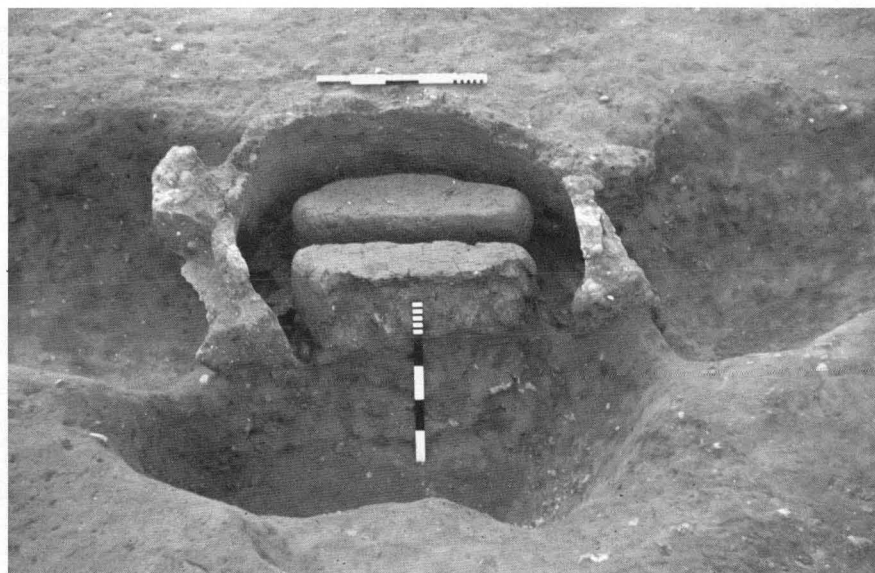


Plate VI Pottery kiln F2 with pit F1 in foreground in Area III

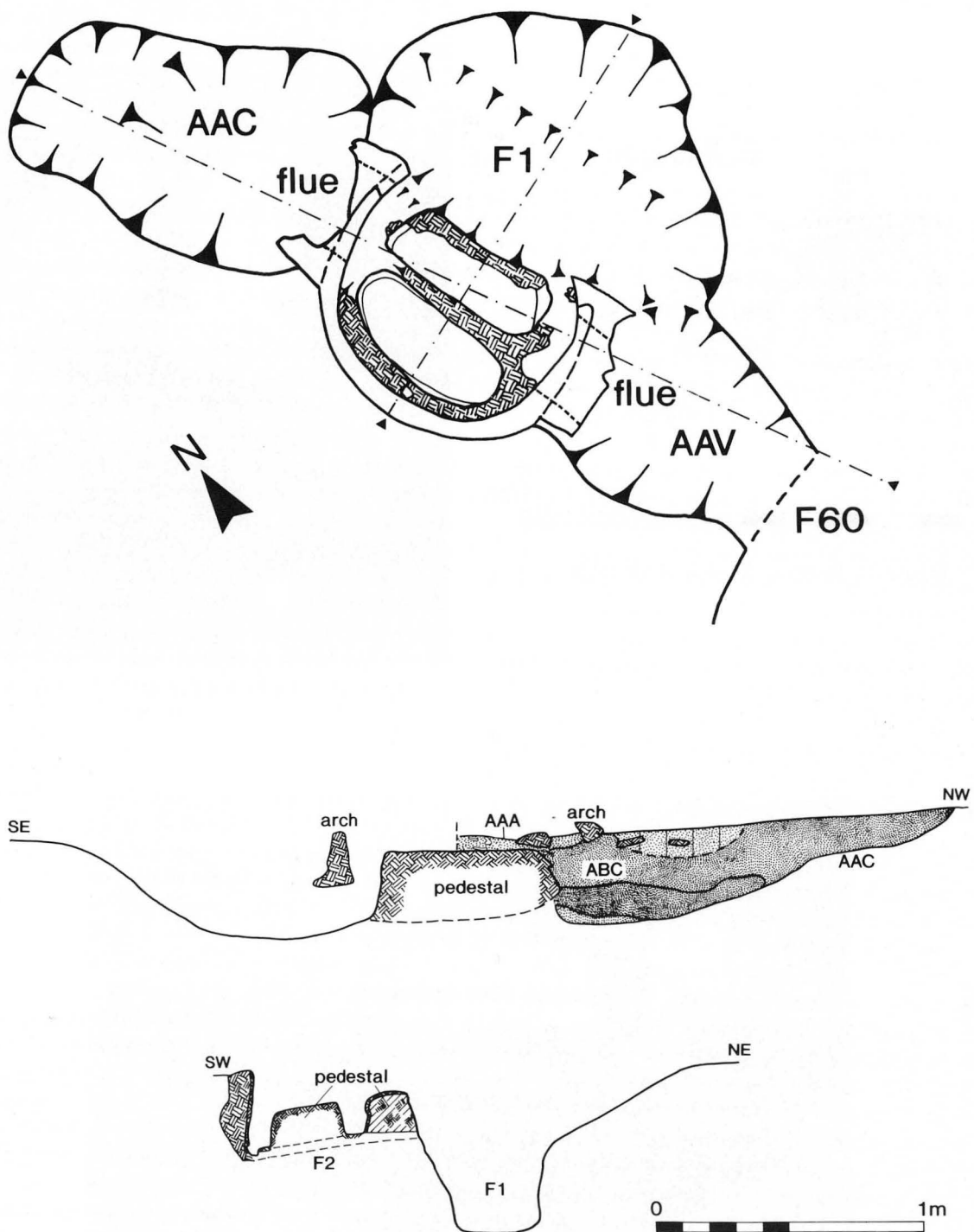


Figure 35 Kiln F2 plan and sections. Scale 1:25

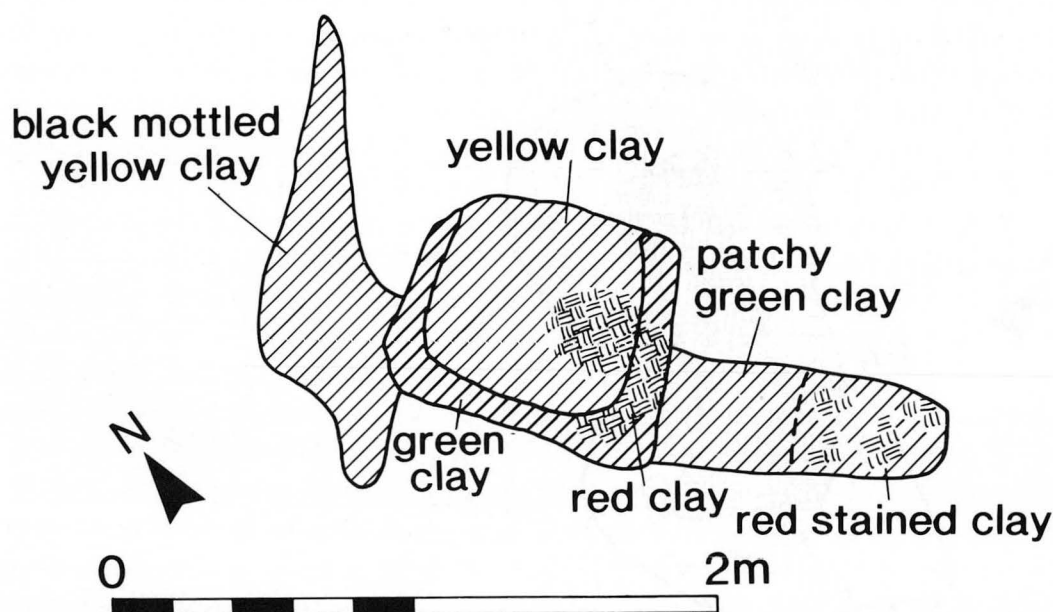


Figure 36 Burnt clay structure F71 plan. Scale 1:25



Plate VIII Oven F4 with pit F64 beyond in Area III

Pit 64 contained a black charcoal-rich fill and it was suggested on site to be an iron working rake-out pit. The analysis of the slag (see pp.142–3) supports this hypothesis as it produced iron rich cinder, smithing hearth bottom, vitrified hearth lining and hammer scale. Evidence from adjoining features consists of iron working slag from the small excavated sample of ditch F3 and, perhaps more significantly, slag and smithing hearth bottom from contexts AAD and AAH, the structure and fill of oven F4. While this does not conclusively prove that F4 was a smithing hearth the circumstantial evidence is very strong. With a little more caution it is argued that F71 was a replacement smithing hearth with the outline of the structure similar to the shape of F64 in plan. However because of its surface construction F71 left the barest of archaeological remains and the interpretation is far less certain.

Other features (Fig. 32)

Ditch F3 was roughly parallel to the road and 4m away from it. It had a grey-brown sand fill, containing no datable finds. Between this ditch and the ovens a group of features were examined, of which F13 was a broad shallow linear feature suggested to be a building slot during the excavation and shallow features F61, F62 and F63 may have been related. Bearing in mind that this appears to have been a sample of only the more obvious features in the immediate area of the ovens no firm conclusions can be drawn but there is a clear suggestion that there were buildings in the area — perhaps these were storage areas or workshops associated with the industrial activity.

At the southern end of the site two rectangular trenches were examined between areas of unexcavated dark soils. A large irregular feature remained uninvestigated in the more northerly trench. In the other trench, F6 consisted of two oval hollows which were thought to be connected, particularly as they showed a common hard grey stony fill. F5, an adjacent oval pit was of a similar depth (0.4m–0.45m) but had a fine black sandy fill with slag and oyster shells. A small ditch F7 may have butt ended in this area. Its alignment was nearly at right angles to the main road, the projected line of which was about 14m north of the trench.

Dating evidence in Area III

The sequence for this area is somewhat speculative because of the limited range and depth of the excavation but the road does provide a link to the Area I sequence.

Phase A (mid – late 1st century)

Only ditch F56 definitely pre-dated road F8. The small section exposed produced no finds but in profile it was similar to the Phase A ditches in Area I. The second feature

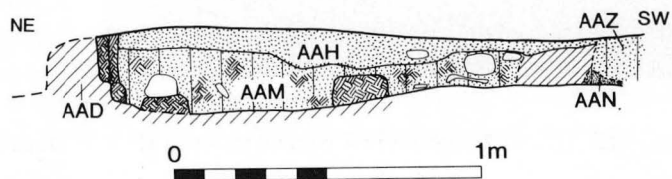
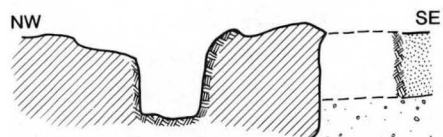
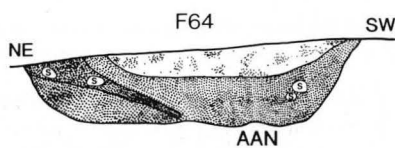
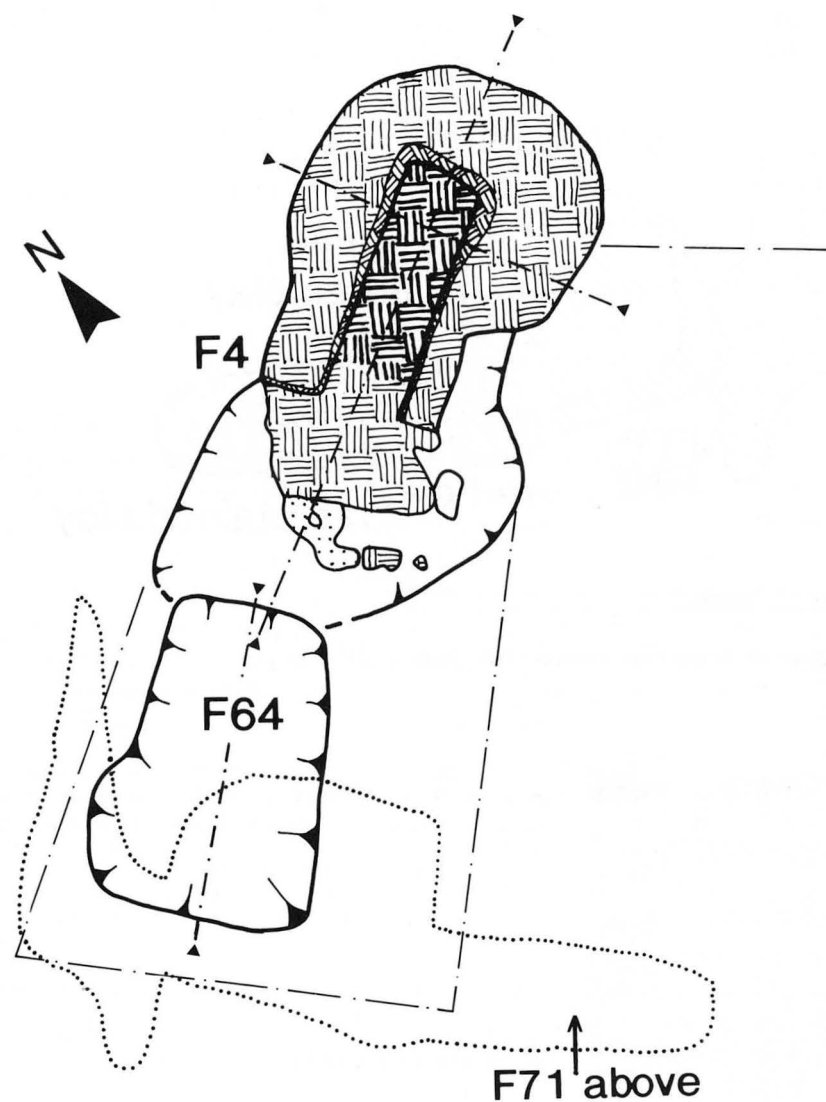


Figure 37 Oven F4 and pit F64 plan and sections. Scale 1:25

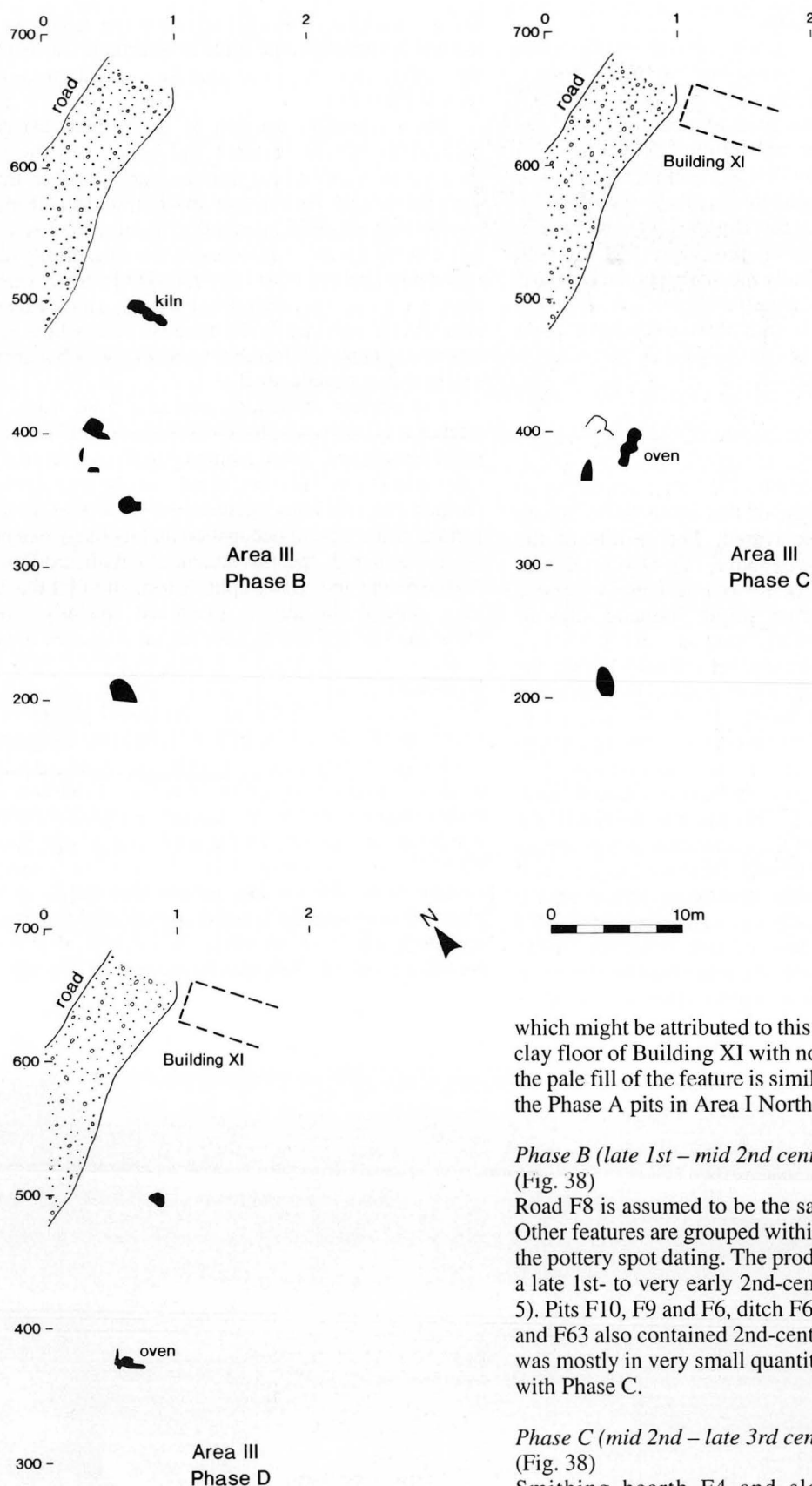


Figure 38 Summary plans of Area III in Phases B, C and D. Scale 1:500

which might be attributed to this period is F67, beneath the clay floor of Building XI with no finds recovered, because the pale fill of the feature is similar in appearance to that of the Phase A pits in Area I North.

Phase B (late 1st – mid 2nd century) (Fig. 38)

Road F8 is assumed to be the same as road CN in Area I. Other features are grouped within the phase on the basis of the pottery spot dating. The products of Kiln F2 fall within a late 1st- to very early 2nd-century bracket (see Chapter 5). Pits F10, F9 and F6, ditch F65 and shallow scoops F62 and F63 also contained 2nd-century material although this was mostly in very small quantities and probably overlaps with Phase C.

Phase C (mid 2nd – late 3rd century) (Fig. 38)

Smithing hearth F4 and slot F13 produced early 3rd-century pottery, as did pit F5. There was also 3rd century material in the cleaning layers over pits F9 and F10. There is no dating evidence for the construction of Building XI; construction late in this phase is a possibility.

Phase D (late 3rd – 4th century)
(Fig. 38)

The only late pit was F1, containing 3rd or 4th-century pottery. Late 3rd and 4th-century pottery was recovered from the dark soil over the road F8 and from over the surface of the clay floor of Building XI which also produced a coin of 320; slot F68 in the building produced one of the latest coins from the excavation (364–367). Taken together the finds suggest Building XI was in use in the 4th century. The possible smithing hearth F71 was both stratigraphically and physically much higher in the ground than F4 which suggests it could have been late, although their proximity suggests that they may have been successive structures.

VII. Area II

Introduction

Area II was the largest portion of the site, amounting to about 15,000 square metres; of this about 8,000 square metres were partially excavated. The results of the geophysical survey (described above, Fig. 4) were taken as a basis for initiating the work in this area. It was suggested that geophysical anomalies might indicate sites of industrial activity, particularly Roman pottery kilns, a number of which had already been found before the excavation (Chapter 1). In the event many of the anomalies were found to be redundant quarry pits, particularly across the centre of the site. This resulted in two separated groups of features being dug, Area II North and Area II South (Fig. 5). A further excavation gap existed between Area II North and the main part of Area I. This gap was the result of a decision towards the end of the excavation to concentrate resources on Area III where trial trenching had indicated better survival and a greater density of archaeological deposits. Area II was generally less well preserved than the other areas of the site and dark soil layers only survived in patches below the ploughsoil. The entire road line here was stripped using a mechanical grader rather than a 'back

acting' machine. This cost effective but relatively crude method is virtually impossible to control on site and leaves the surface in a very poor state for excavation (as can be seen in Plate IX).

The excavators decided to clean areas selectively, particularly where features had been seen during the grading. In places where features were not clear, trenches were cut using a 'back acting' machine and all efforts were directed towards understanding as wide an area as possible by pursuing the more pronounced features, mostly ditches. Inevitably features must have remained undiscovered and there was some loss of detail in what was a huge excavation area. This is most clearly illustrated in the machine trenches where segments of features were exposed but their full extent was not established.

The amount of pottery produced from many of the ditches was often quite low. This factor combined with the usual reservations when dating open ditches has led to the unavoidable generalisation of much of the dating evidence. Despite the problems encountered by the excavators, a picture of the type of occupation and its likely extent does emerge although specific structural details are less clear. As the dating and stratigraphic information for this area is very general the site is examined spatially with the chronological and dating information discussed at the end.

Summary

The western part of the areas contained groups of ditch segments (F7, F12, F18, F29, F31, F35) defining a road or track aligned south-west to north-east, with very limited evidence of adjacent activity particularly to the north-west. Near-complete oxen were buried in several of these ditches and adjacent features. To the north-east a large boundary ditch (F40) was replaced by elements of a rectilinear system (F44, F50, F54), presumably defining fields, although one oven (F42) and other scattered features again suggest a range of activities. A single sunken-featured building (Building XII) was found in Area II South.



Plate IX General view across the south end of Area II soon after topsoil stripping. Looking west from the spoil heap

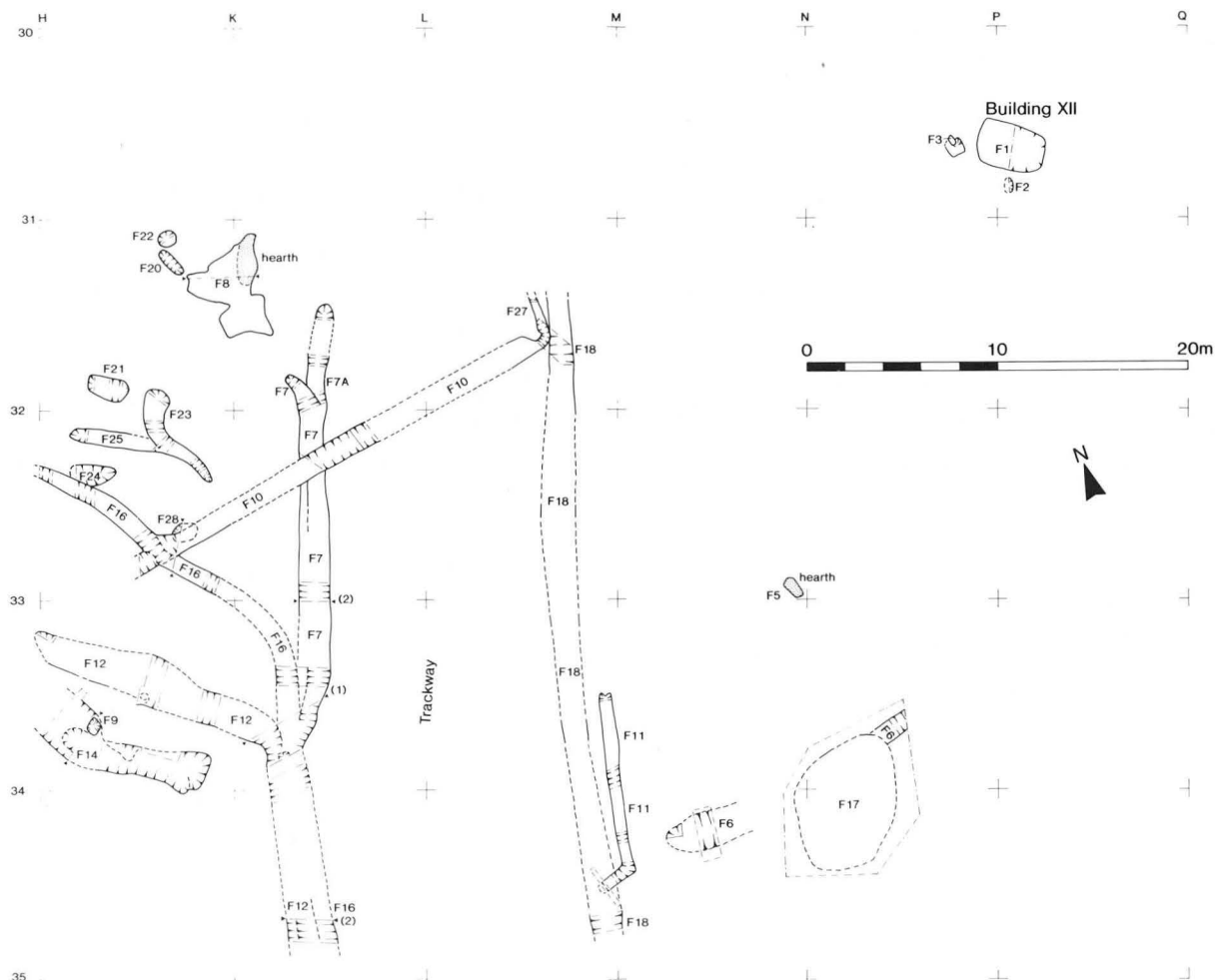


Figure 40 Area II South. Scale 1:400

Excavated features in Area II North and South (Figs 39–40)

In Area II North the ground sloped quite steeply down from east to west with the east edge on something of a ridge. There was a less pronounced slope to the south which continued across Area II South. (Fig. 5).

The most significant group of ditches appears to mark a road or trackway, running south to north, which linked the two halves of Area II. It varied in width between 8m and 14m over a distance of 170m (including the 70m gap between the two areas). In Area II North (Fig. 39) the west boundary to this track was a single ditch, F31, (Fig. 41) which was 1m wide. On the east side the line comprised at least three separate segments (ditches F35 and F29). The south segment was truncated by a small gravel pit but ditch F29 was still visible in the base of the feature. The main section of ditch F35, in grid square M22 (Fig. 41), was noticeably wide, up to 2.5m in places. Clearance over the whole ditch F35 area, layer PH, produced 663 sherds of pottery and the feature itself, 458 (both deposits are dated to the 4th century). This suggests deliberate rubbish disposal in this part of the ditch rather than gradual silting. In the north segment there is a broad hollow containing dark soil (layer PR) over the ditch (Fig. 42) and within the ditch (layer QV) there was an incomplete ox skeleton.

A small ditch, F41, cut both ditches F35 and F29 although it was uncertain whether it joined ditch F32. Ditch F32 cut across the trackway and ditch F31, but then changed alignment to run almost parallel to ditch F31.

In Area II South (Fig. 40) the east edge of the track was bounded by a single ditch F18. A smaller ditch F11 ran parallel to it for about 10m before angling in at the southern end. This suggests it was a minor redigging providing localised drainage. The west side of the trackway was more complicated, consisting of ditch groups F7, F16 and F12 (Figs 41, 42). This side was certainly dug in segments with parts of each ditch aligned to the west away from the track. These ditches probably drained into the roadside ditch as the ground slopes down to the south. The sequence of the ditches, based solely on their relative positions, would

appear to have been F16, F7 and finally F12. Short, shallow ditch lengths F25 and F23 may have originally also channelled into the roadside ditch, judging by their appearance, but the area had undoubtedly suffered from erosion.

Ditch F14 (Fig. 41) located to the south of ditch F12 is not considered a part of this system. It was, in fact, a composite feature with at least three separate centres, the most substantial being a wide pit which extended west of the excavation. Both F12 and F14 contained large parts of ox carcasses within their fill including a distinct burial within the fill of F14 (see Chapter 6).

A further group of ditches was excavated in Area I North and comprised ditches F40, F54 and F50, which were aligned on a more or less west to east axis, plus north to south ditches F44 and several related features. Ditch F40 was located by the geophysical survey and by excavation. In section (Fig. 43), two recuts were seen with a combined width of 2m but it widened further up the hill, which probably indicates either further recutting or substantial erosion along the lower course of the ditch. The alignment turned towards the south at its western end.

A soil mark F43 was investigated to the south of F40 and may show the position of a parallel ditch but it is uncertain whether it was a shallow ditch or a smear created by the graders as they tracked across the site. Ditch F54 had probably been truncated (Fig. 43). Ditch F50 was better defined and the only one of the three to have a clear butt end where it met ditch F44. Interestingly that point and the alignment of ditch F44, correspond with the point to the north at which ditch F40 changed angle. A poorly defined gully which ran into F54 was cut by ditch F50 showing that F50 was the later of the two ditches.

Ditch F44 was in two main lengths which were separated by the butt end of ditch F50. However, the two segments need not have been contemporary. F44 was further subdivided with its most northerly end aligning with the projected end of ditch F54. F44 was cut by a subrectangular pit F39 and cut a small pit F69 which produced a group of Late Neolithic Grooved ware sherds, mainly from one vessel. The

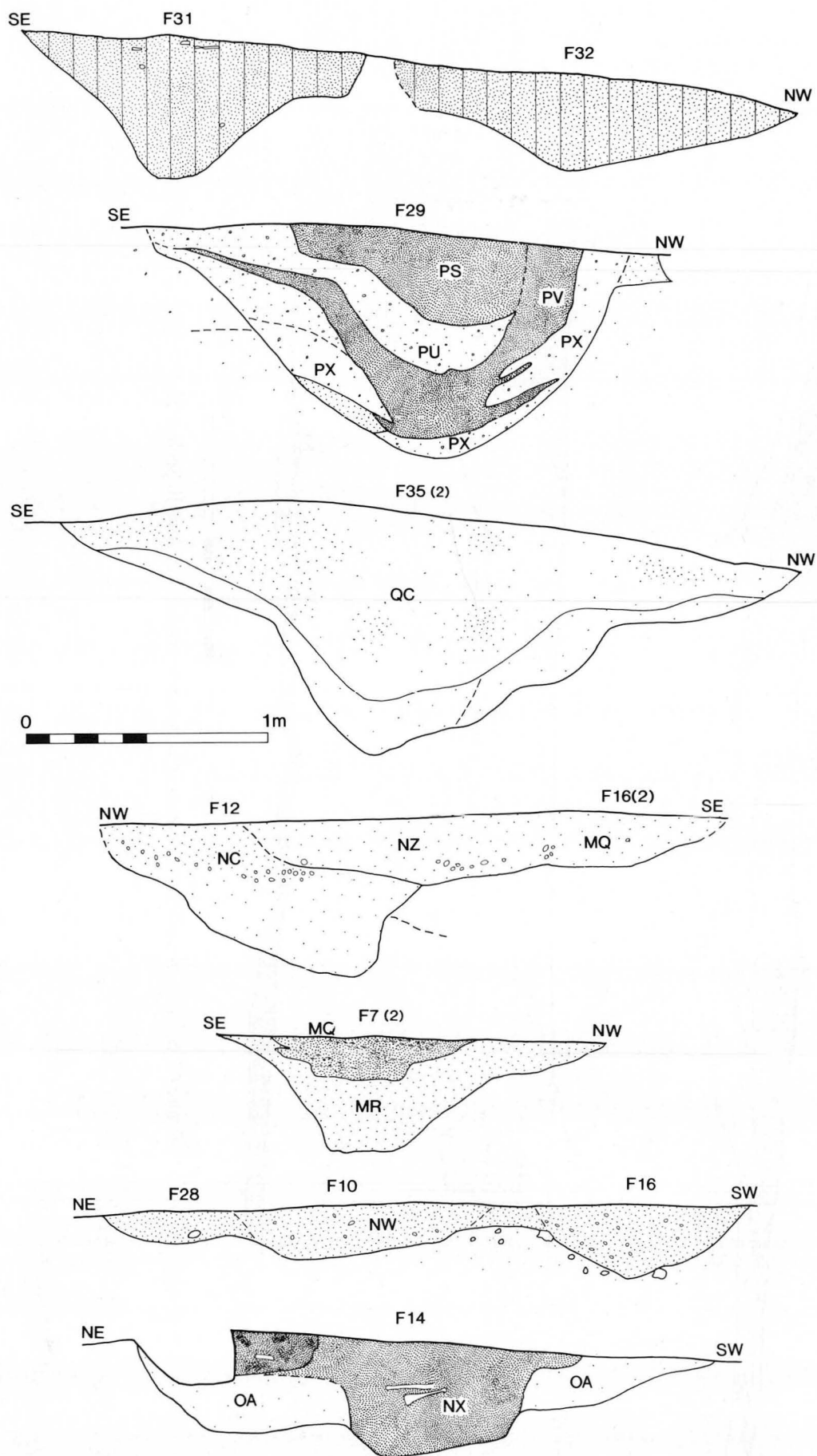


Figure 41 Sections of ditches defining or adjacent to the trackway in Area II. Scale 1:25

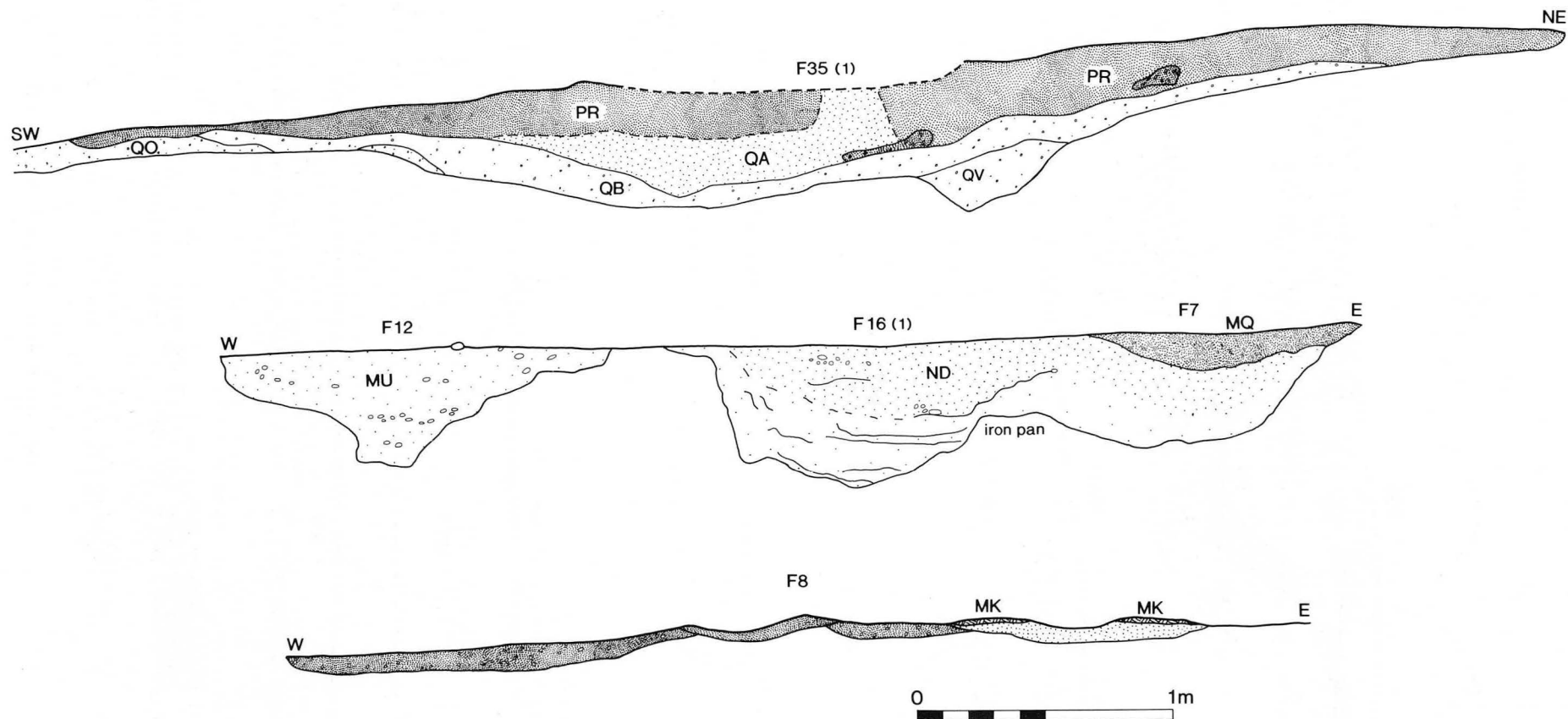


Figure 42 Sections of ditches and spreads adjacent to the trackway in Area II. Scale 1:25

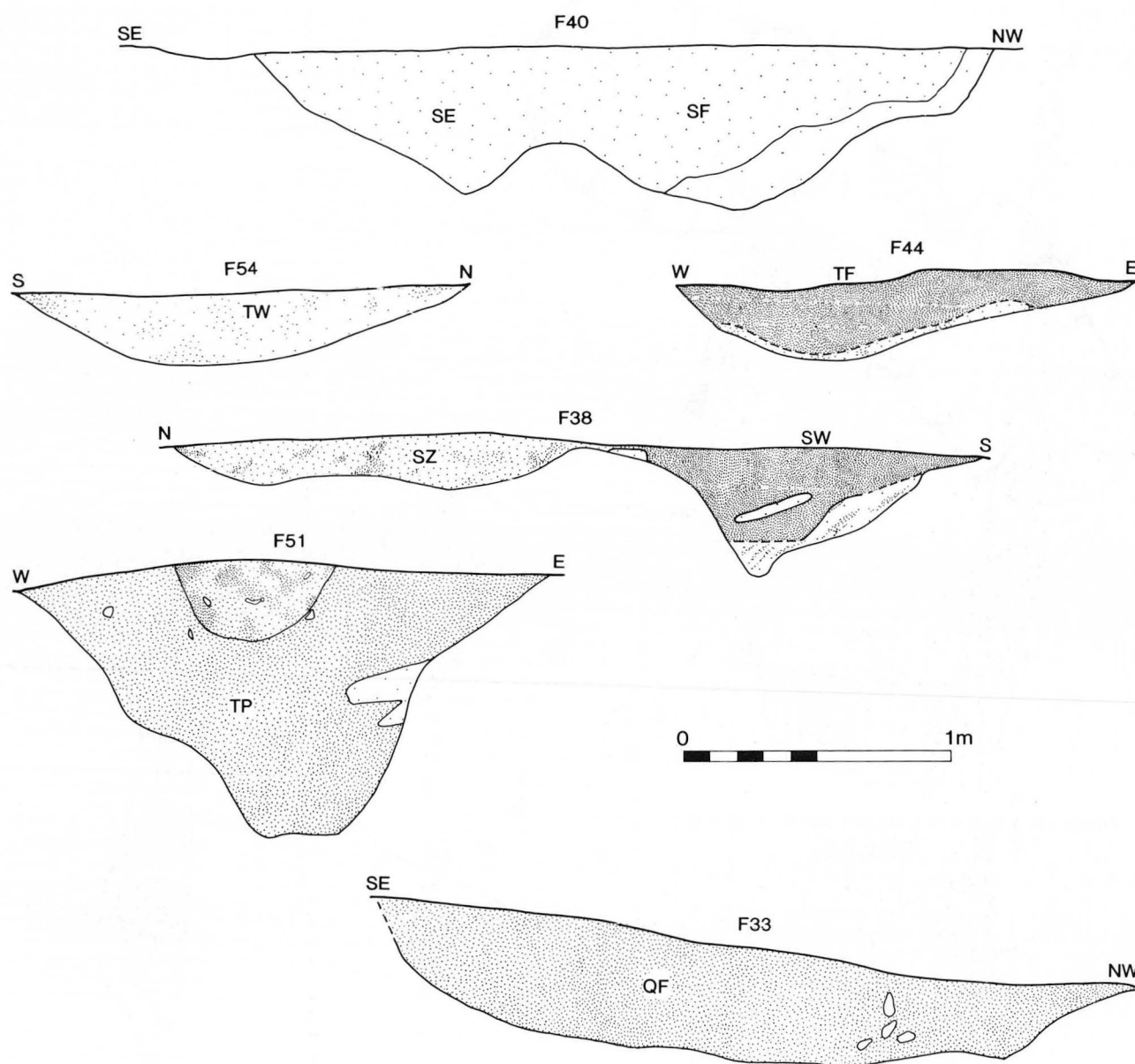


Figure 43 Sections of ditches and pits in Area II. Scale 1:25

southern segment of F44 was connected to a curving ditch, F38, which may have been a drainage feature.

Numerous minor or severely eroded ditches were sampled in the machine trenches, particularly in the north of Area II North; these are recorded in Table 9.

Evidence of domestic and industrial activity (Figs 44–46)

Direct evidence for activity existed only in pockets. In Area II North a cluster of features (F42, F51, F53) survived between ditches F40 and F54 in grid squares M19–20. Oven F42 (Fig. 44) had three main elements: a stokepit to the west, a central flue and a shallow pit at the east end. The stokepit was 1m long with shallow sides narrowing to 0.4m at the flue entrance. There was a slight change of angle between the alignment of the stokepit and the direction of the flue. Part of the flue survived *in situ* with clay sides holding two tiles vertically to create the opening to a 0.2m wide channel. The alignment of the clay suggests that the flue extended for at least 1m. There was no evidence for structure at the east end except for yellow and red (burnt) clay mixed with dark sand in the general fill, but the slight widening of the pit and the narrowness of the flue suggests there may have been a broader chamber.

There was no direct evidence for the function of the oven but it compares with oven F4 in Area III (Fig. 37) where there was strong evidence that it had been a smithing hearth. However, a well made domestic oven might be no different in appearance. Interestingly, the central fill of both ovens may have been cleaned out but the central structure of F4 in Area III was virtually intact whereas with F42 it had been destroyed. Flanking the oven, pit 51 (Fig. 43) was uncharacteristically large for the area at 2m wide x 1m deep and has been dated from the pottery to the late 2nd century. Curving hollow F53 had two separate dips at its north end suggesting it was a composite feature. Red and yellow clay within the fill could well have been debris from the oven.

Another group of pits and gullies (TE, F52, F55) was just west of ditch F44 in grid squares R22–23. Shallow ditch TE had a distinctive black sand fill. F55 (Plate XV) contained a substantial group of articulated horse bones and this, along with the very irregular shape of the feature leads to the suggestion that it was a burial pit. Initially it was thought comparable to the features (particularly F14) containing animal carcasses in Area II South, but these were ox rather than horse.

North-west of the trackway flanked by ditches F31 and F35, odd pits were excavated, the largest being F30 (grid square H20) and F33 (grid square K21), but there was no structural evidence. This area did produce

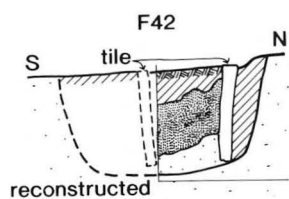
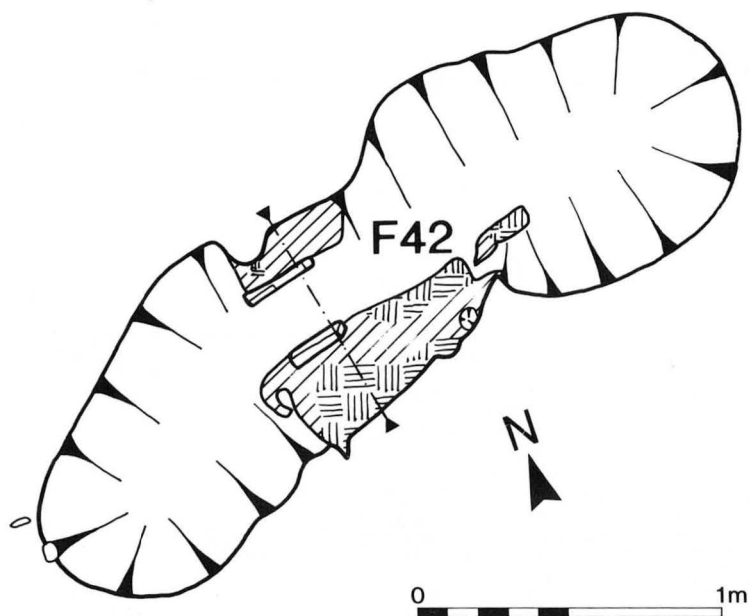


Figure 44 Oven 42 in Area II North, plan and section.
Scale 1:25

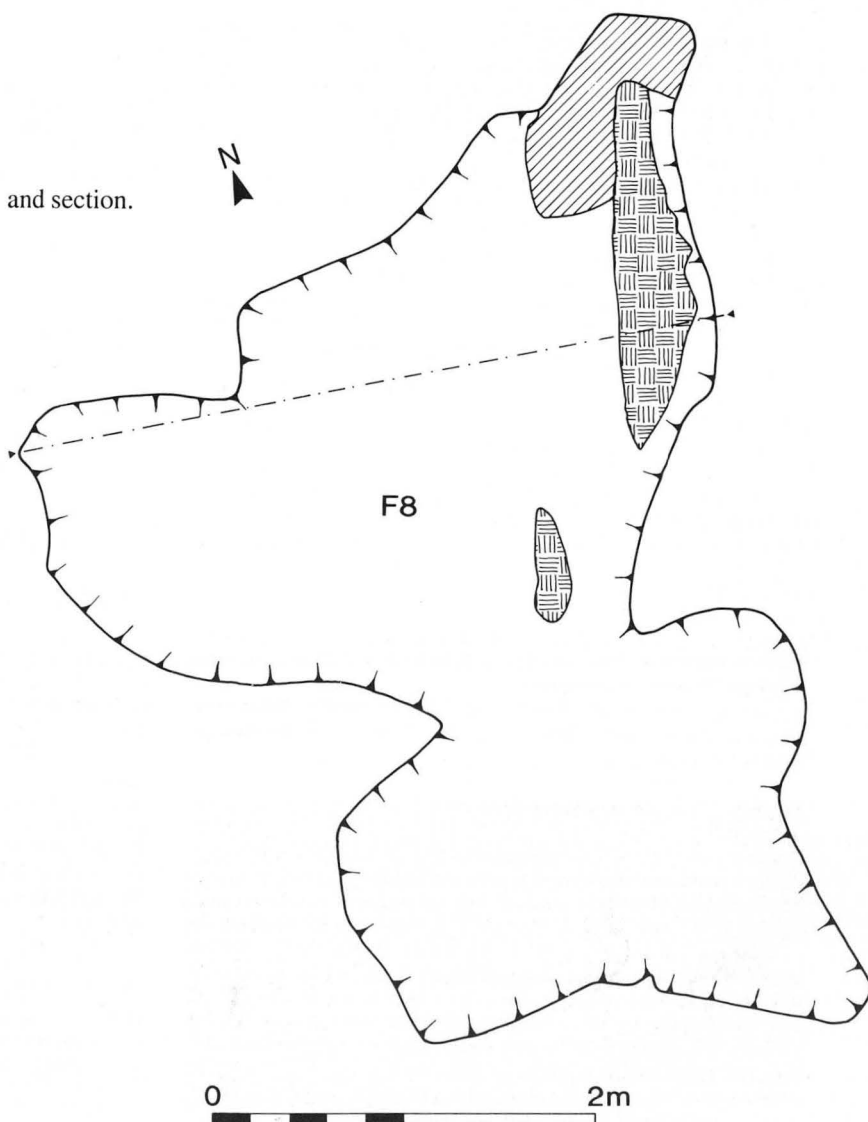


Figure 45 Clay and dark soil structure F8 in Area II
South. Scale 1:40

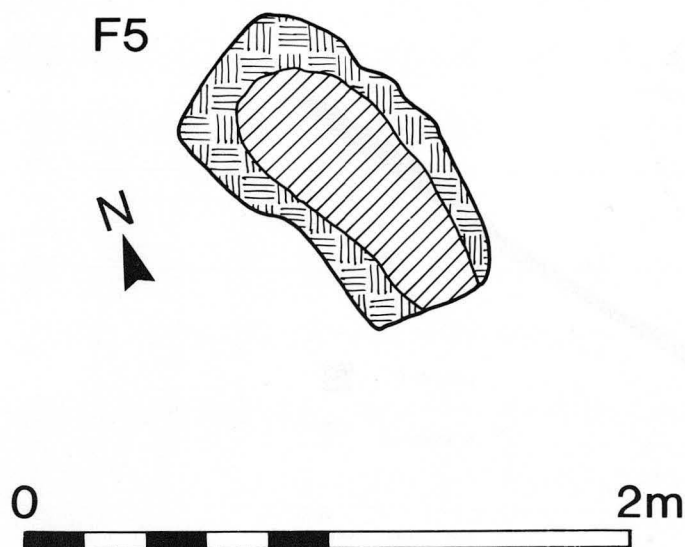


Figure 46 Hearth F5 in Area II South. Scale 1:25

a concentration of artefacts however, in the machine section through a darker subsoil layer RZ, just east of pit F33. The partial survival of this layer emphasises the poor preservation in the more central parts of Area II.

There was more evidence from the area north-west of the trackway in Area II South. Structure F8 (Figs 42, 45) was the remains of a large oven or furnace with an associated working area. The feature was very irregular with maximum dimensions of 4.5m by 5m but was nowhere more than 0.1m deep. The structural remains consisted of a rectangular alignment of red clay measuring 2m by 0.2m of which about 20% survived. It was partly surrounded by a yellow clay which was up to 0.2m wide. This surviving plan would be consistent with a rather large channel hearth. From the remainder of the feature there was a black charcoal-rich sand and some brown loam towards the edges of the feature. F8 could have been a sunken feature similar to oven F42 (and oven F4 in Area III) or it may have been built at ground level. It is impossible to distinguish post-Roman erosion from contemporary robbing. A charcoal spread around this feature produced two iron objects, a spearhead (Fig. 98 No. 315) and a knife, but there were no ceramic finds.

Adjoining F8 were two small pits F20 and F22. To the west, pit F21 was surrounded by fire reddened sand indicating another likely site for a hearth or oven which had been demolished in antiquity. It had a dark sandy fill which was similar to the fill of the adjacent gully F23.

East of the trackway a small hearth F5 (Fig. 46) survived in isolation; only 0.05m deep it was 1.1m long x 0.6m wide and had a burnt clay surround with an unburnt interior.

Building XII

(Fig. 47, Plate X)

In Area II South (Fig. 40) F1 was a subrectangular pit measuring 3.5m x 2.3m and only 0.1m deep. It contained a dark sand fill with charcoal, pottery and Roman tile. During excavation it was considered to be a simple depression, understandably given its depth, and it was only half sectioned. Subsequent analysis revealed handmade Saxon pottery, both from the pit and from the clearing of the grid square (see Chapter 5). It was therefore



Plate X Sunken-featured building (Building XII) in Area II South, looking north

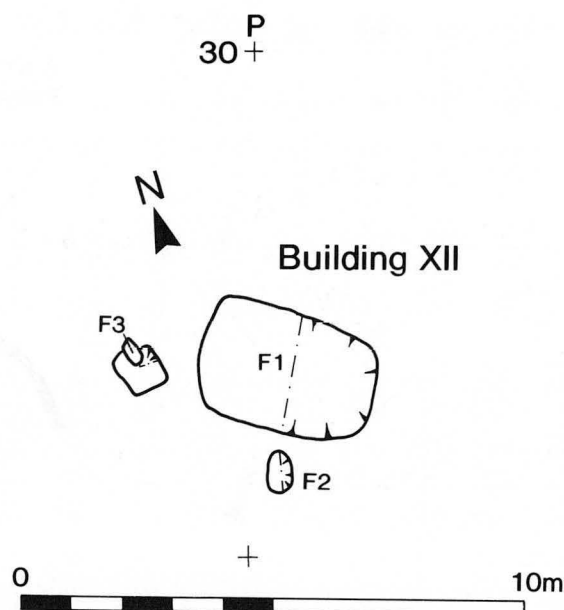


Figure 47 Building XII in Area II South. Scale 1:15

almost certainly a sunken-featured building. No internal post-holes were found, but the failure to identify the structure during excavation must have reduced the chances of finding them.

The evidence from West Stow (West 1985, fig. 283) was that pits were cut down about 0.30m to 0.45m below the top of the natural sub-soil. The Hacheston structure was, therefore, either unusually shallow or, more likely, severely truncated. There were two adjoining post-holes; F2 was 0.45m wide and 0.3m deep, and positioned 0.4m from the south side of the pit slightly to the east of the centre and contained a similar fill. Post-hole F3 was roughly 0.8m square with a post stain at the north end angled at 45° towards the south-east. This feature group was thought to be isolated, but the level of disturbance in this area suggests that other evidence could have been lost.

Other post-Roman features

Two ditches, F10 and F27 (Figs 40, 41), cut across the south part of the trackway system. They had a dark loamy fill unlike the earlier ditches which was remarked on during the excavation and it was argued they may have been medieval. A large post-medieval gravel pit, F17, was identified at the south-east corner of the site as well as the extraction pits which separated the north and south parts of Area II.

Dating in Area II

Introduction

The quality of dating evidence for these areas is generally poor due to the lack of good stratigraphy and sealed contexts. Ditches rarely produce clear primary dating evidence and those in Area II are no exception. Pottery recovered from apparently related features has produced some widely ranging spot dates. The pottery dating evidence for this area was recently reviewed to combine related contexts but the problem of interpreting finds which may have accumulated in a ditch over a considerable period of time remains. The homogeneity of much grey ware pottery from the 2nd to 4th centuries combined with the small overall quantities of pottery recovered from many of the features means that some of the dating may be based on residual evidence. The general lack of 4th-century material in ditches which by spatial analysis appear to have been open at this time, may be a genuine reflection of a decline in the intensity of occupation within the settlement in the 4th century.

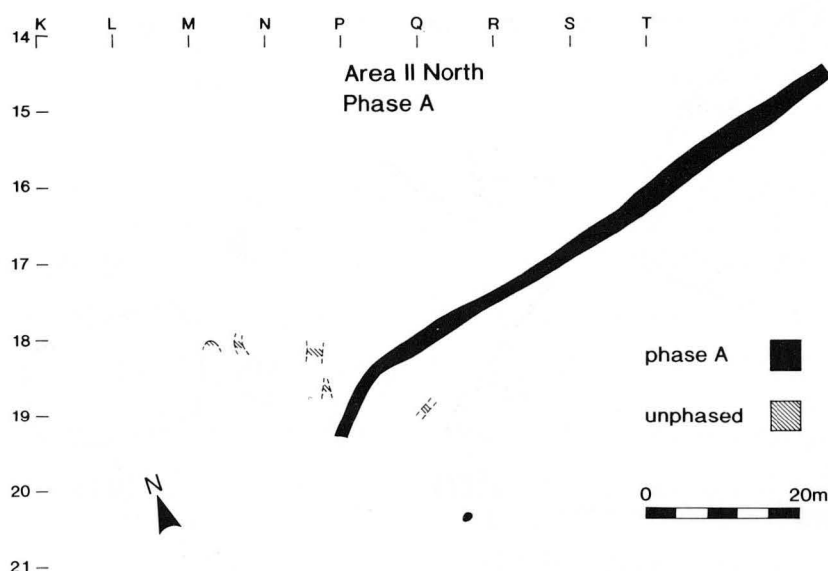


Figure 48 Summary plan of Area II in Phase A. Scale 1:1,000

The phasing breakdown correlated with Area I South is presented below and further information is arranged in Table 9 including limited soil descriptions.

Phase A (1st century and earlier)
(Fig. 48)

Earlier occupation was indicated by the group of Late Neolithic Grooved Ware in pit F69. Throughout Area II at least ten sherds of handmade flint-tempered pottery, probably of Late Bronze Age or Iron Age date, were residual finds within Roman deposits.

Ditch F40 contained Neronian to early Flavian pottery and so was probably backfilled at about this time. Adjoining ditches F49 and F43 produced no datable finds.

Phase B (late 1st – mid 2nd century)
No features were spot dated to this phase.

Phase C (mid 2nd to 3rd century)
(Fig. 49)

Many of the features broadly fit within this phase. Oven F42 is spot dated to the 2nd century and pits F51 and F53 to at least the late 2nd century. Pit F52 was also mid 2nd-century or later and possibly cut pit F55 which had no closely datable finds.

The dating of the ditches from construction to infilling has presented some problems which have already been outlined. Several ditches which were clearly overlapping chronologically have provided differing spot dates. The north to south trackway included at least nine different segments of ditch. Of these ditch F18 produced almost no finds and ditch F31 produced pottery dated to the later 2nd. The remaining segments produced later pottery dates. However, for the most part the earlier pottery was also present which suggests that the trackway may have existed as early as the 2nd century and continued into Phase D.

The pottery dating for ditch group F38, F45, F44 and F54 in Area I North suggests these ditches were infilled during or after the late 2nd century but again the pottery quantities were relatively low and a date as late as the early

4th century cannot be ruled out, given the relationship of the system with ditch F50, backfilled in Phase D.

Phase D (later 3rd to 4th century)
(Fig. 50)

Fewer features demonstrably originated during this period. Pits F30 and F33 (in the north) contained 4th-century finds. Pit F39 has also been included because the spot dating was at least later 2nd-century and it cut the Phase C (?) ditch F44.

The north to south trackway continued in use into the later 3rd or early 4th century. Ditch F29 contained late 3rd-century pottery, 4th-century pottery was recovered from ditches F35, F7, F12 and F16, and coins were found dated 259–273 from F7, 270+ from F12, and 310–311 and 335–337 from F35.

The rubbish deposit over and around ditch F35 produced an early 4th-century assemblage indistinguishable from that in the later ditch fill (which included the coins). The articulated ox bones from this ditch (QV) are comparable with those found in the upper fills of features F12 and particularly ditch or pit F14 (which was more comprehensively excavated). This disposal of whole or substantial parts of ox carcasses would have been an unusual occurrence as it is so wasteful of resources. This factor points to a close 'common' date range for the infilling of F12, F14, F35 and F55, which would probably be close to the latest dated coin (335–337) from ditch F35.

Given the key position of ditch F50, which contained some early 4th-century pottery, it is suggested that the whole of this system in the north-east (excluding ditch F40 backfilled in Phase A) was still viable in the 4th century. However, the quantity of 4th-century rubbish deposited here is much lower than in some ditches, such as F35 in the trackway system. This could reflect the pattern of rubbish disposal or might be due to the truncation of the upper fills of some ditches in which later finds would have been more abundant — particularly possible in the case of this group, on the higher part of the site. It remains possible that some of these ditches (*e.g.* F54) were infilled earlier.

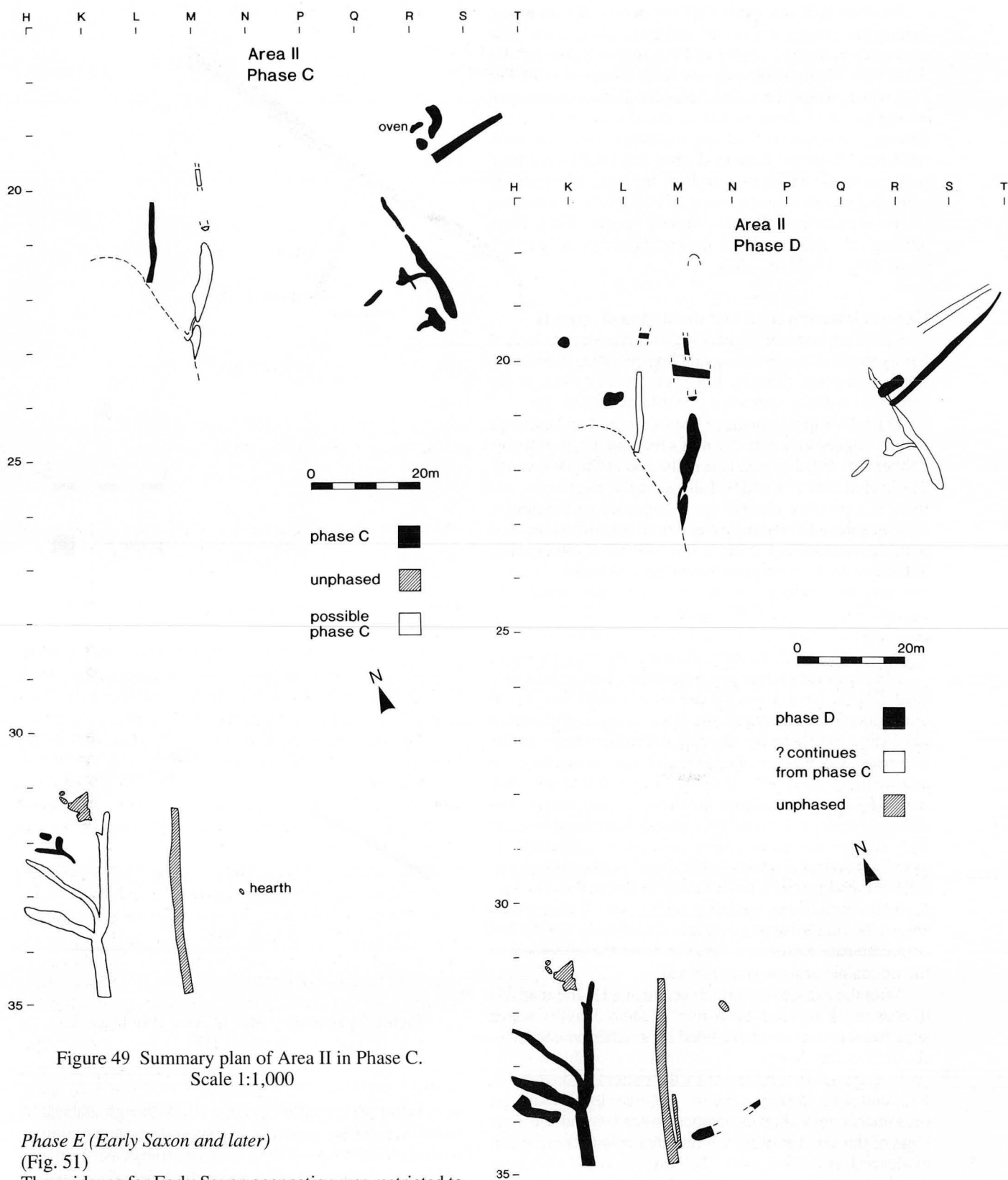


Figure 49 Summary plan of Area II in Phase C.
Scale 1:1,000

Phase E (Early Saxon and later)
(Fig. 51)

The evidence for Early Saxon occupation was restricted to the immediate area of Building XII, over 20m from the nearest ditches. The pit and the overlying clearing layer produced handmade pottery including a probably 5th-century sherd. Interestingly the few Roman sherds within the context were mostly 4th-century which would have made it a relatively late collection when compared with the site in general even if there had been no handmade pottery present.

Figure 50 Summary plan of Area II in Phase D.
Scale 1:1,000

Ditch F32 cut across the trackway in Area II North although it appears to have run parallel to ditch F31 for some of its course. This ditch may be late Roman (although its general lack of finds so close to ditch F35 is worth noting).

In Area II South ditch F10 cut across the trackway, cutting the western ditches F7 and F16, whereas F27 (the continuation at right angles of F10) respected the eastern ditch F18. There were very few finds from either F10 or F27 which would be a little unusual if they were open during the late Roman period. In the absence of finds the dating is conjectural, but the excavator felt they were 'different' from the Roman ditches and could have been post-medieval, which may well be the case. The north to south and east to west alignment of F10–F27 is also similar to the orientation of fields shown on the Tithe Map, although about 50m west of the east boundary of 'Sandpit Field' (Fig. 3 field no. 188).

General interpretation and discussion of Area II

The poor survival of archaeological deposits in Area II hardly needs re-emphasising and interpretation is difficult. Some consistent threads, however, do run through the recorded evidence over what was a large area of site.

Ditch F40 appears to have been an important landscape feature aligned along the crest of a hill and it was probably deliberately filled in well before the end of the 1st century. The later ditches F50 and F54 share similar alignments, and there is a possible chronological sequence as the ditches shift towards the south through time and are associated with the north to south ditch F44. All these ditches may have been field or property boundaries although F40 was not only the earliest but also the most substantial. The unusual shape of ditch F38 suggests it could have functioned as a localised soak-away channel for an occupation plot which would have been partly bounded by ditch F44.

The road or track through Area II may have joined with road CN in Area I — the junction would fall in the unexamined area between the sites, around grid square M13 (Fig. 5). There are obvious differences between the two roads. CN was metalled at least twice, amounting to a substantial layer, and there was no evidence for such metalling anywhere in Area II. However, outside the area of the settlement, the road may simply have been an earth lane, and the ditches may have sufficed to mark the route as seems to occur at Scole (Ashwin *et al.* forthcoming). The ditches flanking road CN are similar in date to those in Area II and the lack of any metalling on the Area II route could simply be due to severe erosion. Conversely the ditches could indicate a driveway leading from the settlement to the floodplain and the river beyond.

With the exception of ditch segment F18, the roadside ditches seem to have been dug in short lengths which suggests that they were extended on a rather *ad hoc* basis. Aside from any boundary function they probably acted as soak-aways. This is hinted at by the pattern of ditches F7, F12 and F16 which seem to provide local drainage, presumably related to properties either beyond the west edge of the excavation or within Area II but for which all evidence has eroded away. The ditches could also have supplied gravel and sand for patching the road surface. Ditch F35 may be a good example of this with its unusually large central section. The track may have gone out of use during the 4th century when the ditches were filled in, and it was replaced at some stage by the rectilinear field pattern of ditches F10, F27 and F32, perhaps in the Anglo-Saxon or medieval periods.

Evidence for other features was scarce, with few pits, none of which were substantial. There was evidence of four hearths or furnaces of which F42 and F8 compare in form

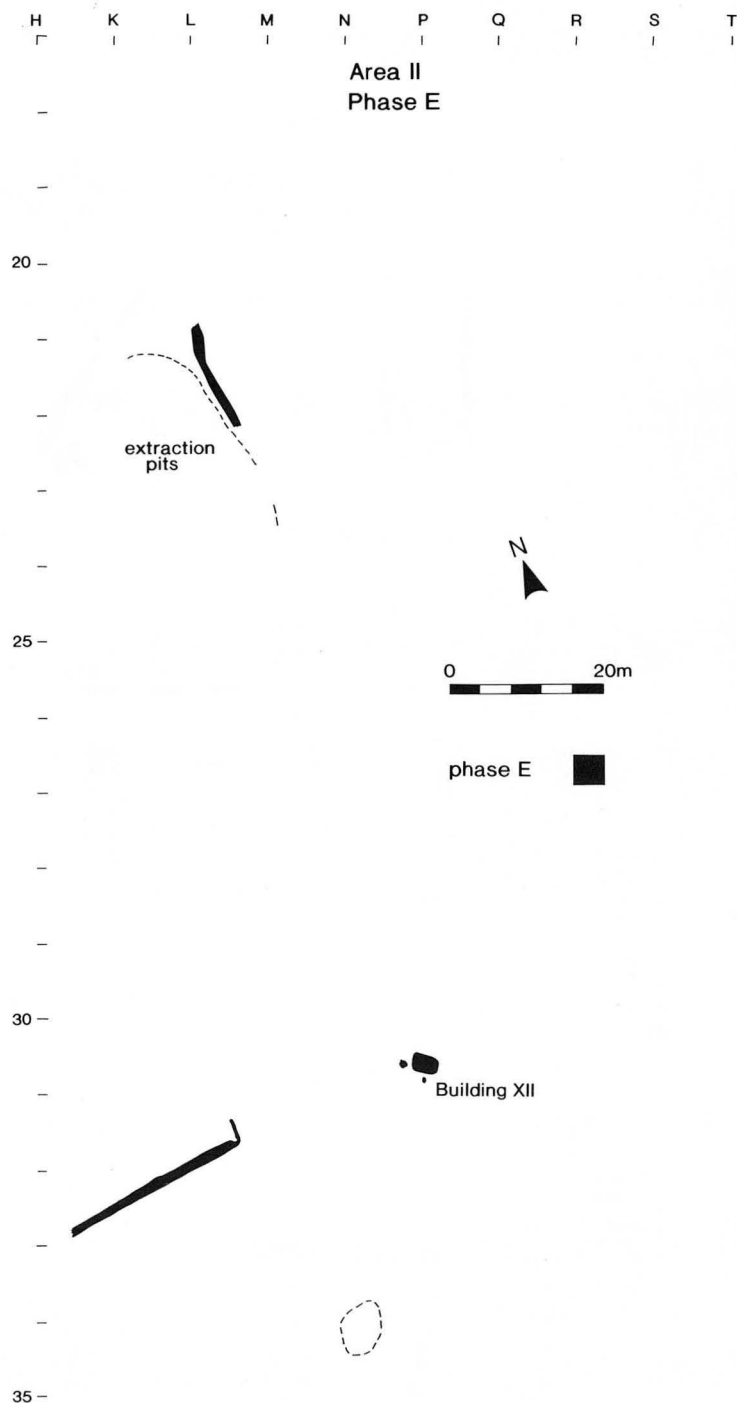


Figure 51 Summary plan of Area II in Phase E.
Scale 1:1,000

with better preserved F4 in Area III. Although isolated as features, these are evidence that workshops and buildings existed close by even if their form and true density remains unknown. Some inference about the level of occupation can be drawn from the amounts of pottery from the area; for example the midden deposit associated with ditch F35 seems comparable to the late deposits in Area I. This is an exception, however, and the odd scattered features from earlier periods produced fewer finds than their equivalents in Areas I and III. There were isolated post-holes across the site but it is perhaps ironic that the only firmly identified building was Anglo-Saxon, still visible only by virtue of its sunken construction.

<i>Ditch</i>	<i>Depth</i>	<i>Contexts (and no. sherds)</i>	<i>Pottery dating</i>	<i>Coins (and Small Find Nos)</i>	<i>Description</i>
F6	0.7m	MO (115) MW (15) OU (1)	4th		Brown over grey sand.
F7	0.45m	MQ (113) MR (8) MY (3) MN (30)	3rd	259–273 C.15(274)	Black over brown and grey sand.
F7/F16		ND (2)	Roman		Junction.
F10	0.25m	MX (11) NW (2) OG	Roman		Brown sand similar to fill of F16
F11	0.15m	MJ (30) NF (14) NS (3)	Roman	(167)	Black/brown sand.
F12	0.45m	ML (21) MU NB NE (4) NH (9) NY (2) NZ (1) OT (6) QW (3) NC (14)	Early 4th		Grey sticky fill. NB, NY and OT were specific animal bone contexts.
F14	0.60m	MT (6) NG NK NL NX (20) OA PE PF PW (7)	Early 4th		?Pit. Black & brown sand. NL, OA, PE, PF were specific animal bone contexts.
F15	0.10m	MZ (12) PJ (7)	Roman		Grey sand.
F16	0.60m	NJ(1), NO (18) NC (14)	Late 3rd–early 4th One Iron Age	270+ C.17	Brown sand. NO was a clearance context.
F16/F24		OS (2) NC	Roman		
F18	0.60m	NU (3) OE (2)	Roman		Light grey and brown sand.
F19		NV (1) OF	Roman		OF was a clearance context.
F23	0.30m	OD (34) OH (18) OK OP (1)	3rd		Brown sand. OK was a clearance context.
F25		OJ (3) OQ (1)	Roman		Brown sand. OJ was a clearance context.
F29/F35		PH (663)	4th Samian St.9 160–195	(229, 284)	Clearance, dark soil midden deposit.
F29	0.95m	PS (3) PU (5) PV (35) RS (4)	3rd+	(175, 372, 373)	'Dense' black soil with brown sand below.
F31/F32		PM (?)	4th + PMed fragment		Clearance. Finds mostly from F31.
F31	0.60m	QE (15) QI QQ	Mid 2nd+		Grey brown sand.
F32	0.90m	QG (1) RN QJ (1)	Roman		Brown sand.
F35/F29		PH (663)	4th. Mortaria include Oxford and Nene Valley		Clearance, dark soil, midden deposit?
F35	1.0m	PR (124) QA (88) QB (26) QT QN QV QY (120) QZ (50) RQ (10) RT SX TD (3) UD/SY (8) SS (26)	Early 4th. Samian St 5, St 32, St 57 (range 140–180)	310–311 C.34, 335–337 C.35 (35, 38, 89, 110, 113, 126, 133, 241, 295, 333, 374, 387) (Brooch 148)	Dark, black sand over brown sand. Contexts UD, SY and SS tentatively associated. At least three cuts are represented by these contexts.
F37	0.80m	RI (3) RJ (13)	Roman		Only base of ditch excavated due to modern disturbance.
F38	0.40m	RK (12) SN SW (25) SZ (4) TE	Late 2nd onwards		Dark black brown fill.
F40	0.60m	RO SD (42) SE (3) SF (20)	Mid 1st	(141)	Two cuts of ditch, brown, sandy fill.
F43	0.08m	RP			Sticky grey brown fill.
F44	0.30m	RW (29) SU SV (6) T /TF (19) TM (9)	Late 2nd onwards		
F45	0.11m	RR (19)	Mid 2nd onwards		Black fill also clearance layer.
F47	0.40m	SA (10) SJ	Mortaria 60–100		
F49	0.25m	SH (3)	Roman		Loosely given to 3 ditches? Seen in machined sections.
F50	0.25m	TK (2) SR (52) TX (25)	Early 4th		Clearance layer. Dark brown fill.
F54	0.30m	TW (17) TZ (6)	Late 2nd+		Brown sand.

Table 9 Dating evidence for features in Area II (cont'd over)

<i>Pits and Hearths</i>	<i>Context (and no. sherds)</i>	<i>Pottery Dating</i>	<i>Coins (and Small Find Nos)</i>	<i>Description</i>
Hearth F8	MK (14)	Roman		
Pit F30	PQ (75) PY (166)	4th (first half)	310–311 C.31 (182, 217)	Brown-black sand.
Pit F33	QF (142)	4th (one Oxford ware sherd)		Brown sand, black patches in the top.
Oven F42	RU (10)	2nd onwards (one prehistoric)		Clearing layer
Pit F51	TJ (9) TP (65)	Later 2nd (Samian Ant, dec Flav–Traj)		Dark brown-black sandy. TJ clearance.
Pit F52	TL (15) TR (3)	Samian Dec 38 Had–Ant		Dark brown sand with black patches. Cut F55? TL clearance.
Pit(?) F53	TN (19) TV UB (47)	Late 2nd; Samian Ant		Dark grey-brown silty sand with burnt and unburnt clay
Pit F55	TQ TS (2) TU (12)	Roman		Dark brown sand. Animal bone group in TU.
Pit F69	SM (49)	Late Neolithic (Grooved Ware)		Dark brown fill.

Table 9 Dating evidence for features in Area II

VIII. The 1974 excavations

(This section was mainly written by J.P. in 1976)

Between 22 June and 16 August 1974, seven trenches were opened along the bypass route in Field 1 by the Suffolk Archaeological Unit, directed by R.J.C. Mowat. These are shown as Areas IV–X on the location plan (Fig. 2).

This further phase of excavation was possible because construction work had not been started on the new road as early as originally scheduled. As the excavation of Area III in 1973 had shown no indication of a northern limit to the site it was considered worthwhile to sample the remaining area under threat, particularly a circular anomaly on the geophysical survey at its north-eastern end. Post-excavation work was started by Robert Mowat in the 1970s and prepared for publication by the present author in 1976; it has not been substantially reworked since then.

Recording methods involved numerical sequences within each trench for features with a separate number sequence, shown in parenthesis (originally circled), for layers within each trench and each feature. There was a single sequence of 4-digit numbers for small finds. In the original site records the trenches were referred to as 7, 8, V, W, X, Y, Z (and Z is also referred to as K), but this was changed early in the post-excavation process to Roman numerals (in the equivalent order: IX, X, VII, IV, VIII, V, VI) to continue the 1973 area sequence and this series has been used throughout this publication. It should be noted that there was a high level of archaeological inexperience in the staffing of this site; the standard of excavation and recording was lower than that on the 1973 areas.

Trenches were opened using a 'back acting' mechanical excavator to remove the ploughsoil. Area X to the north-east produced a quantity of post-medieval and modern material around a patch of boulder clay. In Area IX a dark soil layer beneath the ploughsoil was excavated by hand. A similar layer was observed in the remaining areas except for VIII (and noted as thinner in Area VII) but it was removed by machine to allow time for excavation of the cut features. Most features were half-sectioned only. No features were recorded in Areas V, VII and VIII. Excavation was concentrated in Areas IV and IX whereas Area VI was examined by local fieldworkers at the end of the project. Metal detectors were used on the excavation site and on spoil heaps from mid-July onwards (a large part of Area IX was not detected, having been already excavated) by two volunteers. This accounts for the large numbers of metal objects from ploughsoil and dark soil layers in these areas.

Area IV

(Fig. 52 and Table 10)

170 features were found cut into natural sands and gravel below about 50cm of topsoil and dark occupation debris. Pits and linear features are tabulated below (Table 10). With no vertical stratigraphy and very few relationships established between individual features, three broad, probably overlapping, phases based on the dating of finds have been used.

Phase I — 1st to early 2nd centuries

(roughly equivalent to Phases A and B in the 1973 areas)

Early occupation seems to have been slight, and mainly in the southernmost part of Area IV. Two small pits (7 and

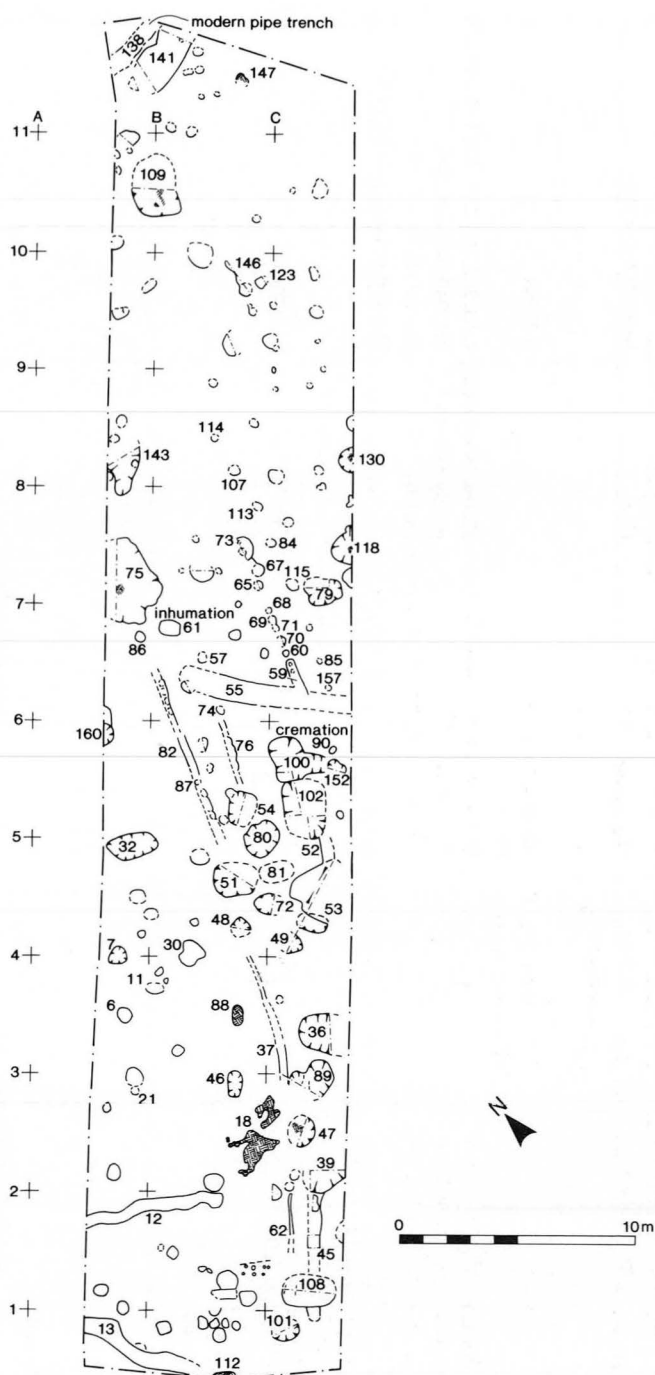


Figure 52 Area IV (grid at 5m intervals). Scale 1:333

101) and a north-east to south-west linear ditch or slot (45) contained sherds of pottery of Belgic derived forms. Ditch 45 was probably cut by pit 108 and certainly cut by Phase II pit 39. Pits 48 and 108 are included in Phase I on the basis of the pottery (see Chapter 5 for pottery from 108).

The earliest dated find from Area IV is an unstratified Neronian samian stamp (stamp 1).

<i>Context no</i>	<i>Depth</i>	<i>Description</i>	<i>Relationship</i>	<i>Samian</i>	<i>Pottery</i>	<i>Coins</i>	<i>Small finds Cat Nos</i>	<i>Phase</i>
General layers								
(1)unstrat		Ploughsoil		St 1, 22, 34, 46, 47, 48, 52–56, Dec 46, 59–64			203, 308	
(1)strat		Occupation layer —machine stripped, clearance finds				17, one 1st century, mainly 330–360, one 364–378	4, 40, 202, 204, 205, 208, 234, 249, 254, 301, 340, 343, 344, 346. Brooch: 60, 74, 137, 189 Moulded window glass (SF1410)	
Burnt clay features								
18	30mm?	Flat area with hard baked surface			late Roman	343–348	44 (armlet?)	III
88		Small ?bowl-shaped						
112	-	Fragmentary, ?unexcavated						
147	10mm	? bowl-shaped		Flav–Traj				
Linear features								
12	300mm	Small ditch or gully						?
13	250	1.1m wide, poorly defined			4th			III
37	200	slot	?cut 89, line continued as 82		unspecific, not late Rom			II
44, 45	-	small ditch or gully	cut by pit 108		1st/early 2nd		325 (crucible)	I
52	-	small ditch or gully	?cut by pits 53, 102?		1st/early 2nd			?I
55	350	1.13m wide ditch	no relationships established		not early, very fragmentary			II+
59	-	slot with postholes 0.35m wide	line continued by ph 60, 70, 71, 69, 68, 65, ?67, 73		Roman			
62	150	poorly defined slot	may extend up to and cut pit 108		Roman			
76	200	slot with possible postholes	line may continue with ph 74, 57		Roman			
82	300	slot with posts (ph 87)	said to continue, would include ph 86		Roman			
138		1967 pipe trench			Roman			Modern
141	?	ditch?			jar sherds, burnt, ?waster			
146	200	gully or postholes			unspecific Roman			

Table 10 Area IV feature summary (cont'd over)

<i>Context no</i>	<i>Depth</i>	<i>Description</i>	<i>Relationship</i>	<i>Samian</i>	<i>Pottery</i>	<i>Coins</i>	<i>Small finds Cat Nos</i>	<i>Phase</i>
Pits								
7	750	small, steep sided			'Belgic' in style, 1st			I
32	1200	Steep sided, flat base		IC2/eC3 (range 90 +)	3rd (see Ch.5)	119		II
36	1350	V-shaped, uncertain, possible ditch	may cut pit 89	mid-late Ant (range Flav+)	mixed late 1st-early 3rd		227 (stylus)	II
39	1300	V-shaped profile	cut ditch 44/45	Ant	1st-mid 2nd			II
46	520	Small pit or posthole			mid 3rd-early 4th	343-348	42, 43 (armlets)	III
47	?	Small pit or posthole			1st/early 2nd		brooch 5	I
48	600	Small pit			late 1st/2nd			I/II
49	870	Small pit or posthole	confused relationship with pit 53, ?cut it		late 1st/2nd			II?
51	750	Steep sided, flat bottom	cut pit 81, slot 82 (but not illus)	Ant	2nd (see Ch.5)			II
53	?	possibly two features	cut ditch 52, ?cut by pit 49	Dec 52,53. mid-late Ant (range E.Flav-)	3rd		16 (hairpin), brooch 134?	II
54	870	Fairly steep sides	cut by slot 76 (not illus)	mid-late Ant (range Flav+)	late 2nd/ early 3rd		41 (bead)	II
72	800	Small pit or posthole, steep sided		mid-late Ant	mid 2nd-3rd			II
75		Large pit	four layers separated	St.16, Dec 46-50, 54-56	3rd-early 4th (see Ch.5)	98-117	11, 15, 17 (hairpins), 39 (bead), 206 (glass), 265 (boss), 348 (tally?), blown window glass (1312), III 45 (armlet), 132 (needle)	
79	1000	Steep sided	two layers separated	Ant (worn)	late 2nd/3rd (see Ch.5)			II
80	750	Steep sided		Flav-Traj	2nd			II
81	320	Sloping side, flat bottom	cut by pit 51		late 2nd/3rd (see Ch.5)			II
89		Irregular, possibly several features	?cut slot 37, ?cut by pit 36	Dec.57, 2nd, (range Flav+)	2nd			II
100		?two features	?cut pit 102, cut by pit 152	Dec 58 /AD 160-190 (range Flav/Traj +)	late 2nd-3rd (see Ch.5)			II
101	700	Steep sided, rounded bottom			'Belgic' types			I
102	... ?		?cut by pit 100	Ant (range Flav +)	late 2nd-3rd			II
108	700	Steep sided, flat bottom	?cut ditch 44/45, ?cut by slot 62		late 1st-early 2nd (see Ch.5)			II
109	430	Burnt clay in upper fill		Dec 51, mid-late Ant (range Flav-Traj-)	2nd/early 3rd		339 (peg)	II
118	700	Possibly two features			late 1st - mid 2nd (see Ch.5)			II
130	700	Steep sided, flat bottom		Ant	2nd-3rd			II
143	250	Shallow hollow rather than pit			late 2nd			II
152	?	Pit or posthole	?cut pit 100. No finds (?mixed with 100)					?II
160	?	Small pit or double post-hole			unspecific Roman			?

Table 10 Area IV feature summary

Phase II — mid 2nd to 3rd centuries

(roughly equivalent to Phase C in the 1973 areas)

Most of the pits and some of the smaller features (slot 37, ditch 55, post-holes 6, 21, 86 and 123) contained material of this date and it seems likely that the majority of the undated features are also Antonine and later.

Phase III — 4th century

(roughly equivalent to Phase D in the 1973 areas)

Only a few features including one large pit (75) contained definitely 4th-century material. Sixteen 4th-century coins including one of Valentinian were found in the soil cleared off the excavated area.

The distribution of features

The main concentration of pits, mostly backfilled with rubbish in Phase II, lay in the centre of Area IV. The most coherent structural remains consisted of three parallel slots (59, 76 and 82) with post-holes situated to the north of the pits; no stratigraphic relationships were determined between the two groups of features. The slots ran north-east to south-west and lay 1.80m and 3.60m apart; a further parallel line of eight post-holes lay 1.20m south-east of slot 59. These presumably represent wooden fences or walls. To the north-east was a comparatively blank area with an indecipherable pattern of post-holes, many of them slight, cut in the 4th century by pit 75.

Various burnt clay features were found. Of these 112, 88, and 147 may be the remains of oval, shallow bowl-shaped hearths, none of which can be related to other features; the only dating evidence is a small sherd of Flavian-Trajanic samian from 147. Other areas of burnt clay such as 18 and in the top of pits 75, 109, 118 and 30 were probably the remains of larger areas of clay flooring (which may be compared with Building XI in Area III). Coins of the mid 4th century lay immediately over burnt clay area 18.

Although the evidence suggests mainly domestic occupation of this area from at least the mid 2nd century onwards there were two burials, one an inhumed infant, the other the cremated remains (lacking any surviving container) of an adult female (61 and 90) in the centre of the trench (details of the skeletal material are in Chapter 6). While infant burials commonly do occur within Roman settlements it may be that the cremation pre-dates occupation in this area, as adult burials would normally be outside a settlement.

Area VI

This area was not fully investigated during the excavation, but local fieldworkers identified at least three pits and a possible hearth during late August 1974. Pottery and samian suggest a preponderance of mid 2nd-century onwards material similar to Area IV. A fragment of shears is included in the small finds catalogue, No. 246.

Area IX

(Fig. 53 and Table 11)

In this area only the ploughsoil was removed by machine and the underlying dark soil was excavated by hand. Finds in this layer included twenty-seven coins (all but two of 4th-century date), copper-alloy brooches, finger ring and nail cleaner, fragments of vessel and window glass and a large amount of pottery of the 4th century and earlier which

was not studied in detail since it could not be considered a closed group.

Three pits were excavated, two of which (7 and 6) were less than 50cm deep and contained much iron working debris, the other (13) being deeper (1.30m) and more regular in shape. No other positive evidence of industrial activity was found except a bowl-shaped hearth (4) near pit 6 and possible hearths or burnt clay layers on the top of pit 13. The quantity of debris (see Chapter 4) suggests iron smithing in the immediate vicinity. There were also spreads of gravel 'yarding' of at least two phases which were not related to the other features. Pottery from pit 13 suggested a late 3rd/4th-century date. Pit 6 seemed to be late 1st to early 2nd-century from the samian and small amount of coarse pottery.

Area X

The greater part of this trench contained a large post-medieval disturbance. However, the topsoil (layer 1) and one ?pit (context 8, not otherwise recorded) contained Roman pottery, much of it of 3rd-century date. One coin (330–337) and a glass bead (Fig. 73 No. 37) were found in the topsoil.

IX. Chronological summary of all excavated areas

Phase A (mid to late 1st century)

(Fig. 54)

The evidence for features dating to the mid 1st century is largely restricted to Area I North and South with the notable exception of the ditch along the ridge in Area II. In Area III there was insufficient excavation to characterise any early activity.

In Area I South the picture is a little clearer with the multiple ditch and palisade system on a north-east to south-west alignment following the course of a dry valley. The evidence is less clear for two minor groups of ditches which approached at right-angles from the south-east. It is suggested that they defined an open trackway and turned parallel to the northerly group but there was only evidence for the more westerly of these groups turning and both groups only appeared in small trenches. In Area I North an area of settlement with two circular buildings and associated pit groups was identified, which could have been enclosed by the palisade and ditch line to the south.

Some activity extended as far north as the south end of Area IV (see Fig. 2) by the beginning of Phase B but probably no further.

Phase B (late 1st to mid 2nd century)

(Fig. 55)

The gravel road system was established which joined Area I to Area III and, if it continued on the same line to the north-east, would have passed within 20m of the south-east edge of Area IV. No certain structures can be identified adjacent to the road at this time. The larger roundhouse in Area I North, Building II, may still have been in use judging by the adjacent pits, but Building I had been abandoned. Industrial activity began in Area III with the pottery kiln; there was almost certainly far more domestic and industrial evidence in this area that was not identified.

In Area II it is possible that the track towards the river was established at this time but none of the ditches can be dated this early.

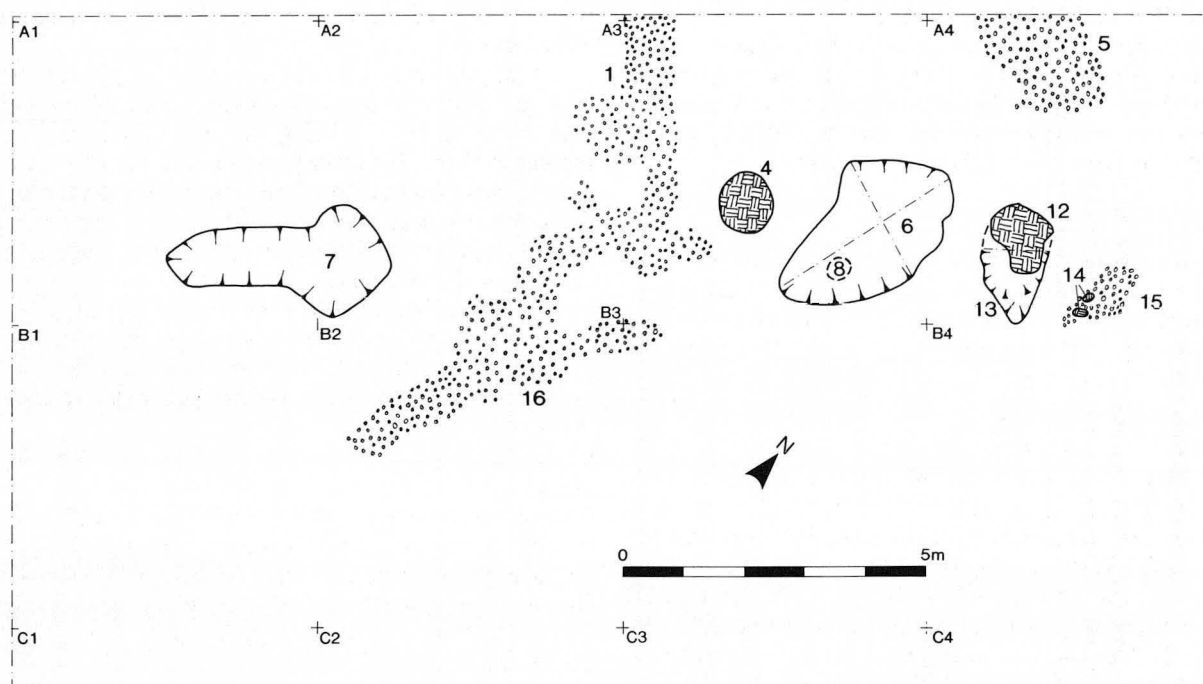


Figure 53 Area IX (grid at 5m intervals. Scale 1:125)

The earliest features in Area IV may be contemporary with the construction of the road. It is likely that the cremation burial is early in the sequence, before the main groups of pits and structures, and possible that linear features (either fences or buildings) were constructed. To the north there may be some very limited activity in Area IX by the mid 2nd century.

Phase C (mid 2nd to late 3rd century)

(Fig. 56)

At least five buildings are identifiable along the roads in Area I and it is possible that Building XI in Area III was constructed within this phase in a similar road frontage position. North of the road in Area I North there was a relative decline in activity, which can be measured in numbers of pits (at least twelve were backfilled in the 2nd century, only five in the 3rd) and no indications of new buildings.

The ditched track across Area II was in use during this phase — the earliest ditches may date to the late 2nd century, and the same is true of the rectilinear system (possibly fields) to the east. The presence of two ovens suggests that there was peripheral domestic activity here but that any insubstantial structures did not survive subsequent erosion.

Iron smithing took place in Area III, and probably in Area IX during the 3rd century. Numerous features in Area IV and finds in Area VI suggest unbroken settlement activity across the area examined in 1974. In terms of identifiable features this is the period of maximum activity over the widest area.

Phase D (late 3rd to 4th century)

(Fig. 57)

The number of roadside buildings seems to decline with ditches along the road frontage, except in the south-west part of Area I where two structures were probably in use into the early 4th century, and in Area III where Building XI probably continued until the mid 4th century or even later.

The lack of activity in Area I North, which began to decline in Phase C, is very pronounced, with only one pit containing 4th-century material. In Area II both the track and the field ditch systems were filled in by the middle of the 4th century but it is impossible to gauge whether decline is gradual or sudden. Dark soil accumulation over the road in Area III might suggest that it was no longer in use or at least not maintained as previously.

Although not numerous there were features in the areas to the north-east, particularly the large pit 75 in Area IV and pit 13 in Area IX. There is also the evidence for extensive rubbish disposal on the surface resulting in the 'dark earth' layers — these were found in Areas I, III, IV and IX. In Area I this dumping seems to cease in the early 4th century, while it continued for at least thirty or forty years longer in other areas.

Phase E

(Fig. 51)

Early Anglo-Saxon settlement within the excavated site is restricted to the truncated base of one sunken-featured building at the south-east edge of the site in Area II, and a single pottery sherd from Hearth LN in Area I North. Further Early and Middle Saxon settlement evidence from the west side of Field 4 is summarised in Appendix 1.

<i>Context no.</i>	<i>Layer no.</i>	<i>Description</i>	<i>Comment</i>	<i>Samian</i>	<i>Pottery</i>	<i>Coins</i>	<i>Small Finds Cat Nos</i>
General layers							
	(1)	ploughsoil			Preh(1), Rom, PMed	15, mostly 4th-century to 360, one post-388	
	(3)	occupation layer (subdivided by grid square)	also includes contexts 2, 3, layers (2),(4)	St 49	mixed Rom with 1st- century coarse and Nene Valley and Colchester fine wares	27, mostly 4th-century, terminating 348-360.	59,93,200,201,294 brooch 92,182,196 blown window glass (0068)
Areas of flint cobbling							
1					-		
5 and 10	(13), (14)				late: Nene Valley, shell grit, grey mortarium.		
15		under clay context 14			-		
16		under context 1			-		
Burnt clay features							
4	(5)	bowl-shaped hearth	finds from above the clay structure		4th-century		
9 and 11	(12)(15), (16)			Flav	3rd-century from below clay		
12	(17)	under context 11, over pit 13			-		
14	(21)	fragmentary, over flints 15			-		
Pits							
6	(7),(8),(11)	shallow	much iron slag	Flav-Traj	1st/2nd		
7	(6), (9), (10)	shallow	much iron slag	Ant	unspecific Roman		
13	(18),(19), (20)	under context 12		mid-late Ant	3rd/4th	287-293	blown window glass (0301)
Posthole							
8		cut pit 6					

Table 11 Area IX feature summary

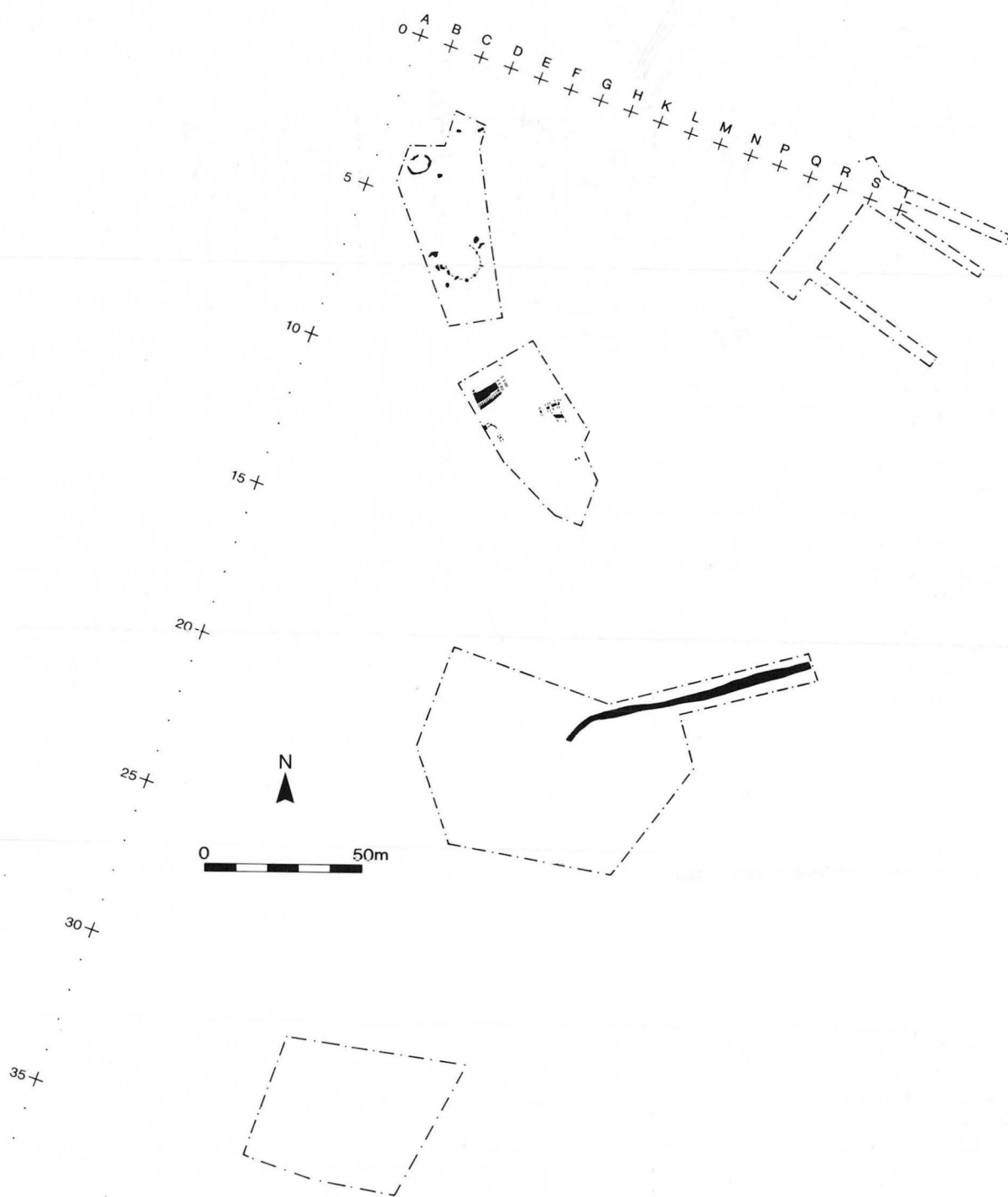


Figure 54 Summary plan of Areas I-III in Phase A. Scale 1:2,000

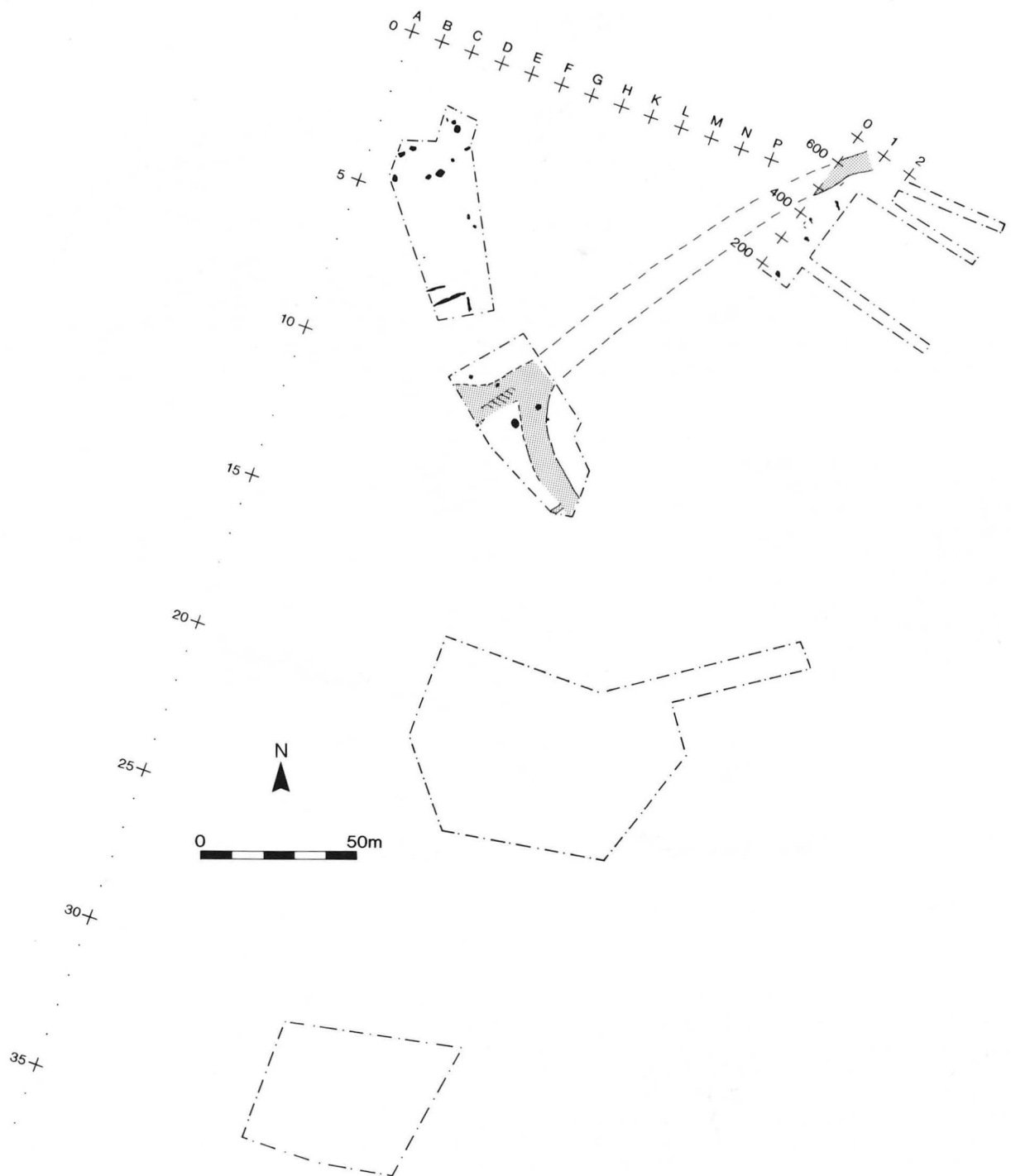


Figure 55 Summary plan of Areas I-III in Phase B. Scale 1:2,000

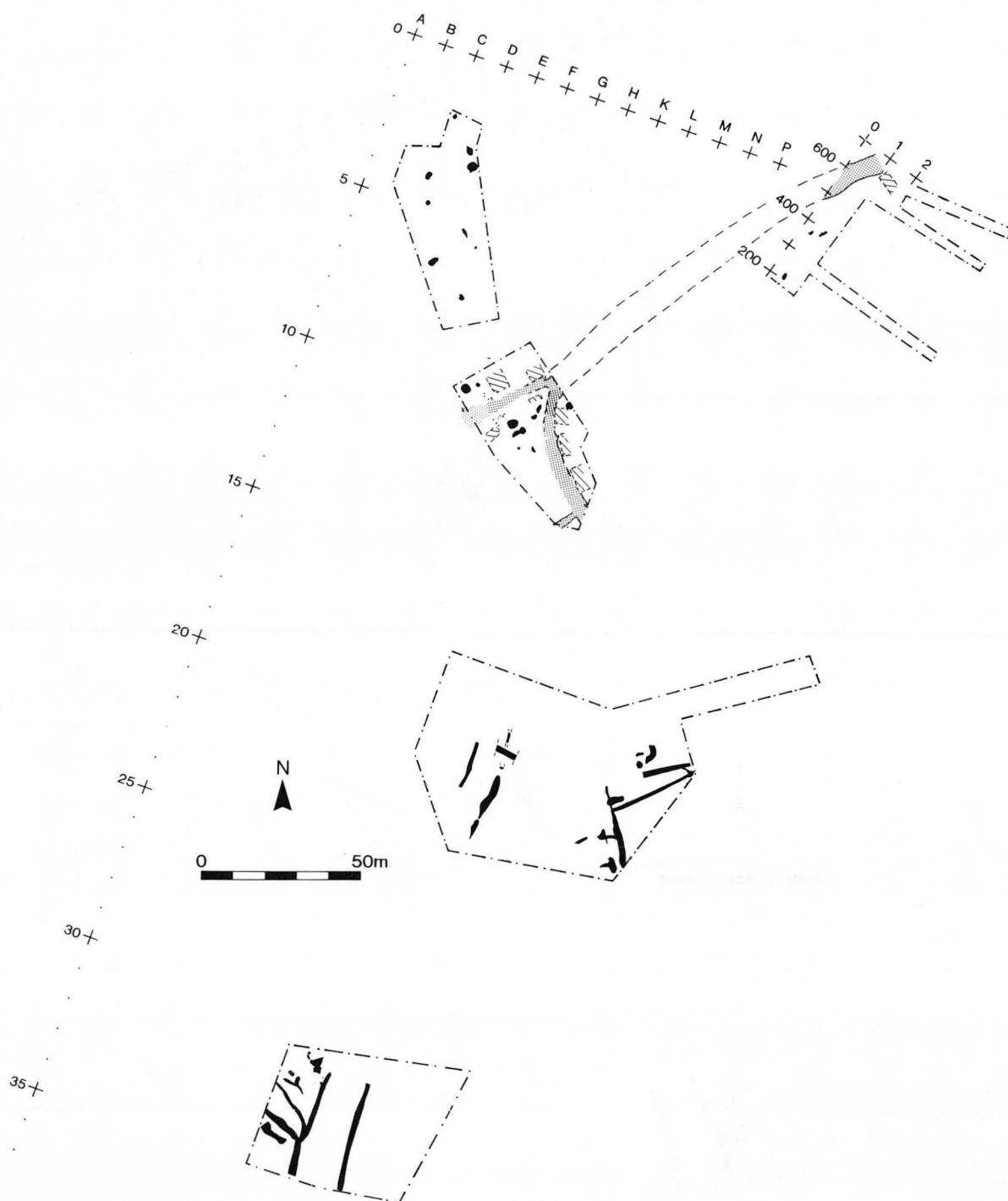


Figure 56 Summary plan of Areas I-III in Phase C. Scale 1:2,000

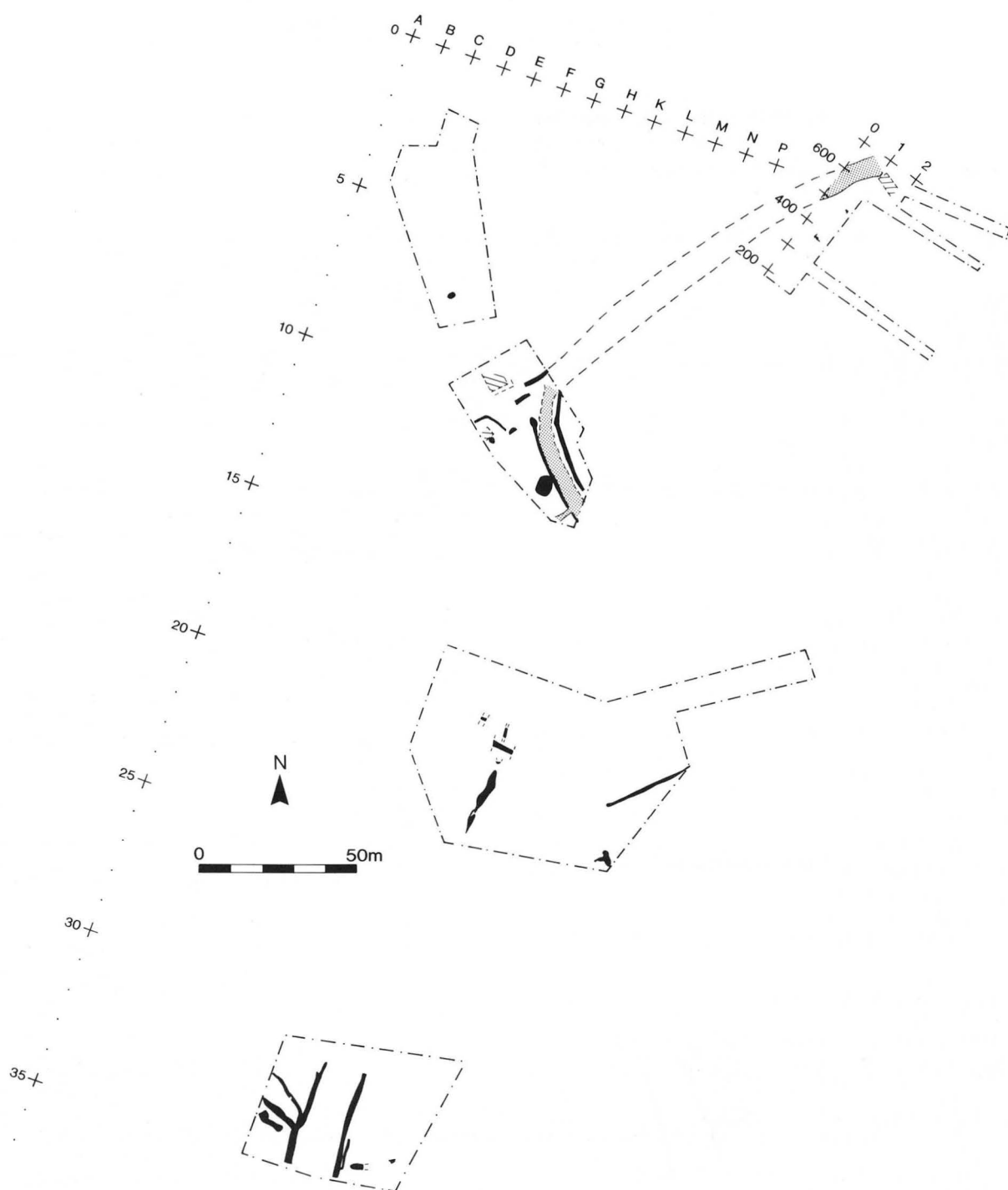


Figure 57 Summary plan of Areas I-III in Phase D. Scale 1:2,000

Chapter 3. The Coins

I. Iron Age coins

from reports by N.Holmes in 1975–1976 plus later finds identified by J.Plouviez and with comments from A.Chadburn (Pl. XI)

The majority of the Iron Age coins, like other classes of metalwork, were recovered by the use of metal detectors on the spoil heaps around the excavations and the road construction in 1974–1976. However, three were found during the excavation of Area I in 1973 and these are listed first. SF numbers are the original small find references and are followed by context information including date. References to Mack and Van Arsdell types are in Mack 1975 and Van Arsdell 1989.

Excavated coins

1. Copper-alloy, diameter 11mm, weight 0.44gm. Some corrosion, little wear. SF C18, Pit 2 BJ (lower fill of the well in Area I), 2nd century.

Obv: a curved tapered shape with two dots on it. Two geometric 'legs' below and a single pellet below the point of the curved shape.

Rev: a central tree-like object with indistinct objects on each side. Below it a crooked horizontal line with at least two Y-shaped symbols below.

A copper-alloy copy of a gold quarter stater of Gallo-Belgic DC type (Mack 41, Van Arsdell 69–1), which was originally gilded to make a convincing ancient forgery. They are found throughout southern and eastern England and dated to about 70–50 BC. Previously published in Holmes 1978, 178 pl. 36A.5.

2. Silver, diameters 13 x 12mm, weight 1.13gm, very poor condition (bent and corroded). SFC45, Pit 80 MBC, Area IN, mid 1st century

Obv: boar to right.

Rev: horse to right, suggestion of a cross-in-circle symbol above.

This Icenian coin seems to be of Allen's Boar-Horse Class C (Allen 1970 nos 63–70) which he dates to approximately the first 30 years AD, while Chadburn suggests about AD 0 to 10 ±10.

3. Silver, diameter 13mm, weight 1.16gm. Fair condition. SF C.51, Pit 46 GE, Area I N, late 2nd or 3rd century.

Obv: back to back crescents with two pellets between and three lines of a wreath above and below.

Rev: horse to right, three pellets in line below, two pellets under tail.

Icenian Pattern-Horse type. Allen's Ecen and Ed Open-Headed Horse series and closest to Allen 1970 no. 152, lacking a symbol or lettering below the horse (though this example is struck low on the flan). 1st century AD, dated by Allen to the immediately pre-Boudiccan period, whereas Chadburn suggests that minting ceased at the Conquest, giving a date around AD 30 to 40 ±10.

The remaining twenty unstratified coins have been grouped by type. In some cases the location by field was recorded and this is given, using the numbers on Fig. 2.

British Potin

4. Cast copper-alloy, diameters 14 x 15mm, weight 0.91gm, corroded. Not numbered, Field 1.

Obv: high central pellet, ring around (devolved Apollo head), facing right. Unclear but probably as Van Arsdell 139–1.

Rev: high central pellet, rectilinear 'bull' design with single arc above, similar to Van Arsdell 139–1.

Late potin coin, Allen 1971, Class II, type O or P, Van Arsdell Cantian E, dating uncertain, ?late 1st century BC (Allen 1971 favoured early 1st century AD).

Trinovantian

5. Silver, diameters 11.5 x 12mm, weight 0.59gm, slight wear. SF 2380, Field 1.

Obv: horse galloping to right; below between legs a leaf or feather pointing down; pellet in ring and corded line above; pellet in ring behind and in front of horse.

Rev: similar horse to right; pellet below; large pellet in ring above.

Very similar to Mack 272 (Van Arsdell 1643–1), of Addeddomaros, later 1st century BC.

6. Copper-alloy, diameters 13 x 13.5mm, weight 0.99gm, worn. SF 2730, not located.

Obv: head to left with corded bands of hair. Lacking detail.

Rev: horse to left with pellet in ring for eye; ring below tail; two pellets (or one and one pellet in ring) below; pellet and unclear motif above. Similar to Van Arsdell 1646–1.

Probably a Trinovantian coin of Addeddomaros, later 1st century BC.

7. Copper-alloy, diameters 14 x 11mm, weight 1.35gm, very corroded. SF 2106, Field 1.

Obv: almost totally illegible, traces of possible parallel beaded lines.

Rev: horse to left, very little detail survives.

Although it is impossible to be certain this just might be one of the bronze units of Addeddomaros (Van Arsdell 1615–1, 1629–1, 1646–1).

8. (Pl. XI) Copper-alloy, diameters 12 x 13mm, weight 1.38gm, some wear. SF C235, Field 2.

Obv: horse to left with head facing backwards and upturned tail. Large pellet below, another behind legs with ring below. Indistinct ?ring and ?pellet above.

Rev: horse to right, large pellet in ring below, two small pellet in rings above. Single line horse tail, partially beaded.

This is an unpublished type; the use of copper alloy suggests that it is either a forgery of a gold quarter stater or that it is a Trinovantian bronze unit, comparable in style to the coins of Addeddomaros (e.g. Van Arsdell 1615–1).

9. Copper-alloy, diameter 15mm, weight 1.79gm, slight wear but corroded obv. SF 2729, not located.

Obv: bearded head facing.

Rev: boar to left, CVN below.

Very similar to Mack 223 (Van Arsdell 1963–1), of Cunobelin, early 1st century AD.

10. Copper-alloy, diameter 15mm, weight 1.86gm, little wear, corroded edges. Not numbered, from the area of the old road between Fields 2 and 3.

Obv: head to left, clean shaven, ?laureate, strongly outlined neck. Inscribed ?CAM in front.

Rev: eagle standing with spread wings, single pellet below and traces only of inscription (CVNO).

Similar to Van Arsdell 2087–1 (Mack 233), of Cunobelin, 1st century AD.



Plate XI Iron Age coins, twice actual size

Icenian Face Horse series

11. Silver, diameter 12mm, weight 1.07gm, little wear. SF C73, Field 3.
Obv: head to right with straight nose and moustache. Similar to Allen 1970 no. 101.
Rev: horse to right, beaded curve (part of pelta decoration) above, ornamented lozenge below. Similar to Allen 1970 nos 100, 101.

This coin is at the small end of the size range for the type with a consequent loss of parts of the designs. It is of Allen's Face Horse Normal B type, 1st century (Chadburn suggests a date of AD 20±10).

12. Silver, diameters 13 x 14mm, weight 0.90gm, worn. SF C234, Field 2.
Obv: head to right with straight nose and moustache. Similar to Allen 1970 no. 101.
Rev: Horse to right, partially beaded curve above, attenuated lozenge below.

Like the previous example, this is of Allen's Face Horse Normal B type.

13. Silver, diameters 12.5 x 13.5mm, weight 1.05gm, worn. SF C67, Field 2.
Obv: head to right, mis-struck to the right so front of face missing, moustache visible. Similar to Allen 1970 no. 97.
Rev: horse to right, pelta design (indistinct) above.

Allen's Face Horse Normal either B or C type, 1st century.

14. Silver, diameters 13 x 14mm, weight 1.01gm, fairly worn, corrosion on reverse. Not numbered, Field 1.
Obv: head to right with moustache and straight nose, identical (same die) to No. 12 above, similar to Allen 1970 no. 101.
Rev: indistinct, horse to right and beaded curve above.

Allen's Face Horse Normal B type, 1st century.

Icenian Pattern-Horse series

15. Silver, diameter 12.5mm, weight 0.87gm, worn (especially on obv). 'Item 6', Field 1 south.
Obv: back to back crescents (as Allen 1970 nos 136–145).
Rev: horse to right; line of three pellets below. Damaged area at the top of neck and mane — appears identical to Allen 1970 no. 141, with only the possible top bar of the E of the ECEN legend on the flan.

Allen's Open-Headed Horse series, Ecen Group. Mid 1st century.

16. Silver, diameter 14mm, weight 0.99gm, badly damaged and corroded. Wrongly numbered C41, Field 3.
Obv: almost illegible, two fairly small crescents back to back just visible.
Rev: horse to right, indistinct but ECE legend visible below and the position of front legs and legend resembles Allen 1970 nos 169–174, especially no. 174.

Probably Allen's Stepping-Horse (ECE A) series. Mid 1st century.

17. Silver, diameter 13.5mm, weight 0.97gm, worn and corroded, especially on rev. Not numbered, Field 1.
Obv: back to back crescents.
Rev: horse to right, head indistinct, pellet flower above, two pellets visible below plus a possible third forming a triangle.

Although lacking crucial detail this is probably one of Allen's 'Open-Headed Horses' and most likely an Anted type rather than an Ecen. 1st century.

18. Silver minim, diameter 10 x 9.5mm, weight 0.46gm, fairly worn. SF 2379, Field 1.
Obv: mis-struck but shows part of a back to back crescent design.
Rev: stylised horse to right, pellet below, triangle above. Identical to Allen 1970, no. 164.

1st century AD. Previously published (Holmes 1978, 176 pl. 36A.1). This and No. 19 have been shown to be fractions of the Anted/Ecen/Ece series.

19. Silver minim, diameter 9.5mm, weight 0.33gm, fairly worn, especially on obv. SF 2487, Field 1.
Obv: two crescents back to back with two pellets between (Allen 1970 nos 163–166).
Rev: stylised horse to right, pellet below, only rear half survives. The shape of the legs and the pellet might suggest more similarity to Allen 1970 nos 163–164 than to the cruder designs of 165–167.

1st century. Previously published (Holmes 1978, 176 pl. 36A.2).

Unattributed and uncertain

20. (Pl. XI) Silver, diameter 11mm, weight 0.36gm, fairly worn, damaged (broken and partially restored). SF C70, Field 3.
Obv: unidentifiable design (? prow of a ship); thin line delimits exergue in which is a short corded line.
Rev: horse to right with crescentic mane; pellet in ring and V-shaped motifs above. Horse has two-line tail and pellet on shoulder.

Attribution uncertain (see discussion below, No. 21). Previously published (Holmes 1978, 177 pl. 36A.4).

21. (Pl. XI) Silver, diameters 11.5 x 12mm, weight 0.46mm, fairly worn. SF 2381, Field 1.
Obv: unidentifiable design, similar to above. ?Prow of ship, ?star above; short corded line in exergue which is defined by a thin line.
Rev: horse to right, crescentic beaded mane. Pellet in ring and V-shape above; small ring in front of head; pellet in ring in front.

Very similar but not die-linked to No.20. Previously published (Holmes 1978, 177 pl. 36A.3) where it was noted that earlier occasional finds of this type were initially

considered to be of Continental origin, but the lack of similar finds on the Continent then pointed to an East Anglian origin. Chadburn suggests that these might be early Icenian on the basis of the mainly East Anglian distribution.

22. (Pl. XI) Silver, diameters 11.7 x 12.7mm, weight 0.78gm, some wear. Not numbered, 'TM 313 568', found in 1976.
Obv: indistinct, probably mis-struck (?struck twice), zigzag edge on parts of the design.
Rev: possible tree-like shape (forked at base, ?three branches at top), another vertical shape to its right and an angled line crossing it near the base. Again poorly struck, definition slight towards the edges.

Perhaps related to the geometric 'Ambiani' gold quarter staters as No. 1 above, and derivations in silver produced by the Durotriges (Van Arsdell 1242-1 *etc.*) but it is not the same as any of these.

23. Copper-alloy diameters 15 x 14mm, weight 3.95gm, very corroded, irregular outline. SF C233, Field 2.
Obv: totally obscure.
Rev: possible animal shape.

If this is a coin it might be the core of a cast forgery of a gold stater.

Discussion

A total of at least twenty-two Late Iron Age coins is a significant quantity for a Roman period settlement and raises the possibility of pre-Conquest activity on the site. Furthermore there is some spread in the likely date range of the coins present, with the Gallo-Belgic quarter stater forgery (No. 1) the earliest. Both the Trinovantian and the Icenian groups include a range from the end of the 1st century BC (Addedomaros, Nos 5, 6) or the start of the 1st century AD (Boar-Horse type, No. 2) up to the Conquest. Of the stratified coins No. 2 was deposited in a pit just south of Building II during the 1st century but the other two are clearly residual in much later contexts. However their spatial distribution in Area I North and the northern part of Area I South corresponds with the earliest occupation area.

Very few Suffolk sites have produced comparable numbers of Iron Age coins other than hoard groups, and most of the large groups are from major Roman settlements similar to Hacheston. The largest is a collection of sixty-eight coins from Coddtenham in the Gipping valley (a site with evidence for two early Roman forts and pre-Conquest activity). Further south in the Gipping valley a Late Iron Age site at Claydon (clearly of high status but not otherwise well characterised, and only a very small part of which was examined) has produced twenty coins, of which sixteen were potins, two Trinovantian and two uncertain, possibly early Icenian types. In the north-west of the county from the Roman settlement at Pakenham nineteen coins are known, mainly from an area in which the earliest activity was a post-Boudiccan fort. The relative quantities of the broad types present at these sites are summarised in Table 12 alongside the very large groups published from Saham

Toney in Norfolk (Brown 1986, 51-53) and Stonea Grange, Cambridgeshire (Chadburn 1996, 275-277), both of which are probably pre-Roman settlements.

While the proportion of Icenian coins is 70% or more on the sites which are securely within Icenian territory it was surprising to discover that in south-east Suffolk at both Coddtenham and Hacheston the Icenian share was around 50% rather than in a clear minority as in small groups in the south-west of the county. The Hacheston group has affected recent interpretations of the possible border between the tribes (Martin 1988, 70), which now favour a divide on the south side of the central clayland, perhaps close to the Deben valley, rather than further north as was previously assumed.

II. Roman coins

Introduction

by Judith Plouviez
In addition to the relatively small number found in excavated contexts in 1973, Roman coins were the largest group of objects found by metal detecting during and after the 1974 excavation season. Most of the detected finds were located by the field number (as Fig. 2). Initially coins found in Fields 2 and 3 (*i.e.* on or near the excavated Areas I-III) were sent to N. Holmes to form part of the 1973 excavation coin report and coins from Field 1 combined with the 1974 excavation material, giving a total of 1220 coins covered in the two following reports. However about 2000 further coins were discovered as work progressed on the road scheme in 1975-6. These were recorded at Ipswich Museum and form the third section of the report.

It seemed worth re-assessing this material before publication to show clearly the range of excavated coins and the distribution by field as well as looking at the results in the light of other material found in Suffolk more recently. This discussion forms the final part of the coin report.

The coins from the 1973 excavation (Fields 2 and 3)
by N. Holmes (written in 1975)

A total of 415 Roman coins were examined from the 1973 excavation areas; of these sixty-two were found during the excavation, forty-five of them in stratified contexts. They range in date from the mid 1st century AD (with one Republican denarius of c. 101 BC) to the late 4th century (see Table 15 for the coins from stratified contexts and Table 13, columns Field 2 Holmes and Field 3 Holmes for the total 393 coins identifiable to Reece period).

The chronological distribution of these coins would seem to suggest a date fairly early in the reign of Hadrian as being the most likely for the commencement of occupation of this site. The coins of this emperor are significantly more numerous than those of any other before Constantine I, and only eight of the sixteen imperial coins

	All Icenian	Icenian gold	Boar-Horse	Face-Horse	Pattern-Horse	Non-Icenian	Uncertain	Total
Hacheston	11 (50%)		1	4	6	9	2	22
Coddtenham	33 (48%)	2	2	3	26	30	5	68
Pakenham	18 (95%)		2	5	11	1		19
Saham Toney	61 (74%)	1	19	10	31	20	1	82
Stonea Grange	50 (86%)	1	13	7	29	6	2	58

Table 12 Numbers of Iron Age coins and of the principal Iron Age groups from large sites in East Anglia

earlier than AD 117 retain enough detail for full identification. Even these are mostly very worn, suggesting that they were not deposited for some considerable time after their date of issue. Coins of the Antonine period are relatively scarce, with only eighteen examples covering the period 138–192, but the coins of Hadrian which are worn and unidentifiable as to type must undoubtedly represent part of the coin loss of the following period, their present condition being due to a prolonged period of circulation. The only point of note concerning the coinage of the Severan dynasty is the appearance in the list of four coins of Geta, Severus's younger son, but only one of Caracalla, the elder brother, who had Geta murdered in 212 and reigned alone for another five years. The four coins of Geta, three silver and one bronze, all date from the period before AD 209, when he held the rank of Caesar.

Coins of the earlier part of the 3rd century are, as usual, very scarce, with the period 217–260 being represented by only seven specimens. Two of these are of apparently unrecorded varieties of denarii of Elagabalus and Gordian III. The former has the obverse legend IMP ANTONINVS PIVS AVG with the reverse PIETAS AVG, and the latter the obverse legend IMP GORDIANVS PIVS AVG and reverse VENVS VICTRIX. Base metal antoniniani of the later part of the century, and particularly of the Gallic emperors, are well represented, again following the normal pattern. A point of interest, however, is the surprising scarcity of 'barbarous radiates', normally the most common coins of the late 3rd century on British sites; only seven coins of the Gallic Empire period from Hacheston appear likely to be copies. Against these can be set a total of at least forty-one officially issued coins of the Gallic emperors.

Most of the coins of Carausius from this site bear the PAX reverse, the most common among issues of this emperor. Of the eight examples with identifiable reverse types seven are of PAX. The coin of CARAVSIVS ET FRATRES SVI is a unique example, however, bearing a reverse of COMES instead of the previously recorded PAX. This coin is also distinguished by its excellent condition, it being probably the best preserved coin of the three emperors yet recovered. Yet another previously unrecorded coin is a London mint antoninianus of Allectus with reverse SECVRITAS AVG.

The briefest and simplest method of comparing the chronological distribution of the Hacheston coins with the pattern at other sites is to group the coins into what may be regarded as the three main chronological divisions of Roman coinage. The first of these contains all coins minted before 222. This is an over-simplification, firstly because the antoninianus, introduced by the Caracallan reforms, appears before this date, and secondly because denarii continued to be minted for some time afterwards, but 222, the date of the accession of Severus Alexander, is a convenient point at which to begin the life-span of the antoninianus which continued until Diocletian's coinage reforms in 294. This is therefore the second group, and the third contains all post 294 coinage. In the case of the Hacheston coins a total of 70 out of 400 which can be classified in this way (17.5%) fall into the first group, a further 108 (27.0%) into the second, and 222 (55.5%) into the third. When compared with figures for other sites in Britain occupied over a similar period these figures display no statistically significant variations from the normal pattern, and on the basis of this broadest of comparisons the pattern of coin loss at Hacheston seems to be much as

one would expect, reflecting more the accelerating rate of inflation throughout the Roman empire than any variation in the amount of human activity on the site.

As at the majority of sites the coins of the 4th century provide, by virtue of their numbers, the greatest opportunity for distributional analysis, and the method used here is that developed by Mrs Alison Ravetz in the early 1960s (Ravetz 1964). This involves the division of the bronze coins of the period into the following seven chronological groups:

I	294–317	18
II	317–330	23
III	330–348	141
IV	348–364	24
V	364–378	12
VI	378–388	1
VII	388 onwards	1

A figure is then calculated for each group representing the average annual coin loss per thousand 4th-century coins found on the site. This figure is produced by dividing the number of coins in that group by the length of the period in years and by the total number of coins per thousand in Groups I to VII. Thus for Group I at Hacheston which contains eighteen coins, the calculation is:

$$\frac{18 \text{ (coins)}}{23 \text{ (years)} \times 0.22 \text{ (thousand 4th-century coins)}}$$

This reveals that, on average, 3.56 per thousand of the 4th-century bronze coins on the site were lost during each year of Group I. When applied to all the groups at Hacheston this process produces the following figures:

Group I	3.56
Group II	8.04
Group III	35.61
Group IV	6.82
Group V	3.90
Groups VI and VII contain only two coins.	

When these figures are represented in graph form (Fig. 58) Hacheston falls into Mrs Ravetz's (1964) Class A, the commonest class, which includes sites where the gradient of coin loss climbs to a peak in Group III and then falls away rapidly. With its small Group V and almost non-existent Groups VI and VII, Hacheston compares with the second variety of Class A, which includes many villa sites. An unusual feature, however, is that the figure for Group V is smaller than that for Group IV. On almost all the sites examined by Mrs Ravetz the reverse was the case, and there is therefore a suggestion of lessening activity here during the Valentinianic period.

Of particular interest among the 4th-century bronze coins are four half-folles of the period 310–311. These fractional folles seem to be much less common in Britain than on the continent, a fact which may be explained by their absence from the products of the London mint, which supplied a large proportion of the coinage to Britain at this time. The four examples from Hacheston are all from the Trier mint, which seems to have produced these coins in large numbers. For example, of a total of sixty-six half and quarter folles recovered from the Altbachtal sanctuary area at Trier, all but five were identified as products of the Trier mint and only one, from Lyons, as definitely from elsewhere. Even allowing for the natural probability that most of the coins on this site would have come from the

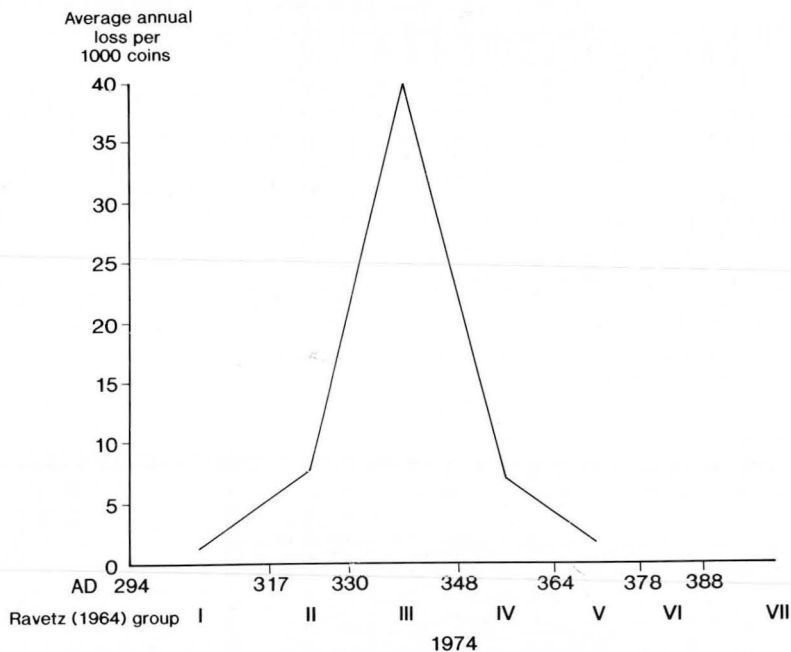
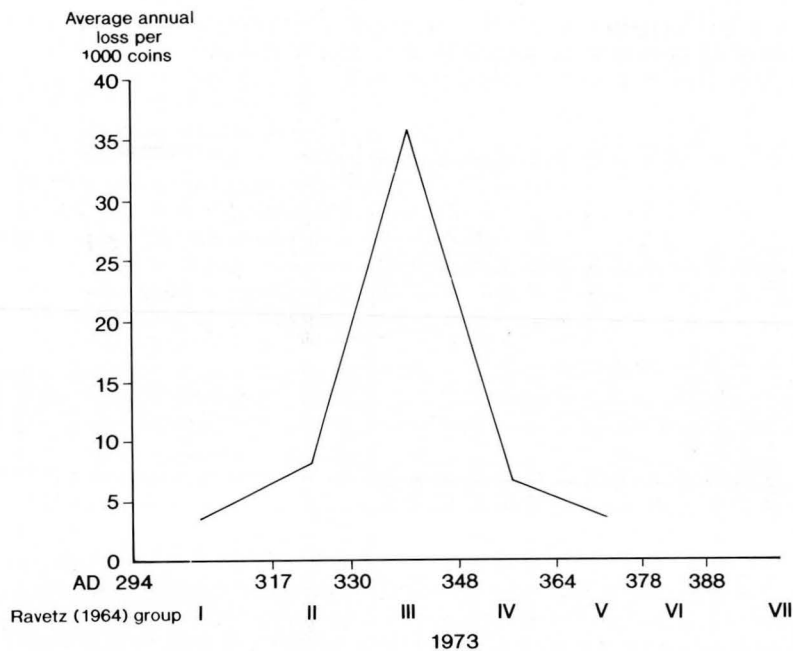


Figure 58 Ravetz type diagrams of 4th-century coin loss

local mint, these figures would seem to be of some significance.

This point leads on conveniently to a brief analysis of the mints of origin of the 4th-century bronze coins found at Hacheston. As might be expected, coins of the London mint are common among those minted before 326, when this mint was closed. Of thirty-four definitely attributable coins of this period, fourteen are from London, fifteen from Trier, two each from Lyons and Ticinum, and one from Rome. After the closure of the London mint, Trier and Lyons seem to have taken over most of the burden of supplying coins to Britain, and this is reflected here in

figures of fifty-two from the former and twenty-four from the latter during the period 326–341. Of the others, six are from Arles and one from Thessalonica. Of the twenty-one coins dating from 341–350 with mint-marks still legible all but one are from Trier, the exception being from Lyons. After this period there are not sufficient coins for an analysis to be valid, but coins of the second half of the century bear mint-marks of Amiens, Trier, Lyons, Rome, Arles, Siscia and Aquileia.

The presence of a very small number of late 4th-century coins allows the possibility that the sites may have continued in occupation to some extent until at least the

<i>Period</i>		<i>Field 1 Holmes</i>			<i>Field 1 Balkwill</i>		<i>Field 2 Holmes</i>		<i>Field 2 Balkwill</i>		<i>Field 3 Holmes</i>			<i>Unlocated Balkwill</i>		<i>Totals</i>	
		<i>All</i>	<i>Excavated</i>	<i>%</i>	<i>All</i>	<i>%</i>	<i>All</i>	<i>%</i>	<i>All</i>	<i>%</i>	<i>All</i>	<i>Excavated</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>
1	BC-41	1	0	0.13	1	0.14	1	0.42	0	0.00	0	0	0.00	1	0.97	4	0.17
2	41-54	2	0	0.26	1	0.14	1	0.42	0	0.00	0	0	0.00	1	0.97	5	0.21
3	54-68	0	0	0	1	0.14	1	0.42	1	0.27	0	0	0.00	0	0.00	3	0.13
4	69-96	18	2	2.33	6	0.82	8	3.36	3	0.81	3	3	1.92	0	0.00	38	1.60
5	96-117	14	1	1.81	10	1.37	1	0.42	1	0.27	2	0	1.28	0	0.00	28	1.18
6	117-138	18	1	2.33	5	0.68	6	2.52	1	0.27	15	6	9.62	0	0.00	45	1.90
7	138-161	14	1	1.81	18	2.46	6	2.52	4	1.08	5	3	3.21	0	0.00	47	1.98
8	161-180	11	0	1.42	2	0.27	1	0.42	2	0.54	1	1	0.64	1	0.97	18	0.76
9	180-192	3	0	0.39	3	0.41	3	1.26	0	0.00	2	1	1.28	1	0.97	12	0.51
10	192-222	6	0	0.78	11	1.50	4	1.68	7	1.89	8	0	5.13	0	0.00	36	1.52
11	222-238	3	0	0.39	9	1.23	2	0.84	1	0.27	1	0	0.64	1	0.97	17	0.72
12	238-259	2	0	0.26	4	0.55	1	0.42	1	0.27	1	1	0.64	0	0.00	9	0.38
13	259-275	147	1	18.99	131	17.92	54	22.69	90	24.32	30	9	19.23	15	14.56	467	19.69
14	275-294	20	1	2.58	8	1.09	12	5.04	4	1.08	4	2	2.56	0	0.00	48	2.02
15	294-317	15	2	1.94	12	1.64	11	4.62	5	1.35	8	3	5.13	2	1.89	53	2.23
16	317-330	52	2	6.72	44	6.02	14	5.88	12	3.24	10	3	6.41	1	0.94	133	5.61
17	330-348	373	45	48.19	409	55.95	89	37.39	208	56.22	48	5	30.77	71	69.81	1198	50.51
18	348-364	60	11	7.75	46	6.29	11	4.62	24	6.49	13	3	8.33	5	4.85	159	6.70
19	364-378	13	1	1.68	10	1.37	9	3.78	6	1.62	4	0	2.56	3	2.91	45	1.90
20	378-388	0	0	0.00	0	0.00	1	0.42	0	0.00	0	0	0.00	0	0.00	1	0.04
21	388-402	2	1	0.26	0	0.00	2	0.84	0	0.00	1	0	0.64	1	0.97	6	0.25
<i>Totals</i>		774	69		731		238		370		156	40		103		2372	100

Note: % refers to 'all' columns not to 'excavated' groups; these figures were assembled from each report by Holmes and by Balkwill some time after the original work and so there are some minor discrepancies when compared to the texts

Table 13 Roman coins by Reece period in the separate reported groups from each field

380s, but the concentration is insufficient to be accepted as sure evidence for this, and the coins may well represent only random losses. There are two late 4th-century silver coins, of which one has suffered so much from clipping that it is impossible to date it more closely than to 367–392. The second, however, a siliqua of Magnus Maximus, dating from 383–388, is in extremely fine condition.

The coins from the 1974 excavation (Field 1)

by N. Holmes (written in 1977)

In all 805 Roman coins were examined from the 1974 excavation areas, of which sixty-nine were from identifiable contexts (see Tables 13 and 15 as before)

In analysing this group of coins it will be of value to submit them to the same processes as employed for the 1973 finds, in an attempt to establish whether there are any significant variations in the pattern of coin loss between the two areas excavated. In addition the larger number of coins involved, particularly of the 4th century, may serve to add weight to any features of the pattern which are common to both sites.

There seems little reason to alter the earlier hypothesis that occupation of the area commenced during the reign of Hadrian. Although there were fourteen coins of Trajan from the second excavation, more than half are too worn for proper identification, and coins of all earlier emperors are scarce and generally in poor condition. A fairly consistent coin loss can be postulated throughout the Antonine period, with worn coins of Trajan and Hadrian augmenting the total of twenty-nine from the period AD 138–192. This again compares substantially with 1973. The total of six coins of the Severan dynasty is surprisingly only half that from the previous site, but this is extremely unlikely to be of any significance, as both excavations produced the normal handful of items of the period 222–259. An unusual find for Britain, however, was a provincial Ae 28 of Septimus Severus.

The period 260–273 is as usual well represented by base antoniniani, amongst which the rarest is that of the Gallic Empire usurper Marius; this coin is unfortunately incomplete. The surprising dearth of barbarous radiates amongst the 1973 finds is not repeated in this group — there are forty-eight copies and fifty-five official issues. Added together, however, the two groups show totals of ninety-six official issues and fifty-five barbarous copies, still a much higher ratio than might be expected. Coins of the period 272–296 comprise as usual mainly those of the British Empire, those of Carausius forming the majority.

When the coins are divided into the three basic chronological divisions of Roman coinage, it can be shown that a total of 98 (12.05%) were minted before 222; a further 172 (21.16%) belong to the second or ‘radiate’ period up to AD 294, and the remaining 543 (66.79%) date from after the Diocletianic coinage reforms. The last figure is considerably higher than the 55.5% in the corresponding period for the 1973 finds, but this is of no particular significance as the coins of the House of Constantine form by far the largest group from both sites. The figures for the three periods for both groups combined are:

pre-222	168 (13.85%)
222–294	280 (23.08%)
after 294	765 (63.07%)

These are much as one might expect for a site with continuous occupation over this period.

For analysis of the 515 4th-century coins the seven chronological groups first used by Mrs Ravetz are again employed (Ravetz 1964). The figures for the 1974–5 Hacheston finds are as follows:

I	(AD 294–317)	15
II	(AD 317–330)	52
III	(AD 330–348)	373
IV	(AD 348–364)	60
V	(AD 364–378)	13
VI	(AD 378–388)	0
VII	(AD 388 onwards)	2

Using the formula:

$$\frac{\text{number of coins}}{\text{years of group}} \times \text{total of 4th-century coins in thousands}$$

A figure for each group is produced which represents the average annual coin loss per thousand 4th-century coins on the site. (For example an average of 1.27 per thousand of the 4th-century coins on this site were lost during each year of Group I). The figures are as follows:

Group I	1.27
Group II	7.77
Group III	40.24
Group IV	7.28
Group V	1.80
Groups VI and VII contain only two coins.	

When these figures are represented in graph form (Fig 58), the result is an exaggerated version of that produced for the 1973 coins. Once again Hacheston is shown to fall into the second variety of Mrs Ravetz’s Class A, which contains many villa sites, but the peak in Group III is even more pronounced. The pattern of the 1973 coins is also repeated in the unexpectedly small figure for Group V; in almost all Mrs Ravetz’s sites this exceeds that for Group IV. Coin evidence thus points consistently to a rapid lessening of activity at Hacheston during the Valentinianic period, with virtually no evidence in the numismatic record for occupation after 378.

The distribution of mint-marks on the coins of the 4th century again follows fairly closely the pattern found in 1973. During the period prior to the closure of the mint of London in 326, this was clearly the primary source of coin supply to Britain, and this is reflected in a total of twenty-seven coins from this mint. Of the others, sixteen are from Trier, eight from Lyons, three from Arles and one each from Ticinum, Aquileia, Thessalonica, Heraclea and Carthage.

After the cessation of coin production in this country the burden of supply fell on the Gallic mints, amongst which that of Trier played the major role. Of the coins of 326–341, 101 are of Trier, fifty-four of Lyons, twenty-one of Arles and the remaining eight from Rome, Aquileia and Nicomedia. As in the case of the 1973 finds the role of Trier in the period 341–350 becomes almost monopolistic, this mint providing sixty-two of the coins compared with eight from Lyons, three from Arles and one each from Heraclea and Constantinople. The number of coins from the second half of the 4th century is again too small for valid analysis, but mints represented are Trier, Lyons, Arles, Amiens and Siscia.

To summarise, therefore, the numismatic evidence from both the Hacheston excavations would be consistent with a period of uninterrupted occupation of the area from approximately 125–375, with activity being reduced during the final decade but possibly continuing for a further ten to fifteen years thereafter.

<i>Coin Period</i>		<i>Hacheston</i>		<i>Pakenham</i>		<i>Wenhaston</i>		<i>Suffolk excluding towns</i>		<i>E.Suffolk excluding towns</i>	
		no	%	no	%	no	%	no	%	no	%
1	BC-41	4	1.53	5	2.28	7	2.82	19	4.75	24	10.86
2	41-54	5	1.91	6	2.74	0	0.00	9	2.25	11	4.98
3	54-68	3	1.15	9	4.11	1	0.40	7	1.75	11	4.98
4	69-96	38	14.50	70	31.96	34	13.71	80	20.00	45	20.36
5	96-117	28	10.69	38	17.35	23	9.27	42	10.50	21	9.50
6	117-138	45	17.18	34	15.53	23	9.27	35	8.75	9	4.07
7	138-161	47	17.94	25	11.42	36	14.52	76	19.00	52	23.53
8	161-180	18	6.87	14	6.39	24	9.68	41	10.25	20	9.05
9	180-192	12	4.58	3	1.37	14	5.65	20	5.00	13	5.88
10	192-222	36	13.74	7	3.20	59	23.79	42	10.50	8	3.62
11	222-238	17	6.49	5	2.28	18	7.26	22	5.50	5	2.26
12	238-259	9	3.44	3	1.37	9	3.63	7	1.75	2	0.90
<i>Totals</i>		262	100.00	219	100.00	248	100.00	400	100.00	221	100.00

Table 14 Comparative quantities of coins up to AD 260 in the Suffolk countryside and small towns

Area I				
<i>Sf no</i>	<i>Context</i>	<i>Emperor, Type, Date</i>	<i>Condition</i>	<i>Reece period</i>
C 18	Pit 2 BJ	Iron Age G-B quarter stater forgery, listed above No 1	light wear	
C 45	Pit 80 MBC	Iron Age Boar -Horse, listed above No 2	very corroded	
C 51	Pit 46 GE	Iron Age, Icenii Pattern Horse, listed above, No 3	light wear	
C 37	Road CN	Domitian, dupondius, 81-96	poor	4
C 8	Dark soil AH	Domitian, dupondius, illegible, 81-96	poor	4
C 5	Dark soil AA	Dupondius or as, possibly Domitian?	poor	4?
C 38	Midden AJ	Dupondius or as, probably late 1st/early 2nd cent.	poor	
C 11	Midden AJ	Hadrian, dupondius or as, 134-138	very worn	6
C 24	Midden AJ	Hadrian, as, 125-128	very worn	6
C 30	Dark soil CD	Hadrian, dupondius, 117-138	poor	6
C 48	Pit 29JH	Hadrian, sestertius, 117-138	poor	6
C 53	Dark soil HJ	Hadrian, sestertius, 125-138	poor	6
C 29	Dark soil AA	? Hadrian, dupondius or as, 117-138?	poor	6?
C 32	Road CH	Antoninus Pius, sestertius, 140-144	light wear/worn	7
C 43	Road HI	Faustina I, dupondius or as, 138-141	very worn	7
C 19	Dark soil AH	Marcus Aurelius, dupondius or as, 154-155	very worn	7
C 42	Pit 54 CQ	Commodus, sestertius, 179	poor	8
C 10	Dark soil AH	Commodus, dupondius, 183-184	worn	9
C 3	Dark soil AA	Valerian I, antoninianus, 257	worn	12
C 13	Dark soil AD	Salonina, antoninianus, 260-268	worn	13
C 4	Dark soil AA	Victorinus, antoninianus, 268-270	worn/very worn	13
C 49	Pit 79 MAR	Divus Claudius II, antoninianus, prob copy, 270+	poor	13
C 2	Dark soil AA	Tetricus I, antoninianus, 270-273	very worn	13
C 63	Pit 1AN	?Tetricus I, antoninianus, 270-273	very worn	13
C 28	Dark soil AA	Gallic Empire, antoninianus, 260-273	poor	13
C 20	Dark soil AA	Carausius et Fratres Sui, rev Comes Auggg, 286-293	light wear	14
C 9	Dark soil AA	Constantine I, Ae2, 307-317	light wear	15
C 12	Dark soil AK	Constantine I, Ae3, 318-320	worn	16
C 6	Dark soil AC	Constantine I, Ae3, 320	worn	16
C 58	Dark soil HJ	Constantine I, Ae3, 322	light wear	16
C 41	Pit 54 CQ	Constantine I, Ae3, 330-335	worn	17
C 39	Road HI	Constantius II, Ae4, 337-341	light wear	17
C 59	Dark soil HJ	House of Const, Ae4, 2 soldiers 1std. c.330-341	very worn	17
C 14	Dark soil AD	Constantius II, Ae4, 353-360	worn/very worn	18
C 40	Dark soil CJ	House of Const, Ae4, Fallen Horseman copy,c.348-36'	poor, broken	18
C 50	Pit 79 MAR	House of Const, Ae4, Fallen Horseman copy,c.348-36'	very worn	18
C 52	Dark soil KZ	Minim, probably 4th century copy	poor	
C 7	Dark soil AH	Ae3 completely illegible	poor	

Table 15 Coins from stratified contexts, arranged chronologically within each Area (cont'd over)

Area II				
<i>Sf no</i>	<i>Context</i>	<i>Emperor, Type, Date</i>	<i>Condition</i>	<i>Reece period</i>
C 15	Ditch F7 MQ	Gallie Empire, barbarous Ae3, 259–273	very worn	13
C 17	Ditch F12 NC	Divus Claudius II, 270+	very worn	13
C 61	Ditch F35 UD	Tetricus I, antoninianus, 270–273	very worn	13
C 21	Ditch F23 OH	Probus, antoninianus, 276–282	light wear/worn	14
C 31	Pit F30 PY	Constantine I, Ae3, 310–311	light wear/worn	15
C 34	Ditch F35 QY	Constantine I, Ae3 (half follis), 310–311	light wear	15
C 27	Ditch F14PF	Constantinopolis, Ae3, 330–337	worn/very worn	17
C 35	Ditch F35 QZ	Constantine II, Ae3, 335–337	light wear	17
Area III				
<i>No</i>	<i>Context</i>	<i>Emperor, Type, Date</i>	<i>Condition</i>	<i>Reece Period</i>
C 44	over B.XI ABF	Constantine I, Ae3, 320	mint/light wear	16
C 46	Gully F68 ABL	Valentinian I, Ae3, 364–367	worn/very worn	19
Area IV				
<i>Sf no</i>	<i>Context</i>	<i>Emperor, Type, Date</i>	<i>Condition</i>	<i>Reece Period</i>
1198	W(1)	?Domitian, dupondius, ?81–96	poor	4
1405	W.75	Trajan, dupondius, 98–117	poor	5
1048	W.32	Hadrian, sestertius, 119	very worn	6
1010	W(1)	Urbs Roma, Ae3, 330–335	very worn	17
1045	W(1)	Urbs Roma, Ae3, 330–335	worn	17
1257	W(1)	Constantine II, Ae3, 330–335	worn/very worn	17
1007	W(1)	Constantine II, Ae4, 335–337	worn/very worn	17
1012	W(1)	Constans, Ae4, 341–348	worn/very worn	17
1034	W(1)	Constantius II, Ae4, 341–348	worn/very worn	17
1008	W(1)	Constans, Ae3, 341–348	worn	17
1062	W.18	Constans, Ae4, 341–348	light wear/worn	17
1114	W(1)	Constantius II, Ae4, 341–348	worn	17
1121	W(1)	Constans, Ae4, 341–348	worn	17
1122	W(1)	Constans, Ae3, 341–348	worn	17
1179	W(1)	Minim, barbarous, 2 soldiers lstd, 335+	worn/very worn	17
1252	W(1)	Minim, barbarous Constantinopolis, 330+	poor	17
1259	W.46	House of Const. Ae4, 341–348	poor	17
1395	W(1)	House of Const. Ae4, 341–348	poor	17
1124	W(1)	Constantius Gallus, Ae2, 351–354	worn	18
1015	W(1)	Minim, barbarous, prob. c.348–364	very worn	18
1101	W(1)	Valentinian I, Ae3, 367–375	worn/very worn	19
Area VI				
<i>Sf No</i>	<i>Context</i>	<i>Emperor, Type, Date</i>	<i>Condition</i>	<i>Reece period</i>
1396	Z(2)	Constantinopolis, Ae3, 330–335	worn	17
1003	Z(1)	Constantius II, Ae3, 341–348	very worn	17
0185	Z(1)	Ae4, copy, probably 348–364	poor	18
1397	Z(2)	Minim, barbarous ?Fallen Horseman, ?348–364	poor	18
1398	Z(2)	Ae4, barbarous, c.348–364	poor	18
1618	Z.1	Ae4, illegible, C4	poor	

Table 15 Coins from stratified contexts, arranged chronologically within each Area (cont'd over)

Area IX

<i>Sf No</i>	<i>Context</i>	<i>Emperor, Type, Date</i>	<i>Condition</i>	<i>Reece Period</i>
0004	7(1)	Ae2 fragment, totally illegible	poor	
0058	7(3)	Vespasian or Titus, as, 69–81	poor	4
0164	7(3)	Diva Faustina I, dupondius, 141+	very worn	7
0007	7(1)	Divus Claudius II, antoninianus, 270+	poor	13
1044	7.13(2)	Carausius, antoninianus, 287–293	poor	14
0242	7(3)	Maximinus II, follis, 307	very worn	15
0193	7(3)	Constantine I, Ae follis, 310	worn	15
0056	7(3)	Constantine II, Ae3, 320	worn/very worn	16
0042	7(1)	Constantine I, Ae3 (follis), 321–322	worn	16
0009	7(1)	Constantine I, Ae3, 323	very worn	16
0028	7(3)	Constantine II, Ae3, 330–335	worn	17
0030	7(1)	Constantine I, Ae3, 330–335	light wear	17
0040	7(1)	House of Const. Ae4, 330–335	poor	17
0050	7(2)	Constantius II, Ae3, 330–335	very worn	17
0065	7(3)	Urbs Roma, Ae3, 330–335	worn	17
0207	7(3)	Urbs Roma, Ae3, 330–335	light wear/worn	17
0045	7(2)	Constantinopolis, Ae3, 330–335	mint/light wear	17
0191	7(3)	Constantinopolis, Ae4, 330–337	poor	17
0017	7(1)	Constantius II, Ae4, 335–337	worn	17
0166	7(3)	Constantine II, Ae3, 335–337	very worn/poor	17
0064	7(3)	House of Const. Ae4, 335–341	poor	17
0022	7(1)	Constantius II, Ae4, 337–341	worn/very worn	17
0046	7(3)	Constans, Ae4, 337–341	worn	17
0063	7(3)	Constantius II, Ae4, 337–341	worn/very worn	17
0194	7(3)	Constans, Ae4, 337–341	worn/very worn	17
0255	7(3)	Constantius II, Ae4, 337–341	very worn	17
0039	7(3)	Constantius II, Ae4, 340–341	worn	17
0006	7(1)	House of Const, Ae4, 341–348	poor	17
0020	7(1)	Constans, Ae4, 341–348	light wear/worn	17
0037	7(1)	Constans, Ae4, 341–348	worn/very worn	17
0071	7(3)	Constans, AE4, 341–348	worn	17
0111	7(3)	Constans, Ae4, 341–348	light wear	17
0188	7(3)	House of Const, minim, perforated frag, 341–348	poor	17
0113	7(3)	Minim, ?clipped, 330+	poor	17
0127	7(3)	Minim, ?clipped, 330+	poor	17
0149	7(3)	Minim, ?clipped, 330+	poor	17
0034	7(1)	House of Const. Fallen Horseman copy, Ae4, c.348–364	poor	18
0049	7(1)	Minim, copy prob. c.348–364	poor	18
0073	7(1)	?Constantius, Ae2, 348–364	poor	18
0129	7(3)	House of Const. ?copy, Ae4, 348–364	poor	18
0179	7(3)	Magnentius copy, Ae4, c.351–364	worn	18
0190	7(3)	Ae4, copy, Fallen Horseman, c.348–364	worn	18
0014	7(1)	House of Theodosius, Ae4, 388+	poor	21

Table 15 Coins from stratified contexts, arranged chronologically within each Area

Roman coins submitted to Ipswich Museum

by C.J.Balkwill, L.Elmhirst and H.W.T.Webb

(written in 1978)

A total of 1018 Roman coins were selected from approximately 2000 collected by the use of metal detectors after earth moving operations. Only those coins which could be ascribed with certainty to an emperor or to a minting period are included in the 1018 listed. No attempt has been made to differentiate copies in the list, which is held as part of the site archive and summarised in Table 13 (but see below for alterations in this).

The coins were analysed using coin periods and a histogram based on Reece 1972. This showed the extremely high percentage of mid 4th-century (330–348) coins compared with the normal British figure established by Reece. It was also noted that the period 138–161 was slightly above levels recorded by Reece and that the late 3rd century (275–296) was below his range. Finally this group also showed a rapid decline in coin loss in the second half of the 4th century, and it is suggested that perhaps coin was being deliberately kept out of circulation.

Discussion

by Judith Plouviez

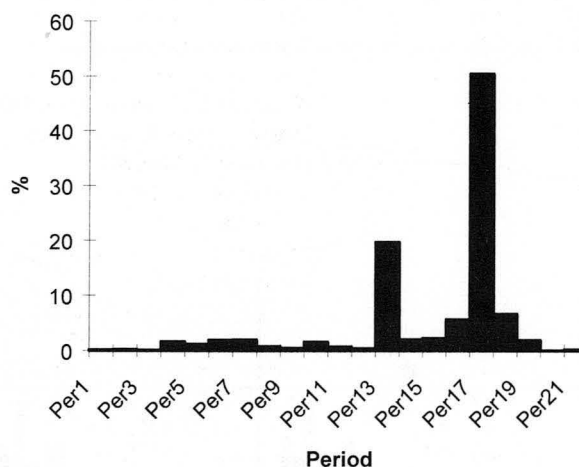
The Hacheston coins were one of the first large groups to be recovered using metal detecting — in 1974 only major towns, forts and occasionally temple sites were likely to have produced more than 1000 Roman coins. Since then large groups have been collected from other Suffolk small towns and numerous small groups from the rural sites which provide a local context. For comparison to the national pattern Reece (1991) tabulates 140 groups, including the three Hacheston groups divided as in the reports above (but with some discrepancies).

Using the Reece period divisions all the groups are shown in Table 13. The only major problem with attribution to a period was in Periods 13 and 14, the later 3rd century. The Balkwill group excluded all poorly identified coins which meant that the entire later 3rd century was under-represented. The original identification lists did include figures for unidentified radiates without any differentiation of copies from regular issues (eighty-seven from Field 1, sixty-eight from Field 2 and seven unspecified field) so these were added into the Period 13 totals. To keep the totals comparable the coins listed under Period 14 from the Holmes identification lists are all regular post-275 issues, and all the radiate copies are again included in Period 13. This differs from the general practice for Suffolk (following Reece 1991) which is to attribute the radiate copies to Period 14 as they are thought to have been struck in the 270s and 280s. However Reece points out that the distinction between Periods 13 and 14 will always be unreliable because definitions of which are regular and which are copies have changed significantly over the last thirty years.

The overall total (also presented in histogram type format as Fig. 59) shows the pattern described above by Holmes, which is broadly consistent with occupation throughout the Roman period except for some questions at the beginning and at the end.

For the early period it is difficult to establish what is a 'normal' site pattern because of the relatively low numbers of coins lost during the 1st and 2nd centuries, combined with the likely variation in the initial occupation date of sites in East Anglia. Table 14 shows coinage in Periods

Total 2372 Coins from Hacheston



Hacheston coins adjusted (-500 in Period 17): Total 1872

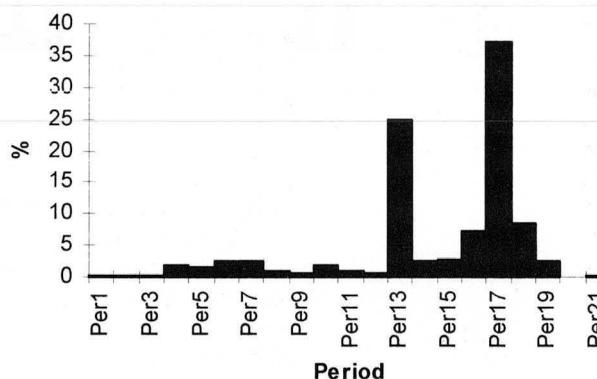


Figure 59 Roman coin loss by period in histogram type diagrams. In the second the dominance of Period 17 has been reduced by an arbitrary 500 coins to clarify relative percentages in the other periods

1–12 for the Suffolk small towns of Hacheston, Pakenham and Wenham, plus totals for the whole of Suffolk and for the eastern half of the county excluding the large small town groups. The Pakenham site can be shown to be occupied from c.61 (initially as a short-lived fort) and makes a strong showing in the 1st century at about 40% compared to Hacheston at just under 20%. In the Trajanic and Hadrianic periods (Periods 5–6) Hacheston is ahead of all the groups except Pakenham and thereafter is comparable to the Wenham, Suffolk and East Suffolk groups up to 260.

The Hacheston figures were also rapidly compared to the lists in Reece (1991, tables VIA and B) which show the ranking in the 140 sites of the ratio between each consecutive period from 1 to 12. Again Hacheston ranks low until the late 1st century and high in Hadrianic. There is again a dip with a low figure in Period 8 (161–180) which is also quite low in Table 14 compared with Suffolk, East Suffolk and Wenham figures.

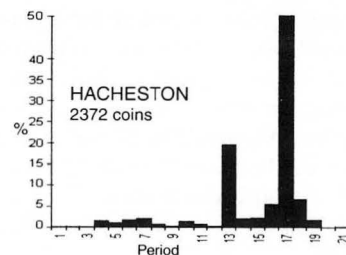
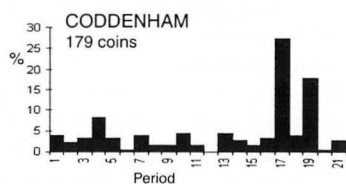
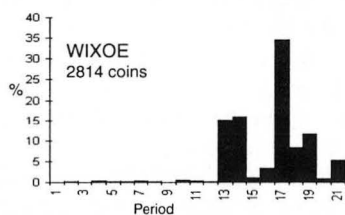
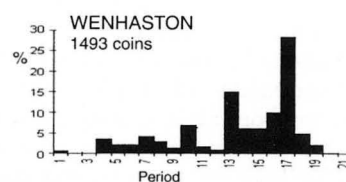
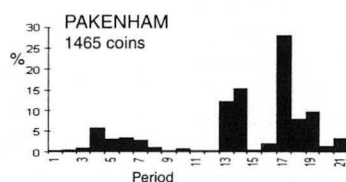
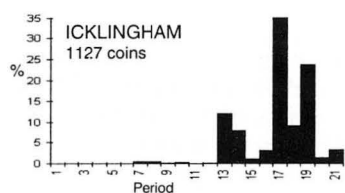
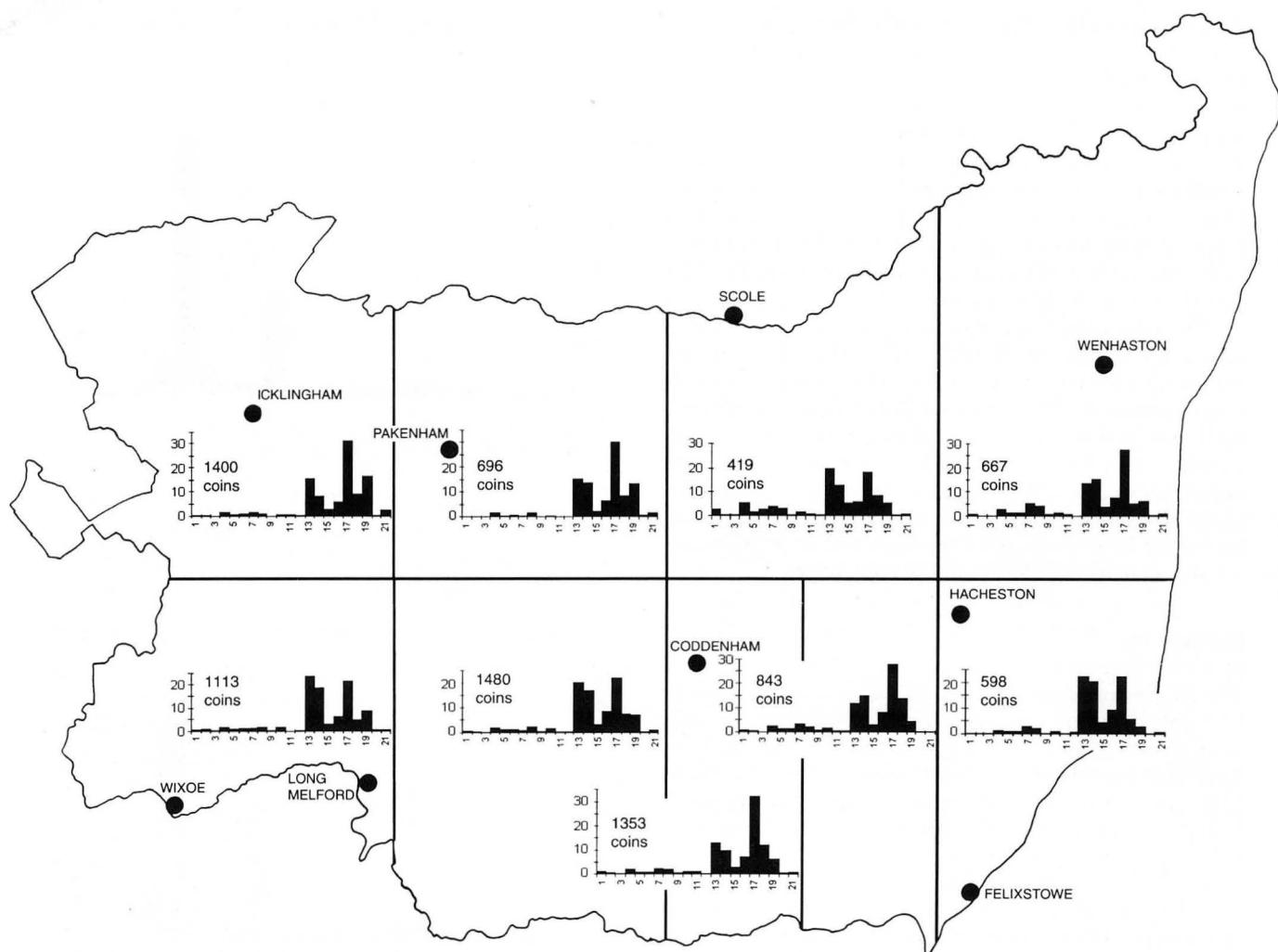


Figure 60 Suffolk, showing coin loss in different areas and (below) at the small towns

The most conspicuous aspect of Figure 59 is the very high percentage in Period 17. It ranks very near the top of Reece's 140 sites for this period (outdone by Rockbourne villa in Hampshire and the extra-mural group from Caistor St Edmund). The remaining periods in the 4th century are also notable for a rapid decline in coin loss, so that as Holmes points out the site appears to be unoccupied by the 370s.

One reason for listing the coins by field in Table 13 was to examine the 4th-century peak in relation to different parts of the site and in the excavated evidence. It seemed possible that there might be a scattered hoard or hoards which were skewing the figures. However a figure around 50% is true for both Fields 1 and 2 and dispersal of a single hoard across a probably medieval road seems very unlikely. For Field 3, where Period 17 drops to just under 30%, the sample is smaller and includes a significant proportion of excavated material; if this is excluded the Period 17 share rises to over 35%, still below the other fields and closer to the regional and national norm.

The excavated collection of forty identifiable Roman coins from Areas I and II in Field 3 is too small for comparative percentages to be valid (Table 15). However there is a clear bias to the earlier Roman period with fifteen coins pre-260, eleven in the later 3rd century and only fourteen in the whole of the 4th century. All of the pre-260 coins were found in Area I. The largest group from a single context is the eight coins from AA, the dark soil, which closes with an early 4th-century (307–317) coin; the latest coins (both barbarous copies of AD 348–364) were found in CJ and MAR.

In Area III (Field 2) the two excavated coins are a negligible proportion but one of the relatively scarce Valentinian (364–367) examples was from ABL.

In Field 1, all the coins from Areas IV–X are included as 'stratified' because they were found in the relatively small trenches excavated in 1974 although many of them

derive from the ploughsoil or the underlying dark soil layers. The collection method is also a factor here, as detectors were in use during the excavation in 1974. However, the figures suggest that it is the dark soil layer(s) in this part of the site which produce the Period 17 peak — in Area IV fifteen of the twenty-one coins are Period 17, thirteen of them from the ploughsoil and dark soil (Layer 1). In Area IX where the dark soil layer was hand excavated rather than machined both the upper (Layer 1) and lower (Layer 3) dark soil contained mainly 4th-century coins. Thus of the forty-two identifiable coins from Area IX twenty-seven are Period 17, all of them from the dark soils. A further six coins dated to Period 18 (348–364), half of which derived from Layer 1 and half from Layer 3. A single Theodosian coin derived from the upper layer.

In summary it appears that the large numbers of coins minted in 330–348 are a component of the dark occupation layers in Field 1 and probably Field 2 but are fewer in number in Field 3 and not clearly related to the excavated occupation layers in Area 1. The dark soil layers in Field 1 include the next phase (348–360) but coin loss then drops rapidly in all parts of the site.

Late Roman coin loss in East Suffolk generally has been illustrated previously (Plouviez 1995, 74–75, figs 7.4, 7.5 and reproduced here Fig. 60) where it was shown that a drop from the mid 4th century to the Valentinian and a virtual absence of coinage thereafter was characteristic of south-east Suffolk in general as well as the small towns at Hacheston and at Wenhaston to the north. This was in contrast to the western half of the county where Valentinian (Period 19) totals are higher than Period 18 and there is a measurable loss in the final phase (Period 21). The pattern seems to be a local intensification of the general differences noted by Reece between the towns and small towns in eastern Britain and the west of the province (Reece 1988, 80–81).

Chapter 4. The Small Finds

by Fiona Seeley

with contributions by J. Bayley, J. Caruth, H. Chapman,
D. Charlesworth, F. Jenkins, M. Hassall, M. Henig, R. Jackson, J. Plouviez and D. Starley

I. Introduction

The small finds database includes 2184 objects, excluding coins. The majority are made of metal (874 copper alloy, 816 iron, 118 lead) because of the use of metal detectors on the 1974 excavation areas in Field 1 and on disturbed soil throughout the road construction area in Fields 1, 2 and 3. Other materials listed are glass, bone, stone, flint and ceramics — the largest group amongst these is the glass of which there are 113 pieces.

Selection for inclusion in the published catalogue was largely based on whether an object could be identified and whether it had an excavated context; illustration has favoured the most representative examples of a type. The catalogue details 606 objects, of which 211 are brooches. In addition there are entries discussing iron working debris, window glass, tile and other building materials. All aspects of pottery manufacture are covered in Chapter 5.

Almost none of the metalwork has been x-rayed. The copper-alloy objects were generally in a good state of preservation but iron objects were very corroded which has reduced the number of identifiable items.

Several people (principally Sheila Fisher, Donna Wreathall and Rebecca Archer) were involved in the preparation of the illustrations over the course of almost twenty years — as a result there are various inconsistencies in views drawn and it is unfortunate if sometimes the combination of different styles has adversely affected the end result.

In line with current practice in the region (*e.g.* Darling with Gurney 1993, Margeson 1993) the material has been grouped by function rather than material. The categories used here follow the Colchester reports (Crummy 1983, 1992) and the Colchester typologies for particular objects have been used where relevant, for example for hairpins. The categories are (numbers of items catalogued):

- Objects of personal adornment or dress (299)
- Toilet, surgical, or pharmaceutical objects (36)
- Objects used in the manufacture or working of textiles (18)
- Household utensils and furniture (80)
- Objects used for recreational purposes (none)
- Objects employed in weighing and measuring (2)
- Objects used for or associated with written communications (4)
- Objects associated with transport (6)
- Buildings and services (not catalogued, summary reports)
- Tools (21)
- Fastenings and fittings (47)
- Objects associated with agriculture, horticulture and animal husbandry (3)
- Military equipment (14)
- Objects associated with religious beliefs and practices (3)
- Objects and waste material associated with metal working (5 plus summary report)
- Objects and waste material associated with antler and bone working (1)
- Objects and waste material associated with pottery manufacture (see Chapter 5)
- Objects the function of which is unknown (67)

The catalogues consist of two numbered sequences which relate to the illustrations, the first (211 entries) dealing with the brooches and the second (395 entries) covering the rest. The descriptions cover salient points, particularly aspects that are not apparent from the drawings. The parallels cited have not been sought very widely because of the limited time available for the project. At the end of each entry the original small find number is given (in 1973 finds were numbered by material, in 1974 a single four digit number sequence was used), followed by excavation area, context and phase where appropriate. Objects found by metal detecting after excavation was completed have been recorded by Field number where possible (as in Fig. 2) but do all derive from within the line defining the new road. Although quite a few of the 1974 number sequence do not give a field location it seems likely that almost all of those numbered less than 2400 did derive from Field 1; after 2400 this sequence was used for all finds. In all cases where no phasing is given it should be assumed that the object is unstratified. Problems were encountered with objects found by volunteer excavators after the 1973 season; although contexts are given these are often not very reliable and have been noted as '(excavated 1974)'.

Unless objects are specifically identified as being of another date they can be assumed to be considered to be Roman; obviously with the lack of secure contexts this dating may need to be reconsidered in particular instances.

General comments on the finds

These finds illustrate some aspects of the settlement which are not apparent from the excavation information alone, as well as providing supplementary evidence. The combination of the coins and the other finds, particularly the copper-alloy objects, suggest a reasonable level of affluence and commercial activity which is difficult to infer from the fragmentary traces of the buildings.

In purely chronological terms the small finds, particularly the large group of brooches, add weight to a possible pre-Roman start date for the settlement (see further discussion under brooches) and seem to suggest continuing activity until late in the period. Other objects which might be pre-Roman are the loomweight (141) and a copper-alloy fitting with enamel (365). The metalwork does not reflect any trace of early Anglo-Saxon activity; the earliest post-Roman artefact was a strap end (SF 2532) of late Saxon date from Field 1.

In addition to the iron working material identified in Areas III and IX there are various indications of the manufacture of copper-alloy and pewter objects. The direct evidence of sprues and a crucible fragment is presented in the section covering 'Objects Associated with Metal-working' and also includes the lead pattern for a mould for a finger ring. It is very likely that other groups of personal

items were produced locally, such as the Colchester derivative brooches (see further discussion under brooches) and certain hairpins (see 26–29).

The objects grouped under 'Weighing and measuring' and 'Written communications' reinforce the market centre function of the site. The evidence of literacy fits well with work by Evans (1987) on the distribution of graffiti on pottery, which showed that small towns produced more evidence than the rural settlements including the villas; he also noted a higher than expected quantity of graffiti in East Anglia.

One rather surprising group was the military equipment (309–317). Although Hacheston has been cited as a possible site for a 1st-century fort (Moore *et al.* 1988, 22–24) there is actually no definite early military material. The few military objects listed seem to fit better in a 2nd or 3rd-century context, and can be considered in association with the knee and proto-crossbow brooches (brooches 155–159). Strap fittings (231–233) might also relate to this group.

The only pre-1973 find included in the catalogue is the pipeclay figurine of Apollo (320) found in 1970 in Field 5. Objects definitely associated with religion are fewer than might be expected, compared to Pakenham and Wenhampton for example. This perhaps illustrates activity within the excavation area specifically rather than across the settlement as a whole.

II. Objects of personal adornment or dress

(Figs 61–76)

Brooches

by Judith Plouviez
(Figs 61–70)

Introduction

All the 211 brooches of an identifiable type have been catalogued and are listed here. Of these only twenty-seven were from excavated contexts, and often these contexts were mixed or unphased. Further unidentifiable fragments also form part of the archive collection. A fuller descriptive catalogue with dimensions is held as part of the archive.

The material has not been exhaustively researched but comparative examples have been sought from published East Anglian sites, principally in the *East Anglian Archaeology* series and the Colchester reports (Hawkes and Hull 1947, Crummy 1983, Crummy 1992), plus the metal-detected collection from Saham Toney (Brown 1986). Unpublished material from Suffolk (mainly unstratified metal detected finds) has also been cited to indicate possible regional types and distributions. Hattatt's publications (1985, 1987, 1989) have also been used for comparative examples of less common types.

The brooches have been divided into three main groups — bow brooches, plate brooches and penannular brooches — and the types are arranged in a mixture of typological and very loosely chronological sequence within these groups. The brooches are all made of copper alloy unless otherwise stated and no metal analyses have been done.

General comments on the brooches

The collection is sufficiently large to allow some comparison of the relative quantities of the main types with other sites in the region. Table 16 shows published material from Colchester (Crummy 1983 and 1992), Camulodunum

(Hawkes and Hull 1947) and Saham Toney (Brown 1986); of these the Camulodunum figures are not very reliable as the publication does not consistently give total numbers for each type. The unpublished Suffolk material derives from the excavation of a fort and small town at Pakenham, and surface collections from the small towns at Coddanham (where there was military activity immediately post-Conquest) and Wenhampton and from a probable rural temple site at Charsfield.

The table shows Hacheston falling chronologically between the definite pre-Roman sites (Camulodunum, Coddanham, Saham Toney) and the post-60 site of Pakenham in terms of relative quantities of the early types (Colchester, Langton Downs, Rosettes), which might suggest that activity begins at the Conquest. However it is very noticeable that Colchester, a definitely 40s foundation, lacks significant numbers of Rosettes and Langton Downs, although it is moderately well supplied with Colchester types; on this evidence Hacheston could well have a pre-Roman origin. The possibility remains, of course, that these differences reflect other factors about the settlements, such as the 'native' character of Camulodunum as opposed to the legionary fortress in Colchester.

The 1st-century type which does seem to relate to the military character of sites is the Hod Hill — very numerous at the known forts (Colchester, Coddanham, probably Saham Toney and the post-Boudiccan fort at Pakenham) compared to Hacheston, Wenhampton, Charsfield and even Camulodunum.

The four groups of Colchester derivative types reflect a mixture of geographical and chronological features. It seems fairly well established that the sprung types all start soon after the Conquest (with evidence from Skeleton Green, Hertfordshire for a possible pre-Conquest double pierced lug or 'Harlow' example, which was however from an 'ambiguous' stratigraphic position (Mackreth 1996, 313)), but that production of the rear hook type stops earlier than the Harlow group. Geographically the rear hook group are commonest in the Icenian area of northern East Anglia whereas the Harlow group concentrate to the south in the Trinovantian/Catuvellanni area. The true Polden Hill type occurs most commonly in west and south-west England, but the group I describe as having 'folded wing ends' seems to be local to East Anglia.

The comparative table supports the geographical distinction with larger numbers of rear hook examples from Pakenham and Saham Toney, both definitely within Icenian territory; as is Wenhampton which also has equal amounts of rear hook and Harlow types. The smaller number of this 'Icenian' type from Hacheston is an interesting contrast to the Iron Age coin evidence.

The hinged type of Colchester derivative is less well documented. On the evidence presented here I would suggest that production starts later than the sprung types (post-Camulodunum as Hawkes and Hull pointed out, 1947, 328) and that there is a bias to the eastern half of Suffolk. The main group of hinged Colchester derivatives illustrated here strongly suggest a local production centre, with strong links with the groups from Wenhampton and Charsfield and with other East Anglian material.

Depending on how long production of the various Colchester derivative types continued there seems to be a general drop in bow brooch use in the 2nd century, partially balanced by an increase in plate-brooch types (and some of

<i>Brooch type</i>	<i>Hacheston</i>		<i>Wenhaston</i>		<i>Coddenham</i>		<i>Pakenham</i>		<i>Saham Toney</i>		<i>Camulodunum</i>		<i>Colchester</i>		<i>Charsfield</i>	
	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>
Colchester	8	4	1	1	19	11	3	3	12	8	83	26	10	7	2	2
Langton Down	17	8	2	1	13	7	2	2	13	9	50	16	0	0	0	0
Rosette	11	5	0	0	6	3	1	1	8	5	37	12	3	2	0	0
Aucissa	6	3	-	-	-	-	-	-	1	1	26	8	4	3	0	0
Hod Hill	17	8	6	4	36	20	28	25	22	15	36	11	30	20	4	3
Nauheim Derivative	6	3	0	0	3	2	10	9	6	4	21	7	22	15	0	0
Colch Deriv Rear Hook	6	3	10	7	11	6	21	19	25	17	10	3	6	4	5	4
Colch Deriv Polden Hill	5	2	14	10	-	-	0	0	5	3	3	1	4	3	3	2
Colch Deriv Double Lug	32	16	10	7	30	17	24	21	9	6	8	2	18	12	20	16
Colch Deriv Hinged	22	11	51	35	18	10	3	3	10	7	0	0	3	2	38	30
Trumpet	12	6	10	7	12	7	2	2	7	5	0	0	1	1	15	12
Headstud	3	1	4	3	4	2	5	4	2	1	0	0	2	1	9	7
Knee	1	1	6	4	6	3	1	1	3	2	0	0	4	3	0	0
P-Shaped/ E/Crossbow	4	2	2	1	0	0	0	0	0	0	0	0	4	3	2	2
Crossbow	4	2	0	0	0	0	0	0	1	1	0	0	-	0	1	1
Early Plate	5	2	1	1	4	2	2	2	7	5	25	8	6	4	3	2
Enamelled Plate	19	9	16	11	13	7	7	6	8	5	0	0	8	5	16	13
Figurative	9	4	11	8	5	3	3	3	4	3	0	0	4	3	9	7
Penannular	6	3	0	0	-	-	-	-	6	4	22	7	18	12	0	0
<i>Total</i>	204		144		180		112		149		321		147		127	

Table 16 Quantities of brooch types from various East Anglian sites

these, particularly Nos 188–196, could be classified with the bow types). At present there also seem to be fewer identifiably regional types after the 1st century. Of the various enamelled brooches, the equal-ended and the hinged-head groups (188–194) perhaps illustrate the advantages of an east coast location for procuring Continental material — far fewer of these types are found in west Suffolk at Pakenham.

The small number of later brooch types (Knee and Crossbow) reflects a general change in brooch use. Given the low figures it would be rash to claim that the difference between the east Suffolk small towns (Hacheston, Wenhamston) and that in west Suffolk (Pakenham) is significant. However these types do have some association with military sites and might well reflect east coast activity related to the early stages of the Saxon shore fort system. The range of Crossbow types represented would seem to imply the settlement continued until the later part of the 4th century (No. 162) without the disruption implied by the coin fluctuations, but little can be safely assumed from single finds.

The brooch catalogue

by Judith Plouviez

Beaked (Birdlip) type

Fig. 61

1. Lacks most of the head and the foot and part of the catchplate. The fragment of the hollow head joins a rounded section bow which turns sharply down in profile to the moulded, protruding flange and tongue at the junction of the upper bow and the straight, slightly tapering, triangular section lower bow. The catchplate was perforated. SF 2427, Field 2.

A single plain example of a Beaked brooch, similar to Saham Toney no. 58 (Brown 1986, 23). The type is generally attributed to the first half of the 1st century AD.

One piece (Nauheim derivative) types

Six examples, one of them made of iron. All have four-coil springs and internal spring chords where these survive. Three examples from excavation contexts.

Rod-shaped bow

2. Almost complete, but in two pieces, and missing the foot. The bow is a rounded square in section decorated with four cross grooves just below the head. The spring is round in section. SF Ae179, Area I N, Pit 13 GB, Phase A.
3. (*Not illustrated*). Bow fragment only, surviving length 35mm. Tapering bow, decorated on the upper part with 2 cross grooves and a notch on each side of the bow between the grooves. SF Ae165, Area I, Layer HJ, mixed.
4. (*Not illustrated*). Complete except for part of the pin and part of the foot. Surviving length 50mm. Similar to 2, but slightly larger and more rounded in section. The decoration consists of a notched central band on the curved top of the bow with a faint incised triangle below and a single notch on each side. The catchplate was solid. SF 1673.

Flat bow

5. Almost complete, only the pin and part of the catchplate missing. The plain, almost flat bow tapers to a sharply pointed foot with a solid catchplate. The bow head narrows with curved sides into the circular section spring. SF 1163, Area IV, pit 47, Phase I.
6. (*Not illustrated*). Missing most of the spring, and the pin. Heavily corroded. Length 32mm. The bow has a straight rather than curved profile and tapers more gradually than 5 to a less pointed foot. Two marginal grooves along the bow and possible cross grooves at the foot. Solid catchplate. Similar to an unstratified example from Thetford (Mackreth 1991, 123 no. 22). SF 2589, Field 1.
7. (*Not illustrated*). Iron. Upper half only, very corroded. Surviving length 37.8mm. Flat bow, almost as broad as the spring at the top. Straight in profile. SF 2617.

These very simple brooches can be related to the Late Iron Age Nauheim and Drahtfibel types (as discussed in Mackreth 1991, 123–124) but the derivative types which have a solid catchplate and are generally smaller continue in use in the second half of the 1st century. None of these examples look particularly early except that iron brooches such as 7 are often pre-Conquest.

Aucissa and Hod Hill and related types

The Aucissa and the Hod Hill types which derive from it are Continental in origin. The axis bar on which the pin is hinged is held in the rolled over (normally upwards) bow terminal, and is usually iron, with the result that the pins are very often missing. The bows are flat-backed and the catchplates are not pierced. The upper surfaces were coated in white metal.

There are six Aucissa related examples and twenty Hod Hill brooches. All are unstratified.

Alesia-Aucissa sequence

8. Part of the head and the footknob missing. Extremely bent and quite corroded. The head appears to have been rolled under rather than upwards (an early feature). The rectangular flat head plate has faint angled lines and a raised dot or 'eye' at one end but is too corroded for certainty about the original design. The bow has a strong central rib with slight traces of beading on the lower part. Two grooves mark the junction of the bow and the foot, the upper part of which is triangular in section. SF Ae305, Field 2.
9. (*Not illustrated*). Top of the bow only, corroded. Surviving length 16mm. The head is rolled under. A small plain rectangular head plate is separated by a very slight rib from the bow. The parallel sided bow has a broad central rib (which may be divided by a narrow central groove) with a flute on each side. SF 1704.
10. Damaged head and severely bent. Again the head is rolled under. The bow has three pairs of low ribs, each with punched dots along the intervening groove, separated by two broad flutes. SF 1678.

Aucissa variants (Bagendon C) type

11. Upper part only. Detail obscured by corrosion. The bow has at least 2 projections on each side. Similar to Hattatt (1989, 319) nos 65, 66. SF 2436, Field 1.
12. (*Not illustrated*). Surviving length 24.5mm. Head and upper bow fragment only. Worn and bent. Flat, slightly tapering bow with possible former side projections and decoration similar to 11. SF 2581 Field 2.
13. (*Not illustrated*). Lower bow and foot only. Surviving length 33mm. Flat, very slightly tapering bow with longitudinal mouldings like No. 11. The foot terminates in a small spherical knob. Similar to Hattatt no. 308 (1985, 54–55) which is also said to have been found at 'Lower Hacheston'. SF 2132, Field 1.

The Aucissa is current on the Continent from Augustan to Claudian contexts and is occasionally found in pre-Conquest Britain. The rolled under heads and other early features of Nos 8 and 10 suggest a date in the first quarter of the 1st century.

Hod Hill types with side projections on the bow

14. With central side knobs and moulded leg. Complete except for pin. SF Ae216, Field 3.
15. (*Not illustrated*). With probably central side knobs and moulded leg. Length 42mm. Very abraded and flattened. The arrangement and longitudinal dimensions of the mouldings are identical to 14, the breadth of the central mouldings is similar but elsewhere this example is narrower than 14; however this may be entirely due to abrasion. SF 2403, Field 1.
16. With central side knobs and plain leg. Head missing. Similar elements to a Colchester example (Crummey 1983, 9–10, no. 30) from a context dated c. 75–100, but with shorter leg and longer bow. SF Ae219, Field 3.
17. (*Not illustrated*). With central side knobs and plain leg. Length 37mm. Pin and part of head missing. Broadly similar to 16. SF 2404, Field 1.
18. With low side knobs and plain leg. Complete but bent. Three flutes on the bow with notching on the intervening ribs. SF 2077.
19. With low side knobs and plain leg. Almost complete except for pin, squashed. SF 2199.

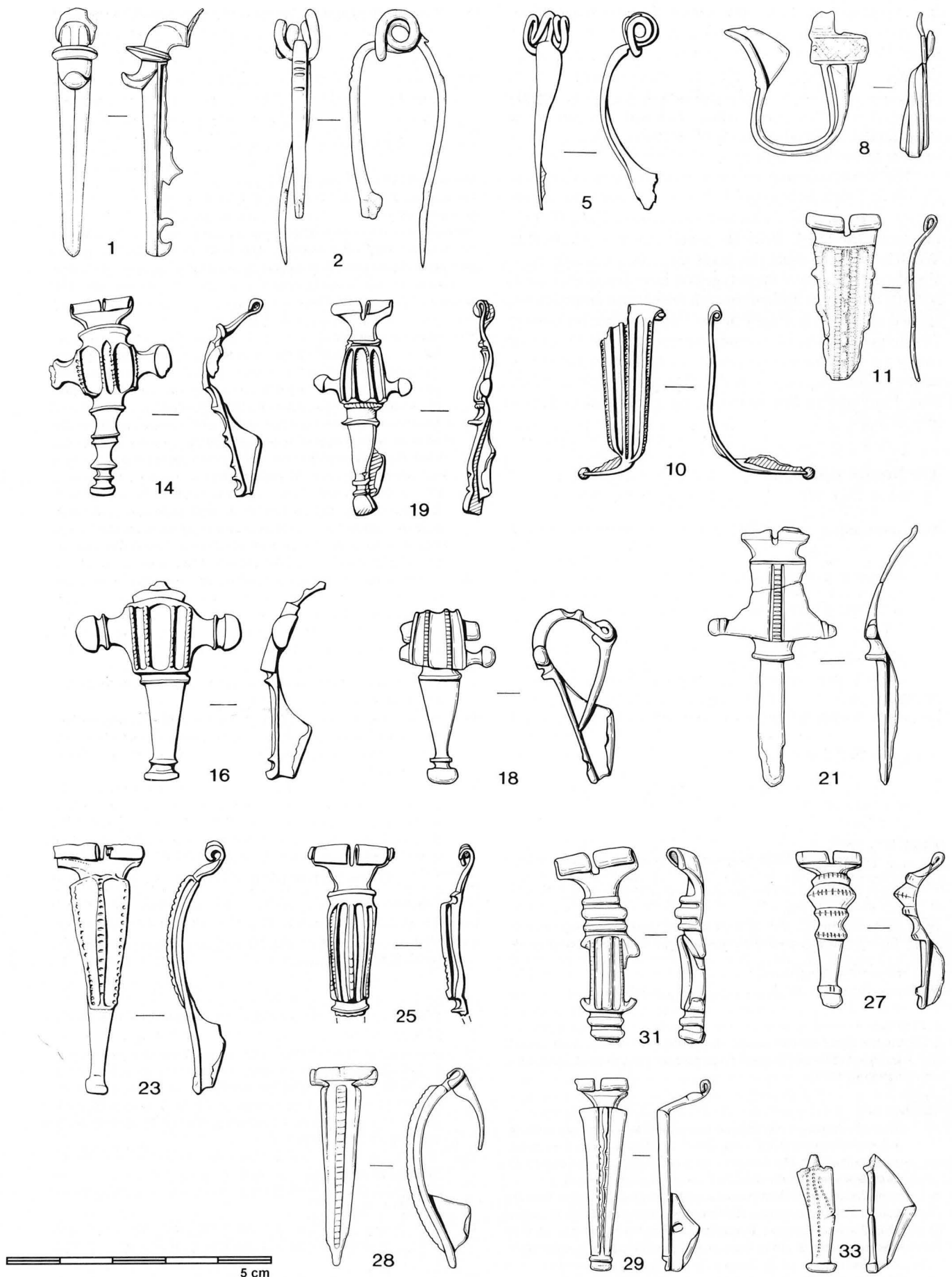


Figure 61 Dress accessories — brooches. Scale 1:1

20. (*Not illustrated*) With low side knobs and plain leg. Length 37mm. Almost complete except for pin. Broadly similar to 19 but lacks the transverse mouldings. SF 2416, Field 1.
21. With low side knobs and plain leg. Length 46mm. Pin, hinge and catchplate missing. Damaged edges. Recently broken into two pieces. Very similar but with slightly different proportions to Hattatt no. 1506 (1989, 66) from Norfolk, which he also compares to one from Waddon Hill, Dorset. SF 2492, Field 2.
22. (*Not illustrated*) Fragment with low side knobs. Surviving length 18mm. Part of bow only. SF 2109.

Hod Hill types with straight bow

23. Complete except for the hinge, pin and part of the catchplate. Long tapering bow with punched dots along both sides and a high central longitudinal rib. SF Ae261, Field 2.
24. (*Not illustrated*). Fragment of upper bow only. Surviving length 22.5mm. Identical to the upper part of 23. SF 2458, Field 1.
25. Foot and pin missing. SF 1662.
26. (*Not illustrated*) Almost complete, with pin and part of the catchplate missing, corroded. Length 45mm. Plain narrow, tapering, slightly convex-fronted bow and leg. A double band of cross rib mouldings with a broad flute between at the junctions of the bow with the head and with the leg. In profile it forms a continuous arched curve with a small foot knob. SF 2451, Field 1.
27. Complete except for pin. Strong angular cross mouldings on the upper bow, plain lower half with a cross rib above foot. SF 2405, Field 1.
28. Complete except for part of pin. The bow has a high notched central rib with wide tapering flutes on each side and slightly raised edges. SF 2494, Field 2.
29. Almost complete, pin missing. The bow is triangular in section and has two sharp grooves along the centre. The hole in the catchplate is probably accidental (the brooch has been badly over-cleaned). SF 2583, Field 1.
30. (*Not illustrated*). Fragment. Upper bow and head only. Surviving length 23 mm. Similar to 28. SF 2411, Field 2.
31. Bow with openwork sides. Upper part only, bent. The bow has a wide central rib with a groove each side and notched edges. The stubs of openwork side projections remain at the top and bottom of each side. Similar to Hattatt no. 854 (1987, 79, 81). SF 2415, Field 1.
32. (*Not illustrated*) Fragment of lower part only. Surviving length 33mm. The flat tapering leg has traces of a punched dot line along one edge. A small foot knob with a single rib above. SF 2350, Field 1.
33. Fragment, leg and foot. The flat, tapering leg has punched dot decoration with a central and two diagonal lines. SF 1713.

Both the straight Hod Hill types and the types with projecting side knobs appear in large numbers at the Conquest and are not generally found in earlier contexts in Britain. It is uncommon to find identical examples of the many Hod Hill variations, so the possible pairing of 14 and 15 is noteworthy. Hod Hills are sometimes linked to the army, but it is also likely that they can be associated with an expansion of trade in the immediate wake of the army in the first twenty years of the Roman period.

Langton Down

A Continental type which has a cylindrical spring cover and a flat-backed bow, usually reeded on the front. Seventeen examples, three of them from excavation contexts.

Fig. 62

34. Complete. Double incised lines along the top and ends of the spring case. The reeding is in three bands, separated by two flutes, which widen at the head with inserted 'darts'. Each reeded band consists of three ribs, the central one of which has punched dots. Comparable to one from Camulodunum (Hawkes and Hull 1947, 318 and pl. 94, no. 86), their Class A which they suggest is typologically early. SF Ae147, Area I, Layer CA, Phase C.
35. (*Not illustrated*) Foot fragment only, surviving length 15mm. Probably from a similar brooch to 34 with two holes in the catchplate and a similar reeding design. SF Ae255, Field 2.
36. Complete. The spring case is decorated on the front with double incised lines along top and ends. The reeding consists of four main ribs, each with central groove, separated by three flutes; the inner two ribs widen at the head forming 'darts'. SF Ae220, Field 3.

37. Complete. Similar to 36, but the reeding consists of three grooved and ribbed bands, separated by two flutes, with darts formed by an extra rib inserted into the flutes at the top. Single incised lines on the spring case. SF Ae182, Area I, Pit 1 BA, Phase C.
38. Fragment, top only. Single groove on spring case. The bow head is flatter than 36. The reeding is in groups like 37 but without the darts, with notching on the central rib of each group. SF 2439, Field 1.
39. Complete, except for part of spring and pin. Similar to 36, but more angular. The incised decoration on the spring case has three lines at the top, with notching along the centre one and two lines at the ends. Within this area there are radiating fine lines and similar lines on the ridge at the bow junction. SF 2452, Field 1.
40. (*Not illustrated*) Fragment, lower bow and pin missing. Surviving length 25mm. Similar to 36 but with slightly narrower bow. SF Ae214, Field 3.
41. (*Not illustrated*) Fragment, missing lower bow. Surviving length 21mm. Similar to 36. SF 1630.
42. (*Not illustrated*) Fragment, missing lower bow. Surviving length 23mm. Similar to 36. SF 1663, Field 1.
43. (*Not illustrated*) Fragment, bent and corroded, missing most of spring case and damaged foot. Surviving length 41mm. Similar to 36. SF 2111.
44. (*Not illustrated*) Fragment of lower bow. Surviving length 29mm. Corroded. Probably similar to 37. SF 2430, Field 2.
45. (*Not illustrated*) Fragment, lower bow and pin missing. Surviving length 19mm. Similar to 36 but with reeding grouped and beaded as 38. SF 2466, Field 1.
46. (*Not illustrated*) Fragment, part of spring case and very top of bow only. Surviving length 12mm. Similar to 36. SF 2592, Field 1.
47. Complete. The spring case has faint double incised lines on the top and ends. Within this panel there is a design of punched lines and dots. A notched rib between spring case and bow. The bow is triangular in section with ribbed edges and a central rib with faint, incised zigzag lines on each side. There are two lightly incised lines across the top of the outside of the catchplate fold. This is Camulodunum Class C (Hawkes and Hull 1947, 317, pl. 95), with a very devolved version of the spring case design of their no. 107 (also known as a Nertomarus type). SF Ae44, Area I, Layer BE, Phase B.
48. (*Not illustrated*) Fragment of lower bow only, very corroded and bent. Similar to 47. SF 2573, Field 1.
49. Variant. Complete. Plain worn spring case, with angular step to square-headed, tapering bow, decorated with four low narrow notched ribs, separated by three slightly convex, plain panels. SF Ae218, Field 3.
50. (*Not illustrated*) Variant. Fragment, top of bow and part spring case only. Surviving length 13mm. Similar to 49 but with a gentler curve in profile at the junction with the spring case, with two low cross ribs with punched dots. The bow has three plain longitudinal panels, separated by four low, narrow ribs and grooves each side. SF 2593, Field 1.
51. Variant. Complete except for pin. Short, plain spring case, with a sharp step to the square-headed, fairly thick bow. The bow has shallow ribs and flutes, the central rib is notched and the two main flutes have a zigzag line of punched dots. Similar bow to Camulodunum no. 88 (Hawkes and Hull 1947, pl. 94). SF Ae158, Field 3.

Langton Down brooches frequently occur in pre-Conquest contexts (such as Camulodunum, Verulamium (King Harry Lane, Stead and Rigby 1989) and Skeleton Green (Mackreth 1981)) but they are also often found in contexts dated post-43.

Rosette

These all have cylindrical spring cases like Langton Downs, and flat-backed bows. They are sub-divided by their construction. Eleven examples, one from an excavated context.

Threaded disc type

52. Fragment. Part of the bow and disc only. An arched bow with two grooves which divide the front into three convex fronted and rather corroded, bands. The bow appears to pass through a circular, convex-fronted disc which has an outer band of relief dots and radiating lines, bounded on the inside by two grooves. The foot has a faint double line of dots in the centre and a faint line along one edge. SF 2163, Field 1.

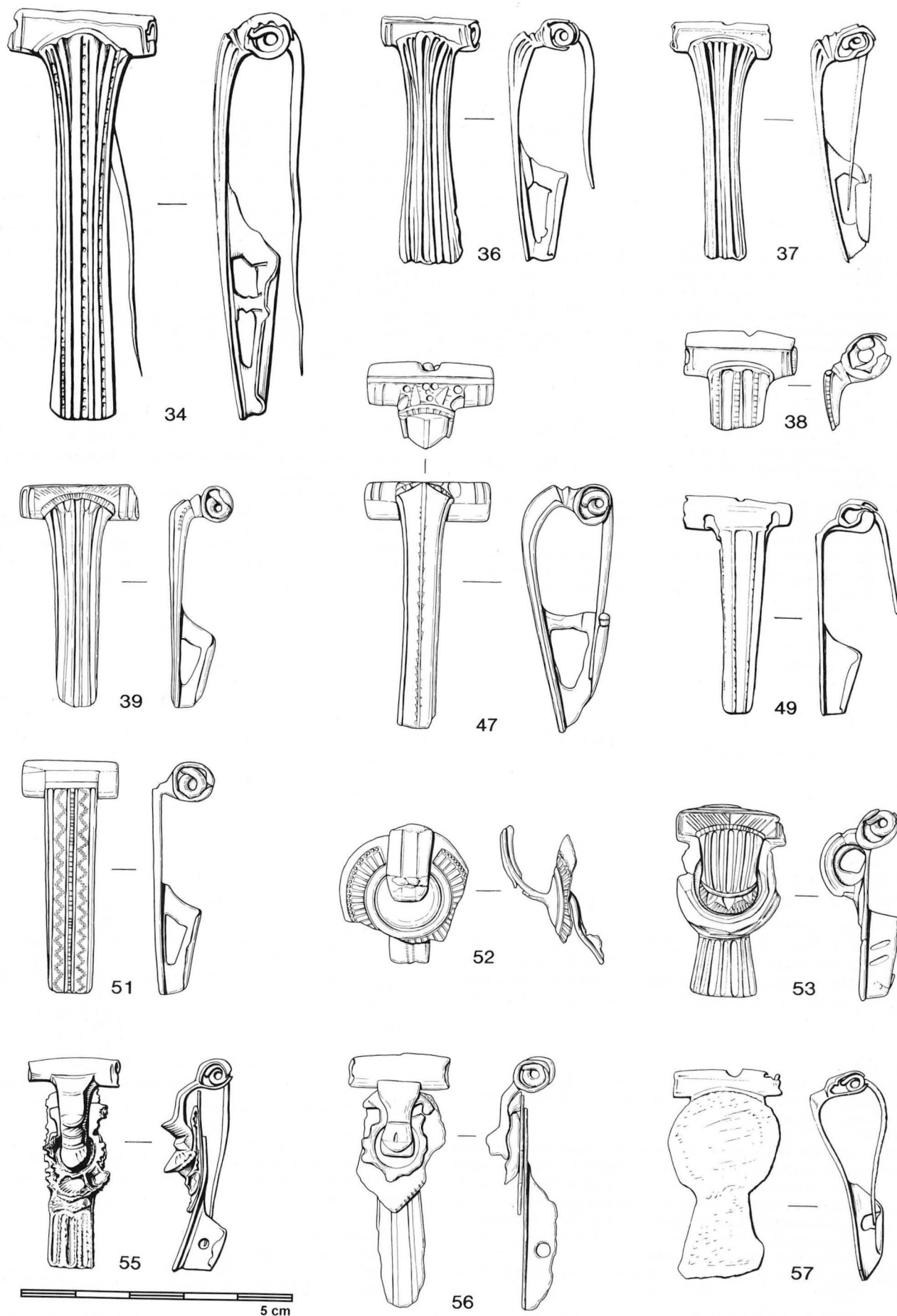


Figure 62 Dress accessories — brooches. Scale 1:1

Developed type

53. Complete except for pin and part of catchplate. The bow, disc and foot are cast in one piece and the top of the disc joins the spring case. The spring case has an arrangement of incised lines very similar to the Langton Down, 39. The central disc has an inner semi-circle defined by a ridge below the bow junction, decorated with three punched triangles and lines. The type is comparable to Camulodunum (Hawkes and Hull 1947, 316, pl. 93, no. 78) and Hattatt (1987, 53) no. 790 from Norfolk. SF 2422, Field 1.
54. (Not illustrated). Head, bow and part of disc only, with damaged edges. Surviving length 22mm. The bow and disc were cast as one but there is a gap between the disc and the spring case. Double incised lines on the spring case. Reeding on the bow as 53. SF 2484.

Complex rivetted (*Léontomorphe*) type

55. Complete except for part of central disc. The body consists of three parts which are joined by a central rivet: (a) a plain spring case and narrow bow with projecting flanges at the end (a debased lion, typologically later than No. 56); (b) the rosette plate, apparently circular with an applied repoussé disc; (c) the reeded foot with two beaded elements widens slightly towards the base and is bent. The type is similar to Camulodunum no. 76 (Hawkes and Hull 1947, 316, pl. 93). SF Ae259, Field 2.
56. Complete but part of disc and pin missing and damaged edges. Similar to 55 but showing more clearly the crouched lion shape of the upper bow and with a lozenge-shaped central plate with appliqué. The worn reeding on the foot is separated by three broad flutes. Very similar to Hawkes and Hull no. 75 (1947, pl. 93). A similar example has also been found at Stratford St Andrew, Suffolk, (SMR Ref. SSA 002). SF 2450, Field 1.

Flat type

57. Complete but missing the appliqué front. Eleven coil spring within the plain spring case, with possible single incised lines at the ends. Type as Gilbert School, Colchester (Crummy 1992, 206–7, no. 2), from a context of c.44–60, which still has the applied face plate. SF Ae195, Field 3.
58. (Not illustrated) Complete except for pin and appliqué. Length 42mm. As 57 but slightly larger. SF 2489, Field 1.
59. (Not illustrated) Fragment. Spring case and disc only, very corroded. Surviving length 24mm. As 57, but the disc has a central hole to hold the decorated sheet disc. As Colchester no. 17 (Crummy 1983, 8). SF 2519, Field 1.

Fragments

60. (Not illustrated) Foot only. Surviving length 26mm. Bent catchplate, worn. The reeded foot widens towards the base with reeding similar to 56. The catchplate has a single small circular hole. SF 1080, Area IV, Layer (1) Grid Sq C7.
61. (Not illustrated) Foot only. Surviving length 17mm. The edge of a circular design at the top of the fragment shows that it is probably from a developed type. The reeded foot widens towards the base. Solid catchplate. SF 2445, Field 1.
62. (Not illustrated) Part of foot only. Worn. At the top there is part of a lozenge shaped plate, so this is also probably a developed type. The foot widens towards the end and is reeded with traces of white-metal coating. The catchplate stub has part of a rectangular or triangular hole. SF 2459, Field 1.

The earlier Rosettes are the 'threaded' bow through disc types (Hawkes and Hull 1947, 52, type VIII and Mackreth 1981, 131) of which there is only one fragment, 52, present. The rest are Hawkes and Hull types X (the developed and the complex types) and XI (the flat types) which seem to occur in contexts around, and more commonly just after, the Conquest.

Colchester

A one piece brooch usually with short flat wings on a rounded section bow. The spring and pin are a continuation of the body and the chord is held by a hook which also comes out of the body and is bent forward onto the bow. Eight examples, one of which is made of iron and from an excavated context.

Fig. 63

63. Complete. Round-fronted bow with a faceted back. Plain, short, flat wings. Short, flat chord hook. 7 coil spring with a separate axis bar. Type as Camulodunum no. 12 (Hawkes and Hull 1947, 310, pl. 89). SF Ae293, Field 2.

64. (Not illustrated) Complete. Length 52mm. As 63 but the spring has six coils and no axis bar and the forward hook is longer and narrower, with two cross grooves. SF Ae295, Field 2.
65. (Not illustrated) Fragment, missing pin and catchplate, very abraded. Length 38mm. As 63 but smaller and with a narrower, more pointed hook and tiny wings. SF 2412, Field 1.
66. (Not illustrated) Fragment, missing pin and hook, very bent, damaged catchplate. Length c. 60mm. As 63 but wings shorter and smaller. SF 2428, Field 2.
67. (Not illustrated) Fragment. Part of bow, wing and spring only. Surviving length 38mm. As 63 but longer wings with two incised lines at ends and the forward hook is short and narrow with a pointed end. The tapering bow is rectangular in section. SF 2115.
68. (Not illustrated) Fragment. Spring, pin and part of catchplate missing, wings damaged, bow very bent. Length c. 70mm. Similar to 63 but the bow has a central longitudinal beaded area bounded by two grooves and the forward hook is narrower with a pointed end. SF 2081.
69. Iron. Fragments, two separate pieces. The head part has the spring, flat wings and a forward hook; the second piece is part of the bow with a catchplate stump. Very corroded. SF Fe186, Area I, Layer HJ, mixed.
70. Missing pin and catchplate, flattened. Short flat wings. The forward hook is divided and flattened with a punched ring on each terminal. The broad flat bow has a convex upper face. The catchplate was pierced. Similar, apart from the hook detail, to Camulodunum no. 34 (Hawkes and Hull 1947, 310, pl. 91), which is described as 'Type III Continental form'. SF 2409, Field 1.

The Colchester brooch is generally dated to the first half of the 1st century, and the number present might be an indication of activity on the site before 43.

The following types derived from the Colchester have been divided into four major groups on the basis of the method of securing the spring or pin, as advocated by Mackreth (1981, 137–138).

Colchester derivative with rear hook

The spring chord was held by a rearward facing hook on the top centre of the wings. This inadequate attachment may have been supplemented by the use of solder on the spring and the back of the wings but there is no evidence for this on these examples. All have semi-cylindrical wings. Six examples, one of them from the 1974 excavation.

71. Almost complete, spring and pin missing. Some corrosion on the bow. The tapering bow is oval in section. It has a sunken longitudinal central panel with a pair of wavy lines left in relief. There is a small flange along each side. SF Ae97, Area I.
72. (Not illustrated) Damaged wing, missing spring and pin, bent and very corroded. Length c. 54mm. Broadly similar to 71. SF Ae223, Field 3.
73. Damaged wing and foot, missing spring and pin. The wide rear hook has a double ridge on its fixed end. The very short bow has a D-shape section. It has a recessed, central panel, with a wavy line in relief. A small flange with punched dots at the edges. SF 2417, Field 1.
74. Missing spring, pin and part of catchplate. The wings have deep narrow mouldings with straight and wavy ribs. The square sectioned bow tapers slightly to a square foot. A broad recessed central panel has two wavy ribs in relief. The catchplate has a small circular hole. SF 1035, Area IV, Layer (1) Grid Sq C2.
75. (Not illustrated) Spring, pin and catchplate missing. Corroded and over-cleaned. Length 45mm, width 26mm. Similar to 74 but with slenderer proportions and simpler bow decoration. SF 2586, Field 1.
76. Damaged wings and catchplate, missing pin. Over-cleaned and spring glued onto wings after discovery. The wings have traces of mouldings. Fairly flat, oval section bow. The upper half has five longitudinal ribs separated by grooves and has a pronounced forwards curve in profile. It straightens to a plain, round-fronted lower part. SF 2584, Field 1.

Mackreth has pointed out that this type of spring attachment seems to be centred on the Icenian area and falls within a date range of AD 40 to 70, with a likelihood that production stops in 61 after the Boudiccan revolt (Mackreth 1991, 122–123).

Most of this group seem fairly closely related in treatment and style with the exception of 76 which is

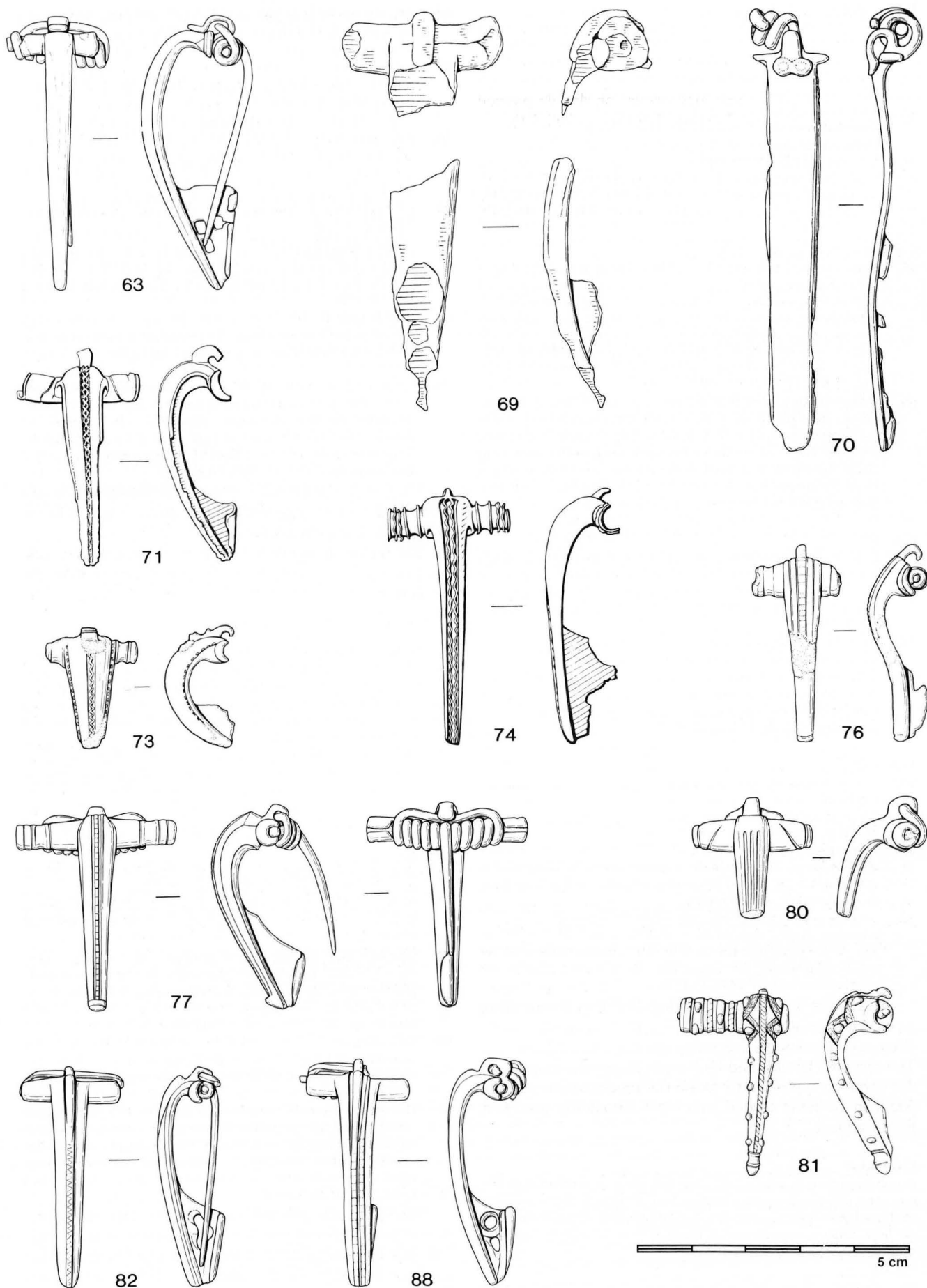


Figure 63 Dress accessories — brooches. Scale 1:1

comparable to only one other known Suffolk example (from Sibton). The decoration on the bows of 71, 73 and 74 is comparable to examples of rear-hook types from Stowupland and from Castle Hill, Ipswich (Ipswich Museum 1931.50.22) and also occurs on double pierced lug types such as West Stow no. 159 (West 1990, 71).

Colchester derivative Polden Hill

These can be divided into two groups. In the first a part of the semi-cylindrical wings is extended and folded round to form a short fully enclosed section at both ends, which holds the ends of the axis bar. In the second group flat circular ends are cast on the wings and these are pierced to hold the axis bar. In both cases there is also a rear facing hook at the centre to hold the spring chord. The catchplates are not pierced. There are five examples of which only one is of the second type.

One from an excavated context.

Folded wing ends type

77. Complete. The folded ends are 5mm wide. The bow has a faceted back, flat sides and moulded front. There are traces of white metal on the front surfaces. Similar to Scole no. 1 (Mackreth 1977, 129–130). SF Ae70, Area II, layer RD, not phased.
78. (Not illustrated) Complete, except for pin and part of catchplate. Length 39mm, width 29mm. Very similar to 77 but the spring, of finer wire, has fourteen coils, the central rib of the bow is not notched and the ribs end 2mm above the foot projection. The lower bow is also slightly thinner in profile and there is no trace of white metal. SF 1666, Field 1.
79. (Not illustrated) Fragment; upper half of bow and wings only. Surviving length 22mm, width 29mm. This is also very similar to 77, but the rear hook is more slender, the folded wing ends shorter (4–4.5mm) and the central rib on the bow is not notched. SF Ae298, Field 2.
80. Fragment, upper half only. Folded ends 5.5mm long. The spring has six coils. The bow has a faceted rounded back and a rectangular section front part. There are three sharp grooves along the front of the bow. Similar to Scole no. 2 (Mackreth 1977, 129–30). SF 2481, Field 1.

Flat wing ends type

81. Missing one wing, spring and pin. Corroded. The surviving wing has ornate mouldings. The bow is circular in section with facets on the back. It has six small knobs along each side, a central, obliquely incised rib flanked by notched grooves and double zigzag grooves around the two knobs on each side of the top part of the bow. SF 2406, Field 1.

The first three of this group (77–79) are almost certainly products of a single workshop and are close to identical in most respects. They also closely resemble Hattatt no. 1513 (1989, 71–73) (found ‘near Brooke, Norfolk’). 80 is similar to a group which includes Scole no. 2, West Stow no. 160 (West 1990, 71) and several unpublished Suffolk examples — the complete examples typically have a catchplate apparently made by inserting sheet metal into a slot in the back of the bow which Mackreth notes as an early feature (1977, 129). The commoner Polden Hill type with flat wing ends is relatively rare in East Anglia, as is the heavy decorative style of 81.

Colchester derivative with double pierced lug

A lug at the back of the wings has two holes, the upper one carries the spring chord and the lower one the axis bar. The wings are semi-cylindrical and often undecorated and their surface may be slightly faceted. The catchplates usually have a strong groove on the inside where the pin would lie when closed. There are two main groups, corresponding to Hull’s type 92 with cavetto mouldings (here described as fluted sides) on the bow and type 93(a) without cavetto mouldings and with a groove on the upper bow (Crummy 1983, 12), as well as numerous variants.

Thirty-three examples, nine in the first group and fourteen in the second. Three from excavated contexts.

Fluted sides type

82. Complete. The spring has six coils. The flat centre rib of the lower bow has lightly incised rocker decoration. The catchplate has a two-lobed hole. SF 2414, Field 2.

83. (Not illustrated) Complete. Length 41mm, width 19mm. The spring has eight coils. Similar to 82, but the catchplate has a small circular hole and an incompletely pierced triangle. SF 1674.
84. (Not illustrated) Upper bow, wings and spring only. Surviving length 21mm, width 18mm. Rather worn and flattened. Eight coil spring. Single grooves at wing ends. Similar to 82 but it is not clear whether there was rocker decoration. SF 2433, Field 2.
85. (Not illustrated) Fragment, missing lower half of the bow. Surviving length 21mm, width 16mm. Six coil spring. Similar to 82 but smaller; possibly has cross-hatched lines on the bow rib. SF 2443, Field 1.
86. (Not illustrated) Fragment, missing lower half of the bow and part of the spring. Surviving length 32mm, width 24mm. Similar to 82 but larger. SF 2495, Field 2.
87. (Not illustrated) Fragment, missing lower half of the bow and pin. Surviving length 24mm, width 27mm. Eight coil spring. Similar to 82 but larger, and the wings are larger than 86. SF 1670, Field 1 south.

Fluted sides type with groove

88. Complete except for half of the spring and the pin. Spring probably had eight coils. The lug becomes a central rib on the upper bow (as 82) but the right hand groove beside the rib extends the full length of the bow. There is notching on both sides of this central groove. The catchplate has a small circular hole and an incompletely perforated triangle. SF 2493, Field 2.
89. (Not illustrated) Complete except for spring and pin. Length 41mm, width 18mm. Similar to 88 but wings slightly more slender, no notching on the bow and the triangular element on the catchplate is marked but not pierced. SF 2456, Field 1.
90. (Not illustrated) Complete except for part of the pin. Length 32.9mm, width 17.8mm. Rather worn. The spring has eight coils. Similar to 88 but smaller and with an unpierced catchplate and probably not notched on the bow. SF 2418, Field 1.

D-section bow with centre groove type

Fig. 64

91. Complete except for part spring and pin. The spring probably had six coils. The central groove on the upper bow has faintly incised rocker decoration across and extending below it. The shape of the catchplate hole might derive from the circle plus triangle of 88. SF 2413.
92. (Not illustrated) Complete except for the pin. Length 45mm, width 18mm. Similar to 91 but with a less pronounced notch at the lug/bow junction, no line at the foot and a longer catchplate. SF 0062, Area IX, Layer (3), 4th century.
93. (Not illustrated) Small fragment, wings and top of bow only, corroded and over-cleaned. Width 17mm. Quite like 91. SF 2594, Field 1.
94. (Not illustrated) Missing the lower part of the bow. Surviving length 28.5mm, width 20mm. SF 2437, Field 1 north.
95. (Not illustrated) Fragment, missing most of the bow. Surviving length 15mm, width 21mm. Similar to 91, and its proportions and shape very similar to 94. SF Ae204, Area I, Layer HJ, mixed.
96. (Not illustrated) Missing the lower bow and pin. Surviving length 34mm, width 26mm. Similar to 91 and to 94 but again larger. The spring has ten coils. SF 2426, Field 1.
97. (Not illustrated) Fragment, upper half of the bow and wings only. Surviving length 19mm, width 27mm. Similar to 91 and proportions closer to 96, but with a double groove on the bow. SF 2441, Field 1.
98. Missing lower bow, spring and the pin. Flattened, over-cleaned. The lug extends as a rib onto the upper bow and the central groove extends from the left side of the rib down the centre, with traces of notching on each side of the groove. SF 2400, Field 1.
99. (Not illustrated) Fragment, the top of the bow, damaged wings and spring and pin. Surviving length 11mm, surviving width 15.5mm. Very similar to 98. SF 2442, Field 1.
100. (Not illustrated) Fragment, the top of the bow, wings and spring only. Surviving length 11mm, width 17mm. Similar to 98. SF Ae224, Field 3.
101. (Not illustrated) Missing the lower part of the bow and pin. Flattened. Surviving length 27mm, width 16mm. Similar to 98. 1672, Field 1.
102. (Not illustrated) Complete, very bent. Length 42mm, width 13mm. Similar to 98 but slighter. Catchplate has a small oval hole, appears rather unfinished. SF Ae296, Field 2.

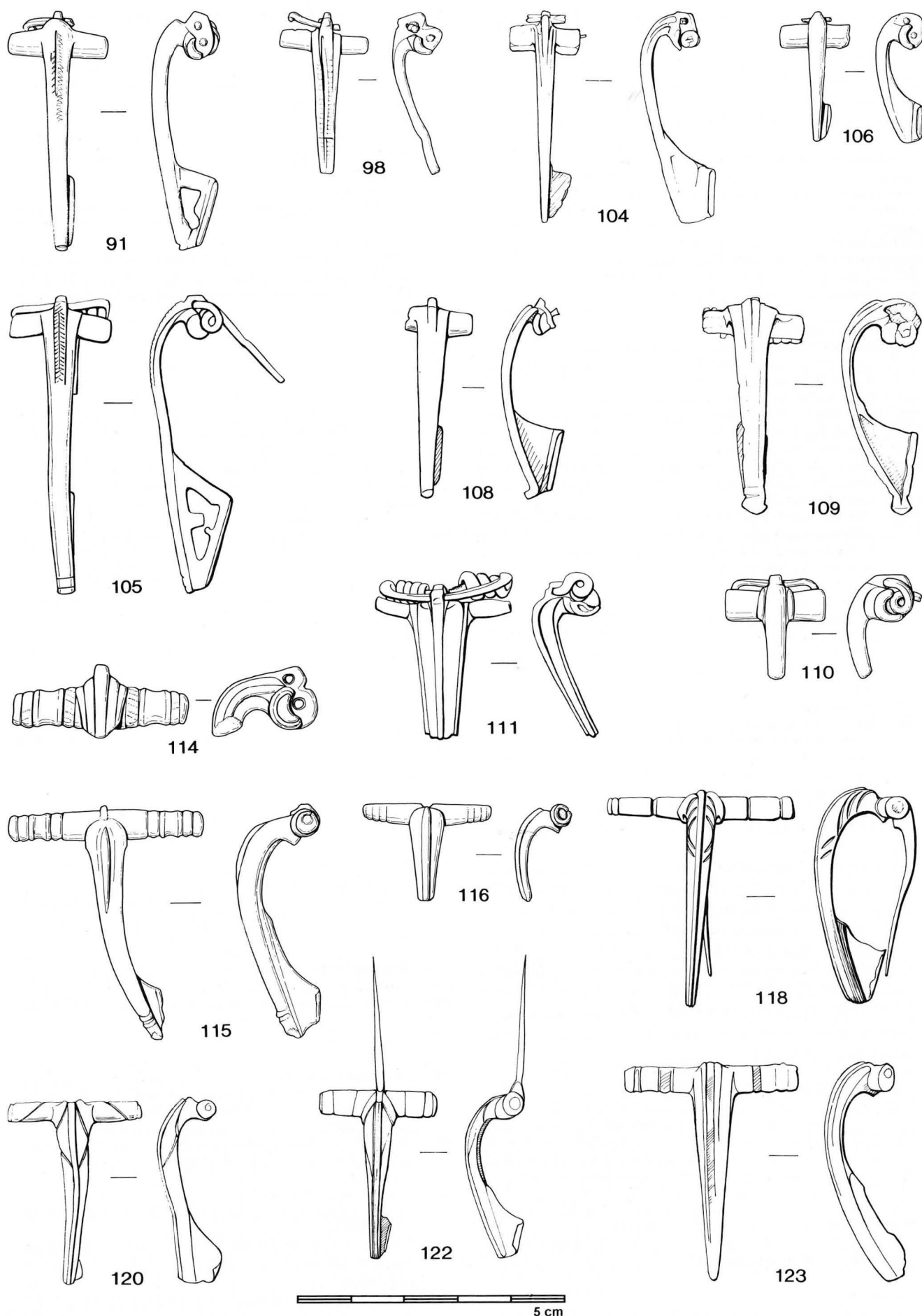


Figure 64 Dress accessories — brooches. Scale 1:1

D-section bow variant

103. (Not illustrated) Missing lower bow and pin. Surviving length 22mm, width 20mm. Similar to 98 but lacks the groove on the bow; but does have a line of rocker decoration similar to 91. SF 2464, Field 1.
104. Complete except for part of spring and pin. Similar to the preceding types with a slight ridge continuing the line of the lug but with single grooves along the margins instead of the centre of the bow. The foot is marked by a very slight cross groove. Traces of white metal on the upper surfaces. SF 2490.

Other variants

105. Complete except for end of pin. Eight coil spring. The long, narrow, triangular section bow has a flat rib extending the line of the lug. The rib has a central groove with obliquely incised notching on each side. A lightly incised line along each edge of the bow. Similar to the fluted sides types. Comparable to Scole no. 4 which Mackreth (1977, 131) suggests is early *i.e.* pre-55. Also similar to an example from Wherstead. (Gill *et al.* 2001, 11 no. 5). SF 2113.
106. Missing spring and pin only. Over-cleaned. SF 2587, Field 1.
107. (Not illustrated) Missing pin only. Length 34mm width 17mm. Eight-turn spring. Plain arms. Bow is flat-backed with rounded front and slightly tapered. In profile there is a small notch at the lug/bow junction. The catchplate is solid with very slight pin groove. SF 2105.
108. Missing one wing, spring and pin. The bow is flat-backed with a slightly convex front with a slight central carination. SF 2457, Field 1.
109. Complete except for pin. Fairly corroded. The spring has eight coils. D-section bow. A low ridge on the upper bow has a central groove and an incised line on each side. A lightly incised line goes down each edge of the bow. The biconical foot knob is marked by two cross grooves. SF 2455, Field 1.
110. Upper bow with wings and spring. The spring has nine coils. The narrow, high D-section bow has slightly faceted sides. There is a single stepped shallow moulding on each side of the top of the bow at the wings. SF 2448, (TM 313 568).
111. Fragment, missing lower bow and pin. The spring has ten coils. The broad D-section bow has small flanges at the sides. SF Ae116 (and probably associated pin Ae 117), Area I, Road KM, Phase B-C.
112. (Not illustrated) Fragment, spring and pin with small part of head. Surviving length 13mm. The spring has eight coils. Broad D-section bow with three grooves. SF 1660.
113. (Not illustrated) Fragment. Plain wings only with damaged lug and bow stub. Width 17mm. SF 2514, Field 1.
114. Wings and upper bow only. Over-cleaned. The wings have narrow convex mouldings and a broad central flute; the convex mouldings have oblique hatching. The D-section bow is ribbed. SF 2590, Field 1.

The main groups are commonly found in this region; Mackreth (1985, 42) identifies a Suffolk/Essex/Hertfordshire central area of distribution for the type (the Trinovantian equivalent of the rear hook type). They are dated from the mid 1st to probably the early 2nd century. Hull's typology dates the fluted types, which are present at Camulodunum (Hawkes and Hull 1947, 311, pl. 91, nos 36-40), to roughly 50 to 70 and the D-section bow with centre groove type to about 65 to 80 (Crummy 1983, 12).

105 is comparable to Scole no. 4, there suggested to be an early, *i.e.* pre-55, type (Mackreth 1977, 131).

Most of the final group are not easy to parallel closely. An example similar to 109 is known from Coddanham (SMR Ref. CDD 017 no. 357). 110 is very different in style to the rest, as are the heavily moulded wings of 114 which is comparable to one from Long Melford (SMR Ref. LMD 049).

Colchester derivative hinged

The wings are folded round to form a cylindrical case around the axis bar on which the pin is hinged in the centre. The axis bar is sometimes made of iron. The catchplate is not pierced. Most have a D-section bow. Twenty three examples, three from excavated contexts.

With central rib, moulded or grooved wings

115. Complete except for pin. Iron axis bar. Similar to Scole no. 5 (Mackreth 1977, 130-131) where a date in the later 1st century was suggested, although the context was 2nd century. SF Ae256, Field 2.
116. Upper bow and wings only. Broadly similar to 115. Iron axis bar. SF 2434, Field 2.
117. (Not illustrated) Fragment, half of the wings and upper bow only. Surviving length 18mm. Similar to 116 but only one possible groove on wing end. SF 2349, Field 1.

With central rib and side grooves, grooves on wings

118. Complete. Iron axis bar. SF Ae206, Area I, Pit 27 HS, Phase C.
119. (Not illustrated) Complete except for pin. Length 49mm, width 33mm. Iron axis bar. Similar to 118 but less humped in profile, two grooves midway along wings, and single grooves outline the lozenge shape. SF 2425, Field 1.
120. Complete except for pin. Bent. Probably had iron axis bar. SF 1679.
121. (Not illustrated) Complete except for pin. Length 32mm, width 27mm. Corroded. Copper-alloy axis bar, otherwise quite similar to 120. SF Ae297, Field 2.

With central rib and side moulding

122. Complete. Iron axis bar. The wing pattern is similar to 118. The bow has two sharp grooves bounding the central rib and the lozenge shaped area is slightly lowered, rather than outlined. SF Ae263, Field 2.

With moulded wings and grooves on the bow

123. Complete except for pin and damaged catchplate. Corroded. The wings have two convex mouldings with light incised hatching bounding a broad concave moulding. The flat-backed bow has two grooves on each side of central band which has faint diagonal incised hatching. On each side there are concave mouldings. Possible traces of white metal on surface. SF 2407, Field 1.
124. (Not illustrated) Complete except for the pin. Flattened. Length 46mm, width 35mm. Similar to 123 but with a more pronounced central rib, no incised hatching and an iron axis bar. SF 2155, Field 1 south.

With grooves on wings and bow

125. (Not illustrated) Complete. Length 41mm, width 40mm. Copper-alloy axis bar. Wings have pairs of lines as 119. The bow is like 123 but more humped in profile and it lacks the hatching. SF Ae264, Field 2.

With central rib and cross mouldings

Fig. 65

126. Complete except for the pin. Bent. Copper-alloy axis bar. Similar to Burgh no. 13 from a Flavian context (Martin 1988, 18-19). SF 2454, Field 1.
127. Complete. Iron axis bar. SF 2408, Field 1.
128. (Not illustrated) Missing lower bow and part of the wings. Surviving length 15mm, surviving width 24mm. Similar to 126 but larger and the centre rib extends onto lower bow. SF 2483, (TM 313 568).
129. Missing lower bow. SF 2401, Field 1.
130. (Not illustrated) Upper bow and wings only. Surviving length 14mm, width 23mm. Similar to 129 but three grooves on the wings. SF 2231, Field 1 south.

Fragments

131. (Not illustrated) With probable cross moulding. Upper bow and wings fragment. Surviving length 17mm, width 24mm. Battered. Similar to 129 but lacks central rib on bow and diagonal on the wings. Broken at the top of the possible cross moulding. SF 2480, Field 1.
132. (Not illustrated) Fragment, upper bow and wings only. Very corroded. Surviving length 17mm, width 24mm. SF 2440, Field 1.

With mouldings on wings and across bow

133. Complete except for the pin. Over-cleaned. SF 2585, Field 1.

The nineteen hinged Colchester derivatives listed so far form an inter-related group which look like a single tradition. This type is surprisingly under-represented in the regional publications except for the Scole and Burgh examples cited (for 115 and 126); there is also a similar group in the unstratified Saham Toney collection (Brown

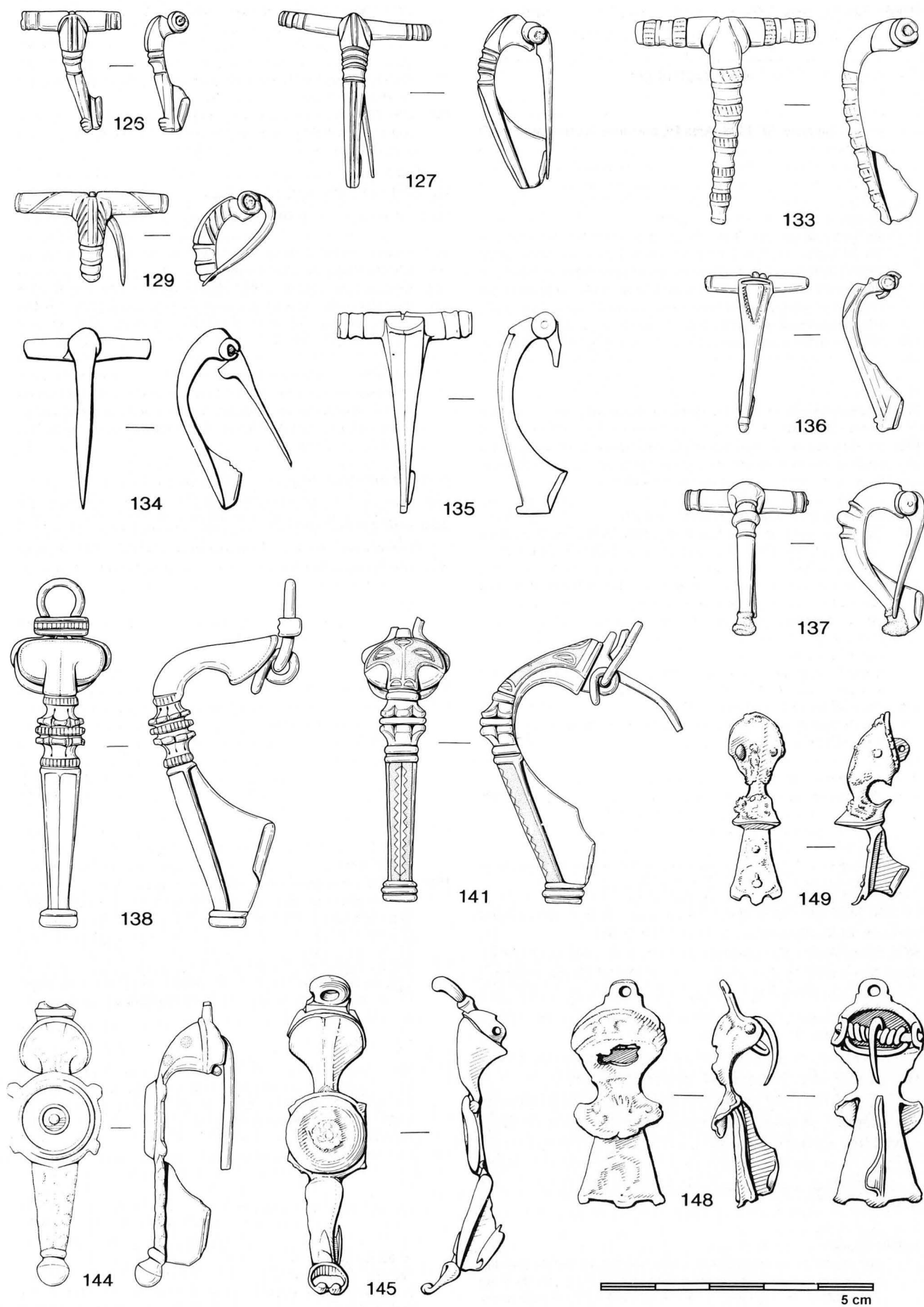


Figure 65 Dress accessories — brooches. Scale 1:1

1986, 32–33, nos 134–136 and 138–139). A number of other unstratified examples are known from east Suffolk, from Farnham, Willisham, Butley, Gedgrave, Wenhaston, Charsfield, Bredfield and Coddanham.

Variants

134. Plain. Complete. SF 1428, Area IV, post-hole 30, unphased or pit 53, Phase II.
135. Complete except for part of the pin. Over-cleaned. A flat ledge at the junction of the top of the bow and the wings. The bow is flat-backed and flat-sided with a triangular front. The catchplate merges into the bow. SF 2582, Field 1.
136. With triangle on upper bow. Complete except for the pin. Iron axis bar. The hinge seems to have been repaired in antiquity; it now has two coils of wire around the axis bar and the hinge slot may have been widened. The bow has a relief triangle with notching around the long sides at the top. Similar to a fragment from Saham Toney (Brown 1986, 32, no. 133). SF 2597, Field 3.
137. With large central moulding. Complete. Iron axis bar. The bow is circular in section. SF 1408, Area IV, Layer (1) Grid Sq C9.

Trumpet

The Trumpet brooch is a British type which was thought to have developed in the north, but is now more strongly associated with the Midlands (Snape 1993, 16–17). It was classified by Collingwood and Richmond (1969, 296–298).

Twelve examples, two from excavated contexts.

Standard, Collingwood and Richmond type R (ii)

138. Complete except for pin. Plain trumpet head with slightly recessed margin. The spring has an internal chord and six coils. The axis bar curls upwards to form a chain-loop, held in place by a rectangular collar. A circular section upper bow, widening to the waist-moulding. The lower bow is triangular in section and has a disc foot. As Brancaster no. 4 (Mackreth 1985, 42–44). SF 2491.
139. (*Not illustrated*) Previously twisted and now broken at the narrow part of the upper bow. Missing pin and chain loop. Length about 53mm. Similar to 138 but much smaller with a sharply defined triple moulded foot disc. SF 2402 and 2462, Field 1.
140. (*Not illustrated*) Fragment. Lower bow with footknob and waist-moulding only, surviving length 39mm. Similar to 138. SF 2431, Field 2.

Flat-backed bow and enamelled, Collingwood and Richmond R(iv)

141. Almost complete except for chain-loop and damaged catchplate and pin. The head has blue-enamelled decoration of three oval 'petals' with two more at the base of the upper bow, and a discoloured dark enamel background. Slightly tapering lower bow has a triangular section and a lozenge pattern down the centre with discoloured dark enamel background. SF Ae258, Field 2.
142. (*Not illustrated*) Fragment, middle and upper bow. Surviving length 31mm. The head is much smaller than 141 but the enamelled decoration is almost identical. SF 2461, Field 1.
143. (*Not illustrated*) Fragment. Upper bow and head only, surviving length 26mm. Similar to 141 but the decoration is two semicircles containing blue enamel above two empty triangles. Very similar to Hockwold no. 3 (Mackreth 1986, 62) where the type is described as widely scattered over the area south of the Humber. SF 1683.

Disc on bow variant Collingwood and Richmond S(ii)

144. Complete except for part of pin and part of headloop. Trumpet head has a central longitudinal facet with a matt surface and two similar matt surface circles on each side. The axis bar and six-coil spring with internal chord are held between pierced lugs projecting back from the sides of the head. The raised centre of the disc has two concentric enamelled rings and a central bronze dot; the enamel has discoloured to greenish. The lower bow is badly corroded but has traces of matt dots along the edges; this decoration and that on the head are probably the remains of solder for white-metal trim. SF Ae217, Field 3.
145. Complete except for spring, axis bar and pin but very bent. The axis bar was held on pierced side lugs like 144. The head of the bow has traces of a white-metal centre band and a circle on each side. Faint traces of two enamel bands with a central bronze dot remain on the raised disc. There is a possible central white-metal strip on the lower bow. In place of a footknob there is a penannular loop with terminal knobs (which join). Similar to but larger than Scole no. 8 (Mackreth

1977, 130–132) described as possibly of southern manufacture and late 1st-century date. SF 2114.

146. (*Not illustrated*) Fragment, upper part only. Surviving length 19mm, width 12mm. Bow head very similar to the head of 145 (but slightly smaller) with traces of a white-metal 'eye' each side and the flat central band. SF 2463, Field 1.
147. (*Not illustrated*) Head and spring fragment, surviving length 16mm, width 10mm. Fairly pitted. Small. The bow expands at the break to a possible central disc. SF 2487, Field 1.

The standard trumpet brooch was in production by the 70s and the form and its variants continued into the 2nd century with a broad distribution (Hattatt 1989, 91–93).

Alcester type

148. Almost complete except for pin. Bent and very corroded. Possibly silvered. The wide, hollow head has a possible line of raised dots following its upper circumference. The thin very deep flange is now bent downwards. SF Ae161, Area II, Ditch 35 UD, Phase D.
149. Almost complete except for spring and pin, corroded. The axis bar was held as 148. The narrow head has traces of an enamel or white-metal 'eye' on one side or a separate rivet 'cyc' on the other. There is possibly another raised dot on each side of the flange at the waist. There are two raised dots, with concentric corrosion patterns, slightly off-centre at the top and bottom of the leg. At the back of the bow the flange may have originally joined the bottom of the head. SF 1382, Area IV, Layer (1) Grid Sq C9.

Hattatt (1989, 98) suggests a date in the first half of the 2nd century for the Alcester type, which is again widely distributed both in southern Britain and military sites in the north. Mackreth points out that the form has more affinity with the Knee types than with the Trumpet (pers.comm.).

Headstud

Two of the common versions of the type are represented by three examples, all unstratified.

Fig. 66

150. Bent sideways, perhaps to flatten it. Missing the chainloop, pin and settings but otherwise complete. Semicircular axis bar casing behind each wing. A circular hollow for the missing headstud setting has a hole at the rear for a rivet. The narrow D-section bow has a central panel down its entire length with enamelled lozenges bounded by triangles. Some traces of dark blue enamel remain in the lozenges. The empty foot setting has a rivet hole behind it. This type was found at Culver St Colchester (Crummy 1992, 141, 143, no. 26) and is Snape Group 3.1Biii (1993, 15). SF Ae262, Field 2.
151. (*Not illustrated*) Fragment bent flat in the same way as 150. Surviving length 28mm, width 15mm. Upper half only. The same type as 150 but smaller except for a longer crest. SF 2477, Field 1.
152. Complete except for pin and part of catchplate. Short deep wings with moulding forming four steps from the wing-tips to the bow. The chain-loop is cast. Hinge casing as 150. The headstud has a raised rim and central dot. The bow is rectangular in section above the headstud; below it is flat-backed with a central panel with relief lozenge shapes along the centre and a single groove along each edge. The foot is flat-ended. Snape Group 3.1Dii (1993, 15), with an introduction date in the late 1st century. SF 2453, Field 1.

The headstud is another British type, again widely distributed. Snape (1993, 14–15) suggests that the variety of headstuds in northern Britain supports an origin in this area as suggested by Collingwood and Richmond (1969, 296). Like the trumpet, production starts in the later 1st century and continues into the 2nd century.

Sawfish

153. Almost complete but chain loop, catchplate and pin damaged. Flat-fronted wings folded round to enclose an iron axis bar. The front of the wings have the stump of a cast chain-loop on top. The low D-section bow has slight traces of dark and yellowish enamel. At the top of the bow is a raised moulding of an oval shape with an excised 'V' on it and angled small ridges above. The circular foot is angled forwards and has discoloured pale enamel in the end. SF Ae213, Field 3

This type seems to be rare in East Anglia, as no other examples have been recorded in Suffolk. Hattatt also cites

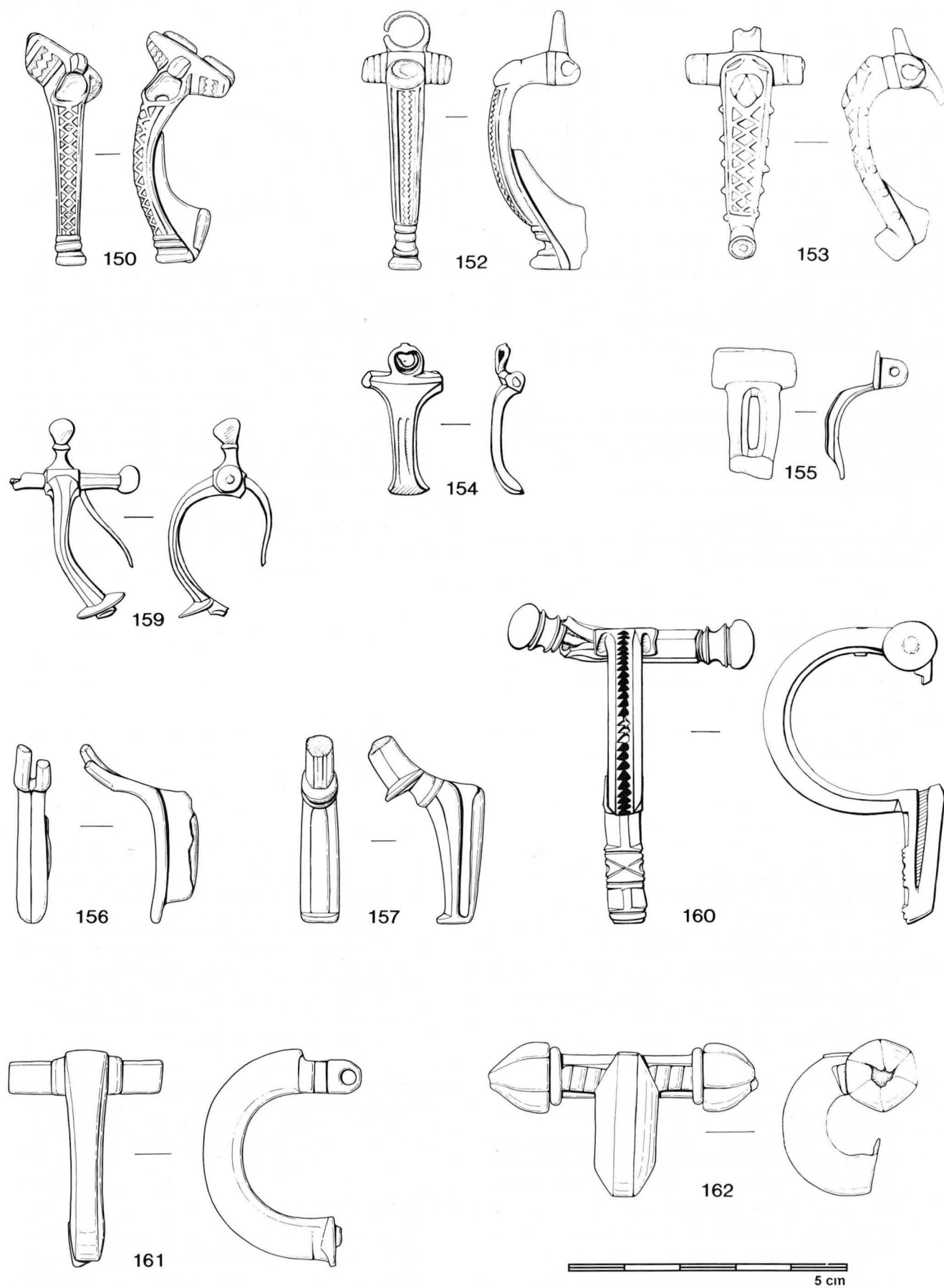


Figure 66 Dress accessories — brooches. Scale 1:1

very few examples from the region, although nearly half of his brooch collection originated in East Anglia.

Bow and fantail

154. Upper bow and head only. Rather worn with slight traces of a white-metal surface on the front and sides. The narrow hinge casings are cast behind the wings. Similar to fragments from Saham Toney (Brown 1986, 30, nos 114, 115). SF 2126.

Some bow and fantail types have a central disc or rectangle on the bow but this one probably expanded at the break into the fantail, which may have been enamelled like Hattatt no. 815 (1987, 63–64) and a very similar example from Barking in Suffolk.

Knee

155. Divided bow fragment, upper bow and head only. The plain flat rectangular head plate has two pierced lugs set close together on the back. Similar to Hattatt no. 1229 (1987, 266) which he describes as native and rare. SF 2429, Field 2.

A similar example was found in a recent excavation at the Castle Hill villa in Ipswich (SMR Ref. IPS 200). Knee brooches are generally dated mid 2nd to early 3rd century and are commonly found on the German frontier. In Britain they have a strongly 'military' distribution — Hattatt cites over 50% from military sites plus 22% from major towns (Hattatt 1987, 262).

Divided bow and Crossbows

Eight examples, one of which was excavated.

Divided bow

156. Fragment, lower bow and foot only. An arched bow with a central slot narrows slightly at the junction with the foot which is triangular in section with a rounded end. The deep catchplate has a damaged edge. Similar in form to Hattatt no. 496 (1985, 128), found in Hampshire and Snape nos 72, 73 (1993, 49–53) from Corbridge. SF 2479, Field 1.

Early Crossbow type

157. Fragment. Lower bow and foot only. White metal (probably silver) all over the exterior. The flat-backed bow above the flange has five facets of which the central one is gilded and has traces of a possible central notched rib. The sheath type foot has a flat upper face and faceted sides and a flat circular end plate. Comparable to examples of P-shaped brooches from Brancaster (Mackreth 1985, 199–201, no. 8) and Corbridge (Snape 1993, 49–50, no. 68) except those both have a central angle rather than a flat top to the foot. SF 2460, Field 1.

158. (*Not illustrated*) Fragment, foot only, surviving length 25mm. White-metal (silver?) exterior surfaces. Similar to 157 but slightly smaller with a triangular section foot front and broken at an apparently much smaller flange on the bow. SF 2485, Field 2.

159. Part of one wing and foot missing. White metal (silver?) over the whole brooch except the pin. Wings have flat back and rounded front with simple integral spherical end knobs. The pin is held on a probably iron axis bar. The centre knob is flat-backed. At the junction of the bow and wings there is a higher square surround. The flat-backed bow has faceted sides and front. Similar to Caister-on-Sea, no. 6 (Butcher 1993, 73–74) which is compared to types found in the Rhineland in the first half of the 3rd century but suggested to be a British made variant. SF Ag1, Area I, Layer HJ, mixed.

All in this group are probably produced in the first half of the 3rd century and are common types in the Rhineland. Like the knee brooch there is a strong association with military sites in northern Britain. In East Anglia the largest published group is from Caister-on-Sea, also a military context.

Crossbow

Four examples, all unstratified.

160. Made of silver apart from copper-alloy axis bar and pin. Complete except for centre knob, and most of the pin. Each wing, knobs and solid bow made separately. Hexagonal section wings. Flat-backed bow, with faceted side and front and inlaid niello triangles. SF Ag2, Field 2.

This example is broadly similar to Keller type 1 (as summarised in Clarke 1979, 257–258), which is dated mid 3rd to early 4th century. Mackreth (pers.comm.) suggests that the use of niello on this example would indicate a 4th-century date.

Fragments

161. Wings and bow only. Plain, arched, flat-backed and front-faceted bow, stepped at top and sides. Wings have a squared front and top, but faceted to give a rounded back. Solid cast, the wings pierced to hold side knobs and the top of the bow pierced at the junction with the wings for a head knob. The proportions suggest a date in the first half of the 4th century. SF 2496, Field 2.

162. Wings and bow only. Gilded and hollow; made of separate components soldered together. Short, flat-backed bow has triple-faceted front. Hexagonal wings with wire ring at junction with faceted, onion-shaped knobs. Type as Keller 4B or 5, but without decoration on bow, similar to Lankhills no. 278 (Clarke 1979, 261, fig. 32) which is dated to the second half of the 4th century, probably post-370. SF 2435, Field 2.

163. (*Not illustrated*) One wing and integral side knob, surviving width 20mm. Faceted wing with a decorated rib at the front and a moulded rib at the junction with the knob which is a rounded biconical shape with facets on the inside half. Probably 4th-century. SF 2516, Field 2.

The later crossbows are far from common but do seem to have a more widespread distribution across Britain than the earlier crossbow types, and are similarly widely scattered in Suffolk with examples recorded from Icklingham (several), Little Waldingfield, Thrandeston, Ipswich, Levington, Fressingfield and Felixstowe.

Early plate brooch types

This group includes various Continental types, often with white-metal surfaces, which are generally identified as of 1st-century manufacture. They are unlikely to have reached Britain before 43. Seven examples, none from excavated contexts.

Star shaped

Fig. 67

164. Almost complete but points damaged. The pin is hinged between two close set lugs. Half of an amber setting, now detached and illustrated below the brooch, was found with it. The front is corroded and rough where it originally had a decorated sheet appliqué holding the setting in place; similar to Colchester no. 77 (Crummy 1983, 16–17), where examples from Hofheim and other British mid 1st-century contexts are cited. SF i675, Field 1.

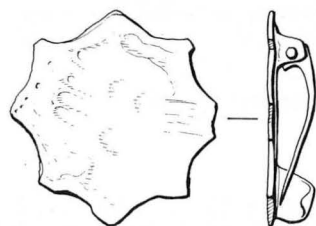
165. (*Not illustrated*) Almost complete, damaged edges and pin missing. Diameter 26.5mm. Very similar to 164, but the hinge lugs are placed nearer to the point of the star. The remains of solder on the front has a circular setting impression which matches the diameter of the 164 amber. These two brooches could have been a matching pair. SF 1680, Field 1.

Other examples of this star shaped type have been recorded at Coddham (SMR Ref. CDD 017) with a blue glass setting, and at Hasketon in Suffolk.

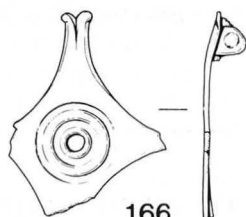
Lozenge shaped

166. Fragment, much of plate and pin missing. One bifurcated terminal surviving in front of two close set lugs for a hinged pin. There are double concentric grooves around a central hole, which probably held a rivetted boss. As Camulodunum (Hawkes and Hull 1947, 325, pl. 98) no. 165 and Culver Street, Colchester (Crummy 1992, 141–143) nos 29 and 30 (both unstratified). This is Riha (1979) type 7.4.1, widely distributed in the Empire and dated to mid 1st century. SF 2488, Field 1.

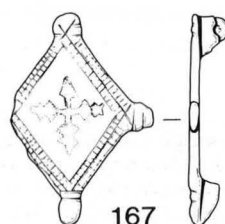
167. Almost complete. One side knob and pin missing. The pin is hinged between two close set lugs. The worn central motif is four oak leaves in a cross like 168 below. A very similar example "from Suffolk" is illustrated by Hattatt (1989, 133–135, no. 1580) with traces of red and white enamel in the leaves. He suggests a late 1st to early 2nd-century date. A very similar brooch is recorded from Pakenham (SMR Ref. PKM 026). SF 2424, Field 1.



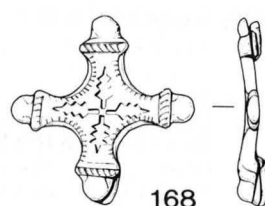
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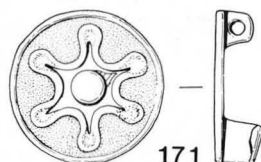
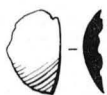
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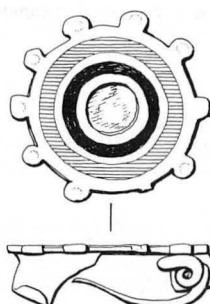
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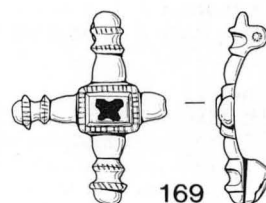
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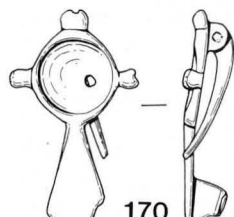
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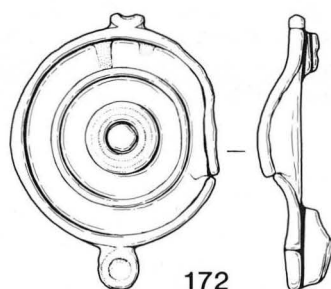
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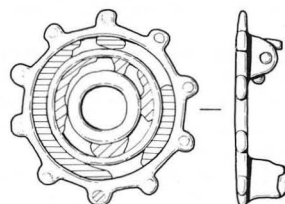
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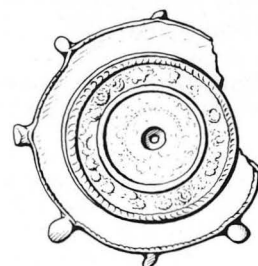
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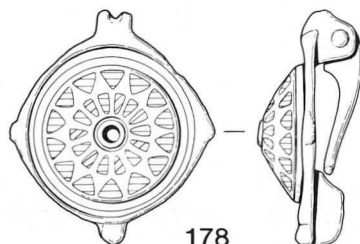
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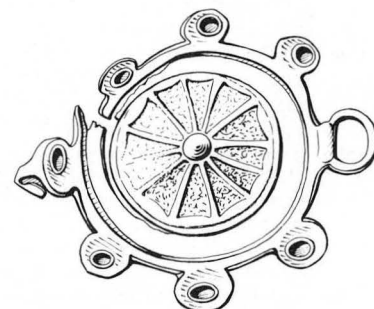
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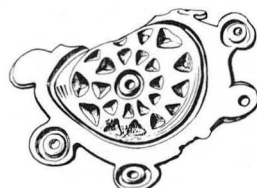
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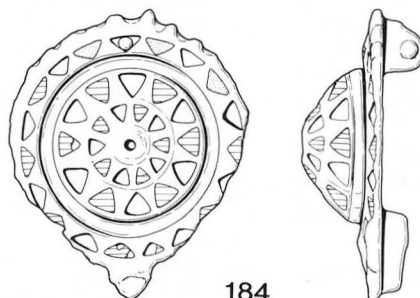
178



183



182



184



5 cm

Cross shaped

168. Almost complete, pin missing. The pin was hinged between two close set lugs which are now squashed and damaged. The arms of the cross have faint notching along the edges. There is a central cross of four sunken "oak leaf" shapes (similar to 167). A comparable cross type but with a square enamelled central panel came from a post-Roman context at Culver Street (Crummy 1992, 141–143, no. 31), and a very similar example with the oak leaf motif (with red enamel in two of the leaves) is recorded from Wenhaston (WMH 005). SF 2423, Field 1.
169. Missing pin and one arm terminal. The pin was hinged on two close set lugs which have corrosion, perhaps from an iron hinge bar. Flat back. White metal on the front surfaces. The central rectangle has a niello cross. Similar to an example from Withersfield (SMR Ref. WTH 004). SF 2215, Field 1 south.

'Keyhole' type (Hattatt 632) variant?

170. Complete. Pin hinged on two close set lugs. White metal on the front surfaces. SF 2438.

Flat (or mostly flat) enamelled disc

A varied group of enamelled brooches with a range of pin attachment systems (even on very similar examples like 173 and 174), and some having small projecting lugs around the edge. Five examples, of which one is from an excavated context.

171. Complete except for pin. The pin was sprung on two widely spaced lugs. A six-lobed motif surrounds a central circle of metal; traces of possible red enamel in the motif and black in the outer area. Similar to examples from South Elmham (SMR Ref. SEM 009) and elsewhere. SF 2486, Field 2.
172. Almost complete, but pin and chain loop and a probable central boss missing. One edge bent. The pin was hinged on two close-set lugs. Concentric bronze bands divide face into enamelled rings of which only the outer has the remnants of a discoloured greenish-yellow square. In the centre there is the stub of a probable boss which also shows on the back of the brooch flush with the surface. Similar to Hattatt (1985, 145) no. 532 from East Anglia and another probable example recorded from Wenhaston (SMR Ref. WMH 005 KP40) Suffolk. Hattatt cites comparable examples from the Continent. SF 2421, Field 1
173. Complete, but spring broken and two peripheral lugs damaged. The pin is sprung on a single lug. The disc has an outer ring of blue enamel, a middle ring of dark ? discoloured enamel and an empty central circle. The traces of central dots on the peripheral lugs might be from applied metal bosses as on Hockwold no. 6 (Mackreth 1986, 64) which has a different enamelled design but is otherwise similar. The brooch is similar to Hattatt no. 1563 (1989, 117–119, said to be from Belton, Norfolk) who cites another five examples in the unpublished corpus (Hull n.d.). SF Ae146, Area I North, Pit NBE, (excavated 1974).
174. Complete but pin and part of spring missing. The pin is sprung on an axis bar between two lugs, and there is a slight ridge between the outer edges of the two lugs. Some of the peripheral lugs have traces of red enamel dots. The disc has an outer ring containing blue enamel and an inner one containing red and an empty central circle. Similar to 173 but with the different two-lug spring arrangement. Mackreth commented (1986, 64) that this arrangement was less certainly British than the single lug type of 173. SF 2449, Field 1.
175. Complete except for part of the plate with the hinge. Eight small peripheral knobs of which two are missing. The raised central area has vertical sides and a hollow back. It has a notched rim and a plain inner band dividing 2 concentric, probably originally enamelled bands. Within the outer band are traces of a ring of dots, probably a separate colour of enamel. A central hole may once have held a rivetted boss; there is a raised flange around the hole on the back. This type is comparable to Hattatt no. 543 (1985, 148–149) from Billingsgate, London, which has a hinged pin as do examples from the North (Snape 1993, 25, type 10.12). SF 2088.

Conical disc and umbonate

Where the pin attachment survives all of these have the pin hinged between two closely set pierced lugs. Nine examples, one from an excavated context.

Non-enamelled type

176. Complete, except for most of the pin. Bent. The pin is hinged on two close set lugs. Fairly similar examples are known from Pakenham (SMR Ref. PKM 005 3916) and Charsfield (SMR Ref. CHA 011). SF 2233, Field 1 south.

177. (Not illustrated) Fragment. Only the central cone survives, with a diameter of 23.3mm. Plain complete cone, hollow, with the remnants of a knurled surrounding rib. SF 2234, Field 1 south.

This type is widespread in Britain and also occurs in Gaul (Hattatt 1989, 128).

Enamelled

178. Almost complete, damage to the chain-loop and the edges. There are traces of knobs at the sides. A deep channel marks the edge of the main raised area which is decorated with two rows of fourteen enamelled triangles (outer row blue, inner row alternating blue and red) and a central deep dot bounded by a groove. Traces of white metal on the front surfaces. SF Ae289, Field 2.
179. (Not illustrated) Diameter 23mm. Complete except for damage to the side lugs. Very similar to 178 but the chain loop is either broken or was simply a knob, the central dot is a hole (possibly due to wear) and the colours of the enamel are difficult to determine although some of the outer row of triangles are blue. SF 1684.
180. (Not illustrated) Surviving diameter 23mm. Complete except for damage to the edges. Very similar to 178. SF 1682.
181. (Not illustrated) Length 34mm Complete but bent and very corroded; all the enamel and some of the metal backs of the cells are missing. Similar to 178. SF 1686, Field 1.

The above four are the commonest version of the Umbonate type (Hattatt 1987, 179) which is found mainly in Britain. They are found widely in Suffolk and are very consistent in their design except for some variation in the enamel colours, but are uncommon in the published East Anglian brooch groups except for two from Saham Toney (Brown 1986, fig. 24, nos 171, 172)

Enamelled with eight peripheral lugs

182. Almost complete but enamel, two lugs and part of the pin missing. Very bent. The eight equidistantly spaced flat circular lugs around the flat perimeter plate each have a central dot and groove except for the one in front of the hinge which is pierced as a chain loop. Traces of white metal on the front surfaces. SF 0195, Area IX, Layer (3) Grid Sq C4, 4th century.

This variant is described by Hattatt (1989, 126, no. 1574) as a fairly small subgroup found mainly in Eastern England. A very similar one is recorded from Coddensham (SMR Ref. CDD 017 no. 182).

Conical enamelled with eight lugs

183. Complete but part of the perimeter rim broken and bent. The hollow backed central cone has a single ring of twelve long triangular cells which are enamelled in alternating colours, possibly black and blue. SF Ae222, Field 3.

Similar to Hattatt no. 537 (1985, 146), again with a mainly Eastern England distribution.

Enamelled with scalloped edge

184. Damaged margin and missing pin. Corroded. A chain-loop stub remains above the hinge attachment and an opposite lug of which the stump remains in front of the catchplate. The remaining flat border probably had a scalloped edge, and has a row of triangles, some containing blue enamel. A narrow deep channel separates this border from the raised centre which has two rings of triangles, some containing blue enamel and a central incised dot. Very similar to Hattatt no. 1061 (1987, 181–182), and one from Layham (SMR Ref. LYM 005). SF Ae257, Field 2.

Flat disc with applied repoussé plate

Three examples, none from excavated contexts.

Fig. 68

185. Complete except for the front disc. Pin sprung on a single lug. The face has traces of solder and of the applied disc and a central irregular hole. Comparison with the published *Ad locutio* types (Mackreth 1986, fig. 41, nos 10–12) and unpublished Suffolk examples show that this is exactly the right size and that there are possible traces of the rearing horse still visible. The design was based on a coin of Hadrian (117–138). SF Ae294 Field 2.
186. (Not illustrated) Diameter 30mm. Almost complete but spring, pin and part of catchplate missing. Very corroded. Similar to 185 but slightly smaller. Either an *Ad locutio* or another design (such as the triskele commonly) of applied repoussé disc. SF 2588 Field 1.

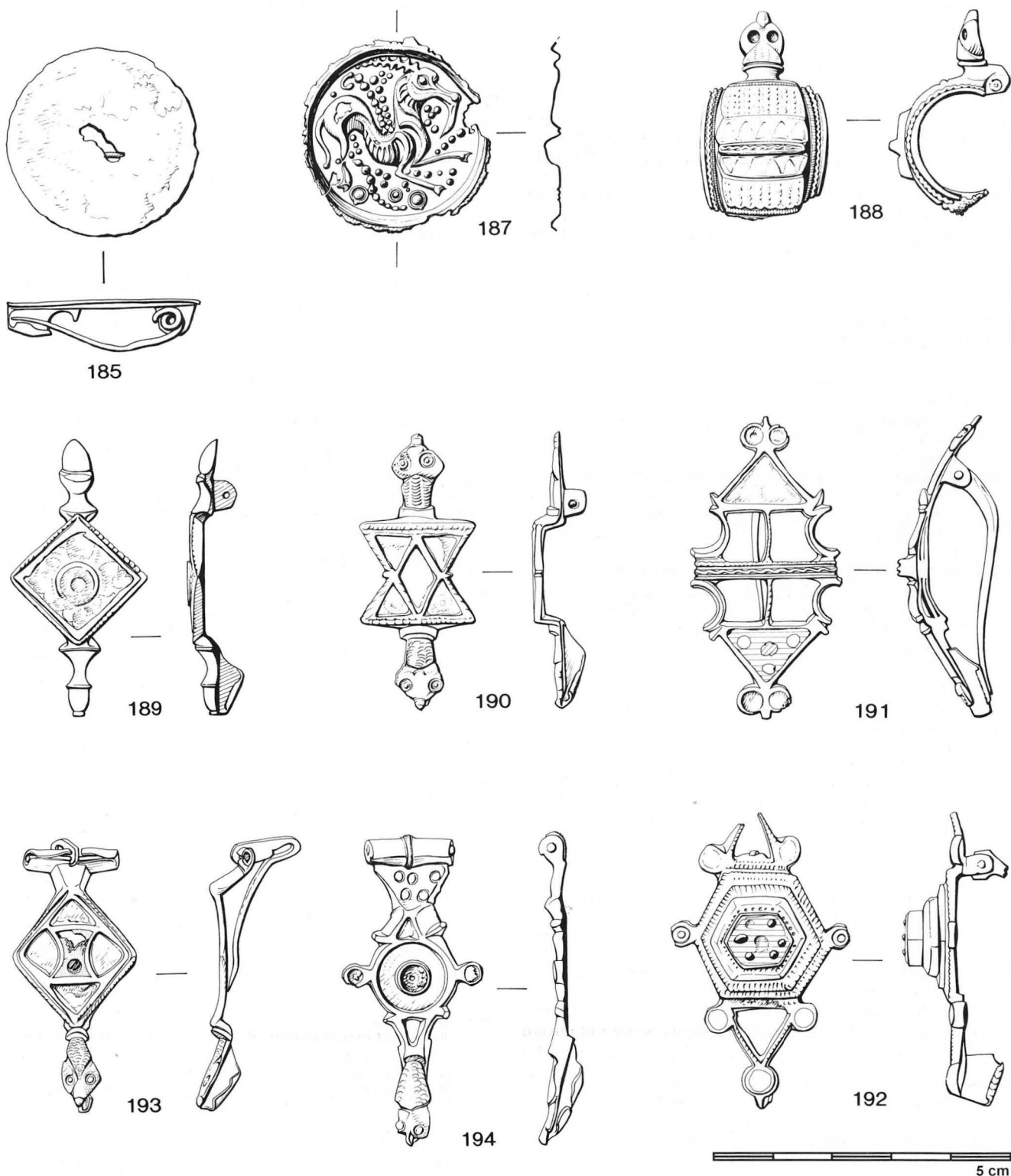


Figure 68 Dress accessories — brooches. Scale 1:1

187. A sheet bronze disc with repoussé decoration. It shows a goat-like creature in high relief facing right with lines of dots around it, including some possibly representing wings, and three ring in dot motifs below, all enclosed in a circle. Comparable in style to Late Iron Age coins although no examples of this exact beast are known. The edges are all damaged, but it would fit on a disc brooch slightly larger than 185. A very similar piece was found in the Santon (Norfolk) hoard showing a beast with a less elaborate horn and less detail (Clarke 1940, fig. 12, no. 1). The other brooches in the hoard

suggest deposition in the mid 1st century. A similar disc with a different beast was found with the Westhall (Suffolk) hoard, which again contains Late Iron Age terret rings and other 1st-century objects (Clarke 1940, 68–69, fig. 12, no. 2). A sheet plate with curvilinear design and two strips for attachment as a mount from Caister-on-Sea (Darling with Gurney 1993, 117–118) shows that these pieces are not invariably brooches; in this case it is not possible to be certain. SF 1597, Field 1 north.

Enamelled equal ended types

Where the pin attachment survives all of the following have the pin hinged between two closely set lugs. Five examples, one from an excavated context.

Bridge type

188. One terminal and pin missing. Worn decoration on the terminal and on the central panel. Zoomorphic terminal with deep dots for eyes, a moulded snout and faintly incised scales on the head. The highly arched bow has flat edges decorated with an external, moulded wavy line and an internal, beaded line. Across the centre of the bow is a raised rib with a central relief wavy line. Around this a rectangular plate has five (originally enamelled) triangles on each side. Above and below this are two rectangular slightly recessed panels with relief beaded lines. SF Ae260, Field 2.

Bridge brooches are widely distributed on the Continent; they more commonly have moulded acorn-shaped terminals than the zoomorphic type (Riha 1979, Taf.62; Hattatt 1989, fig. 212).

With lozenge plate

189. Complete except for pin. The lozenge plate has a notched edge and marginal grooves. The main area of the lozenge contains very decayed enamel, now greenish in colour, which may have been made up of separate triangular or square pieces. The central circle has a bronze rim and apparently two colours of enamel, the centre dot now paler and the outer ring having a few orange specks which may represent the original colour. SF 1374, Area IV, Layer (1) Grid Sq C8.
190. Variant with zoomorphic terminals. Complete except for pin. Terminals have dot and ring eyes, a projecting snout and incised line scales on the neck. The plate has worn notched edges. The central diamond is empty and surrounded by four triangles with traces of pale, now greenish enamel remaining. SF 2086.

Openwork

191. Complete. Slightly curved in profile. The zoomorphic terminals have large eyes with traces of discoloured dark enamel and a small projecting snout. These join triangular panels, one of which contains dark blue enamel with one red and three white dots within it. The raised bar across the middle has a relief wavy line bounded by relief beaded lines. SF Ae291, Field 2
192. Almost complete but part of one terminal and pin missing. Open triangles at each end with notched side bars. The stepped hexagonal central panel has a rounded hollow back. The outer steps are shallow with incised oblique notches on the edges. The middle one is steeper with punched dots on the top. The central hexagon has vertical sides and contains turquoise frit or enamel with spherical black glass insets of which two are missing. There are eight projecting lugs of which the central two have two punched concentric circles and the rest contain pale discoloured enamel. Ae292, Field 2.

All the enamelled equal-ended types, and the two hinged examples below, are a relatively uncommon group in Britain (and very rare in northern Britain) which seem to occur widely on the Continent. The approximate date, as with most enamelled types, is 2nd century.

Hinged head enamelled

Although strictly a bow brooch with hinged pin which can be seen as a development from the Hod Hill type, these examples are very comparable in treatment to the preceding group. Two examples, neither from excavated contexts.

193. Complete. Bent. Wing cover curled forward around the hinge bar, with a slightly off-centre pin slot. The central lozenge-shaped plate has a notched edge and marginal groove. Of the five enamelled segments a central waisted rectangle contains orange enamel with two circular insets, possibly of black. The surrounding triangles have only discoloured decayed traces. SF 2158, Field 1 south.
194. Complete except for pin and damaged terminal. Bent. The wing cover folds forward around an iron hinge pin. The upper bow is triangular and has five punched circles. The central plate has triangular settings (missing their enamel) above and below, and circular side lugs containing orange enamel. The main circle is divided into two concentric areas of which the centre has traces of orange enamel in a conical hollow. The zoomorphic terminal has

punched circle eyes, a narrow projecting snout and punched arc 'scales' on the neck. SF 1671, Field 1 north.

Dragonesque

Two examples, one from an excavated context.

Fig. 69

195. Complete except for pin. The heads have backward pointing ears with a central groove, the eyes have a central circle of blue enamel surrounded by a ring of discoloured, possibly white, enamel and the snout had a central circle. The body has a large enamelled panel, bounded by a groove, which contains a complex central spiral and pointed end spirals at each side with additional small circles within the design. The enamel in the small circles and in the outer panels has discoloured to green but there is pale blue within the spirals and possible white in the central spiral. SF Ae221, Field 3.
196. Complete. The heads have large oval ears with central ridges; the rest of the head is plain. A strut joins the base of the head to the body at the pin attachment end. Most of the enamel on the body is decayed and discoloured but there is orange in the three central lozenges. The adjacent triangles are discoloured; the other panels consist of J-shapes with triangular infill shapes of which some are empty and some discoloured. The back of the body is concave with a central circular flat knob. Similar but of reverse outline shape, to Scote nos 10 and 11 from an early/mid 2nd-century context (Mackreth 1977, 133–134). SF 0033, Area IX, Layer (3) Grid Sq A3, 4th century.

The dragonesque brooch is generally commoner in the north of England than the south and was very likely produced there during the late 1st and 2nd centuries. It is not a frequent Suffolk find but one very similar to 196 is recorded from Swilland and fragments of simpler ones from Coddensham (SMR Ref. CDD 017) and Great Blakenham (SMR Ref. BLG 004). The freer 'Celtic' style of 195 perhaps suggests an earlier date. An openwork Celtic style dragonesque from Lakenheath is in the Ashmolean (Clarke 1940, 62)

Sandal type

A flat enamelled form in the shape of the sole of a sandal or boot. Where it survives the pin is hinged on two close-set lugs.

Three examples, none from excavated contexts.

197. Complete except for part of chain loop and part of pin. The pin is hinged between two close-set lugs. The outline is straighter on the right hand side as drawn, giving it the appearance of a right foot. It is similar to one from Great Dunmow (Wickenden 1988, 11, fig. 12, no. 1) which was found in a feature with Antonine samian. SF 2419, Field 1.
198. (Not illustrated) Complete except for part of chain-loop and pin. Surviving length 42.7mm. Very similar to 197 but the catchplate is pierced by a circular hole and the outline is slightly more waisted at the instep. Slight traces of discoloured enamel survive. 2420, Field 1.
199. Missing the heel end with the hinge. Corroded. Slight traces of discoloured enamel survive. The outline is straighter on the left hand side as drawn, so that it appears to be a left foot. An example from West Stow (West 1990, 71, no. 163), from a residual context, has a similarly angular outline but is smaller like 197 and 198. SF 1716.

The sandal type has been found on various other Suffolk sites, including Pakenham (SMR Ref.s PKM 005 and 037), Coddensham (SMR Ref. CDD 022), Clare, Gosbeck and Alpheton (SMR Ref. ALP 003). It is a widespread type, found from Britain to Pannonia (Riha 1979, 203).

Zoomorphic types

Five examples, none from excavated contexts.

Flying duck

200. Almost complete except for wing-tips and pin. The pin is hinged between two close-set lugs. The body is almost flat with a projecting curved head. There is discoloured enamel in the wings and in the fan-shaped tail. A low rib along the centre of the back is decorated with two rows of opposing punched triangles with two grooves at the end. SF 1677.

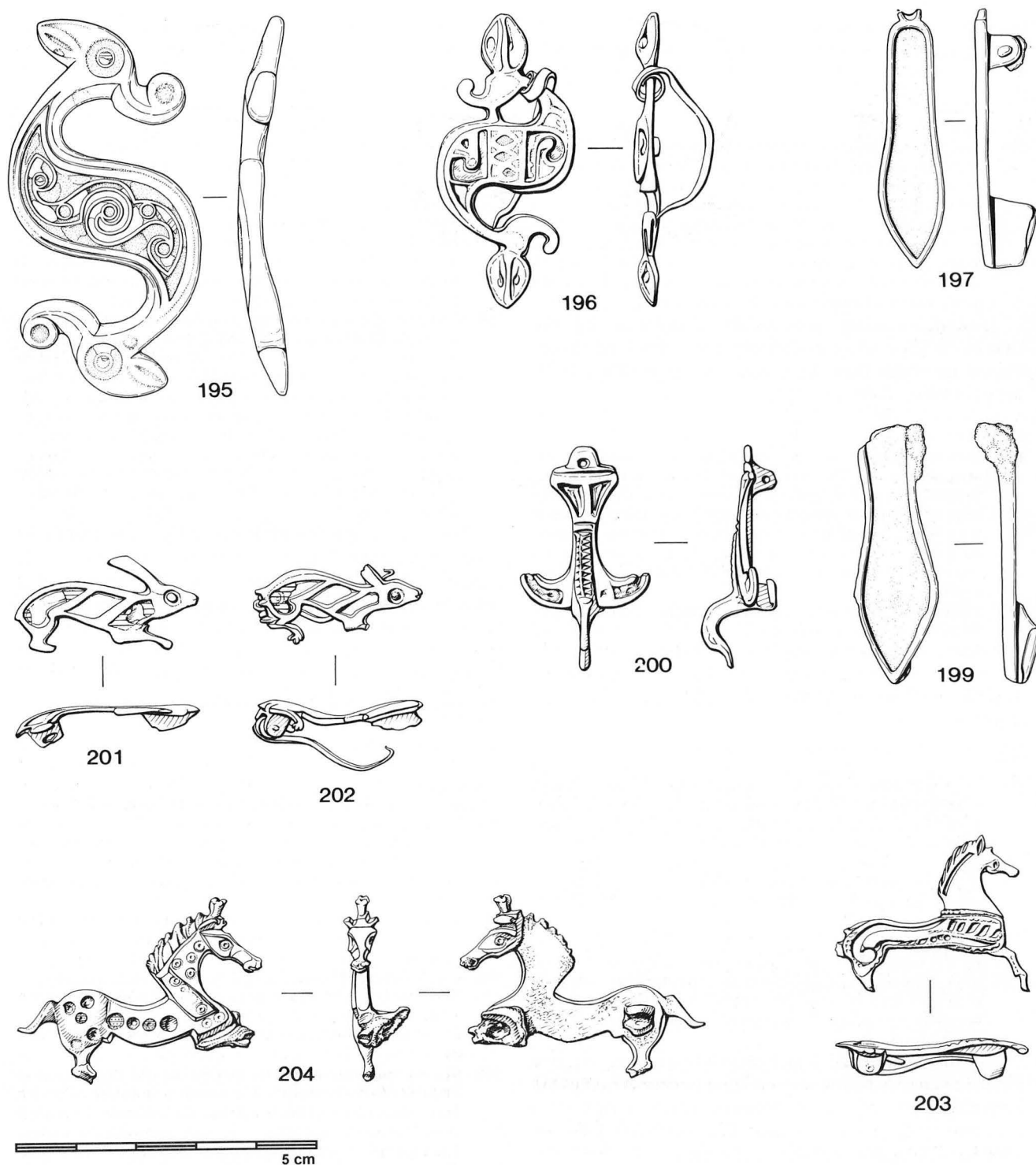


Figure 69 Dress accessories — brooches. Scale 1:1

Hattatt (1987, 224) describes this type as rare and probably British because he could find only one Continental example. He cited one from Suffolk, two from Oxfordshire and one from Dorset, these three all being similar but with a squarer wing outline and a straight panel of enamel in the wing. Further Suffolk examples from Pakenham (SMR Ref. PKM 036, two examples), Wenhamston (SMR Ref. WMH 005), Charsfield (SMR Ref. CHA 011) and Pettistree (SMR Ref. PTR 009) also have the squarer wings and a more angular, sometimes less duck-like, head profile.

Running hare

201. Almost complete. Damaged rear leg and pin missing. Bent. There is a single lug for a sprung pin. The three enamelled panels have traces of blue remaining in the front and back ones. An enamelled, possibly blue, ring defines the eye. SF Ae215, Field 3.

202. Almost complete but front leg and ear missing. The pin is sprung on an axis bar between two lugs. Otherwise it is very similar to 201. There are traces of blue enamel only in the back part, and the metal alloy is very grey in colour. SF 1629.

Hattatt (1987, 240) indicates that the hare type is widespread on the Continent with an equal number in Britain, mainly in the south. The spring fixing mechanisms, particularly the single lug type would suggest British

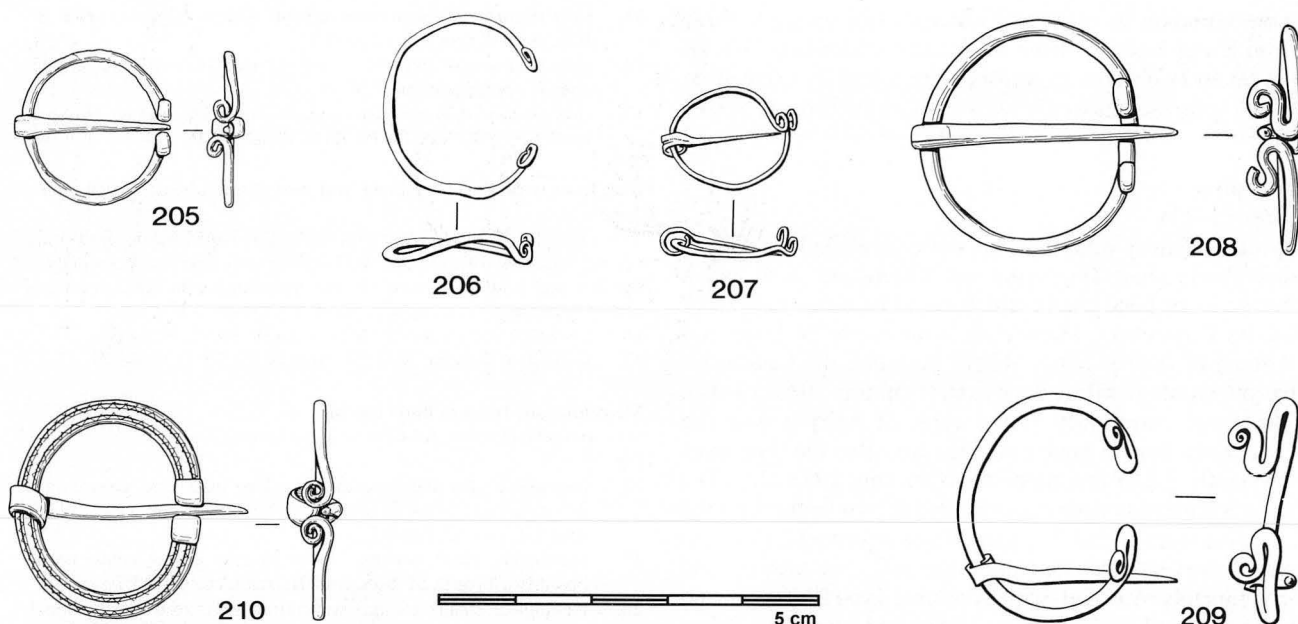


Figure 70 Dress accessories — brooches. Scale 1:1

manufacture. Another example with the three enamel cells and with a single spring lug was found at Hockwold, Norfolk, and is in Moyes Hall Museum, Bury St Edmunds.

Horse

203. Complete except for the tail and part of hind leg. Corroded. The pin is sprung on an axis bar between two lugs. No enamel survives on the body. There is a probable chain loop stump above the tail. Similar to Gt Dunmow no. 2 (Wickenden 1988, 11) which shows the chain loop and tail arrangement intact; this was found in a pit with Antonine samian. Hattatt illustrates a similar one from Norfolk (1987, 236, no. 1181) and refers to another three in Hull's corpus. SF 2410 (TM 313568).

204. Almost complete but legs and pin missing and corroded around the catchplate. The pin is hinged between two close set lugs. It is flat-backed except for the head which is fully round. The eyes are punched dot and rings and there is a projecting ?plume at the top of the mane. The neck has four punched dot and rings, there are another four on a raised band across the shoulder and two more at the end of this band above the front leg. The body has some low relief modelling. Four circles along the back and five on the hindquarters contain decayed enamel, some of it turquoise. SF 2131 (TM 313568).

The 204 horse resembles various Continental animal brooches which also have the hinged pin, relief modelling and sometimes three-dimensional heads, and a similar pattern of enamelled spots, particularly the five on the hindquarters. Animals in this style recorded in Suffolk include a leopard from Little Cornard and a dog from Charsfield (SMR Ref. CHA 011)

The group of animal brooches, perhaps plus the sandals, might be considered indicative of a religious shrine or temple, although rather less certainly than the Hockwold group of horse and rider brooches associated with Ad Locutio types (Mackreth 1986, 67) an assemblage which also occurs at Lackford (SMR Ref. LKD 018) in north Suffolk. A more comparable group to the Hacheston animals are the numerous surface finds from a site in nearby Charsfield (SMR Ref. CHA 011) which has produced various bird and dog type brooches as well as a very fine figurine of a dog.

Penannular

The penannular brooches are all Fowler's type C (1960), with the terminals coiled at 90° to the ring.

Seven examples, four of them from excavation contexts.

Fig. 70

205. Complete. Corroded. A small ring of circular cross section with slightly flattened terminals. The pin is circular in section and flattened as it wraps around the ring. Similar to Hawkes and Hull no. 2 (1947, 327, fig. 59). SF Ae168, Area I N, Pit 19 JC, Phase A.

206. Complete except for pin. Slightly bent outwards. Similar to 205 with the circular section ring here tapering slightly to the terminals. Comparable to Scole no. 12 (Mackreth 1977, 133–134) from an early/mid 2nd-century context. SF Ae54, Area I, Road AR, Phase B–D.

207. Complete. Corroded and bent so that the terminals overlap. Similar to 205. SF Ae55, Area I, Post-hole 18 DT, Phase C–D.

208. Complete. Circular section ring with S-shaped terminals. SF Ae145, Area I, Pit 69 FS, Phase D.

209. Complete. Circular section ring with terminals folded back to form a flattened S-shape. SF 1681, Field 1.

210. Complete. The ring is flat and rectangular in section with two lines on the front. Similar to Hawkes and Hull nos 3 and 4 (1947, 327 fig. 59), especially no. 4 except that this has rounder section terminals. Also Gestingthorpe no. 11 (Butcher 1985, 27–28) a similar brooch but undecorated. SF 1665, Field 1.

211. (Not illustrated) Diameter 21mm. Missing the pin and one terminal. The ring is flat and rectangular in section, with faint traces of incised lines on the front. SF Ae203, Area I, Layer HJ, mixed.

Fowler (in Crummy 1983, 18–19) discusses the separation of a late Roman group of flat sectioned, often decorated, Type C penannulars from the main group in 1st-century contexts; of the Hacheston examples 210 and 211 might fall in this late group but are not diagnostic in their decoration and as noted 210 is similar to an unphased Camulodunum example. Most of this group are closely comparable to 1st-century, often pre-Roman, examples such as Camulodunum and Thetford (Mackreth 1991, nos 42–44, one of which was found in a mid 1st-century structure).

The vulnerability of the penannular form accounts for their relative scarcity amongst surface finds from Suffolk — one probably late group has been recorded from Brandon (SMR Ref. BRD 007), but otherwise they are

more common in excavated contexts (for example three from Burgh and two from West Stow). Similarly four of the seven Hacheston examples were found by excavation which contrasts markedly with most of the brooch types.

Hairpins

(Figs 71–73)

A total of thirty-nine hairpins were identified (including three bone shaft fragments not catalogued here and a further eight bone shafts which could be either hairpin or needle fragments). Twenty-six were made of bone and thirteen of copper alloy. Where possible, the Colchester hairpin typologies have been used (Crummy 1983, 19–30). The most commonly found type of hairpin was the Colchester Type 3 bone pin. This was also the type most frequently found in Colchester (Crummy 1983, 22). The Type 3 bone pins were concentrated in two features on the site, five were found in a pair of pits (Context UF, which was however excavated after the 1973 excavation and inadequately recorded) with a possible Type 2 bone pin and two bone needles (Colchester Type 1 and 2 needles). A late 3rd to early 4th-century pit (FS) contained two Colchester Type 3 bone pins (7,8), two bone pegs (336, 337) and a Type 1 needle (127).

All of the thirteen copper-alloy hairpins have a circular section and tapering shafts. Where decoration is described it is from the shaft upwards to the head.

Bone pins with a plain conical head. Colchester Type 1

Only two examples of this early (1st and 2nd-century) type of bone hairpin were found.

Fig. 71

1. Incomplete. Tip missing. Tapering, circular section shaft. Rectangular section at head. Rounded head. SF B29, Area I, Layer HJ, mixed
- 2.. Complete. Tapering shaft. Circular section. Short conical head. SF B16 Area I N, Pit 43 MAW, Phase C

Bone pins with one to four transverse grooves beneath a conical head. Colchester Type 2

Two examples found. Both have circular section tapering shafts. This type is also dated 1st or 2nd century by Crummy (1983, 21).

3. Incomplete. Tip missing. Three transverse grooves below head. Head is damaged. Crudely made. Highly polished. (As it would be unusual for the conical element to break off, this may be a variant of the type (Nina Crummy, pers.comm.)). SF B48, Area I.
4. Fragment. Tip missing. Two transverse grooves below conical head. SF 1344, Area IV, Layer (1) Grid Sq B9.

Bone pin with additional zone of decoration. Colchester Type 2 Variant

5. Complete. Circular section tapering shaft. Four transverse grooves below conical head. Decoration consists of zone of diagonal grooves. Conical head is decorated with vertical grooves. SF B30, Area I, Pit 70 NAH, Phase C.

Bone pins with a more or less spherical head. Colchester Type 3

This formed the largest group of any type of hairpin found at Hacheston. Ten pins were found, five from the same context UF and two were from pit 69 (FS). All have circular section swollen shafts. Eight are complete although one (8) has possibly been reworked. Dated mid or late 2nd to 4th century by Crummy (1983, 22).

6. Incomplete. Thick shaft. Heavy looking globular head. SF B20, Area III, Layer ABF, Phase D.
7. Complete. Globular head. SF B22, Area I, Pit 69 FS, Phase D.
8. Complete. Globular head. SF B14, Area I, Pit 69 FS, Phase D.
9. Complete. Globular head. SF B34, Area II (not located pit) UF.
10. Complete. Elliptical head. SF B35, Area II (not located pit) UF.
11. Incomplete. Tip missing. Elliptical head. Delicate. SF 1555, Area IV, Pit 75(3), Phase III.
12. (*Not illustrated*) Complete. Length 104mm. Split. Globular head. SF B33, Area II, (not located pit) UF.

13. (*Not illustrated*) Incomplete. Length 89mm. Globular head. SF B36, Area II, (not located pit) UF.
14. (*Not illustrated*) Complete. Length 117mm. Globular head. SF B37, Area II, (not located pit) UF.
15. (*Not illustrated*) Incomplete. Length 74mm. Tip missing. Globular head. SF 1556, Area IV, Pit 75(3), Phase III.

Bone pins with a reel- or bead-and-reel-shaped head. Colchester Type 6

Two examples were found of pins with reel-shaped heads. Both have circular section swollen shafts. At Colchester this type was found only in late 3rd- and 4th-century contexts, but in discussing the dating evidence generally a start around 200 is suggested (Crummy 1983, 25).

16. Complete. Reworked. SF M16, Area IV, Pit 53, Phase II.
17. Complete. Delicate. SF 1557, Area IV, Pit 75(3), Phase III.

Miscellaneous types of bone hairpin

Six different examples. All have straight tapering shafts.

Fig. 72

18. Incomplete. Tip and head missing. Two transverse grooves and decoration consisting of zone of hatching below the break. SF B5, Area I, Layer AJ, Phase C.
19. Incomplete. Head missing. One transverse groove below break. Possibly a Type 2. SF B38, Area II, (not located pit) UF.
20. Incomplete. Head missing. One fine transverse groove above which is an area of cross hatching. SF B18, Area I N, Pit 43 MAW. Phase C.
21. Fragment. Head and tip missing. Three fine transverse grooves below break. SF B11, Area I N, Pit 16 GH, Phase C.
22. Complete. Reworked point. Decoration on the cone-shaped head consists of two transverse grooves below a zone of diagonal lines and three transverse grooves below a bead. SF B4, Area I, Layer AJ, Phase C.
23. Complete. Reworked point. Four transverse grooves below a single reel followed by a further two transverse grooves below a flattened globular head. Well made. SF B42, Area I, Pit 1 BA, Phase C.

Copper-alloy pins with heads of bead, reel and spool motifs surmounted by a flattened sphere. Colchester Type 2

Dated by Crummy (1983, 28) between the early 2nd and sometime in the 3rd century.

24. Complete. Decoration consists of square-section reel/reel/square-section to circular section spool/flattened sphere. SF Ae207, Area I.
25. Complete. Bent. Decoration consists of circular-section reel/reel/bead/reel/spool/flattened sphere. Reels are decorated with transverse grooves. SF 2546, Field 1.

Copper-alloy pins with a more or less spherical head. Colchester Type 3

Some of the pins (27, 29) in this category have swollen shafts, a characteristic of Cool's (1990, 151) sub-group 1E with a marked concentration in East Anglia.

26. Complete. Length 125mm. Very bent. Globular head. Crudely made. SF Ae102, Area I, Road CN, Phase B–D.
27. Complete. Globular head. Swollen shaft. SF 2329, Field 1.
28. Complete. Bent. Head has conical lower and rounded upper half. SF 2238, Field 1.
29. Complete. Bent. Globular head with flattened top. Swollen shaft. SF 2237, Field 1.

Copper-alloy pins with two transverse grooves beneath a conical head

Three examples were found. Similar to Colchester Type 2 bone hairpins.

Fig. 73

30. Complete. Bent. SF Ae68, Area III.
31. Complete. Length 107mm. Similar to one from Baldock (Stead and Rigby 1986, fig. 55, no. 224) SF Ae128, Area I, Layer KZ, Phase D.
32. (*Not illustrated*) Incomplete. Length 63mm. SF 1661.

Copper-alloy pins with conical heads, decorated with radiating incised lines

33. Incomplete. Tip missing. Bent. Has reel below head. SF Ae66, Area I, Pit 9 EA, Phase C.
34. Complete. Swollen shaft. SF 2082, Field 1.

Other copper-alloy hairpins

35. Incomplete. Tip missing. Swollen shaft. Decoration consists of square-section reel/faceted cuboid/grooved bead. SF Ae72, Area II, Ditch F35 QY, Phase D

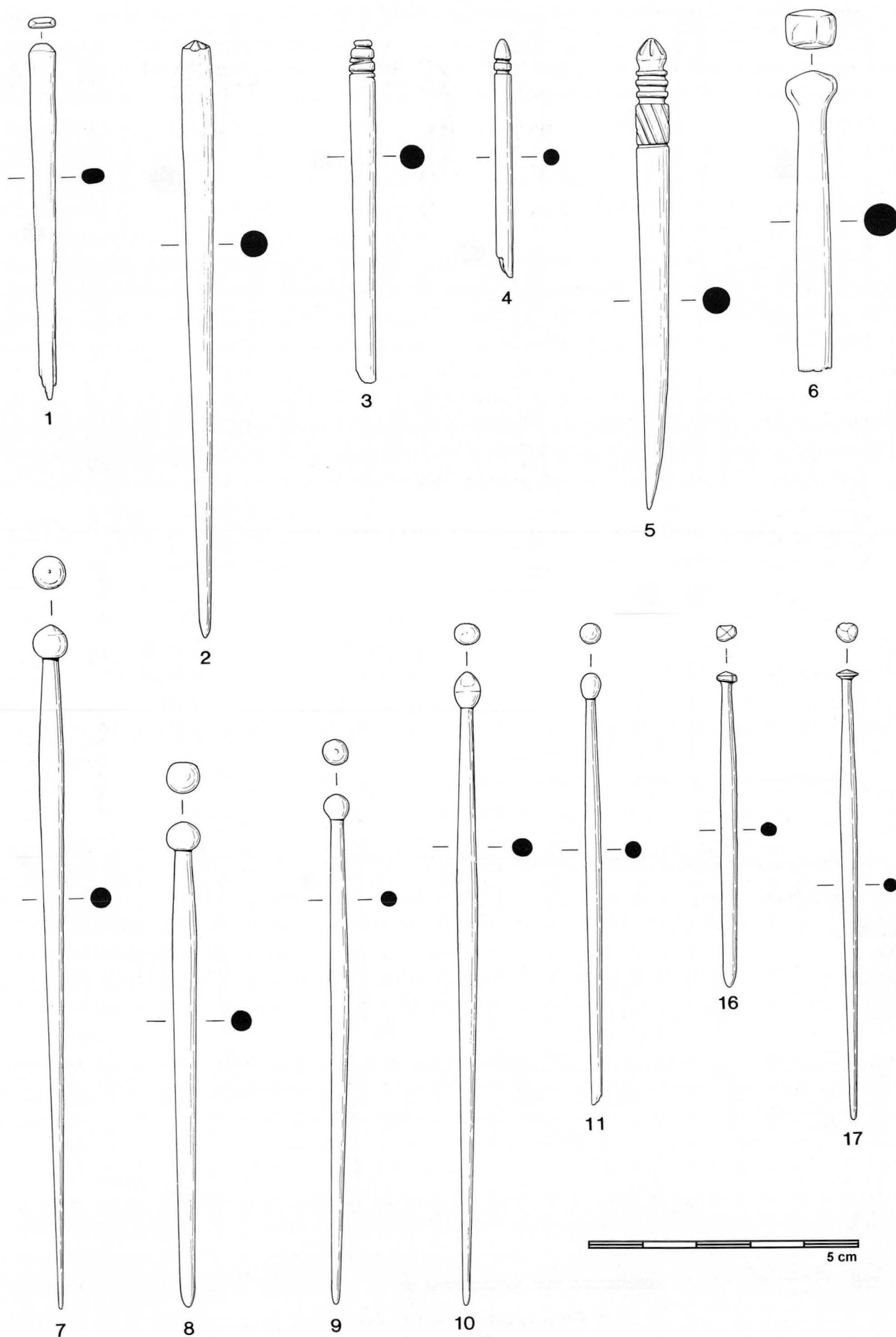


Figure 71 Dress accessories — hairpins. Scale 1:1

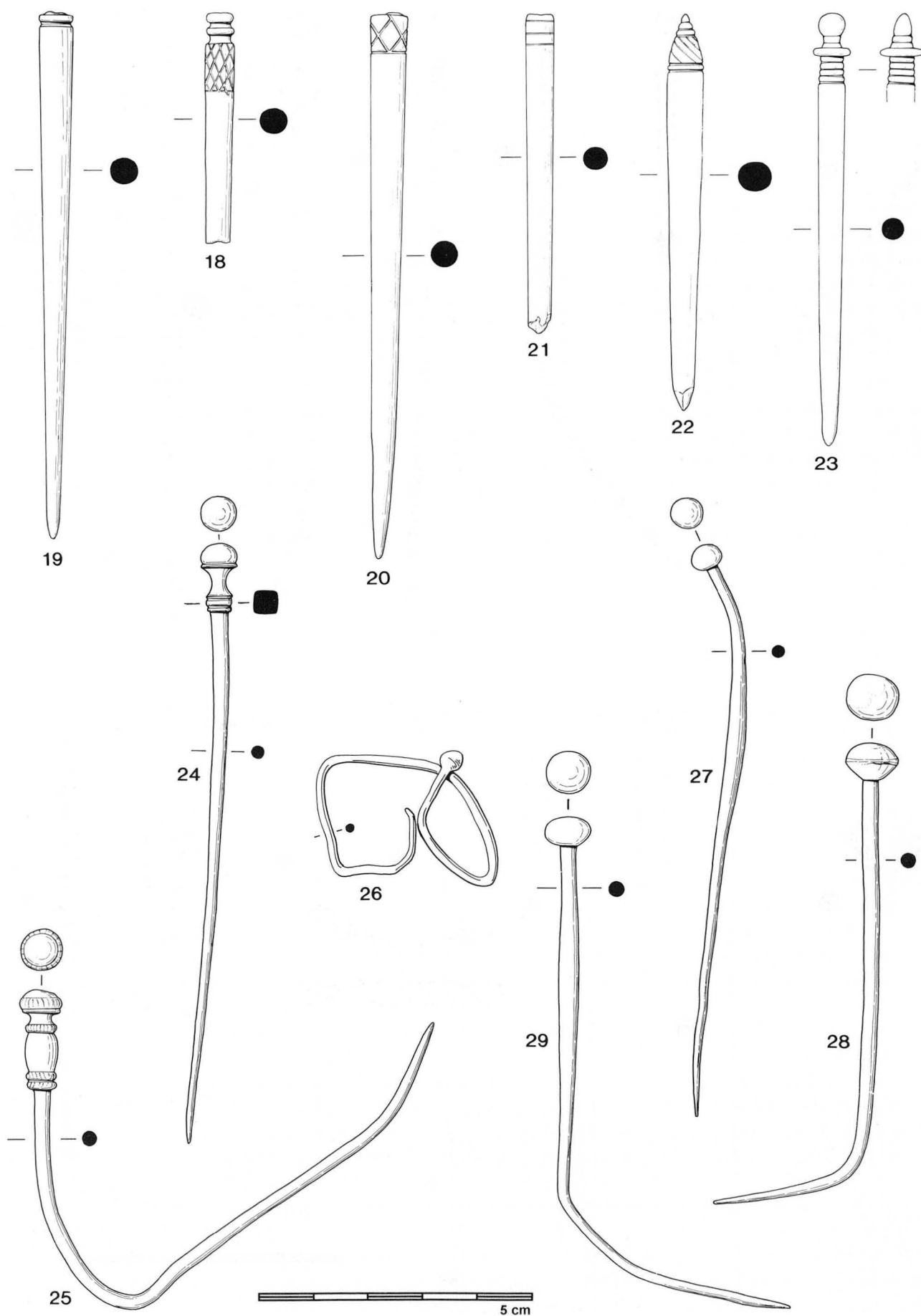


Figure 72 Dress accessories — hairpins. Scale 1:1

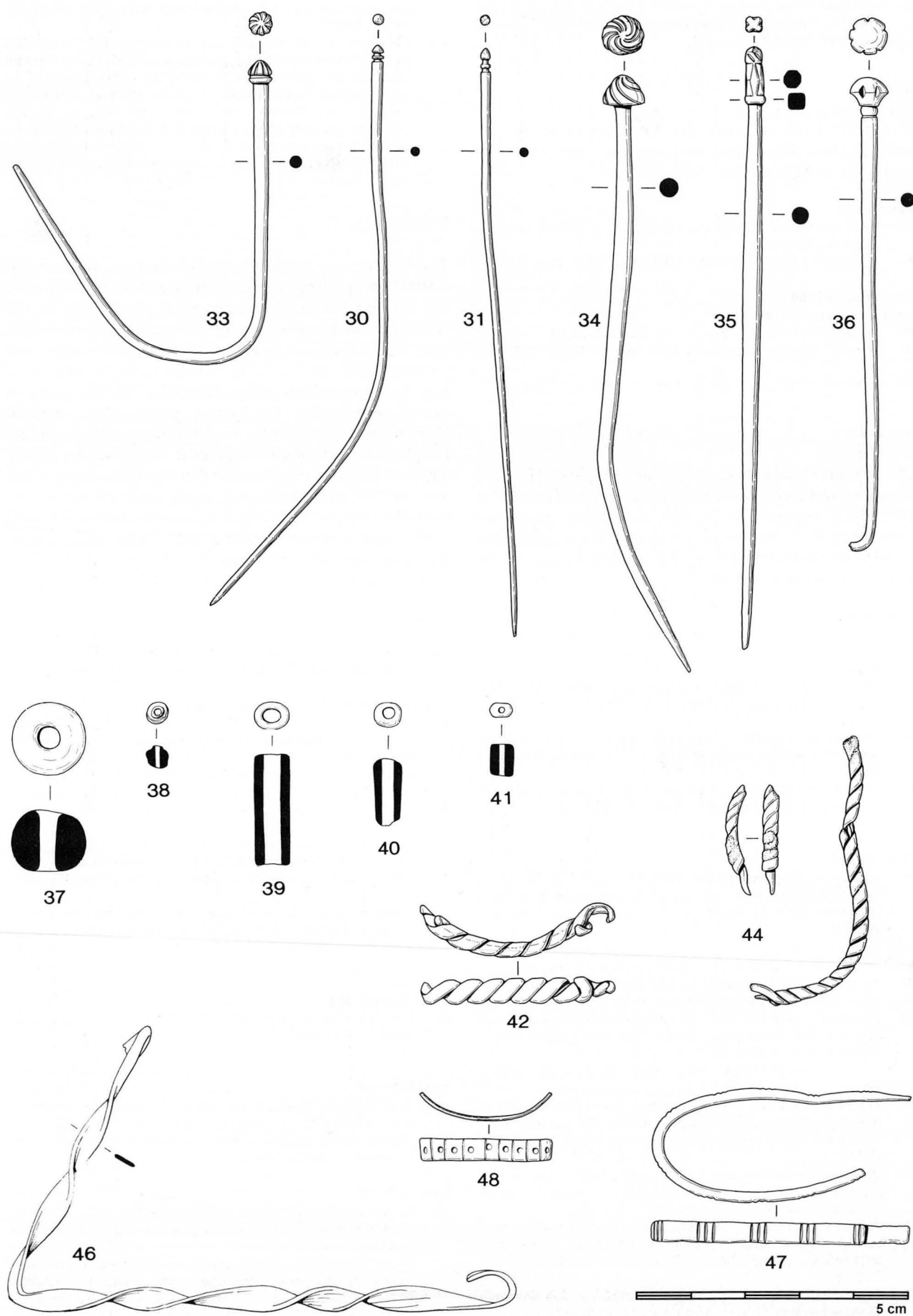


Figure 73 Dress accessories — hairpins, beads, armlets. Scale 1:1

36. Incomplete. Tip missing. Spherical head with incised vertical grooves. Two transverse grooves below head. SF Ae171, Area II, Clearance layer RZ, Phase C.

Beads

(Fig. 73)

Five beads were recovered from the excavation. All are made of glass. The Colchester categories have been used to classify them (Crummy 1983, 30–5).

Short beads

37. Short barrel bead. Translucent 'honey' yellow. SF 0002, Area X, Layer (9), Modern.
38. Opaque dark blue. SF G55, Area II, Ditch F35 UD, Phase D.

Long cylinder beads

All are of circular section.

39. Opaque dark blue. SF 1232, Area IV, Pit 75, Phase III.
40. Abraded. Translucent green. SF 1208, Area IV, Layer (1) Grid Sq C4.
41. Abraded. Translucent green. SF 1306, Area IV, Pit 54, Phase II.

Armlets

(Figs 73–74)

Of the thirteen armlets only two are complete. They are classified by their decoration and mode of manufacture. All are made of copper alloy. The six stratified examples are from 3rd and 4th-century contexts, and this would be the likely date range for most of the armlets except for 54 which is a 1st-century type.

Cable armlets

42. Fragment. Two-strand cable with hook. D-section strands. Interior surface shows signs of wear. Corroded. SF 1155, Area IV, Pit 46, Phase III.
43. (*Not illustrated*). Fragment. Height 3mm. Three-strand cable. Circular- and rectangular-section strands. SF 1153, Area IV, Pit 46, Phase III.
44. Two joining fragments. Three-strand cable with part of hook. Rectangular-section strands. SF 1056, Area IV, Hearth 18 (1), Phase III.
45. (*Not illustrated*). Fragment. Height 2mm. Two-strand cable with part of hook. Circular-section strands. SF 1353, Area IV, Pit 79, Phase II.

Twisted armlet

46. Incomplete. Both ends broken. Bent. Rectangular-section armlet with a continuous barley-sugar twist. Similar armlet from Scole (Rogerson 1977, fig. 56, no. 20). SF Ae156, Area I, Layer KZ, Phase D.

Armlets decorated with transverse grooves, punched dots, etc.

47. Fragment. Bent. Decorated with transverse grooves in groups of three. Rectangular section. Corroded. SF 2527, Field 1.
48. Fragment. Decorated with alternating transverse grooves and punched dots. Rectangular section. The same pattern is on a fragment from Gadebridge Park (Neal 1974, fig. 60, no. 139) although this is described as an unfolded ring. SF Ae 301, Field 2.

Fig. 74

49. Fragment. Projected internal diameter 60mm. Decorated with transverse grooves and ring-and-dot motifs. The fragment is too small and corroded to say whether the pattern is repeated. SF 2523, Field 2.
50. Fragment. Decoration consists of repeated pattern of ring-and-dot motifs either side of which are transverse grooves and punched dots. Rectangular section. SF 2522, Field 2.
51. ?complete. Internal oval diameter 44mm by 52mm. Has lightly incised diagonal grooves before each terminal. Overlapping terminals taper and are flattened. D-shaped section. SF 2159, Field 1 south.
52. Incomplete. Bent. Diagonal grooves before each terminal. D-shaped section. SF Ae4, Area I, Layer AA, Phase D.
53. Fragment. Virtually flattened. Terminal widens to form 'snake's head'. Decorated with three lines of punched dots which converge to form a single line of alternating dots and wave crests. The wave

crests are formed by a 'C'-shaped stamp. Rectangular section. SF Ae307, Field 2.

54. Fragment. Virtually flattened. Decoration consists of two horizontal panels of transverse grooves, giving a beaded effect, separated by moulding and grooved lines. Terminal has vertical panels of the same decoration. Rectangular section. Although comparable examples from Baldock (Stead and Rigby 1986, fig. 52, nos 163–166) and Verulamium (Waugh and Goodburn 1972, fig. 32, nos 30–31) are wider and usually have stamped motifs at the terminals, this example is likely also to be 1st-century in date. SF Ae253, Field 3.

Finger rings

(Fig. 75)

The finger rings form a large assemblage with several distinct groups. Thirty rings were retrieved, and this does not include the small copper-alloy plain rings in the 'Function unknown' section (below p.144) some of which may also be finger rings. All are made of copper alloy, and although none was made of precious metal, some show a high level of craftsmanship, especially 72. The group is mostly unstratified. The largest group is the common Roman form in which the ring band expands around an intaglio setting (Henig 1978 Types II, III and V, here mostly Type V). Both the ring forms and the intaglios suggest 2nd and 3rd century manufacture, particularly the latter. The lead alloy pattern, No.324 below, for a shouldered ring with a fairly large setting, of a type not otherwise represented in the collection, suggests local manufacture. Most of the finger rings with settings were found in Field 1.

Plain rings

Fig. 75

55. Complete. Internal oval diameter 19mm by 15.5mm. Made from copper-alloy sheet. Rectangular section. SF Ae231, Field 3

Rings decorated with notches and grooves

56. Complete. Internal oval diameter 15.5mm by 17.5mm. Decorated with internal transverse grooves. Has internal seam. Circular section. SF Ae268, Field 2.
57. Complete. Internal diameter 20mm. Decorated with continuous transverse grooves. D-shaped section. Similar ring found unstratified at Colchester (Crummy 1983, 48–49, fig. 50, no. 1770). SF Ae232, Field 3.
58. Complete. Internal diameter 15mm. Wrap around ring decorated with two faint latitudinal grooves. Has scratches on inside at one end. Possibly formed from a cut-down bracelet. D-shaped section. SF 1702.
59. Complete. Internal diameter 16mm. Pennanular ring with flattened terminals. Decorated with panels of alternating notches creating a wavy line. D-section. SF 0121, Area IX, Layer (3) Grid Sq A4, 4th century.

Snake-headed ring

60. Complete. Internal diameter 18mm. Penannular with expanded snake-head terminals, Johns (1996, 45) type B(ii). SF Ae170, Area II, RZ.

Moulded rings

61. Two fragments. Moulded ring with a solid oval collet flanked by transverse mouldings. Rectangular section. SF 2530, Field 1.
62. (*Not illustrated*). Fragment. Bent. Shoulder of ring with transverse moulding. SF 2602, Field 1.

Inscribed ring

63. Incomplete. Bent. Ring form as Henig Type V. *Mark Hassall writes:* Expanded ring with an elliptical bezel. The bezel has two lines of lettering in between which is a latitudinal groove. D-shaped section. Inscription reads: DV - / - IS. The third letter in the first row and first letter in the second row are unclear. Probably reads DVLICIS meaning sweet. A gold double ring in the British Museum (Marshall 1907, no. 586) is inscribed on one bezel DVLICIS, and the other DVLICI. The letters are apparently produced with a small punch, as here. (Hassall and Tomlin 1995, 383). SF Ae181, Area I.

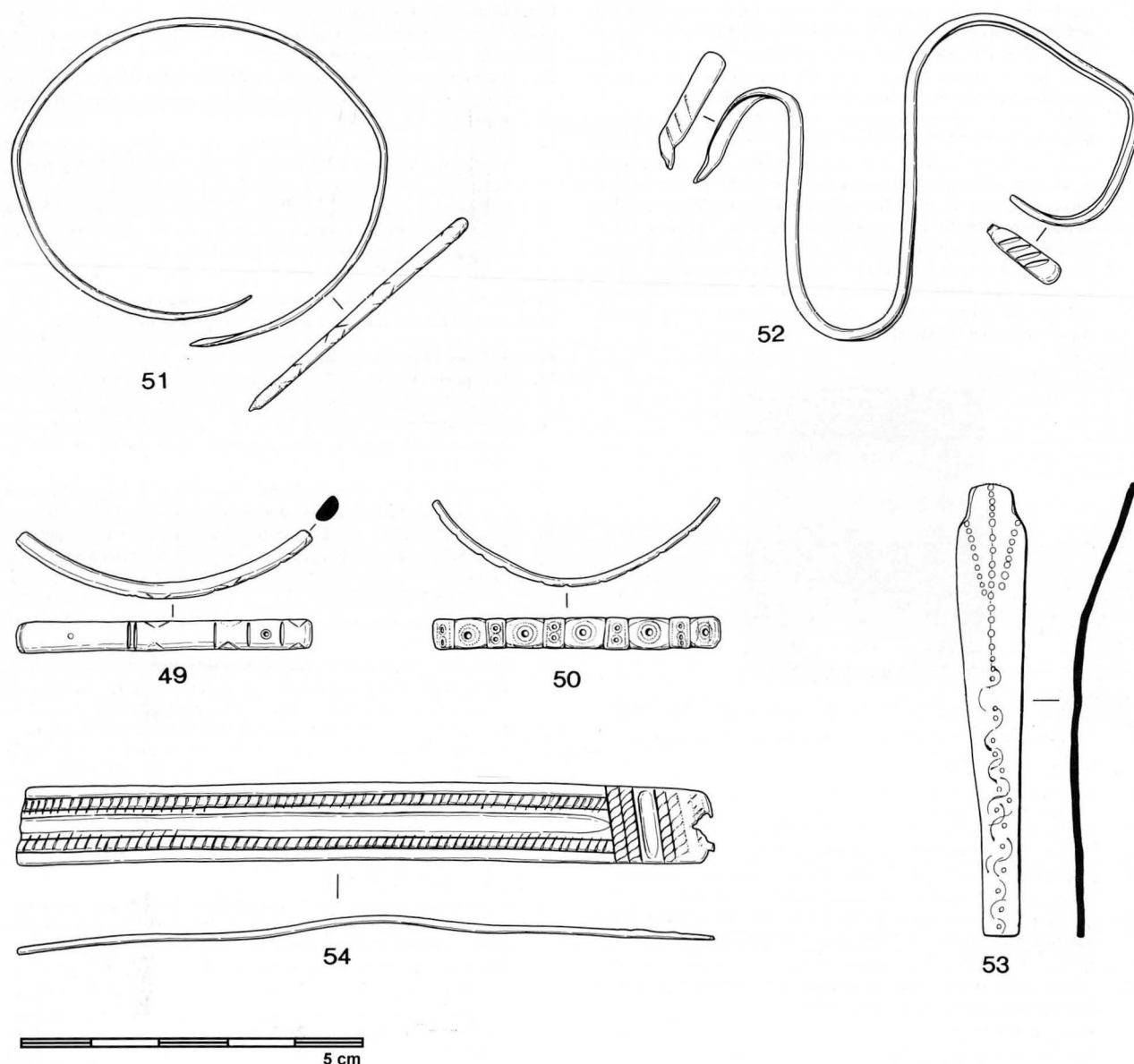


Figure 74 Dress accessories — armlets. Scale 1:1

Rings with settings

by Martin Henig

(Fig. 75 Nos 64 – 84)

All the rings are forms characteristic of the Middle Empire and none of those examined or illustrated is earlier than the end of the 2nd century. They mark the dissemination of signet rings through the community at the very period when high quality gemstones cease to be cut in any quantity. This explains intaglios with such generalised subjects as the so-called 'Romano-British imitations' made in the province at this time.

The subjects portrayed are characteristic: deities such as Mercury (69) and Venus (66), widely venerated, and perhaps selected to protect the wearer. The popular subject of a cupid astride a dolphin (65) may allude to the soul's journey over the sea to the Blessed Isles and was another lucky device. The choice of Daedalus (72) is less hard to understand; quite a number of nicolo glass intaglios are impressed with this subject. Is this too connected with an escape to a better world or, more prosaically, was this the seal of an artisan?

Gems were admired for their intrinsic qualities which explains an imitation 'table-cut' intaglio (74) imitative, it would appear, of sapphire.

Expanding rings with settings

Rings with intaglios or enamel settings where the setting or bezel is formed from the hoop widening rather than it being a separate decorative component above the level of the hoop. The settings are sunken and usually oval. Most of these rings have oval diameters.

Entries 64 – 66 and 69 are by Martin Henig.

64. Incomplete hoop. Maximum internal diameter 17.5mm. Width across bezel 12mm. Henig ring type XI (Henig 1978, 39 and 35, fig. 1). The bezel has a glass setting (11.5mm x 9mm) with a blue upper surface on a dark ground, imitative of a variety of onyx known to jewellers as nicolo, on which is a moulded intaglio, very abraded. It probably depicts (impression described) a bird, perhaps a cockerel, standing to the right. Before it what may be another bird, its neck bent in submission (subject as Henig 1978, 268 and pl. xxi no. 682). The ring dates to the late 2nd or 3rd century. SF Ae 16 Area I, Layer AE, Phase D.
65. Almost complete hoop (lacking only its narrowest part). Internal diameter 17mm. Width across bezel 12mm. Henig ring type XI. The bezel is set with a nicolo glass intaglio, as last, (12mm x 9mm) with

the device as seen in impression of a cupid seated on a dolphin in profile to the right. He holds a whip in his extended hand. Compare Henig 1978, 202, no. 132, pl. v (from Silchester); 294 App. 78, pl. xxvii (from Lamyatt Beacon) and 301 App. 119, pl. xxviii (from Vindolanda). Late 2nd or 3rd century. SF 2538, Field 1.

66. (Plate XII). Complete hoop but bent. Internal diameter 18mm. Width across bezel 13mm. There are quite deep parallel scratches across the internal surface of the ring. Henig ring type XI. The bezel is set with an intaglio (10mm x 8mm) moulded in nicolo glass depicting *Venus Victrix*. The goddess is shown, in impression, standing to the right. In her right hand she holds an object which, by analogy, should be a helmet, and with her left hand she supports herself upon a column. There is a loose mantle draped around her loins. Compare Henig 1978, 220, no. 280, pl. ix (from Caerleon); and similar representations, nos 282–4 (from South Shields, Birrenswark and Wroxeter). SF 2537, Field 1.

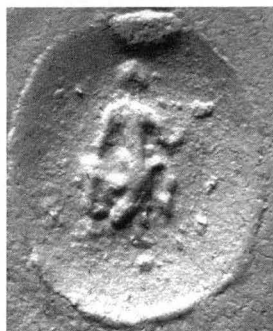


Plate XII Impression of nicolo glass intaglio showing *Venus Victrix*, No. 66. Four times actual size

67. (Not illustrated). Fragment. Bent. Max. height 12mm. Min. height 4.5mm. Empty oval bezel. D-shaped section. SF 2599, Field 1.
68. (Not illustrated). Fragment. Max. height 9mm. Min. height 3mm. Part of empty bezel. D-shaped section. SF 2564, Field 1.
69. Upper part of hoop with bezel. Maximum internal diameter 18mm. Width across bezel 8mm. Henig ring type XII (Henig 1978, 39 and 35, fig. 1). The ring has quite prominent shoulders. The bezel is set with an intaglio (8mm x 6mm) in nicolo glass, which does not fully fill the bezel and stands proud of it by some 2mm. The device is a nude, standing male figure though the mould was a very worn one and the features are indistinct; possibly Mercury, as Henig 1978, 192 no. 51, pl. ii (from Colchester). SF 2539, Field 1.
70. Complete. Oval diameter 21 by 17mm. Empty oval bezel with bevelled edge. Has pronounced moulding either side of the bezel. Finely modelled example of this type. Internal surface of ring is deeply scratched. SF 1676.

Expanding rings with added decoration

71. Fragment. Min. diameter 14.5mm. Empty oval bezel with bevelled edge. Has transverse grooves either side of bezel and latitudinal moulded grooves on shoulders. D-shaped section. SF 2511, Field 1.
72. *Martin Henig writes*: complete ring but broken across lower part of hoop and bent. Maximum diameter 21mm. Width across bezel 14mm. Henig ring type XI. The ring is elaborately decorated with beaded lines outlining the edge in the area of the bezel and beaded triangles and three ovoid notches above the shoulders which are each ornamented with five vertical lines. The nicolo glass intaglio (13mm x 10.5mm), slightly chipped on the top edge, shows in impression Daedalus to the right working on a wing, and is identical to a nicolo glass intaglio from Colchester (Henig 1978, 243 no. 451, pl. xiv). A cornelian gem cut with the same device comes from the Akeman Street roadside settlement at Wilcote, Oxfordshire (Henig in Hands 1998, 76, pl. 1). Nicolo glass intaglios which show seated artisans, probably Daedalus, are quite common. There are examples from Castle Hill, Whitton near Ipswich, Cirencester, Rockbourne Villa, Hampshire and Harlow, Essex (Henig 1978, 253 nos 528–531, pl. xvii) as well as Alchester, Oxfordshire (Henig 1978, 296 App. 88, pls. xxvii and lxvii). SF 2212, Field 1 north.

Expanding rings with collets

Rings where the bezel is raised above the level of the hoop to form a collet. These rings are made from sheet metal.

73. Incomplete. Max. diameter 19mm. Round collet filled with a cream coloured material — probably decayed enamel. Corroded. SF 2502, Field 2.
74. *Martin Henig writes*: incomplete ring. Upper part with raised rectangular box bezel remains. Maximum internal diameter 16mm. Width across hoop at bezel 10mm. Box bezel 8mm x 6mm x 3mm. The setting is a truncated pyramid of blue glass (imitative of a table-cut sapphire?) with five raised dots on its upper side. Type of ring close to Henig type XI. SF 2542, Field 1.

Decorative rings with separate decorative components

Rings where bezel or collet is a separate component of the design.

Entries 80 and 81 are by Martin Henig.

75. Fragment. Round collet and part of shoulder which has two transverse mouldings. Rectangular section. SF 2543, Field 1
76. (Not illustrated) Fragment. Max. height 8mm. Min. height 3mm. Similar to 75 which is more complete. Rectangular section. SF 2601, Field 1
77. Incomplete. Max. diameter 18mm. Round bezel filled with decayed enamel, moulded decorative wings. SF Ae230, Field 3.
78. Fragment. Round bezel filled with discoloured whitish enamel. Originally had central pupil, now missing. One shoulder survives. Similar to ring found at Colchester (Crummy 1983, fig. 50, no. 1778). SF 2616, Field 1.
79. Complete but fractured at shoulder. SF Ae185, Area II, Ditch 35 UD, Phase D.
80. Incomplete ring with expanded shoulders narrowing at the neck. Little of the hoop remains, but diameter across the shoulders is 15mm. Oval box bezel contains an intaglio in rich blue glass (6.5mm x 5mm) depicting a stylised figure of a type characteristic of sites in Britain. For similar 'Romano-British imitations', all in blue glass, see Henig 1978, 256 nos 564–566, pl. xviii (respectively from Faversham, Verulamium and South Shields). See also Henig in Blockley *et al.* 1995, 1003–1004, fig 420 no. 212 (Canterbury); Henig 1985, 33–4, no. 58, fig. 12. Justine Bayley examined this intaglio and pronounced that the colourant is almost certainly cobalt. SF 2512, Field 1.
81. Incomplete ring with narrow shoulders expanding to a large ovoid hoop. Markedly expanded shoulders. Henig ring type Xb (Henig 1978, 38 and 35, fig 1), an early 3rd-century form. Internal diameter 20mm. Bezel 21mm x 14mm. In the bezel a glass setting, probably an intaglio but the surface is totally decayed. SF Ae267, Field 2.
82. Fragment. Oval bezel containing traces of red enamel. Surviving hoop is decorated with latitudinal grooves. D-shaped section. SF 2600, Field 1.
83. Fragment. Oval setting with round collet containing red enamel. Oval setting has a bordering line of punched dots. Shoulder has transverse grooves. Similar ring found at Leylands Farm, Hockwold cum Wilton (Gurney 1986, fig. 43, no. 39). SF 2540, Field 1.
84. Complete. Bent. Rectangular setting with round collet. Setting has bordering groove. Moulded grasps. D-shaped section. Corroded. SF 2216, Field 1.

Copper-alloy buckle

Fig. 76

85. Rectangular fragment. Has loop at one end for attachment to separate bar. Decorated with transverse grooves near loop and terminal knob at corner. Date uncertain. Similar to a casket handle (?) from Canterbury (Blockley *et al.* 1995, fig. 421 no. 232) SF Ae237, Field 3.

Copper-alloy button

86. Complete. Large circular button with loop fastening. Probably post-medieval. SF Ae5, Area I, Small hollow AC, Phase D.

Copper-alloy bell

87. Bent. Small triangular bell with loop at top, probably originally suspended from an armlet or other jewellery. Has traces of iron inside — probably the remains of the clapper. SF 2558, Field 2.

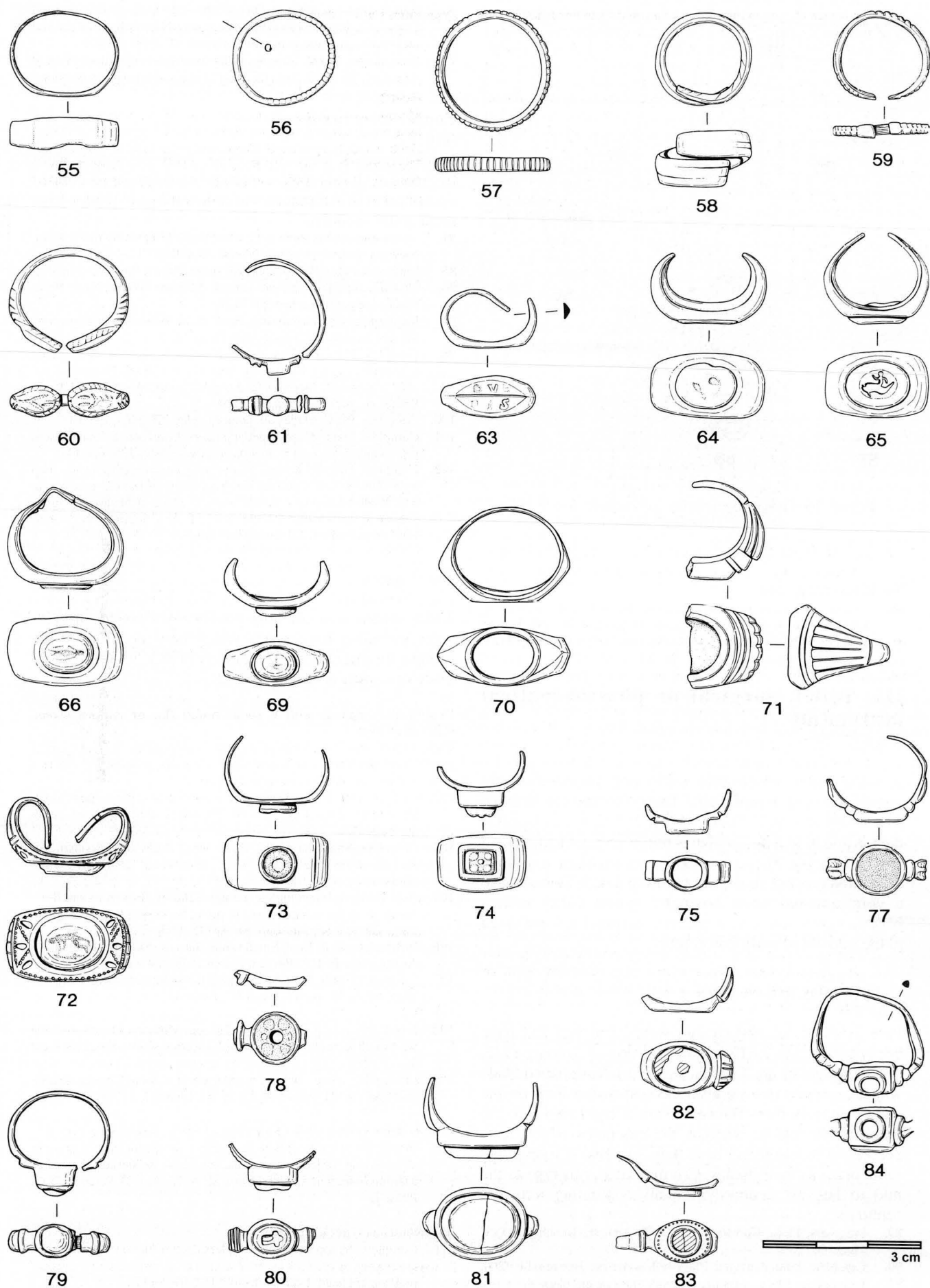


Figure 75 Dress accessories — finger rings. Scale 1:1

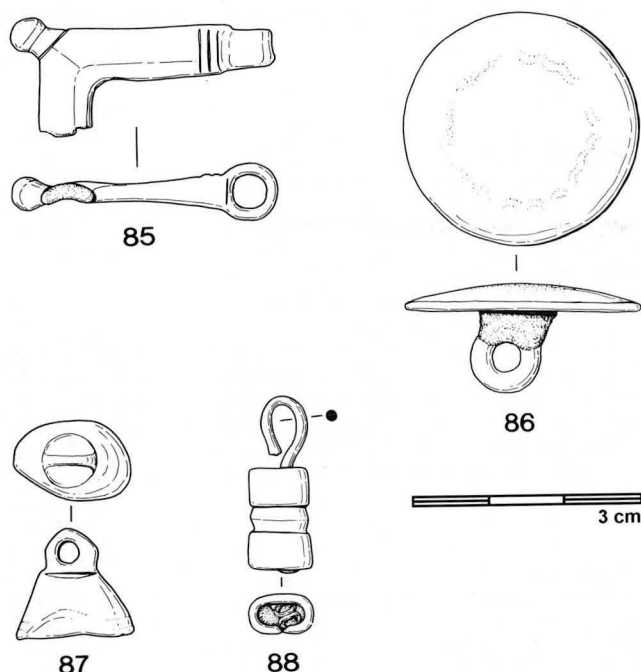


Figure 76 Dress accessories — various. Scale 1:1

Necklace fragment

88. Copper-alloy casing enclosing a hook attached to thin wire coils. Comparable to necklace fragment at Hockwold cum Wilton (Gurney 1986, fig. 43, 41). SF Ae80, Area I, Pit 8 DW, Phase D.

III. Toilet, surgical or pharmaceutical instruments

(Figs 77–79)

A wide range of Roman toilet and pharmaceutical instruments are represented. There are several unusual forms. One is a pair of tweezers (102) which are riveted at the top and have a design that is reminiscent of leaf-shaped nail cleaners. These tweezers come from a poorly excavated context so are not securely dated. There is also a very unusual bone cosmetic spoon (112) with a barley-sugar twist handle which was found in a pit dated to the mid-1st to early 2nd century.

Copper-alloy nail cleaners

(Fig. 77)

Five examples of nail cleaner were recovered and have been compared to the Colchester typology (Crummy 1983, 57–8). All are of her Type 2a which is a leaf-shaped blade which tapers to two points. The suspension loop on the plain examples from Hacheston are at right angles to the plane of the blade, whereas the examples which have decorative moulding all have their suspension loop in the same plane as their blades. Crummy dates this type to the mid to late 1st century, probably continuing into 2nd century.

89. Fragment. Plain. Corroded. SF Ae65, Area II, Trench F35 QA, Phase D.
90. Complete. Point damaged. Plain with bordering grooves. SF 2200.
91. Incomplete. Points missing. On both sides of the blade there is a central groove running to division between points. Bead and reel moulding consists of spool/bead/reel. Finely cast. SF 2561, Field 2.

92. Complete. Point damaged. On one side of the blade there is a central groove running to division between points. Narrow blade. Bead and reel moulding consists of reel/bead/reel. SF 2508, Field 1.
93. Incomplete. Points missing. Flat profile. Crude double bead moulding. SF 0080, Area IX, Layer (3), Grid Sq B1, 4th century.

Copper-alloy tweezers

(Fig. 77)

Nine tweezers were identified, four of which were fragments. All examples were long bladed and undecorated except for 102. All pincers curve inwards and blades have rectangular sections.

94. (Not illustrated) Fragment. Length 59mm. Max. width 6mm. Plain. Narrows towards pincer. SF Ae24, Area II.
95. Fragment. Plain. Flared blade. SF Ae92, Area I, Pit 1 AO, Phase C.
96. (Not illustrated) Fragment. Length 54.5mm. Width 7mm. Plain. Blades are parallel-sided. SF 2121.
97. Incomplete. One tip missing. Bent. Plain. Blades taper at pincers. SF Ae125, Area III, Layer ABF, Phase D.
98. Complete. Plain. Blades are parallel-sided. Loop contains fragment of suspension ring. SF Ae140, Area I N, Pit 29 JH, Phase C.
99. (Not illustrated) Incomplete. Length 73mm. Width 6mm. Plain. Blades are parallel-sided. SF 2129.
100. Complete. Plain. Blades are parallel-sided. SF 2501, Field 1.
101. Complete. Plain. Blades taper at pincers. Loop contains suspension ring, which is formed from a piece of wire. SF 2230, Field 1.
102. Complete. Unusual design. Blades are joined together below loop by a rivet, which is surrounded by a circle of incised grooves on both blades. Loop is at a right angle to plane of blades. Design is similar to leaf-shaped nail cleaners. SF Ae136, Area I N, ?Pit 34 JQ, (excavated 1974, location uncertain).

Toilet spoons

(Figs 77–78)

Toilet spoons as a category covers a variety of different types including implements which have been called ear scoops; for discussion see Crummy (1983, 59–60). All are made of copper alloy except 112.

Copper-alloy spoons with a small round flat or cupped scoop. Colchester Type 1

These spoons may have loops at one end to suspend them from rings as part of a cosmetic set or they may taper to a point, possibly for use as a pick of some sort. All the examples are cast.

103. Complete. Bent. Small round flat scoop, set at slight angle to shaft. SF Ae143, Area I N, ?Pit 40 JW, (excavated 1974, uncertain attribution).
104. Complete. Small round flat scoop set at slight angle to shaft. SF Ae175, Area I, ?Pit 62 MAE, (excavated 1974, uncertain attribution).
105. (Not illustrated) Incomplete. Length 120mm. Broken scoop. Bent. Small ?oval flat scoop. Tapers to point. Scoop set at slight angle to shaft. Circular section shaft. SF Ae178, Field 2.
106. Incomplete shaft. Bent. Small round flat scoop aligned to shaft. SF Ae186, Area II, UF ?Pit, (excavated 1974, not located).
107. Incomplete shaft. Bent. Small round flat scoop set at slight angle to shaft. SF Ae96, Area I, Layer HJ, Phase D.

Fig. 78

108. Incomplete scoop. Bent. Cupped scoop. Moulded suspension loop with small wings below. Rectangular section shaft. SF Ae228, Field 3.
109. Incomplete scoop. Twisted wire suspension loop. Circular section shaft. SF Ae141, Area I N, Pit 29 JH, Phase C.

Copper-alloy spoons with a long cupped scoop. Colchester Type 2

110. Incomplete. Broken at both ends. Plain except for incised grooves above scoop. Object is curved backwards — deliberate? Scoop has a strong C-section. Unusual form. SF Ae73, Area II, Ditch F35 QZ, Phase D.

Miscellaneous types of spoon

111. Complete. Scoop has convex underside and flat top. Above scoop are a series of six thick circular section reels surmounted by a cone/conical head. Unusual form. SF 2509, Field 1.
112. Bone. Incomplete shaft in barley sugar twist. Unusual form. SF B32, Area I, Pit 1 BA, Phase C.

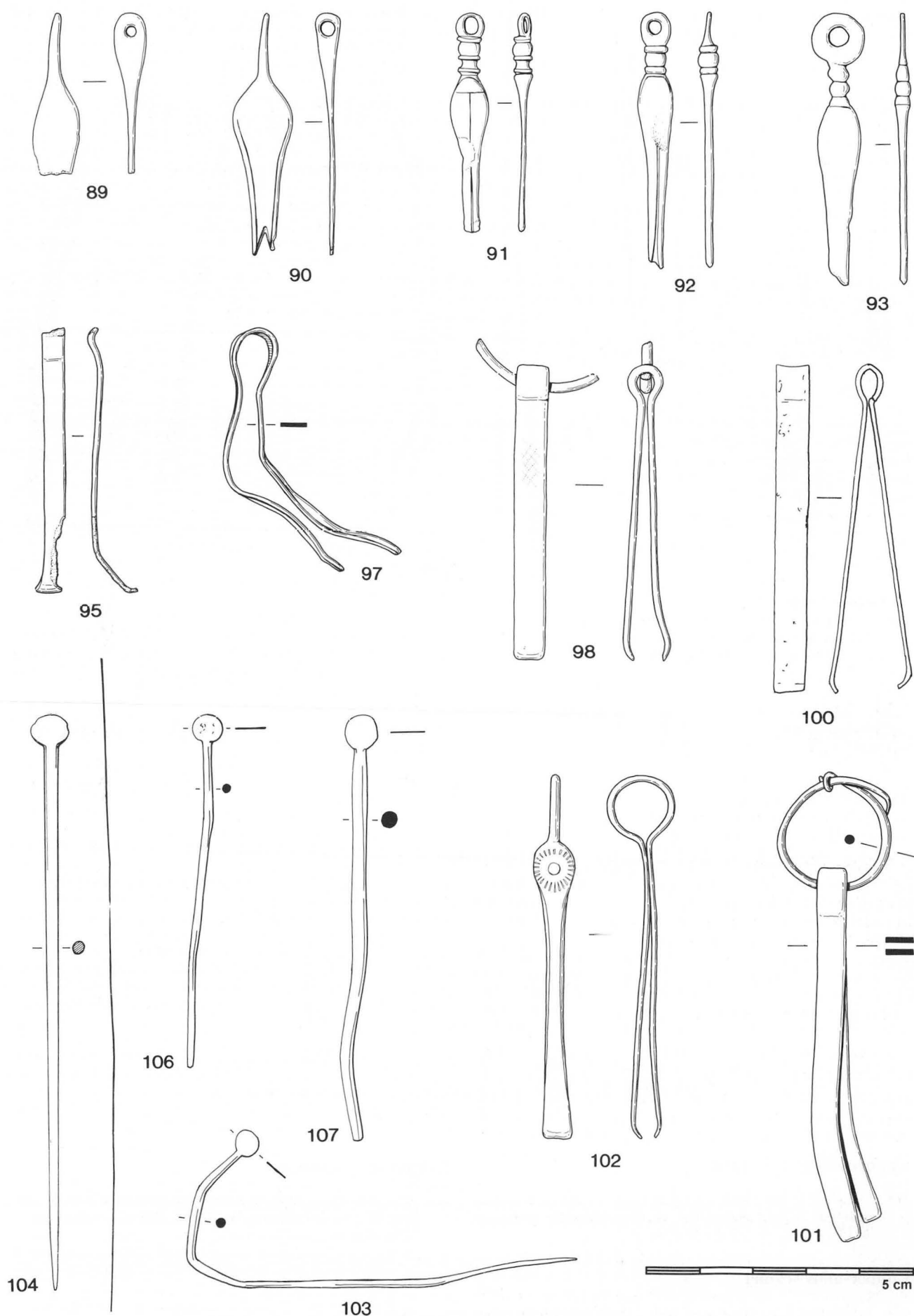


Figure 77 Toilet instruments. Scale 1:1

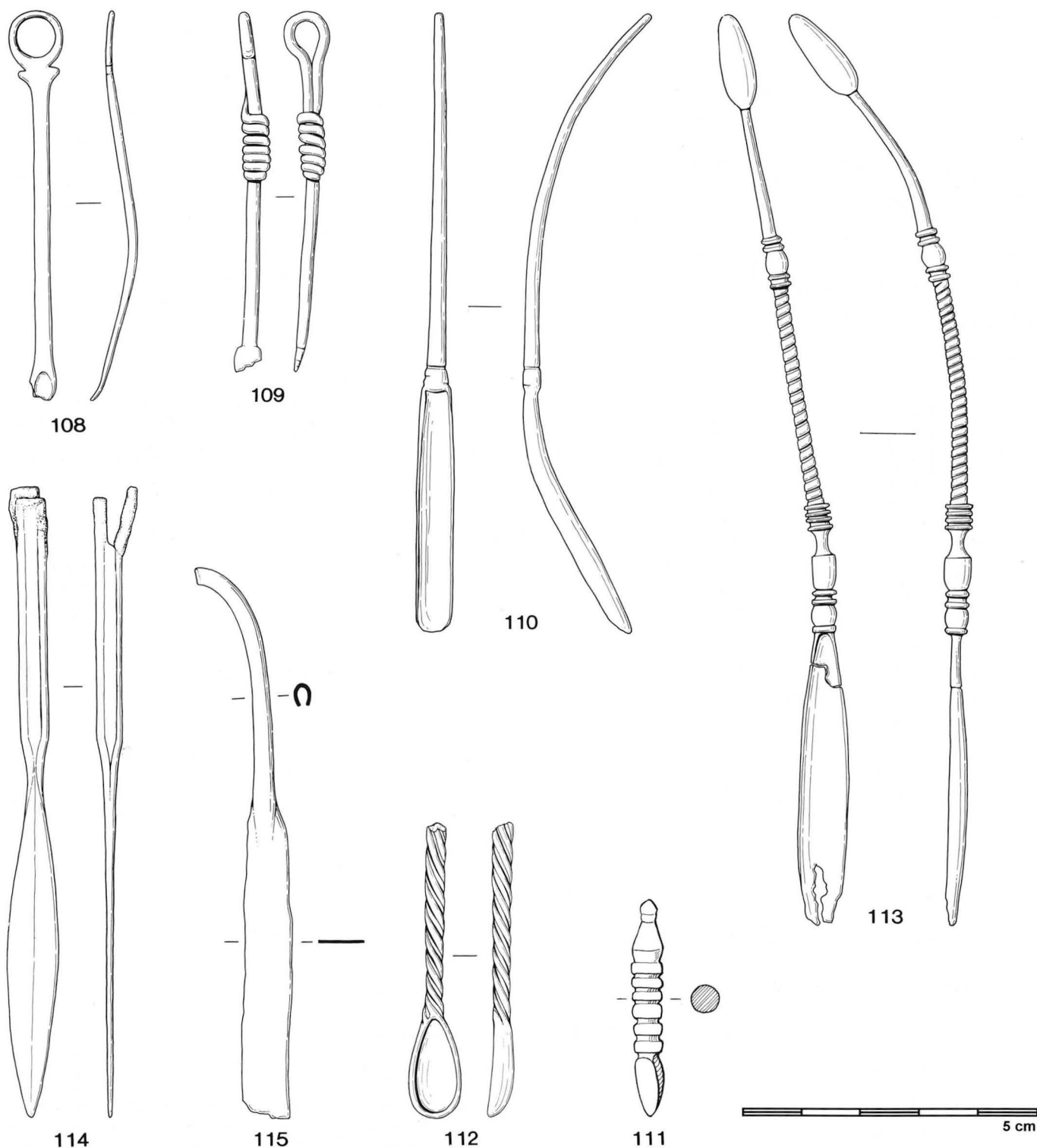


Figure 78 Toilet, surgical or pharmaceutical instruments. Scale 1:1

Copper-alloy spoon probe

Fig. 78

113. Complete, in two pieces. Damaged scoop. Circular section shaft with bead and reel and running spiral mouldings. SF Ae162 and Ae159, Area II, Ditch F35 UD, Phase D.

Copper-alloy scalpel

Fig. 78

114. Incomplete. Slim leaf-shaped blade. Shaft separates into two hexagonal shaped prongs which would have held an iron scalpel blade. SF 1657.

Copper-alloy spatula

Fig. 78

115. Complete. Crude. Made from strip of sheet metal with the handle formed by folding strip in half lengthways. Blade is a long unshaped strip. ?Spatula. SF 2569, Field 1.

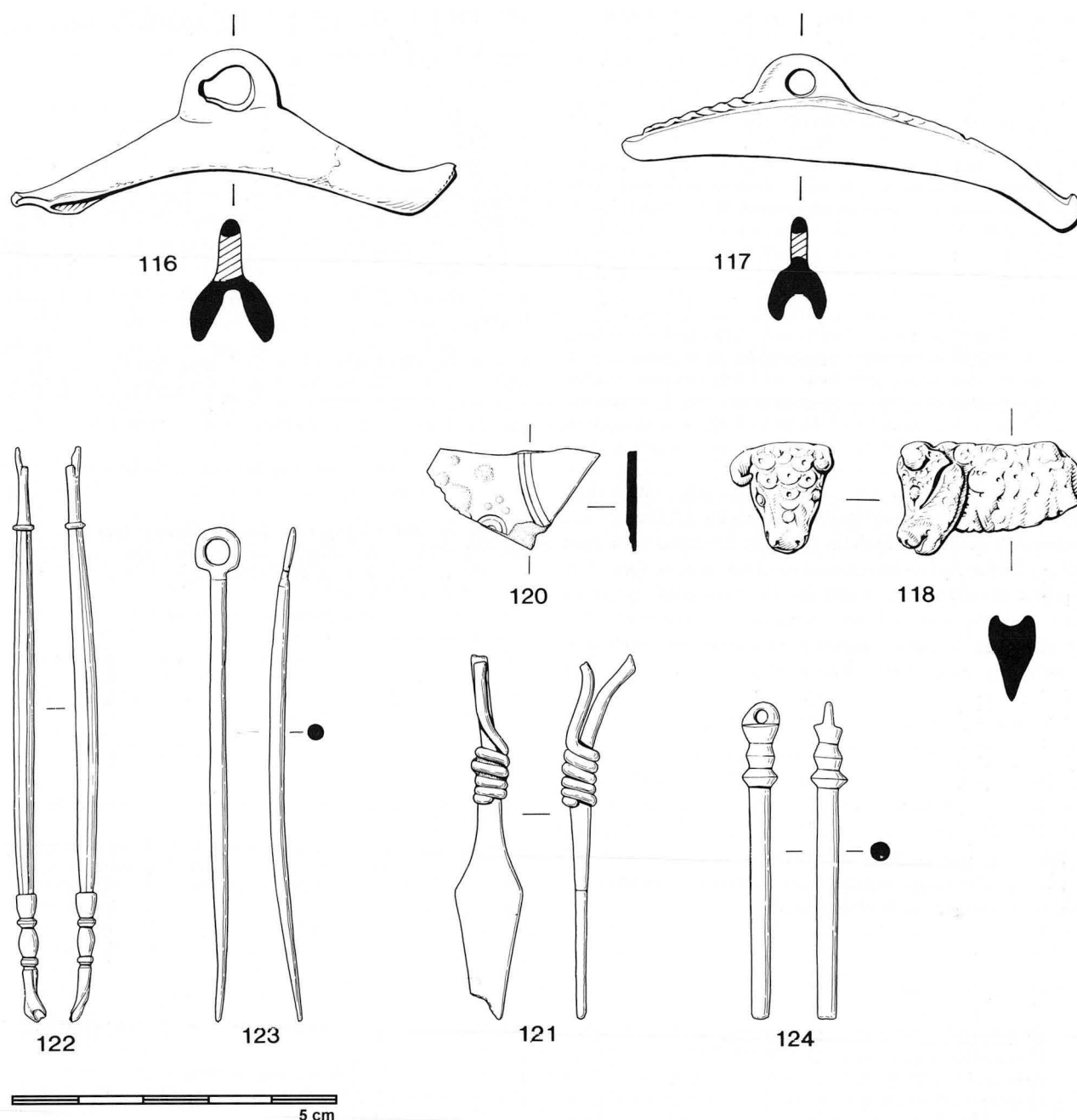


Figure 79 Toilet, surgical or pharmaceutical instruments. Scale 1:1

Copper-alloy cosmetic mortars

by Ralph Jackson
(Fig. 79)

Three cosmetic mortars were found, all are unstratified. The drawings of 116 and 117 would usually be inverted.

116. Complete. The centre-looped mortar component of a two-piece cosmetic set (for full discussion of the type see Jackson 1985; 1993; and forthcoming). The bow is fractured and glued, the rims are chipped and the plumper terminal has suffered partial surface erosion and lacks its tip. The well-cast, strongly curved bow has plain, sloping, lightly-convex walls and a capacious, deep, rounded V-sectioned groove which runs onto the terminals and has a marked basal wear facet. The walls are subtly asymmetric both in depth and contour to complement the respective terminals. The plumper terminal has a slightly deeper flanking bow (= neck). Both terminals appear to have been intended as stylised birds' heads. The plumper one, with simple pointed bill, is of uncertain family or order; the other, with a ridged, dished, blunt-ended bill looks like a water-bird. The D-shaped loop had a circular eye, now elongated through wear.

Although a range of animals appear on the zoomorphic mortar terminals and pestle loops of some cosmetic grinders, only bovid and bird heads are at all common. The bird heads, much less frequently encountered than the bovids, are, as in the present case, often highly stylised, but the great majority were evidently intended as water-birds. Other examples pairing two birds' heads come from Caistor St Edmund and Wenhampton (Jackson forthcoming, nos 42 and 316). SF 2608, Field 1.

117. Complete. Another example of the centre-looped mortar component of a two-piece cosmetic set. In its present form, a distinctly asymmetric and ungainly, rather heavy, example, but it is very probable that it was broken and re-worked in antiquity. The bow is slender with plain, low, convex walls and a casting flaw — a partial fissure — near the knobbed terminal. The D-shaped, plate-like loop, with small circular eye, merges into the raised rib, which runs along the keel of the bow. To the knobbed terminal side the rib appears plain, but to the other side it has an incuse herring-bone motif. The knobbed terminal is lightly down-turned and, in combination with the raised rib, gives a distinctly phallic appearance to that end of the bow. The other terminal is formed by

a filed ledge on the underside, which truncates the ridged keel. Other indications that this end is re-worked are the ground-away wall and rim on one side and the strong asymmetry of the overall design. It is possible that breakage occurred at a casting blemish similar to that at the other end of the bow. That the mortar was, nevertheless, well used is indicated by the very distinct wear polish and basal facet in the V-sectioned groove. SF 2310, Field 1 south.

118. Unstratified. Fragment. Length 29mm. Wt. 20.9gms. Another example, fragment only. One terminal and the end of the bow of a large, heavy, highly-ornamented mortar, broken and gashed in antiquity. The bow is deep and sharply-keeled with, at this point, a slender, shallow U-sectioned groove. The terminal is in the form of a bovid head, with inturned horns (the tip of one is broken) and clearly depicted eyes, nostrils and mouth. The head and muzzle are quite naturalistically portrayed, as are the rippled dewlap (keel) and the shaggy, curly coat, which is rendered by modelling and by punching with a multiple overlapping ring-and-dot motif, both on the brow and on the neck (bow walls). The lowermost punched motif on the beast's face is a ring without a central dot. Other than the eyes this is the only such example on the surviving-fragment and suggests it was intended to depict a pendant disc or ring rather than a hairlock or curl. SF 2311, Field 1 south.

Cosmetic grinders are unique to Britain, where they have been found in contexts dating from the 1st century BC to the 5th century AD. The majority of dated examples belong to the 2nd to 3rd centuries AD. Once thought of as a rather unusual form of amulet, they are now known to have been widespread and common two-piece kits for grinding up a small quantity of an as yet unknown commodity. Almost 400 examples have been recorded and the most likely identification for the substance is pigments for preparation as face-paints. Five of the fifteen complete sets have been found in the relatively secure undisturbed context of burials, while within the overall distribution there are concentrations at the south-east towns (Canterbury, Chichester, London, St Albans, Colchester), western military sites (Caerleon, Brecon, Chester, Walton-le-Dale) and temple sites (notably Crownthorpe/Wicklewood and Gt. Walsingham).

Copper-alloy mirrors

Fig. 79

119. (*Not illustrated*) Two fragments. Both belong to Lloyd-Morgans's Group A Rectangular mirrors (Lloyd-Morgan 1981). They both have the characteristic smooth polished reflecting surface and a rough untreated reverse side. Fragment 1 is the corner of rectangular mirror. Max. dimensions 36mm by 30mm. Depth 1.5mm. Fragment 2 is highly polished on the reflecting sides. Max. dimensions 25mm by 18mm. Depth 1mm. SF 2579, Field 2.
120. Fragment probably from a circular mirror, possibly of Lloyd-Morgan's Group G (Lloyd-Morgan 1981). Uneven depth approximately 1.5mm. Concentric circles on one side and the edge of an incomplete ring and dot motif. SF 2578, Field 1.

Miscellaneous copper-alloy toilet implements

Fig. 79

121. Incomplete. Loop and blade broken. Shaft would have formed loop for suspension. Shaft returns from loop to twist five times around itself. Has trowel-shaped blade. Loop is opposed to blade. Possible nail cleaner or spatula? SF Ae142, Area I N, Pit 29 JH, Phase C.
122. Incomplete. Shaft of a toilet spoon or spoon-probe. One end is decorated with reel. The other has bead-and-reel moulding consisting of reel/bead/reel/bead. Polygonal section shaft. SF 2544, Field 1.
123. Complete. Pointed instrument with moulded suspension loop at one end. SF 2541.
124. Incomplete. Instrument with suspension loop above bead-and-reel moulding which consists of reel/bead/bead. The final bead is flattened at the top and forms the loop. SF Ae226, Field 3.

IV. Objects used in the manufacture or working of textiles

(Figs 80–81)

Needles

(Fig. 80)

Both bone and copper-alloy needles have been classified by the Colchester typology (Crummy 1983, 65–67). Type 1 needles are only found in bone and Type 3 are only found in copper alloy. Type 2 are found elsewhere in both bone and copper alloy although here only bone examples were found.

Bone needles with a pointed head. Colchester Type 1

125. Incomplete. Point missing. Oval eye. Dyed green. Well finished. SF B40, Area II, UF ?Pit (excavated 1974, not located).
126. Incomplete. Point missing. Rectangular eye. SF B44, Area II, Ditch F35 UD, Phase D.
127. Incomplete. Point missing. Rectangular eye. SF B25, Area I, Pit 69 FS, Phase D.

Bone needles with a flat spatulate head. Colchester Type 2

128. (*Not illustrated*) Incomplete. Length 74mm. Max. width 5.5mm. Point and head missing. Rectangular eye incomplete. SF B6, Area I, Pit 1 AO, Phase C.
129. Incomplete. Two fragments. Point missing. Rectangular eye. SF B28, Area I, Pit 1 AO, Phase C.
130. Incomplete. Point missing. Rectangular eye. Highly polished. SF B39, Area II, UF ?Pit, (excavated 1974, not located).
131. Incomplete. Lower half missing. Rectangular eye. Highly polished. SF B10, Area I, Pit 8 EL, Phase D.
132. Incomplete. Point missing. Rectangular eye. SF 1305, Area IV, Pit 79(2), Phase II.

Copper-alloy needles with a groove above and below the eye. Colchester Type 3

All the examples at Hacheston have a circular section shaft separating into a bi-lobal section with groove. This type is generally 3rd or 4th-century (Crummy 1983, 67) and the contexts here conform to that pattern.

133. Incomplete. Two fragments. Both ends missing. SF Ae198, Area II, Ditch F35 UD, Phase D.
134. (*Not illustrated*) Incomplete. Length 55mm. Two fragments. Bent. Both ends missing. SF 2560, Field 2.
135. Incomplete. Point missing. Well finished. SF Ae2, Area I, Layer AA, Phase D.
136. Incomplete. Lower half missing. Well finished. SF Ae113, Area I, Layer AK, Phase D.
137. Incomplete. Point missing. Bent. SF 2604, Field 1.
138. Incomplete. Point missing. SF Ae189, Area I, Layer KZ (midden), Phase D.

Copper-alloy netting needle

139. Incomplete. One pair of prongs broken. Bent. Complete prongs are folded over each other to form an elongated loop. The pairs of prongs are set at right angles to each other. SF Ae144, Area I N, Pit 57 MAA, (excavated 1974).

Bone bodkin

(*Not illustrated*). Incomplete. Length 73mm. Max. width 5mm. SF B49, Area I, Ditch 2 DH, Phase A.

Stone spindle whorl

(Stone identification by Stephen Davison)

Fig. 81

140. Damaged. Signs of wear particularly on one side of the hole. External edges are smooth. Made of a schist (metamorphic) with quartz, feldspar and haematite inclusions, which does not outcrop in East Anglia (restricted to northern and western Britain) but quite likely derives from local glacial deposit pebbles. SF WS11, Area I N, Pit 57 NGB, (excavated 1974).

There is also a bone spindle whorl listed under objects of uncertain function, No. 347.

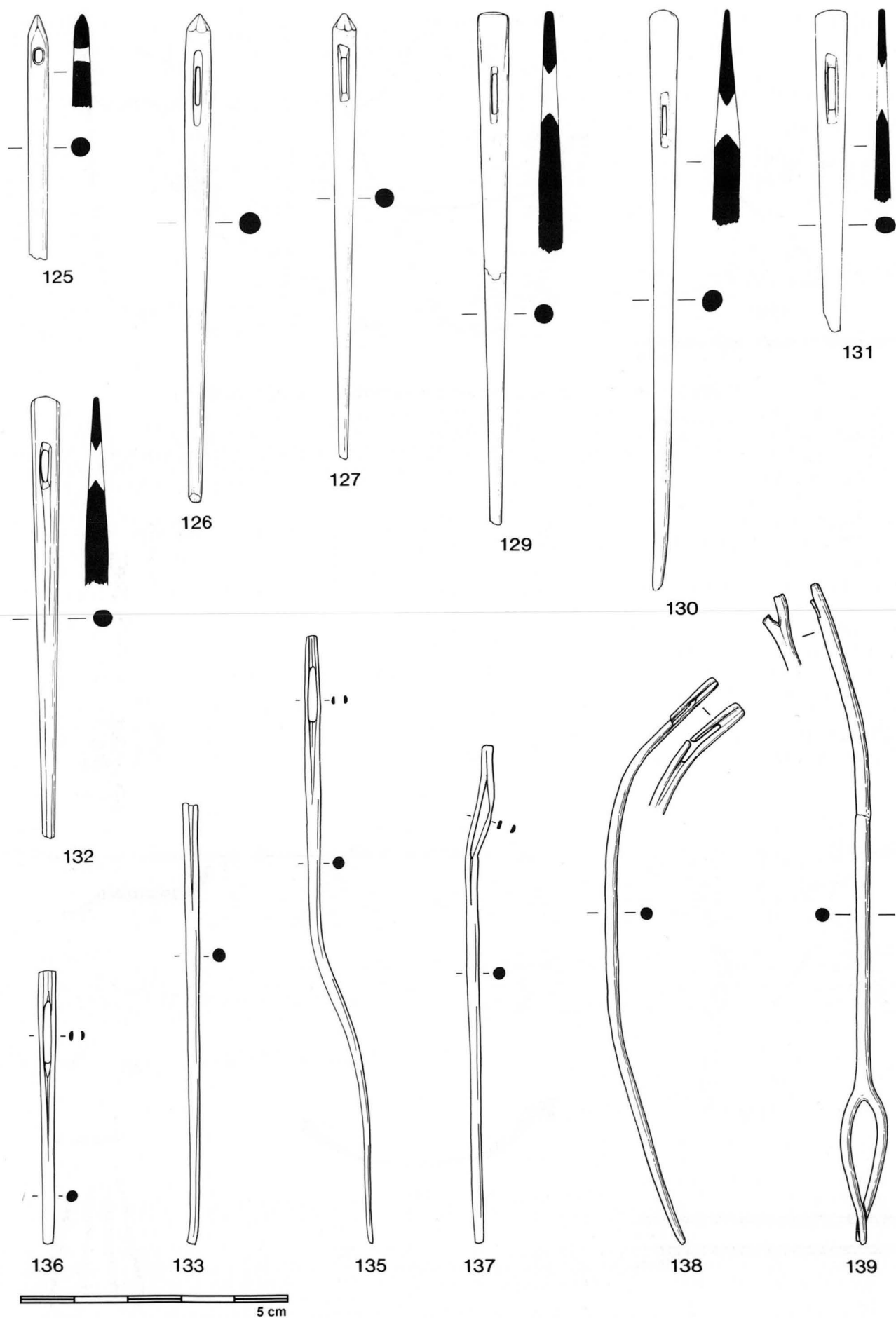


Figure 80 Objects used in the manufacture or working of textiles — needles. Scale 1:1

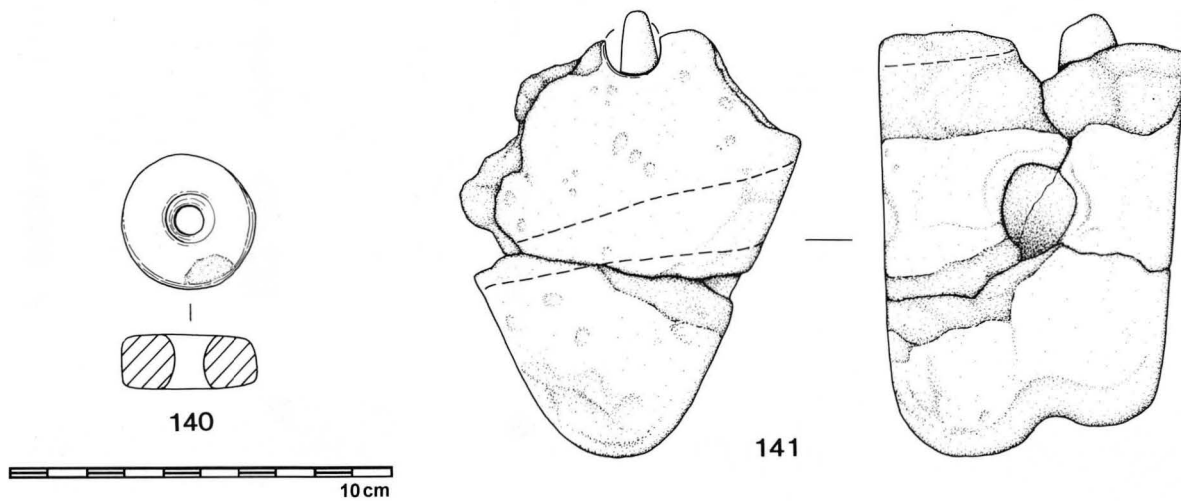


Figure 81 Objects used in the manufacture or working of textiles. Scale 1:1

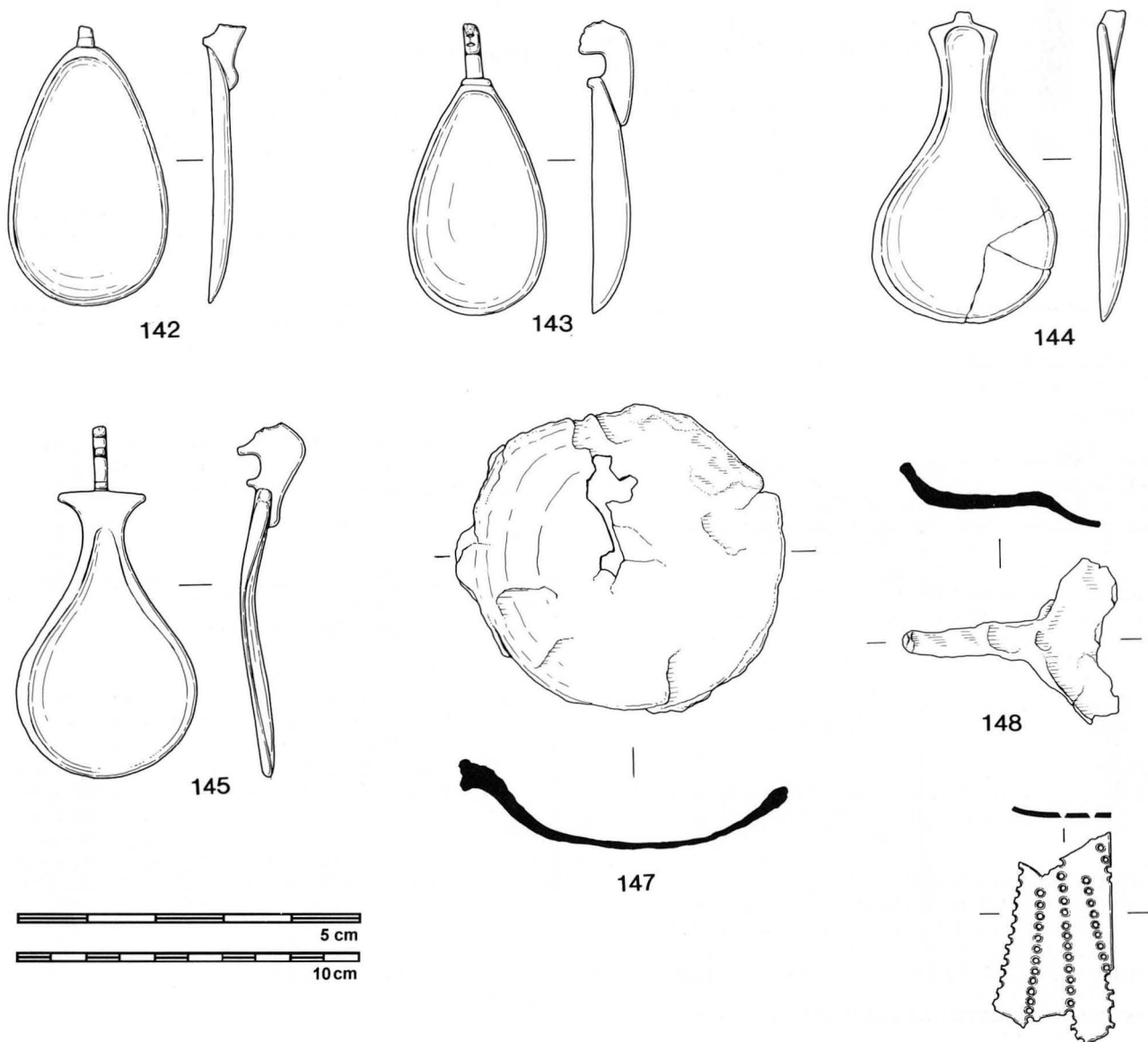


Figure 82 Household utensils and furniture. Scales 1:1 except 147 and 148 at 1:2

149

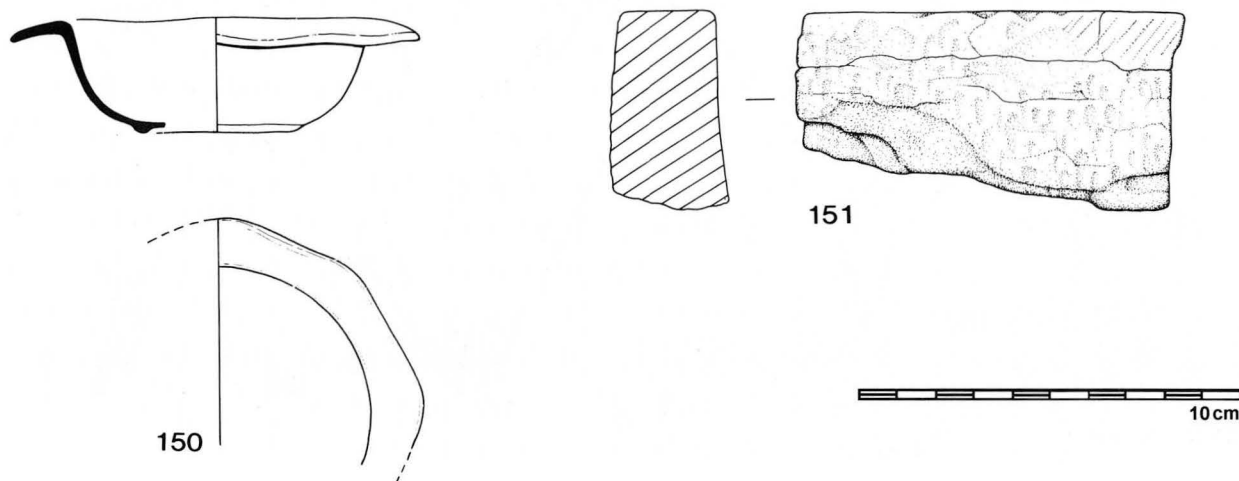


Figure 83 Household utensils and furniture. Scale 1:2

Fired clay loomweight

Fig. 81

141. Incomplete. Point of a triangular fired clay loomweight. Has two apertures, one successfully perforates the weight, the other's path is halted by a large stone inclusion. As suggested at Burgh (Martin 1988, 63), the wear marks on the holes indicate a point downwards suspension. This type is frequently found in late Iron Age and very early Roman contexts. SF FC18, Area II, Ditch F40 SD, Phase A.

V. Household utensils and furniture

(Figs 82–86)

Copper-alloy spoons

(Fig. 82)

The Colchester typology has been used (Crummy 1983, 69), but no round bowls (Colchester Type 1) were identified.

Spoons with pear-shaped bowls. Colchester Type 2

142. Incomplete. Handle missing. Bent. Shallow bowl. Tinned. Handle is offset from bowl. SF 2614, Field 3.
143. Incomplete. Handle missing. Deeper bowl than 142. Tinned. Handle is offset from bowl. SF 2235, Field 1 south.

Spoons with mandolin-shaped bowls. Colchester Type 3

144. Incomplete. Handle missing. 3 pieces. Handle probably on the same level as the bowl. Similar to one found at Colchester (Crummy 1983, fig. 73, no. 2018). SF Ae139, Area I N, Pit 79 MAR, Phase D.
145. Incomplete. Handle missing. Bent. Tinned. Handle is offset from bowl. SF Ae69, Area I, Layer CJ, Phase D.

Miscellaneous spoons

146. (Not illustrated). Fragment. Length 23.5mm. Part of handle offset. Crude moulding on upper side. SF 2524, Field 1.

Iron ladles

147. Incomplete. Handle missing. Shallow circular bowl. There is no indication of whether the handle was twisted like the ladle from Fishbourne (Cunliffe 1971, fig. 60, no. 55) or plain like the example from Verulamium (Manning 1984, fig. 40, no. 72). SF Fe2, Area I, Layer AA, Phase D.
148. Fragment. Small fragment of bowl with part of handle attached. The handle is plain. SF Fe8, Area I, Layer AJ, Phase C.

Vessels

(Figs 82–85)

Copper-alloy colander

149. Copper-alloy. Fragment is too small to suggest design but has lines of small punched holes. Lines seem to be converging on a point. Has possibly been cut and re-used. SF 2513, Field 1.

Pewter bowl

Fig. 83

150. Pewter. Incomplete. Bent, three fragments comprising about two-thirds of a small bowl with foot-ring. The out-turned rim had an octagonal outline. The surface is in poor condition but shows no sign of lathe turning and the foot-ring is not regular. Probably 4th-century; bowls and cups with polygonal outlines are known from the Fens (e.g. BM 53.4–11.2, Brailsford 1958, 42, fig. 19). SF 2557, Field 2.

Stone mortar

(stone examined by Stephen Davison)

151. Fragment. Diameter 400mm. Burnt. Rim smooth on interior and top edges, exterior edges are unfinished and pitted. Made of a very fine-grained 'muddy' sandstone. SF WS8, Area III.

Flagon/jug

Fig. 84

152. Copper-alloy handle. Would have been attached to body of vessel by two curved end-plates. Groove on inside of handle 10mm above lower end-plate. Circular section. SF 1711.

Copper-alloy mounts for hanging bowls

Four copper-alloy mounts were recovered. These mounts are leaf-shaped and have a coiled strip of metal at the broadest end, with which it can be attached to a chain. The leaf-shaped section is convex so the internal surface can be filled with lead solder. There are variations in size and design but they all serve the same function. Three mounts contain a lead solder and the remaining one has internal score marks which may have resulted from removing the lead or were to help it adhere to the mount. A similar mount occurs at Pakenham, Suffolk (SMR ref PKM 005), Richborough (Henderson 1949, pl. 40, no. 156). Similar mounts in silver were found attached to hanging bowls in the Traprain Law hoard (Curle 1923, pl. 17, B).

153. Complete. Damaged. Largest example. Lead solder. Handle is curved to form loop. SF 2547, Field 1.
154. Complete. Damaged. Similar to 153 but has a deeper convex section. Lead solder. Handle is curved at middle and top but does not form complete loop. SF 2553, Field 2.
155. Complete. Small amount of lead solder. Handle is curved to form loop. SF 2505, Field 2.

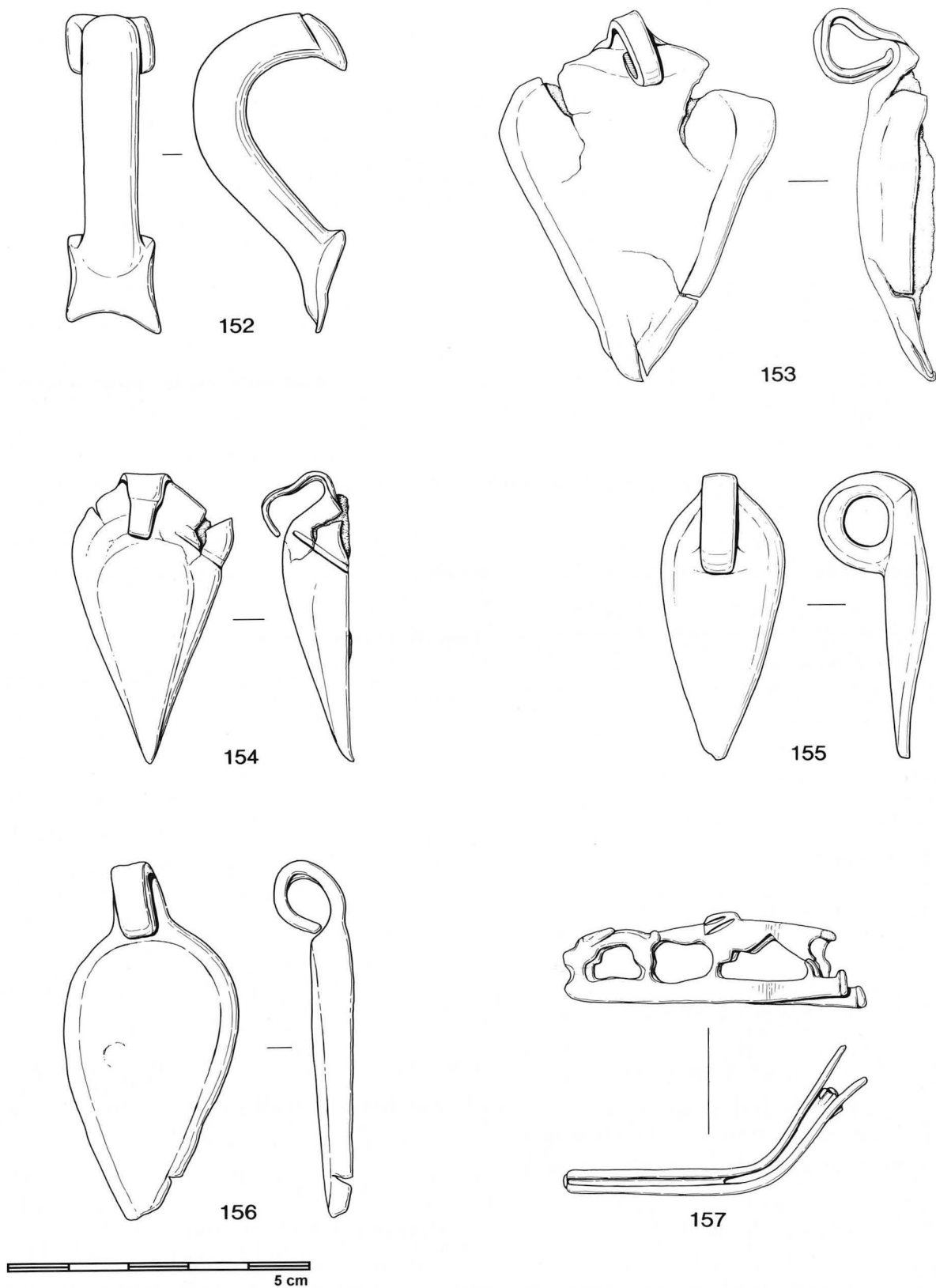


Figure 84 Household utensils and furniture. Scale 1:1

156. Complete. Damaged. Shallow. Has flat top and shallow side. No lead solder but has internal score marks. Handle is curved to form loop. SF 2520, Field 2.

Knife handle

157. Copper-alloy. Handle from a folding knife. Incomplete. Open-work decoration in the form of a hare and hound. Parallel at Richborough (Henderson, 1949, pl. 36, 118) and Thetford (Gregory 1991, fig. 117, no. 19). SF 2211, Field 1 north.

Glass Vessels

by Dorothy Charlesworth (written in 1975)
(Fig. 85)

This is a very poverty-stricken assemblage in which one fragmentary drinking vessel (Isings form 85b) in good quality colourless glass, 186, stands out. It is a type made in the 2nd and 3rd centuries, probably c.160–260 in the Cologne area and widely distributed in the north-west provinces. (Isings 1957). One small fragment of a decorated mould blown vessel, 179, cannot be identified.

The remaining fragments are bottle glass, dating probably from the mid 1st to end of the 2nd century. The pieces most easily identified are those from square bottles. There are about thirty to thirty-five vessels represented, all flasks and bottles except for one beaker rim fragment, 191.

158. Rim of bottle or flask natural green glass, 1st or 2nd-century. SF G1, Area I.
159. (Not illustrated) Fragment from side of square bottle, c. 60–130. SF G2, Area I.
160. Fragment from the edge of a ribbed handle, natural green glass, 1st or 2nd-century. SF G3, Area I, Layer AA, Phase D.
161. (Not illustrated). Bubbly brown glass — unidentified. SF G4, Area I, Layer AG, Phase C–D.
162. (Not illustrated) Rim fragment in natural green, unidentified. SF G5, Area I.
163. (Not illustrated) Thin, colourless, highly iridescent, unidentified. SF G6, Area I.
164. (Not illustrated) Fragment from the side of a square bottle, c.60–130. SF G7, Area I, Layer AA, Phase D.
165. (Not illustrated) Chip of glass from a square bottle, 1st or 2nd-century. SF G8, Area I, Layer AH, Phase D.
166. (Not illustrated) Unidentified. SF G9, Area I, Pit 1 AO, Phase C.
167. (Not illustrated) Unidentified. SF G10, Area II, Ditch F11 MJ, Phase D.
168. (Not illustrated) Fragment of bottle glass, natural green, 1st or 2nd-century. SF G11, Area I, Layer AJ Phase C.
169. (Not illustrated) Unidentified. SF G12, Area I, Layer AH, Phase D.
170. Fragment of a bowl with a folded hollow tubular rim in thick natural green glass, 1st or 2nd-century. SF G13, Area II, MG, Clearance layer.
171. (Not illustrated) Fragment of a bottle neck, greenish, 1st to 3rd-century. SF G14, Area I, Layer AA, Phase D.
172. (Not illustrated) Chip of glass from a square bottle, natural green, c.60–130. SF G15, Area I, Layer AA, Phase D.
173. (Not illustrated) Fragments of handle and shoulder of square bottle, natural green, c. 60–130. SF G17, Area I, Layer AJ, Phase C.
174. (Not illustrated) Fragment of square bottle, natural green, c. 60–130. SF G19, Area II, Pit F4 ME.
175. (Not illustrated) Fragment of square bottle, natural green, c. 60–130. SF G21, Area II, PH Clearance layer.
176. (Not illustrated) Fragment of bottle glass, natural green, 1st or 2nd-century. SF G22, Area I, Ditch 32 AP, Phase D.
177. (Not illustrated) Fragment of square bottle, natural green, c. 60–130. SF G23, Area I, Layer BF, Phase D.
178. Fragment of moulded base, from base of a square bottle, natural green, which has been distorted by heat. One or two illegible letters, possibly an 'S' between two raised concentric circles (pers. comm. John Shepherd), c. 60–130. SF G24, Area I, Layer AA, Phase D.
179. Fragment of decorated mould-blown vessel, colourless glass, abraded, 2nd or 3rd-century probably. SF G25, Area I, Layer BF, Phase D.
180. (Not illustrated) Probably square bottle not window, c. 60–130. SF G26, Area I, Pit 7 EI, Phase B.
181. (Not illustrated) Fragment of bottle, natural green, cylindrical? c. 60–130. SF G27, Area I, Pit 9 EA, Phase C.
182. (Not illustrated) Fragment of bottle glass, natural green. SF G30, Area II, Pit F30 PY, Phase C.
183. Neck of flask in poor quality, bubbly natural green glass, 1st or 2nd-century. SF G31, Area I, Layer CK, Phase C–D.
184. (Not illustrated) Same as 161. SF G32, Area I, Layer AI, Phase B–C.
185. (Not illustrated) Fragment of natural green bottle glass. SF G34, Area I, Road CN, Phase B–D.
186. Fragments of a bowl with a rounded, thickened rim in colourless glass. Such bowls normally have a double coil base ring and can be

dated c.160–250. Isings Form 85b. SF G36, Area I, Pit 7 EI, Phase C.

187. As 186. SF G37, Area I, Layer CD, Phase D.
188. Fragment of a bowl with a folded hollow tubular rim, 1st or 2nd-century. SF G38, Area I, Layer KC, Phase D.
189. (Not illustrated) Fragment of a square bottle, natural green, c.60–130. SF G43, Area I, Pit 1 ES, Phase C.
190. (Not illustrated) Fragment of bottle glass, natural green, c.60–130. SF G45, Area I, Pit 69 FS, Phase D.
191. Rim of beaker, rounded and thickened, greenish-brownish weathering, 2nd or 3rd-century? SF G46, Area I, Pit 69 FS, Phase D.
192. (Not illustrated) Fragment of bottle glass, natural green, 1st or 2nd-century. SF G48, Area I, Pit MAI.
193. (Not illustrated) Fragment of bottle glass, abraded, 1st or 2nd-century. SF G51, Area I, Pit 1 BA, Phase C.
194. (Not illustrated) Fragment of the side of a square bottle, natural green, c.60–130. SF G54, Area I N, Pit 44 LE, (excavated 1974).
195. (Not illustrated) Fragment of probably cylindrical bottle, natural green, c.60–130. SF G57, Area I, Layer KZ, Phase D.
196. Rim and neck of a bottle, upper part of the handle attached under the rim, natural green glass. SF G58, Area I N, Pit 42 MAT, Phase A.
197. (Not illustrated) Miscellaneous 1st or 2nd-century bottle glass. SF G59, Area I N, Pit 42 MAT, Phase A.
198. (Not illustrated) Unidentifiable bottle glass fragment. SF G60, Area I, Pit 33 NAA, Phase D.
199. (Not illustrated) Bottle glass fragment, unidentifiable. SF G61, Area I, Layer HJ, mixed.

Glass vessels from the 1974 excavation areas

by Cathy Tester

Only the illustrated pieces from the 1974 areas are included in the catalogue: A total of 49 pieces of vessel were recorded.

200. Base fragment. Light green vessel. A few small bubbles. Open pushed-in base ring. SF 0061, Area IX, Layer (3), 4th century.
201. Rim fragment. Colourless. Conical bowl or beaker. A few small and medium bubbles. SF 0118, Area IX, Layer (3), 4th century.
202. Base fragment. natural blue/green bottle. No bubbles. SF 1103, Area IV, Layer (1) Grid Sq C3.
203. Basal fragment. natural blue/green bottle. No bubbles. SF 1151, Area IV, Layer (1).
204. Base fragment. Natural blue/green. Some small bubbles. Tubular pushed-in base ring. SF 1323, Area IV, Layer (1) Grid Sq C9.
205. Base fragment. Natural blue/green. Tubular pushed-in base ring. Concave base with a central kick. SF 1454, Area IV, Layer (1) Grid Sq A9.
206. Rim fragment. Colourless. Beaker or small bowl. No bubbles. Clouded abraded exterior and smooth interior. SF 1497, Area IV, Pit 75, Phase III.
207. Rim fragment. Colourless. Beaker or small bowl. No bubbles. SF 1579, Area IV, Post-hole 11.
208. Rim fragment. Colourless. Beaker with out-turned rim. Slightly iridescent surfaces and some small bubbles. SF 1583, Area IV, Layer (1) Grid Sq A4.

Furniture fragments and fittings

(Fig. 86)

Drop-handles

209. Copper-alloy. Incomplete. Both terminals damaged. Formed from a rolled strip of sheet metal. Seam is visible and parting at one end. Circular section. SF 1659.
210. Copper-alloy. Rectangular. SF Ae302, Field 2.

Knob-handle

211. Complete. Copper-alloy knob with remains of an iron shaft. Knob is decorated with reel below a bulbous terminal. Square sectioned iron shaft. Similar handle found at Verulamium (Goodburn 1984, fig. 20, no. 176). SF 2498, Field 1.

Ring-key

212. Copper-alloy. Incomplete. Ring broken. Key has flat ward. SF 2529, Field 1.

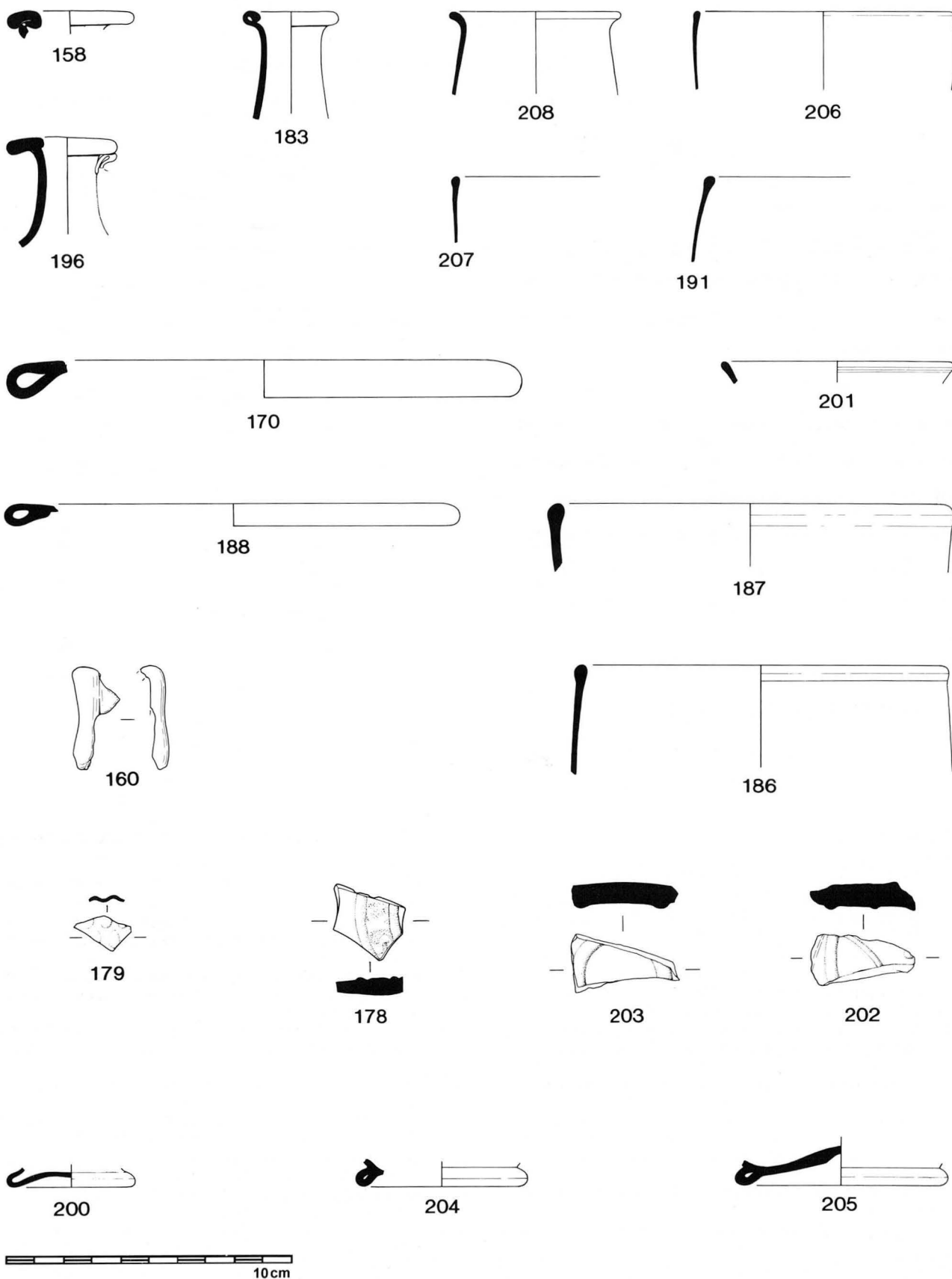


Figure 85 Household utensils and furniture — glass vessels. Scale 1:2

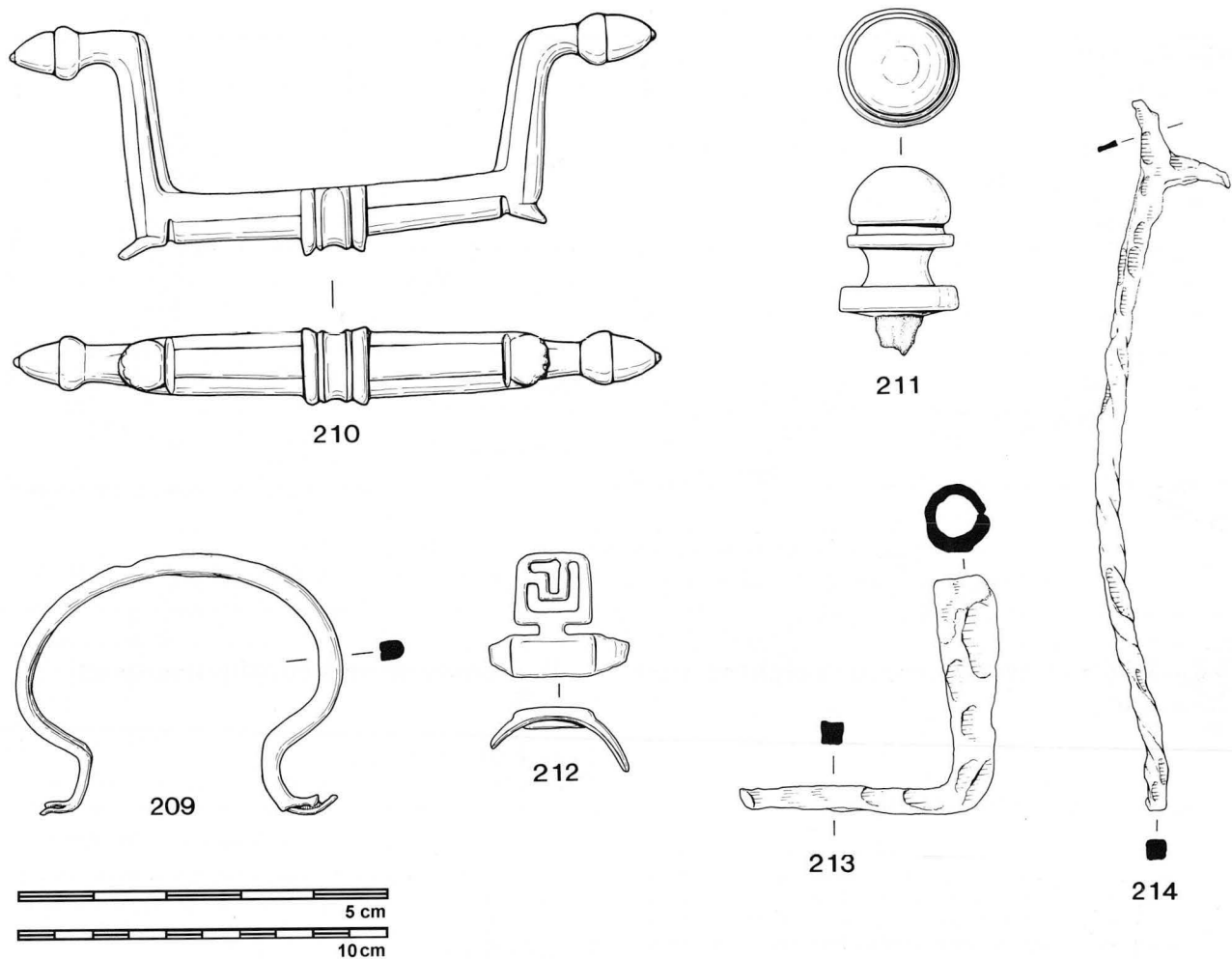


Figure 86 Household utensils and furniture. Scales 1:1 except 213 and 214 at 1:2

Candle holder

Fig. 86

213. Iron. Incomplete. Wall-mounted candle-holder. L-shaped. Horizontal square-sectioned arm tapering to a point. Vertical split socket to hold candle. Examples at Verulamium (Manning 1984, fig. 40, no. 71) and Brompton (Green 1977, fig. 21, no. 1). SF Fe167, Area I, Pit 70 HF, Phase C.

Lamp hanger or meat hook?

Fig. 86

214. Iron. Incomplete. Twisted square-sectioned rod. Pointed at one end with a perpendicular spur. Other end broken. Could be either a hanging lamp or a meat hook as both diagnostic ends are missing. Another possibility is that it could be a ladle as these could have handles which terminated in a meat hook. SF Fe38, Area I, Layer AJ, Phase C.

Quernstones

by Hugh Chapman (written in 1975)

(None illustrated)

It is difficult to make much of the fragments from Hacheston. All the lava querns have been broken up perhaps through the agency of frost, into small flaking weathered lumps and no detailed features of the querns are recognisable. Their average diameter, as far as it is possible to calculate, appears to put them into either of the two defined groups of imported Mayen lava querns. An examination of some twenty-eight examples from London has shown that the bulk of the querns fall into two regular and well-defined groups, the first with a diameter of

420–440mm, the second 390–400mm. There is a strong suggestion that London acted as the import centre and distribution point for this trade between Britain and the Rhineland.

215. Two rim fragments of quern, probably upper stone. Mayen basalt lava. Original diameter c. 440mm, very worn. SF WS1, Area I, Layer AA, Phase D.
216. Rim fragment, millstone ?upper stone. Max. dimensions 125 by 105mm, thickness 26–33mm. SF WS3, Area I, Layer AA, Phase D.
217. Rim fragment of quern, upper stone. Original diameter c.460mm. Radial striations on concave grinding surface. SF WS5, Area II, Pit F30 PY, Phase D.
218. Rim fragment of quern. Mayen basalt lava. Original diameter c. 410mm. Very worn. SF WS6, Area III, ZV.
219. Many fragments of quern ?top-stone. Mayen basalt lava. Original diameter c.420mm. Completely broken up. SF WS7, Area I, Layer AJ, Phase C.
220. Three fragments from body of millstone. Largest piece 135 x 96mm, thickness 35–50mm. (?Medieval). SF WS9, Area II, Layer MS clearance, Phase C.
221. Two joining fragments Hertfordshire puddingstone quern, upper stone. Original diameter c.320mm, centre thickness about 95mm. Grinding surface slightly concave. SF WS12, Area I N, Pit 14 GK, Phase B.

An additional thirteen fragments plus many small fragments, all unstratified, of Mayen basalt lava were examined. They include two rim fragments with an original diameter of 400mm.

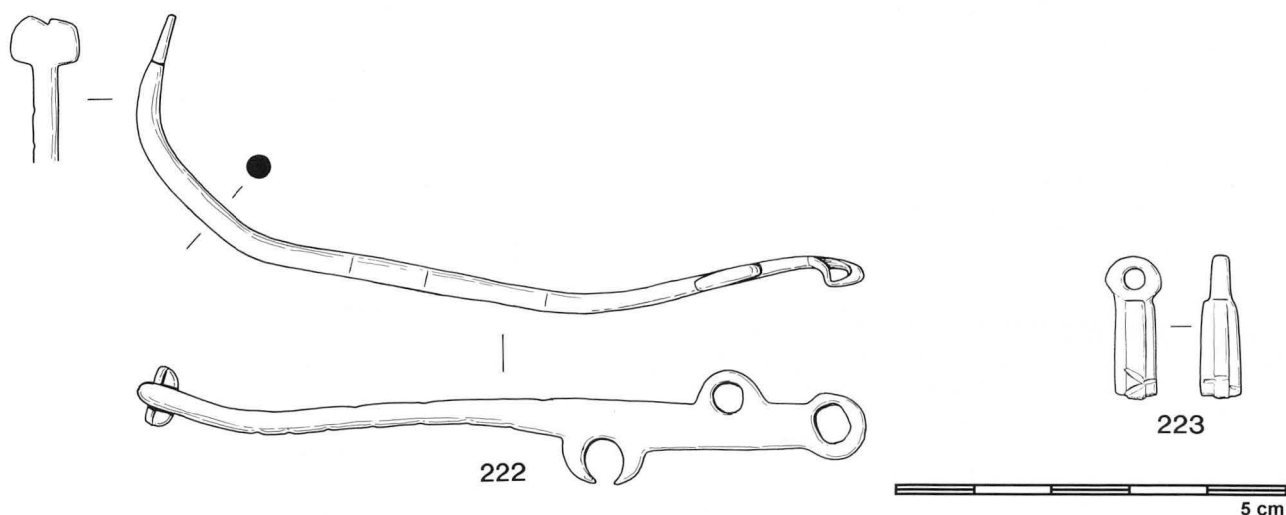


Figure 87 Objects used in weighing and measuring. Scale 1:1

VI. Objects employed in weighing and measuring

(Fig. 87)

Copper-alloy steelyards and balances

222. Incomplete. Bent. Circular section steelyard arm with a flattened oval terminal. The fulcrum end has a rectangular section. This end has three loops, the end loop would originally have had a hook or scale-pan from which to suspend items to be weighed. The other two loops are for suspending the steelyard itself for two different scales of measurements. All three of the loops show signs of wear, and one has completely worn through. The graduation scales are poorly preserved but seem to consist of transverse grooves. SF 2577, Field 1.
223. Fragment. Terminal loop of a steelyard or balance. The arm is marked with a graduation scale consisting of transverse grooves and a V/Y-shaped symbol. Circular section. Balances had two loops, one at either end (see Crummy 1983, fig. 103, 2507). Steelyards usually had three loops at the fulcrum end and a terminal knob or loop at the weight end (see Henig 1985, fig. 17, no. 136). Steelyards always have graduation scales and balances can also have them (see Crummy 1983, fig. 103, no. 2507). This fragment is too small for the type of scale to be identifiable. SF 2571, Field 2.

VII. Objects used for or associated with written communications

(Fig. 88)

Copper-alloy seal boxes

224. Incomplete. Seal-box lid. Crummy Type 4a. Stylised leaf-shaped with inlaid enamel. Enamel is discoloured but may have been yellow on outer panel and roundel and green within heart-shaped panel as Crummy suggests (Crummy 1983, 104). Recessed reverse. Locating pin beneath terminal knob. SF Ae208, Area I, Layer HJ, mixed.
225. Incomplete. Lozenge-shaped seal box lid. Decorated with lattice pattern. Hinged, with terminal knob and two small lugs. Recessed reverse. Probably lattice pattern filled with enamel like similar example at South Shields (Allason-Jones and Milet 1984, 3.376-7). SF 2595, Field 1.

Iron styli

226. Incomplete. Point missing. Simple eraser fanning out from square-section shaft. Manning Type I or II (Manning 1984, 89). SF Fe118, Area I, Road CL, Phase D.
227. Complete. Circular-section shaft. Manning Type I (Manning 1984, 89). SF 1115, Area IV, Pit 36, Phase II.

VIII. Objects associated with transport

(Fig. 89)

Copper-alloy terret ring

228. Complete. Plain. Has large circular upper loop and rectangular lower loop. Upper loop has circular section. Lower loop has square section. Shows signs of wear. Parallels at Colchester (Crummy 1983, fig. 109, no. 2543), Verulamium (Vaughan and Goodburn 1972, fig. 40, no. 126) and Richborough (Henderson 1949, pl. 36, no. 124). SF Ae42, Area I, Layer AJ, Phase C.

Iron lynch pin

229. ?Complete. Spatulate head. Peg loop is a continuation of head turned over. Lower third of stem is rebated at the back. Manning Type 2b (Manning 1972, 172). SF Fe71, Area II N, F29 PH Clearance.

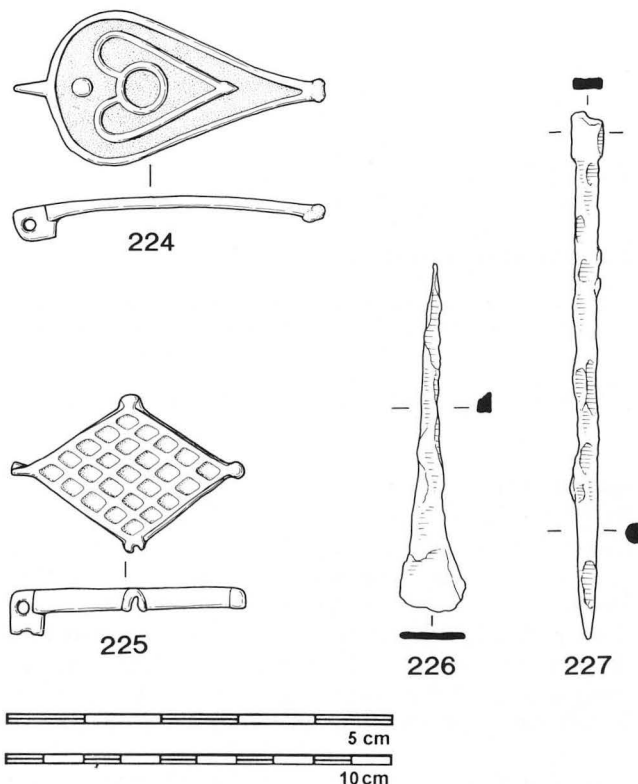


Figure 88 Objects used for written communications. Scales 1:1 except 226 and 227 at 1:2

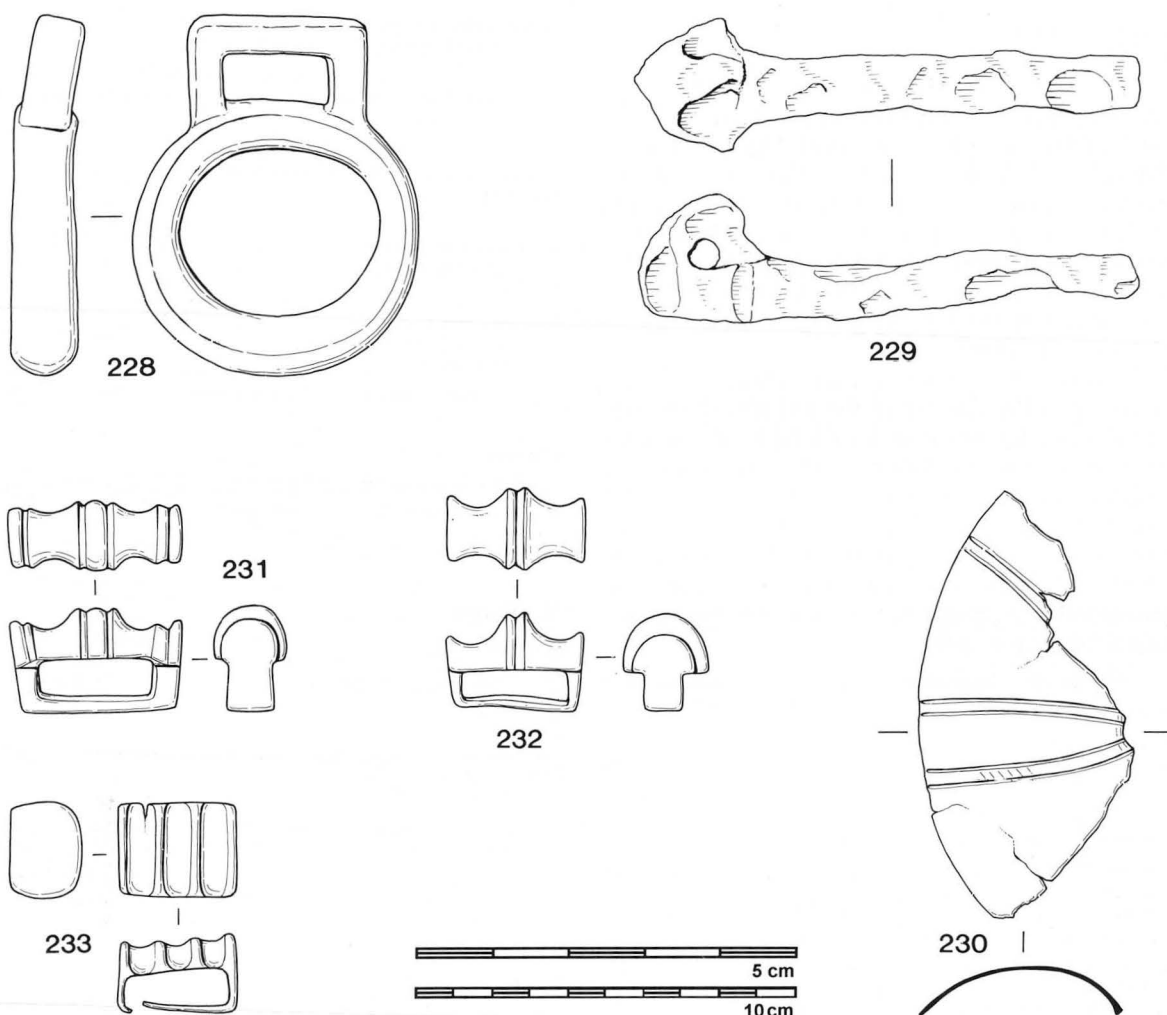


Figure 89 Objects associated with transport. Scales 1:1 except 229 at 1:2

Copper-alloy rumbler bell

230. Fragment. Decorated. Medieval. SF Ae172, Area II, RZ Clearance.

Copper-alloy harness mounts

231. Complete. Rectangular aperture. Decorated with bead-and-reel moulding. Can be compared with one at Richborough (Henderson 1949, pl. 36, no. 121). SF Ae273, Field 2.

232. Complete. Rectangular aperture. Decorated with bead-and-reel moulding. Worn. SF 2503, Field 2.

233. Complete. Damaged. Rectangular aperture. Decorated with evenly-spaced reels. Worn. SF 2507, Field 1.

IX. Objects associated with the fabric of buildings

Brick and tile

by Joanna Caruth

The 1973 excavation produced 599 pieces of tile weighing 118.74kg and recovered from 133 contexts. The statistical information presented in this report is a summary of the findings and the more complete and detailed records with illustrations of the signatures are available in the Archive Report. The tile is fragmentary, weighing an average of 0.20kg per piece and no whole tiles were recovered, although in five cases a complete dimension was available (three box tiles and two flat tiles). The tile was examined for type identification, surface treatment, mortar adhesion, signs of burning and other features such as signatures,

fingerprints and animal footprints. No detailed work has been done on the fabric types as the group was considered too small, too fragmentary and too dispersed to offer interpretable data.

Distribution

(Table 17)

Analysis of the tile distribution shows a general secondary deposit — a small, fragmentary scatter of tile across the whole site with very few concentrations of type or quantity. The exceptions are the Area I and II hearth contexts AD (phase D) and F42 RU (phase C) which had large flat tiles associated with them. Similar material was found in Area I layer AI, near to AD and associated with Building III, where the tile fragments appear to be disturbed structural components, however there was no indication that the building had any major tiled features such as a roof or hypocaust.

Area	no. of contexts	tile count	weight (kg)	% total weight	av. sherd weight (kg)
Area I	63	339	74.77	62.9	0.22
Area II	63	241	40.36	33.9	0.167
Area III	3	19	3.61	3.0	0.19
total	129	599	118.74	99.8	

Table 17 Quantities of tile from Areas I–III

Types of tile present (Table 18)

Most forms of building tiles were present except for tesserae. All the brick and tile was sorted by type with the flat tile/brick fragments being subdivided by thickness.

Incomplete signatures were identified on a total of twenty-two tile pieces and were mostly single curving finger lines with examples of two- three- and possibly four-finger curving lines. Ninety-two fragments (15.4%) had some sign of burning; only fifteen fragments (2.5%) had some sign of mortar surviving. Two misshapen pieces might have been wasters.

There were few nail holes and no stamps, tally marks or evidence of roller printing on the box tiles. There was nothing of particular note about the tile types, although the presence of a possible half-box and two wasters is interesting.

Insufficient quantities of any tile type were recovered to imply significant tile structures on the site and the dispersed and fragmentary nature of the assemblage suggests that this is general redeposition from beyond the immediate excavation area.

type	count	weight (kg)	average weight (kg)
tegulae	83	18.57	0.224
imbrices	72	9.24	0.128
box flue tiles	84	11.39	0.136
flat tile <20mm thick	80	9.57	0.120
flat tile <30mm thick	64	9.79	0.153
flat tile <40mm thick	117	45.68	0.390
flat tile <50mm thick	16	8.01	0.501
flat tile >50mm thick	5	3.53	0.706
unidentified	72	2.94	
total	599	118.72	0.197

Table 18 Quantities of tile types from all areas and their average sherd weights

Tile from 1974 excavation areas

A relatively large amount of tile was recovered from Area IV — 604 fragments weighing 92.66kg, of which 205 fragments (10.93 kg) were found in features rather than Layer (1) and unstratified. Some of the material was very soft, but even excluding this the group is at least as fragmentary as the 1973 tile. Imbrix, tegula and box tile was represented.

Window glass

by Dorothy Charlesworth (written in 1975)
(Not illustrated)

Window glass fragments come from five or six different panes. Most of the pieces are rough on one side and smooth on the other, made by pouring molten glass into a flat stone mould, and date to the 1st and 2nd century. Two pieces, however, are of the later, 3rd- to 4th-century, cylinder-blown variety (Boon 1966, 41–47).

Moulded window glass

SF G16, SF G47 from Area I, Pit 1 AO, Phase C.
SF G50, SF G52, SF G53 from Area I, Pit 1 BA, Phase C.
SF G39 from Area I, Pit 8 EK, Phase D.

Blown window glass

SF G49, Area I, Layer HJ, mixed.
SF G56, Area I, Pit 57 NBG, (excavated 1974)
Edge fragment of window glass, cylinder-blown. 3rd or 4th-century.

Window glass from the 1974 excavation

by C. Tester

Moulded window glass

SF 1410, Area IV, Layer (1).

Blown window glass

SF 1312, Area IV, Pit 75.
SF 0068 Area IX, Layer (3), 4th century.
SF 0301 Area IX Pit 7.13, 3rd-century.

Plaster

A small amount of wall plaster with a fine white surface was recovered. This is likely to derive from structures outside the excavated area.

X. Tools

(Figs 90–91)

Awls

Fig. 90

234. Bone. Incomplete. Point missing. Head of bone largely unworked; it is far from certain that this is an awl. SF 1495, Area IV, Layer (2) Grid Sq B9.
235. Iron. Incomplete. Tapering square-sectioned tang with broken circular-sectioned point. Fragments of mineralised wood are attached to the tang. Similar to example from Gestingthorpe (Manning 1985, fig. 21, no. 167). SF Fe234, Area I, Layer HJ, mixed.

Iron knives, cleavers and shears

236. Incomplete. Tip missing. Large knife. Straight edge. Back is gently arched, curving down to meet tip. Tang set below line of back. Similar to knife at Verulamium (Manning 1984, fig. 40, no. 61). SF Fe4, Area I, Layer AA, Phase D.
237. Socketed. Straight-backed with curving edge which rises to form tip. Socket extends from line of back. Small blade. Manning Type 22 (Manning 1985, fig. 29, no. 22). Similar to one found at Baldock (Manning and Scott 1986, fig. 67, no. 536). SF Fe17, Area I, Layer AJ, Phase C.
238. Incomplete. Straight edge with arched back. Tang curves upwards from line of back. Tang widens to form fan-shaped terminal. Knife or razor? SF Fe27, Area I, Layer AA, Phase D.
239. ?Complete. Large knife. Wide blade with convex edge curving up to tip. Convex curving back. Tang continues line of back. Manning Type 12a (Manning and Scott 1986, fig. 28, no. 12a). SF Fe32, Area I, Layer AJ, Phase C.
240. Incomplete. Broken straight-backed blade. Tang continues line of back. Stop-ridge on shoulder between blade and tang. Compare to example at Verulamium which has a narrower straight blade (Manning 1972, fig. 65, no. 42). SF Fe34, Area II S, MH Clearance, Phase D.
241. Incomplete. Most of tang missing. Arched back blade falling to tip to meet straight edge. Tang turns slightly upward from line of back. Similar knife found at Verulamium (Manning 1984, fig. 40, no. 62). SF Fe82, Area II N, Trench F35 PR, Phase D.
242. Fragment. Most of blade missing. Thick square-sectioned tang continues line and thickness of back, the faces of the blade converging from this to form the cutting edges. Heavy knife or cleaver? SF Fe119, Area I, Pit 8 EK, Phase D.
243. ?Complete. Blade has concave curving back which turns up to the tip. Tang taken from the line of the back. Manning Type 23. SF Fe198, Area I N, Pit 44 LE, (excavated 1974).
244. Fragment. Handle probably from a knife. Lozenge-shaped section. Iron handle terminating in a broken ring with a strip of copper alloy wrapped around the girth. SF Fe213, Area I, Pit 7, Phase C.
245. ?Complete. Short knife with wide, two-edged, leaf-shaped blade with pronounced shoulders. Tang extends from the blade's centre-line. Stop-ridge on shoulder between blade and tang. SF Fe246, Field 2.

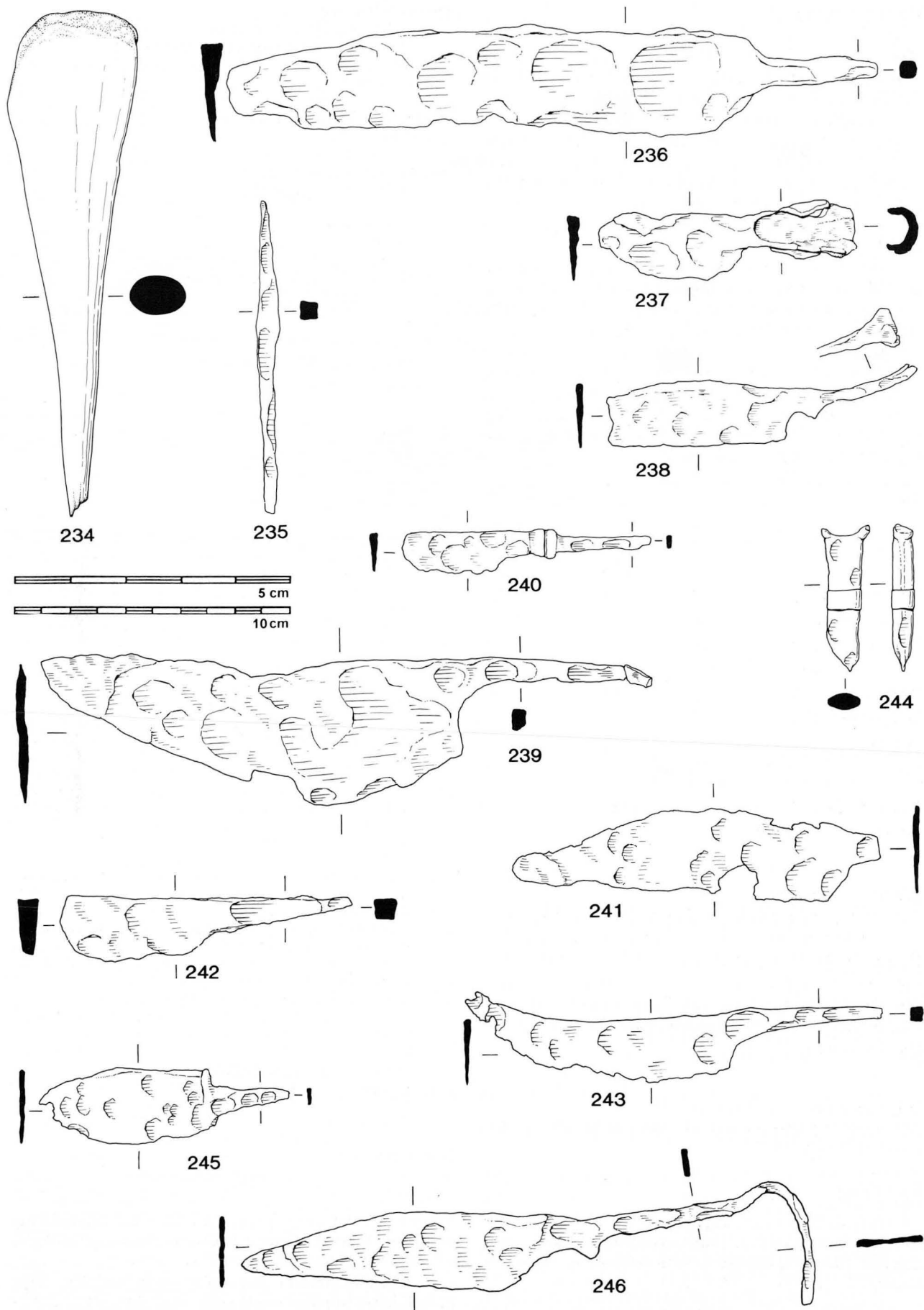


Figure 90 Tools. Scale 1:2 except 234 at 1:1

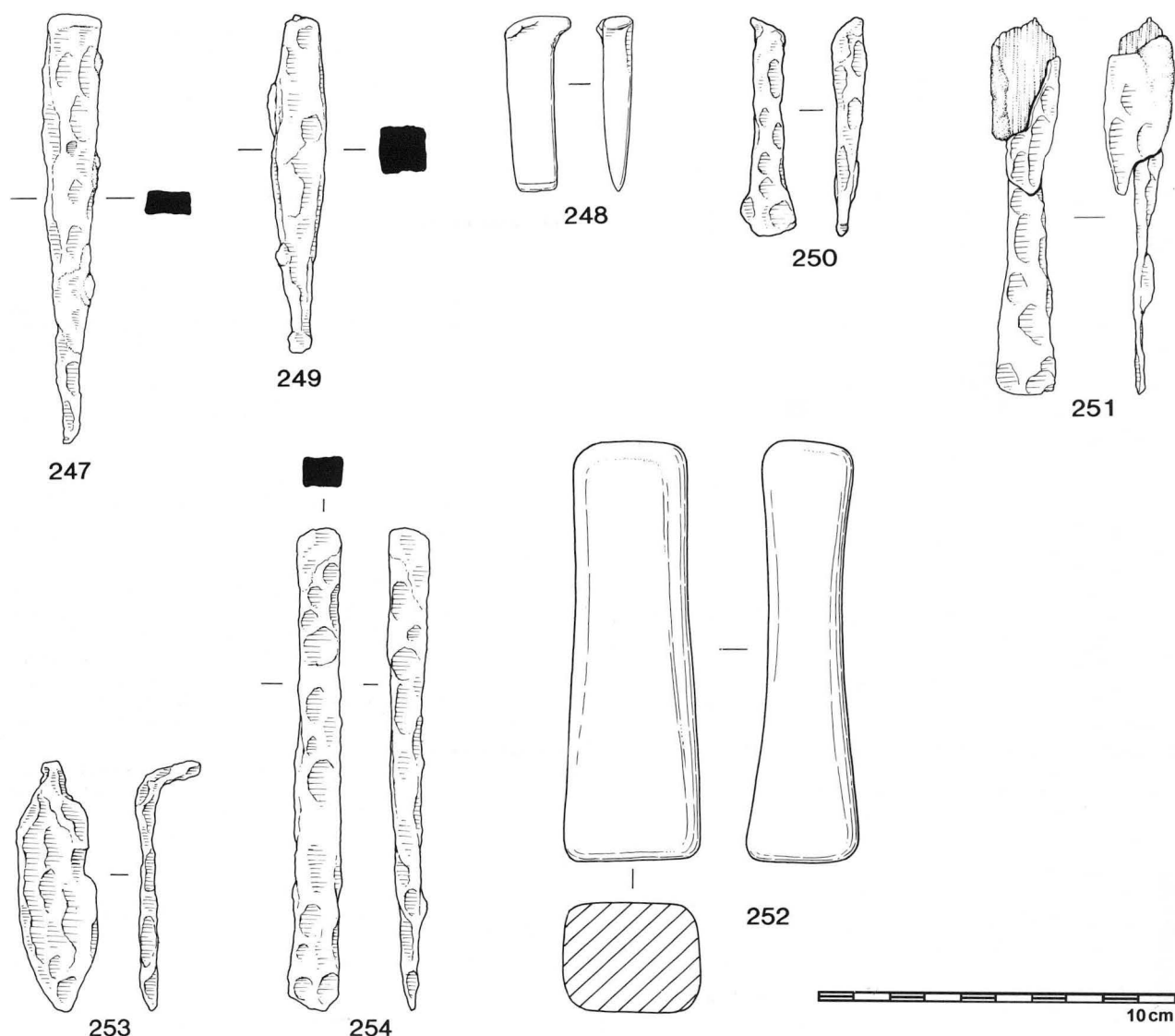


Figure 91 Tools. Scale 1:2

246. Incomplete. Half of a pair of shears. Spring is looped. Has shoulder at junction between blade and handle. SF 0221, Area VI, Layer (1).

Iron punches

Fig. 91

247. Complete? Rectangular-section bar tapering over whole length to point. Compare to one at Verulamium (Manning 1972, fig. 60, no. 5). SF Fe64, Area I, Layer BF, Phase D.
248. Complete? Small wedge or punch. T-shaped head with short, stout, straight-sided stem with chisel end. Compare to example at Gadebridge Park (Manning 1974, fig. 73, no. 165). SF Fe208, Area I, Post-hole 11 DD, Phase C-D.
249. Complete? Tapers towards blade. Square section. SF 1017, Area IV, Layer (1) Grid Sq B9.

Iron chisels

250. Incomplete. Square-section shaft splayed into a small blade. SF Fe156, Area III, Kiln F2 AAD, Phase B.
251. Incomplete. Blade broken from handle at the neck of the socket. Thin flat narrow blade, slightly splayed at tip and tapering towards a socketed handle. Mineralised wood survives in socket. Smaller version of a chisel found at Gestingthorpe (Manning 1985, fig. 21, no. 165). SF Fe205, Area I, Pit 1 BA, Phase C.

Whetstone

252. Fine grained sandstone. Signs of wear on all edges. SF WS10, Field 2.

Miscellaneous tools

253. Iron. End of tang missing. Small thick blade with blunt straight sides which converge at one end to form a point on the centre-line. The tang is bent at 90° to the blade. SF Fe6, Area I, Layer AA, Phase D.
254. Iron. Complete. Wedge-shaped in profile. Rectangular section. SF 1442, Area IV, Layer (1) Grid Sq A11.

XI. Fastenings and fittings (Figs 92-95)

Iron nails

A total of 394 iron nails and nail fragments were recorded from the 1973 excavation (273 from Area I, almost all from the southern area, eighty-one from Area II North and forty from Area II South). Where they were identifiable virtually all were Manning Type I. In 1974 a further 226 iron nails were found in Area IV and ninety-six in Area IX — the high figures in these small areas may reflect the use of metal detectors on the site.

255. Complete. Very large Manning type I nail. Similar large nails found at Verulamium (Manning 1984, fig. 44, no. 139). SF Fe55, Area I, Layer AA, Phase D.

Studs

(Fig. 92)

All are made of copper alloy unless stated otherwise. Diameter refers to the size of the head and length refers to the shaft.

Plain studs

256. Complete. Bent shaft. Flat head with slightly turned over edges. Circular section shaft. SF Ae167, Area I, Layer CA, Phase B–C.
257. (*Not illustrated*) Complete. Length 11mm. Misshapen. Probably originally like 256 but flattened. Square section shaft. SF Ae101, Area I, Feature FP.
258. Incomplete. Bent. Broken shaft. Large convex head. Square section shaft. Parallel (Crummy 1983, fig. 120, no. 3137). SF Ae1, Area I, Layer AA, Phase D.

Decorated studs

259. Incomplete? Shaft probably not complete. Large circular head with raised centre with a bordering groove. SF 2145.
260. Incomplete. Slightly bent. Moulded copper-alloy stud in the form of a lion's head. Shaft, now broken, is made of iron. These studs are not uncommon, there is an example of the same size at Richborough (Henderson 1949, pl. 44, no. 168). SF 2536, Field 1.

Miscellaneous stud

261. (*Not illustrated*). Fragment. Length 1mm. Circular section shaft. Little remains of head. Corroded. SF Ae209, Area I, Layer KZ, Phase D.

Iron tack

Fig. 92

262. Complete. Bent. Large flat circular head. There are examples at Verulamium (Manning 1984, fig. 45, nos 151–3). SF Fe45, Area I, Layer AJ, Phase C.

Copper-alloy rivet

Fig. 92

263. Complete. Convex head. Circular section shaft. Similar head to 264. SF Ae6, Area I, Layer AH, Phase D.

Copper-alloy bosses

Fig. 92

264. Complete. Convex head. Contains lead solder. SF Ae49, Area I, Pit 6 DM, Phase B.
265. (*Not illustrated*) Complete. Diameter 18mm. Damaged. Convex head. Contains lead solder. SF 0191, Area IV, Pit 75(1), Phase III.

Copper-alloy mounts

Fig. 92

266. Incomplete. Cross-shaped fitting originally with two long projections on back, only one now remains. Has moulded knobbed loop at one end. Opposite end is broken. The cross bar has knobbed terminals at each end. Bears some resemblance to a fitting at Verulamium which has the same knobbed loop at one end, which was found with five other associated but not identical fittings (Waugh and Goodburn 1972, fig. 33, no. 43). The style suggests auxiliary military equipment (for example Oldenstein 1976, Taf. 45, 450). SF 2535, Field 2.
- 267–268. Complete. Two identical *Trompetenmuster* (Von Jenny 1935) mounts. Have two integral riveted projections on back. Similar to one found at Castlelaw, Midlothian (Macgregor 1976, fig. 9, no. 1). Again these might be military (Oldenstein 1976 Taf. 69). SF Ae299 and SF Ae300, Field 2.
269. Complete. Dome-shaped mount with four lugs. Has eight fields which originally held enamel. Most likely design is alternate colours as three alternate fields have traces of blue enamel. Hollow pupil. Has two T-shaped projections on back. Exact parallel at Pakenham (SMR ref PKM 005 SF2345). These mounts can be compared to the umbonate disc-brooch, for example Saham Toney, Norfolk (Brown 1986, fig. 24, nos 171–2) and at Strageath (Frere and Wilkes 1989, fig. 76, no. 57). SF Ae290, Field 2.
270. Complete. Circular amazon shield. Has riveted projection on back with rove. The metal of the mount is silvery-grey in colour. From auxiliary military equipment (Oldenstein 1976, Taf. 55, 669). SF 2555, Field 1.

271. Complete? Zoomorphic mount. Possibly depicting horse's head. Has riveted projection on back. SF 2550, Field 1.
272. Fragment of a decorative fitting. Has riveted projection on back. SF 2607, Field 1.

Iron drop hinge

Fig. 93

273. Complete? Now fused together. SF Fe158, Area I N, Pit 83 JY, Phase B.

Binding

274. (*Not illustrated*) Incomplete. Diameter 5.5mm. Bent. Strip of copper alloy folded lengthways to form tube. At one end it has been flattened into a straight fold. SF Ae29, Area II, Ditch F7 MQ, Phase D.

Fig. 92

275. Bent. Strip of copper alloy sheet folded to form tube. SF Ae17, Area I, Layer AJ, Phase C.

Fig. 93

276. Iron. Incomplete. One end of a probably right-angled binding of tapering length, expands into a discoidal terminal around a nail hole. Similar binding at Caister-on-Sea (Mould 1993, fig. 97, no. 373) and at Fishbourne (Cunliffe 1971, fig. 62, no. 61). SF Fe22, Area I, Layer AJ, Phase C.
277. Iron. Incomplete. Broken at both ends. Thin flat strip with tapering edges. Pierced with four irregularly-spaced holes off-set from the centre-line. SF Fe51, Area II, Clearance layer NQ.
278. Iron. Complete? Sub-rectangular plate, slightly convex. Possibly pierced in two of the corners. SF Fe66, Area II, Layer PD, Modern.
279. Iron. Incomplete. One end is broken. One end slightly rounded and centrally pierced. Bent at right angle at broken end. SF Fe162, Area I, Road HI, Phase D.
280. Iron. Complete? Large binding or strap with flat underside and slightly domed upper face. Pierced along mid-line with nail still in position. SF Fe175, Area I, Pit 8, Phase D

Iron tie-strip

Fig. 93

281. Complete. Narrow strip bent through 90° terminating in a discoidal pierced head at both ends. Nails still in position. Parallel at Colchester (Crummy 1983, fig. 130, no. 4079). SF Fe152, Area I, Layer HJ, mixed.

Iron ferrule

Fig. 93

282. Incomplete. Broken height. Straight-sided cylinder. SF Fe86, Area I, Pit 7 EC, Phase C.

Iron collar

Fig. 93

283. Complete. Pennanular collar tapering at both ends. Fragments of mineralised wood still adhere on inside. Fe233. Area I, Layer HJ, mixed.

Iron ring-headed pins

Fig. 93

284. Incomplete. Point missing. Turned-over head. SF Fe76, Area II N, F29 PH Clearance.
285. Incomplete. Point missing. Turned-over head. SF Fe220, Area II, Pit UF, (excavated 1974).

Iron T-staple

Fig. 93

286. Incomplete. Tip missing. Square-section shaft. SF Fe15, Area I, Layer AJ, Phase C

Iron joiners' dogs

Fig. 94

287. Complete. Flat strip. Ends turned through 90° to form two parallel prongs. SF Fe28, Area I, Layer AA, Phase D.
288. Incomplete. One prong missing. Flat strip. Ends turned through 90° to form square-sectioned parallel prongs. SF Fe176, Area I, Pit NBE, (excavated 1974).
289. Complete. Ends turned through 90° to form two parallel prongs. SF Fe232, Area I, Layer HJ, mixed.

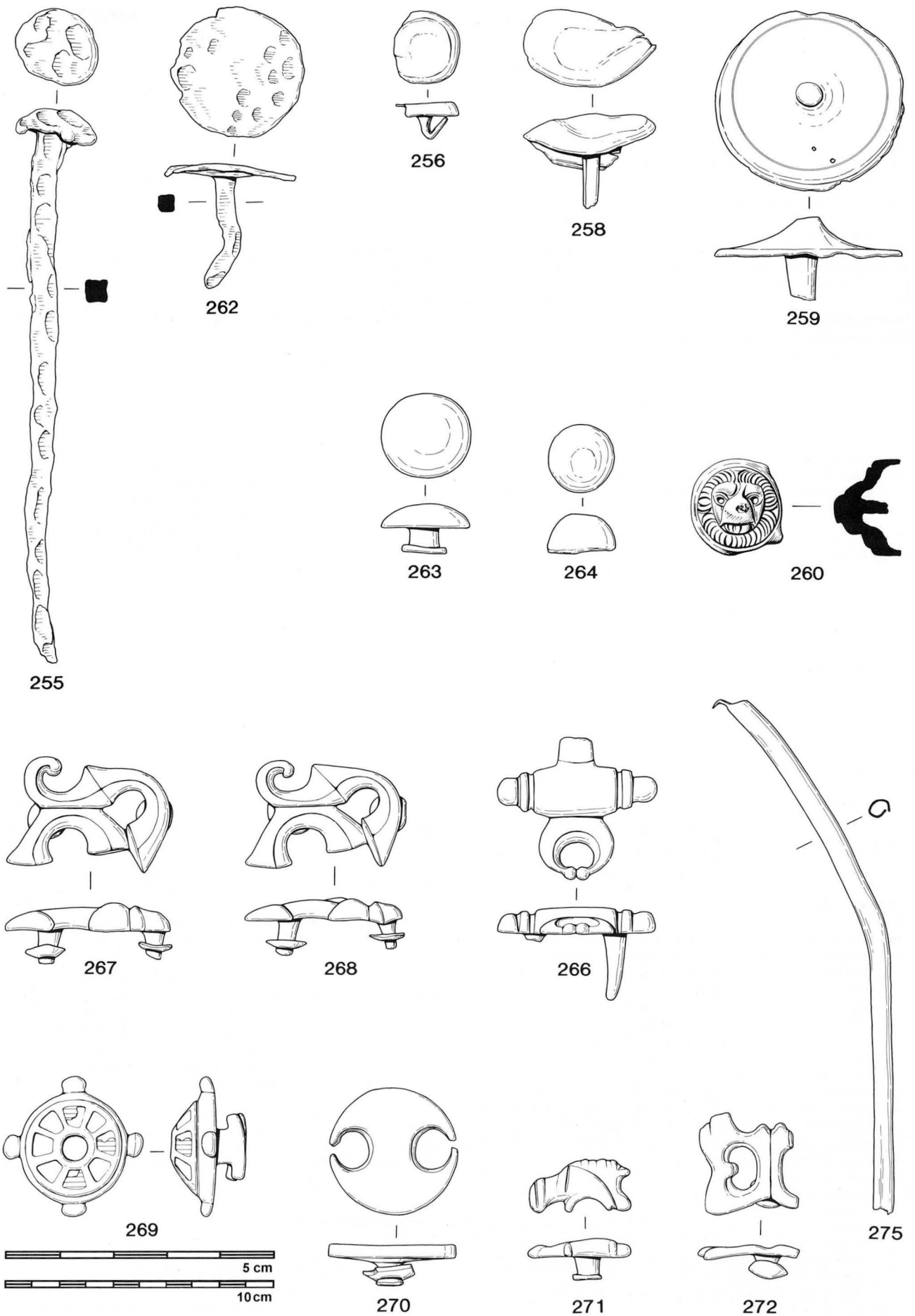


Figure 92 Fastenings and fittings. Scale 1:1 except 255, 262 at 1:2

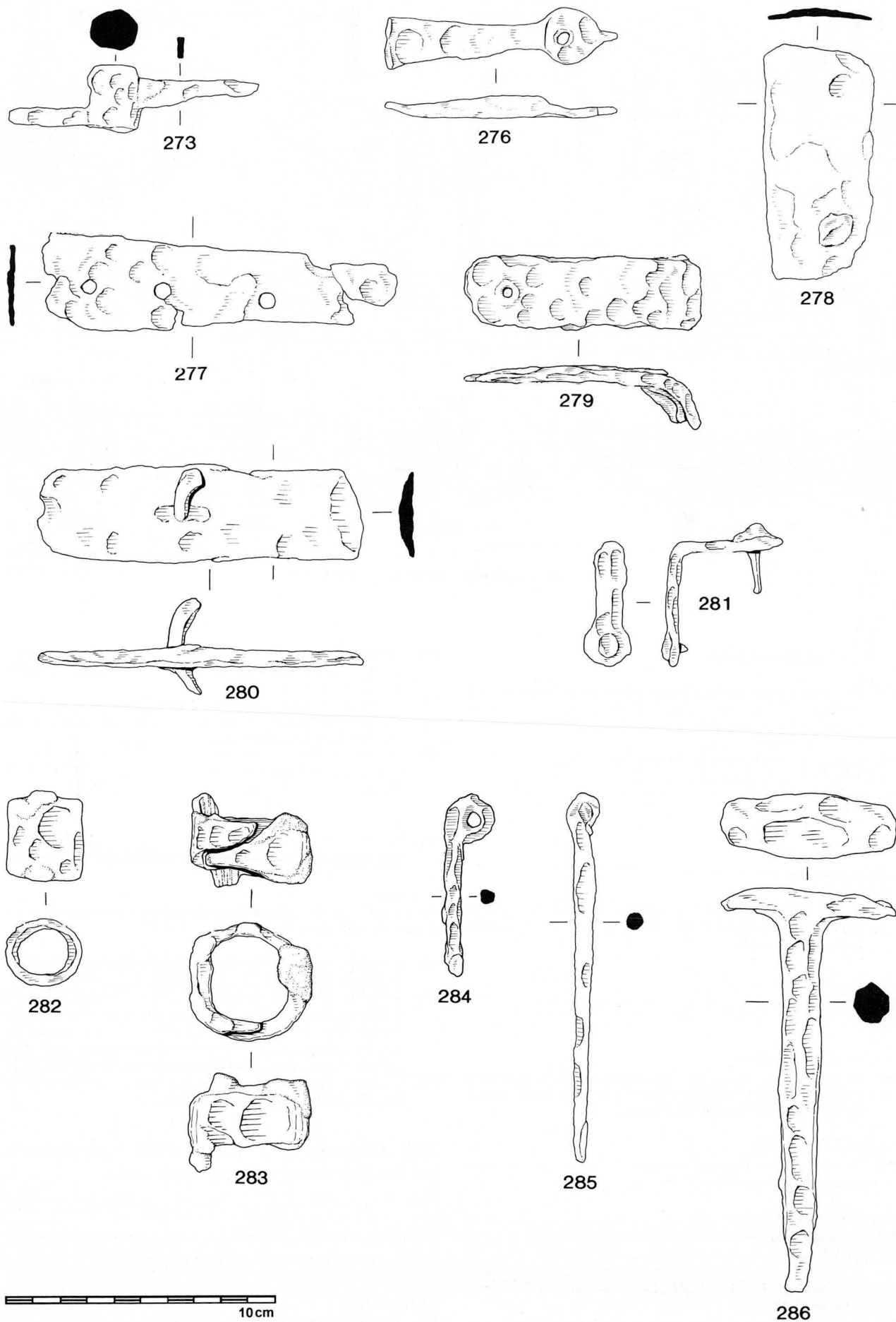


Figure 93 Fastenings and fittings. Scale 1:2

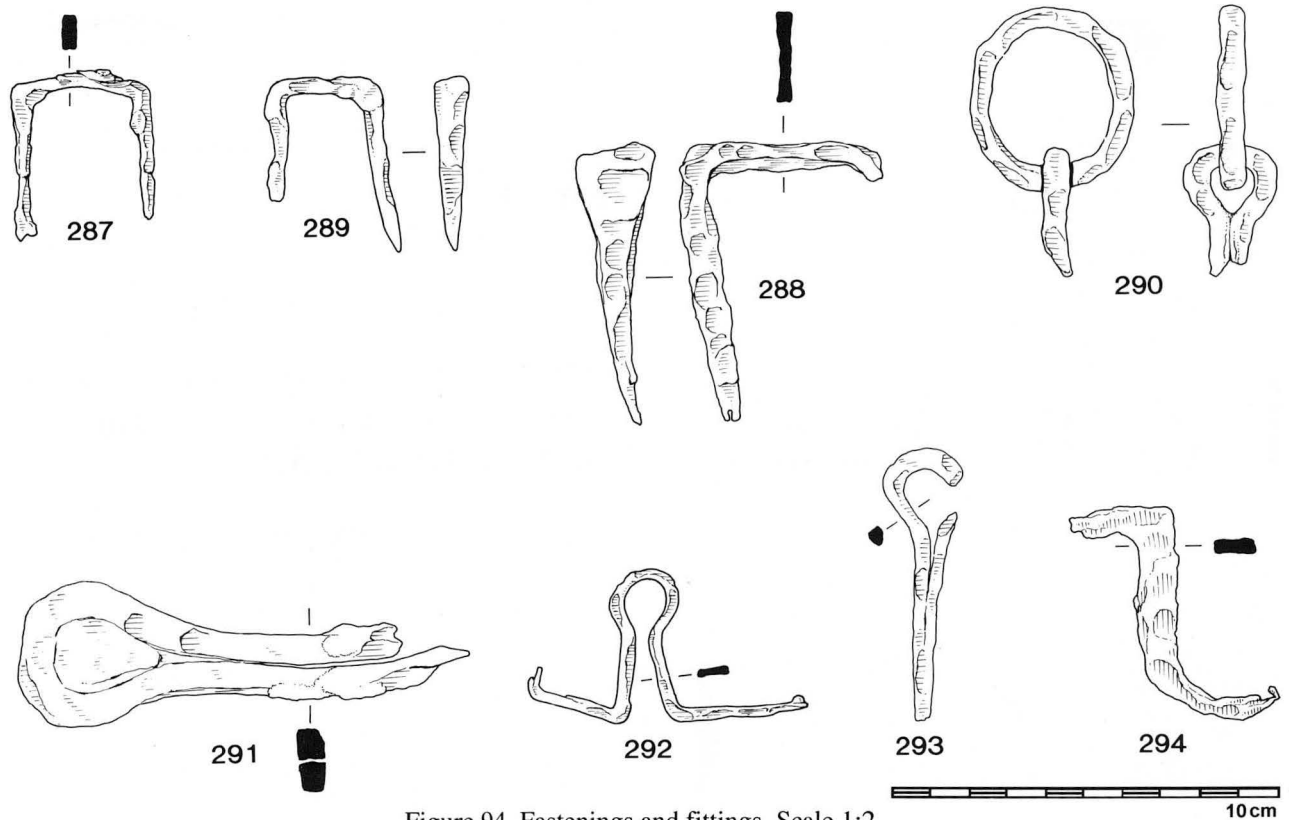


Figure 94 Fastenings and fittings. Scale 1:2

Iron double spiked loops

Fig. 94

- 290. Incomplete. Spikes missing. Ring attached to loop. Rings are quite commonly found together with double spiked loops, as at Verulamium (Manning 1984, fig. 44, nos 124–5). SF Fe7, Area I, Layer AC, Phase D.
- 291. Incomplete. Spikes missing. Loop is filled with concretions. SF Fe150, Area I, Road CN, Phase D.
- 292. Complete. SF Fe199, Area I, Pit 1 BA, Phase C.
- 293. Incomplete. Loop broken. SF Fe230, Area II.

Iron wall-hook

Fig. 94

- 294. Incomplete. Spike broken. Rectangular section. Similar to one at Colchester (Crummy 1983, fig. 129, no. 4076). SF 0099, Area IX, Layer (3), 4th century.

Locks and keys

Fig. 95

Iron barb-spring padlock

- 295. Incomplete. Bolt only. Four leaf-springs originally, only three remain. The head is a solid rectangular block with a flanged top. SF Fe94, Area II N, Ditch F35 PR, Phase D.

Copper-alloy lock-bolt

- 296. Complete. Bent. Has two rectangular, four circular and one figure-of-eight (possibly originally two circular) cutouts. SF 1669.

Iron tumbler-lock lift keys

- 297. Complete? L-shaped. Two teeth on bit. Turned-over ring is at right angles to lock. Square-sectioned handle. Common form, for example found at Verulamium (Manning 1984, fig. 41, nos 78–9) and Caister-on-Sea (Mould 1993, fig 100, no. 707). SF Fe39, Area I, Layer AJ, Phase C.
- 298. Incomplete. L-shaped. Three teeth on bit. Turned-over ring is at right angles to lock. Square-sectioned handle. SF Fe187, Area II, Pit UE, (excavated 1974).

- 299. Complete? L-shaped. Two teeth on bit. Thick square-sectioned handle with flattened top that has a pierced discoidal eye. SF Fe200, Area I, Pit 1 BA, Phase C.
- 300. Incomplete. L-shaped. Two teeth on bit. Square-sectioned handle with pierced discoidal eye, which is at a right angle to the lock. SF Fe224, Area I, Layer HJ, mixed.
- 301. Incomplete. Rectangular section handle. Parallel found at Camulodunum (Hawkes and Hull 1947, pl. 105, no. 16). SF 1049, Area IV, Layer (1) Grid Sq B3.

Iron lever-lock

- 302. Fragment. Flat square piece with rectangular notches cut out. Possible lever-lock key bit? SF Fe73, Area I, Layer BF, Phase D.

Key-handles

Three key handles were identified. Exact parallels were not found for any of them. All were made of copper alloy and, from the traces of iron in the bases, all had iron keys.

- 303. Complete. Handle with mushroom-shaped aperture, terminal knob and moulded band. Tinned. SF 2525, Field 1.
- 304. Complete. Moulded 'fleur-de-lis' handle. Compare to one at Colchester (Crummy 1983, fig. 142, no. 4161) and at Gestingthorpe (Draper 1985, fig. 18, no. 140). Both these parallels do not have the spiral moulding on the top knob, the two flanking knobs and central keyhole-shaped aperture that this example has. SF Ae235 Field 3.
- 305. Complete. Moulded 'fleur-de-lis' key handle. Circular socket at base. SF Ae11, Area I, Layer AJ, Phase C.

XII. Objects associated with agriculture, horticulture and animal husbandry (Fig. 96)

The objects in this category have been classified by Rees' (1979) typologies of agricultural implements.

Antler rake

- 306. Two tines, one missing the tip, the other largely missing. Remaining antler sawn off. Square hafting hole. Worn near tip of surviving tine. Rees Type II (Rees 1979, 315). SF B13, Area I, Pit 69 FS, Phase D.

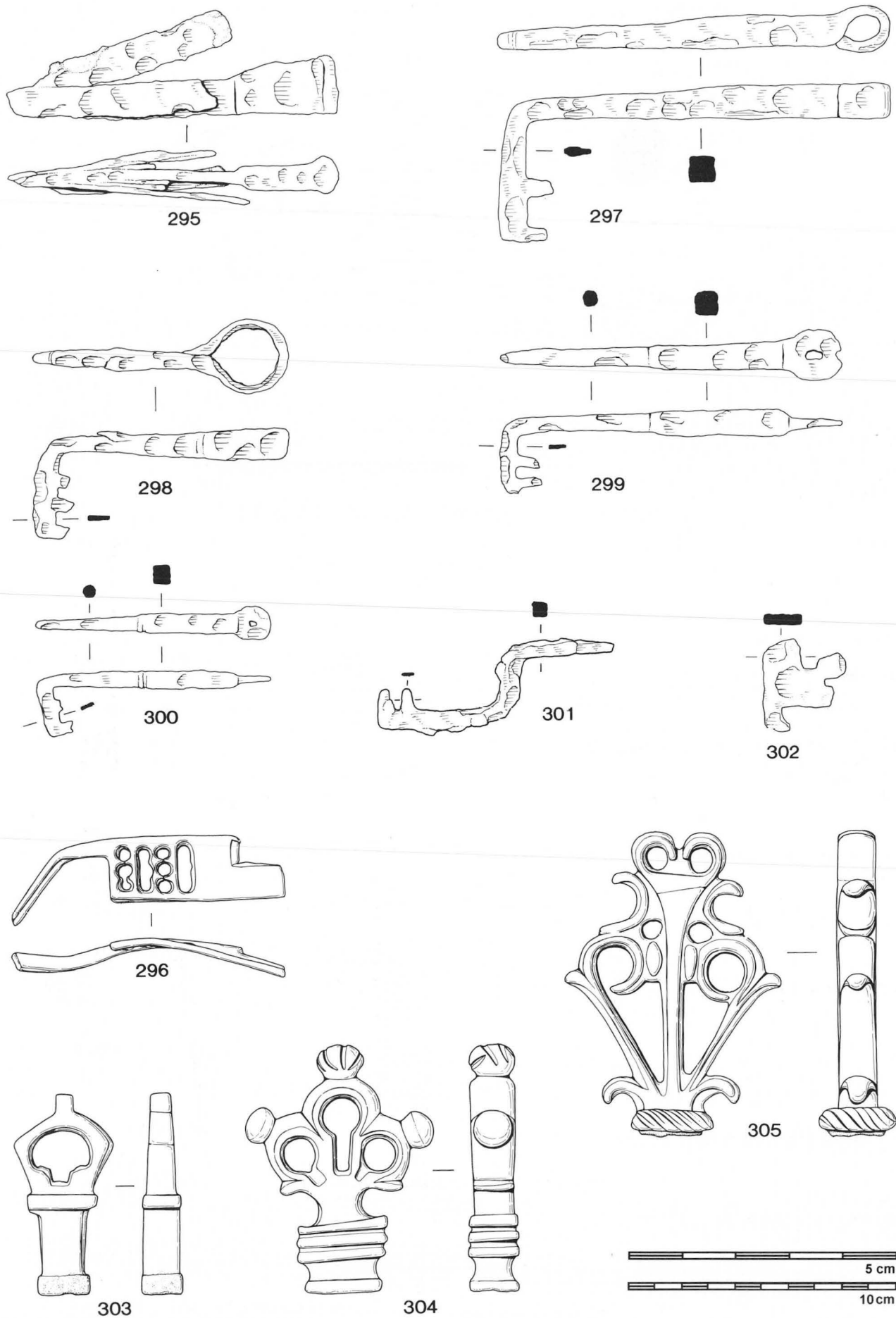


Figure 95 Fastenings and fittings. Scale 1:2 except 296, 303, 304, 305 at 1:1

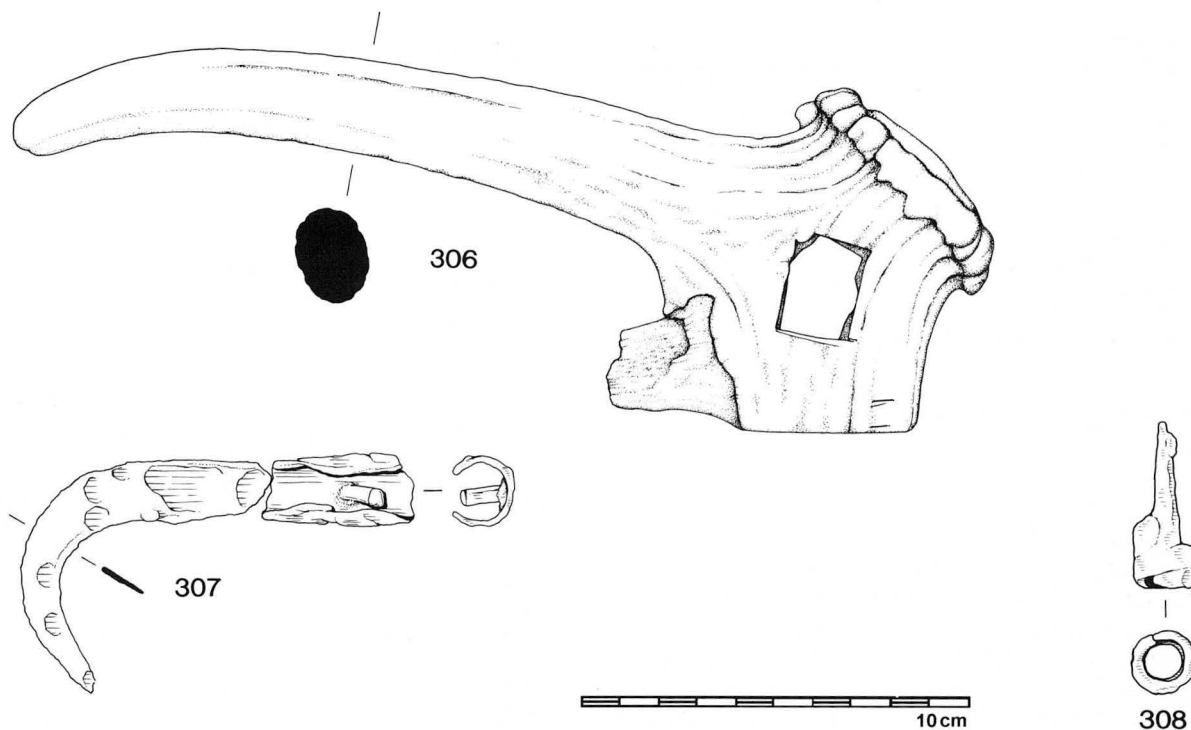


Figure 96 Objects associated with agriculture. Scale 1:2

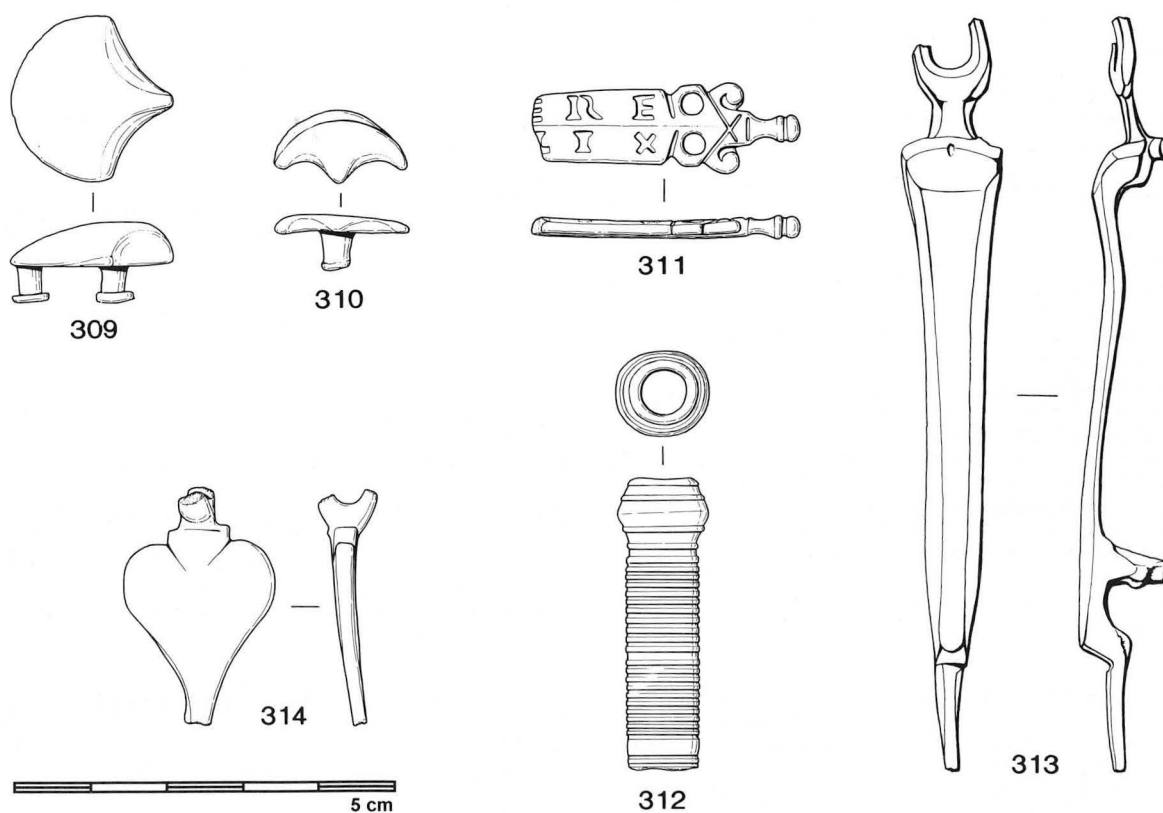


Figure 97 Military equipment. Scale 1:1

Iron reaping hook

307. Complete? Broken. Socketed hooked iron blade. Socket pierced with nail still in position. Similar to examples at Verulamium (Manning 1984, fig. 37, nos 14–15). This is a Rees Type 16, the most common reaping hook (Rees 1979, 452). SF Fe183, Area I, Pit 70 NAH, Phase C.

Iron ox-goad

308. Complete. Rectangular-section rod coiled twice to form loop and terminating in a spike. Similar to examples at Verulamium (Manning 1972, fig. 62, no. 21 and Manning 1984, fig. 38, nos 17–18). Rees Type 1 (Rees 1979, 76). SF 2618, Area IV, Layer (1).

XIII. Military equipment

(Figs 97–98)

The military equipment category includes iron spearheads which could equally have been used for hunting. The small group of copper-alloy objects are mostly 2nd- or 3rd-century types and are broadly scattered across the site.

At a late stage it was realised that certain other pieces could be included in this category — see also copper-alloy mounts Nos 266–268 and 270 and copper-alloy strap end No. 370. This effectively doubles the number of military copper-alloy fittings.

Copper-alloy fittings

Fig. 97

309. Complete. Debased peltate form. Has two riveted projections on back. Similar to a larger example at Colchester (Crummy 1992, fig. 5.58, 1697). SF 2559, Field 1.
310. Complete. Debased peltate form. Has one riveted projection on back. SF 2510, Field 1.
311. Incomplete. Strap or belt fitting. One side only is decorated. Has two small holes at one end before a bead-and-reel terminal. Triangular section. The holes show no sign of wear so may have been decorative rather than functional
- Mark Hassall writes:* The inscription is incomplete, readingERE /...LIX. The complete inscription would be VTERE FELIX 'Good luck to the user'. Three other examples have been published, one at Chester and two at South Shields (Tomlin and Frere (eds) 1991, 2429, 13–15). This is the opposite end from those that have so far been published. The other examples have red and green enamel in the letters. (Hassall and Tomlin 1995, 383–384). SF 2549, Field 1.
312. Complete. Cylindrical with regular transverse grooves and an expanded terminal at one end. Compare to a similar object at Colchester which has two expanded terminals (Crummy 1992, fig. 6.47, no. 516) and at Wroxeter (Bushe-Fox 1913, pl. 21, fig. 2, no. 7). The most recent discussion of the function of these objects is from York (Cool *et al.* 1995, 1536–7) where it is pointed out that they are generally found in military contexts and suggested that they may have been plume holders. The dating for most examples cited by Cool is 2nd-century, although the York example was from a 3rd or early 4th-century context. SF Ae239, Field 3.

Copper-alloy scabbard slide

Fig. 97

313. Incomplete. A broken loop at top. Has two projections for attachment to scabbard. SF 2576, Field 2.

Copper-alloy pendant

Fig. 97

314. Incomplete. Terminal missing and broken loop. Plain stylised leaf shape. Has two incised lines at top to further emphasise shape. Comparable to examples at Verulamium (Goodburn 1984, fig. 12, nos 88–91) and elsewhere (Oldenstein 1976, Taf. 34, 260–267). SF 2551, Field 1.

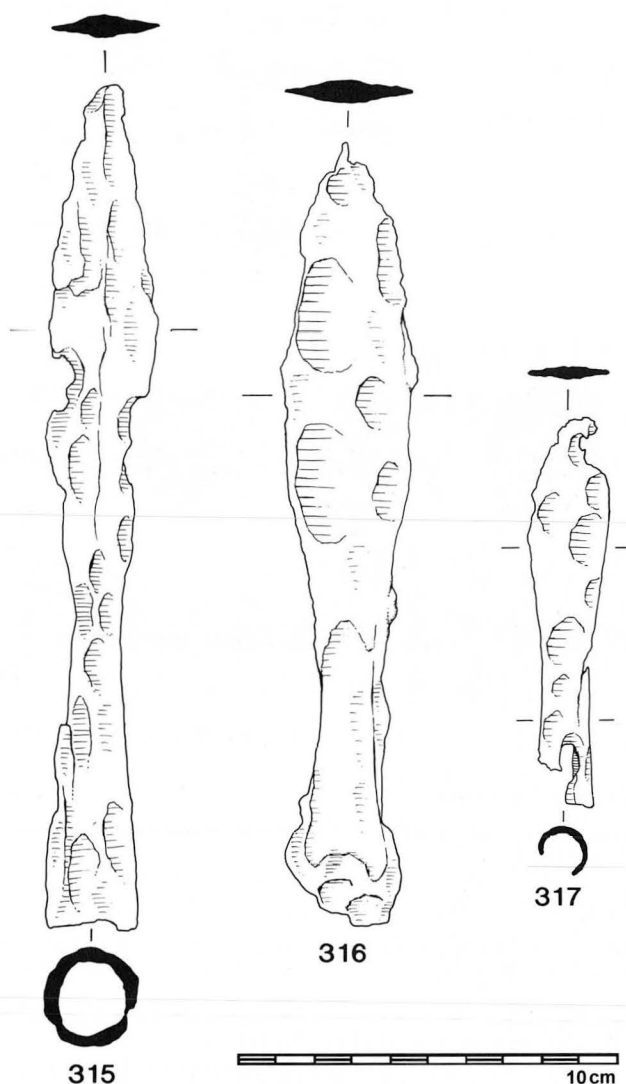


Figure 98 Military equipment. Scale 1:2

Iron spearheads

Fig. 98

315. Complete? Long slender blade. Narrow lozenge-shaped section blade. SF Fe36, Area II, Layer MK, Unphased.
316. Complete? Compare to a spearhead at Baldock, which it is suggested is a lancehead (Manning and Scott 1986, fig. 64, no. 445). Narrow lozenge-shaped section blade. SF Fe172, Area I, Road CN, Phase D.
317. Incomplete. Damaged. Narrow lozenge-shaped section blade. SF Fe201, Area I, Pit 1 BA, Phase C.

XIV. Objects associated with religious beliefs and practices

(Fig. 99)

Copper-alloy model axe

318. Complete. Short handle and long blade. Handle has bulbous terminal. SF Ae238, Field 3.

Copper-alloy figurine head

319. Incomplete. Female head. Broken at neck. Wide face, simple features. Details on hair possibly represent braids, finished in a bun at the back of the head. The neck is too wide and the head too heavy to be from a hairpin. It is probably from a small figurine. SF 2548, Field 1.

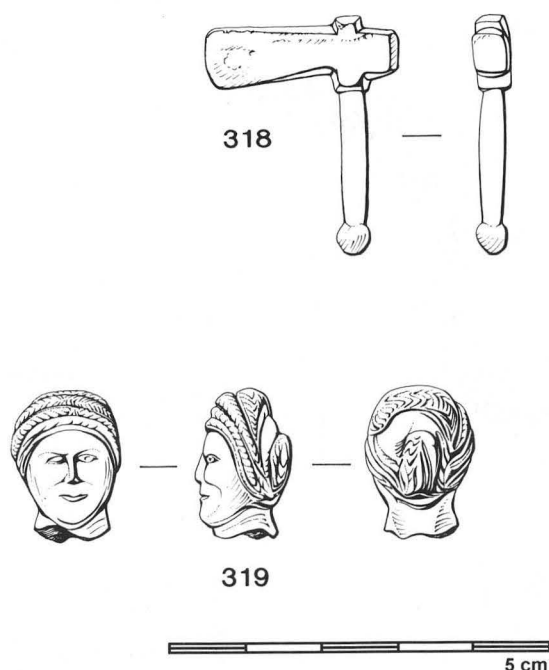


Figure 99 Religious objects. Scale 1:1

Pipeclay statuette

by Frank Jenkins (from a note written in the early 1970s)
(Fig. 100, Plate XIII)

The author was indebted to Miss Elizabeth Owles of Ipswich Museum who sent the statuette for his examination and to Mr Gerald Dring for sending the Bedford statuette and the information concerning its dating to him for examination.

320. Pipeclay statuette of Apollo. Although the statuette now lacks the face and the legs are broken off just below the knees it is complete enough for it to be identified as a provincial copy of the Classical art-type of *Apollo Citharoedos*. The god stands erect with a five-stringed lyre by his left hip and he holds a large plectrum in his right hand as if either preparing to play the instrument or resting after a performance. A *patera* is held in his left hand so that it rests on the top of the lyre.

A *toga* draped over the left shoulder is supported on the arm to lie diagonally across the front of the body to conceal the genitals region, and is wrapped round the right hip to cover the buttocks. The left leg is bare from the hip down and the right leg is bare below the knee. The hairstyle is very effeminate as is usual with the classical art-type of Apollo, and also closely resembles that affected by numerous pipeclay statuettes of Venus. The hair is combed upwards and is tied in a knot above the forehead, and arranged in a tight roll encircling the back of the head and secured in a small neat bun at the nape of the neck, above which is a vertical medial parting. Wayward tresses fall over the shoulders.

The clay is very fine, well fired and creamy white in colour as is usually the case with the Central Gaulish fabrics. The statuette differs in minor details but otherwise closely resembles in the style and pose a clay statuette of Apollo found at Bedford in a 2nd-century context. Other close parallels have been found at Pupillin (Jura) (Rouvier- Jeanlin 1972, 221, no. 530, inv. no. 32909) and at Autun (Saone-et-Loire) (Vertet and Vuillemot 1971–1974). The latter in view of its style has been attributed as the work of Pistillus, a well known modeller of clay statuettes who seems to have had his *officina* at Autun where his signed products and moulds have been found in quantity. He seems to have worked there in the 2nd century, which does not conflict with the Hacheston and Bedford dating evidence. It is fairly certain that the Hacheston statuette and that from Bedford are products of the Central Gaulish clay statuette industry, and may well have been made at Autun or at some other allied *officinae* situated in the Allier district, and arrived in Britain as imports in the second half of the 2nd century. Found by M.J. Campen in 1970 in Field 5. Now in Framlingham Museum.



Plate XIII Pipeclay figurine of Apollo, No. 320

XV. Objects associated with metalworking

Non-ferrous metalworking debris

by Justine Bayley

This group of finds provides evidence for small-scale working of non-ferrous metals. The pattern (324) shows moulds for rings could have been made and so presumably rings were being cast, most probably in copper alloy. Lead or tin-lead alloy patterns are known from a number of other Roman sites in Britain (Bayley and Branigan 1989). These are most commonly for brooches, but a ring from Silchester (of late 2nd or 3rd-century type) made of 'lead' has been noted by Cool (1983).

The copper-alloy sprues and runner fragment, being of a variety of sizes, shapes and alloys, suggest the casting of a range of different types of small objects. Sprues are not uncommon finds though most of them would have been recycled, the metal being melted down and re-used in antiquity.

The tin-lead alloy (pewter) ?sprue (322) is a more unusual find. It suggests the production of relatively small pewter objects such as spoons. It is unlikely to date before

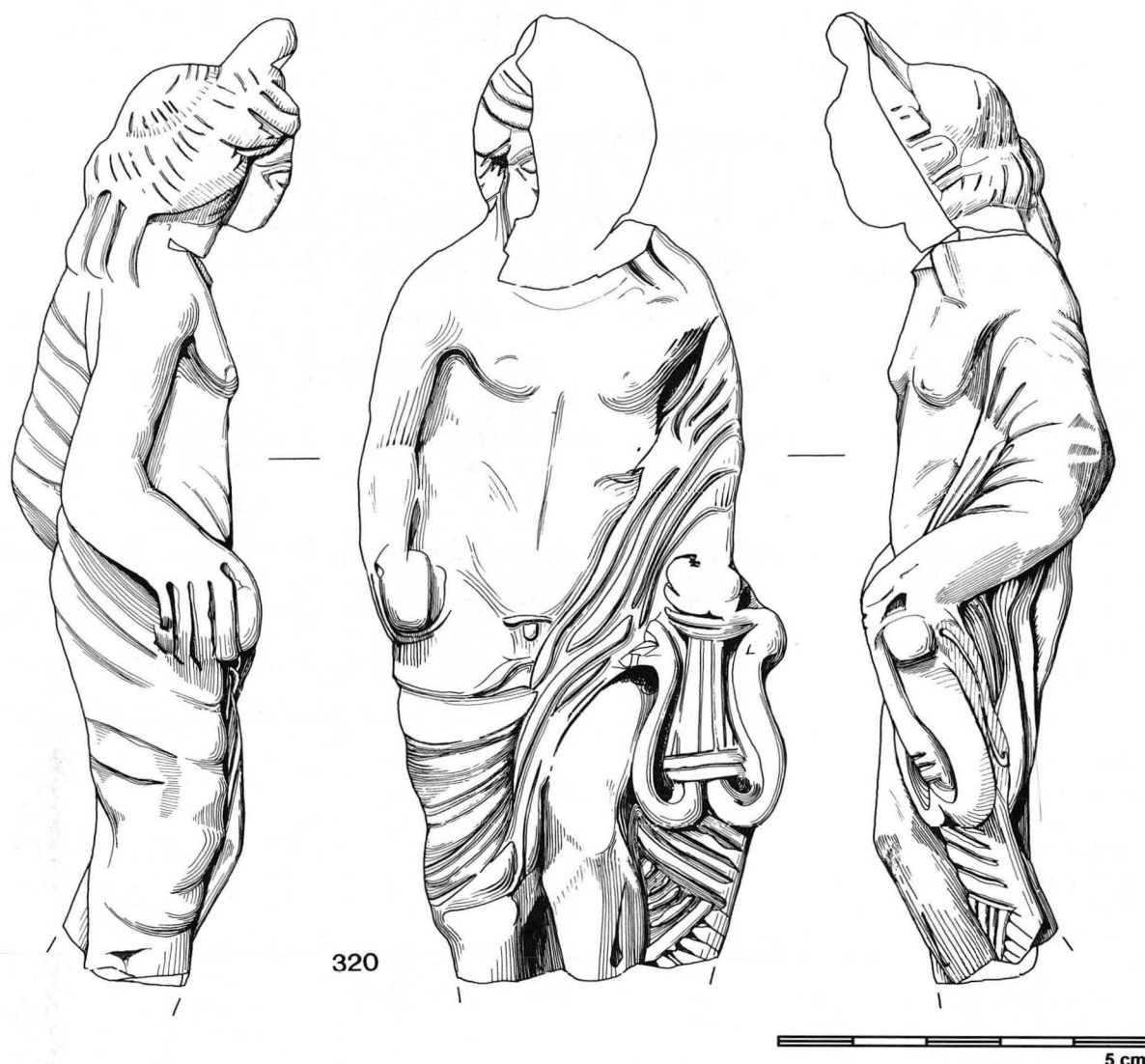


Figure 100 Religious object — pipeclay figurine. Scale 1:1

the 3rd or 4th century as pewter was not widely produced earlier than this.

Casting sprues

321. (*Not illustrated*) Part of the runner system from a casting. The sprue has been removed by sawing and one of the other two ends has been broken off. The metal is leaded copper; unusually for Roman copper alloys, neither tin nor zinc were detectable. SF Ae111, Area I, Layer CO, Phase C.
322. (*Not illustrated*) Probably a sprue with part of object or runner attached; the fragment has a recent break at the narrower end. Tin-lead alloy. SF 2124, Field 1.
323. (*Not illustrated*) Four casting sprues. The first three show the typical irregular frozen upper surface:
- 1) Sprue with two runners, probably formed in a piece mould as slight casting flashes are visible on the runners. The casting(s) were separated from the runners by cutting them with a chisel. Lightly leaded bronze.
 - 2) Sprue with single runner of sub-rectangular section. Bronze.
 - 3) Sprue with single runner of circular section which has equal V-section depressions on either side suggesting it was cut using pincers or swages. Leaded bronze.
 - 4) Possible sprue; if so the ovoid depressions in the top surface are secondary. Lightly leaded bronze.
- SF 2580 Field 1.

Pattern (Fig. 101)

324. Pattern for making a clay piece mould for a shouldered ring. The runner is part of the object. The pattern is made of a tin-lead alloy. The ring would have been a type with intaglio or other setting with hunched shoulders, similar to an example from Wittering, Cambs, illustrated in Johns 1996 (fig. 3.10). SF 2615, Field 1.

Crucible

325. (*Not illustrated*) Crucible rim fragment. Thickness about 8mm with vitrified surfaces. SF 1404, Area IV, Ditch 44, Phase I.

Examination of slag and other ferrous metalworking debris

by David Starley
(Tables 19–21)

The assemblage examined totaled 80kg. Only 10kg of this derived from the 1973 season, which had excavated a total area of 3600m². It was uncertain whether material from this season represented only a sample, or the total of the slag recovered. However, it was thought unlikely that large quantities were present. Although the amount of this material is small, in comparison with what might be expected from anything other than very short term activity,

<i>Area</i>	<i>Context</i>	<i>Weight (g)</i>	<i>Interpretation</i>	<i>Comments</i>
I	Pit 41 (JP)	320	smithing hearth bottom	130x95x40mm
	Pit 49 (LJ)	100	fuel ash slag	
		300		
		245	smithing hearth bottom	110x90x30mm
		155	smithing hearth bottom	80x70x30mm
III		90	smithing hearth bottom	80x40x20mm
		310	vitrified hearth/furnace lining	
	Ditch F3 (AAK)	500	ironworking slag	
	Hearth F4 (AAD)	290	ironworking slag	
	(AAH)	70	smithing hearth bottom	70x50x20mm
		250	vitrified hearth/furnace lining	
	Scoop over F4 (AAZ)	160	ironworking slag	
		90	iron-rich cinder	
		410	vitrified hearth/furnace lining	
	Trench F6 (AAG)	60	iron-rich cinder	
		1275	vitrified hearth/furnace lining	
	Pit F64 (AAN)	450	cinder	
		75	Fe object: hammer scale	flake & spheroidal
		1130	ironworking slag	
		70	smithing hearth bottom	70x50x20mm
		70	smithing hearth bottom	70x60x20mm
		540	smithing hearth bottom	110x90x40mm
		210	iron-rich cinder	
		3040	vitrified hearth/furnace lining	
IV	Layer (1) from grid squares B3, C0 to C5	2810	ironworking slag	
		340	dense ironworking slag	
		230	cinder	
		60	iron-rich cinder	
		660	vitrified hearth/furnace lining	
	Ditch 13	170	ironworking slag	
		10	cinder	
	Pit 36	700	ironworking slag	
		250	iron-rich cinder	
		450	dense ironworking slag	no vesicles
		1050	vitrified hearth/furnace lining	
	Pit 39	170	ironworking slag	
		30	burnt clay/daub	
	Pit 46	210	smithing hearth bottom	90x60x35mm
	Pit 72	145	ironworking slag	
	Pit 75	320	cinder	
		120	ironworking slag	
	Pit 89	70	ironworking slag	
IX	Layer (1)	1370	vitrified hearth/furnace lining	
		200	cinder	
		530	ironworking slag	
	Layer (3)	16635	ironworking slag	
		3830	dense ironworking slag	
		150	fuel ash slag	
		7530	cinder	
		2440	iron-rich cinder	
		1340	Fe objects (7)	
		30	possible ore	blood red streak
			hammer scale	v. little, flake & spheroidal
		15990	vitrified hearth/furnace lining	
		600	smithing hearth bottom	120x90x60mm
		490	smithing hearth bottom	120x110x45mm
		210	smithing hearth bottom	80x75x30mm
		100	smithing hearth bottom	60x60x25mm
		225	smithing hearth bottom	90x60x30mm
		330	smithing hearth bottom	100x90x35mm
		140	smithing hearth bottom	70x70x30mm
	Hearth 4	450	cinder	
		360	ironworking slag	
		220	tap slag?	not ropy, but liquified
		475	vitrified hearth/furnace lining	
	Pit 6	370	cinder	
		120	ironworking slag	
		760	vitrified hearth/furnace lining	
	Pit 7	3970	cinder	
		4100	ironworking slag	low vesicularity, quartz? inclusions
		10150	ironworking slag	
		30	iron-rich cinder	
		5040	vitrified hearth/furnace lining	
		450	smithing hearth bottom	90x80x40mm
		1030	smithing hearth bottom	160x130x50mm
		510	smithing hearth bottom	120x90x40mm
		100	smithing hearth bottom	70x60x15mm

Table 19 Summary of metalworking debris

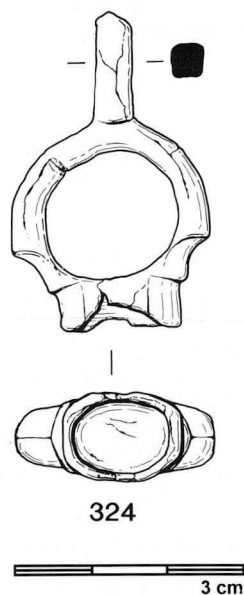


Figure 101 Object associated with metalworking.
Scale 1:1

its context is of interest. Most of it derives from a pit (F64 AAN) in Area III which may have been associated with a burnt clay hearth structure (F4).

The remaining 70kg of material came from the more limited 1974 excavations which opened a total area of 900m². All slag had been saved from these trenches, with the greatest quantities coming from Area IX, where again there were traces of hearth-like features.

All slag from the major contexts was examined visually, classified to type and weighed separately. The results of the examination are in Table 19 with total weights of each category in Table 20.

The largest category of material in the assemblage was that identified as *undiagnostic ironworking slag*. This material is of largely fayalitic (iron silicate) composition, is relatively dense having low to medium vesicularity and of amorphous blocky form. However, as similar material can originate from either iron smithing (hot working) or iron smelting (extraction of metal from ore) it cannot help to distinguish the metalworking activity on site.

Diagnostic material was found as *smithing hearth bottoms*. These are recognisable by their characteristic plano-convex form, having a rough underside and a smoother, vitrified upper surface often hollowed as a result of downwards pressure from the air blast of the tuyère.

slag type	total weight (kg)
undiagnostic ironworking slag	38.7
vitrified hearth/furnace lining	31.3
cinder	13.6
smithing hearth bottoms	6.0
dense ironworking slag	4.4
iron-rich cinder	3.2
iron objects	1.4
ferruginous concretions	0.35
fuel ash slag	0.25
possible tap slag	0.22
burnt stone	0.05
stone, possible ore	0.03
<i>total</i>	79.81

Table 20 Slag weight totals

Compositionally, hearth bottoms are also largely fayalitic and result from high temperature reactions between the iron, iron scale and silica from either the sand used as flux or from the hearth lining. It has previously been noted (J.G. McDonnell, pers. comm.) that Roman smithing slags are generally of a light and siliceous nature. By comparison, those from Hacheston are relatively dense and well consolidated. This may reflect the type of smithing carried out, with the use of higher temperatures to facilitate fire-welding rather than lower temperature shaping operations. The dimensions of the smithing hearth bottoms show a typical spread.

	range	mean	std dev
weight (g)	70–1030	600	200
length (mm)	60–160	95	25
width (mm)	40–130	75	20
depth (mm)	15–100	35	20

Table 21 Smithing hearth bottom dimensions

Further evidence for the smithing of iron was provided by small amounts of *hammerscale* which had been retained in the soil adhering to the slag fragments. These micro-slugs conformed to two types. The first, flake hammer scale, consists of fish scale like fragments of the oxide/silicate skin of the iron dislodged during hot working. Spheroidal hammer scale results from the solidification of small droplets of liquid slag expelled during working, particularly when two components are welded together.

Evidence from iron smelting was tenuous; a single piece of highly vitrified fayalitic slag (*possible tap slag*) and a fragment of iron-rich rock (*stone, possible ore*) which could have provided a viable ore. If these do derive from a process of producing iron from its ore then the very limited quantities suggest that the centre of this activity was outside the region excavated.

Another large component of the assemblage was the *vitrified hearth/furnace lining* which again may derive from either iron smelting or smithing structures. The material forms as a result of a high temperature reaction between the clay lining of the hearth/furnace and the alkali fuel ashes or fayalitic slag. The material may show a compositional gradient from unmodified clay on one surface to an irregular cindery material on the other. An associated material, classed as *cinder*, comprises only the lighter portion of this, a porous, hard and brittle slag formed as a result of high temperature reactions between the alkali fuel ashes and either fragments of clay which had spalled away from the hearth/furnace lining or another source of silica, such as the sand used as a flux during smithing. *Iron-rich cinder* is a similar material but contains a significant iron content, making it denser.

Much smaller amounts of material were classified as *fuel ash slag*, a very lightweight, light coloured (grey-brown), highly porous material which results from the reaction between alkaline fuel ash and silicates from soil, sand or clay at elevated temperatures. The reaction is shared by many pyrotechnological processes and the slag is not diagnostic.

Conclusions

The metalworking slag assemblage contained a variety of ironworking debris. Of the diagnostic slags, those associated with ironsmithing, i.e. hot working of iron greatly predominated and it is therefore likely that the undiagnostic slags also derived from smithing rather than smelting activities. The scale of iron production is not easily deduced from the volume of slag. The amount recovered from Hacheston would certainly indicate more than itinerant working. However, for such a large excavation bordering a substantial settlement, the total volume of slag recovered is not unusually large. Although the evidence is not conclusive it is likely that the concentrations of slag in Areas III and IX do relate to burnt clay features.

XVI. Objects associated with antler working

326. (*Not illustrated*) Offcut. Length 24mm. Antler has been sawn on both sides. SF B45, Area I, Layer AJ, Phase C.

XVII. Objects of unknown or uncertain function or identification

(Figs 102–106)

Rings

Fig. 102

327. Copper-alloy. Complete. SF Ae47, Area II, Clearance OX, Modern.
328. Copper-alloy. Complete. Rectangular section. SF Ae115, Area I, Pit 54 CQ, Phase C.
329. Copper-alloy. Complete. Corroded. Circular section. SF Ae176, Area I, Pit 1 BA, Phase C.
330. Iron. Complete. Formed from a rectangular-sectioned rod. SF Fe177, Area I, Layer HJ, mixed.
331. Iron. Complete. Rectangular-section. SF Fe188, Area II, Pit UE (excavated 1974).

Copper-alloy chains

332. Nine links of double loop-in loop, broken into two pieces. Rectangular section wire. Links show signs of wear. Parallel at Verulamium (Vaughan and Goodburn 1972, fig. 36, nos 77a–79). SF Ae126, Area I N, Pit 77 MAN (clearance) (Building II), Phase A.
333. Fragment. S-shaped link attached to folded loop. Both have rectangular sections. SF Ae160, Area II, Ditch F35 UD, Phase D.

Iron hook

334. Complete? Broken in two pieces. Narrow strip curled over to form hook. Hook terminates in a simple scroll. Other end narrows to a small suspension eye. SF Fe219, Area II Pit UF, (excavated 1974).

Bone pegs

335. Complete. Plain. SF B26, Area I, Pit 1 AO, Phase C.
336. Incomplete. Top half only. Plain. SF B24, Area I, Pit 69 FS, Phase D.
337. Complete. Plain. Highly polished. SF B23, Area I, Pit 69 FS, Phase D.
338. Complete. Plain. SF B27, Area I, Pit 1 AO, Phase C.
339. Incomplete. Top half only. Plain. SF 1559, Area IV, Pit 109, Phase II.

Miscellaneous bone and antler

Fig. 103

340. Complete. Narrow cylindrical head. Possibly a peg or hairpin. Around narrow head are raised nodules. These may have keyed into another object or component. SF 1272, Area IV, Layer (1) over Ditch 52.
341. Complete. Cylindrical object with diagonally cut ends. Decoration of cross-hatching and transverse grooves at each end. Made from metatarsal of roe deer. Shorter side has been polished by use. Handle? SF B7, Area I, Layer BF, Phase D.
342. Incomplete. Split. Cylindrical object. Has wide transverse groove 3–4mm from each end. Evidence of wear on outside and inside but also along break. Handle? SF B8, Area I, Layer DA, Phase A.
343. Antler. Fragment. Turned and grooved. Circular section. Handle? SF M6, Area IV, Layer (1) Grid Sq B9.
344. Complete. D-shaped section disc. Well-finished except for crude irregular hole in middle. Similar to a hand-guard, perhaps from a knife. SF 1271, Area IV, Layer (1) over Ditch 52.
345. Antler. Complete? Slightly curving shape. Open at one end only, where there is evidence of it being worked. SF B17, Area I, Pit 3 BH.
346. Incomplete. Disc with central hole. Turned rim on a metatarsal end with two narrow circular grooves. SF 1278, Area IV, Layer (1).
347. Complete. Damaged. Spindle whorl made on head of a bos femur. Surface of bone is damaged. SF B1, Area I, Layer AC, Phase D.
348. Fragment of rib with 4 transverse cut marks. Tally? SF 1345, Area IV, Pit 75, Phase III.
349. Roughly shaped shaft. Swells at one end before coming to a point. Green stain at point. Unfinished? SF B12, Area I, Pit 33 HQ, Phase D.

Decorative copper-alloy terminals

(Fig. 104)

These terminals may be from box or furniture fittings, possibly even hairpins. All have bead-and-reel mouldings.

350. Flat head. SF 1658.
351. Conical head. Remains of iron shaft. SF Ae271, Field 2.
352. Rounded head. Short shaft. SF 2526, Field 1.
353. Similar to 352 but smaller. SF Ae304, Field 2.

Miscellaneous copper-alloy

354. Complete. Plain ring with a loop on one side. One side of the ring is very worn. Rectangular section. Strap or harness fitting? SF Ae94, Area I N, Pit 19 GN, Phase B.
355. Complete. Toggle-shaped. Damaged. Spool-and-bead decoration. Possible bead? Beads of a similar design are found in jet, for example at Colchester (Crummey 1983, fig. 37, no. 1507). SF Ae25, Area I, Layer AJ, Phase C.
356. (*Not illustrated*). Incomplete? Length 258mm. Bent. Rod. Tapers to a point at one end and broken at other. Circular section. SF Ae46, Area I, Layer AA, Phase D.
357. Complete. Rod curved to form loop. Circular section. SF Ae23, Area I, Layer AH, Phase D.
358. Complete. Curved strip of metal. Binding? SF Ae48, Area I, Layer BF, Phase D.
359. Complete? Bent. Rod with flattened splayed terminals with traces of lightly incised cross hatching. SF Ae202, Area I, Layer HJ, mixed.
360. Complete. Crude disc with square hole in centre. Washer? SF Ae150, Area I, Pit 70 NAH, Phase C.
361. Fragment. Decorated rod with two circular holes. One side is decorated with 2 incised grooves and a central row of notches which creates beading. One end is smoothed over. Furniture inlay? SF Ae138, Area I N, Feature JO (Building I), Phase A.
362. Incomplete. Bulbous terminal. Circular section. SF 2565, Field 2.
363. Incomplete. Both ends damaged. Rectangular section rod with flattened end. Crudely made. Stylus? SF Ae155, Area I, Layer KZ, Phase D.
364. Decorative fragment depicting a dolphin. Eye, scales and tail are detailed on one face. Design is perforated. White metal on decorated face. SF Ae254, Area III.
365. Openwork object with five apertures. Has trilobate design around central hole. Traces of red enamel adhering to the inside surface suggest this is a terminal which fitted over an enamelled object. Stylistically 1st-century. SF 2574, Field 1.
366. Flat object. Decorated on only one side. Has no visible means of attachment. SF 2554, Field 1.
367. Bar with decorated bulbous terminals. Decorated on only one side. Has no visible means of attachment SF Ae236, Field 3.
368. Fragment. Curved piece of decorated metal. Punched decoration consists of three lines of notches, creating four panels. The two outer panels have continuous lines of half-moons which are further decorated by dots where they join. The two central panels have a free flowing design of dots and curved grooves. Armlet? SF 2245, Field 1.
369. Fragment. Rectangular piece of decorated sheet metal. Punched dot decoration. SF 2534, Field 2.
370. Complete. Object with a circular hole in the middle, square hole at one end and a rod at the other. Tinned. Identifiable as an auxiliary military strap end (Oldenstein 1976, Taf. 37, 340), 'Germanic' type. SF 2357, Field 1.

Fig. 105

371. Rectangular object. One side has a central depression with remains of ?enamel and tinned border. Other side has triangular notches — possibly to key in enamel? SF 2528, Field 1.
372. Complete. Two triangular pieces of metal with rivet holes. One has a rounded terminal, the other is broken. The two fragments were originally joined at the widest end. SF Ae50, Area II, Layer PH (clearance).
373. Incomplete. Object with square terminal. Has three non-aligned circular depressions and part of a hole at the broken end. SF Ae59, Area II, Layer PH (clearance).
374. Two objects, crude bolts. Square sectioned shafts and rectangular heads. SF Ae197, Area II, Ditch F35 UD, Phase D.
375. Fragment. Semi-circular with additional knob. Flat. One side is worn and heavily scored. Has two straight lines on one side. SF Ae314, Field 2.
376. Incomplete. Curved rod terminating in a bulbous knob. Rod narrows towards break. Has two cordons below knob. SF 2610, Field 1.

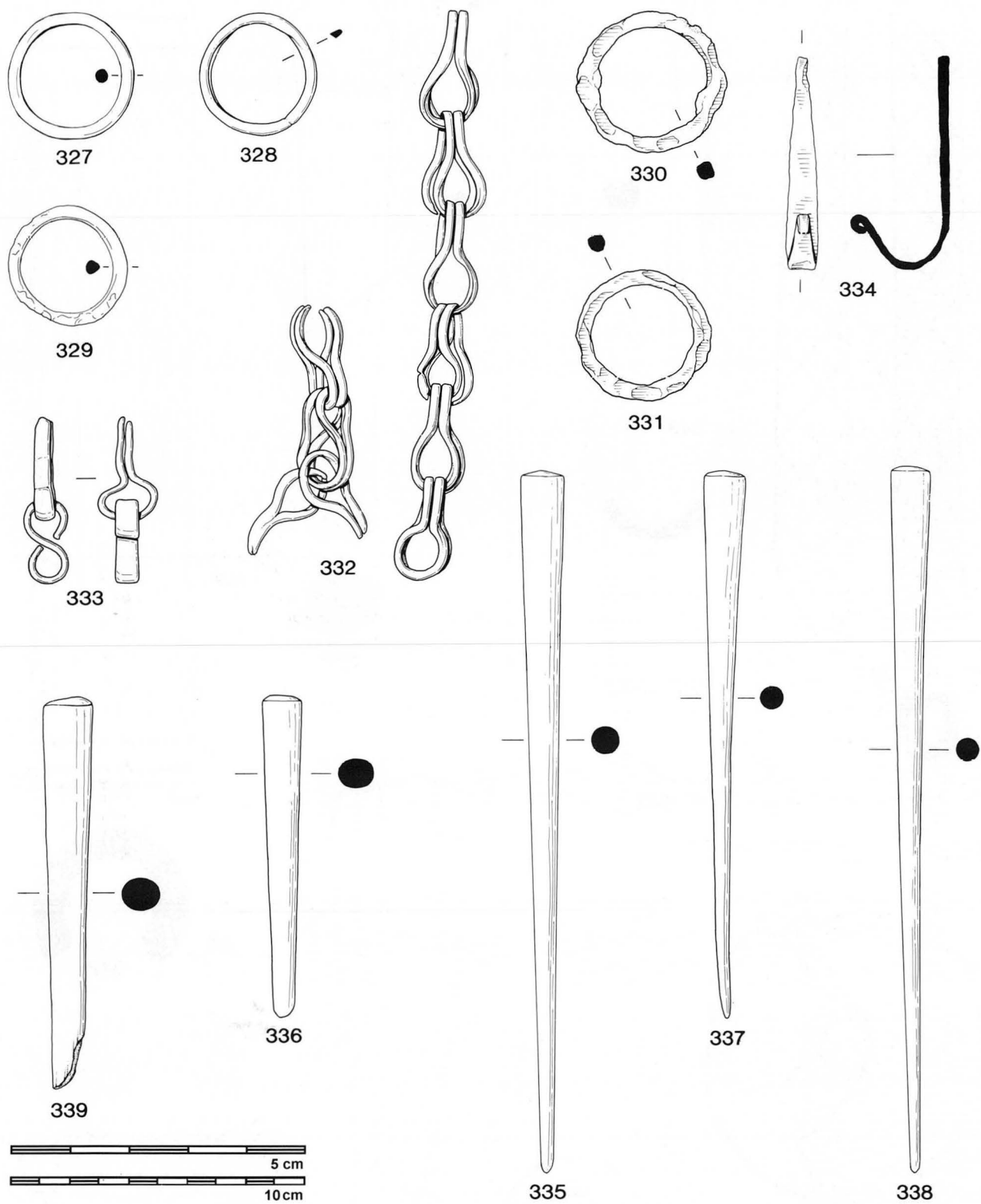


Figure 102 Objects of unknown or uncertain function. Scale 1:1 except 330, 331, 334 at 1:2

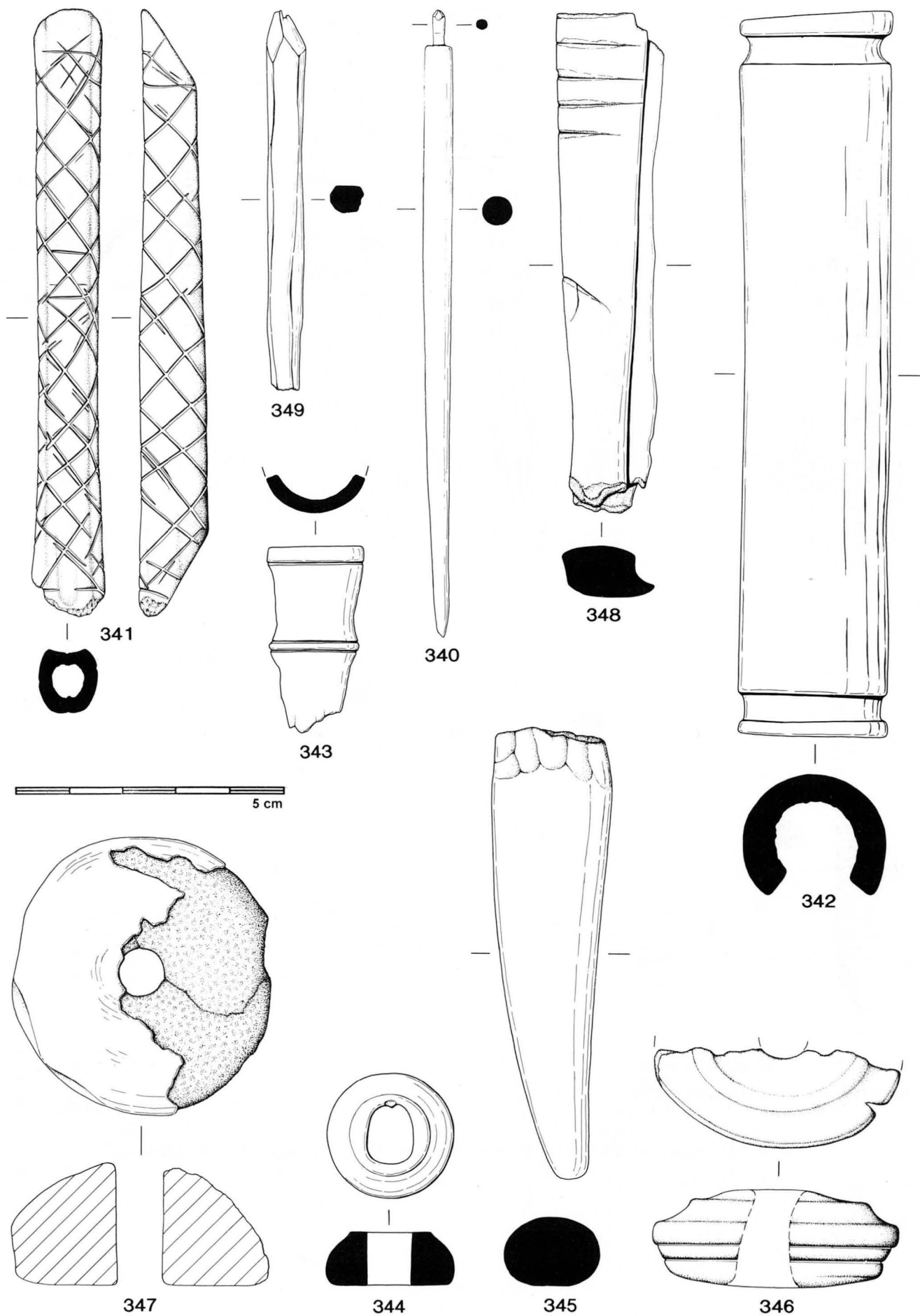


Figure 103 Objects of unknown or uncertain function. Scale 1:1

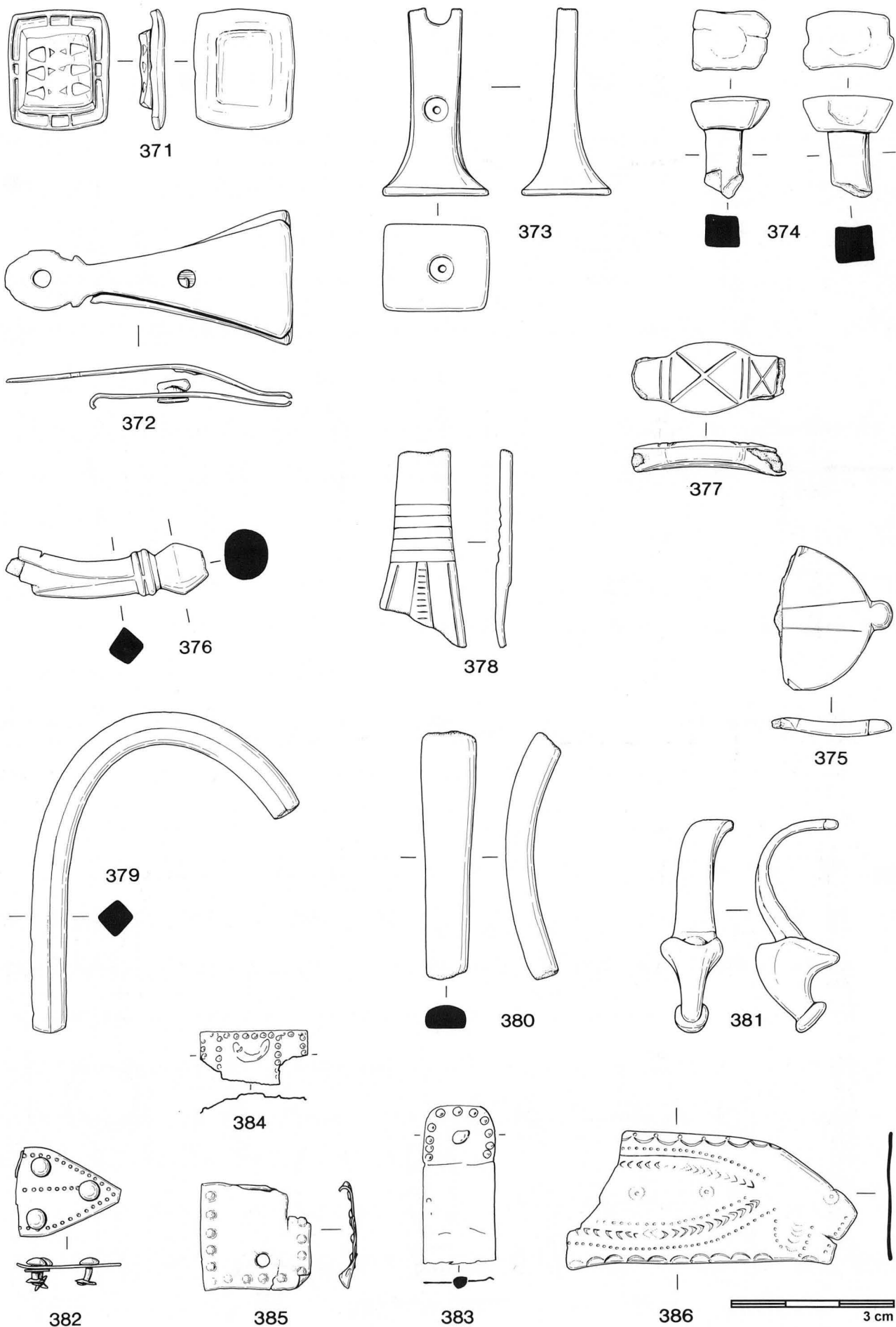


Figure 105 Objects of unknown or uncertain function. Scale 1:1

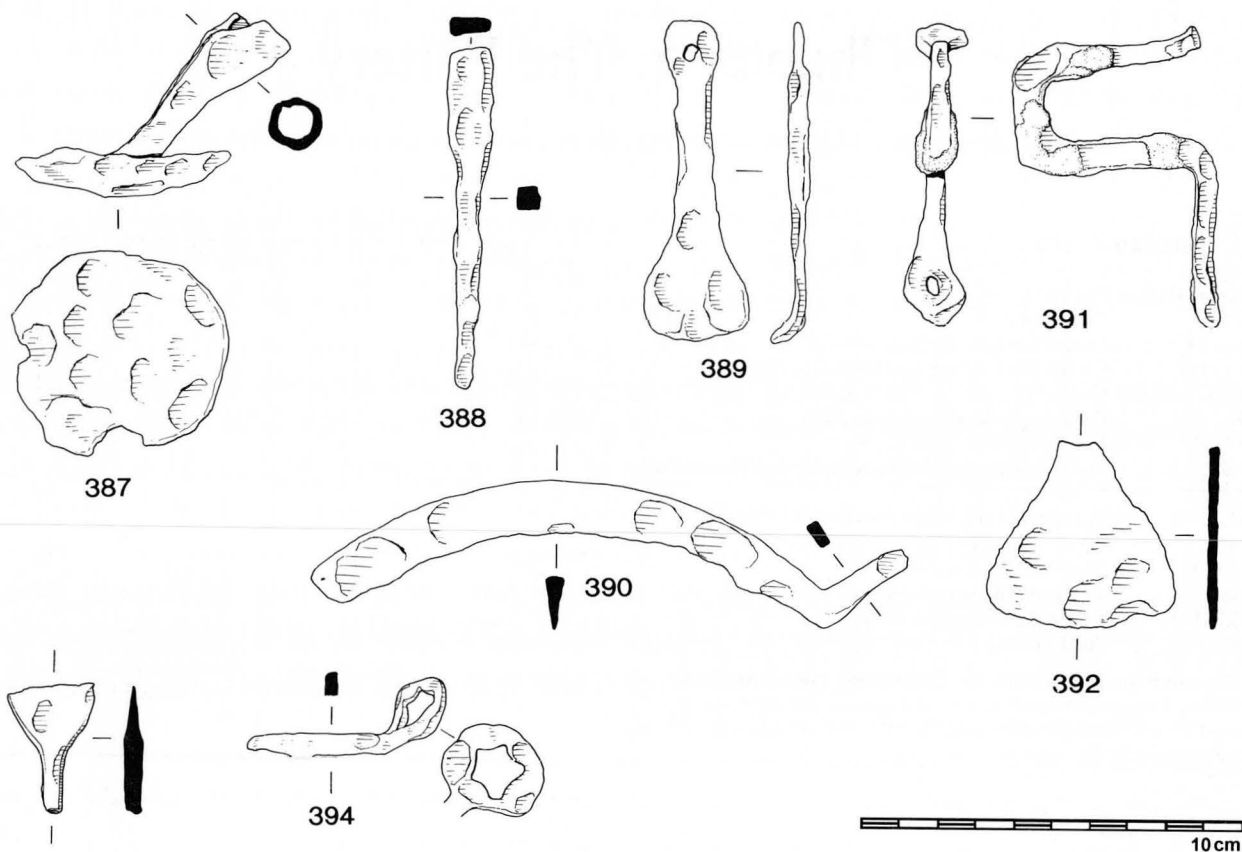


Figure 106 Objects of unknown or uncertain function. Scale 1:2

377. Fragment of decorated object. Decoration consists of transverse and diagonal grooves. Has larger panel in middle. Copper alloy covering iron core. SF 2552, Field 1.
378. Fragment. Decoration consists of transverse grooves, bordering grooves and a raised notched expanding panel. Similar to an armlet but the metal is too thick. SF 2609, Field 1.
379. Incomplete. Curved rod. Square section. SF Ae306, Field 2.
380. Fragment. Curved rod. Expands at one end. SF Ae272, Field 2.
381. Incomplete. Curved rectangular-section rod attached to moulded piece with disc terminal. SF Ae288, Field 2.

Copper-alloy sheet

382. Incomplete. Two pieces of sheet metal. The larger triangular piece of sheet metal is pierced by three rivets, and attached to the smaller piece. Decorated with punched dots. Strap end or buckle plate? SF 2567, Field 1.
383. Incomplete. Broken at one end. Rectangular-shaped piece of sheet metal with rounded end. Rounded end has a series of repoussé dots around the edge and also has remains of iron rivet. SF 2506, Field 1.
384. Incomplete. Sheet metal with repoussé decoration consisting of rows of dots. SF 2504.
385. Fragment. Rectangular-shaped piece of sheet metal. Bordering row of repoussé dots. One rivet hole. SF Ae310, Field 2.
386. Fragment. Broken at both ends. Bent. Rectangular strip. Punched decoration consisting of a bordering line of continuous half-moons. The central area has an oval panel surrounded by a row of small dots and a laurel wreath inside which are two incomplete ring-and-dots. Possibly originally curved like 368. SF Ae308, Field 2.

Miscellaneous iron

Fig. 106

387. Complete. Socketed mushroom-shaped object. SF Fe92, Area II, Trench F35 QA, Phase D.
388. Incomplete. One end broken. Square-sectioned shaft flattened to a rectangular blade. Tool? SF Fe141, Area III.
389. Complete? Narrow flat shaft widening to a large head/blade which is slightly curled over at the end. The other end of the shaft is expanded and pierced. Tool? SF Fe146, Area I, Layer AJ, Phase C.

390. Incomplete. Narrow blade with a deeply concave curve, broken end. At one end a small tapering tang radiates which is broken. The profile suggests this is a handle or a latch lifter but the inside edge is knife sharp. Possibly a sickle? Similar object at Gadebridge Park (Manning 1974, fig. 76, no. 591). SF Fe169, Area I N, MAM (clearance within ring ditch JD).
391. Incomplete. U-shaped object with arm which has an expanded and pierced terminal. Square-section. SF Fe182, Area I, Layer KZ, Phase D.
392. Incomplete. Flat triangular blade. Flat stem broken off at blade neck. SF Fe215, Area I, Layer HJ, Mixed.
393. Incomplete. Small U-shaped blade expanded from a slender circular-sectioned broken shaft. Blade appears too delicate to be a chisel and too large to be the eraser of a stylus. SF Fe223, Area II, Pit UF (excavated 1974).
394. Incomplete. Bent. Broken rectangular-sectioned stem with a large discoidal head which is pierced with a pentagonal eye. Possibly the head of a key? SF Fe225, Area I, Layer HJ, Mixed.

Miscellaneous stone objects

395. (Not illustrated). Unworked piece of amber, 32x26x21mm. Shows degree of surface degradation. Although unworked, it is included here as it would not have occurred naturally on site. SF A1, Area I Layer AE, Phase D

XVIII. Post-Roman objects

Objects of post-Roman date found in stratified contexts have been included in the catalogue under the appropriate category (button 86, bell 230). There is also a large collection of definitely post-Roman metalwork from the metal detecting of the roadworks spoil heaps, including copper-alloy items such as casket keys, buckles, rumbler bells, buttons and watch-winders. The earliest object in this group is a late Saxon strap end.

Chapter 5. The Pottery

I. Samian ware

Abbreviations and notes

CG	Central Gaulish
CG LZ	Central Gaulish from Lezoux
CG MV	Central Gaulish from Les Martres-de-Veyre
COL	Colchester
D.	Figure-types from Déchelette 1904
EG	East Gaulish
LRF.	Figure-types and motifs from Ricken and Fischer 1963
Ludo.	Ludowici
O.	Figure-types and motifs from Oswald 1936–7
ORL	Obergermanische-raetische Limes
Rogers	Motifs from Rogers 1974
S&S	Stanfield and Simpson 1958
S&S1990	Stanfield and Simpson 1990
SG	South Gaulish

The vessel forms classified by Dragendorff, Déchelette, Knorr and Walters form a continuous numerical sequence and are referred to by number only. Forms taken from the classifications of Ludowici and Curle are preceded by the author's name.

Introduction

by Cathy Tester

This report deals with the samian from the excavations carried out at Hacheston in 1973 and 1974 which was originally the subject of several reports by different authors. The 1973 samian was reported in three separate catalogues of stamped, decorated and plainware which consisted of identifications and descriptions but no overall discussion. The 1974 stamped, decorated and plain samian was described in one catalogue but was arranged in 'bag number' order which meant that sherds from one context could end up in several non-consecutive bags and the information would be split up in the catalogue. The original catalogue records from 1973 and 1974 have now been entered onto a single database to facilitate analysis of the information.

Neither group of samian was quantified by sherd count or weight, and no EVEs were measured. The unit of quantification used for this analysis is what is now known as a 'sherd family' based on my understanding that each catalogue record unless otherwise noted described a sherd or sherds from a *single vessel*. This 'vessel count' is used as the basis for comparisons in this report, the overall total being 578 vessels.

The samian evidence suggests activity on the site from the early Flavian period onwards. The quantity of 1st-century South Gaulish ware is small and the proportion of samian from the first half of the 2nd century is noticeably low. The greatest proportion is Central Gaulish from Lezoux and belongs to the Antonine period with more than half of the more closely datable pieces not earlier than c. 160. The moderate amount of East Gaulish ware extends the date range up to the early to mid 3rd century (Table 22).

Distribution across the site

The spatial distribution of the samian sherds across the excavated areas is shown by the Total column in Table 22. Nearly 50% of the samian comes from Area I, in the central

Source	SG	CG	EG	COL	EG/COL	Total	%
Area I	19	214	50			283	49.1
Area II	7	58	10			75	12.9
Area III	5	14	10	1		30	5.1
Area IV	18	115	15		6	154	26.6
Area VI		6	1			7	1.2
Area VIII		2	1			3	0.5
Area IX		6	4			10	1.7
Area X	2	4				6	1.1
Unknown		6	3	1		10	1.7
Total	51	425	94	2	6	578	
%	8.8	73.5	16.2	0.3	1.1		

Table 22 Quantities of samian ware fabrics in each Area

part of the settlement, in marked contrast to the 13% from Area II.

Sources

The sources of the samian are detailed in Table 22 with a breakdown by excavation Area. The overall predominance of Central Gaulish samian is shown — at 74% of the total, with South Gaulish and East Gaulish wares accounting for 9% and 16% respectively. This compares well with the 24kg recovered from the excavations at the Roman small town at Scole, Norfolk during 1993 and 1994 where South Gaulish ware accounts for 8%, Central Gaulish 75%, and East Gaulish 13% of the total weight.

South Gaul

Very little (9%, 51 vessels) of the Hacheston samian is of South Gaulish origin.

One potter's stamp of Acutus i on a form 29 from La Graufesenque of c. 45–60 is the earliest dated piece from the site; it was found in the topsoil in Area IV. There are sherds from nine decorated bowls of form 29 and, with the exception of the bowl stamped by Acutus, all are of immediately pre-Flavian to mid Flavian dates and not attributable. There is a form 30 of Flavian date and five of form 37, one of which is in the style of the Pompeii Hoard (c. 79) the rest are mid-to-late Flavian or Trajanic (none attributable).

Apart from a form 15/17 and a form 27 which are Neronian or early Flavian, the plain forms are of Flavian or Flavian to Trajanic dates. They represent no more than thirty-six vessels, twelve of which are of form 27, four form 18, two each of 15/17, 18/31 and Curle 11 and single examples of 18R, 33a, 35 and 36 (Table 23).

Central Gaul

Pottery from Les Martres-de-Veyre is almost non-existent (1.3% of the total) at Hacheston. There are no stamps, and of the eight vessels recorded, three are plain forms — 18/31 (two) and a 27. There are five decorated vessels of form 37,

four of which can be attributed — to Drusus i (two), X-13/Donnaucus, and Potter X-2.

The largest part of the of the Central Gaulish samian and indeed of the total samian assemblage (417 vessels representing 73%) comes from Lezoux. Included are forty identified potters' stamps (see Table 24) and seventy decorated vessels, thirty-eight of which can be attributed (Table 25). A high proportion of these, 70% of the stamps and 50% of the decorated ware, date from the mid-to-late Antonine period. This greater proportion can also be seen in the plain forms where the ratio of form 18/31 to 31 is 1:4, and that of form 27 to 33 is 1:8 (Table 23).

East Gaul

East Gaulish factories produced only a moderate amount of the samian recovered — 94 vessels or 16% of the total. (Brenda Dickinson comments that this is higher than for most British sites, but about normal for East Anglia.)

Several vessels come from the earlier potteries including two stamps on plain forms from Blickweiler belonging to Petrullus and Saciro ii with Hadrianic or early Antonine dates, and single examples of La Madeleine and Argonne fabrics. From the later 2nd to mid 3rd-century factories at Rheinzabern there are stamps of Gemellus iii, Cunissa ii, and Potentinus ii on plain forms and of Reginus vi on form 37. There are sherds from fifteen decorated vessels and four of them can be attributed — to Januarius i and Reginus vi who were among earlier potters known to be working at Rheinzabern, Comitalis who was later, plus one stamp from Trier possibly by Tordilo. The most common plain forms are 33 (twenty-two), 31 (fourteen), and 38 (eight).

Catalogue of potters' stamps and signatures on the samian

by Brian Hartley and Brenda Dickinson

The original work on the samian was completed by the mid-70s and the authors of the stamps reports were given an opportunity to update their work. Very little alteration was needed. As Brian Hartley commented 'Just one monumental howler on Cenaboca to set right, and a few modified dates...it is very encouraging to know that we could get so much right in 1975!'

The potters stamps are arranged in alphabetical order (see Table 24 for a chronological summary). Each entry gives: potter (i, ii, where homonyms are involved), die number from the forthcoming *Leeds Index of Potters' Stamps on samian ware*, form, reading, pottery of origin, published example if any, date and context information. Abbreviations are the same as those used at the beginning of the section. Superscript letters after the pottery of origin indicate:

- Superscript ^a A stamp attested at the pottery in question.
 - Superscript ^b Not attested at the pottery in question, but other stamps of the potter known from there.
 - Superscript ^c Assigned to the pottery on the evidence of fabric, distribution, etc.
- Where two dates are given the second (in brackets) indicates probability within the certain range.
- Ligatured letters are underlined.

Source	SG	CG MV	CG LZ	EG	EG/COL	COL
Form						
15/17	2					
15/17 or 15/17R	1					
15/17 or 18	1					
15/31			1			
18	4		1			
18R	1					
18/31	2	2	21	3		
18/31 or 31			19		1	
18/31R or 31R			4			
18/31R			4			
27	12	1	9			
29	9					
30	1					
30 or 37			2	1	1	
31			81	14	1	
31 or 31R			3	1		
31R			24			
32				3		
33			73	22	1	
33a	1					
35	1		3	1		
36	1		5	3		
37	5	5	70	15		2
38			17	8		
44				1		
45			8	3		
46				1		
79			21	2	1	
79 or 79R			1			
79 or Ludo Tg			1			
79R			5			
79/80 or Ludo Tg/Tx			1			
80				1		
Curle 11	2		1			
Curle 15			1	3		
Curle 21			2	1		
Ludo Tg/Tx			1			
Ludo Tg			2	1		
bowl	2		4			
cup			1			
dish			5	1		
mortarium			1			
undiagnostic	6		25	9	1	
total	51	8	417	94	6	2

Table 23 Summary of all identified forms in samian ware

<i>Date of die</i>	<i>Potter and Die</i>	<i>Form</i>	<i>Area</i>	<i>Context</i>	<i>Source</i>
Claudio-Neronian					
45–60	Acutus i 28a	29	IV	(1)	La Graufesenque
Hadrianic to early Antonine					
125–155	Granio 2a	27	IV	(1)	Lezoux
130–150	Albinus iv 6b	33	VI	3.(1)	Lezoux
130–155	Calava 2b	18/31	I N	Pit 16 GH	Lezoux
130–160	Petrullus 4a	18/31	III	ZS (mixed)	Blickweiler
130–160	Saciro ii 2c	33	I	unstrat	Blickweiler
135–155	Pateratus 1a	27	IV	(1)	Lezoux
Early-mid Antonine					
140–160	Muxtullus 1b	31	II	unstrat	Lezoux
140–165	Divicatus 1a	33	III	Pit F9 AAW	Lezoux
140–170	Albinus iv 7a	31	I N	Pit 30 JE	Lezoux
140–170	Vertecissa 1a	31	IV	(1)	Lezoux
140–170	Cadgatis 6a	31	Field 2	unstrat	Lezoux
140–170	Cerialis (curs.sig mould)	37	II	Ditch F35 PR	Lezoux
150–165	Divixtus i 10a	31R	I	Layer KZ	Lezoux
150–170	Musicus ii 2b	18/31R	I	Pit 69 FS	Lezoux
155–170	Reditus 3c	33	?II	unstrat	Lezoux
150–175	Felix ii 2c	33	I	Pit 8 DW	Lezoux
Mid-late Antonine					
150–180	Albucius ii 6i	33	II	Ditch F35 UD	Lezoux
150–190	Varucius/Varucus 1c	27	IV	(1)	Lezoux
150–190	Varucius/Varucus 1c	27	IV	(1)	Lezoux
155–185	Apolaustirus or Apolauster 2b	18/31	I	Layer AA	Lezoux
155–185	Samillus ii 2a	33	Campen	Lezoux	
155–190	Martius iv 1h	33	I	Pit 1 BA	Lezoux
155–190	Martius iv 1b	31	I	Pit 54 CQ	Lezoux
160–180	Gippus 2a	31	I	Pit 43 MAW	Lezoux
160–190	Tituro 5b	33	I N	Pit 20 GA	Lezoux
160–190	Iullinus ii 1a	33	I N	Pit 28 GF	Lezoux
160–190	Catullus ii 4a	33	I N	Pit 28 GF	Lezoux
160–190	XIXIXII	15/31	IX	(3)	Lezoux
160–190	Iustus ii 2b	31R	Field 2	unstrat	Lezoux
160–190	Reginus vi 8a	37	Field 2	unstrat	Rheinzabern
160–195	Carussa 3a	33	II	Ditch F29 PH	Lezoux
160–200	Namilianus?	79 or 80	I	Layer AA	Lezoux
160–200	Cenaboca 1a	31	I	Layer AA	Lezoux
160–200	Severus vi 3d	33	I	Layer AJ	Lezoux
160–200	Aestivus 6a	31R	Field 2	unstrat	Lezoux
165–200	Sextus v 8d	33	I N	Pit 21 GP	Lezoux
165–200	Cintusmus i 5a	18/31R	III	unstrat	Lezoux
165–200	Genitor ii 5b	18/31 or 31	I	Layer AC	Lezoux
165–200	Do(v)eccus i 5a	37	IV	Pit 75(2)	Lezoux
170–190	Mascellio i 4b	79R	Field 2	unstrat	Lezoux
170–200	Saturninus ii 1b	31	I	Pit 54 KP	Lezoux
180–200	Maternianus i 3a	33	I	Road CN	Lezoux
180–200	Maternus iv 1a	31R	I	Pit ? MAI	Lezoux
Antonine	Romul(icus?) 1a	33	I	Layer AC	Lezoux
Mid Antonine	Miccio vii 1a	18/31	Field 4	unstrat	Colchester
Late 2nd to early 3rd century					
LC2–EC3	Gemellus iii 1a	32	I	Layer AC	Rheinzabern
LC2–EC3	Cunissa ii 1b	31	I	Layer CF	Rheinzabern
LC2–EC3	Potentinus ii	32	VI	(1)	Rheinzabern

Table 24 Summary of identified samian potters' stamps in chronological order

<i>Date and source</i>	<i>Potter</i>	<i>Area</i>	<i>Context</i>
South Gaulish			
45–60	Acutus i (stamped)	IV	(1)
Central Gaulish —Les Martres-de-Veyre			
<i>Trajanic</i>			
100–125	Drusus i (X-3)	I	Pit 2 BJ
100–125	Drusus i (X-3)	II	Ditch F29 PH
100–125	X-13/Donnaucus	II	Ditch F40 RD
100–125	Potter X-2	II	Layer RZ
Central Gaulish —Lezoux			
<i>Hadrianic early Antonine</i>			
120–145	Geminus iv	IV	Post-hole 123
125–145	Butrio	unknown	unstrat
125–150	Paterclus	I	Layer AH
125–150	Paterclus	I	Layer BF
125–150	Potter X-5	I	Pit 9 EA
125–150	Large-S Potter	I	Pit 9 EA
125–150	Sacer	I N	Pit 28 GF
125–150	Quintilianus i and Laxtucissa	IV	Pit 75(1)
130–155	Potter X-6	I	Pit 9 EA
130–160	Docilis	I N	Pit 21 GP
Had-E Ant	Quintilianus i group	IV	(1)
Had-E Ant	Quintilianus and Docilis(?)	I	Layer CZ
<i>Early-Mid Antonine</i>			
140–170	Cerialis	II	Ditch F35 PR
145–175	Cinnamus group	I	Layer AB
145–175	Divixtus	I N	Pit 13 GB
145–175	Pugnus	I N	Pit 16 GH
early-mid Ant	Cerialis ii / Cinnamus ii group	IV	(1)
<i>Mid-Late Antonine</i>			
160–190	Iustus ii	IV	Pit 75
160–190	Iustus ii	IV	Pit 75(2)
160–190	Iullinus	I	Pit 54 CQ
160–190	Advocisus i	IV	Pit 100(1)
160–190	Advocisus i	IV	(1)
160–190	Iustus ii Casurius ii	IV	(1)
160–190	Paternus v	IV	(1)
160–190	Servus iv	IV	(1)
160–195	Paternus v	I	EW
165–200	Do(v)eccus	II	UF unstrat
165–200	Paternus v	IV	Pit 109
165–200	Do(v)eccus i group	IV	Pit 75(2)
170–200	Bauvus, Do(v)eccus & Casurius	III	Pit AAS
Mid-Late Ant	Casurius & Do(v)eccus	I N	Pit 43 MAW
Mid-Late Ant	Casurius ii	VI	(1)
Mid-Late Ant	Iullinus ii or Iustus ii or assoc	VI	(1)
Mid-Late Ant	Servus iv	VI	(1)
Colchester			
150–160	Potter A Colchester	III	ZV unstrat
East Gaulish			
160–190	Januarius i of Rheinzabern	III	Oven F11 ABF
160–190	Reginus vi of Rheinzabern (st)	field 2	unstrat
LC2–EC3	Comitalis of Rheinzabern	I	Layer CC
LC2–EC3	Tordilo of Trier	IV	Pit 75(1)

Table 25 Summary of attributed decorated samian vessels in chronological order

1. **Acutus i 28a** form 29, ACVTVS. The base is an unusual one, with a slight kick and three small circles round the stamp. The stamp used at La Graufesenque on forms Ritt 8, Ritt 9, 18, 24 and 29, occurs at Hofheim and York. Its occurrence on cups of form 24 with both bevelled and flat foot-rings suggests a Claudian-Neronian date. c. 45–60. Area IV Layer (1). Topsoil.
2. **Aestivus 6a** form 31R, AIS[TIVI·M]. Aestivus worked at Lezoux in the Antonine period. His stamps are common at sites on Hadrian's Wall and in the Pudding Pan Rock group, but he also occurs at Antonine Wall forts, and this stamp has been found at Birrens. c. 160–200 Field 2 Unstratified.
3. **Albinus iv 6b** form 33 base, A·L·B·I·N·I·M. Lezoux. The stamp occurs at Castle Cary. Albinus's work occurs both on Hadrian's Wall and the Antonine Wall and his stamps are often found on form 27. c. 130–150. Area VI Feature 3(1).
4. **Albinus iv 7a** form 31 A[LBINVS·F]. Lezoux.^a This stamp is commonly on form 27 (indicating use before about 160), but has not been found in any dated contexts. Other stamps of Albinus iv appear in contexts ranging from 140–150 to 160–170 (the Gauting burnt group and Halton Chesters). 140–170 covers the likely range. Area I North Pit 30 (JE).
5. **Albucius iv 6i** form 33 ALBVCI. Lezoux.^b A hitherto unrecorded stamp of the Lezoux potter who made decorated bowls c. 150–180. This stamp should fall within the same range. Area II Ditch F35 (UD).
6. **Apolaustirus** or **Apolauster 2b** form 18/31 [A]·POL·AVST[I]. Lezoux.^c The name of the potter, usually taken as Apolauster, is not quite certain. His date is reasonably well defined, however, by the fact that he used moulds by Casurius and by the presence of this stamp at sites re-occupied, c. 160, after an intermission. c. 155–185. Area I Dark layer AA.
7. **Cadgatis 6a** form 31, CADGATIS. This stamp has only otherwise been recorded at Corbridge twice, on form 31, and once at Catterick, on form 31R. Cadgatis was a Lezoux potter whose work is common at forts on the Antonine Wall. One of these stamps occurs on the rim of a bowl by Albucius ii. c. 140–170. Field 2 Unstratified.
8. **Calava 2b** form 18/31 [CA·A]·VA·F. Lezoux.^a With occurrences at Chesters (before 140?), in the burnt pottery shop of 140–150 at Castleford, and frequently in the Rhineland, where Central Gaulish ware is very rare after 150, a range of c. 130–155 is clear. Area I North Pit 16 (GH).
9. **Carussa 3a** form 33 CARVSSA= . Lezoux.^a Since this stamp is commonly on forms 31R and 79 and appears at Catterick, Halton Chesters and Piercebridge, the date should be c. 160–195. Area II Ditch F29/F35 (PH).
10. **Catullus ii 4a** form 33 [CATV]LLIM. Lezoux.^b The dated sites include Catterick, Chesterholm and Halton Chesters. c. 155–195 (160–190). Area I North Pit 28 (GF).
11. **Cenaboca 1a** form 31 CENABOCA retrograde. Lezoux.^a Only six examples of this rare stamp are known, all from the same die. The fabrics have sometimes been assessed as East Gaulish, sometimes as Central Gaulish, but the discovery of one of his stamps at Lezoux now settles the matter. The Catterick example will be after 160 and the forms used, including 31R, point to the range c. 160–200. Area I Dark layer AA.
12. **Cintusmus i 5a** form 18/31R CINTVSM. Lezoux.^a This is clearly one of Cintusmus i's later stamps, since it is represented in the Pudding Pan Rock collection, at Piercebridge and on Hadrian's Wall. c. 170–200. Area III Unstratified.
13. **Cunissa ii 1b** form 31 CVNISSAF. Rheinzabern.^b He frequently made form 32 and clearly belonged to the late 2nd or early 3rd century. Area I Dark layer CF.
14. **Divicatus 1a** form 33 DIVICATIM. Lezoux.^b This stamp is recorded from Corbridge and on form 27. His other stamps appear in Antonine Scotland, in the Castleford pottery shop of 140–150 and (burnt) at Gauting. These records point to a range c. 140–165. Area III Pit F9 (AAW).
15. **Divixtus i 10a** form 31R DIV[IXTI]. Lezoux.^b This is a stamp of the well-known maker of decorated ware at Lezoux. It is not a common one, does not appear at any dated site, but is known on both forms 27 and 31R. Since the general evidence for Divixtus suggests mid-Antonine date, with many pots in Scotland, but relatively few on Hadrian's Wall, the period c. 145–170 (150–165) is likely. Area I Layer KZ.
16. **Do(v)eccus i 5a** form 37, [DOI]CCI. Lezoux. Bowls with this stamp occur at forts on Hadrian's Wall and at Malton. c. 165–200. Area IV Pit 75(2).
17. **Felix ii 2c** form 33 FELIXF. Lezoux.^c The stamp is known from Carzield and Newstead and was used both on form 27 and form 80. Other stamps of Felix ii are in the Castleford shop of 140–150. In view of use on form 80, this can scarcely be one of Felix's early stamps, however. c. 150–175. Area I Pit 8(DW).
18. **Gemellus iii 1a** form 32 etc. GEM[EL·VS·SEC]. Rheinzabern.^a There are no dated contexts for the stamp, though one from a modified version of the die appears at Malton (after c.160). Its frequent use on form 32 points to a late 2nd or 3rd-century date. Area I Dark layer AC.
19. **Genitor ii 5b** form 18/31 or 31 GEN[ITO]RF. Lezoux.^a Records from Catterick, Chesterholm, Ebchester, Hadrian's Wall and the Corbridge pottery shop all point to a mid to late Antonine date, c. 165–200. Area I Dark layer AC.
20. **Gippus 2a** form 31 GI[PPI·M]. Lezoux.^a This stamp is known from the Aquincum Hoard and from a burnt group at TÁC (Hungary), both presumably associated with the start of the Marcomannic wars. It also appears on Hadrian's Wall. c. 160–180. Area I North Pit 43 (MAW).
21. **Granianus ?** (pot and rubbing lost). Area I North Pit 21 (GP)
22. **Granio 2a** form 27, GRAVIO. This stamp occurs many times in a Hadrianic pit at Lezoux. It is also known from Verulamium, Period II c. 140–150 (Hartley 1972a, S98) and may also have been used on form 80. c. 125–155. Area IV Layer 1 Topsoil.
23. **Iullinus ii 1a** form 33 IVLLINI·OF. Lezoux.^a Records from Catterick and Hadrian's Wall confirm the mid to late Antonine date suggested by Iullinus' decorated ware. c. 160–190. Area I North Pit 28 (GF).
24. **Iustus ii 2b** form 31R IVSTIMA. (Dickinson 1990, fig. 183,18.) One of the most common stamps of the Lezoux Iustus, it occurs at forts on Hadrian's Wall and at Pudding Pan Rock. c. 160–190. Field 2 Unstratified.
25. **Martius iv 1b** form 31 MAR[TIM]. Lezoux.^a A common stamp with many records from sites, such as Chesters, Malton or the Brougham cemetery, first used or re-occupied c. 160. c. 155–190. Area I Pit 54 (CQ).
26. **Martius iv 1h** form 33 MARTIM. Lezoux.^b Not as well attested as 1b, a record from Hadrian's Wall suggests the same range for the date. c. 155–190. Area I Pit 1 (BA).
27. **Mascellio i 4b** form 79R, MASCILLIO (Dickinson 1986, 192, 3.III). Mascellio worked at Lezoux in the late Antonine period. His work is very common at sites on Hadrian's Wall in Period IB. c. 170–190. Field 2 Unstratified.
28. **Maternianus i 3a** form 33 [MATERA]IAIIAI. Lezoux.^a Although a difficult stamp to interpret, there is little doubt that it belonged to Maternianus. However that may be, there is no doubt of its date, in view of records from Pudding Pan Rock, Benwell, Chesters and Housesteads. c. 160–200 (170–200). Area I Road CN.
29. **Maternus iv 1a** form 31R MATERNI. Lezoux.^b The record, including Pudding Pan Rock, Catterick, Chesterholm and Ilkley implies the same date as the last. c. 170–200 (180–200) Area I North ?pit MAI.
30. **Miccio vii 1a**. Two joining fragments of form 18/31 [M]IC[CI]O·[F]. This stamp occurs in a burial at Rougham, Suffolk, with stamped vessels of two Lezoux potters working in the period 150–180 and one with a stamp of a Colchester potter. The Miccio stamp, which comes from a die used at both Sinzig and Colchester, occurs on several East Anglian sites apart from Colchester itself, and it seems likely that the Hacheston piece was made there, rather than in East Gaul. Probably mid-Antonine. Field 2? Unstratified.
31. **Musicus ii 2b** form 18/31R MVSICI·M. Lezoux.^b In the burnt group at Gauting and present in a pit of c. 150–160 at Alcester and on Hadrian's Wall, a date c. 150–170 is certain for this stamp. Area I Pit 69 (FS).
32. **Muxtullus 1b** form 31 MVXTVLLIM. Lezoux.^a This is the earlier of Muxtullus' two common stamps with this reading, as records in the Castleford Pottery shop, at Camelon and Mumrills and on form 27 show. c. 140–160. Area II North Ditch F35.
33. **Namilianus? Uncertain 1** form 79/80 or Ludowici Tg/Tx NA[M ... NI] Lezoux.^b There is really not much doubt that this stamp belonged to Namilianus, though the only other example is also fragmentary, (on form 31R at Caerwent). Namilianus' record is consistently in favour of a date c. 160–200. Area I Dark layer AA.
34. **Pateratus 1a** form 27, PATERATIOF. The stamp occurs at Lezoux, Camelon, Halton Chesters and in the Castleford pottery shop group of 140–150, and was used on forms 27 and 81. (Walke 1965, Taf. 43, nos 277 and 279) c. 135–155. Area IV Layer (1) Topsoil.
35. **Petrullus 4a** form 18/31 PETRVLLVS[F]. Blickweiler,^a Eschweilerhof,^a Trier^a kilns. Only one example was found at Trier and it is doubtful whether Petrullus worked there. The stamp is often

on form 27, but the only dated site is Osterburken on the outer *Limes*. c. 130–160. Area III ZS Unstratified.

36. **Potentinus ii** form 32 *etc.* (PO)TIINTIN(VS). Rheinzabern (Ludowici 1927, 226, b). As he made the late forms 32 and 40, he must have been working in the late 2nd or early 3rd century. Area VI Layer (1).
37. **Reditus 3c** form 33 REDITI-M. Lezoux.^c This is quite certainly a late stamp of Reditus used on forms 31R and 79R and appearing in the burnt group at Tâc (c. 170?). However, some of his earlier stamps occur in early Antonine contexts, and one even in the Saalburg Erdkastell (before 139). A general date of c. 135–170 seems clear, with this stamp c. 155–170. Area II? Unstratified.
38. **Reginus vi 8a**, an almost complete bowl of form 37, from a mould stamped REGWVSF. He worked at both Heiligenberg and Rheinzabern. The decoration suggests origin at the latter (decorated catalogue 68). He was one of the earlier potters working there. c. 160–190. (Ludowici 1927, 244, c.) Field 2 Unstratified.
39. **Romul(icus?) 1a** form 33 ROMVLKIK (with only the tops of the letters preserved). Lezoux.^c Records from Corbridge attest Antonine activity, which is confirmed by the occasional use of form 80. Antonine. Area I Dark layer AC.
40. **Saciro ii 2c** form 33 SACIRO-F. Blickweiler.^a This stamp was used on form 27 and though there is no dated site in the records, this is consistent with the usual range for Blickweiler of c. 130–160. Area I–III Unstratified.
41. **Samillus ii 2a** form 33 SAMILLI-M. Lezoux.^a Records from Benwell and Newstead and the use of forms 79, 80 and, rarely, 27 point to a range of c. 155–185. Found by M.J.Campen, Field 4 Unstratified.
42. **Saturninus ii 1b** form 31 SATVRNINIOF. Lezoux. Two other stamps of Saturninus ii were found in the Pudding Pan Rock cargo. The presence of this one at Binchester, Catterick and Forden Gaer is consistent with this and the period c. 170–200. Area I Pit 54 (KP).
43. **Severus vi 3d** form 33 -SIIV[IIRIM-]. Lezoux.^b This stamp only appears at Corbridge and Old Carlisle among dated sites. However his work in general is common in mid to late Antonine contexts, including a kiln of c. 170–200 at Lezoux. c. 160–200. Area I Layer AJ.
44. **Sextus v 8d** form 33 SEXTVSF. Lezoux.^b This is a hitherto unrecorded stamp, but it is almost certain to belong to Sextus v rather than the earlier Sextus of Lezoux (a Hadrianic-Antonine potter). The work of Sextus v appears at Pudding Pan Rock and, frequently, in forts re-occupied c. 160 after a long gap. c. 165–200. Area I North Pit 21 (GP).
45. **Tituro 5b** form 33 TITVRONIS. Lezoux.^b Although this particular stamp is not known from dated contexts, it was used on forms 79, 80 and Ludowici Tx and this fits well with records of other stamps from the Wroxeter gutter group, Benwell, Chesterholm, Malton and Wallsend. c. 160–190. Area I North Pit 17 (GA).
46. **Varucius/Varucus 1c** on two cups of form 27, CG, reading VARVCIM and V/I. The fragmentary stamp is not certainly from this die, but is probably so. The stamp has not been recorded before, but his other stamps occur at Chesterholm and Malton, and probably on form 79. He presumably worked at Lezoux c. 150–190. Area IV Layer (1) Topsoil.
48. **Vertecissa 1a** on form 31, CG, reading VERTECISSA-F. Little is known about this potter, but he worked at Lezoux, making forms 18/31, 27, 31, 33 and 79 and can, therefore, be dated c. 140–170. Area IV Layer (1) Topsoil.
49. **Illiterate stamp** on form 15/31, CG, almost complete, reading XIXIXII. The same stamp occurs on form 31R from Leicester and Wroxeter and on form 31 from the fort at Houseteads. c. 160–190. Area IX Layer (3) Occupation layer.

Unidentified

50. Form 80? JEN or JI N. The fabric suggests East Gaulish origin. Area I Ditch 13 (HE).
51. Form 79 VOSJ. Central Gaulish fabric. The form implies mid to late Antonine date. Area I Dark layer CJ.
- 52–6. Four unidentified stamps, all CG and Antonine. Area IV Layer (1) Topsoil.

Cursive signature

57. Form 37, Central Gaulish. With cursive signature of **Cerialis** below the decoration (S&S 1990, pl.164,1) written in the mould and therefore appearing in reverse on the vessel. c. 140–170. Area II North Ditch F35 (PR)

The decorated samian

by Joanna Bird (Areas I–III), Brenda Dickinson and Brian Hartley (Areas IV onward). Written in 1974–5 (Fig. 107)

The decorated catalogue is arranged by Area and within each Area roughly by context. For a chronological summary see Table 25.

Area I

1. Form 37, CG, in the style of the Cinnamus group at Lezoux. Cinnamus ovolo 3 (S&S, pl. 157, 1 — with same beads), the circle (S&S, pl. 157, 5), the fish and astragalus (S&S, pl. 157, 7), the double medallion (S&S, pl. 157, 10), the rosette (S&S, pl. 158, 15) and the foliage (S&S, pl. 158, 16) are used in an unusual arrangement here. There is no parallel in S&S for Cinnamus using the small warrior or swan. c. 145–175. Area I Dark layer AB (with joining sherds in layers AC and AJ).
2. Form 37, CG, with part of a vine leaf. Antonine. Area I Dark layer AC.
3. Form 37, CG, with a figure. Slightly burnt. Antonine. Area I Dark layer AC.
4. Form 37, CG. The large rosette and formal leaf were used by Paterclus of Lezoux (S&S, pl. 72, 34 and 38). c. 125–150. Area I Dark layer AH.
5. Form 37, CG. The motifs — two seven-petalled rosettes, a double-bordered medallion, part of a dolphin to left and small bead rows — are not certainly assignable. Hadrianic-Antonine. Area I Dark layer BF.
6. Form 37, CG. The wavy line saltire (S&S, pl. 72, 34), the five-leaved ornament (S&S, pl. 72, 35), and the three-leaved motif (S&S, pl. 72, 38) are in the style of Paterclus of Lezoux. c. 125–150. Area I Dark layer BF.
7. Form 37, EG, and probably Rheinzabern. There is no exact parallel in LRF for this leaf, but several similar are shown — compare LRF.P136–143. The motif above is probably an acanthus. Late 2nd to mid 3rd century. Area I Dark layer BF.
8. Form 37, EG, Rheinzabern. ?Leaf cross inside a double medallion. Late 2nd to first half of 3rd century. Area I Dark layer BF.
9. Form 37, EG, Rheinzabern. The ornament (LRF.O160) and the dog (LRF.T138a) were shared by several potters. Late 2nd to first half of 3rd century. Area I Dark layer BF.
10. Form 37, EG. The ovolo (LRF.E17) and the deer (LRF.T82) were both used by Comitialis of Rheinzabern (Ludowici and Ricken 1948, taf. 101, 1 and 2). Late 2nd to early 3rd century. Area I Layer CC (in layer AJ).
11. Form 37, CG. The hammer-tongued ovolo is perhaps that used by Quintilianus (S&S, pl. 71, 31) and Docilis (S&S, pl. 91, 2) although apparently neither used the flat beads or rosette. Hadrianic-early Antonine. Area I Dark layer CZ.
12. Form 29, SG. Cordon, bead row, and pointed leaf tips in the lower frieze. c. 60–80. Area I Layer DB (over road AR).
13. Form 29, SG. With winding scrolls and leaves. c. 60–75. Area I Dark layer DS.
14. Form 37, CG. In the style of Paternus v of Lezoux. The cupid and double medallion are shown on S&S, pl. 104, 8, and the roped borders and astragali are on S&S, pl. 104, 4. c. 160–195. Area I undefined feature EW.
15. Form 37, CG. Drusus i (X-3) of Les Martres-de-Veyre frequently used this motif in place of an ovolo (S&S, pl. 14, 169). c. 100–125. Area I Pit 2 (BJ).
16. (Fig.107) Form 37, CG. In the style of Potter X-6 of Lezoux. The ovolo, coarse beads and Hercules and Lion (D.624) are shown on S&S, pl. 74, 12, the hare (O.2134) on S&S, pl. 76, 23, the dog (probably O.1989A) on S&S, pl. 76, 24, the gladiator (O.1001) on S&S, pl. 76, 27 (the second gladiator, O.1002, would almost certainly have been opposite). The row of circles is on S&S, pl. 74, 10, the trilobe leaf on S&S, pl. 74, 11. The panther is O.1508. c. 130–155. Area I Pit 9(EA).
17. Form 37, CG. The ovolo is probably that used with a similar wavy line by Potter X-5 of Lezoux (S&S, pl. 67, 1). c. 125–150. Area I Pit 9 (EA).
18. Form 37, CG. Ovolo removed in finishing. The sherd shows the arm of a figure and the scroll used by the Large-S Potter (S&S, pl. 76, 33). c. 125–150. Area I Pit 9 (EA).
19. Form 37, CG. The triple motif was shared by several Lezoux potters. c. 125–150. Area I Pit 9 (EA).
20. Form 37, CG, in the style of Divixtus of Lezoux whose Caryatid and Diana are shown on S&S, pl. 115, 1. His distinctive rosette with

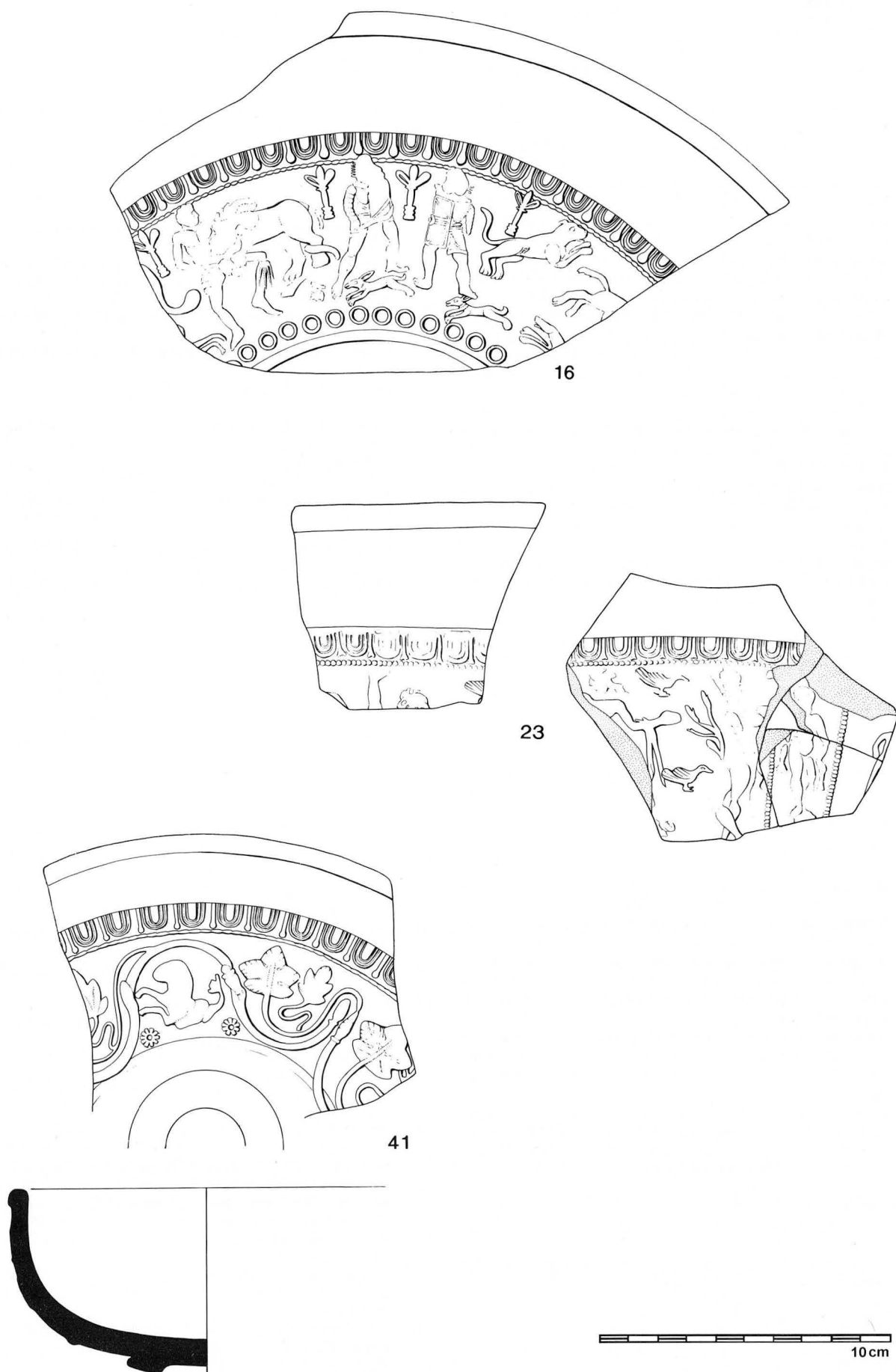


Figure 107 Decorated samian ware. Scale 1:2

circles is shown on S&S, pl. 116, 8, and the festoons on S&S, pl. 116, 10; similar saltires are on S&S, pl. 115, 1 and 6. The animal in the festoon may be the lion shown on S&S, pl. 116, 14. S&S has no example of his use of the panther, but he did use its companion (S&S, pl. 116, 19). c. 145–175. Area I North Pit 13 (GB).

21. Form 37, CG. The ovolo is rather smudged but may be ovolo I of Pugnus (S&S, pl. 154, 13), who used a wavy line border (S&S, pl. 153, 10–12) and festoon. c. 145–175. Area I North Pit 16 (GH).
22. Form 37, SG. In the general style of the Pompeii Hoard (Atkinson 1914, 27–64). c. 70–85. Area I North Pit 19 (JC).
23. (Fig. 107) Form 37, CG. In the style of Docilis of Lezoux. This smaller version of the hammer-tongued ovolo with fine beads is shown on S&S, pl. 91, 2. He used the caryatid (S&S, pl. 91, 6), and the Venus (O.349 — S&S, 287). The male figures are O.93A and O.652, the bird is similar to O.2239C. c. 130–160. This untidy style belongs to the earlier part of the date range. Area I North Pit 21 (GP).
24. Form 37. Ovolo, probably one used by Sacer of Lezoux (S&S, pl. 84, 14). c. 125–150. Area I North Pit 41 (JP).
25. Form 29, SG. Nothing diagnostic in the decoration. c. 60–80. Area I North Pit 42 (MAT).
26. Form 37, SG. Figure, probably a boar. Flavian-Trajanic. Area I North Pit 28 (GF).
27. Form 37, CG. Large squared beads were regularly used by Casurius (S&S, pl. 132, 11), and Do(v)eccus (S&S, pl. 149, 36). Mid to late Antonine. Area I North Pit 43 (MAW).
28. Form 37, CG. Ovolo used by Iullinus of Lezoux with the same corded border shown on S&S, pl. 125, 1. c. 160–190. Area I Pit 54 (CQ).

Area II

29. Form 37, CG, Les Martres-de-Veyre. Basal wreath (Rogers K.25) used by Drusus i (X-3) (S&S 1990, 73–78). c. 100–125. Area II Ditch F29/F35 (PH).
30. Two pieces. Form 37, EG. Late 2nd to early 3rd century. Area II Ditch F29/F35 (PH).
31. see stamp 57 above.
32. see stamp 57 above.
33. Form 37, CG, Les Martres-de-Veyre. Probably the style of X-13/Donnaucus (cf. S&S, pl. 42, 487 and 490). With rivet hole above ovolo. c. 100–125. Area II Ditch F40 (RD).
34. Form 37, CG, Les Martres-de-Veyre. Single-bordered ovolo with roped tongue ending in rosette used by Potter X-2 (S&S 1990, pl. 3, 30, 31 etc.). c. 100–125. Area II Layer RZ (associated with RD).
35. Form 29, SG. c. pre 85. Area II Layer TJ, clearance (?associated F42 oven).
36. Form 37, SG. Scroll and tendril design. The cordate leaf was used by several Flavian potters from La Graufesenque. Flavian-Trajanic. Area II Layer TJ.
37. Form 37, CG. Ovolo with trident tongue. Hadrianic to Antonine. Area II Layer TJ.
38. Form 37, CG. Ovolo border with top cut off? and tip of tongue to left. Bead border and ?figure below. Hadrianic or Antonine. Area II Layer TL clearance.
39. Form 30, SG. Trident border and coarse scrollery. Rivet, still in place. c. 70–90. Area II Ditch F54 (TW).
40. Form 37, CG. In the style of Do(v)eccus of Lezoux. Panel design, including double medallion and small leaf (S&S, pl. 150, 42) and, below, curved gadroons (S&S, pl. 148, 16). c. 165–200. Area II Layer UF Unstratified.

Area III

41. (Fig. 107) Form 37, CG. In the style of one of the later potters at Lezoux, an unusually small bowl with a badly finished interior. The ovolo is indistinct but appears to have a beaded tongue. The vine leaf is close to one used by Banvus (S&S, pl. 139, 2), while the sea-horse was used regularly by Do(v)eccus and Casurius (S&S, pl. 135, 35; pl. 149, 32). The rosette and smaller leaf are not identifiable. c. 170–200. Area III Pit AAS.
42. Form 37, EG, Rheinzabern. The rosette (LRF.O51) was apparently only used by Janu(arius) i; the motif inside the medallion may be a fish or sea-beast. c. 160–190. Area III Oven F11 (ABF) clearance.
43. Form 37, EG, Rheinzabern. The ovolo (LRF.E11) and acanthus (LRF.P145) were shared by several potters. Late 2nd to mid 3rd century. Area III Unstratified.
44. Form 37, Colchester. The rosette frequently occurs in the work of Hull's Potter A on moulds (Hull 1963, fig. 21) and bowls (Hull 1963, fig. 34, no. 5 and fig. 36, no. 2) where it is used in a band between ridges as on this bowl. The bird appears on several bowls by Potter A (Hull 1963, fig. 27, nos 2 and 4). Antonine. Area III Unstratified.

Area IV

45. Form 37, CG, with a zig-zag border of the type used at Les Martres-de-Veyre by Igocatus (X-4) (Rogers A24) and at Lezoux by Geminus iv (Rogers A27). As the fabric seems to be a Lezoux one, the latter is likely. c. 120–145. Post-hole 123.
46. Fragments of a bowl of form 37, CG, with scroll decoration. The ovolo was used at Lezoux by Iustus ii (Rogers B234). For a bowl from London with similar decoration see S&S, pl. 111, 15. c. 160–190. Pit 75 and Layer (1) Unstratified.
47. Form 37 rim, CG. The ovolo may be the big one used at Lezoux by Advocisus (Rogers B103). Mid to late Antonine. Pit 75(1).
48. Form 37, CG. The dolphin (O.2394) was used at Lezoux by Iustus ii and Silvius ii. Antonine, probably after 155. Pit 75(2).
49. Form 37, CG stamped [DOI]ICCI by Do(v)eccus i of Lezoux (Die a). Bowls with this stamp occur at forts on Hadrian's Wall and at Malton. The triton (a smaller version of D.16) was used on a stamped Do(v)eccus bowl at Great Chesterford. c. 165–200. Pit 75(2).
50. Form 37, EG. The ovolo is probably one used at Rheinzabern by potters working in the first half of the 3rd century (LRF. E42). c. 200–250. Pit 75(1).
51. Form 37, CG, with freestyle decoration. The dog (D.919) was used at Lezoux by Hadrianic and Antonine potters, including ones in the Paternus v group. The spindle is probably one used by Paternus (S&S, fig. 30, 18). c. 160–200. Pit 109.
52. Form 29, SG, upper zone, with a bitch (Hermet 1934, pl. 26, 25) used at La Graufesenque by several Neronian and early Flavian potters, c. 65–85. Pit 53.
53. Form 29, SG, upper zone. The scroll, with cogged medallions in the lower concavities, was used at La Graufesenque in the Neronian and early Flavian periods, c. 65–85. Pit 53.
54. Form 37, CG, with panelled decoration. The leafy frond was used at Lezoux by Quintilianus i and Lactucissa. The figure below this may be the horseman, D.157, used on a bowl at Lezoux with an ovolo common to both potters (S&S, pl. 98, 9). The figure in the single festoon is perhaps a dolphin. c. 125–150. Pit 75(1).
55. Form 37, EG, with a scroll formed by impressing a double medallion first one way up and then the other. The *pelta* (LRF.O.17) was used at Rheinzabern by Helenius ii (cf. Ludowici and Ricken 1948, Taf. 174–5), and at Trier by Tordilo (on a bowl at Zugmantel; ORL Zugmantel, B8, Taf. XXVI, 22). To judge by the fabric, the piece is marginally more likely to be from Trier than Rheinzabern, but in any case it is to be dated to the late 2nd or 3rd century. Pit 75(1).
56. Form 37, CG, with either panel or freestyle decoration. The leopardess (O.1533 or 1534) was used at Lezoux by both Hadrianic and Antonine potters, and the ovolo (Rogers, B114) was also used by many potters ranging in date from Butrio to the late Paternus of Lezoux. This piece is probably Antonine and a date in the range 140–175 is likely. Pit 75(4).
57. Form 29, SG, upper zone, with badly moulded decoration and coarse rouletting on the rim. The arrangement of the lower concavity of the scroll is unusual in an upper zone, with a crouching dog (Hermet 1934, pl. 26, 20) over partially-impressed leaf tips. c. 70–85. Pit 89.
58. Form 37, CG, with a small ovolo used at Lezoux by Advocisus (S&S, fig. 33, 2). c. 160–190. Pit 100.

From layer (1) topsoil

The potters (all of whom worked at Lezoux) represented in the decorated ware are:

59. Advocisus (twice), c. 160–190
60. The Cerialis ii — Cinnamus ii group (three times), early to mid Antonine
61. Casurius ii, Iustus ii (twice, one sherd from the same bowl as 46)
62. The Quintilianus i group, Hadrianic or early Antonine
63. Paternus v (twice), c. 160–190
64. Servus iv, c. 160–190

Area VI

Layer (1) topsoil

The potters represented in the decorated ware are:

65. Casurius ii,
66. Iullinus ii or Iustus ii or an associate.
67. Servus iv, possibly with the end of a cursive signature (?reading Servim retr) in the decoration.

These all worked at Lezoux in the mid to late Antonine period.

Field 2 (during road construction)

68. An almost complete bowl of form 37, EG, from a mould stamped REGIVSF by Reginus vi 8a, who worked at both Heiligenberg and Rheinzabern. The decoration suggests origin at the latter. The design consists of nine arcades containing five different figure types: a) basket carrier (between LRF.M56 and M56a); b) boxer (LRF.M191a); c) cupid (LRF.M119a); d) cupid without wings (LRF.M110b); e) boxer (LRF.M196a). The sequence of these figures is abcdabecd. All these, and the ovolo (LRF.E56); leaf (LRF.P40); rosette (LRF.O42); arcade (LRF.KB121) and pillar (LRF.O224) are known on Reginus's work at Rheinzabern. He was one of the earlier potters working there. c. 160–190. (Ludowici 1927, 244, c.) Field 2 Unstratified.

Roadworks spoil heap

69. Form 37, CG. Panelled decoration very badly moulded with a seated figure (D.555). Both this and the ovolo (S&S, fig. 13, 3) were used at Lezoux by several Hadrianic potters, but the traces of a laying-out line and the diagonal beads make this almost certainly the work of Butrio. c. 125–145.
70. Form 37, base with dull orange glaze is probably Colchester ware of the Antonine period.

II. Mortaria

by K. F. Hartley (report written in 1974, amended in 1997)

A full listing of all the 1973 excavation mortaria is held in the site archive and a copy of the original report can be obtained from Suffolk County Council Archaeology Service if required. Only the 1973 material was examined.

The two Hacheston stamps in private collections were in Mr M.J. Campen's collection, their current whereabouts has not been established.

Stamped mortaria from the 1973 excavation

1. A mortarium in yellowish cream fabric heavily tempered with small fragments of flint and quartz. On the rim is a herringbone stamp from the same die as several found at the Colchester kilns (Hull 1963, fig. 6 no. 37), where this must have been made. Other examples have been noted from Birdoswald, the Hambleton villa, London, Richborough, Springhead, and at Rough Castle on the Antonine Wall. The samian at forts on the Antonine Wall has been dated to c. 142–163 (see Hartley 1972 b), and one must assume that those Colchester mortaria with herringbone stamps which have been found there in abundance (Hull 1963, 114–116), also belong to this period. The production period, however, is likely to have been somewhat longer. Area I North, clearance layer LL.
2. The complete rim of a mortarium with a herringbone stamp on each side of the spout from the same die as Hull 1963 fig. 61, no. 50. The vessel is in fine brownish cream fabric with grey and white flint grit, with some white quartz grit. At least three examples of this stamp have been noted from Colchester, and this example was surely made there. No other stamp from the same die is known, but the form indicates a date c. 150–200. Area I, Layer AJ.
3. Four joining fragments of a mortarium in yellowish cream fabric containing tiny particles of grit. The incompletely impressed herringbone stamp cannot be identified, but it, and the fabric and rim form, would fit with manufacture at Colchester c. 140–170. Area I Road layer NBB.
4. A mortarium fragment in slightly brownish cream fabric containing much tiny grit. The incompletely impressed herringbone stamp cannot be identified. The rim form is fairly uncommon in this fabric, but it can be matched at the Colchester kilns (Hull 1963, fig. 67, no. 15), and both fabric and stamp would fit with manufacture there or at other kilns in Essex or Suffolk. M.R. Hull dates the kiln producing it (no. 19) to 175–210. There are at least six other similar mortaria from Hacheston (six pieces from layer AJ, while one from layer CC (associated with AJ) could perhaps be part of this one) which indicates that this could be a local product. Area I, Layer AJ.
5. A mortarium in yellowish cream micaceous fabric with white and grey flint, white quartz, and red-brown trituration grit. One other mortarium stamped by the same potter is known, from Colchester (Symonds and Wade 1999, S127/S128). The letters on all of the stamps are too faint for any final reading to be attempted but conflation of the stamps indicates that the lower line reads VEBRVS or VERRVS and ..]CA[. can be discerned in the upper line above

the second R. The potter probably worked at Colchester, and the rim profile suggests a pre-Antonine date. The style of the stamps are so very different that it would be unwise to equate this man with the Colchester potter who stamped Vebrus without further evidence. Area I Ditch 2 (DH).

6. The slightly brownish cream outside surface was probably the colour intended by the potter but some slight misfiring has caused the rest to become brownish pink. The fabric contains much fine white, red-brown and transparent tempering. The eroded stamp cannot be identified with certainty, but stamps from the same die have been recorded from Colchester (two mortaria, Hull 1963, 205, 5126 and fig. 4.27), Lenham, Kent (Philp 1994, 30, fig. 9 no. 34) and a possible one from Southwark (Schwab 1978, fig. 90, M5). The border is clear on all examples but the only really clear letters are ..]SSO[. on the stamp from Lenham; the other examples show that these letters are near the end of the stamp. The border and some of the rim profiles used are unusual and both compare closely to those used by a potter who stamped TMH. One may reasonably assume that both potters were working at Colchester at the same time in the early 2nd century. Area III ZS Unstratified.
7. (Fig. 121, 48) A flange fragment with a fragmentary herringbone stamp. The fabric is grey throughout, possibly deliberately reduced though the only example known of a reduced mortarium with herringbone stamp is from Homersfield, Suffolk. 2nd century. From the Ipswich Museum 1965 kiln.

Other stamps from Hacheston in the Ipswich Museum and in private possession

SECCIUS Probably Colchester c. 160–200. (IM 1966.1)
SATVRN / SEVALER (retrograde) Colchester c. 60–100. From one of the many dies of Sextus Valerius Saturninus. (IM 1965.4)
MACRINVS Probably Colchester within the Flavian-Trajanic period. (Private possession)
Two mortaria with herringbone stamps from the same die (Hull 1963, fig. 60, no. 30) c. 140–180. One of these is in private possession.

Comments on the unstamped mortaria

In all, rim sherds from at least sixty different mortaria were examined and the striking feature of the group is that fifty-four (or 90%) are likely to have been made in Essex or Suffolk. Forty-five of these (75%) are in fabrics like those used in the kilns at Colchester, though it is certain that other workshops in East Anglia were producing virtually identical fabrics. It does, however, seem likely that many of these mortaria were made at Colchester. The East Anglian material also includes fourteen pieces of reduced fabric *i.e.* grey mortaria, comparable to pieces from the Homersfield kilns and elsewhere (see also Darling with Gurney 1993, 192–204 for discussion of local grey mortaria in Norfolk). The East Anglian mortaria date from the 1st century to the 3rd and probably the 4th century, but the six pieces of mortaria made elsewhere came from potteries in the Lower Nene Valley (two mortaria) and Oxford (three pieces) and all these examples belong to the 3rd or 4th centuries; at least one mortarium is an import from Lower Germany (150–300). The evidence supports the belief that the southern half of East Anglia produced enough mortaria for local needs from the 1st century onwards and that sometime much later, perhaps in the later 3rd century, local production waned and some of the more prominent potteries in other parts of Britain were able to find a market there. The potteries in the Lower Nene Valley were certainly fairly close at hand and one might have expected more of their products.

III. Gallo-Belgic and stamped wares

by Valerie Rigby

As well as the excavation finds many pieces of early fine wares were noticed and rapidly extracted from the mixed groups of pottery excavated after the formal excavation in

1973 by unsupervised volunteers. These pieces are listed as 'Unstratified Field 3'; it is likely that much of this material derived from the early layers and ditches in Area I. The unsystematic sorting of this group may well account for the skewed ratios of types noted below.

Abbreviations used in the text

Cam	Camulodunum (Hawkes and Hull 1947)
TN	Terra Nigra
TR	Terra Rubra

Catalogue of Gallo-Belgic pottery types

Terra Rubra

1. Platter Cam 7/8 in TR 2. Hard orange fabric with some small white calcareous inclusions, a little red grog and some very fine mica. The surface is badly flaked. From Area I North Pit 13 (GB). Typical fabric for this particular variant (Stead and Rigby 1989, fig. 54, GB 12 — dated 20–65).
2. Rim, cup Cam 56 in TR 1(i). From 'Campen's Kiln'. Possibly late Augustan, but any date up to Neronian.
3. Rim, pedestal cup in TR 1(A). Unstratified Field 3. Pre-Claudian.

Terra Nigra

4. Small, fine rim, cup Cam 58. Light grey fabric with slightly darker burnished surfaces. From Area I layer DB. AD 50–75.
5. Rim, platter Cam 5A. Burnt and discoloured. From Area II RV (clearance layer). Late Augustan-Neronian.
6. Rim, platter Cam 5A. Very similar to above example with very dark grey surfaces, burnished. From Area I layer AT (mixed, mainly Phase A). Late Augustan-Neronian.
7. Rim, platter Cam 16. Very pale grey fabric with mottled mid to dark grey burnished surfaces. From Area I North, pit 24 (GX). AD 50–85.
8. Base, platter Cam 7/8. Very pale grey fabric with very dark grey surfaces. Surfaces damaged. From Area I North, pit 14 (GK). Tiberio-Claudian.
9. Rim, platter Cam 14. Unstratified Field 3. Claudio-Neronian.
10. Nine base sherds from platters. Unstratified Field 3.
11. Two rims. Cam 1 platters in Micaceous TN. Imported from Central Gaul. Unstratified Field 3. Pre-Claudian.

Girth beakers

12. Rim, girth beaker Cam 84 in TR 3. Orange fabric with occasional white inclusions, exterior and top of rim interior are dark brown. Burnished. From Area I North pit 13 (GB). Tiberio-Claudian.
13. Rim and fourteen sherds from girth beakers, Cam 82 or 84 in TR 3. Probably five vessels. Unstratified Field 3. Tiberio-Claudian.

Gallo-Belgic ovoid beakers (Cam 112)

14. Body sherd, small with horizontal grooves and vertical combing. Red fabric, very dark red exterior, highly burnished. From Area I pit 7 (ES). Late Augustan-Claudian.
15. Body sherd with a band of six rows of stamped inverted Vs. Red fabric, light red-brown exterior. From Area I North pit 13 (GB). Late Augustan-Tiberian.
16. Four sherds in TR 3. Unstratified Field 3. Pre-Claudian.
17. Rim and body sherds in TR 3. Probably ten vessels. Unstratified Field 3. Tiberio-Neronian.

Butt beakers

18. Rims from three butt beakers Cam 113 in typical fine-grained parchment wares; also body sherds from three vessels. Vessel count probably five. Unstratified Field 3. Tiberio-Neronian.

Barbotine beaker

19. Rim and body of barbotine beaker with mica gilt slip on upper part. Cam 114. Import. From 'Campen's Kiln'. Tiberio-Claudian.

Flagon

20. Neck and body sherds in white pipeclay from two imported flagons, probably Cam 161. Tiberio-Neronian.

Miscellaneous

21. Bases from three beakers in TR 3. Unstratified Field 3.

The stamps

COTTOS bordered

The piece was recorded during the excavation but lost thereafter. From Area I ditch 2 (DH). There is no reason to doubt the reading since a Gallo-Belgic potter, Cottos, is known, chiefly from continental finds. Seven of his stamps have been recorded to date, made using three dies, cut by the same die-cutter. Die 1A1 is represented at Trier, Xanten, Wasmes and Luxembourg museum, all on TN, and none from a closely dated context. The closely related die 1A3 occurs on a TN cup, Cam 58, found at Dorchester, Dorset. Only die 1A2 has been recorded on TR, a platter found in a rich cremation burial at Goeblingen-Nospelt, Luxembourg, dated by the excavator c. 25 (Thill 1969, 186, Taf. 4, no.32).

The concentration on TN rather than TR and the form of the cup found at Dorchester suggest that Cottos worked 40–65, so that it is doubtful that the Hacheston platter was a pre-conquest import. The site of his workshop has not been located, but the style of his dies, typically with oversized O and undersized S, within a border, may indicate that he shared a die-maker with Jul(1)ios, die-maker D, Lullos, die-maker A, Illis, die-maker A, and Dacovir, die-maker A. Stamps of this style-grouping are concentrated in the lower Meuse and Rhineland and Britain; Camulodunum is a possibility since it has the greatest concentration of finds.

MEDI central; small platter; TN

Found in Field 3 in 1966, Ipswich Museum accession 966–1. Medi die 1A1. For the detailed biography see Down (1978, 194 and fig. 10.1), where the following errors should be corrected: line 3 — faceted exterior; line 12 — Angreau.

The continental distribution of Medi stamps is similar to Cottos and his possible associates, which may indicate the same source area, in which case, that is likely to be near Rheims, in the Marne-Vesle potteries. The span of Medi's working life is c. 30–65; he also appears to have made some stamped mortaria, the only recorded incidence (information kindly provided by Kay Hartley). The Hacheston platter could be a pre-conquest import, but is more likely to be post-conquest.

[VISER]OS bordered; radial stamp, large platter; TN — pale grey fine matrix, dark blue-grey surfaces with traces of a polished finish

Probably Viseros die 1A1. Stamps for this die have been found at Camulodunum and Eccles, Kent, and recorded on the continent at Bussy-le-Chateau, Evreux, and Luxembourg museum, all on TN. No find is closely dated. The concentration on TN suggests that he worked in the Claudio-Neronian period. Unstratified Field 3.

Estimated vessel count on all sherds

TR platter	1
TR cup	1
TN platters	16
TN cup	1
Mica TN platters	2
TR 1 pedestal cup	1
Girth beakers	5
Ovoid beakers	10
Butt beakers	5
Barbotine beaker	1

Comments

The overall date range is late Augustan (just) to Flavian, 10 BC to AD 85; most vessels date to the period 25–65, and are types which cannot be attributed to the pre-conquest period with certainty. However, it is likely that they were supplied to a thriving pre-Roman settlement via Camulodunum in the Tiberio-Claudian period, when South Gaulish samian was in short supply.

There is slight evidence for Late Augustan occupation, two platters in micaceous TN from Central Gaul and four ovoid beakers in TR 3 from Gallia Belgica, but it does not compare with Burgh, Suffolk, in its certainty (Martin 1988, 27–30). The six vessels are fine as far as they go, but there should be large and small TR 1 platters and specific small TN platters, as at Burgh, Camulodunum and Braughing *etc.*

This is a skewed assemblage, for compared to the number of TR and TN platters and cups there are far too many TR 3 beakers. In the King Harry Lane cemetery,

Verulamium, the totals are thirty-five platters, twenty cups and ten TR 3 beakers, at Hacheston they are seventeen, two and fifteen.

With the exception of the barbotine beaker, Cam 114, the sherds are small and miscellaneous, with no joins. Many of the sherds are so small, they may have suffered a long and busy period of disturbance and re-distribution after the vessels were discarded in the 1st century AD. It is possible that the Gallo-Belgic imports have been introduced to the site from surrounding areas.

Potters' stamps on coarse wares

Catalogue

1. VVVV bordered. Central stamp; one incised circle. Small platter, possibly copying Cam 16. Orange-buff sandy ware, burnished upper surface, matt lower. (There was also a second, similar example, but the stamp had been lost in antiquity.) Ipswich Museum Accession 966.1
2. Border fragment only; probably from the same die as 1. Central stamp; one combed wreath. Small platter with moulded foot-ring. Orange-buff fine sandy ware; burnished upper surface, matter lower. From Area I dark layer AI.

It is possible that all three platters were made at the same local workshop. The use of V-motifs is common, but versions within a border are more rare. The fabric is similar to Colchester products (Rigby in Symonds and Wade 1999), however, it is an ubiquitous fabric group in Hertfordshire and Essex and, although oxidised, is not very different from the reduced fabrics of Nos 3–5. The use of a combed wreath around the stamp is typical of potters working at West Stow.

3. XIXIXIX bordered. Central stamp; one incised circle. Small platter Cam 24. Light grey fine sandy ware; burnished finish. Ipswich Museum Accession 966.1 From Field 2.

An unusual die-style not closely paralleled elsewhere. The form and fabric suggest a date of manufacture AD 85–160.

4. IIXIIXII bordered. Central stamp. Small platter Cam 24, with a groove on the underside replacing a foot-ring. Dark grey sandy ware; burnished finish. Ipswich Museum. From Field 4.
5. IIXII[...] bordered. Central stamp. Small flat-based platter. Fine sandy grey ware with fine mica. From Area III pit F10 AAX.

Same die was used for No. 4. The symmetrical arrangement and use of upright strokes is closely related to No. 3. The fabrics are within the same range of fine sandy reduced wares.

6. Pattern mark — chevrons between parallel lines. Central stamp, double incised circle. Small flat-based platter. Fine sandy ware, grey core; orange-brown under-surfaces, grey surfaces with smoothed finish. From Area I ditches 1/2 AW.

A unique die, the effect is similar to some mortarium stamp borders.

7. Pattern mark — triple stroke V-motifs within a border. Four impressions arranged as a cross at the centre. Small flat-based platter. Dark grey-black sandy ware; smoothed finish. From Area IV, topsoil W (1).

The style is similar to stamps found at Colchester (Rigby in Symonds and Wade 1999), Longthorpe, Cambs (Rigby 1987, fig. 36, 1) and Baldock, Herts (Stead and Rigby 1986, 243, no. 4). In all cases the fabrics are dark grey-black but the Hacheston example is much coarser in texture and less well finished.

Comments on the coarse ware stamps

Without examining other Roman pottery from the site, it is not possible to assess which workshops supplied the stamped platters.

The die-style of Nos 3–5 is particularly distinctive, it is unparalleled elsewhere and so all three platters should be from the same workshop which may have been located at Hacheston. The fabrics of Nos 1, 2 and 6 lack specific defining characteristics and are fairly fine sandy wares, not too dissimilar to Nos 3–5, so that they too could be from the same source. The fabric and multiple stamping of No. 7 clearly set it apart from the rest.

In the absence of typological details and site dating evidence only a broad estimate of the date range of the stamps is possible, that is 85–160.

IV. The pottery from the 1973 excavation

by Paul Arthur (written in 1980 with revisions in 1998 by Judith Plouviez)

Pre-Roman material

A number of handmade vessels are included in the type series as part of the 1st-century assemblage. A couple of decorated sherds were also extracted and described by Paul Arthur and these are included here, along with a short note on an earlier group which suggests that other prehistoric features may well have been overlooked in the rapid excavation of Area II.

Grooved Ware

Edward Martin comments: a group of handmade pottery (from context SM, small pit F69 cut by ditch F44 in Area II), which could derive mainly from one vessel with a single rim from another, was identified at a late stage in the analysis as Late Neolithic Grooved Ware. The context also produced a single small sherd of Colchester colour-coated ware, presumably intrusive from ditch F44.

1. (*Not illustrated*). Single rim sherd, tapered with a flat top, a horizontal cord on the exterior 10mm below the top is notched with fingernail impressions. Angled parallel incised lines run between the cord and the rim top and another row of angled lines is visible below the cord. Black fabric with burnt flint and grog inclusions and voids from organic matter including probable cereal grains.
2. (*Not illustrated*). Two joining pieces of rim, undecorated, tapered form. Three basal sherds (two joining) giving a diameter of about 90mm. Sixty body sherds, of which four are decorated with raised cordons (some arranged in parallel rows) or spots, and two have post-firing drilled holes, 6mm in diameter. Fabric is dark grey-brown, generally with a light brown exterior, with burnt flint and grog inclusions and voids from burnt organic matter, including numerous cereal grains.

Stylistically the assemblage has closest links with the Durrington Walls sub-style of Grooved Ware, both in the decoration on rim 1 and the cordons on 2 (Wainwright and Longworth 1971). Grooved Ware sherds in the Durrington Walls sub-style have previously been found in Suffolk at Ipswich, Pakenham and West Stow (Wainwright and Longworth 1971, 241 and 286–287).

Iron Age stamped wares

Fig.108

1. Gritty, dark grey core, with a red-brown layer sandwiched between it and the dark brown interior and black burnished exterior surfaces. The vessel was handmade and is probably late Iron Age. Even though such stamped and incised decoration is characteristic of eastern English IA stamped wares, the closest affinities are with the Lincolnshire Group published by Elsdon, 1975 (fig. 19.7 from Kirmington for example). Brian Dix informs the writer of a very similar vessel from Odell, Beds, which appears to be in a different fabric (Area I, Pit 3 BH, Phase C).
2. Soft, dark grey vesicular fabric with a smoothed exterior surface varying from medium grey to almost black, containing little muscovite and abundant black grog. The vessel appears handmade and is comparable with No. 1 above. The sherd is best paralleled by Elsdon, 1975, fig. 18, no. 3. Elsdon glosses over the chronology of such pieces but, taken in conjunction with the other IA vessels from Hacheston, should probably be dated to the half century preceding the Roman conquest (Area I, Pit 2 BJ, Phase B).

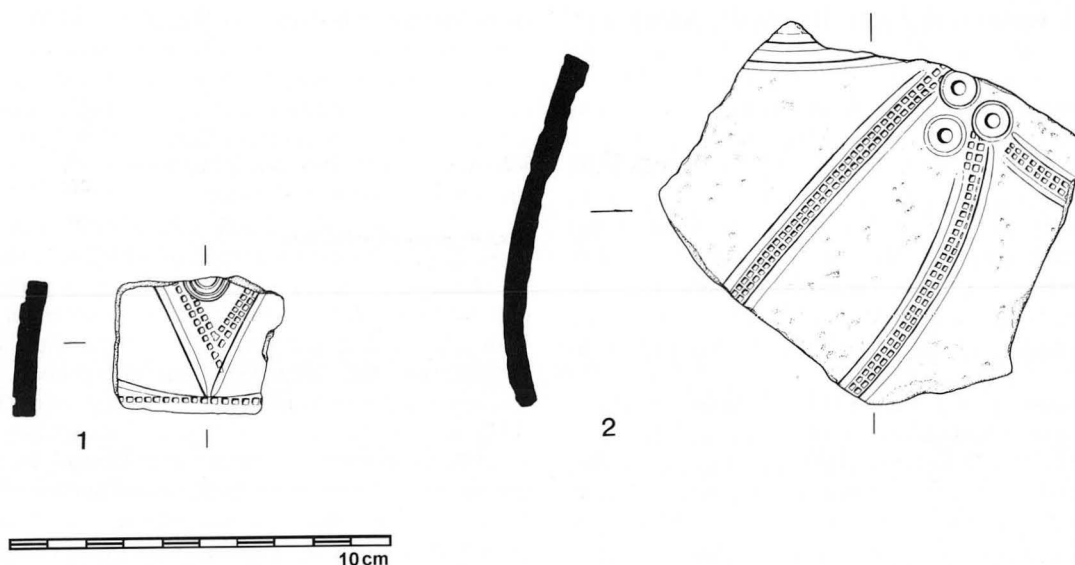


Figure 108 Iron Age stamped ware. Scale 1:2

Introduction to the Roman pottery

Suffolk and Norfolk are poorly served by studies on Romano-British pottery. This may largely be due to the fact that urban sites are represented solely by *Venta Icenorum* and Caister-on-Sea, east of a line extending between Colchester and Ancaster. Until the recent interest in rural settlements our major pottery studies have emanated from urban and, to a lesser extent, fort and villa sites. In an attempt to help redress this imbalance and provide a report which might to a certain extent typify, at least, the pottery circulating in southern and eastern Suffolk this paper will present an open-ended type-series (but in no way a definite typology) in contrast to the more usual catalogue of selected pottery. This is perhaps justified by the scale of the Hacheston excavations and the resulting 15,870 sherds (about 290kg), as well as the time-span covered, from the immediate pre- or post-conquest period up to about the late 4th century. Even though there was little in the way of stratigraphic sequences, over one hundred pits and a number of ditches were excavated.

The pottery has been quantified, and the data is preserved on a series of record sheets which are lodged in the archives of Suffolk County Council. The material from each context is listed according to types (and some wares), whilst the respective quantities are noted by sherd count, weight and percentage of surviving rim circumference. The methods of quantification employed are discussed in Hinton 1977, and Arthur and Ricci 1980. Limits of time and finance have meant, however, that a computer programme for the Hacheston pottery could not be run for the purposes of the present report. (However the information has been copied onto a computerised database since being transferred to Suffolk County Council.)

Abbreviation used in the text

Cam Camulodunum (Hawkes and Hull 1947)

Hacheston ware

Pottery production at Hacheston is known through various finds of kilns and debris by Mr M. J. Campen, a local amateur archaeologist, and by the excavation of a kiln by

Miss E. Owles, in 1965. Some of these groups are described below in Section VI (p.176).

The present excavation revealed a further kiln, in Area III, whilst another was found during the excavation cut by a modern pipe-trench. One piece of Hacheston ware (from Fig. 115 No. 1) was thin-sectioned by Dr David Williams, and revealed abundant flecks of silver-coloured mica, together with frequent quartz grains averaging 0.20–0.40mm in size. The petrological information is insufficient to characterize a Hacheston fabric and it would seem that any immediate hope of distinguishing Suffolk kiln products must rest largely upon typological considerations. Whilst it is likely that a large part of the coarse ware from the excavations is of local manufacture there seems no way, at present, of distinguishing Hacheston ware from local importations.

One group of pottery may reasonably be considered native to the site. Pit 21 (contexts GP, GQ and GT), which lay amongst a group of pits in Area I North, contained a dump of some 745 sherds of pottery, weighing 18.54kg. Some 80% of the pottery, by weight, appeared sufficiently homogenous in fabric to suggest that it represented a single ware. Many of the sherds were large and unabraded suggesting that they had a brief life before being discarded in the pit. Despite the virtual lack of deformed wasters, the deposit may represent a dump from a nearby kiln. The pottery compares with Hacheston products found by Campen. Dating evidence would suggest that the deposit was formed in the later 2nd century.

(It was decided for this publication that the kiln F2 and pit 21 groups would be extracted from the type series and presented separately with some of the previously unpublished kiln material, this can be found below in Section VI.)

Other pottery, which the writer considers may be local, is indicated in the text accompanying the type-series.

Pottery supply at Hacheston

The general impression created by the pottery from the excavations is one of self-sufficiency, above all in the coarse wares. Silver-mica or muscovite appears to be a

particularly common inclusion in Suffolk pottery and, indeed, the vast majority of coarse ware vessels from Hacheston contain muscovite. It seems probable that most of this pottery was produced either at Hacheston itself or at other Suffolk kiln sites. The largest production centre in Suffolk is the Wattisfield area, many of whose products are characterised by a very high mica content — although these are probably present at Hacheston they were not distinguishable during the analysis. The only coarse wares from elsewhere in Britain which were identified were Black Burnished ware (BB1 and BB2) and late shell tempered ware, and these were found in very small quantities.

One piece of true, handmade, Category 1 black-burnished ware (produced in Dorset, Farrar 1973 and 1977, Williams 1977) is illustrated in the Type series (bowl 38A) and only twelve pieces were identified (types bowl 42 and latticed jar 27), in contexts dated after 150, and mostly at least 3rd-century. The few pieces were heavily outnumbered by BB2 and local imitations. Illustrated examples of BB2 are bowls 38E and 42A, whilst jar forms 27 and 29 were also noted; it was not fully quantified in the analysis but at least twenty-nine rims were listed as BB2 (for a recent discussion of BB2 and variants from the Essex/Kent region which reached East Anglia, see Darling with Gurney 1993, 207–208).

Shell-tempered ware jars as produced at Harrold in Bedfordshire (Brown 1994) and widely distributed in southern Britain in the 4th century are represented only by three sherds, of which two were found in Area II ditch F35 contexts PH, PR and one from a dark soil context, AK, in Area I. Although the largest dark soil context, AA, was not fully analysed it was later scanned for dating evidence and the absence of shell-tempered ware was noted.

The fine wares are a mixture of imports from the Continent, wares traded from elsewhere in Britain and local products; the most plentiful being the samian wares discussed above. The earliest imports however are the Gallo-Belgic wares, both Terra Rubra and Terra Nigra being present, albeit in small quantities and much of them from unstratified contexts (see full report above). These wares were extensively copied locally (see types 17, 19, 32), as were samian forms in the later 1st and earlier 2nd century (types 33, 34). Only very few examples of early fines wares from elsewhere in Britain were noticed, such as mica-dusted ware (see type 10).

Through the course of the 2nd and 3rd centuries Colchester and Nene Valley imports rose in importance until they swamped the market by the late 3rd century. Colchester colour-coated wares are illustrated as types 10A, 12C and 12D, and all the identified pieces were bag-shaped or indented beakers, with rough-cast, rouletted and barbotine decoration. These represent less than 1% of the studied assemblage (about 0.5% by sherd count) and mostly occur in Phase C, corresponding to the period of production at Colchester between the mid 2nd and mid 3rd centuries, and as residual material in Phase D.

The lower Nene Valley industry is again mainly represented by beaker forms — illustrated pieces are types 9B, 12A, 14C — with one hemispherical bowl and one flagon rim also recorded. There is a noticeable lack of the normal 4th-century range of colour-coated bowls and jars, and only a couple of white ware mortaria. Nene Valley ware was slightly more plentiful than Colchester colour-coated ware but still less than 1% of the assemblage (0.8% by

sherd count). It occurred in Phases C and D, reflecting output from the end of the 2nd century onwards.

Some colour-coated ware was produced more locally at Pakenham (Smedley and Owles 1960) and can be difficult to distinguish from Colchester and Nene Valley wares; within the type series one beaker, 9A, was noted as probably a Pakenham product.

Only about twelve sherds were identified as possibly Oxford red colour-coated ware, of which only three were listed as probable or certain; none were seen in the scan of dark soil layer AA. This small number seems in keeping with suggested sparse penetration of the ware into East Anglia, and the suggestion that the pottery was not marketed in the area until late in the 4th century (Plouviez 1976, 88–89). The sherds were found in very late contexts — in Area I ditch 32 (AP) and one of the dark layers (BF), and in Area II from pit F33 (QF) and surface clearance. Oxford mortaria were also uncommon, one cream fabric piece from a mixed layer and a couple of red colour-coated pieces from Area II clearance over ditch F35.

Dressel 20 oil amphorae from southern Spain (type 6) accounted for 1122 sherds of the total sherd population (7%). Of these, none appeared in 1st-century contexts. About 62% of the sherds (numerically) came from 2nd-century deposits, c.17% from 3rd-century deposits, 15% from the 4th century and the rest were not stratified. There is little evidence for southern Spanish oil exportation after about the middle of the 3rd century (Panella 1973, 528) and therefore, the 15% from 4th-century contexts could be considered residual. The Dressel 20 sherds were distributed throughout the site.

Only nine sherds (7% of the amphora sherds numerically), seven of which came from layer AAZ in Area III (Phase C), appeared to represent the southern Gaulish Dressel 30 wine amphora. One of the sherds, from Area I dark layer AI, may have come from a Romano-British Dressel 30 imitation. However, the small number of imported wine amphorae represented by these sherds can be no indication of the quantity of wine consumed at Hacheston due to the possibilities of local viticulture and importation of wine in wooden barrels. One possible sherd of a Spanish Dressel 28/Vindonissa 581 amphora (type 7) came from a probable late 2nd-century context (pit 27, HU). Finally, sixty-six sherds of an unusual amphora (type 8) came from layer AJ, again possibly late 2nd-century. It is discussed in the type series.

Less than twenty sherds of 'Rhenish' wares from Trier and Lezoux represent the only other identified continental imports apart from samian ware and amphorae, and are negligible compared to the Nene Valley and other Romano-British fine wares from the site.

In conclusion, it would seem that Hacheston had to look no further than Colchester or the Nene Valley for its fine wares and even less far for coarse wares. Samian proved to be the main exception, whilst other imports should perhaps be regarded as exotic.

The type-series (Figs 109–112)

Each major type is given a separate number, whilst varieties of the basic type are given letters. Thus type 1, variety 3 is expressed as 1C. Types have been selected using form as the main criterion.

Fabric characterization of pottery in south-east England is notoriously difficult. The grey wares prove to be the most

intractable and although an attempt was made to group the Hacheston fabrics, this was largely abandoned during the course of the work. Therefore, whilst standard fabrics such as BB 1, Nene Valley *etc.* have been sorted out, there has been little attempt to group the majority of the coarse wares. A summary of some of the fabrics to be found in Suffolk is given by Plouviez (1976, 86–90).

Type 1

Fig. 109

Ring-necked flagon, characterized by the series of expanding rings around the neck and rim. This is Southwark Type 1B (Marsh and Tyers 1978) where the continental prototypes are discussed. The date range is generally between about 60 and 130. There is no evidence that the type was produced at Hacheston, although it is known from other Suffolk kilns (*e.g.* West Stow — West 1990, 77–78, type 1.8; Grimstone End — Smedley and Owles 1960, fig. 7f). In all thirty pièces (0.2%) were listed.

1 A Hard, fine cream with some quartzite inclusions. Area I N Pit 14 GK, Phase B.

1 B Hard, fine, pink-orange with a cream-coloured surface. Area I N Pit 41 JP, Phase B.

Type 2

Stepped disc-rimmed flagon. Two examples were found at Hacheston, in 3rd to 4th-century contexts (Area I, layers AJ, AK). The type was produced in a reduced grey fabric at the Sandford kiln of the Oxfordshire group (Young 1977, fig. 74, R4.2), whilst a similar vessel in a cream fabric came from the Ditchley villa and is considered by Young (1977, 102, W19) to date c.240–300. Vessels of similar form (but usually in a Much Hadham fabric) at Colchester occur 'in graves from about 240, and in the 'Mithraeum', c.350' (Hull 1958, 290, type 365).

2 A Hard cream with some quartzite. Area I, layer AJ, Phase C.

Type 3

Cupped-rim flagon. This is an unusual vessel which may have derived from the ring-necked flagon (type 1 above) through traditional varieties like Wilson (1972), fig. 116, no. 561. A similar rim form in Much Hadham ware was found at Burgh Castle (Johnson 1983, 92 no. 93). The sole example from Hacheston comes from a probably 3rd-century context.

3 A Hard, fine cream-light brown with a little quartz and minute mica. Area I Pit 54 KP, Phase C.

Type 4

Flattened triangular-rimmed flagon. This is comparable to a flagon from Colchester (Hawkes and Hull 1947, pl 61, 149 (21)), dated to the 1st century. The single Hacheston example is in a later (late 2nd-century or later) group.

4 A Fairly soft, beige, with some minute mica inclusions. Area III layer AAU, not phased.

Type 5

This could be part of a disc-necked flagon as in Young (1977, fig. 26, P2.1), broken just at the disc projection, dated c.240–400. Alternatively it is a straight-necked type, fairly similar to one from a 2nd-century context at Scole (Rogerson 1977, 178, no. 48). One example from a 3rd-century group.

5 A Hard, light brown-cream with a little visible muscovite. Area I Pit 54 KP, Phase C.

Type 6

Dressel 20 oil amphora from the Guadalquivir region of Baetica, southern Spain. Peacock and Williams 1986, 136–140, Class 25.

6 A Hard, pink with a light grey core, pale brown exterior slurry and abundant small rounded quartz and calcareous inclusions. Circular handle scar. 2nd century. Area I layer AA, Phase D.

6 (Not illustrated). Medium hard, cream-pink with numerous sub-angular quartz and quartzite grits (around 1mm in diameter) and some calcareous inclusions. The vessel has been burnt and a handle sherd had been smoothed down, suggesting some form of re-use. Late 2nd to mid 3rd century. Area I Layer AH, Phase D.

Type 7

Probable Dressel 28, Peacock and Williams 1986, 149, Class 31.

7 (Not illustrated). Hard, cream-brown. An examination of the sherd in thin-section by Dr David Williams revealed 'a ground mass of small sub-angular quartz grains, below 0.10mm, with a scatter of larger grains in the size range 0.20–0.40mm. Also present are flecks of mica and fragments of limestone and metamorphic rocks'. Area I Pit 27 HU, Phase C.

Type 8

8A, Unusual amphora form, characterized by a distinctive grooved rim (8A), a flat base (8B) and a combed wavy line band on the shoulder (single sherd, not illustrated). The vessel originally bore two handles. Similar, though not identical, vessels are known from Sturry, near Canterbury (Callender 1965, fig. 19, no. 28), Thorney Bay, Canvey Island (ex inf W. Rodwell) and the Little Russel site B wreck, of St Peter Port harbour, Guernsey (Keen 1979), whilst a body sherd with combed decoration, possibly belonging to an amphora of this type, was found at Newhaven, Sussex (Green 1976, 283, no. 238). The Sturry example was found with a coin of Antoninus, a crossbow brooch and a Dressel 20 amphora stamped LIT (retro). The contexts of both the Sturry and Hacheston examples would suggest a late 2nd to 3rd-century date for the type.

David Williams has described the Hacheston vessel, from Area I Layer AJ Phase C, as having 'a fairly soft sandy fabric, reddish-yellow (5 YR 7/6) throughout, with a scatter of small white limestone inclusions. Thin sectioning reveals numerous sub-angular grains of quartz, average size 0.05–0.15mm, together with fragments of shelly limestone and some mica. The mineralogy suggests a source area of sedimentary rocks. A local origin is thus geologically possible, though it is probably significant that the petrology of the Hacheston kiln material is quite different and a source further afield should no doubt be sought'. Thin-sectioning of the Thorney Bay and Little Russel site B wreck examples 'shows numerous sub-angular quartz grains of roughly the same size-range as the Hacheston example, together with mica, but lacking any sign of shelly limestone inclusions. In thin-section the Hacheston vessel would appear to be different to the other two samples. However, as the range of inclusions for all the sherds is fairly common, it is possible that all these vessels were made in the same general area, although on present evidence this remains to be proved'.

I should like to thank David Williams for having brought the Thorney Bay and Little Russel site B examples to my attention and for obtaining the relevant permission to examine the specimens.

This example has more recently been classified in Peacock and Williams (1986, 210) as a furrowed rim type, Class 55, probably originating in Normandy. See also Deniaux 1980, 22.

Type 9

Indented beaker with funnel neck. About 150 pieces (1% of the total) were listed as indented beakers (types 9 and 10) in Colchester and Nene Valley colour-coated wares and plain reduced and oxidised fabrics.

9 A Hard, fine and splintery medium red-brown paste with a little mica and some white calcareous inclusions, and an overall matt, medium brown slip. The fabric is very similar to the products of the Pakenham kilns, and the form compares well with material excavated in 1985 (Plouviez unpublished). The type is probably mid-3rd to 4th century; the context suggests the second half of the 3rd century. Area I Post-hole 63 KJ, Phase C.

9 B Medium hard cream with a pale orange core and a matt dark brown slip, changing to orange-pink on the exterior of the base. Nene Valley colour-coated ware (as Howe *et al.* 1980, 19, no. 39), dated mid to late 3rd-century. Area II Ditch F35 PR, Phase D.

9 C Hard, light grey, with abundant minute muscovite and a burnished rim and shoulder. At the break there is a very slight curve into the top of an indent. Possibly a 3rd-century Hacheston product. Area I Pit 8 EL, Phase D.

Type 10

Indented beaker with everted rim

10 A Very hard, fine pink paste with minute specks of biotite and calcareous inclusions, and a very slightly metallic dark chocolate coloured overall slip. Broken at the top edge of the indent next to the barbotine scales. Probably a Colchester product, where however the use of scale decoration on this form (Cam 406) is not common, so possibly a Central Gaulish import. Area I Pit 69 FS, Phase D.

10 (Not illustrated). Indented body sherd from a small vessel, medium hard, orange-pink (between 5 YR 6/6 and 6/8) with some small ?haematite and quartz inclusions. The exterior bears a biotite-rich slip. Most Suffolk products appear to contain muscovite, not biotite, and this vessel may be an import to the area. See Marsh (1978,

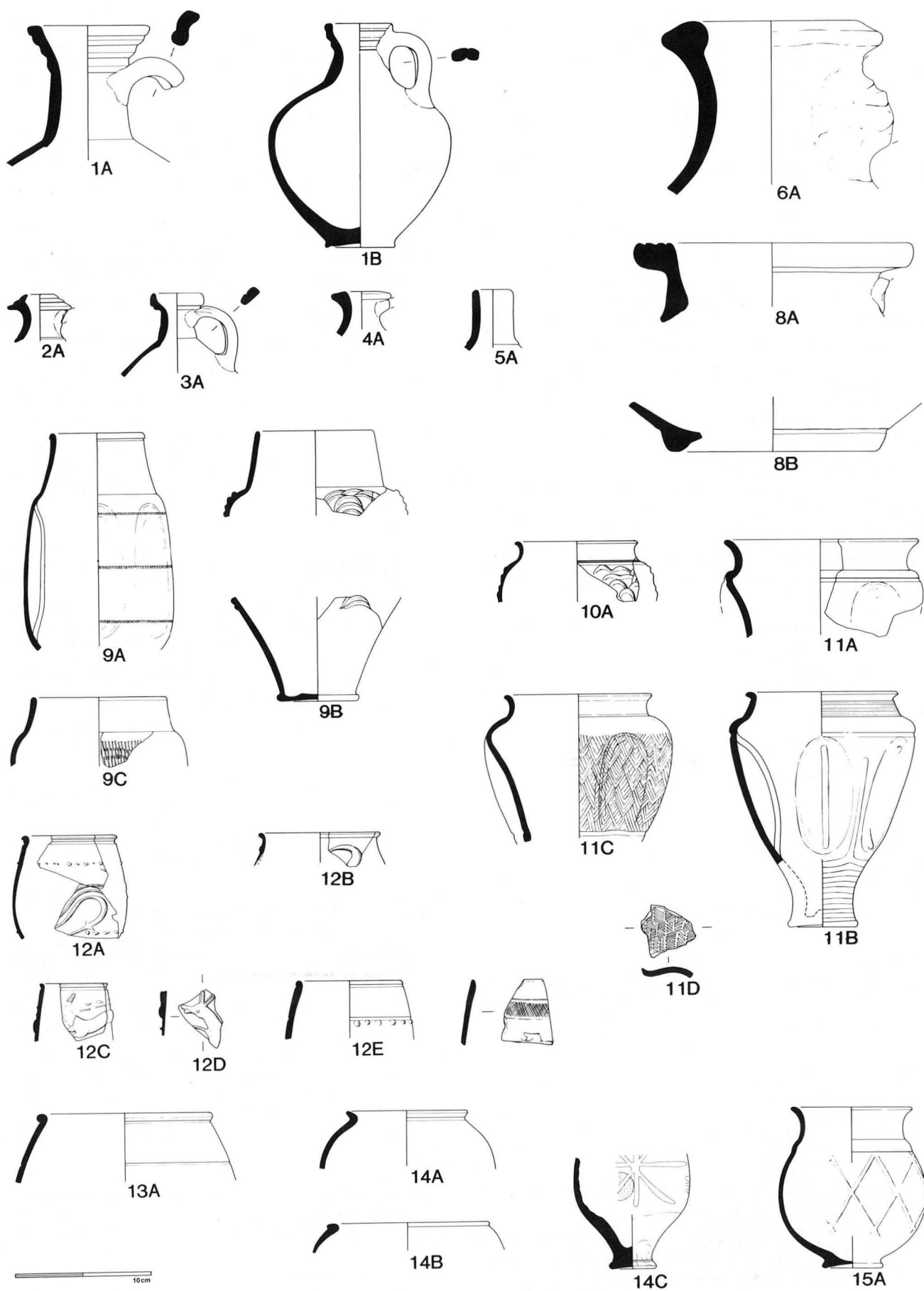


Figure 109 Roman pottery: the 1973 excavation type series. Scale 1:4

122–123), for a discussion of 'mica-dusted' ware. Probably first half of 2nd century in date. Area I Pit 54 KP, Phase C.

A total of five mica-dusted body sherds, mostly from unidentifiable vessel forms, were identified. In the late 2nd or 3rd century mica slipped bowls were produced at Pakenham (Smedley and Owles 1960) but there is no evidence for local production of mica-dusted beaker forms

Type 11

Indented beaker with everted rim, narrowing sharply towards the base. This form also occurs once in the kiln groups (fig. 120 no. 19) and about ninety pieces are listed (0.6% of total), mainly in reduced fabrics.

- 11 A Hard, darkish grey with a few small calcareous inclusions and little visible mica. Burnished on the shoulder and upper interior edge of rim. 3rd to 4th-century. Area I Pit 7 EI, Phase C.
- 11 B Similar to above but with abundant muscovite. Burnished on the neck and base, with vertical burnished lines between and in the middle of the indents. Area I Pit 33 KT, Phase D.
- 11 C Hard, medium reddish-brown with black surfaces. The body bears roller stamped decoration which appears on a number of the indented beaker sherds (*cf.* 11 D). Finely burnished on the exterior above the decorated area. Both the form of the vessel and the context would suggest a 3rd-century date. Area I Pit 69 FS, Phase D.
- 11 D Hard, medium grey, slightly micaceous, uneven surface colour, with roller stamped decoration similar to 11 C. Area I Layer KC, Phase C/D.
- 11 (Not illustrated) Fine, hard, off-white paste with a matt black exterior and orange/brown interior slip. As Howe *et al.* 1980, 19 no. 40. Late 2nd- to early 3rd-century Nene Valley type. Area I Pit 54 KP, Phase C. Sherd mislaid (1998).

Type 12

Bag-shaped beakers. This group could be sub-divided. However, all the vessels are part of a similar tradition and are grouped together for convenience. About sixty pieces (0.4% of total) are listed, in various colour-coated and local fabrics. The examples are generally mid 2nd to later 3rd-century in date.

- 12 A Very hard and fine, white, barbotine decoration with an overall matt black slip. Nene Valley colour-coated, (as Howe *et al.* 1980, 16, no. 29), late 2nd to early 3rd-century. Area I Pit 8 EL and EM, Phase D.
- 12 B Medium hard, brittle, orange-pink with a glossy black slip. Underslip barbotine scroll or leaf below the rim (similar to Symonds 1992 no. 417). Central Gaulish 'rhenish' ware. Area II Ditch F 35 QY, Phase D.
- 12 C Fairly hard, pink-brown with a matt medium greyish-brown slip. Underslip barbotine animal. A small example of a 'Hunt cup'. Probably from Colchester. Area I Layer AA, Phase D.
- 12 D Hard, light pink-orange with an overall black slip. Underslip barbotine animal similar to 12 C. Probably from Colchester. Area II, Clearance layer PH over Ditch F 29.
- 12 E Fairly hard, gritty light brown with an orange core, small quartzite grits and a little mica. The top 20mm of the exterior is burnished. The fabric and absence of a slip suggest production at Hacheston, although no other examples with a row of barbotine dots have been identified. Area I Layer KC, Phase C/D.
- 12 F Hard, medium grey, with dark grey slip and minute inclusions of muscovite, calcareous and dark specks. Roller-stamped (?) decoration. Diameter not measurable, probably around 90mm. Area I Pit 69 FS, Phase D.

Type 13

Large ovoid or bag-shaped beaker. See discussion of the kiln products for more examples of this type (Fig. 120 No. 20).

- 13 A Medium hard, light orange-pink with minute mica. Area I Pit 3 BH, Phase C.

Type 14

Various globular beaker forms.

- 14 A Hard, dark grey, medium grey core with occasional calcareous and micaceous inclusions. Simple globular beaker. Burnished exterior and rim interior. Possibly first half of 2nd century. Area I N Pit 14 GK, Phase B.
- 14 B Soft, white, with no visible inclusions. Globular beaker with a flattened bead-rim. This type is generally later 1st to early 2nd-century. Area I N Pit 24 GX, Phase B.
- 14 C Hard, fine cream-pink with a darkish purple-brown interior slip and a similar coloured slip on the lower part of the vessel. The decorated

zone bears a cream slip over reduced black slip. The design of a four-line star and vertical row of dots repeats three times around the circumference; a pale brown circle behind the illustrated star is probably accidental (perhaps a fingermark). Nene Valley, possible pentice type beaker as Howe *et al.* 1980, 20, no. 54, 3rd to 4th-century. Area I Pit 33 KJ, Phase D.

Type 15

Small flared-rim beaker, as Wilson 1972, 306, no. 600. This single example is similar to poppy-beaker forms (Tyers 1978, 75, no. 63 for example). Only two body sherds from a true poppy-beaker were found (in Area I Layer AI).

- 15 A Hard, orange, with many white calcareous inclusions, a buff-brown exterior slip and very faint traces of orange-brown painted lattice decoration. Comparable to West Stow (West 1990, 84, nos 284–285) which have vertical painted lines. Early 2nd century. Area I Pit 70 NAO, Phase C.

Type 16

Fig. 110

'Gallo-Belgic' butt-beaker of Cam form 113. This type is widely distributed in south-eastern Britain (see Cunliffe 1971, type 59). 16 A is in fine white North Gaulish fabric (as discussed in Stead and Rigby 1989, 137) A further twenty-six sherds were identified as typical butt beaker.

- 16 A Hard and very fine, cream (7.5 YR 8/4) with particles of red-brown ferric material that have left short horizontal red-brown streaks in the surface due to burnishing. Sparse minute muscovite specks. Dates to the first half of 1st century. Area I N Pit MBF, Phase A.

Type 17

Butt-beaker derivative (Cam 115–118 and 119). These vessels represent development of the classic butt-beaker forms around and after the Conquest.

- 17 A Hard, light grey, oxidised margins and with darker brown-grey surfaces, few visible inclusions apart from abundant muscovite, burnished upper exterior and cordons between bands with combed zigzag and vertical lines. Area I Ditch 23 KW, Phase A.
- 17 B Hard, medium grey, with medium brown core and well burnished exterior and interior of rim. Rare minute muscovite. Area I N Pit 35 JR, Phase B.
- 17 C Fairly soft, medium to dark brown with a dark grey core, some visible quartz and minute muscovite. Area I Layer AJ, Phase C.

Type 18

Girth-beaker. *Cf.* Cam forms 84–85. Single example listed. First half of 1st century.

- 18 A Fairly hard, red (2.5 YR 5/6) with a black core and minute muscovite specks. Area I Pit 5 DJ, Phase B.

Type 19

Cups or bowls with concave-walls comparable to Cam types 211–216. Most of the listed examples are illustrated. A 1st-century form.

- 19 A Medium hard, dark grey, with medium brown, burnished exterior surface, slightly vesicular and with a little muscovite and red-brown grog. Area I Road layer AQ, Phase B/C.
- 19 B Fairly hard, dark brown, with a burnished exterior, and occasional inclusions of iron oxide, quartz, muscovite and calcareous particles. Area I N Pit 14 GK, Phase B.
- 19 C Fairly soft medium grey with black surfaces and smoothed exterior. Some rounded quartzite and abundant minute muscovite. Area I Ditch 1 DK, Phase A.
- 19 D Hard, medium grey with burnished and combed exterior surface. The form is uncertain, possibly a cup or beaker. Area I N Pit 24 GX, Phase B.

Type 20

Small bowl/jar with corrugated shoulders. This is Cam type 229, and may be handmade or wheel-turned. Also present at Burgh (Martin 1988, 39, nos 41–43) in an early 1st-century context. It seems to be predominantly pre-Conquest.

- 20 A Fairly hard, dark grey, slightly vesicular with a black burnished exterior, inclusions of quartz and a little muscovite. Area I N Ditch 35 MAD, Phase A/B.

Type 21

Hand made bowl/jar, probably first half of 1st century.

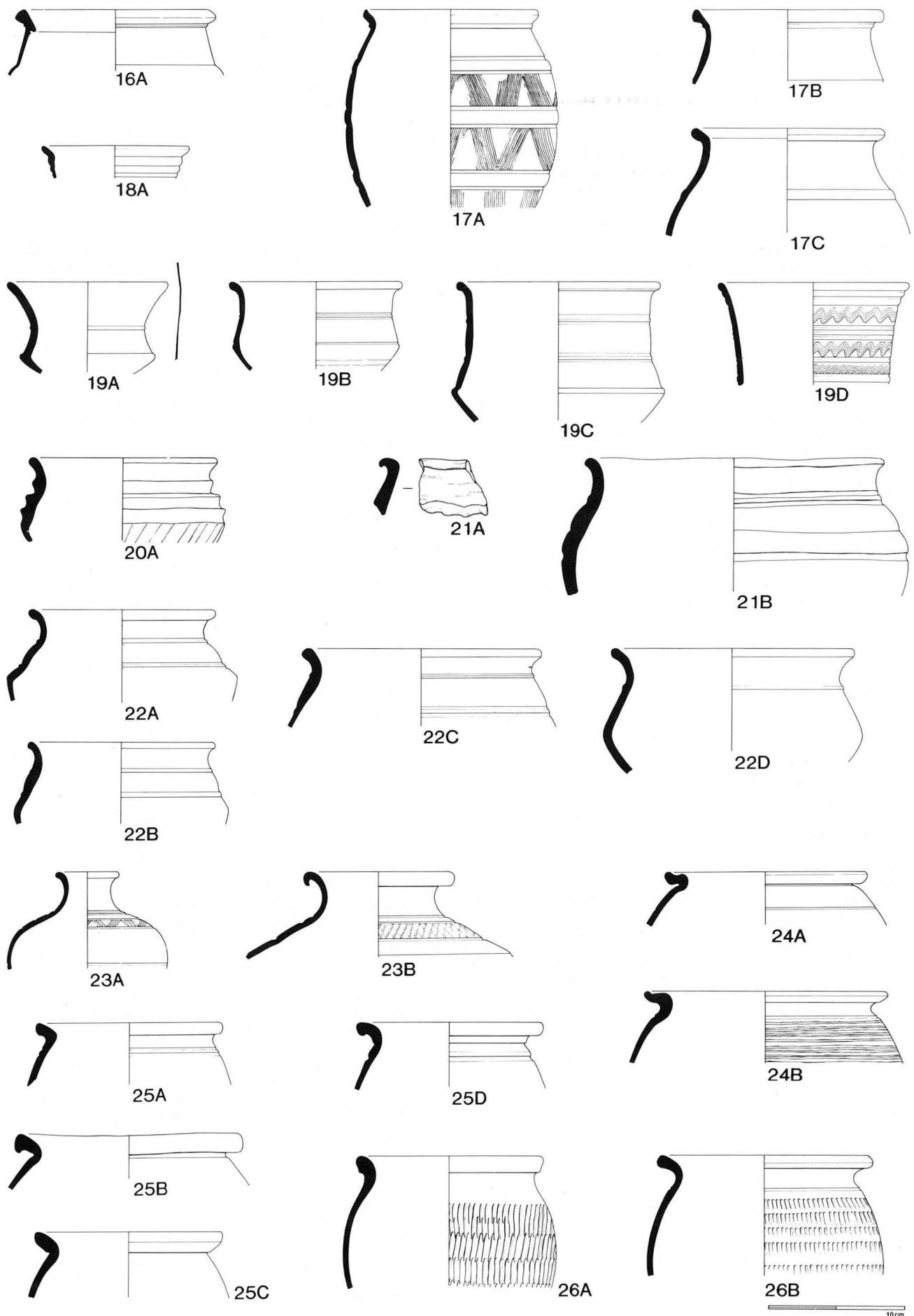


Figure 110 Roman pottery: the 1973 excavation type series. Scale 1:4

- 21 A Fairly soft, black vesicular with a medium orange-brown surface, and a little quartz, muscovite and dark grog. Diameter uncertain, perhaps around 160mm. Area I Layer AT, Phase A.
- 21 B Fairly hard, medium grey with medium brown surfaces and abundant minute muscovite, quartz and brown grog. Burnished exterior and rim interior. Area I N Pit 51 LS, Phase A.

Type 22

Double cordon bowl/jar, Cam 218, 1st-century form spanning the Conquest. At Burgh (Martin 1988, 41) two size groups were identified by rim diameter, of which 22 A and 22 B fit into the smaller group, and 22 C and 22 D are at the small end of the larger group. 22 D is not strictly double cordoned but can be seen as a handmade variant.

- 22 A Hard, dark brown with a medium grey core and black surfaces. Burnished exterior and abundant minute muscovite. Area I Post-hole 10 BW, Phase A.
- 22 B Medium hard, medium grey with dark grey-brown surfaces sandwiching an orange layer and brown-black smoothed exterior surface. Little minute muscovite. Area I N Clearance layer LC.
- 22 C Hard, dark grey with black surfaces, burnished on exterior and with some minute muscovite and grey grog. Area I N Pit 65 MAV, Phase A.
- 22 D Handmade in a medium hard, dark brown gritty fabric with dark brown/black surfaces and core. Burnished exterior and upper part of rim interior. Abundant small angular quartz (c.0.4mm) and occasional small red grog. Area I N Pit 10 GD, Phase A.

Type 23

Narrow-neck jar. 1st to early 2nd century. 23 B is almost certainly an Area III kiln product as Fig. 115 No. 4.

- 23 A Fairly hard, gritty, medium grey, burnished on the upper third of the vessel's exterior. Area I N Pit 41 JP, Phase B.
- 23 B Hard, medium brownish-grey with a similar coloured exterior slip and scattered minute muscovite. Burnished lattice band. Area III kiln F2 stokehole AAV, Phase B.

Type 24

Lid-seated rim jar. This is a very common type (sixty-three pieces listed) at Hacheston and was made there (see kiln products, Figs 119 Nos 1, 2, 120 No. 2). It would seem to be predominantly later 2nd to 3rd-century in date.

- 24 A Hard, gritty medium steel-grey with numerous small sub-angular quartz inclusions. Area I Pit 70 NAK, Phase C.
- 24 B A slightly distorted example in a hard, grey fabric with a little minute muscovite and some quartz. Narrow horizontal grooves of variable depth and spacing cover at least the upper half. Area I Layer AK, Phase D.

Type 25

Jars with short necks, flared rims which may be rolled or undercut and are often close to lid-seated, and may have one or two grooves below the neck.

- 25 A Medium hard, grey/brown with a grey core and blackened exterior surface and a little muscovite. Area I Pit 7 EI, Phase C.
- 25 B Distorted vessel, probably local, in a hard, grey fabric with a lighter core and a little muscovite and dark grits. Area I Layer AK, Phase D.
- 25 C Hard, red-brown with a medium grey core and black surfaces. Scattered minute muscovite and some quartz. Area I Layer AJ, Phase C.
- 25 D Hard, darkish grey with a lighter core and a little minute mica. Area I Layer AK, Phase D.

Type 26

Jars with a short neck and rouletted decoration. Probably a 2nd to 3rd-century type and perhaps made locally.

- 26 A Hard, medium grey with a lighter grey core, abundant small rounded quartz grains and a little muscovite and dark inclusions. A white 'limescale' deposit on the interior. Area I Pit 8 EM and Layer BF, Phase D.
- 26 B Hard, medium blue-grey with small dark specks and a little minute muscovite. Area I N Pit 40 JW, not phased.

Type 27

Fig. 111

Everted rim jar, usually with burnished lattice decoration. This is one of the commonest jar forms, especially in black-burnished ware, and is

discussed by Marsh and Tyers (1978, 559–562, with references). 128 pieces (0.8% of total) are listed. Some of the examples were probably made in Suffolk, at Hacheston and elsewhere (Figs 117 Nos 10, 11, 120 Nos 17–18). The use of burnished vertical lines rather than lattice on 27 D and 27 E is a common East Anglian variant (for example at Scole, Rogerson 1977, nos 117, 121, 124, 126, 137, 192, 195 and at Icklingham, Plouviez 1976, nos 43, 79).

- 27 A Hard, medium steel-grey with burnished slip on the exterior and rim and a few dark inclusions and minute muscovite. Area I Pit 69 FS, Phase D.
- 27 B Hard, slightly micaceous, medium grey-brown with a burnished rim and shoulder and many small quartz grains. Area I Pit 54 KP, Phase C.
- 27 C Hard, light grey with many small dark grey specks and a buff-brown core. Burnished below the lattice and on the base. Area I Layer AC, Phase D.
- 27 D Similar to 27 B, but with a buff-brown core. Limescale on interior. The diameter was not precisely measurable. Area I Pit 54 KP, Phase C.
- 27 E Hard, medium grey with black surfaces, burnished rim and shoulder and abundant minute muscovite. Area I Layer AC, Phase D.
- 27 F Hard and fine, medium steel-grey (2.5 YR 7/0) with occasional muscovite specks. Banded burnishing below lattice and on base. Possibly a Hacheston product. Area I Pit 1 AO, Phase C.

Type 28

Small pear-shaped example of 27. Single example.

- 28 A Hard, medium grey with a pink-brown core and small quartz grains and muscovite. Area I N Pit 41 JP, Phase B.

Type 29

Jar with upright neck and beaded rim, sometimes undercut. 29 D is transitional between this, generally early, form and type 25. The form was produced in the 1st century, for example at Stowmarket (Plouviez 1989, form 1). Similar types were found in the Hacheston kiln groups (Fig. 115 No. 5, 118 Nos 1, 2).

- 29 A Hard, dark grey with a purple-grey core, blackened exterior and inclusions of minute mica and white specks. Area I N Pit 14 GK, Phase B.
- 29 B Hard, medium brown with medium grey core, blackened exterior and occasional minute mica. Area I N Pit 14 GK, Phase B.
- 29 C Slightly distorted vessel in a medium grey (7.5 YR 6/0) fabric with a darker exterior surface (10 YR 4/1), with some minute muscovite and some larger black inclusions (up to c. 1mm). Possibly a local product. Area I N Pit 19 JC, Phase B.
- 29 D Hard, medium grey with a pink-orange core, a little muscovite and a blackened exterior. Area I Post-hole 22 CU, Phase C.

Type 30

Round-bellied jar/bowl usually with a groove at mid girth. A long-lived East Anglian type, derived from the Belgic double cordoned form (type 22 above). Produced at West Stow (West 1990, 78, nos 210–213), Pakenham (Smedley and Owles 1961, fig. 7 g) and in the Wattisfield area. The Hacheston kiln groups include a few examples (Fig. 119 No. 13, 120 No. 30).

- 30 A Medium hard, grey exterior, light brown interior and light grey core. Few visible specks of muscovite. Burnished exterior and rim interior. Area I Layer BF, Phase D.
- 30 B Hard and fine, light grey with black surfaces, minute muscovite specks and burnished shoulder and bands on lower part of body. Area I Pit 54 KP, Phase C.
- 30 C Hard, medium grey with a medium orange-brown exterior surface, a blackened and burnished rim. Inclusions of abundant minute muscovite and a little orange grog. Area I Pit 70 NAK and NAK, Phase C.
- 30 D Medium hard, medium steel-grey with a blackened exterior and scattered minute muscovite. Area I Layer AI, Phase D.

Type 31

Miscellaneous storage jars.

- 31 A Medium hard, medium grey with an orange-brown core, abundant minute muscovite and some angular quartzite. Burnished oblique lines below the fingernail impressed cordon. Context ZT, unstratified.
- 31 B Medium grey with an almost black surface, some black grog and minute muscovite. Probably 1st century. Area I N Pit 13 GB, Phase A.

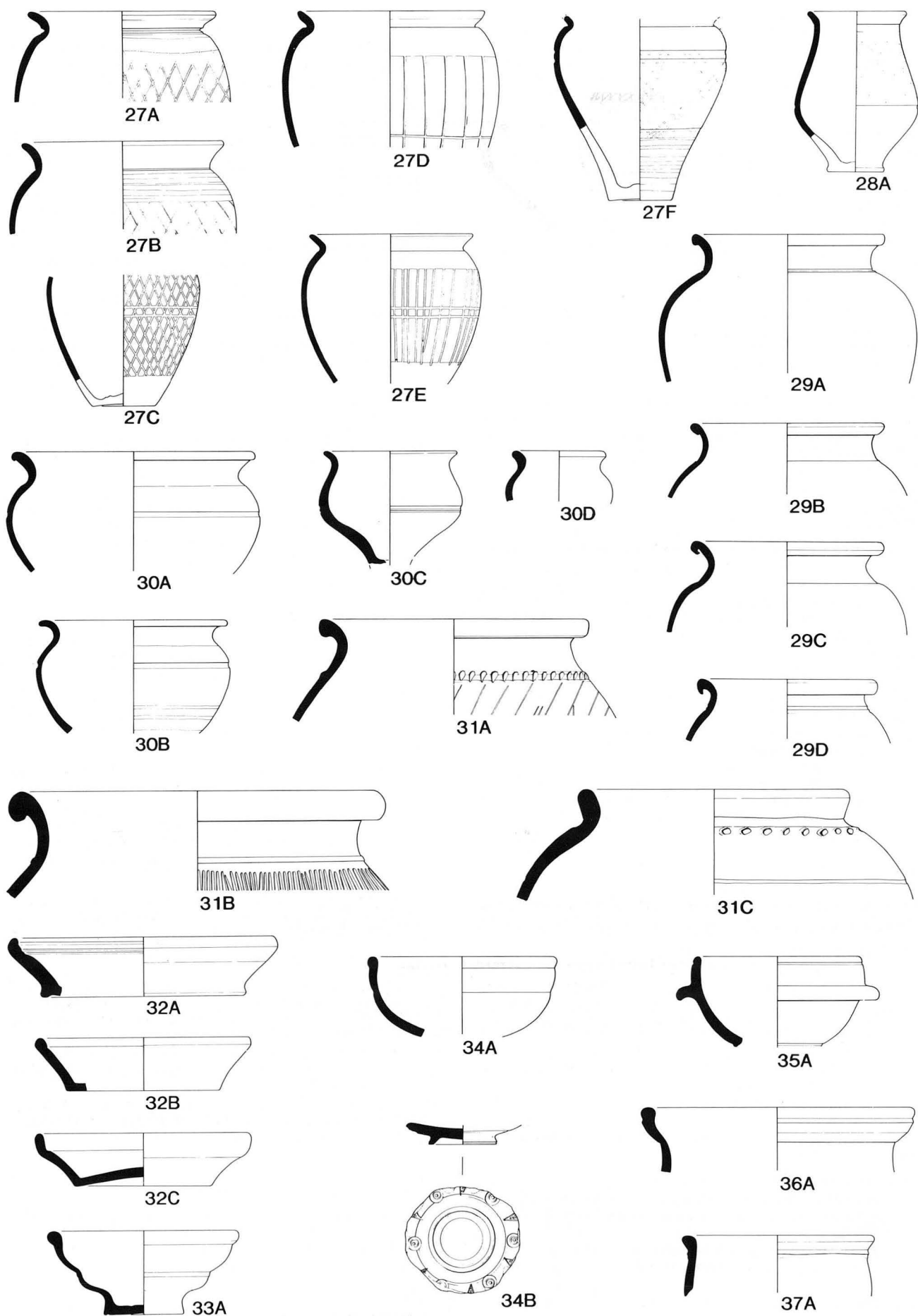


Figure 111 Roman pottery: the 1973 excavation type series. Scale 1:4

31 C Soft, slightly vesicular, medium brown with a medium grey core and dark grey-brown surfaces, and inclusions of red grog and abundant minute muscovite. Probably 1st century. From Area III kiln F2 stokehole AAV, but not the same fabric as the likely products.

Type 32

Devolved 'Gallo-Belgic' platter. A simpler version of Cam types 13, 14 and 23–28. It rarely has a true foot-ring and was produced at various sites in East Anglia (see West 1990, 79, nos 225–227 for West Stow; Smedley and Owles 1961, fig. 7i for Pakenham), possibly including Hacheston (Fig. 118 No. 10). It probably dates to the second half of the 1st century. Twenty-six pieces listed.

32 A Soft, slightly vesicular, medium grey with a lighter layer just beneath the surface. Rare minute muscovite, some quartz and other inclusions. Area I N Pit 49 LJ, Phase B.

32 B Medium hard, brown with medium grey core and interior surface. Many small black inclusions and a little muscovite. Area I Pit 2 BK, Phase B/C.

32 C Medium hard, steel-grey with medium grey interior slip and abundant minute muscovite. Burnished interior and rim and base exterior. Lightly scribed concentric pair of circles in the middle of the interior, diameters 17mm and 23mm. Area I N Pit 25 GZ, Phase A.

Type 33

Cup of imitation samian form Drag 27. See Marsh (1978, 146–147) for a discussion of this late 1st to early 2nd-century type. Two examples listed.

33 A Hard, blue-grey with a lighter purple-grey core and medium grey surfaces. There are abundant angular quartz and quartzite inclusions (c. 0.5mm) and a little brown ?grog. Area I N Pit 19 JC, Phase B.

Type 34

Bowl imitating samian form Drag 37. This samian type was extensively aped, particularly in Flavian to Hadrianic times (Marsh 1978, 175–178). Two examples.

34 A Medium hard, beige (between 7.5 YR 7/6 and 7.5 YR 6/6) with a pink surface, possibly a fine slip, (between 5 YR 6/8 and 2.5 YR 6/8) and abundant, minute muscovite flecks. Burnished exterior. Probably not a West Stow product. Area I Pit 2 BO, Phase B.

34 B Medium hard with a bluish-grey core (7.5 YR 4/0), black surfaces and a very fine exterior black slip (7.5 YR 3/0). Frequent, minute muscovite flecks and occasional small calcareous inclusions. The incised triangles with stab infill were executed after the slip was applied over the ring and dot motifs. Possibly a West Stow product (West 1990, 81 nos 244–247; Rodwell 1978, figs 7.13 and 7.14). Area I Pit 2, Phase B.

Type 35

Bowl imitating samian form Drag 38. The Oxfordshire potteries produced this form prolifically from c.240–400+ (Young 1977, 160), and one unstratified piece in Oxford ware was found. Three examples listed.

35 A Hard, slightly micaceous, medium grey with a lighter grey slip on interior and exterior down to flange. Possibly a local, late 3rd-century product. Area I Pit 7 EI, Phase C.

Type 36

Bowl with a flared, cupped rim, probably related to Cam 76 (cupped mouth pedestal beaker) and the later, handled, Cam 331. Single example.

36 A Medium hard, cream-pink with some small white calcareous inclusions and a little small sub-angular quartz and muscovite. Area I N Pit 19 JC, Phase B.

Type 37

Small bowl with a cordon around the neck. Single example.

37 A Soft medium orange with a burnished orange slip on exterior surface, occasional rounded quartz and a little mica. Compare with Neal (1974, 241, no. 339) which seems very similar. The Hacheston vessel looks like Much Hadham ware, although the presence of mica, visible in the hand-specimen, would seem unusual (see also the comment at the end of the 1974 pottery report). The context, with little apparent residual material, might suggest a late 3rd to first half of 4th-century date for the vessel. Area II Pit F30 PY, Phase D.

Type 38

Fig. 112

'Dog-dish'. This is a very common type, especially through the 2nd to 4th centuries, produced throughout Roman Britain. See Fig. 121 nos 38,39 for Hacheston products. Types 38–42 include about 650 pieces (4% of the total).

38 A Medium grey with dark brown surfaces and burnished decoration. About 300mm in diameter. BB1. Possibly a 3rd-century example. Area I Pit 69 FS, Phase D.

38 B Medium hard, grey with a black burnished exterior surface and abundant minute muscovite. Area I Pit 54 CQ, Phase C.

38 C Hard, fine steel-grey with a burnished, medium grey interior and some minute muscovite and dark grits. Cf. Wilson 1972, 362, no. 1266. Area I Pit 70 NAK, Phase C.

38 D Very sandy, medium dark grey-brown with darker surfaces and a medium grey slip on interior. Little minute mica. Area I N Post-hole 25 GU, Phase B.

38 E Dark grey core, black-burnished surfaces and a dark red-brown layer sandwiched in between. The fabric is slightly vesicular and displays red-brown grog and fine mica amongst other inclusions. Area I Pit KL (unexcavated), Phase C/D.

Type 40

Deep flat-based bowl.

40 A Fairly hard, gritty, grey with a little muscovite and small quartz grains. Burnished inner surface. As Wilson (1972, 362, no. 1272) from a late 4th-century or later deposit at Verulamium. Context ZW, unstratified.

40 B Medium hard, steel grey with minute muscovite and many small dark inclusions. Burnished interior and most of exterior. Possibly a Hacheston product. From a probable later 2nd to mid 3rd-century context. Area I Pit 70 NAH, Phase C.

Type 41

Dish with straight flaring walls.

41 A Very hard, medium grey with black burnished surfaces and abundant muscovite. The context would suggest that the vessel dates to the 1st century. Area I Ditch 2 DH, Phase A.

41 B Hard, light grey with a black exterior surface and a medium grey interior slip. A little muscovite and some black inclusions. Inscribed ?concentric lines on the base. Area I Layer AT, Phase A.

Type 42

Bead rim dish/bowl. This is a very common Romano-British form especially in the 2nd to early 3rd centuries and seems to have been gradually superseded after the Antonine period by the flanged bowl (type 44). A large series is published by Wilson (1972), whilst it is virtually absent amongst the pottery from the 3rd and 4th-century contexts at Icklingham (Plouviez 1976). Hacheston products are shown in Figures 117 Nos 12–15, 119 Nos 15–16, 121 Nos 35–37.

42 A Hard, gritty, brown-black, brown margins with black-burnished surfaces and lattice. BB2. Area I N Pit 24 GX, Phase B.

42 B Hard, very gritty, dark grey with black surfaces and sparse inclusions of muscovite, quartz and dark particles. Undecorated examples appear to be commoner in the 3rd century, rather than the 2nd. Area I Layer BF, Phase D.

42 C Hard, fairly fine, medium grey, dark grey surfaces with abundant minute muscovite and overall burnishing. Area I Pit 33 KT, Phase D.

42 D Medium hard, medium brown with brown surfaces, blackened and burnished on the exterior with minute muscovite. Area I Pit 54 CQ, Phase C.

42 E Hard, steel-grey with a lighter core and an overall dark-grey burnished surface. Possibly a Hacheston product. Area I Pit 69 FS, Phase D.

Type 43

Bowl with out-turned rim and small bead.

43 A Very micaceous, hard, medium grey with black surfaces and a burnished interior. Area I Layer AJ, Phase C.

43 B Medium hard, orange with abundant minute muscovite, a little quartz and other inclusions. Area I Pit 7 DU, Phase C.

Type 44

Straight-sided bowl with bead and flange, replaces type 42 in the 4th century. Fewer than seventy pieces listed.

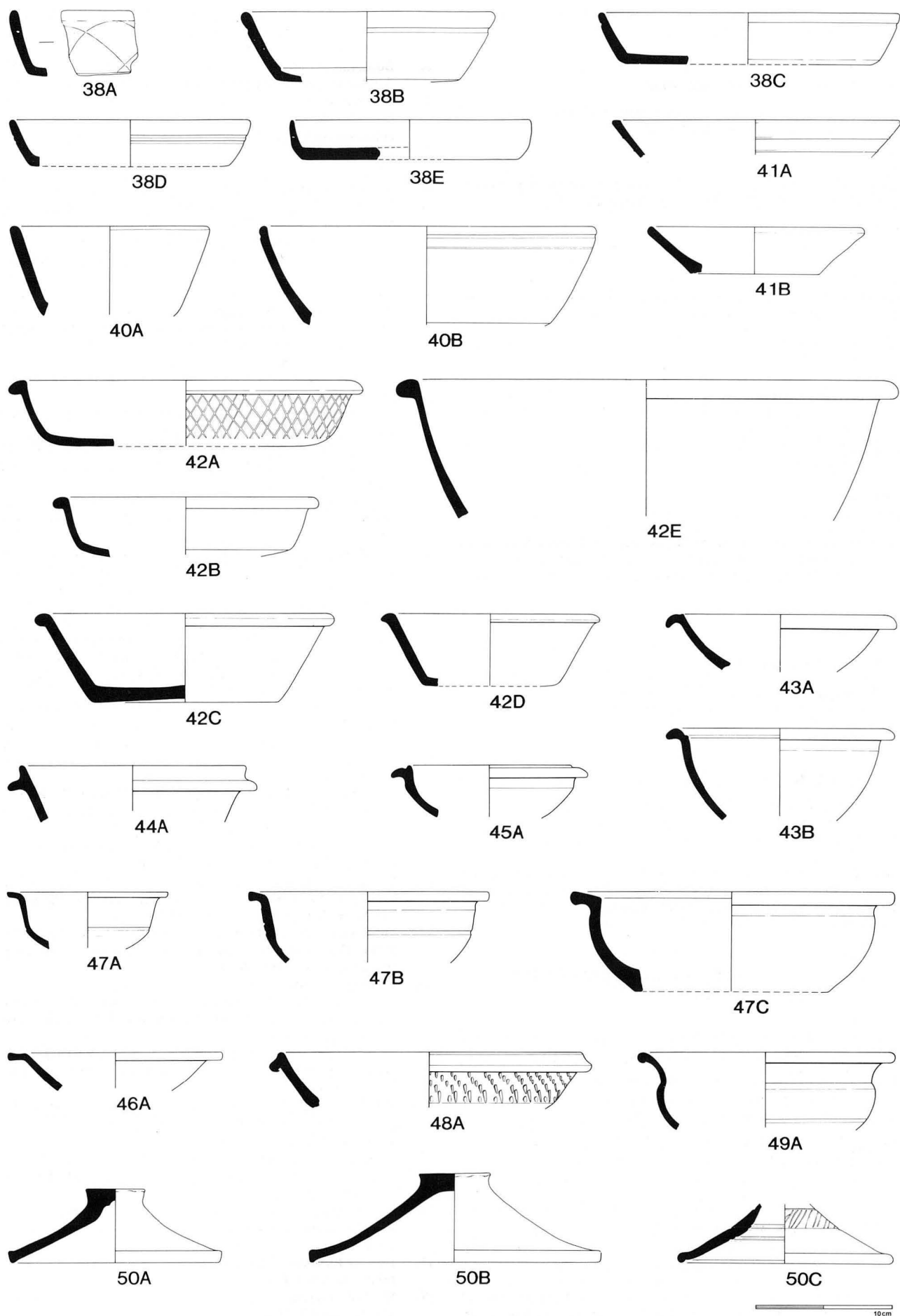


Figure 112 Roman pottery: the 1973 excavation type series. Scale 1:4

44 A Hard, medium grey with a little minute muscovite and many small quartz grains. Context ZW, Unstratified.

Type 45

Hemispherical bowl with bead and flange.

45 A Soft, flaky, reddish-brown with black surfaces and burnished interior. Area I Pit 33 KQ, Phase D.

Type 46

Shallow flat-rimmed bowl. This is a late 1st to early 2nd-century form and may be related to Marsh (1978) Type 31. Single example.

46 A Soft, light orange with abundant minute muscovite. Area I Layer AJ, Phase C.

Type 47

Horizontal-rimmed bowls, usually carinated. Generally a late 1st and 2nd-century form.

47 A Soft and sandy, brownish-grey with abundant minute muscovite. Area II Pit F 51 TP, Phase C.

47 B Medium hard, brownish grey with dark grey to black surfaces, a pink-brown core and abundant minute muscovite. As Verulamium (Wilson 1972, figs 109, 113–114, 118–119 and 127). Area II Ditch F 35 SS, Phase D.

47 C Hard, dark grey with a lighter core, a little muscovite and occasional calcareous inclusions. Area I N Pit 14 GK, Phase B.

Type 48

Rouletped bowl/dish.

48 A Hard, medium grey with slightly darker, overall burnished surfaces and rouletted decoration. Some minute mica and dark specks are present. Possibly a Hacheston product. Area I N Pit 16 GH, Phase C.

Type 49

Bowl with flaring beaded rim. Single example and possibly the same vessel (but not joining sherds) as Fig. 115 No. 8.

49 A Hard, gritty, light brown with a little minute muscovite and traces of a slip or burnishing on interior of rim. Area III Kiln F2 ABC, Phase B.

Type 50

Lid. Eighty-three pieces (0.5% of total) listed.

50 A Hard, medium grey with a lighter-grey self slip and abundant minute muscovite specks. Area I Layer AK, Phase D.

50 B Hard, medium steel-grey with little visible muscovite. Area I Pit 69 FS, Phase D.

50 C Hard and gritty with a thin medium brown layer sandwiched between the black surfaces and core. Burnished exterior and decoration. Area I N Pit 42 MAT, Phase A.

V. The pottery from the 1974 excavation

by Judith Plouviez, written in 1977

The pottery from the 1974 excavations is presented as a series of separate pit groups. Of these the largest is from Area IV, pit 75 (Fig. 113), which was partially divided into four layers in excavation; no marked difference was observed between material from the different layers. This group is one of the later closed groups from the whole site, probably deposited in the early 4th century.

For references to Colchester forms see Hull (1963). To help comparison with the main site, the type series number has been added wherever possible.

Area IV pit 75

Fig. 113

1. Wide-mouthed jar, rim, light grey core, oxidised to light brown at margins, very dark grey (7.5 YR 3/0) surface. Burnished on interior rim and exterior neck and body. Double groove on body. Layer 3. Type 30.

2. Jar, wide-mouthed, sandy, light grey (7.5 YR 6/0) fabric. Single groove on body, burnished on top of rim and exterior. Colchester form 299, mid-2nd to 4th century. Layer 1. Type 30.
3. Bowl, rim, micaceous, fine sand and grog temper, light grey (2.5 Y 7/0) fabric. Shallow groove on body. Layer 2. Type 30.
4. Jar, rim and body sherds, micaceous, light brownish grey (10 YR 6/2) fabric, black surface. Burnished on rim and parts of exterior, burnished wavy line decoration on bottom half of body.
5. Jar, rim, sandy, light grey fabric, dark grey (7.5 YR 4/0) surface. Layer 4. Type 25.
6. Jar, rim, fabric very similar to Nos 8 and 9. Layer 3. Type 29.
7. Jar, rim, sandy, grey (2.5 Y 5/0) fabric. Coarse shallow rouletting on body. Layer 2. Type 26.
8. Jar, rim, fabric similar to Nos 6 and 9. Layer 2. Type 29.
9. Jar, rim, coarse sand temper, grey (2.5 Y 5/0) fabric. Similar to Nos 6 and 8. Layer 2. Type 29?
10. Jar, rim, slightly micaceous, grey (2.5 Y 6/0) fabric. Shallow grooves at base of neck. Layer 2. Type 25.
11. Jar, rim, slightly micaceous, grey (2.5 Y 5/0) fabric. Two grooves on shoulder. Layer 1. Type 25.
12. Jar, rim, sand and grog tempered, grey (7.5 YR 6/0) fabric. Burnished on rim and shoulder, burnished lattice on body. Layer 3. Type 27.
13. Jar, rim, slightly micaceous, sandy, dark grey (5 Y 5/1) fabric. Six horizontal grooves on shoulder. Type 25.
14. Jar, rim, coarse sand temper, dark grey (7.5 YR 4/0) fabric. Layer 1.
15. Jar, rim, micaceous, grey (7.5 YR 6/0) fabric. Incised and pinched slashes on shoulder. Type 25/29 variant.
16. Jar, rim, sandy, light grey (2.5 Y 7/0) fabric. Hollow rim jars of similar form from 1970 stokehole (Fig. 119 No. 2). Layer 2. Type 24.
17. Closed mouth jar, rim, slightly micaceous, sandy, light grey (5Y 7/1) fabric. Burnished on rim and exterior. Incised groove at base of neck, probable second one on break line. Layer 4. Type 23.
18. Jar, rim, grey (2.5 Y 6/0) fabric. Burnished on rim. Applied cordon on neck with impressions. Possibly handled — part of frill smoothed off downwards next to possible handle scar (not shown on drawing). No other examples of this form noted, but from the 1965 kiln group there is an example with a plain cordon (Fig. 120 No. 23). Layer 2.
19. Jar, rim, slightly micaceous, grey (5 Y 6/1) fabric. Burnished on inside of rim and neck. Applied cordon on rim with impressions, similar frilled rims probably produced at Needham, Norfolk (Frere and Clarke 1945, 210 no. 118). Possibly Colchester form 297, 4th century. Layer 1.
20. Beaker, rim and body, light red (2.5 YR 6/8) fabric. Two and an incomplete third incised horizontal lines. Very similar to stokehole material found in 1970 (Fig. 119 No. 11). Type 12.
21. Beaker, rim, fabric as No. 20. Burnished between two grooves. Also similar to Fig. 119 No. 11. Layer 4. Type 12.
22. Cooking pot, micaceous, light grey (5 Y 6/1) fabric. Burnished on rim and shoulder, burnished lattice on body. Gillam (1957) form 137. Layer 1. Type 27.
23. Jar (cooking pot form) rim, slightly micaceous, grey (2.5 Y 5/0) fabric. Burnished on interior rim, exterior neck and shoulder, shallow groove on shoulder. Layer 2.
24. Cooking pot, rim, sandy, very dark grey fabric, black surface. Burnished on rim and exterior, burnished lattice on body. Probably black burnished ware (BB1). Colchester form 279 C, 4th century. Late variant of type 27.
25. Jar, rim, slightly micaceous, grey (2.5 Y 6/0) fabric, double groove at base of neck. Burnished on interior of rim and on raised shoulder area. Layer 4. Type 27?
26. Jar, rim, dark grey (2.5 Y 4/0) fabric. Burnished on upper interior of rim, exterior neck and shoulder, angular grooves at base of neck and on shoulder. Layer 2. Type 11?
27. Plain dish, profile, micaceous, light grey (2.5 Y 7/0) fabric, very dark grey (2.5 YR 3/0) surface. Burnished all over. Colchester form 40. Layer 2. Type 38.
28. Plain dish rim, micaceous, light brown (7.5 YR 6/4) core, light grey margins, unevenly fired dark grey surface. Burnished interior. Layer 3. Type 38.
29. Dish, plain, profile, light grey (2.5 Y 6/0) fabric. Shallow groove below rim. Layer 1. Type 38.
30. Flanged bowl rim, micaceous light grey (5 Y 7/1) fabric. Burnished all over. Layer 3. Type 44?
31. Dish profile, grey (10 YR 6/1) fabric. Burnished on rim and exterior. Colchester form 38. Layer 1. Type 42.

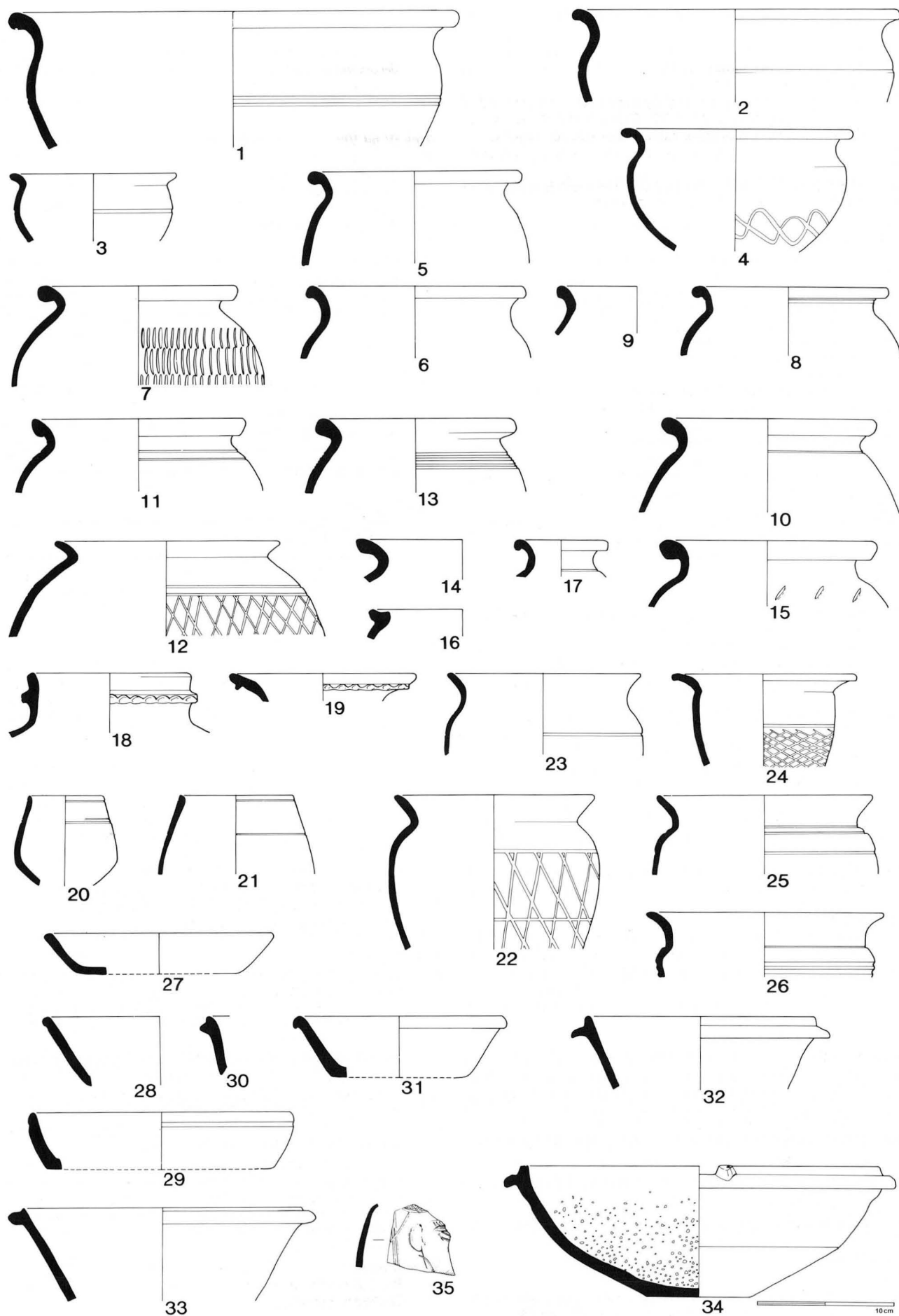


Figure 113 Pottery from Area IV pit 75. Scale 1:4

32. Flanged bowl, rim, sandy grey fabric, largely burnt to dark grey. Colchester form 305 B, late 3rd to 4th century. Layer 1. Type 44.
 33. Bowl, rim, micaceous sandy light grey (2.5 Y 6/0) fabric, very dark grey (2.5 Y 3/0) surface. Colchester form 304/305, 3rd to 4th century. Layer 2. Type 44.
 34. Mortarium, semi-complete, slightly micaceous, light grey (2.5 Y 7/0) fabric, grey surface (2.5 Y 5/0). Grits mixed flint, mainly dark coloured. Burnished on lower half and base exterior. Layer 4.
- This is one of at least four separate vessels of this type represented in pit 75.
35. Sherd, grey (2.5 Y 6/0) fabric. Pushed out face with incised eye and applied ear. Burnished lattice and burnished on face. Layer 3.

Not illustrated

- i) Bowl rim, diameter 23cm, fabric and form as No. 33.
- ii) Jar, rim, diameter 14.5cm, fabric and form as No. 6. Layer 1.
- iii) Wide-mouthed jar rim, diameter 34cm, grey (2.5 Y 5/0) fabric, form as No. 1, burnished on rim and exterior. Layer 2.
- iv) Beaker rim, reddish-yellow (5 YR 7/4) fabric, very similar to No. 21 in form. Layer 4.
- v) Several grey ware cooking pot rims with burnished lattice as No. 22. Layer 4.
- vi) Jar rim similar in form and fabric to No. 11. Layer 4.
- vii) Mortarium rim fragment — probably Nene Valley, reeded, white fabric.
- viii) Mortarium rim and sherds, steeply angled reeded rim, dense black grit. Nene Valley, 3rd century onwards.
- ix) Mortarium rim, yellow (10 YR 8/6) fabric, form as Colchester form 501A, late 2nd century. With herringbone stamp.

The other groups are arranged by Area and roughly chronologically within Area (Fig. 114).

Area IV pit 108

Fig. 114

36. Jar, almost complete, sandy light brown (7.5 YR 6/4) fabric, black surface. Double groove on body; smoothed exterior. Type 30.
37. Storage jar, rim, flint tempered, reddish yellow (7.5 YR 7/6) fabric. Cordon at base of neck, lightly combed curvilinear decoration. Sherds of large vessels of this type were found throughout Area IV. Type 31.
38. Jar, semi-complete, micaceous, sand and grog temper, dark grey (7.5 YR 4/0) fabric. Band of linear burnished decoration bordered by horizontal grooves; lightly burnished surface below decoration down to carination and on bottom part of exterior. Possibly a derivation of Colchester form 218, first half of 2nd century. Type 22.
39. Jar, rim, slightly micaceous, sandy, grey (2.5 Y 5/0) with oxidised light brown core. Double grooved cordon on body. Smoothed exterior. Type 22.
40. Lid fragment, micaceous, reddish yellow (5 YR 6/6) fabric, black surface. Type 50.

Area IV pit 118

41. Wide-mouthed jar, rim micaceous, light grey (2.5 Y 6/0) fabric. Lightly incised pair of grooves on body. Burnished rim and exterior. Type 30.
42. Flat reeded rim bowl, light grey (5 Y 7/1) fabric. Two grooves on top of rim. Colchester form 246, late 1st to early 2nd century. Type 47.

Area IV pit 81

43. Closed mouth jar, rim and body sherds, grey (2.5 Y 6/0) fabric. Double grooved cordon at base of neck, shallow grooving on body. Burnished exterior rim and shoulder. Colchester form 281, c.100–400. Type 23.
44. Closed mouth jar, rim, slightly micaceous, light grey (2.5 Y 7/0) fabric with oxidised red core. Slashed applied cordon below rim. Type 23?

Not illustrated

- i) Mortarium, rim fragment, cream fabric (10 YR 8/3). Mixed flint grit. Colchester form 498, late 2nd–3rd century.

Area IV pit 32

45. Jar, rim, slightly micaceous, sand and grog tempered, grey (2.5 Y 5/0) fabric. Two angular grooves at base of neck. Type 25.
46. Jar, rim, slightly micaceous, grey (5 Y 5/1) fabric. Raised shoulder between two grooves. Type 27.

Not illustrated

- i) Rim and body sherds of cornice-rim beaker (Colchester form 391). Reddish yellow (5 YR 6/6) fabric, brown colour-coat. Rouletted decoration divided into horizontal bands with double grooves. 3rd century.
- ii) Sherd of grey mortaria as No. 34.

Area IV pit 100

47. Small flagon, almost complete, sand and grog temper, white (10 YR 8/2) fabric. Grooved below rim. One handle, broken (inside section not ascertainable). Type 3.
48. Plain dish, profile, diameter c. 15cm sandy grey (2.5 Y 6/0) fabric. Burnished exterior. Type 38.

Not illustrated

- i) Folded beaker, sherd, red fabric, black colour-coat. Probably 3rd century (see Colchester form 407).
- ii) Jar, rim diameter 19cm, grey fabric of similar form to No. 12 but without lattice and with double groove slightly lower on body.

Area IV pit 51

49. Jar, rim, micaceous, grey (2.5 YR 5/0) fabric, darker exterior. Single groove on body. Burnished exterior above groove. Type 30.
50. Jar, rim, slightly micaceous, sand and grog tempered grey (2.5 YR 5/0) fabric. Rim rolled over with void in middle. Form not noticed elsewhere but is a more rolled version of a jar from the 1965 kiln group (Fig. 120 No. 13). Type 25 variant.

Area IV pit 79

51. Jar, rim, coarse sand temper, light grey (2.5 Y 7/0) fabric same as No. 8. Double groove on shoulder. Type 25.
52. Jar, rim, slightly micaceous, sand and grog temper, light grey (5 Y 7/1) fabric. Light burnish on neck. Rouletting on body. Type 31.
53. Plain dish, profile, slightly micaceous, grey (2.5 YR 5/0) fabric. Groove below rim, bevelled base. Type 38.

Not illustrated

- i) Several grey ware cooking pot bases, plain flat base. One with horizontal burnished lines, one with vertical line decoration.
- ii) Mortarium, rim fragment, buff fabric (7.5 YR 8/6); wall-sided, flat angular flange with shallow grooves — similar to Colchester form 501B.

Area IX pit 6

54. Jar, rim, fairly hard, light grey (10 YR 7/1) fabric, dark grey (2.5 YR 4/0) surface with oxidised patches. Raised cordon at base of neck. Burnished on inside rim and irregular horizontal lines on exterior. Probably derived butt beaker form — Colchester form 119. Type 17.
55. Jar, rim, hard, light grey (5 Y 7/1), sandy fabric. Cordon at base of neck with two grooves. Smoothed exterior. Type 22?
56. Jar, rim, fairly hard, light brown (7.5 YR 6/4) fabric, very dark grey surface. Double groove at base of neck. Type 22?

Area IX pit 13

57. Jar, rim and body sherds, micaceous, sand with grog temper, light brown (7.5 YR 6/4) fabric, grey (10 YR 6/1) surface. Three grooves at base of neck; combed curvilinear decoration. Similar to one from the pipe trench kiln (Fig. 116 No. 1). From upper layer of pit. Type 31.
58. Jar, rim, coarse sand temper, grey-brown mostly oxidised to light brown fabric. Rouletting on body. Type 26.
59. Jar, rim, hard, sand with grog temper, grey (2.5 Y 5/0) fabric. Three angular grooves below rim. Type 25.
60. Bowl, rim and body, micaceous, red (2.5 YR 5/8) fabric. Burnished all over. From upper layer of pit. Type 49 variant?
61. Bowl, almost complete, micaceous, light red (2.5 YR 6/8) fabric. Burnished all over.
62. Beaker, semi-complete, fabric as No. 61 Rouletting on raised band below neck and body; rest of exterior burnished. Blackened patches on body. Colchester form 395, 4th century.

Not illustrated

- i) Plain dish rim, diameter 18cm, light grey micaceous fabric. Colchester form 40 A.

In view of the scarcity of Oxford and Much Hadham wares from the main areas the large oxidised pieces from Area IX

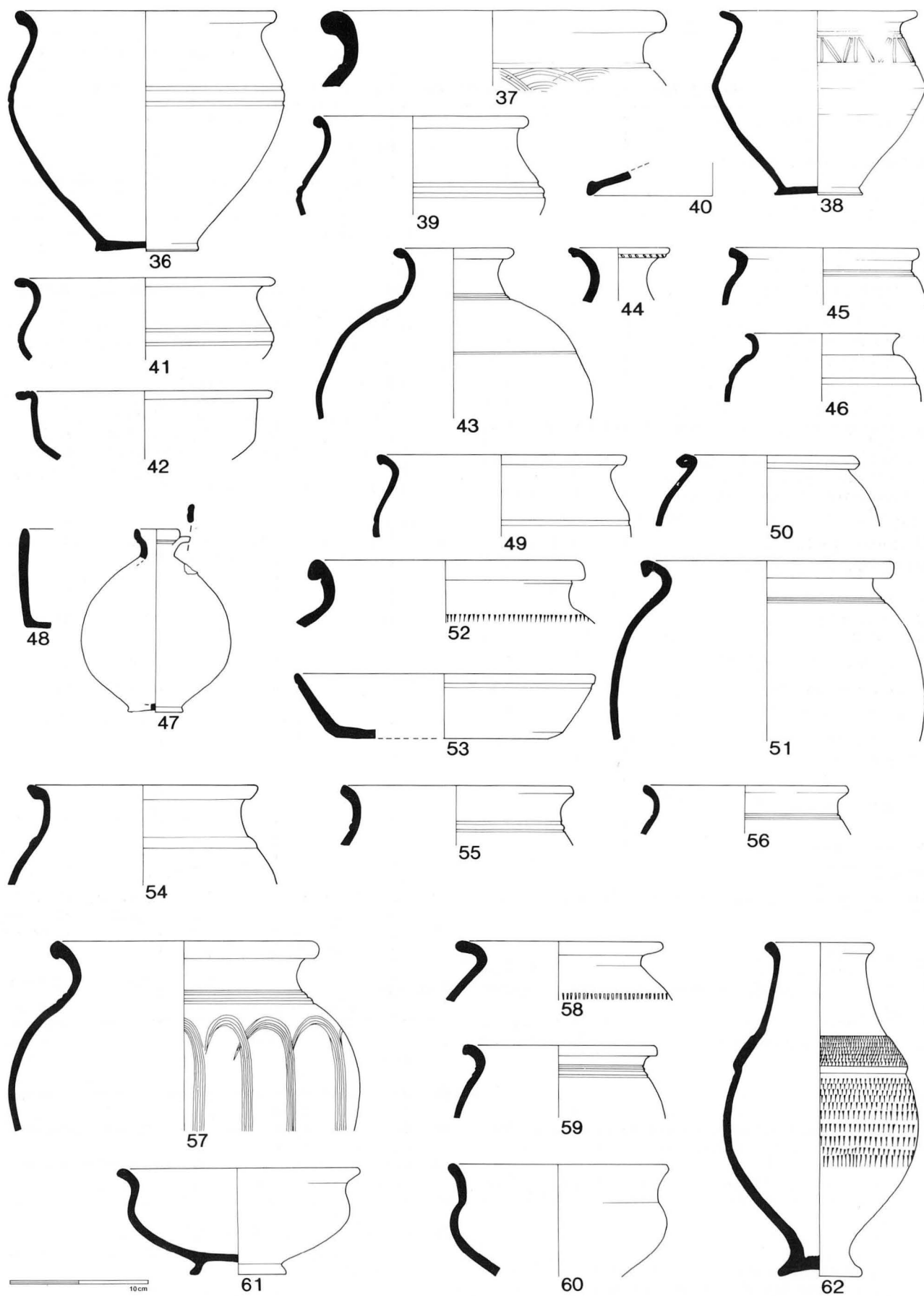


Figure 114 Pottery from other 1974 excavation contexts. Scale 1:4

Type Series	kiln F2		Pipe trench kiln		Pit 21		Campen 1973		Ips Mus 1970 kiln		Ips Mus 1965 kiln and pit	
	Fig 115	Form	Fig 116	Form	Fig 117	Form	Fig 118	Form	Fig 119	Form	Fig 120-121	Form
9 Funnel neck indented beaker									12	J9	21	J8(a)
11 Indented beaker, everted rim											19, 22, 51	J7, J8(c)
12 Bag shaped beaker, 12 E type									11	J10	20	J8(b)
17 Butt beaker derivative (all very devolved variants)			2	J1	9	J5					14	J11(b)
22 Double cordon bowl/jar	1,2,3	J1(a-c)							6	J2	27,28,29(?)	J15, J12
23 Narrow neck jar	4	J2					5	J4	7	J3	4,5	J3(a,b)
24 Jar with lid seated rim									1,2	J1(a,b)	2	J1(b)
25 Short neck jar	7	J5			5	J9	3,8	J3, J6	3,4,5	J1(c), J8, J4	1	J1(a)
Variants of 25					1,2,3	J1	6,7	J2			7,8,9	J4
27 Everted rim jar with burnished lattice etc			3	J3	10,11	J3			9	J5	16,17,18	J2, J5
29 Necked jar with bead or undercut rim	5 (?)	J1(d)			6	J6	1,2	J1			3,25	J1(c), J16
Variant of 29											11	J13
30 Round bellied jar/bowl					8	J8			13	B4	30,31	B3
Variant of 30					7	J4						
31 Storage jars, various			1	J2							10	J6
32 Devolved Gallo-Belgic platter (as 32 C)							10	B2			33	B4(a)
38 'Dog dish'									17	B3	38,39	B2
42 Bead rim dish/bowl					12-15	B1, B2			15,16	B1	35,36,37	B1
47 Horizontal rim bowl	9	B1										
49 Bowl with flaring beaded rim	8	B2										
50 Lid											40,41	L1, L2
Variant of 50 with centre hole									18	L1	42	L3
Forms not within the type series												
Mortaria									19,20	M1, M2	43-48	M1-M6
Jars	6	J3			4	J7	4,9	J5, J7	8	J6	6,12,13,15, 23,24,26	J3(c), J17, J11(a), J18, J9, J10, J14
Beaker									10	J7		
Bowl									14	B2	32,34	B5, B4(b)
Colander base											49	base1

Table 26 Correlation of kiln products with the main pottery type series

pit 13 (Fig. 114 Nos 60–62) were re-examined in 1998. Although superficially similar to oxidised Hadham in colour and surface treatment all these pieces have larger quartz grains and some mica in the fabric. Whether these are a variant from within the Hadham or Oxford range or whether they are a local product in the same tradition is not entirely clear but comparison with the 1970 Hacheston kiln fabric suggests that they could be local and the bowl forms are not standard Oxford types.

VI. The Hacheston kiln products

by Fiona Seeley

Introduction and methodology

In publishing the kiln groups excavated in 1973, we have taken the opportunity to include other unpublished kiln groups from Hacheston which were excavated between 1965 and 1973. However there are difficulties with this material as no records of the excavations have been located and the retention policy is not known.

This analysis aims to:

- show the range of products made at the Hacheston kilns.
- show the differences in products between the kilns.
- date the products.
- show the proportions of different vessels in the groups *i.e.* what the most common vessels were.

Estimated Vessel Equivalents (EVEs), based on measuring the proportion of rim present (as defined in Tyers 1996, 205) have been chosen as the most reliable way to quantify the pottery as it is obvious from the lack of body sherds in some groups that the retention policy was not total. The pottery is illustrated by kiln group rather than a single typology for all the products as the groups are different in date. Table 26 relates these kiln group types and the illustrated pieces to the main type series for the 1973 excavation. Samian ware sherds were identified by Cathy Tester.

Seven pottery groups were examined, five from kilns and two from pits. One kiln was found within the 1973 excavation in Area III (F2) and one was identified during the 1973 excavation in an adjacent service trench. Pit 21 was excavated in Area I North. The other groups were all discovered by M.J.Campen between 1965 and 1973 and the material was collected by him except for the 1965 kiln and adjacent pit group which were excavated by E.J.Owles of Ipswich Museum. The first four groups are held by Suffolk County Council Archaeological Service, the remainder by Ipswich Museum. They are as follows:

Feature	Contexts
Kiln F2, Area III (Fig. 35)	AAA, AAC, AAV, ABC
Pipe Trench Kiln, Field 3 (Fig. 2,q)	PTA, PTB, PTC, PTX
Pit 21, Area I N (Figs 25, 28)	GP, GT, GQ
Campen's Kiln	(?found c. 1973 by M.J.Campen, no records.)
1970 Kiln, IPSMG 970.104 Field 5 (Fig. 2,k)	Kiln, stokehole
1965 Kiln, IPSMG 965–67 Field 4 (Figs 2,c; 123)	F.IV Sq 8 Various kiln and stokehole contexts
1965 Pit, IPSMG 965–67 Field 4	F.IV Sq 8 Black Pit NW of kiln

Kiln F2, Area III

The total assemblage is fairly small (5.67 eves), and derives from both the kiln chamber and the stokepits, probably accumulating both during and after the period of use of the kiln.

There are great variations in colour of the pottery as is usual for a kiln group or waster group, but there is a predominance of medium brown-greys, sometimes with an oxidised red-brown core, and the fabric is hard and brittle. One piece of a waster jar (Fig.115 No.1) was thin-sectioned by Dr David Williams in 1980 and revealed abundant flecks of silver-coloured mica, together with frequent quartz grains averaging 0.20–0.40mm in size

There were numerous body sherds from AAA, AAC, AAV and ABC. Some were pieces of the pot obviously blown off during firing. This problem seems especially common in the cordoned vessels (types J1 and J2) and seems to be a significant problem within this assemblage since it is probably one of the main causes of vessel failure.

Forms

(Table 27)

This seems to be mainly a jar-producing kiln plus a few bowls. The forms are mainly carinated cordoned jar types with raised decorated (burnished lattice or plain burnishing) panels (J1); similar decoration can occur on the narrower mouthed jar form (J2). Other jars have short necks and few distinctive characteristics.

The bases tend not to have foot-rings but are often turned with a bordering groove which gives the impression of a foot-ring.

Form	EVEs	%
J1 Jar with short neck, splayed rim and raised cordons on body	3.48	61.4
J2 Wide-bodied jar with cordon below constricted neck	0.45	7.9
J3 Plain jar with short neck and squared rim	0.61	10.8
J4 Small jar with splayed rim, probably not Hacheston fabric	0.41	7.2
J5 Neckless jar with wide groove below rim	0.23	4.1
B1 Bowl with flat grooved out-turned rim, external grooves	0.19	3.3
B2 Bowl with cavetto rim ending in a bead	0.30	5.3
<i>total</i>	<i>5.67</i>	

Table 27 Quantification of forms in kiln F2

Fig. 115

- Form J1b with cordon and one raised burnished lattice panel. Shallow grooves on lower half. From AAA.
- Form J1c with panel of burnished lattice. Hooked rim. ABC.
- Form J1a with panel of burnished lattice and turned-over rim. AAA.
- Form J2 turned-over rim. Burnished bands. AAA.
- Form J1d with raised cordon, hooked rim. AAC.
- Form J3 from context ABC.
- Form J5 turned over almond rim. ABC.
- Form B2 from context AAC.
- Form B1 with two grooves on rim. AAA

Dating

There is a small amount of non-Hacheston pottery in the contexts associated with the kiln: one small sherd of whiteware (ABC), large sherds from a storage jar with an organic temper (AAA, ABC) and many fragments from one or more large storage jars in a red fabric with grey core and a black reduced exterior (see main pottery type series 31 C). These are similar to Scole no. 36 (Rogerson 1977, 176, in a ?Flavian context) and are found in contexts AAA, AAV and ABC. The storage vessels appear to be in

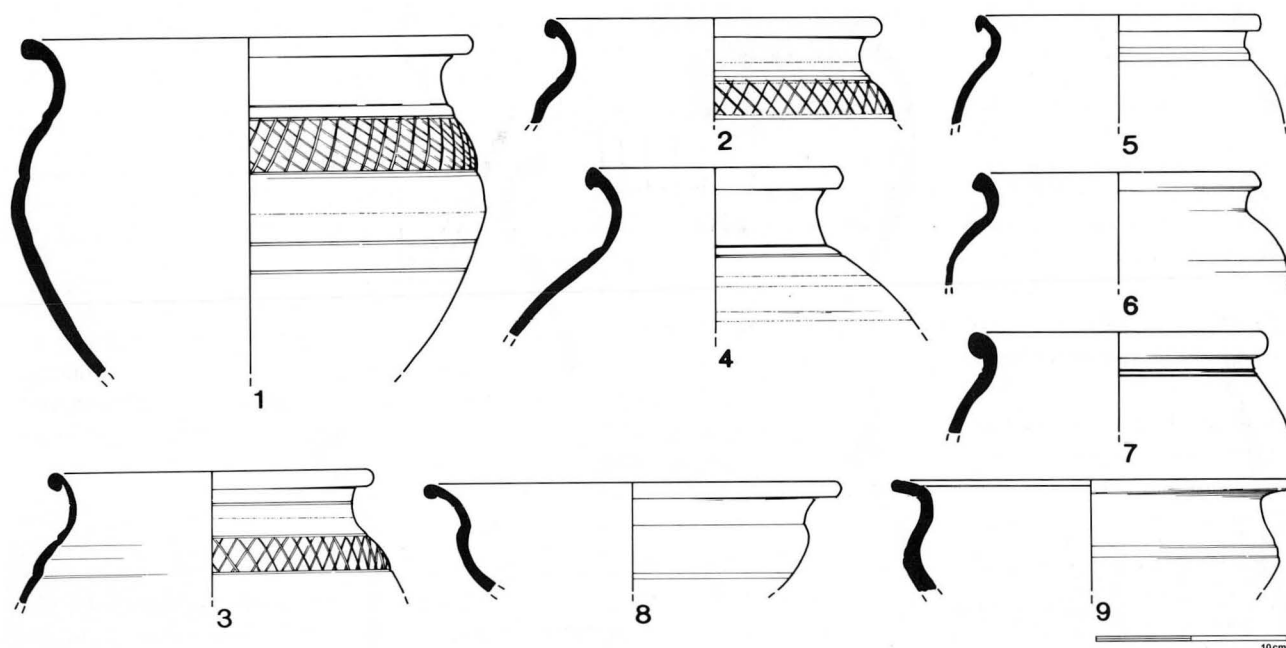


Figure 115 Pottery from kiln F2. Scale 1:4

significantly different fabrics from the kiln products, notably in that they contain little or no mica as well as having vegetable and grog temper; however this may be a deliberate choice of fabric for functional reasons and production in kiln F2 cannot be ruled out.

Of the products the commonest forms are carinated cordoned vessels deriving from Cam 218, a type originating in the late Iron Age and continuing in use probably into the early 2nd century. All the forms would seem to fit within a 1st or very early 2nd-century bracket. The stratigraphic evidence does not help refine the date as the only relationship determined on site was that pit F1 cut the kiln, and this pit contained 3rd to 4th-century material.

1973 pipe trench kiln

This is a very small assemblage (0.99 eves) due to the circumstances of its discovery in the side of a service trench. Three contexts (PTA, PTB, PTC) were allocated to the kiln area of which PTA is below PTB. Contexts PTA and PTB are sherds linked.

The colour of the fabrics varies from brown-grey to mid grey, sometimes with a darker surface. There are visible inclusions of sparse rounded quartz sand and quite plentiful dark grey probable grog, and plentiful very fine mica flecks.

There are a couple of obvious wasters including Fig. 116 No.1.

Form	EVEs	%
J1 Jar with no neck, everted rim, acute lattice decoration	0.20	20.2
J2 Jar with rolled rim, cordon below neck, combed decoration	0.22	22.2
J3 Plain jar with cavetto rim	0.57	57.6
<i>total</i>	0.99	

Table 28 Quantification of forms in pipe trench kiln (all the identified forms are present as single vessels)

Fig. 116

1. Form J2 joining sherds from this jar were found in both PTA and PTB.
2. Form J1. PTB.
3. Form J3. PTC.
(Not illustrated) Body sherd. Probably from jar. Combed stabbed decoration in herringbone pattern. From context PTA.

Dating

Some of the vessel body sherds in PTA are used and are not wasters — all these body sherds are from a latticed jar and have limescale on their interior surface. These are likely to date to 120 onwards. The J3 form is similar (see type 27 in the 1973 series, Fig. 111) and so on the very limited evidence available a 2nd-century date seems possible.

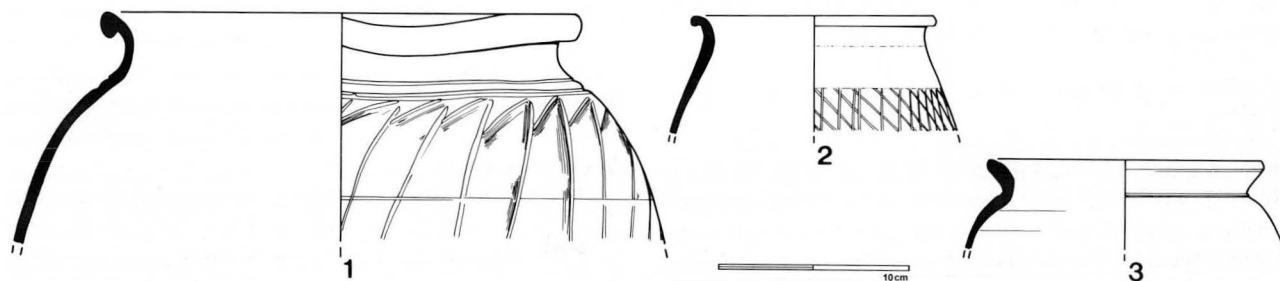


Figure 116 Pottery from kiln in pipe trench. Scale 1:4

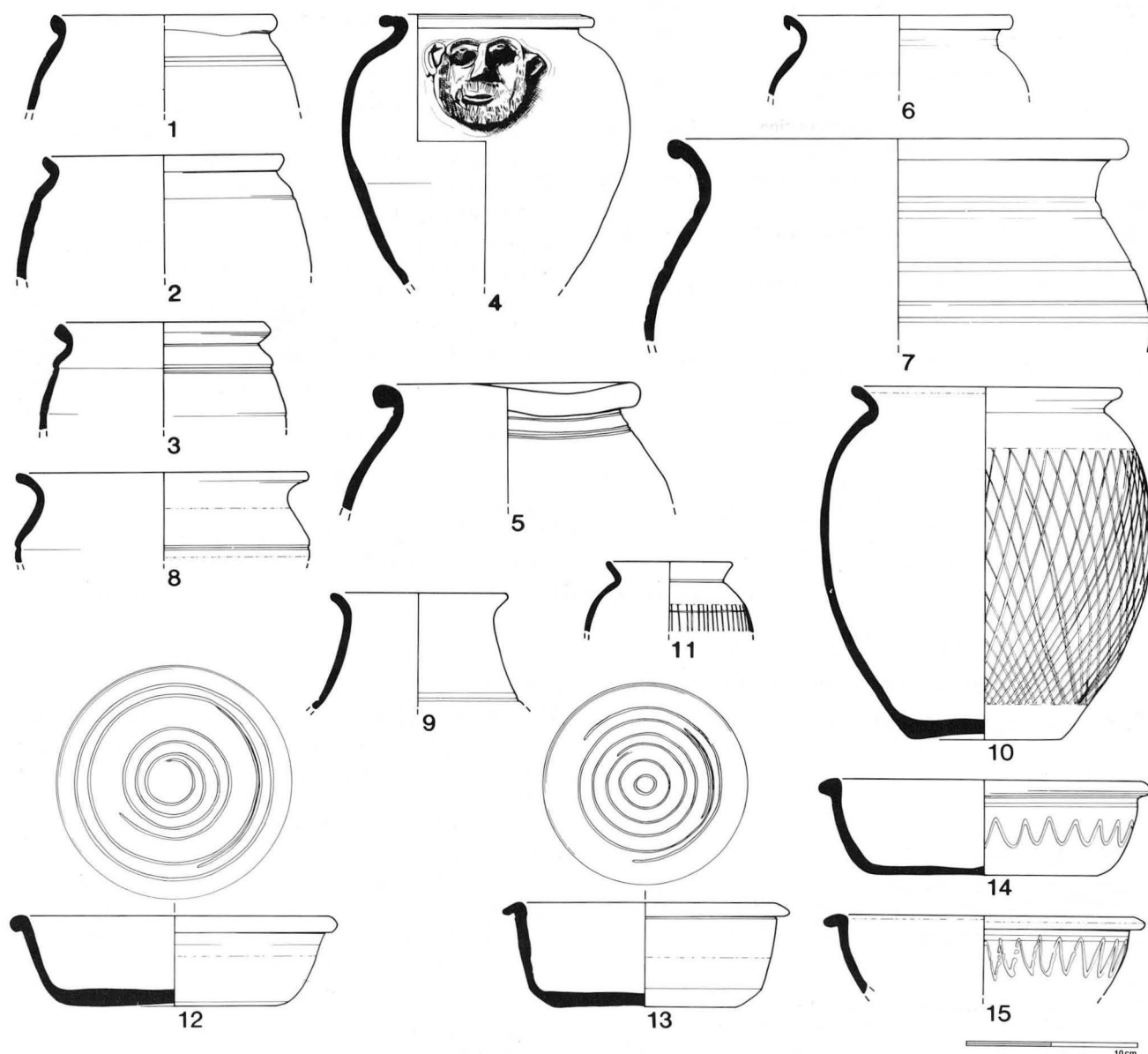


Figure 117 Pottery from pit 21. Scale 1:4

Area I pit 21

This group was noted, during analysis of the 1974 pottery by Paul Arthur, as a possible kiln dump because of the homogeneity and quantity of the grey wares. There is only one obvious waster (Fig. 117 No. 5) although some vessels have been over-fired. Some grey ware vessels were identified as not being a Hacheston fabric and apart from the grey wares there are four samian sherds, two amphora sherds and five white ware sherds. This group was unlike the others in that many vessels could be reconstructed; there are sherd links between the layers.

Fabrics

The fabrics are varied both in colour and visible inclusions. For example the waster sherd (Fig. 117 No. 5) has a blue-grey core, red-brown margins and a mid to dark grey surface, with plentiful moderate quartz sand and very sparse mica; most pieces have less and finer sand and more mica (which compares well with the definite kiln groups). The semi-complete latticed jar (Fig. 117 No. 10) has quite

a similar fabric to the waster sherd, but the form and finish are typical of Essex Black Burnished ware (BB2), including a red-brown colour on the burnished areas which is generally characteristic of BB2.

Forms

The group is a mixture of jar and bowl forms. It includes several variations of neckless jars (J1, J7, J9) and the common East Anglian wide-mouthed reverse-S profile jar with girth grooves (J4, J8). The 'cooking pot' (J2, J3) and the bowl types are similar to the products of the Black Burnished ware industries, though the use of vertical line decoration rather than lattice on J3 is a common East Anglian variation.

The applied face mask is one of several from the site (see also Fig. 113, No. 35 and Fig. 129). Although broadly similar to others from Suffolk and Norfolk as illustrated in Braithwaite (1984, 111–112), none of these has the strong outline of this example.

Form		EVEs	%
J1	Neckless jar with narrow raised cordon or groove below rim. Tends to be barrel-shaped, rim may be slightly lid-seated	6.16	25.6
J2	Large everted rim jar lattice decoration. Single example (?BB2)	2.41	10.0
J3	Small everted rim jar, burnished neck and vertical lines	0.40	1.6
J4	Large short-necked jar with cordon and girth grooves.	1.74	7.2
J5	Beaker/jar, gently splayed rim, groove on body	0.53	2.2
J6	Short necked jar with hooked rim	1.27	5.3
J7	Neckless jar with applied face. Single example	1.00	4.1
J8	Jar with recurved rim, plain lip, girth groove	0.38	1.6
J9	Neckless jar, wide groove or grooves below almond-shaped rolled rim	0.64	2.6
B1	Bowl with slightly curved sides, various turned-over rims. Concentric burnished circles on base inside	6.00	24.9
B2	Bowl with straight or slightly curving sides, varied turned-over burnished rims, burnished wavy line decoration	3.60	14.9
total		24.07	

Table 29 Quantification of forms from pit 21

The decorated sherds include one sherd of ring and dot, four of vertical lines and four of lattice. Most of the decorated pieces are from GP, also including a piece with bands of horizontal rouletting, possibly from a butt beaker form.

Fig. 117

1. Form J1a slightly everted rounded rim. GP.
2. Form J1b well defined groove. Slightly everted rim. GQ.
3. Form J1c shape is more defined and cordon is more raised. GQ.
4. (see also cover photo) Form J7 flattened rim. The human face is applied not moulded, with applied strips outlining the face, ears and nose and conical blobs for the eyes. A low applied area with central slit for the mouth has incised lines above and below for a moustache and beard; these lines (possibly combed) extend around the inside edge of the face as hair, smudged to the right. The vessel is slightly distorted. GQ.
5. Form J9 distorted rim. GP and GQ.
6. Form J6. GQ.
7. Form J4 splayed squared-off rim. Damaged exterior surface. GT.
8. Form J8. GP.
9. Form J5. GP and GQ.
10. Form J2 burnished acute lattice. GT and GQ.
11. Form J3 burnished vertical lines. GP.
12. Form B1b square rim. GP.
13. Form B1a flattened rim. Knife-trimmed base. GQ.
14. Form B2b no burnishing on interior. GP.
15. Form B2a burnishing on interior, flat out-turned rim. GQ.

Dating

The pit also contained a samian stamp (Stamp 44, Sextus) of 165–200, decorated samian (Fig.107, 23) of 130–160, and an Antonine mortarium. The grey ware forms would also suggest a date in the second half of the 2nd century.

Campen's kiln

Very little is known about the circumstances of the discovery of this group which was given by the excavator,

Mr Campen, to the staff of the 1973 excavation. It may have been excavated from somewhere in Field 4.

This assemblage is dominated by one type of jar (type J1). One of the most notable aspects is that very few sherd links could be made, for example only two bases joined out of a total of sixty-seven and only four rims despite a total of 122 rim sherds being found. This may partly be a result of the softness of the fabric which has led to loss of the original surfaces and to abrasion of the broken edges. The pieces are very small and no complete profile was found. This makes it a difficult group to analyse and there were few pieces suitable for illustration.

There are also few obvious signs that the vessels were wasters. Only a few sherds exhibit signs of being imperfect such as extraneous pieces of clay, hairline fractures and gouge marks.

Fabrics

Colours range from a light grey-brown to fairly dark brown-grey. A variable amount and particle size of quartz sand is visible, also dark ferrous particles and mica.

Forms

(Table 30)

The group is almost entirely composed of jar forms, particularly the plain necked type J1, with only single examples of some of the more distinctive types such as the bowl (B2).

There are a few decorated body sherds including combed wave, stabbed grooves, girth groove, shoulder grooves, raised cordon and acute lattice, the most dominant form being single or multiple shoulder grooves. But it should be stressed that there are very few decorated body sherds — sixty out of a total 783.

Fig. 118

1. Form J1 rolled undercut rim.
2. Form J1.
3. Form J3 everted pulley wheel rim.
4. Form J5.
5. Form J4.
6. Form J2 rolled over, oval section rim.
7. Form J2 rolled over rim, irregular row of stab marks.
8. Form J6 squared-off, lid-seated rim.
9. Form J7.
10. Form B2.

Form		EVEs	%
J1	Plain jar with short neck and rolled rim	5.15	36.6
J2	Neckless jar with rolled-over rim, sometimes stabbed decoration	0.78	5.5
J3	Jar with cordons below neck	0.69	4.9
J4	Narrow mouthed plain jar	0.50	3.5
J5	Very wide-mouthed jar. Cordon on neck/shoulder	0.11	0.8
J6	Neckless jar with groove or grooves below rim	0.14	0.9
J7	Plain jar with splayed rim	0.36	2.5
	Miscellaneous jars	6.30	44.7
B2	Carinated bowl	0.05	0.4
total		14.08	

Table 30 Quantification of forms in 'Campen's kiln'

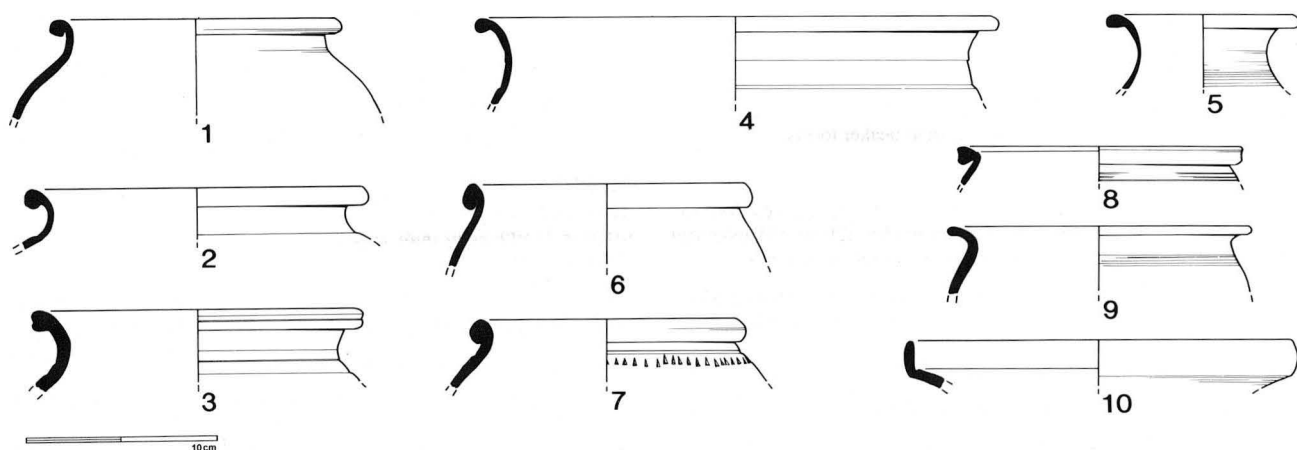


Figure 118 Pottery from 'Campen's kiln'. Scale 1:4

Dating

There were a few non-Hacheston products (unreliably associated) including single sherds of 1st-century Gallo-Belgic imports (see Rigby catalogue above, Nos 2, 19) and a grey ware plain bowl sherd. The bowl, B2, derives from the Gallo-Belgic platter forms but these seem to continue in use into the 2nd century. The jar forms generally lack diagnostic features. A broad 2nd-century date is suggested.

1970 kiln (Ipswich Museum 970.104)

The bags are labelled 1970, Pit c then either 'stokehole' or 'kiln' but because we cannot determine exactly how secure these contexts are they have been treated as one context. The only record seen of this find, the Ipswich Museum accession card, suggests that the main feature excavated was a kiln stokehole.

Selective retention, probably by the excavator, is suggested by the small number of body sherds compared

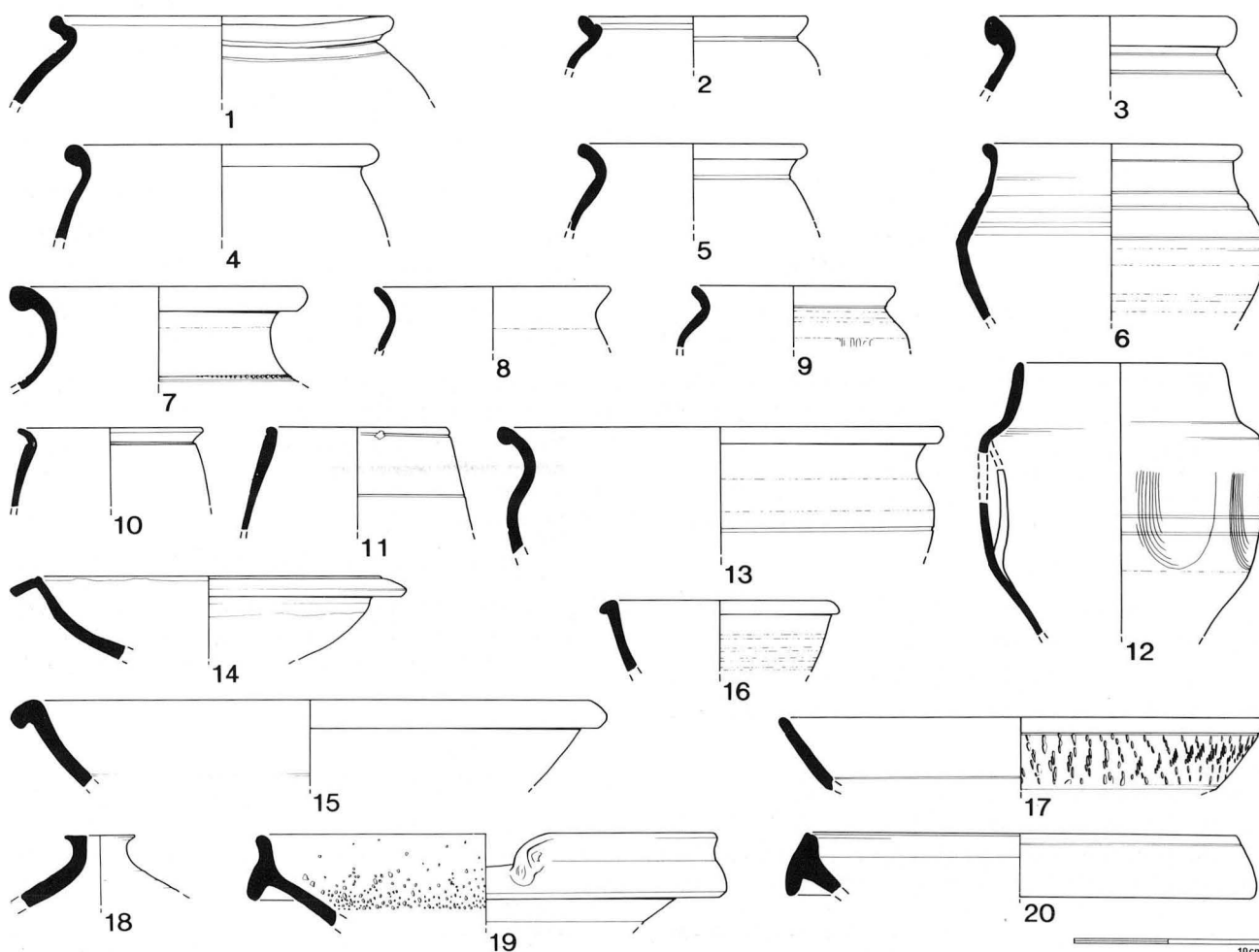


Figure 119 Pottery from kiln found in 1970. Scale 1:4

Form		EVEs	%
J1	Jar, globular, with no neck and groove or grooves below rim; may be lid-seated	2.39	18.5
J2	Biconical jar or wide-mouthed bowl with raised shoulder cordon, rounded rim	0.54	4.2
J3	Narrow mouthed large jar, everted rounded rim	0.24	1.8
J4	Necked jar with bead rim. Single example	0.26	2.0
J5	Jar with sharply everted simple rim, high shoulder, burnished vertical lines or lattice. Single example	0.89	6.9
J6	Jar with simple everted rim	0.55	4.3
J7	Cavetto rim jar. Single example	0.20	1.5
J8	Jar, weak profile, thickened rounded rim	0.28	2.2
J9	Indented funnel-necked beaker	1.28	9.9
J10	Bag-shaped beaker, plain rim with groove	0.74	5.7
	Miscellaneous jars	4.04	31.3
B1	Bowl with straight or slightly curving sides, thickened rim	0.35	2.7
B2	Hemispherical bowl with flat out-turned rim, single groove defining a small bead	0.05	0.4
B3	Straight sided bowl with plain rim	0.15	1.2
B4	Wide mouthed jar or bowl with girth groove and bead rim	0.66	5.1
	Miscellaneous bowl	0.08	0.6
L1	Lid. Single example	0.00	0.0
M1	Mortarium with high bead and small sloping flange. Single example	0.12	0.9
M2	Mortarium with collared rim (Colchester 498) with a groove on bead (<i>cf</i> Ellingham 1A). Single example	0.10	0.8
<i>total</i>		12.92	

Table 31 Quantification of forms in 1970 kiln

to the number of rims. Although grey wares dominate there are also oxidised sherds, (a feature shared by the 1965 groups, see below).

Fabrics

Generally reduced grey wares except for a group of oxidised sherds and a couple of pale fabric mortaria sherds; however some pieces are unevenly fired with oxidised patches. The colour ranges from light to dark grey, mostly a mid to dark range, often with a lighter core. The fairly fine sand temper is sometimes replaced by denser larger mixed round quartz grains. Mica content is very variable. Grog or clay pellets are visible in some examples (Nos 11, 16). The surfaces, which are now often abraded or weathered, may have been smoothed or burnished originally.

Forms

(Table 31)

The most common form is the lid-seated neckless jar (Form J1), a type more commonly found in the east than in the west of Suffolk (and sometimes very difficult to distinguish from Late Saxon Thetford type ware). Form B4 (Fig. 119 No. 13) illustrates how later versions of the wide-mouthed, reverse-S profile jar with girth groove (as seen in pit 21,

Fig. 117 Nos 7, 8) develop a larger diameter rim than girth. The bag-shaped and folded beaker forms in generally oxidised fabrics indicate that the potters are catering for the tableware market as well as the standard grey ware jars and bowls of the kitchen. The mortaria also indicate a wider range of products.

The bases are mostly plain although some occasionally have foot-ring grooves.

Fig. 119

1. Form J1a with lid-seated rim. Fabric has dark red core, moderately dark grey-brown surfaces, little visible mica. Kiln.
2. Form J1b with sharp groove for lid-seating. Sandy fabric. Slightly distorted. Stokehole.
3. Form J1c almond shaped rim. Light grey with visible mica. Stokehole.
4. Form J8 unevenly fired. Smoothed on rim. Some mica visible. Stokehole.
5. Form J4 very sandy fabric, unevenly coloured. Kiln.
6. Form J2 upper half burnished. Dark brown-grey, light brown core. Patches of sooting. Stokehole.
7. Form J3 narrow slashed cordon at base of neck. Burnished exterior and rim interior. Dark grey surfaces, lighter core. Kiln.
8. Form J6 burnished exterior. Partially oxidised, orange core with light brown exterior. High mica content. Kiln.
9. Form J5 burnished with vertical lines on the body below shoulder. Dark grey surfaces, light brown core. Mica fairly plentiful. Stokehole.
10. Form J7 burnished exterior and rim interior. Light grey surfaces, darker core, plentiful mica. Stokehole.
11. Form J10 slightly irregular rim. Surface eroded, traces of smoothing. Oxidised fabric with cream and red ?grog inclusions as well as sand, plentiful mica. Kiln.
12. Form J9 fabric as No. 11 above, but unevenly fired. Traces of a burnished surface layer are in places reduced to a grey-brown colour. Kiln.
13. Form B4 burnished exterior. Unevenly fired, mid to dark grey colours. Plentiful mica. Kiln.
14. Form B2 burnished surfaces. Oxidised with mid grey-brown surfaces, some mica. Stokehole.
15. Form B1a with thick out-turned rim. Oxidised fabric as No. 11 above. Kiln.
16. Form B1b with small triangular rim. Lines of burnishing on outside. Mid-light brown-grey. Stokehole.
17. Form B3 exterior horizontal groove and coarse rouletted decoration. Oxidised with mid grey-brown surfaces, plentiful mica. Kiln.
18. Form L1 central part of a lid, made with a hole through the middle. Light brown-grey with dark grey surfaces, plentiful mica. Stokehole.
19. Form M1 part of spout survives. Cream with thin orange core, sandy. Trituration grits are mixed flint and quartzite, variable in size. Kiln.
20. Form M2 very sandy, very pale brown. No surviving grits. Kiln.

Dating

Two sherds of samian, both in bags labelled 'Stokehole' have been identified as an East Gaulish (Rheinzabern) foot-ring sherd and an East Gaulish (Trier) body sherd, both of which are dated late 2nd to early 3rd-century. The beaker and the mortaria forms also suggest 3rd-century production.

1965 kiln and associated pit

This was the largest assemblage examined. It derives from an excavation initiated by M.J. Campen but largely carried out by Elizabeth Owles for Ipswich Museum (Fig.123). Other areas were excavated but only contexts clearly related to pottery production were borrowed from the museum for this study; the original excavation notes were not available. The relevant context groups were 'Kiln, Field IV, Square 8' and 'Black Pit, NW of kiln'.

Both the kiln and the pit groups contain many obvious wasters.

Fabrics

As in the 1970 group the fabrics are quite variable. The majority of pieces are reduced grey colours, generally a mid grey, sometimes brownish particularly on the surface. However there are again some oxidised or partly oxidised red and brown pieces, correlating mainly with the beaker forms (Fig. 120 Nos 18, 20, 21, 24) and paler brown or buff fabrics associated with some of the mortaria (Fig. 121 Nos 46, 47). Variable amounts of generally fine quartz sand are present, but the presence or absence of clay pellets and mica seems to be unpredictable.

Forms

(Table 32)

The assemblage is again dominated by jar forms, particularly the medium-mouthed form with little or no neck, often with a lid-seated rim, form J1, which represents 34% of the kiln assemblage. The narrow-mouthed jars (form J3) are commoner than in other groups at 6%. Bowl forms account for 12.5% of the kiln assemblage and are dominated by the reverse S-profile Form B3 (Fig. 120, Nos 30, 31) at 7% and the straight-sided bowl or dish with thickened rim, Form B1 (Fig. 121 Nos 35–37) at 4%. This group also shares the wider range of forms noted for the 1970 kiln with bag-shaped and indented beakers (Form J8, Fig. 120 Nos 20–22) and mortaria (Fig. 121 Nos 43–46, 48).

Decoration on body sherds includes girth grooves, shoulder grooves, neck grooves (single and multiple), stabbing below neck, herringbone rouletting in panels, burnishing, vertical grooves, multiple motifs, cordon, lattice.

Figs 120–121

Fabrics are described where they differ from mid grey with fine sand and some mica. Context is the kiln group where not specified.

1. Form J1a with undercut rim. One groove plus one discontinuous groove. Smoothed exterior with cracking.
2. Form J1b with lid-seated rim. One rough groove. Unevenly coloured mid to dark grey surfaces.
3. Form J1c with small bead rim. Slightly uneven rim. No visible mica.
4. Form J3a with slight groove at base of neck. Smoothed exterior. Body warped. Fine clay pellets, no visible mica.
5. Form J3b with small raised cordon bounded by grooves at base of neck. Double row of small triangular stab marks below. Smoothed exterior. Uneven rim. Large grog or clay pellets.
6. Form J3c with wavy combed decoration in panel below neck, bounded by grooves.
7. Form J4a with rim cut at a slight angle. Abraded. Clay pellets, no visible mica.
8. Form J4b with rim turned outwards. Fine clay pellets.
9. Form J4c with upright bead rim. Row of fingernail impressions and probable burnished wavy line below. Burnished. Cracked during firing. Fine clay pellets
10. Form J6 two rows impressed wedge shapes forming herringbone decoration on shoulder. Distorted body and cracked surface. Brown-grey surfaces, clay pellets. From the Black Pit.
11. Form J13 plentiful clay pellets, some voids.
12. Form J17 slashes below neck. Smoothed exterior with surface cracking. Brown-grey surfaces, clay pellets. From the Black Pit.
13. Form J11a with hooked rim.
14. Form J11b with everted rim. Slightly uneven rim. Fine clay pellets.
15. Form J18 slightly uneven reduction colour. Clay pellets. From the Black Pit.
16. Form J2a with plain, probably originally burnished exterior. Clay pellets.
17. Form J2b with acute burnished lattice decoration and burnished exterior above.

	Form	Kiln		Pit	
		EVES	%	EVES	%
J1	Jar with no neck and groove or grooves below rim, may be lid seated	35.59	34.3	1.12	15.7
J2	Small jar with sharply everted simple rim, sometimes lattice decoration	2.07	2.0		
J3	Narrow mouthed jar, sometimes with decorated bands	6.43	6.2	0.59	8.3
J4	Globular jar with upright neck and rim	6.03	5.8		
J5	Jar with simple everted rim (large variant of J2)	2.65	2.5	0.47	6.6
J6	Large jar with bead rim and decorated on shoulder	0.09	0.1	0.20	2.8
J7	Indented beaker with everted rim. Single example.	0.14	0.1		
J8	Plain and funnel necked beakers, groove below rim.	1.53	1.5		
J9	Narrow mouthed jar, straight neck with flange.	0.20	0.2		
J10	Large straight necked vessel with lid seated rim. Single example.	0.20	0.2		
J11	Jars with no neck, plain	1.04	1.0		
J12	Wide mouthed jar / bowl, cordon on shoulder	1.74	1.7		
J13	Necked jar with bifid rim	1.13	1.1		
J14	Jar with simple out-turned rim, plain	1.21	1.2	0.65	9.1
J15	Wide mouthed jar / bowl, cordon on neck, similar to J12. Single example.	0.09	0.1		
J16	Necked jar with broad rilling on shoulder. Single example.	0.16	0.2		
J17	Jar with simple out-turned rim			0.25	3.5
J18	Jar with no neck, bifid rim			0.21	2.9
	Unidentified jars	26.22	25.2	2.32	32.4
B1	Bowl, straight or slightly curved sides, thickened rim	4.42	4.2	0.27	3.8
B2	Bowl, straight sided, plain rim	0.34	0.3	0.06	0.8
B3	Wide-mouthed jar / bowl, reverse S profile	7.67	7.4	1.01	14.1
B4	Carinated bowls, two examples as illustrated.	0.58	0.5		
B5	Hemispherical bowl with out-turned rim. Single example.	0.13	0.1		
M1	Mortarium, bead and flange. Single example.	0.10	0.1		
(M2)	Not kiln product	0.09	0.1		
M3	Mortarium, collared rim. Single example.	0.20	0.2		
M4	Mortarium, high bead and flange. Single example.	0.45	0.4		
M5	Mortarium, small bead and deep flange	0.17	0.2		
M6	Mortarium, wall-sided with grooves. Single example.	0.09	0.1		
	Unidentified mortaria	0.32	0.3		
L1	Lid with plain rim	1.01	1.0		
L2	Lid with hooked or bead rim	1.76	1.7		
L3	Lid with central hole	0.00	0.0		
Total		103.85		7.15	

Table 32 Quantification of forms in 1965 kiln and pit

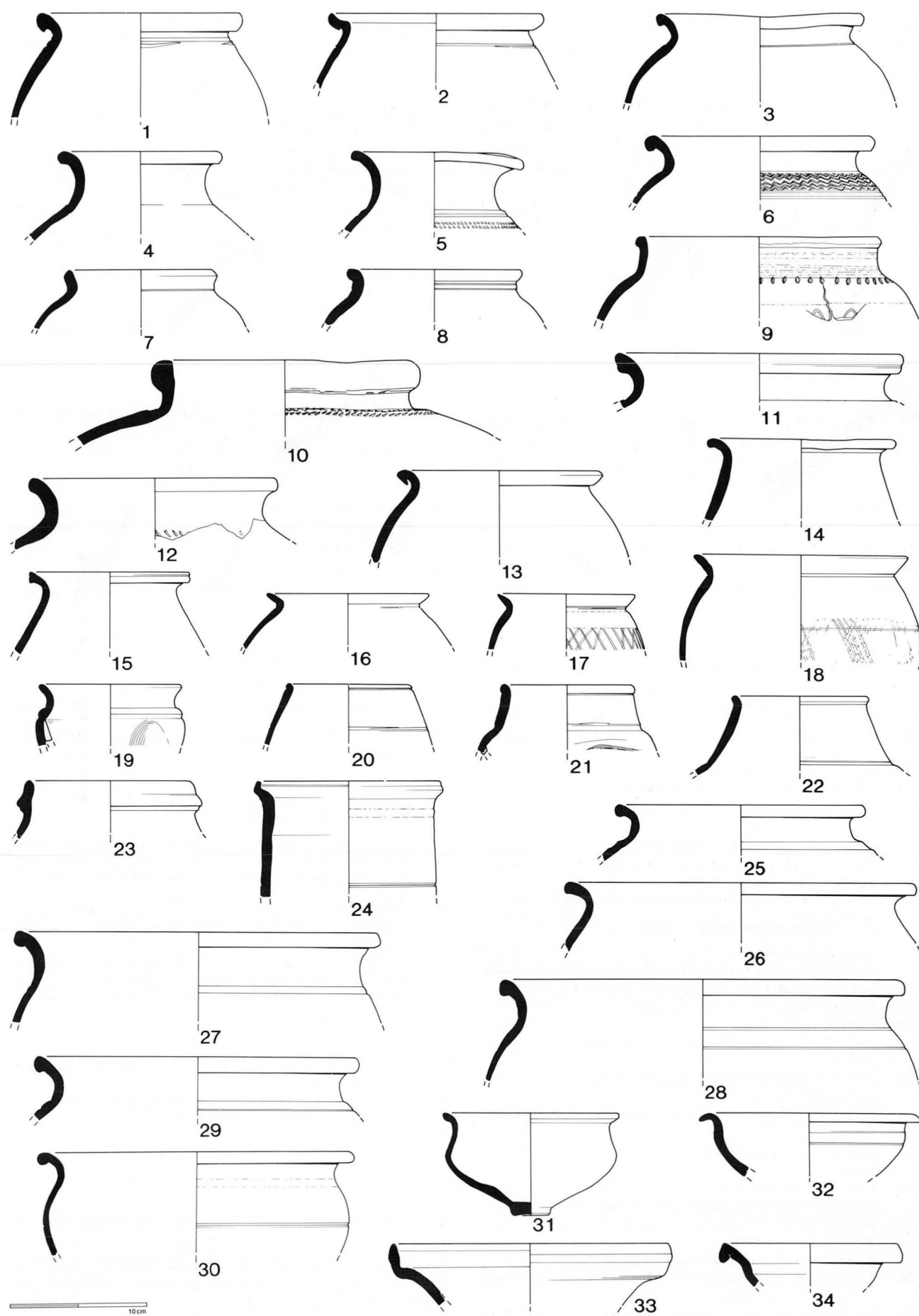


Figure 120 Pottery from kiln and pit excavated in 1965. Scale 1:4

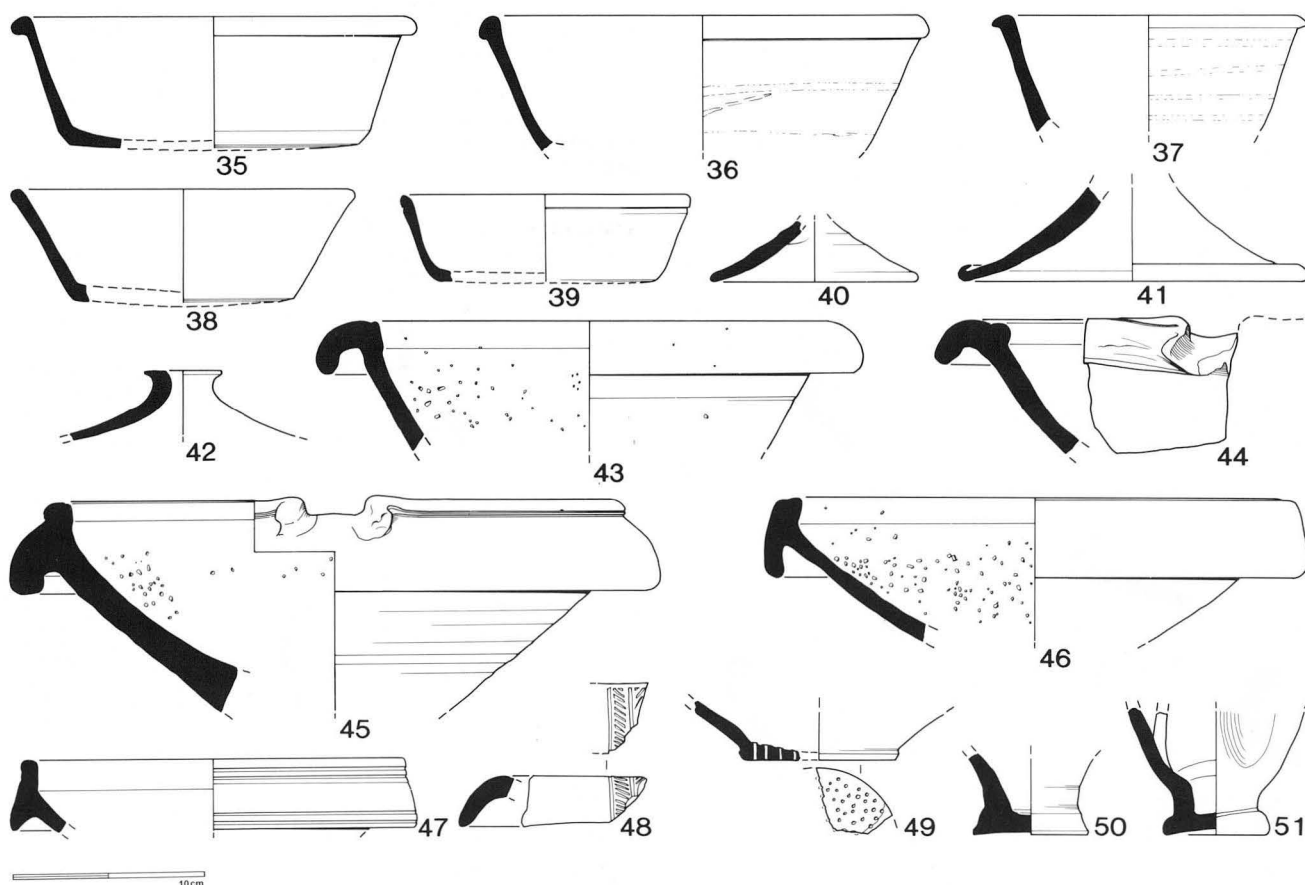


Figure 121 Pottery from kiln and pit excavated in 1965. Scale 1:4

18. Form J5 burnished lattice, now very abraded. Oxidised red-brown core, brown-grey surfaces, plentiful mica.
19. Form J7 raised cordon, burnished exterior.
20. Form J8b probable bag-shaped beaker form, burnished exterior. Dark red-brown, occasional ?grog, plentiful mica.
21. Form J8a indented beaker, burnished exterior. Uneven colour, red-brown with darker grey-brown patches, no visible mica.
22. Form J8c probably indented beaker, burnished exterior. Dark brown-grey with lighter grey-brown surfaces.
23. Form J9 groove on underside of flange. Burnished exterior. Slightly uneven colour.
24. Form J10 uneven oxidisation colour, grey-brown and orange-brown, some ?grog.
25. Form J16 smoothed exterior. Fine clay pellets.
26. Form J14 rounded, very slightly thickened rim. Clay pellets.
27. Form J15 smoothed surfaces. Clay pellets.
28. Form J12a burnished exterior. Fine clay pellets, plentiful mica.
29. Form J12b with cordon below neck. Burnished exterior. Uneven colour.
30. Form B3a large with single girth groove. Burnished exterior. Fine clay pellets.
31. Form B3b small, slightly carinated. Burnished exterior, abraded. Clay pellets.
32. Form B5 groove on rim. Smoothed surfaces. Slightly distorted body.
33. Form B4a with plain rim, sharp carination below, form related to Cam 24. Air bubble on interior. Dense fine clay pellets.
34. Form B4b with down-turned rim flange. Fine clay pellets.
35. Form B1 burnished surfaces. Uneven colour (mid grey and mid brown), cracked in firing. No visible mica.
36. Form B1a burnished rim and bands on exterior. Uneven colour (light grey and light brown). No visible mica.
37. Form B1b burnished rim and lines on exterior.
38. Form B2a possibly bevelled base. Burnished surfaces.
39. Form B2b with groove below rim. Fine clay pellets.
40. Form L1 smoothed surfaces.
41. Form L2 uneven colour (mid grey and light grey-brown). Fine clay pellets, plentiful mica.
42. Form L3.
43. Form M5 grey quartz and flint grits. Light grey, no visible mica.
44. Form M1 white and grey quartz grits, slightly larger than the plentiful mixed sand inclusions. Light grey-brown, no visible mica.
45. Form M4 sparse red, grey and white flint grits. Very pale brown, fine texture abrading to a powdery surface, no visible mica. Although a large sherd the fabric suggests that this is perhaps not a Hacheston product.
46. Form M3 top of rim slightly concave. White, grey and black mixed quartz grits. Uneven colour, light brown-grey and light brown, fine clay pellets.
47. Form M6 no surviving grits. Light yellow-brown with orange core in part, fairly dense sand, occasional mica. Fabric not very similar to kiln material. K. Hartley describes it as East Anglian, first half of 3rd century.
48. M Misc1 incomplete herringbone stamp on rim fragment. Uneven colour.
49. Base 1 perforated, fine holes pierced from the outside. Smoothed exterior. No visible mica.
50. Base 2 pedestal base, underside turned flat. Smoothed exterior. Uneven colour, mid grey-brown and red-brown.
51. Base 3 pedestal base of folded beaker, form as No. 19 above. Uneven colour, grey-brown and light brown.

Dating

This group contained many sherds of early storage jars (1st to early 2nd-century) and it is thought that the kiln and pit cut earlier features, or that during excavation earlier features were disturbed but not recorded. This may also explain why some of the forms (e.g. bowl form B4, Fig. 120 No. 33) look considerably earlier than the main group.

The most important of the non-local wares for dating evidence are two sherds of samian:

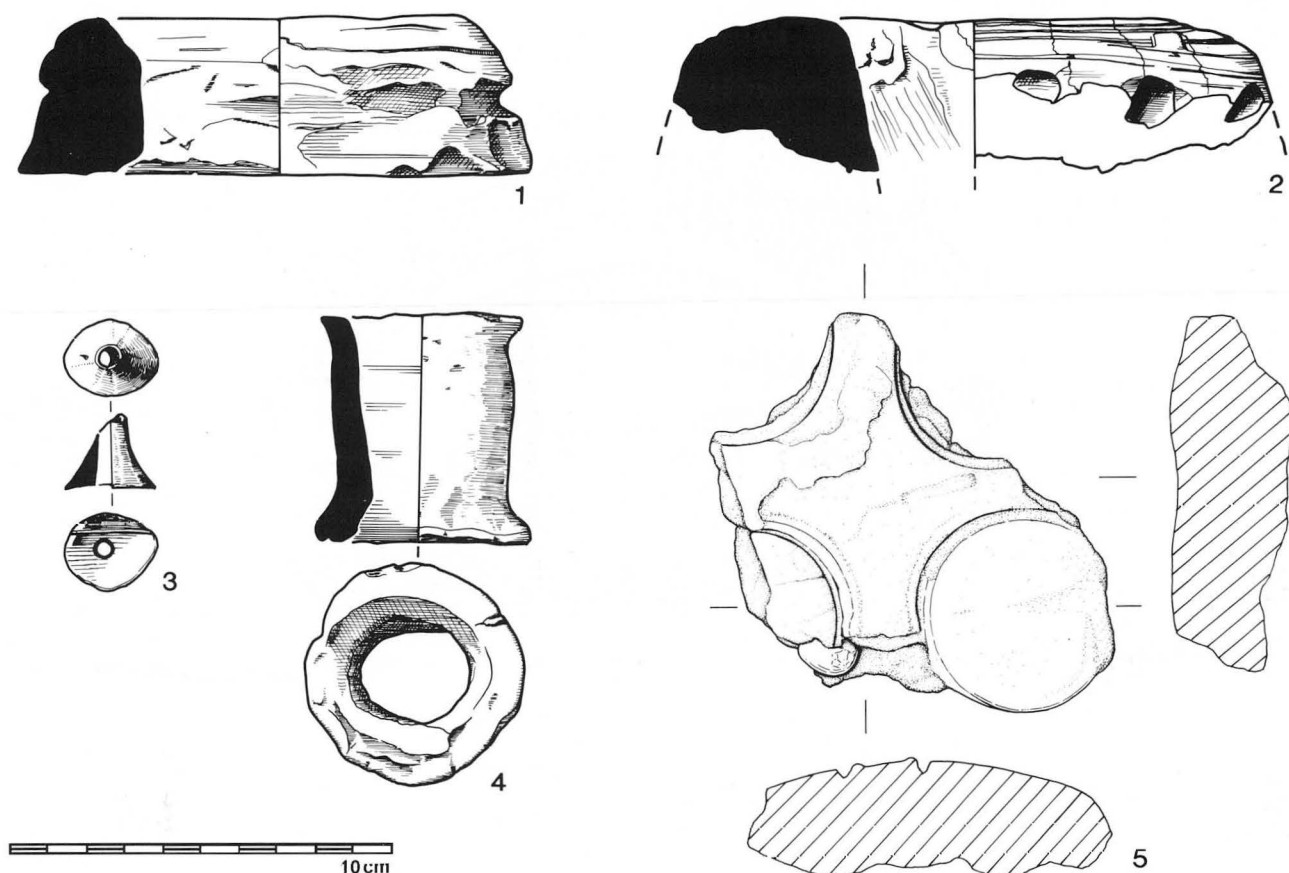


Figure 122 Baked clay objects from the kilns. Scale 1:4

Central Gaulish Dr33 rim of Antonine date (found in 'black under red clay at bottom of north stokehole' according to the original label); East Gaulish body sherd, date late 2nd- to early 3rd- century (found in 'east side of south stokehole 1st layer' on original label).

There was also a piece of Lower Nene Valley reeded rim mortarium of 3rd- or 4th-century date.

The indented beaker forms again suggest production in the 3rd century, and the group shares many forms with the 1970 kiln discussed above.

Kiln furniture

(Fig. 122)

Various fired clay objects were noted from the 1965 kiln contexts, including several roughly doughnut-shaped rings with a flattened base which are probably spacers or stackers:

From the 1965 kiln

1. Roughly ring-shaped spacer fragment (about 30% survives), the top rounded with rough finger smoothing around the edge, the base is flat with holes. Fabric similar to pots but uneven in colour — mainly mid grey, with fine sand and plentiful mica.
2. Roughly ring-shaped spacer fragment (about 25% survives), broken base. Smoothed top, roughly smoothed inner face, three finger impressed holes (c. 10mm deep) at the break on the outer face. Similar grey fabric with fine sand but very burnt — very hard with deep cracks.
3. Small conical object with a central hole, making the apex area very thin. Base slightly convex. Mid to dark grey quite fine fabric with some fine mica.
4. Roughly cylindrical spacer, expanded at the ends to form a spool shape. Flat ends, slightly squashed at the thinner end. Mid grey fabric with some mica. From the 'Black pit'.
(Not illustrated) A fragment similar to No. 1, with a small area of impressions on the exterior which might be from a woven basket.

From the 1973 excavation, Area III Kiln F2 ABC

5. Fragment with a convex surface with four rings each 3mm wide and 50mm in diameter impressed into it. Chalk and stone inclusions in the fabric.

From Area I N pit 21 GP

(Not illustrated) Two re-used bases on which the edges have been battered to form discs and the foot-rings removed — whether these have been re-used as some kind of kiln spacer or stacker or for some completely different function is impossible to determine.

Discussion

by Judith Plouviez

The groups studied illustrate pottery production at Hacheston between the 1st and 3rd centuries. The information can be supplemented by notes on other kiln groups (see Chapter 1 above and Swan 1984, *Gazeteer*, 601–603) but these do not alter the general impression of the industry. Throughout, the main products are the standard all-purpose jar forms, with the flat-based, straight-sided bowls forming a significant percentage from the 2nd century onwards — a typical coarse ware assemblage. However the 3rd century sees a possible intensification of activity (more kilns of this date have been discovered, and they often seem to be associated with substantial amounts of dumped material), and the introduction of a wider range of products. It is quite clear that some loads are being deliberately oxidised, almost certainly to produce orange drinking vessels (bag-shaped beakers and funnel-necked indented beakers as Fig. 119, Nos 11,12, Fig. 120 Nos 20–22, 24). These forms are produced elsewhere in the region (Colchester, Pakenham) with an applied slip to give a generally black or brown surface colour, but there is little

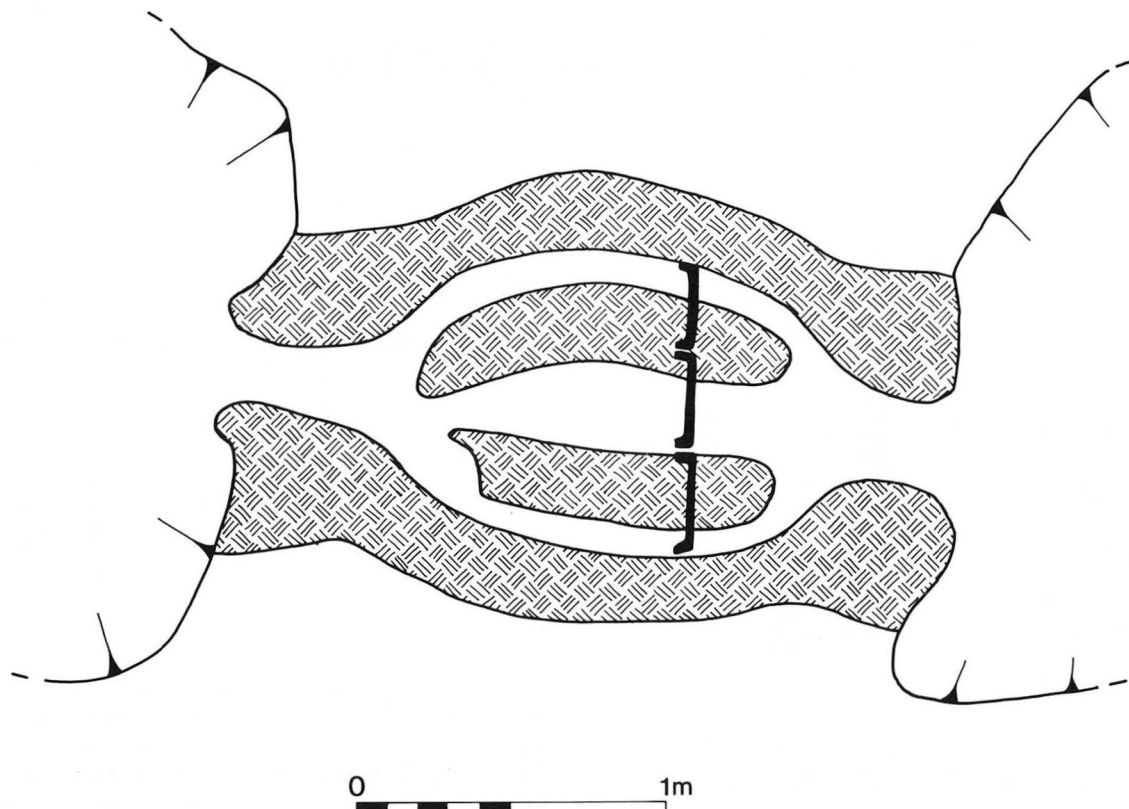


Figure 123 Pottery kiln recorded in 1965. Scale 1:25

evidence for the use of slips at Hacheston. Another new product at this time is the mortarium, generally in an oxidised pale fabric. Though it could be argued that local production of these is not proved by the small sample illustrated, the forms occur consistently in all the 3rd-century kiln groups. Relatively numerous local production sites for mortaria seem to be a feature of East Anglia (for example Brampton and Ellingham in Norfolk, Pakenham and West Stow in Suffolk). Whether Hacheston also produced mortaria in deliberately reduced fabrics, as at Homersfield (Smedley and Owles 1959, 180) and found in generally late contexts in the region, including Hacheston Area IV (Fig. 113 No. 34), is not clear. So far there is no direct evidence that pottery production continued here into the 4th century, although pieces from Area IX (Fig. 114 Nos 60–62) hint at the possibility of continuing local production of oxidised ware.

VII. The early Saxon pottery

by Keith Wade
(not illustrated)

From the 1973 excavation, Area II

3 rims, simple everted; 33 plain sherds, including bases; 5 decorated sherds; from context MA (surface clearance of MB).
2 rims, simple everted; 11 plain sherds, including bases; from context MB (Building XII).

The fabrics are predominantly sandy. One of the decorated sherds is part of what is probably a biconical vessel with incised chevron decoration. These vessels are amongst the earliest 'Anglo-Saxon' pots found in this

country, paralleling Germanic types and dated by Myres (1969, 71) to 'at latest [the] early years of the 5th century'. The chevron decoration can also occur on 6th-century pots with stamped decoration but the sharply incised lines on this sherd favour a 5th-century date (S.E. West, personal communication).

A further handmade rim in a sand-tempered fabric with smoothed surfaces was found at a late stage in the extracted pottery, and it is possible that other pieces could not be differentiated from late Iron Age material. The rim came from hearth LN, Area I N.

From Gallows Hill excavation HCH 013 (see also Appendix 1)

SFB (0002) contexts

2 rim, 32 body and base sherds early Anglo-Saxon including 4 highly burnished sherds, sandy fabrics

Pit (0003)

1 rim, 1 base, 8 body sherds early Anglo-Saxon mainly sandy fabrics
1 body sherd Ipswich ware

Ring ditch (0008 etc.)

1 rim 14 body sherds (some small and abraded) early Anglo-Saxon

Pit (0055) in ditch (0056)

0055: 1 rim, 3 sherds Ipswich ware (very gritty but not 'pimply' fabric)
0056: 3 sherds early Anglo-Saxon
1 base and 1 sherd of very fine/smooth Ipswich ware?

Unstratified contexts (at the east end of the area)

1 rim, 14 body sherds early Anglo-Saxon

Chapter 6. Zoological Evidence

I. Human skeletal remains

A cremation and an inhumation from the 1974 excavation by C.B. Denston (written c.1975)

Cremation from Area IV F 90

Colour of fragments	Light brown
Length of fragments	0–45.0mm
Total weight	429.1g
Number of individuals	One
Sex	?Female
Age at death	Adult

<i>Skeletal remains</i>	<i>weight (g)</i>	<i>% total</i>
Skull	65.5	15.3
Miscellaneous long bone	166.9	38.9
Other post-cranial	16.7	3.9
Miscellaneous	180.0	41.9
<i>Total</i>	<i>429.1</i>	

Table 33 Weight and percentage distribution of cremated bone, Area IV F90

No duplicated portions of bones were identifiable, or a dissimilarity in the thickness or general robustness of the fragments, suggesting the remains were representative of one individual. Specific fragments of the skull and post-cranial bones were few in number, but some were recognisable as being from individual bones. The lack of general robustness of the structure of the bone fragments, and the appearance of the recognisable fragments, of certain bones, suggested female affinities in preference to a male. A distal phalange of the hand was complete, features of which indicated it came from an adult individual, a distal portion of a humerus also suggesting an adult, but a positive age at death was indeterminable.

Inhumation from Area IV F 61

The skeleton was that of an infant, and consisted of the skull and post-cranial bones, though the skull was incomplete and various post-cranial bones missing. Measurements taken on the humeri, radii, ulnae, a femur, a clavicle and an ex-occipital bone, all came within the range of measurements of an infant at the neonate period, which is the first few weeks following birth. A total reconstructed height of the infant estimated from the maximum length of the femur gave a height of approximately 46.0cm. Associating the length of 46.0cm with lunar months, the age estimation was approximately nine months. Comparing the height range for modern whites, which at three months is approximately 56–64cm, the estimate of 46.0cm would seem to come in the range of the prenatal period of the foetus to a new-born infant in the neonate period. Another estimate of age was afforded by the presence of the crown of the maxillary first deciduous molar tooth, the development of which suggested an age between the time of birth and a few weeks of the neonate period.

Infant bones

by Anthony King

The mammal bone assemblage contained a small collection of human bones, which are reported on separately here. The following bones were found:

<i>Area</i>	<i>Phase</i>	<i>context</i>	
I S	C	pit 2 BJ	Neonate femur and two ribs
II	D	pit F30 PY	Very small neonate tibia and femur
IV	C	F31	Very small neonate tibia

Table 34 Infant bones

It is very likely that the remains represent the scattered remnants of infant burials, all of a very young age indeed. Their presence on the site is not an unusual occurrence, since many Roman sites yield similar finds, and it was clearly an acceptable practice to dispose of infant remains without the ceremony accorded to older children and adults (Scott 1990).

The cremated human bone from Gallows Hill, 1986

by Sue Anderson (written in 1997)

(see Appendix 1 for excavation account)

Cremated human bone was recovered from eighteen contexts. All but one of these were grouped together in the central part of the site at the northern edge. The weights of bone in each context are shown in Table 35, together with an indication of parts of the skeleton represented.

All the identifiable cremated bone was human and adult, but the few indicators of sex and age were inconclusive. No pathological changes were identified, other than a minor degree of new bone growth

<i>Context</i>	<i>Weight (g)</i>	<i>Skull</i>	<i>Torso</i>	<i>Limbs</i>
0004	8		+	+
0005	7	+	+	+
0006	357	+	+	+++
0007	19	+	+	+
0013	508	+++	+	+++
0014	5	+		+
0016	20	+	+	+
0017	3	+		+
0033	190	+	+	+++
0034	194	+	+	+++
0035	17	+	+	+
0036	1			+
0038	1			+
0039	1	+		
0048	142	+	+	+++
0051	16			+
0054	2	+		+
0064	4			+

Table 35 Cremated bones from Gallows Hill

(osteophytosis) on the vertebrae of 0033/0034, suggesting a mature individual.

The minimum number of individuals identified at this site from recognisable areas of the skeleton is two, corresponding to 0006 and 0013. These two burials both contained pottery vessels. Fragments of pottery in 0017 were probably derived from 0013, suggesting that the bone in the former context may also have originated with the latter. However, the larger burials 0033/0034/0054 and 0048 almost certainly represent a further two individuals, particularly as 0048 was buried at some distance from the main group.

The majority of contexts do not contain enough material to justify their interpretation as separate individuals. These smaller groups may be the cremated equivalent of disarticulated remains. The small quantity and size of the fragments in 0004, 0005, 0017, 0035, 0036, 0038 and 0039 in particular suggests that they may represent scattered fragments from the more complete burials. It is noticeable that the more complete cremations contain the least fragmented pieces of bone, as these would not be expected to move far once deposited. Alternatively, the small groups may be the remains of very poorly preserved separate individuals. Unburnt bone is generally badly preserved at this site. If parts of the skeleton were not very heavily calcined this may account for the low bone weights in some pits.

Catalogue

Numbers in brackets represent numbers of fragments present.

- 0004 8g. Very tiny fragments. Mostly long bones, one vertebral fragment. Adult. (= 0064?)
- 0005 7g. 34 small fragments: skull (7), vertebra (1), long bone (3), unidentified (23). Adult.
- 0006 350g. Cremation burial with pot. Many fragments: skull (12), torso (40), arms (68), legs (86), unidentified (200+). 1 tooth root fragment. L. petrous temporal. Adult ?male.
- 0007 19g. Skull (4), vertebrae (2), long bones (26 — mostly legs?), radius fragment, metatarsals? Including one tooth and L. petrous temporal. Adult.
- 0013 508g. Cremation burial with pot. Skull (126), torso (42), arms (135), legs (60), long bones (17), unidentified (100+). Skull mostly occipital, two tooth fragments. Adult.
- 0014 5g. Skull (1), unidentified (4).
- 0016 20g. Skull (7), teeth (8), vertebrae (9), various long bone fragments. Adult.
- 0017 3g. Skull/jaw (2), various long bone fragments, all small. Adult.
- 0033 190g. Not heavily fragmented. Skull (60), torso (23), arms (17), legs/feet (40), long bones (34), unidentified (200+). Mature adult, slight osteophytosis of vertebrae. Vastus notch of patella. Same as 0034 and 0054?
- 0034 194g. Skull (16), torso (16), arms (33), legs (23), long bones (12), unidentified (100+). Mature adult, osteophytosis of axis epistropheus and other vertebrae. Not heavily fragmented. Same as 0033 and 0054?
- 0035 17g. Skull (11), torso (6), long bone (23), unidentified (50+). R. petrous temporal. Adult.
- 0036 1g. 30 fragments, mainly long bones.
- 0038 <1g. 1 fragment, ?joint surface. Adult.
- 0039 1g. 8 fragments, mostly skull. Adult.
- 0048 142g. Cremation burial with pots. Skull (2), torso (6), long bones (92), unidentified (100+). Adult.
- 0051 16g. Skull (3), distal femur, various long bone fragments. Adult.
- 0054 2g. Skull (2), unidentified (9). Adult. Same as 0033/0034?
- 0064 4g. Long bones (9). Adult. (=0004?)

II. Mammal bone

by Anthony King

This assemblage of bones was analysed in 1975–6, when the author was first embarking on a career in archaeology.

It has had to wait a long time to come to fruition, with the consequence that the process of final writing of the report has taken place some twenty years after the actual examination of the bones. As a result, this report is not as complete as it might have been, especially in the realm of measurements and some of the other data recorded. However, the analytical results are interesting and of significance for the site as a whole, and are presented here in a form compatible with current animal bone reportage, where possible.

Methods

The assemblage, all recovered by hand, has been identified and recorded to element and species for each context. As noted above, identifications were undertaken at the time of the excavation or immediately afterwards, with the exception of some small mammal bones, which were checked shortly before the report was written. The reference collection of the Institute of Archaeology, UCL, was the comparative collection used. A small number of contexts were also weighed by species, but it was not considered worthwhile to present the results here. Notes have been taken on the fusion of the long bones and the wear of the teeth, on the pathology and (to a small extent) the butchery patterns. Minimum numbers have been calculated by phase rather than stratigraphic unit, based on the phasing scheme provided for the final report. A small number of measurements was taken, principally for Area IX, but are not presented here, since they were not taken according to von den Driesch's (1976) scheme, as this was unavailable to the author at the time of analysis. However, a selection of the better-preserved complete bones was retained for later analysis, and it was possible to measure these according to the von den Driesch scheme. The bones themselves have been retained and are currently at Suffolk County Council Archaeological Service.

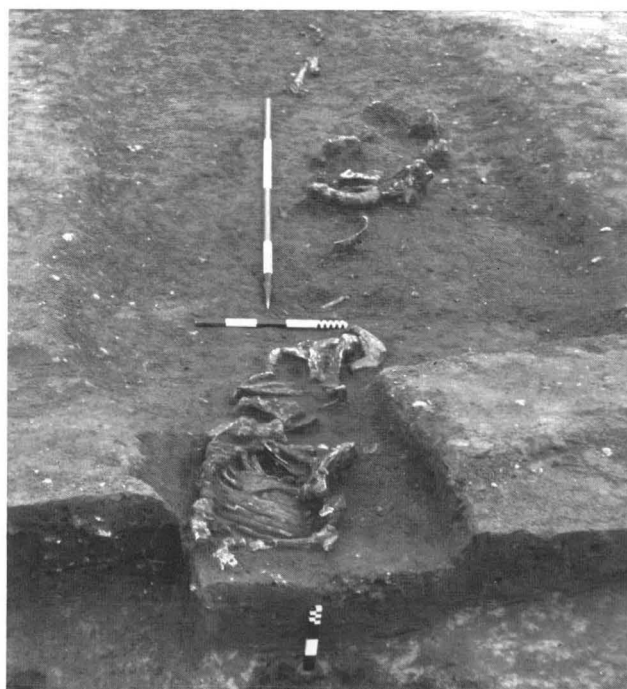


Plate XIV Articulated animal bones in ditch F12 (OT) in Area II South

Species	Area	I				II	III	IV	IX			Sub-total
	Phase	A	B	C	D	C/D	C	A/B	C	D	C/D	
Ox (<i>Bos taurus</i>)		138	297	956	1110	*631	102	24	382	503	21	4164
Sheep/Goat (<i>Ovis aries/Capra hircus</i>)		131	45	343	297	97	87	29	136	179	8	1352
Pig (<i>Sus scrofa</i> dom.)		37	14	*181	95	64	2	14	63	185	8	663
Horse (<i>Equus caballus</i>)		10	2	32	61	71	5	-	25	3	2	211
Dog (<i>Canis familiaris</i>)		7	2	*195	*63	5	6	-	*58	14	-	350
Cat (<i>Felis catus</i>)		2	-	1	-	-	-	-	-	-	-	3
Red Deer (<i>Cervus elaphus</i>)		-	1	5	7	1	-	-	-	2	-	16
Roe Deer (<i>Capreolus capreolus</i>)		-	-	-	1	-	-	-	1	1	-	3
Rabbit (<i>Oryctolagus cuniculus</i>)		-	-	-	-	26	-	-	-	-	-	26
Hare (<i>Lepus europaeus</i>)		-	-	-	-	30	-	-	-	-	30	
Fox (<i>Vulpes vulpes</i>)		-	-	-	4	-	-	-	-	-	4	
Badger (<i>Meles meles</i>)		-	-	-	-	1	-	-	-	1	2	
Water Vole (<i>Arvicola terrestris</i>)		-	-	-	-	1	-	-	-	-	-	1
Sub-totals		325	361	1713	1638	927	202	67	665	888	39	6825
Ribs: large (ox, horse size)		23	25	187	146	109	28	3	41	152	4	718
Ribs: small/very small (pig or smaller)		29	3	89	51	16	13	1	45	97	3	347
Vertebrae: large		11	12	99	77	168	10	-	39	66	4	486
Vertebrae: small		5	2	21	15	4	2	1	8	22	1	81
Long bone fragments: large		36	29	403	466	450	51	6	132	230	10	1813
Long bone fragments: small		100	6	96	109	32	27	3	98	181	6	658
Other fragments		8	2	89	122	15	2	-	45	89	2	374
Unidentified		110	33	198	114	823	-	-	-	-	-	1278
Totals		647	473	2895	2738	2544	335	81	1073	1725	69	5755
Grand Total												12580

*includes partial skeletons

Table 36 Mammal bones: numbers of fragments by phase (dating of phases as above, p.10)

Results

The bones were mostly in good condition, but in some areas of the site the sandy subsoil was slightly acidic and had caused erosion and fragmentation of the osseous material.

About 12,500 mammal bones were examined and their identification to species or to size grouping is given in Table 36. It was possible to identify about 55% to species and element. Minimum numbers of individuals are given in Table 37, and a breakdown of parts of the carcass in Table 38. Fusion of the epiphyses is presented in Table 39, a summary of tooth wear in Table 40 and a summary of pathological conditions in Table 41. Measurements and withers heights calculations for a selection of complete bones is given in Table 42.

One of the notable features of the assemblage was the presence of ox skeletons and horse skulls in Area II (Plate XIV). They were all in poor condition, due to the soil conditions in this zone of the site, but from the site plans and the fragmentary remains that were lifted it was possible to make identifications about species, completeness of the skeleton and age at death (Table 43). The ox skeletons were notable in consisting largely of post-cranial carcasses without heads or feet, and in being from young or sub-adult animals.

Other partial skeletons were found elsewhere on the site. These include an ox skull (Area I, Phase C, pit 7, EG) and a new-born piglet from the same context. The others were all dog skeletons: a fairly complete skeleton of an

adult medium-sized dog with a damaged paw that had fused metapodials (Area I, Phase C, pit 7, EI); a right hind limb of an adult from the same pit (EH); some broken front and rear limb bones of a small terrier-sized adult (Area I, Phase C, layer EN); two humeri, slightly bowed at the proximal ends, from a small terrier-sized adult (Area I, Phase D, dark layer BF); post-cranial elements from a fox terrier-sized adult (Area I, Phase D(?), layer NAN); a sub-adult skull (with sutures open), mandibles and upper neck vertebrae (Area IV, Phase C, pit 53); and a cranial and partial post-cranial skeleton of a medium-sized adult (Area IV, Phase C, pit 102). There were many other scattered dog bones from the site, which were probably also from disturbed whole or partial skeletons.

Discussion

The range of species represented

The mammals present at Hacheston are very much in line with expectations. In all phases and areas of the site, domestic ox was dominant, followed usually by sheep and thirdly pig. Very little definite evidence was found for goat, which must be considered uncommon by comparison with sheep. Of the other domesticates, horse and dog were fairly well represented, but cat was rare.

Of the wild species, those that were probably hunted include red deer, roe deer and hare. The rabbit bones in Area II were almost certainly intrusive and not of late

		Ox	Sheep/Goat	Pig	Horse	Dog
<i>Phase</i>						
I A	BN	138	131	37	10	7
	BN%	45.1	42.8	12.1		
	MN	6	7	2	2	1
	BN:MN	23:1	19:1	19:1	5:1	7:1
I B	BN	297	45	14	2	2
	BN%	83.4	12.6	3.9		
	MN	11	5	2	1	1
	BN:MN	27:1	9:1	7:1	2:1	2:1
I C	BN	956	343	170	32	39
	BN%	65.1	23.3	11.6		
	MN	20	12	13	2	5
	BN:MN	48:1	29:1	13:1	16:1	8:1
I D	BN	1110	297	95	61	16
	BN%	73.9	19.8	6.3		
	MN	29	12	7	3	2
	BN:MN	38:1	25:1	14:1	20:1	8:1
II C/D	BN	631	97	64	71	5
	BN%	79.7	12.2	8.1		
	MN	27	4	4	3	1
	BN:MN	23:1	24:1	16:1	24:1	5:1
III C	BN	102	87	2	5	6
	BN%	53.4	45.5	1.0		
	MN	4	5	1	1	1
	BN:MN	26:1	17:1	2:1	5:1	6:1
IV A/B	BN	24	29	14		
	MN	2	3	1		
IV C	BN	382	136	63	25	33
	BN%	65.7	23.4	10.8		
	MN	10	9	6	1	3
	BN:MN	38:1	15:1	11:1	25:1	11:1
IV D	BN	503	179	185	3	14
	BN%	58.0	20.6	21.3		
	MN	13	8	11	1	3
	BN:MN	39:1	22:1	17:1	3:1	5:1
IX C/D	BN	21	8	8	2	
	MN	1	1	1	1	

Table 37 Domestic species represented, (a) by fragment count (BN) adjusted to count articulated skeletons as a nominal two bones each, (b) by percentage of BN for ox, sheep/goat and pig, (c) by minimum number of individuals (MN) and (d) by BN:MN ratio

Roman date. The presence of fox, badger and water vole in small numbers is probably best regarded as the result of the scattered remains of natural deaths, although a hunting-kill provenance can not be ruled out.

Spatial and chronological factors

In the initial assessment of the bones using preliminary phasing, there seemed to be a clear trend in Areas I and II to increasing ox and (to a lesser extent) pig percentages through time (King 1978, table 4, no.49). This was in line with national trends, both generally and more specifically

for sites classed as *vici*. The final phasing, however, has made the visibility of this trend much weaker, as demonstrated in Table 44, where there is only a small shift in Phases C and D towards greater ox and pig percentages. Nevertheless, it is possible to infer that sheep numbers were probably in decline during the Roman occupation of the site, and indeed are at their highest in percentage terms (43%) only in the very earliest recognised assemblage, that of Area I, Phase A, mid 1st-century AD, and in the possibly atypical Phase C group from Area III.

Area/phase		Ox		Sheep / Goat								Pig						Horse					
		IA	IB	IC	ID	II	III	IV C	IV D	IA	IC	ID	II	III	IV C	IV D	IC	ID	II	IV C	IV D	ID	II
I	scap	11	22	39	57	25	4	13	15	5	24	14	7	3	4	3	6	3	5	2	8	4	2
	hum	4	4	34	44	75	3	22	29	7	24	16	2	1	4	12	11	6	5	5	4	2	-
	pelv	1	2	25	39	16	8	14	22	5	6	14	-	4	9	4	5	2	1	1	-	2	1
	fem	1	2	19	19	54	1	4	15	8	10	4	4	1	3	7	1	1	-	-	2	1	3
II	rad	7	4	38	34	68	2	14	30	13	29	24	5	3	11	12	4	2	1	1	5	6	2
	uln	4	2	13	24	24	2	7	13	2	5	2	1	-	2	1	2	-	-	3	11	-	-
	tib	3	6	18	23	60	4	14	24	13	36	30	5	4	14	15	4	1	1	2	4	3	1
III	cran	8	10	45	44	8	5	20	14	2	5	9	2	3	-	6	3	-	-	-	-	-	-
	max	4	6	11	9	2	-	5	6	1	3	3	1	-	2	1	6	3	7	2	7	-	1
	mand	5	12	33	29	12	5	14	16	8	18	14	7	8	11	15	18	13	4	8	17	2	5
	teeth	35	74	167	277	62	16	98	98	39	102	83	44	26	41	73	83	52	28	31	97	29	42
	core	6	12	27	31	2	1	29	21	-	-	-	-	-	1	-							
IV	metac	5	4	50	37	14	4	10	18	6	19	21	3	3	6	7	-	2	2	1	7	2	2
	metat	2	5	55	71	8	2	19	20	8	25	27	1	7	12	9	-	3	2	3	5	3	1
	calc	3	4	20	17	25	2	11	15	-	4	3	1	-	-	2	1	-	-	1	2	-	2
	astrag	4	4	21	12	25	1	9	11	1	4	6	2	-	1	2	3	-	-	-	2	-	-
	crp/trs	-	-	17	20	36	1	5	16	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	ph I-III	6	8	109	79	15	8	27	35	-	4	5	2	-	4	1	4	-	2	1	3	1	2
	frags	19	87	175	207	87	29	37	49	4	11	14	7	11	3	1	8	2	5	2	4	3	4
Tot	I	17	30	117	159	170	16	53	81	25	64	48	13	9	20	26	23	12	11	8	14	9	6
	II	14	12	69	81	152	8	35	67	28	70	56	11	7	27	28	10	3	2	6	20	9	3
	III	17	28	89	82	22	10	39	36	11	26	26	10	11	13	22	27	16	11	10	24	2	6
	IV	20	25	272	236	123	18	81	115	15	56	62	9	10	23	22	8	5	6	6	19	6	7
	I %	25	32	21	28	36	31	25	27	32	30	25	30	24	24	27	34	33	37	27	18	35	27
	II %	21	13	13	15	33	15	17	22	35	32	29	26	19	33	29	15	8	7	20	26	35	14
	III %	25	29	16	15	5	19	19	12	14	12	14	23	30	16	22	40	44	37	33	31	8	27
	IV %	29	26	50	42	26	35	39	38	19	26	32	21	27	28	22	12	14	20	20	25	23	32
T/B	T/B	35:93	74:194	167:749	277:796	62:556	16:82	98:274	98:369	39:83	102:227	83:206	44:50	26:48	41:87	73:99	83:76	52:38	28:35	31:32	97:81	29:29	42:26
	%	37.6	38.1	22.3	34.8	11.2	19.5	35.8	26.6	47.0	44.9	40.3	88.0	54.2	47.1	73.7	109.2	136.8	80.0	96.9	119.8	100.0	161.5

Table 38 Parts of the carcass represented for ox, sheep/goat and pig by phase, grouped according to the scheme of Barker 1982. The numbers of teeth and the tooth:bone ratio are also given

Ox	phase	I A		I B		I C		I D		II		IV C		IV D	
	mo.	F-NF	%F	F-NF	%F	F-NF	%F	F-NF	%F	F-NF	%F	F-NF	%F	F-NF	%F
scap	10	11-0	92	22-0	100	39-0	100	57-0	100	24-1	85	13-0	93	15-0	100
pelv	10	-		1-0		18-0		23-0		8-4		6-0		7-0	
hum d	12-18	1-0		1-0		23-0		26-0		41-10		17-3		25-0	
rad p	12-18	0-1		2-0		24-0		19-0		33-4		5-0		13-0	

tib d	24-30	2-0	71	4-0	83	9-5	68	13-4	79	11-12	72	10-2	69	16-2	78
mp d	24-30	1-1		3-1		33-20		44-13		4-2		6-6		9-7	
calc	36	2-1		3-1		17-3		15-2		24-1		8-3		13-2	

hum p	42-48	-	0	-	100	1-1	53	-	71	8-8	49	2-0	70	2-1	62
rad d	42-48	0-1		-		5-5		6-3		12-5		1-2		8-7	
fem p	42-48	-		-		7-2		5-2		5-12		-		7-3	
fem d	42-48	-		-		3-5		3-2		14-8		3-1		1-1	
tib p	42-48	-		1-0		0-1		3-0		5-13		1-0		3-1	

Sheep/Goat															
	phase	I A		I C		I D		IV C		IV D					
	mo.	F-NF	%F	F-NF	%F	F-NF	%F	F-NF	%F	F-NF	%F				
hum d	< 12	2-1	94	10-0	96	5-2	100	4-0	100	10-1	88				
rad p	< 12	4-0		7-0		5-1		3-0		1-0					
scap	12	5-0		22-2		14-0		4-0		3-0					
pelv	12	5-0		5-0		8-0		2-0		1-1					

tib d	35	2-0	67	9-1	91	9-0	100	4-0	100	5-0	83				
fem p	36	0-1		1-0		-		1-0		0-1					

mp d	47	0-1	25	3-2	60	8-3	77	1-0	67	2-0	60				
fem d	48	1-2		0-2		-		0-1		0-2					
tib p	48	-		3-0		2-0		1-0		1-0					

calc	48-60	-	-	3-1	80	2-1	43	-	0	0-2	50				
rad p	48-60	-		1-0		1-3		0-1		1-0					
hum p	48-60	-		-		-		-		1-0					

Pig	phase	I C		I D		IV C		IV D							
	mo.	F-NF	%F	F-NF	%F	F-NF	%F	F-NF	%F						
scap	7-11	6-0	100	3-0	100	2-0	100	8-0	93						
pelv	7-11	3-0		2-0		-		-							
rad p	11	2-0		2-0		1-0		2-1							
hum d	11+	9-0		1-0		3-0		3-0							

tib d	19-23	2-1	67	0-1	33	0-1	40	0-1	69						
mp d	19-23	-		2-3		2-2		9-3							

calc	31-35	1-0	50	-	0	1-0	100	2-0	50						
fem p	31-35	-		0-1		-		0-1							
hum p	31-35+	-		-		-		-							
rad d	31-35+	0-1		-		-		0-2							
fem d	31-35+	-		-		-		-							
tib p	31-35+	-		-		-		1-0							

Table 39 Fusion of epiphyses for pig, sheep/goat and ox

Ox				
<i>Area/phase</i>	<i>juv.</i>	<i>sub-ad.</i>	<i>adult</i>	<i>elderly</i>
I A	-	1	-	-
I B	-	2	2	-
I C	-	3	4	1
I D	1	3	14	1
II	-	3	1	-
III	-	2	-	-
IV C	-	3	-	6
IV D	2	6	4	1

Juvenile = m3 just wearing or worn: up to 1 year
Sub-adult = m3 still present, usually very worn; M3 unerupted or just wearing: 1-2 years
Adult = all adult teeth present, with M3 worn: 2-3 years
Elderly = M3 worn or very worn; M1 and M2 very worn: 3 years or older

Sheep/Goat				
<i>Area/phase</i>	<i>juv.</i>	<i>sub-ad.</i>	<i>adult</i>	<i>elderly</i>
I A	1	1	1	-
I B	-	1	1	-
I C	4	1	5	1
I D	2	5	3	2
II	1	-	2	-
III	1	2	1	1
IV A/B	-	1	-	1
IV C	3	2	1	-
IV D	1	3	-	4

Juvenile = m2 and m3 just wearing or worn; M3 unerupted: up to 1 year
Sub-adult = m3 worn or very worn; M3 unerupted or just wearing: 1-2 years
Adult = M3 worn; M1 and M2 can be very worn: 2-4 years
Elderly = M3 very worn (or older): 4 years or older

Pig				
<i>Area/phase</i>	<i>juv.</i>	<i>sub-ad.</i>	<i>adult</i>	<i>elderly</i>
I B	-	-	-	1
I C	1	4	3	-
I D	3	4	2	1
II	-	1	-	-
IV A/B	1	1	-	-
IV C	1	2	2	-
IV D	3	8	3	-
IX C/D	-	1	-	-

Juvenile = m3 and m4 worn: up to 1 year
Sub-adult = m4 still present, very worn; M1 and M2 just wearing or worn: 1-1.5 years
Adult = all adult teeth present and worn: 1.5-3 years
Elderly = M2 and M3 very worn: 3 years or older

Table 40 Summary of age-at-death from mandible tooth wear. Approximate ages for pig from Bull and Payne 1982, for sheep/goat from Bullock and Rackham 1982 (revised younger) and for ox from Grigson 1982. The figures indicate the number of mandibles

Horse bones were more common in the later Phases (C and D). Dogs, too, were best represented in Phase C, mainly due to the apparent deposition of some skeletons in this phase.

In spatial terms, there was a fair degree of variation across the site. Cattle were best represented in Areas I and II, and to a lesser extent also in Area IV. Sheep, by contrast,

were well represented in Area III and rather less so in Area I, whereas pigs achieve their greatest representation in Area IV (Phase D) and to a lesser extent in Area I. These changes in emphasis across the site may well be a reflection of variations in stock control in the fields and enclosures that formed the main features found during the excavation.

The animal economy and the food supply

Hacheston is an interesting site for animal bone analysis, by virtue of being the periphery of a small town. This is a zone that is rarely investigated, yet in economic terms is of considerable interest, since here might be expected to be evidence of animal corralling for the food supply to the town or for export, or signs of industrial working of animal products.

The results of the analysis do in fact support these suppositions. The bones are probably the remains of primary butchery activity, and the spatial variations in the percentages of the three main domesticates are consequently a function of the corralling of groups of animals in enclosures prior to slaughter. There were also refuse dumps throughout the site, partly composed of butchery waste, but including also horse (Pl. XV) and dog skeletons and, most interestingly, some scattered human infant bones (see separate report).

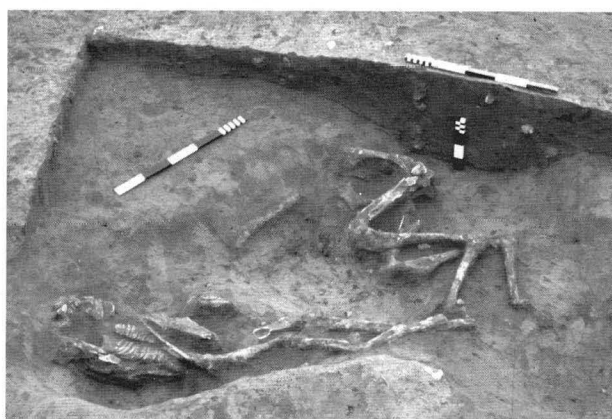


Plate XV Articulated horse bones in pit F55 in Area II North

The cattle skeletons in Area II can also be fitted into this picture. They are, in effect, the reverse of 'heads and hooves' burials, since nearly all of them lack the head and the extremities below the carpal/tarsal region. This pattern is consonant with the removal of the hide for processing elsewhere, together with the associated feet bones and also the skull. The latter would have been useful for horn-working as well, a process that must have occurred outside the excavated area, to judge from the relatively low representation of horn-cores on the site. Another interesting aspect of the Area II skeletons is their young age at death, probably due to selection of the hide for particular qualities (*e.g.* suppleness or close grain). What seems clear is that their use for meat was not important, since the deposition of the articulated skeletons argues against their dismemberment as part of the butchery process. It is conceivable that the animals had suffered from some sort of disease which rendered them unfit to eat, but still suitable for their leather and horn resources.

<i>Area</i>	<i>Phase</i>	<i>Context</i>	<i>Condition</i>
Ox			
I	B	Pit 41 (JP)	rib head (ox/horse size) with abscess pit
I	C	Pit 70 (HF)	phalanx III with some bony growth on dorsal surface near articulation
I	D	Pit 54 (CQ)	radius shaft with abscess pit below ulna scar
III		ZV Unstratified	phalanx I with eburnated articulations
IV	D	Pit 75	mandibular M3 3rd cusp congenitally absent
IV	D	Pit 75	another example of this condition
IV	C	Pit 36	mandible with P3 missing congenitally and P2 leaning backwards nuchally; also M3 2nd cusp unworn due to poor occlusion with maxilla
IV	C	Pit 51	mandibular M1 completely worn down on nasal side due to loss of P3
IV	C	Pit 118	pair of very worn mandibles with P3 absent congenitally and M1 fallen forward nasally
Sheep/Goat			
I	C	Pit 1 (AO)	scapula with healed fracture
I	C	Pit 1 (AO)	scapula with partially healed hole in blade, c 5 mm diameter
I	D	Layer CX	rib head (sheep/pig size) showing signs of disease affecting the bone surface
IV	D	Pit 75	mandible with no P1 and crowded cheek teeth
Dog			
I	C	Pit 7 (EI)	two metapodials fused together, probably due to arthritis (from skeleton)

Table 41 Pathological conditions in bones and teeth

<i>Area</i>	<i>Phase</i>	<i>Context</i>	<i>Species</i>	<i>Element</i>	<i>Measurements (mm)</i>	<i>Withers Height (m)</i>
I	C	Posthole 22 (CU)	Horse	radius	GL 290, Bp 57, Dp 35, Bd 61, Dd 34, SD 31	1.26
I	B	Gravel AR	Horse	tibia	GL 303, Bp 81, Dp 71, Bd 63, Dd 37	1.32
I	D	Layer CK	Horse	metatarsal	GL 246, Bp 39, Dp 33, Bd 40, Dd 28	1.31
I	C	Layer CC	Ox	metatarsal	GL 217, Bp 46, Dp 42, Bd 50, Dd medial 29	1.19
III	D	Dark layer AAJ	Ox	metatarsal	GL 222, Bp 44, Dp 42, Bd 52, Dd 30	1.22
III	B	Pit F10 (AAX)	Sheep	metatarsal	GL 136, Bp 23, Dp 16, Bd 26, Dd 16	0.62

Table 42 Selected measurements and withers heights of complete bones, using the schemes of von den Driesch 1976 and von den Driesch and Boessneck 1974

<i>Context</i>	<i>Species</i>	<i>Elements present</i>
Ditch F12 (MU)	Ox	post-cranial skeleton; ribs and vertebrae, scapula, pelvis; sub-adult
Ditch F12 (NY)	Ox	post-cranial skeleton; humerus, radius, acetabulum, femur, tibia; younger than 10 months
	Ox	post-cranial skeleton; ribs, vertebrae, humerus, radius, ulna, pelvis, femur, tarsals; younger than 10 months
Ditch F12 (OT)	Ox	skeleton; two mandibles, ribs, vertebrae, humerus, metatarsal; aged 1–2 years from tooth wear. (Plate XIV)
	Ox	post-cranial skeleton; ribs, vertebrae, scapula, humeri, radii; sub-adult
Ditch F14 (MT)	Ox	post-cranial skeleton; humerus, radius, femur, tibia; younger than 24/30 months
Ditch F14 (NG)	Ox	post-cranial skeleton; humerus, femur, tibia, tarsal; younger than 24/30 months
Ditch F14 (NK)	Ox	2 post-cranial skeletons; ribs, vertebrae, scapulae, humeri, radius, ulna, pelves, femurs, tibiae, tarsals, metatarsal; younger than 24/30 months
Ditch F14 (NL)	Ox	post-cranial skeleton; humeri, radii, ulna, femurs, tibiae, tarsals; younger than 12/18 months
Ditch F14 (OA)	Ox	post-cranial skeleton; ribs, vertebrae, humeri, radii, ulnae, pelvis, sacrum, femur, tibiae, metatarsal; younger than 12/18 months
Ditch F14 (PE)	Ox	2 post-cranial skeletons; ribs, vertebrae, scapula, humeri, radius, ulnae, sacrum, femurs, tibiae, tarsals; younger than 12/18 months
Ditch F14 (PF)	Ox	2 post-cranial skeletons; ribs, vertebrae, scapulae, humeri, radii, pelves, femurs, tibiae; approx. 24-30 months
Pit? F34 (PT)	Ox	2 post-cranial skeletons; ribs, vertebrae, humeri, radii, femurs, tarsals; one sub-adult (younger than 24/30 months), the other more adult
Ditch F35 (QV)	Ox	rear part of carcass; pelves, vertebrae, sacrum, caudal vertebrae
Pit F55 (TU)	Horse	skull; teeth aged c. 10 years (Silver 1969, 293); post-cranial skeleton visible in site photos but too crumbly to lift for analysis (Plate XV)
OI ?unstratified	Horse	mandibles; teeth aged c. 18 years (Silver 1969, 293), an elderly but quite small individual

Table 43 Ox skeletons and horse skulls from Area II

	<i>Ox</i>	<i>Sheep/Goat</i>	<i>Pig</i>	<i>total</i>
Phase A/B	459 63.0%	205 28.1%	65 8.9%	729
Phase C/D	3705 68.1%	1147 21.1%	587 10.8%	5439

Table 44 Summary of percentages of the three main domesticates for the early Roman and later Roman phases in all areas

More generally, the pattern of slaughter over the site as a whole suggests that cattle were killed at an older age than the Area II skeletons, usually at aged two years or older (Tables 39 and 40). About half of the cattle had been slaughtered when older than 3/4 years in most phases and areas, according to the bone fusion evidence. It is possible that there was a two-stage slaughter process, for some animals at age 2/3, but for most when older than 3/4. The tooth wear suggests that most animals were adults but not elderly at the time of slaughter, which contrasts with the fusion evidence, unless the ages given for the adult phase in Table 40 are too conservative. An interesting aspect of the tooth wear data is the variation in different zones of the site, which seems to be additional corroboration of the possibility that functional zonation was occurring with respect to the treatment of animals at the site. Area I also shows the chronological trend of a more elderly slaughter pattern through time.

The same chronological trend applies to sheep in Area I, as well as the same degree of spatial variation in the slaughter pattern that was observed for cattle. The generally more elderly slaughter pattern through time may be a reflection of adjustment in the animal economy towards increasing use of sheep for wool. This observation, however, should be noted in conjunction with the gentle overall decline in sheep representation at the site, which suggests that fewer sheep were being kept in the later Roman period than in the 1st century. Pigs, though, tended to have a younger slaughter pattern, usually at the sub-adult stage, when they were effectively full size and at the most appropriate age for slaughter for meat.

Pathological conditions in the bones and teeth (Table 41) were all of the minor sort, for instance teeth problems that would be expected in adult cattle, and which were not life threatening. Of more interest is the presence of healed fractures to scapulae in sheep, which suggests a certain degree of poor treatment.

When comparisons are made with other Roman settlements in East Anglia, it can be seen that Hacheston fits with the regional patterns, as might be expected for a secondary market centre. Both Brampton (Jones 1977a) and Pakenham (Beech undated) have very similar percentages of the three main domesticates in their later Roman phases. Scole, however, has a greater percentage of sheep/goat in its later Roman period than the other sites (Jones 1977b), and considerably more so for its early Roman phase, where the sheep percentage is 62%. The

hinterland of that site must have been more conducive to sheep herding than the regions around Hacheston or the other two sites. Both Pakenham and Scole show the trend of increasing cattle percentages at the expense of sheep/goat through time, as can be observed nationally (King 1978; 1984), but not very markedly at Hacheston.

In conclusion, this assemblage gives us a significant glimpse into the nature of the animal economy as practised in and around a small settlement/vicus. It was probably a site where animals were either farmed or collected from the local area prior to slaughter and processing for meat, leather, horn, wool and other products. The site area was also a rubbish dumping area, including butchery waste, (diseased?) cattle skeletons, dead dogs, horses and even human infant remains. All in all, very much what might be expected around a human settlement.

III. Bird bones

by Anthony King
(Table 45)

A very small assemblage of bird bones was recovered from the excavations. The small quantity compared with the number of mammal bones is probably a function of the hand recovery and the acidic soil conditions prevalent in some areas of the site. The assemblage was identified shortly after the excavation took place with the assistance of the reference collection of the British Museum (Natural History) at Tring, to the then staff of which the author is grateful for providing access and facilities.

	Area Phase	I C	I D	IV C	IV D
<i>Species</i>					
Chicken (<i>Gallus</i> sp.)		12	3	7	4
Goose (<i>Anser</i> sp.)		-	-	-	1
Teal (<i>Anas crecca</i>)		-	-	1	-
Woodcock (<i>Scolopax rusticola</i>)		-	-	1	-
Plover (<i>Pluvialis</i> sp.)		-	-	1	-
Wader (sandpiper size)		-	-	1	-
Raven (<i>Corvus corax</i>)		5	-	5	-

Table 45 Bird bones

The identifications are given in Table 45. As can be seen, domestic chicken is the dominant species represented, as would be expected for a site of this period. All the other species are wild, with the possible exception of the goose from IV D, which could be either domestic or wild. The range of wild species is consonant with a site in fairly close proximity to the coast, and is entirely typical of the region in modern times, with the exception of raven. This species is not found in eastern England today, but was formerly more widespread, being not uncommonly found on Romano-British sites. It was presumably a scavenger, perhaps also having religious connotations (Parker 1988, 208-9, 213; Green 1992, 126). It is probable that the other wild species were trapped or hunted for food.

Chapter 7. Discussion

Most of the places mentioned in this chapter are shown on the map of Roman East Anglia (Fig. 1).

The pre-Roman background

The distribution of Iron Age settlement in Suffolk has been discussed in relation to the natural topography by Edward Martin (1988, 68–72; Dymond and Martin 1988, 32; 1993, 56–58). He considered that proximity to water was important, the maximum distance being about a mile (1.6km); this pattern is clearly evident in the east coast sandling areas to the east and south of Hacheston where Iron Age sites avoid the dry areas between the Alde and Deben estuaries. The central part of Suffolk is dominated by the relatively high belt of boulder clay which lies south-west to north-east across the county, bisected to a varying degree by the river valleys. Although by the later Iron Age there is evidence that these heavier soils were being exploited, there are very inhospitable areas, particularly along the interfluvies, where waterlogging of the soil was a problem for cultivation until relatively recently. The upper Alde and the Deben valleys are areas of lighter sandy soil within the clayland (Dymond and Martin 1988, 15).

Another feature of Iron Age settlement in the south-east of the county is a preference for relatively high ground on spurs overlooking the valleys, illustrated by sites in the Fynn and lower Deben valley to the south of Hacheston which are quite regularly spaced (at about half mile (700–1000m) intervals) along the 30m contour (Martin 1993, 56); this hill-top pattern is also identifiable in the Gipping valley in south central Suffolk and around the Orwell to the south.

Hacheston is well placed to take advantage of the variety of soil types of the Deben valley and the higher clayland to the north-west. It is also likely that the Deben was navigable to here by coastal trading vessels, providing an alternative to overland routes to north-east Essex and Camulodunum in the pre-Roman period.

Suffolk is in a border area in terms of the tribal territories of the late Iron Age. This border is of particular interest as it marks the division between the 'Belgic' Trinovantes to the south with their extensive contacts with the Roman Empire from the beginning of the 1st century and the much more insular Icenii to the north. Hacheston, the defended site at Burgh and Coddanham on the Gipping seem to be on the northern edge of the Trinovantian area, whilst finds of Iron Age coins in the north east quadrant of the county have been almost exclusively Icenian types (Martin 1988, 70). The evidence from Hacheston has thus contributed to redefining the boundary between the Icenian and Trinovantian territories.

The finds provide the evidence for suggesting that the Hacheston settlement starts before the Roman Conquest in 43. This comprises the Iron Age coins (Chapter 3), the early brooch types (Chapter 4) and the Gallo-Belgic pottery (Chapter 5). None of these groups can be regarded at present as proof positive for pre-Conquest activity but taken together they strongly suggest it. Twenty-two Iron

Age coins seems a substantial group but nineteen were recovered from the post-60 Pakenham settlement — although the Pakenham assemblage has a later bias, while the Hacheston group spans almost a century. Individually the brooch types (principally the Colchester, Rosette and Langton Down types) can be shown to be in use until the Flavian period; collectively it is argued that the assemblage begins before the Conquest. The early imported pottery types also span the Conquest period; the presence of Terra Rubra and micaceous Terra Nigra adds support to pre-Conquest activity but the circumstances of its discovery make it impossible to judge relative quantities.

Taken as a whole the finds evidence does suggest that the settlement begins before the Roman Conquest; in the absence of a military stimulus (see below) it seems to fit into the pattern of extensive settlements developing in the pre-Roman period in the Trinovantian area, such as Heybridge, Kelvedon and elsewhere in Essex and the limited evidence from Long Melford and Coddanham in Suffolk. Although the Terra Rubra and South Gaulish samian are imports, the quantities are small and, in contrast to such sites as Braughing, Canterbury (Arthur 1986) and Colchester, there are no early amphorae. It may be thought more likely that the material was being traded on to Hacheston from such a centre as Camulodunum (Colchester), and that continental trade was therefore not a significant stimulus to the settlement's development.

The structural evidence for a possible ditched and palisaded enclosure and trackway in Area 1, perhaps related to two circular buildings in Area 1 North, was unfortunately severely under-excavated. There is, therefore, a shortage of well-stratified groups of finds of the early period. However a substantial proportion of early finds derive from the northern half of Area 1, albeit often in residual contexts such as the well (Gallo-Belgic quarter stater), pit 1 (Langton Down brooch 27) and pit 13 (Nauheim derivative brooch 2 and Terra Rubra and girth and ovoid beaker sherds). The mixed area HJ (which was mostly in and over the early ditches) contained Gallo-Belgic fine wares and an iron Colchester brooch (69) as well as 2nd-4th century finds.

The pattern of small ditches and palisades can be compared to the pre-Roman features at Kelvedon, Essex (Rodwell 1988, 154–29). At that site, however, only possible rectangular rather than circular structures were identified, though again the investigated area is a very small part of the total settlement area.

Although the sequence of ditches and palisades which mark the south-east edge of the first phase settlement in Area 1 are a very definite boundary, they are in no way comparable to the defended Late Iron Age sites such as Burgh (Martin 1988) where the ditches are three times as deep. There is some suggestion that there are more rural settlements in rectilinear enclosures (e.g. Buckley and Hedges 1987; Martin *et al.* 1992, 384–386) towards the end of the Iron Age, whereas the earlier pattern is for unenclosed settlements (e.g. Martin 1993).

In Area IV the evidence for early occupation was slight, nor does the material collected from the other fields round the Fiveways crossroads include pre-Conquest material of significance. The first phase settlement in Area I would therefore seem to be the core from which the site later expanded.

Early development of the settlement

The evidence from the excavation does not suggest any dramatic changes which might correspond with the known historical events of the 1st century, namely the Conquest of 43 and the Boudiccan revolt of 60.

The main series of ditches in Area I were redug many times and there is no sign that any one stage was particularly destructive. They had all been infilled when the new gravelled roads were laid, sometime within the Flavian period, perhaps between 70 and 90. In Area II the solitary 1st-century ditch which traversed the ridge was infilled at a similar time but whether the obliteration of such a pronounced landscape feature was of wider political significance or merely a change in land use is hard to say.

In Area I North the pattern of use does not appear to change with pits continuing to be excavated as before into the later 1st and the 2nd century. The dating for the roundhouses does not allow any useful conclusions to be drawn about their longevity through the 1st century. The excavation of pits during the 2nd century on the site of Building I attest to the abandonment of the building plot. Perhaps the clearest indicator for continuity between the Iron Age and Roman settlements is the establishment or improving of a complex road system which respects the core of the old site. The metalled road CN which connects Areas I and III is unlikely to have been the main road through Hacheston but it must have been important and for it to follow such an irregular course within the settlement points to a pre-existing pattern (Chapter 2). Evidence to support this is provided by the sections of the earlier ditches which appear alongside the road or in places beneath it. The determinants which account for the original pattern are less well understood. A change which may be significant is a movement in construction away from the open site in Area I North to the roadside development seen in Area I South. This may also coincide with the change from circular to rectangular building although how drastic this was is hard to say from the evidence. The decline in occupation within the first enclosure seems to take place over at least a century.

Certain categories of Roman goods were slow in reaching the site. The shortage of pre-Hadrianic coinage from the excavation in comparison with other British sites led Holmes, writing in 1975 (Chapter 3), to suggest a Hadrianic (117–138) commencement date for the site. Compared to other East Anglian coin assemblages Hacheston is low until the Trajanic period at the beginning of the 2nd century (Table 14). Similarly, the evidence from the samian ware (Chapter 5) showed a low percentage dating from the 1st century and only one of fifty-three stamps was of 1st-century date (Claudio-Neronian). Again, however, these low proportions may not be unusual for East Anglian sites, being similar to those recorded during the 1993/4 excavations at Scole, another small town in Icenian territory which probably starts during the 60s. The Roman coin and samian evidence does not indicate the beginning of settlement at Hacheston. It suggests, rather, that the settlement was slow to develop the economic links

with other sites which were necessary for acquiring those items.

Overall the stratigraphic evidence shows little sign of any hiatus, but a period of re-organisation in the later 1st century which establishes the roads and adjacent buildings is followed by an increase in the use of coins and samian ware, perhaps indicative of more 'Romanised' contacts during the first half of the second century. Whether the lack of these items in the 1st century is an indication of the after-effects of the Boudiccan revolt in the region can only be speculated; other finds such as the brooches and the coarse pottery do not seem to decline in quantity or quality at this time.

Military connections?

It seems clear that there is no evidence for a military presence within the excavated area during the 1st century and the lack of indicative finds (such as Lyons ware pottery, copper-alloy fittings, substantial numbers of Claudian bronze coins, Neronian samian) strongly suggests that this is true for the site as a whole. This contrasts with the small town at Pakenham in the Icenian area which has a post-Boudiccan military phase preceding the civilian settlement, and that at Coddensham in the Trinovantian area which has a Late Iron Age background and evidence for two phases of military fort. At present there is no evidence for forts anywhere east of the Colchester to Caistor St Edmund road in the 1st century, although it is likely that the road network, which includes one (Margary 340) from Coddensham towards Hacheston, dates from this period. It also has to remain speculative as to whether Hacheston is on a Roman road following the line of the modern A12 north to the Peasenhall and Yoxford area and beyond; certainly something close to this route must have been used as it allows access along the east coast immediately west of the large river estuaries.

The finds, probably mostly of 2nd or 3rd-century date, which do have military connections are hardly indicative of a permanent presence of any kind. They include various copper-alloy fittings, three iron spearheads and five brooches. However work on Caister-on-Sea (Darling with Gurney 1993) and Brancaster (Hinchcliffe with Green 1985) shows that there are defensive sites around the East Anglian coast from the early 3rd century; there is nothing to indicate when the Felixstowe (Walton Castle) shore fort was first constructed. It seems reasonable to suggest that Hacheston may have provided goods or services to the military, given its position on the east coast route which connected those sites. Even without such provision, the evidence could be accounted for as the result of military personnel occasionally passing *en route* through Hacheston. It is also possible that adverse effects from the operation of the Saxon Shore fort system through such factors as the requisitioning of supplies or the billeting of troops may have contributed to the decline of the settlement in the 4th century. Conversely, a cessation of any provision to the military in return for payment might account for the dramatic decline in Roman coin loss at the site during the third quarter of the 4th century.

The buildings and organisation of the settlement

There was very little evidence from which to judge whether the trackway suggested to have preceded the metalled road in Area I South was flanked by buildings but the evidence from the 2nd and the 3rd centuries is for a range of

relatively small buildings developing alongside the roads. The new structures are rectangular in plan and built using sill beams. They required more sophisticated carpentry than is used for a roundhouse and could indicate a fairly abrupt change in woodworking technology. However there is no reason to suppose that local builders did not simply assimilate new ideas.

Buildings

It is appropriate to consider the evidence for the rectangular buildings together as there is little variation over time. The quantity of brick and tile from the site was relatively small for such a large excavation area which suggests all of the buildings discussed below had thatched or wooden shingle rather than tiled roofs (Chapter 4). Nevertheless, it does indicate that elsewhere in the settlement there were structures with walls of brick, at least in part, and tiled roofs, of which the building with flint rubble wall foundations, excavated in 1966 (Fig. 2, d), may have been one.

The most complete ground plans survive for Buildings III and XI although neither was wholly excavated. Building III (Fig. 13) was between 5m and 7m wide and about 8m or 9m long. There was some evidence for a floor but the fragmentary chalk and clay could have come from several phases of a substantial hearth towards the back of the building. There was good evidence for a ground beam at the front of the property. A porch which was probably a secondary development extended the front by over 1m and up to 2m around at least one side, left more evidence with post-holes and later large stones which provided bases for posts. Building XI (Fig. 34) was also end on to the road in Area III. The ground plan was fairly closely established due to a clay floor which was 3m x 7m. There was some evidence for slots set into the ground either side of the clay but the area was not excavated and post-holes might not have been seen in the unexcavated dark soil. Out of the remaining evidence two successive Buildings VI and VII (Figs 15, 16) were respectively only 2.5m and 3.5m deep. The fronts were marked by a sunken ground beam and later a stone base. Presumably a beam resting on the surface was less prone to rot. The width of these buildings is unknown but they were aligned along the road. Irregular post-holes to the side may have extended both structures. Other evidence which may be considered suggests there was a tiny structure only 3m x 3m at the main road junction and a shallow structure with a plank floor at least 7.5m wide and up to 4m deep (although whether this was a building is open to question) built over part of road AR. The position of Buildings IV and VIII has probably been established by virtue of secondary features, namely the post-holes supporting the porch, as nothing else was seen and we cannot tell how big they were or on which alignment they were set.

It is unsurprising that from this collection of structures Building III survived the longest, spanning the late 1st to early 4th centuries. The overriding impression left by the remainder is of insubstantial, probably commercial, properties or workshops with outlets onto the street. With this in mind it may have been preferable to occupy a long frontage particularly in a small settlement such as Hacheston where the premium on space would be less than in the major towns rather than a deep one. A comparable shallow building with a long frontage occurred at Neatham (Millett and Graham 1986, 19). With structures only 2.5m

or 3m deep it must be seriously doubted whether they were lived in or even used as more than outlets for workshops or work areas located elsewhere. Firmer evidence to suggest commercial activity is provided by the wealth of small finds recovered from this part of the site in particular.

The evidence seems to suggest that most of the Hacheston buildings did not involve earth-fast post settings and indeed that sill beams may have been a common structural technique. This contrasts with Pakenham in the north-west of the county where various rectangular post-built structures were identified in the central part of the settlement. At Scole a variety of types of structure were found including both post-built and sill beam examples.

Organisation and administration?

The metalling of the roads during the 1st century would have required central decision making and the organisation of labour but perhaps no more than had been used to build one of the preceding palisades. Beyond this there is nothing to suggest anything but the unrestricted development of the site. We may not have all the evidence from the excavated areas but it looks as if there were few ditches or fence lines before the 3rd century and when these eventually appear in Area II they were quite irregular, suggesting a spontaneous and disorganised growth. The ditches through Area I South defining road CN may be a little neater but this must be expected of a major road. The north-south trackway in Area II, however, is an ordered element in the landscape to which the other ditches and fence lines are subordinate. There is no evidence to decide whether this was a pre-existing route which was formalised by the addition of flanking ditches at the time when the other land divisions were being established, or was first laid out at that time. Either way, the layout of the trackway with its ditches, like the metalling of the roads in the settlement, suggests a degree of organised planning.

The picture is different from two sites which are comparable in terms of size at Scole and Pakenham. Here large excavations have provided evidence for the regular division of property including rectangular enclosures (Ashwin *et al.* forthcoming, Plouviez 1995). In the case of Pakenham, after the military had withdrawn, there is good evidence for the primary surveying of the site and its division into plots which, once established, were perpetuated into the late Roman period. Both these sites fall within the tribal territory of the Icenii and the significance of this for the contrasting structure of these sites is difficult to ignore.

In Area I South, Building III may have been the only one to have had a domestic as well as an economic function, and was in use for at least two centuries. The building with a clay floor and flint foundations recorded by Owles in 1966 may have been used in connection with the nearby pottery kilns, one of them only 20m away. Building XI in Area III may have been connected with the 3rd/4th-century smithing hearths nearby. Generally however, little can be inferred about the internal organisation of the settlement from the sparse architectural evidence.

The later Roman period

A change which does occur in the later Roman period is the disposal of rubbish on the surface instead of in pits (Chapter 2). This seems to be a development common to many sites during the later Roman period, occurring both in the towns (Yule 1990) and in the country, certainly in

East Anglia (Plouviez 1995; Ashwin *et al.* forthcoming). Although this pattern is apparent to the archaeologist its significance is less well understood. There seem to be two types of soil; that which has been identified in demonstrable heaps and that which appears to have been mixed by late or post-Roman ploughing (Ashwin *et al.* forthcoming). What does seem fairly clear is that the practice starts well before the end of these sites. It results in the formation of deposits of dark earth, generally with little recognisable stratification.

At Hacheston, these deposits were mainly excavated in Area I, though they also covered much of the road in Area III. In Area I, beneath a homogeneous upper layer, AA, different contexts in the lower levels of dark earth were trowel-excavated. Both levels contained 3rd- and (mainly early) 4th-century material, though rather surprisingly the majority of the 4th-century coins came from the lower contexts. It would appear that the deposits derive in part from the dumping of manure heaps on the then ground surface, with AA the result of subsequent ploughing of the upper levels. That implies that the use of this part of the settlement had changed, though some structures may have remained standing amid the mire. The number of small finds from these layers indicates that there was continued activity elsewhere on the site to generate them.

That activity appears to have extended later into the 4th century than the formation of the dark earth in Area I. Among coins found by the working of metal-detectors over the spoilheaps from the machine-stripping of the site, 4th-century issues extended proportionately later in date than those from the layers in the archaeologically-excavated areas. A north-eastward shift in the focus of the settlement is also indicated by the spoil from Fields 1 and 2 having produced a higher proportion of the coins from the period 330–348 than Field 3 did (Chapter 3).

There is some evidence that changes in the settlement were under way during the later 3rd century. In Area I North the level of occupation is much reduced and the excavation of ditches through Area I South suggests a reduction in roadside occupation. The dark earth layers would appear to have been accumulating during the late 3rd and early 4th centuries, coinciding with the cutting of deep ditches alongside road CN which also denotes a change in the structure of the area. While the frequencies of excavated coins from Areas I and II are admittedly small, they do seem to point a contrast. The majority of coins from Area I were from before 260. In Area II only eight coins were recovered by excavation and the earliest was from the late 3rd century. The two latest were a Constantine II (335–337) from ditch F35 and a Constantinopolis (330–337) from ditch F12.

The coin evidence suggests that there was a decline in settlement in Area I during the earlier 4th century whereas in Area II although the overall density may not have been high there is no difference between the late 3rd century and mid 4th century (when measurable evidence of Roman occupation ceases). The evidence of the pottery from the features in Area II also suggests a comparatively high density of occupation during the late 3rd to 4th century.

There would seem to have been some form of economic change at Hacheston in its later phases, particularly the last. The Area I part of the settlement changes its use at the same time as the practice of rubbish disposal changes. The bone assemblages (Table 44) show that, in Phases C/D, percentages of ox and, to a lesser extent, pig are higher than

in A/B and sheep/goat correspondingly lower. This conforms to the regional pattern attested at other Roman settlements in East Anglia, notably Brampton and Pakenham. The overall quantity of bone recovered is also very much larger in the later phases (Table 36). In part this may be explained by a larger number of Phase C and D contexts having been excavated, but there are also such factors as the disposal of possibly diseased cattle skeletons in Area II and the evidence of waste from primary butchery activity. This helps to confirm that an arca which had apparently been the core of the possible pre-Roman and early Roman settlement had become increasingly peripheral later. Fuller understanding of the wider economic or demographic context for this could only come from further excavation of the site.

The end of the settlement and the post-Roman activity

The coin evidence shows a dramatic decline in coin loss during the third quarter of the 4th century which may suggest that the site was abandoned by the 370s. The latest datable features were pit 79 in Area I North which contained a Constantinian coin (348–364) and slot ABL in Area III with a coin of Valentinian I, (364–367). Allowance must be made for the continued circulation of 4th-century coinage for up to half a century after its issue, but the relative scarcity of types following a notable peak in the period 330–348, while characteristic of other south-east Suffolk sites, requires explanation. This may be related to the military presence at the coastal forts. Any reduction in that presence would result in a reduction in the coin supply to the region. In the same way as the absence of early Roman coinage and samian was not a good indicator of the beginning of the settlement, the declining frequency of later Roman coins and the scarcity of Oxfordshire finewares may be no better indicator of its end. Late Roman Hacheston may have faded into a state of invisibility so far as these archaeologically datable materials are concerned. The question of continuity of occupation of the site into the early Saxon period cannot be answered with certainty.

Evidence from the site of an early Saxon presence was limited to the sunken featured building in Area II. The pottery from the backfill of this feature was interesting in that a high proportion was late Roman along with the handmade Saxon pottery. It has been argued that the Roman pottery recovered from the sunken featured buildings at West Stow was the result of surface foraging by post-Roman settlers over the bones of the abandoned site at Icklingham (Plouviez in West 1985, 82–85 and 167). As Icklingham was occupied at least until the end of the 4th century this explanation is even more pertinent when applied to Hacheston which may have been abandoned at least thirty years earlier.

Other evidence of Saxon settlement was excavated at Gallows Hill (Appendix 1) which seems to suggest scattered or small groups of dwellings along the valley but around the periphery of the former settlement. As with the relative locations of Icklingham and West Stow, however, the question arises of why the Saxon settlement should have been in areas peripheral to the Roman site; the presence of some sub-Roman Britons at Hacheston cannot be entirely discounted.

Extensive historical research was not part of the remit for this report but it may be worth drawing attention again to the evidence (Chapter 1) which suggests there may have been an early Moot site close to Fiveways. Also the place

name 'Wickham' in Wickham Market has been cited by Gelling as an example of a *vicus* derived name, implying a Saxon memory of the Roman settlement, and here in interestingly close proximity to Campsey Ash, the *camp* element of which derives from the Latin *campus*, a field (Gelling 1978, 69–78).

Craft and Industry

Pottery

The manufacturing of pottery is the best attested industry at Hacheston. Eight possible kilns have been identified since 1964, of which only three have provided information about the kiln structure; in at least three cases (including the 1973 gas pipe trench investigation) only a stokehole was investigated and in one (in 1995) only a small fragment of the structure was exposed. Kilns have been identified on every field except Field 1. Five were discovered by M.J. Campen whose technique for investigating Hacheston consisted of identifying promising looking discoloured soil areas in the ploughed field and digging an exploratory hole. This method does tend to favour the discovery of pottery kilns, though not exclusively so, as the list of discoveries in Chapter 1 demonstrates.

Information about the kiln structure is fairly minimal in the case of the first kiln discovered, in 1964, but does indicate that it was single flued with a central pedestal. Although no plan survives, the description is similar to the common East Anglian type found particularly in the Wattisfield area industry of north central Suffolk. Rather less common in the region is the double flued type with two elongated curved pedestals, found both in 1965 by Campen (and recorded by E. Owles, Fig. 123) and in the 1973 excavation in Area III. Swan (1984, 119) in discussing the Hacheston and other East Anglian double flued kilns suggests that the type is introduced during the 3rd century as an alternative alongside the traditional single flued central pedestal regional types. However at that time she did not have the dating evidence for the Area III kiln which is now shown to be in production by the early 2nd century at latest (Chapter 5). For the early Roman period Swan's information suggested that the double flued type of kiln was restricted to the south and west of England (Swan 1984, map 12); since then two double flued kilns, with no internal structure and of 1st-century date have been excavated at Wherstead, south of Ipswich (Gill *et al.* 2001). Hacheston thus may fit more closely into a regional pattern than previously thought (Swan describes the Hacheston potters as 'working in isolation with rather idiosyncratic traditions' (Swan 1984, 120)), and the similarities between the two double flued kilns working at least a century apart suggests a continuity of practice in the industry.

The products of the 1st- and 2nd-century kilns are fairly unremarkable grey wares, very much in the 'Belgic' derived tradition of the region. In the late 2nd or early 3rd century the potters become somewhat more adventurous and expand the range to include mortaria and drinking vessels. This pattern is also seen at Pakenham at the same time, with rather more impressive results since the Pakenham potters produced a wide range of tablewares with colour-coated and painted finishes on oxidised fabrics, much of which compares well with the contemporary products of the Colchester and Lower Nene Valley industries. The Hacheston market appears to have been satisfied with a very limited range of plain bag-shaped

and indented beakers in a (usually) oxidised fabric, alongside the mortaria and the normal grey ware products (some of which were also oxidised, perhaps accidentally). On present evidence this was the most prolific phase of the industry — four of the eight identified kilns were producing this range. There is no evidence that production continued into the 4th century, again a pattern common to many production centres (though not the Wattisfield group in Suffolk) with the industry becoming concentrated in a few large centres by the end of the Roman period.

Hacheston seems to have been largely self-sufficient in ceramics for everyday use. Among the more specialised mortaria and finewares, those from Colchester predominate, with some supply coming from the Nene Valley. It may be suggested that it was from the Colchester market that the more exotic ceramics came: samian, an occasional Rhenish beaker and periodically an amphora of South Gaulish wine or Spanish olive oil.

Iron working

The analysis of the slag recovered from both the 1973 and 1974 excavations suggests that it may all have come from smithing activities alone, with no certain evidence for the smelting of iron. The quantity of slag would indicate that more than itinerant metal working was taking place but it was modest when compared with the size of the excavations and the known scale of the settlement (Starley in Chapter 4). Establishing the extent and range of the industry is difficult; it is much harder to identify smithing hearths, which may be set above ground and therefore leave no structural remains, than formal structures such as the pottery kilns. A sunken keyhole hearth was excavated in Area III in conjunction with a rake-out pit which contained hearth debris. A horseshoe-shaped outline of clay above the hearth could have been all that remained of a replacement structure. Observations made to the east of this area before the 1974 excavations suggest several hearths and 'furnaces' were visible on the surface in this unexcavated part of the site (Chapter 2).

These hearths may have been used for a number of purposes but there would appear to have been an increase in iron working towards the north east and away from the centre of the site, with the majority of the slag (87%) coming from the 1974 excavations. An iron working site was probably excavated in trench IX although there was little in the way of formal structure.

The excavation and the metal detecting which followed produced a huge number of iron objects, most of which are likely to have been made locally. To supply the needs of the settlement and its hinterland with agricultural implements, hand tools for manufacturing and nails alone, which were ubiquitous as they are on most Roman sites, would have supported a viable industry throughout the Roman period. The charcoal waste associated with hearth F8 in Area II contained an iron spearhead (SF 315). This just might be evidence of the logistical support being given to the army by an essentially civilian settlement, but it is more likely that it was used for hunting some of the wild species — red deer, roe deer and hare are all present among the animal bone assemblage.

Non-ferrous metalworking

There is some evidence for the small scale working of non ferrous metals. There were copper-alloy sprues and runner fragments in a variety of sizes suggesting that the casting

of a range of objects was taking place. A pattern for making moulds for casting finger rings was found and a comparatively large collection of copper-alloy personal ornaments were metal detected from the site which it seems likely were manufactured locally. Of particular interest is a tin-lead alloy sprue which may indicate the casting of pewter, possibly for objects such as spoons (and pewter working was suggested in the building found in 1966 in Field 5 — Fig.2 d). No remains of moulds for such castings were found, however.

Other manufacturing

Comparatively fewer non-metal finds were made due to the discrimination inherent with metal detecting but a range of bone objects were recovered from the excavations in Area I and local production of bone objects seems likely. However the only direct evidence for this type of manufacture was a piece of worked antler recovered from in front of Building III. Needles and spindle whorls suggest localised textile working and a range of items such as punches, chisels, and awls suggest the secondary working of leather and wood.

Commercial activity

Of the small finds evidence which may be linked to exchange there were fragments of two steelyards. Two seal box fragments and two styli may also be linked although taken together this hardly forms a significant collection. However the overall volume and range of finds suggests a high level of consumption and a variety of locks and keys are evidence for the accumulation of wealth. As a group it suggests a there was a developed system of exchange. The majority of the stratified small finds came from the southern half of Area I and, although this was heavily weighted towards the better preserved deposits which were hand excavated, this may indicate an area of heightened activity, a possibility which has already been raised by the form of the buildings (above).

Coin loss may not always be a simple reflector of commercial activity particularly in the early Roman period (Reece 1991) but the volume of coins from Hacheston does suggest that it was probably flourishing between the beginning of the 2nd and the middle of the 4th century. Only a small proportion of the coins recovered at Hacheston came from stratified contexts, and of these, Area I produced the greater proportion of early issues. Though that does appear to be the core of the earliest settlement, it was also the part of the excavations where the earliest stratigraphy was examined most fully.

Food collection and preparation

Evidence for food consumption was limited to the contents of pits and rubbish layers which were retrieved by hand excavation. Domestic grinding of cereals is attested by a surprisingly small number of quernstone fragments all of which were of Mayen lava from the Rhineland. While London appears to have been the focus of the trade in them, those at Hacheston may, like other imports, have come to Hacheston through Colchester, where most of the querns are also of Mayen lava (Crummy 1983, 73–76). There must be a strong possibility that a Roman watermill for the grinding of corn and perhaps a maltings was established next to the river Deben, as there was at the settlement at Scole which had a similar setting (Ashwin *et al.* forthcoming).

Ox was the main meat animal, with its relative proportion increasing in the later phases of the site compared with sheep, the next most frequent species. There was much evidence for butchering practices. Different ages of slaughter were observed, with half the cattle slaughtered when older than 3/4 years. Pigs, however, tended to be killed at sub-adult stage. Wild species which may have been hunted for food include hares, red deer and a very occasional roe deer; some of the dogs may have been kept for hunting. Chickens were also kept, but soil and excavation conditions were not favourable to the recovery of bird bones.

No fish bones were recovered as there was no sieving but there were large quantities of oyster shells and mussels reported from the main part of Area I. A particular association seems likely between Building III and the heap which accumulated against the porch. The proximity of the coastal estuaries must have facilitated the supply of such a popular foodstuff during the Roman period.

Ritual and religion

There was scant evidence to shed light on these aspects of the site. Three small finds — a figurine head, a votive axe, and a pipeclay statuette of Apollo which had been imported from Gaul — can be associated with religion. The recent excavations at Heybridge have identified a temple complex as the focus of what appears to be a settlement site (Mark Atkinson, pers. comm.). However the excavations at Scole, a similar sized settlement to Hacheston and about 15 miles distant, have identified a modest temple away from the centre of the settlement (Ashwin *et al.* forthcoming) and the temple at Lackford in west Suffolk (County SMR no LKD 018) is similarly peripheral to the site at Icklingham, although both the 4th-century Christian church and a probable earlier pagan temple are within the core of the Icklingham settlement (West with Plouviez 1976). No such evidence has been found at or near Hacheston, however.

Burials

A small cremation cemetery was found at Gallows Hill (Appendix 1) which seems to suggest that the urban practice of burial outside the main area of settlement was followed. Similarly the single un-urned and undated cremation in Area IV was quite likely peripheral to the settlement at the time of burial. The only burials within the settlement are infants (two, undated, from Area IV; one in Area I North and one in Area II in 2nd to 3rd-century contexts).

Cemeteries have proved elusive at most East Anglian small towns and elsewhere, except at Icklingham where several inhumation cemeteries have been identified. The poverty of the grave goods and the serious cultivation damage at the Gallows Hill site may explain why the evidence has not been recovered for the 1st and 2nd centuries from other sites.

Conclusion

It is important to remember that while the area covered by the 1973–1974 excavations was large — a total area of about 10,000 square metres of which 2,500 square metres were examined in detail — it forms a very small percentage of the total settlement if this did cover the 30 hectares which has been suggested (Plouviez 1995, 71). At present it is impossible to gauge the density and extent of the settlement; however the 1973–1974 results would

provide a very useful key to understanding a modern geophysical survey such as has been done recently at Icklingham and this would potentially add enormously to our understanding of the layout of Hacheston.

The evidence for trade and manufacture does support the use of the term 'small town' for this settlement, although the structural remains compare very unfavourably with small towns elsewhere in the Roman Empire or even with many in Britain. A minor urban centre cannot be studied in isolation — the relationship with a hinterland of rural farms would have been crucial to its survival. Unfortunately this class of site has been very little explored in the region. It appears that other settlements in East

Suffolk are mostly similar to Hacheston in being short of coinage in the later 4th century, confirming the economic interdependence of the region. On present evidence there are very few Roman villa sites in the south-east of Suffolk — a bathhouse at Farnham and villa buildings in the Iron Age enclosure at Burgh (Martin 1988) are the closest. This contrasts with an apparent concentration of villas in the area around the Pakenham small town in north-west Suffolk. The evidence of fieldwalking, metal detecting and stray finds shows, however, that there is no shortage of rural sites, and future closer study should provide more evidence of links, such as traded products from the small town of Hacheston.

Appendix 1. Excavation at Gallows Hill, Hacheston, in 1986

by Judith Plouviez

Introduction

This site, HCH 013 in the county Sites and Monuments Record, lies at TM3088 5696 (r on Fig. 2), on a spur overlooking the Deben valley to the south-west and the Fiveways junction to the east. The nearest recorded elements of the Roman settlement are 150m away. A single glass vessel fragment, probably Roman, in Ipswich Museum was attributed to 'Gallows Hill, Easton' which may refer to this site, and there was also an unclear record of Saxon finds from Gallows Hill in the Museum.

During construction of the Saxmundham bypass in 1986 a need for a particular type of ballast prompted an application to re-open the pit at Gallows Hill to supply this specific need. The archaeological potential of the site, close to the large Roman settlement with the uncertain references on the county SMR to Gallows Hill, was recognised and it was arranged that the author should monitor the topsoil stripping in August 1986. Immediately before stripping began the area, which had been cultivated and weathered, was walked over and Roman pottery, two Mesolithic flint blades and a handmade pottery sherd were found. Once the ploughsoil was removed, features were immediately apparent cutting into the sandy gravel subsoil and burnt bone fragments suggested the presence of cremation burials. A two week period for immediate excavation of the stripped area was arranged with the sub-contractor, Banham and Sons of Attleborough; the landowner, Mr Hayward agreed to the excavation as part of the extraction contract.

Excavation was carried out by members of the Suffolk County Council Archaeological Service under the direction of the author. The work was funded by Suffolk County Council and by the Manpower Services Commission.

The excavation

(Fig. 124)

The site was a strip along the east edge of the existing pit, varying in width from 7m at the south end to 20m towards the north; much of the area next to the steep edge of the pit was not examined because it was already disturbed by the earlier working and no archaeological features were apparent. The subsoil was variable, with areas of silty deposits and very mixed areas where feature identification was more difficult; natural linear 'ice wedges' were also present and sometimes resembled archaeological features.

There had clearly been considerable erosion by ploughing, as evidenced by the condition of the pots which had held cremations. Plough furrows were visible in the stripped surface of the subsoil running north-west to south-east. It is therefore not easy to be sure that the very shallow excavated features, including many of the cremation burial pits, were accurately defined and uncontaminated.

Prehistoric feature

One small oval pit, 0032, which was 0.32m deep, contained a group of handmade pottery sherds with burnt flint temper which have been identified as most likely of late Bronze Age to Iron Age date although none of the pieces was sufficiently diagnostic to rule out a Neolithic date.

Roman cremation burials

The main group of cremated remains lay on the east side of the centre of the excavated area in an area about 18m north to south by 4m east to west, almost certainly extending further to the east of the excavation edge. One isolated example (0048) was 20m to the north-west of the main group. None of the pits survived more than 0.10m deep, most were visible as a shallow smear of dark soil with burnt bone fragments and, as the report on the fragmentary remains suggests (Chapter 6), it is difficult to be certain how many individual burials are represented as it is quite possible that some contexts may represent part of a cremation which has been dragged by the plough. A maximum of seventeen contexts were identified in the main group, of which 0004 and 0064 are almost certainly one burial, as are 0007 and 0017, and 0033, 0034 and 0054 are probably one with evidence of animal or root disturbance; also 0038 was extremely slight and not recorded in plan. The minimum number in the group is two, represented by the two pottery bases in 0006 and 0013, but it seems possible that there were originally nearer a dozen individuals. The only other associated artefacts were iron nail fragments, mostly standard square section shafts and flat heads except for one shoe nail from 0006.

The isolated burial, 0048, was the most richly furnished with one pot containing the burnt bone and two other accompanying pots (0052, 0053, see Fig. 127). No other features could be positively identified as of Roman date.

Anglo-Saxon structures

(Fig. 125)

At the south end of the excavation one complete sunken featured building (SFB) was identified (0002) and the probable remains of another (0044) on the edge of the old quarry. Building 0002 was fully excavated in quadrants and found to be a 2-post structure. The maximum dimensions of the pit were 3.75m by 3m and it survived to a depth of 0.30m with a level base. The post-holes, about 0.2 to 0.25m in diameter, were 0.40m deeper than the pit bottom. The central fill of the pit was a dark brown sandy loam with flints, which contained charcoal and most of the artefacts, and a lighter brown sandy loam with flints was visible around the edges.

The surviving corner of 0044 was only about 0.15m deep but the shape and the similar fill to 0002 strongly suggested another SFB.

Both SFBs contained a mixture of Roman and Anglo-Saxon pottery; 0002 also contained a few Roman brick or tile fragments, animal bones, clay loomweight fragments, iron nail fragments, lead weights and a Roman coin.

Anglo-Saxon inhumation?

(Fig. 126)

Immediately north of the SFBs was a penannular ditch 0008, enclosing an area between 3.10m and 3.75m across, with a central grave, 0022, orientated north-south and 2m long by 1.15m wide at the surface. The grave was 1.50m deep with a brownish yellow sand fill; relatively rapid removal of the north half showed that no bones survived, but examination of the section showed some organic content. The outline of a rectangular shape, presumably a wooden coffin or plank grave lining was recorded in the south half but no 'body stain' was visible and there were no grave goods; the only artefact recovered was a single body sherd of Roman grey ware. Samples were taken for

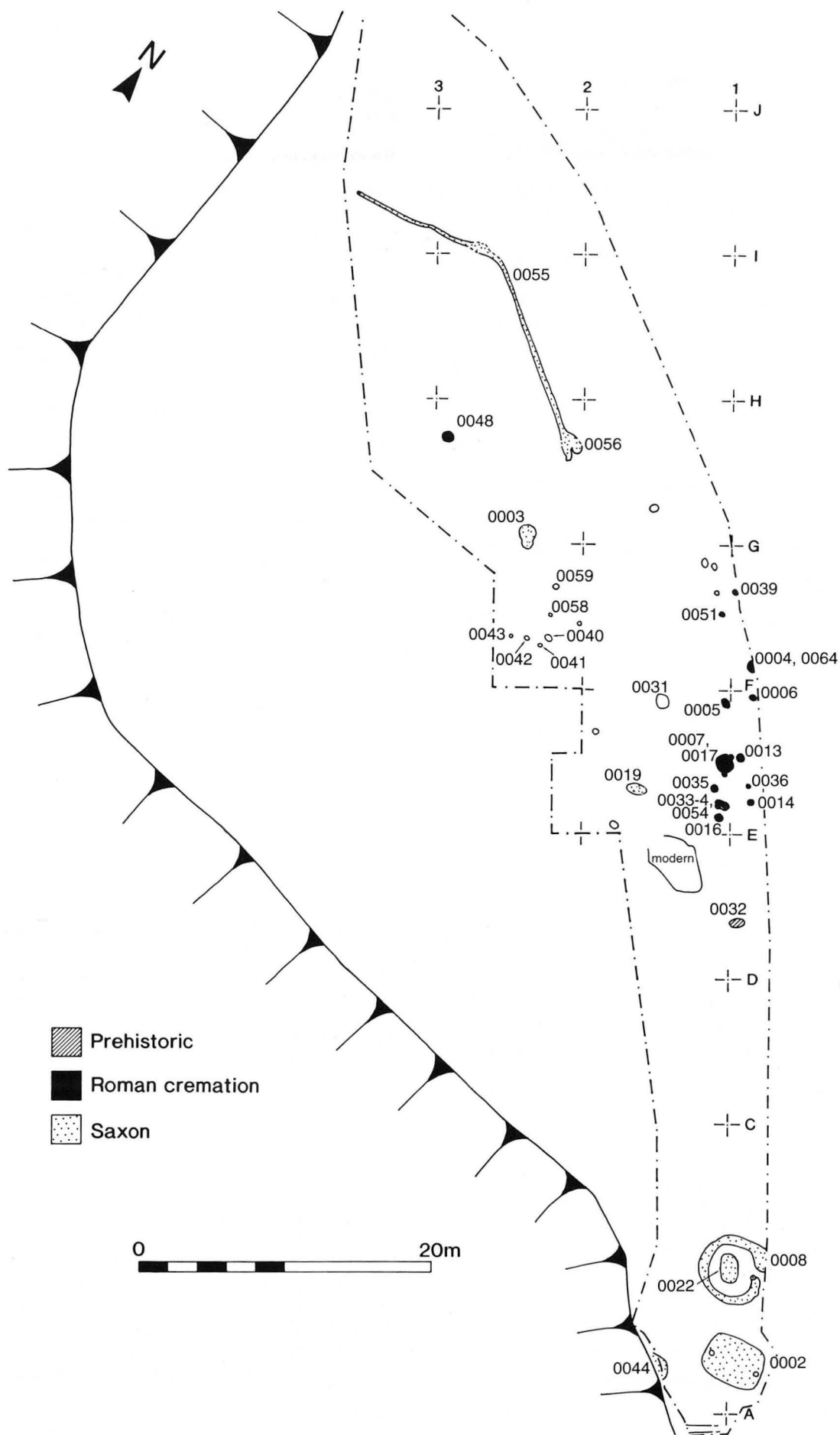


Figure 124 Site HCH 013. Scale 1:400

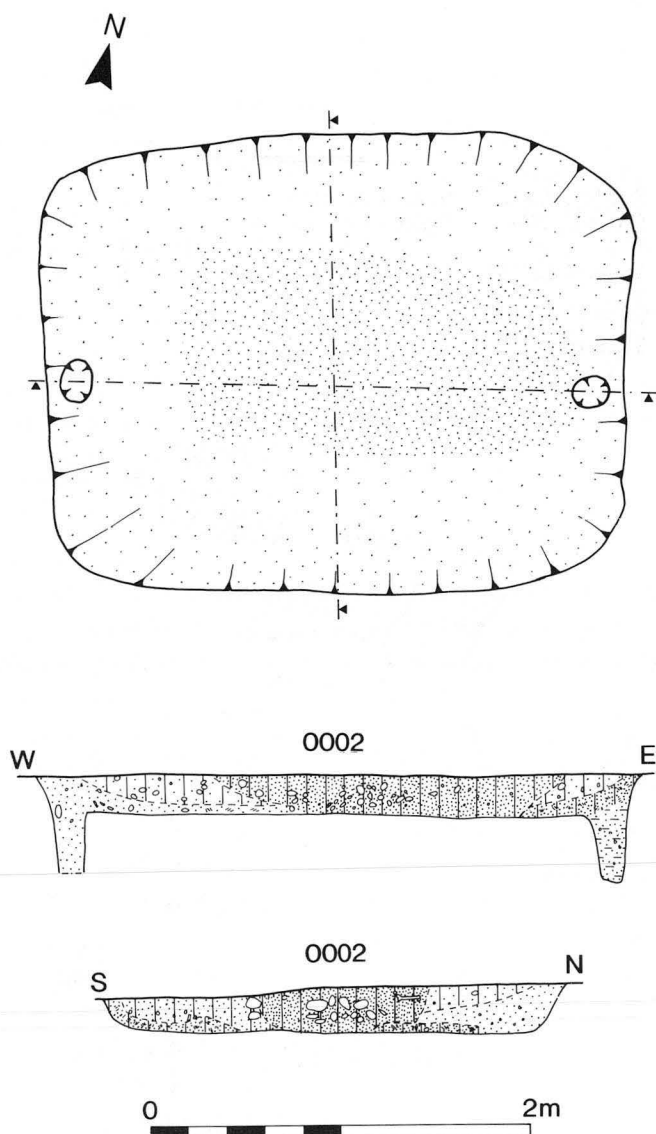


Figure 125 SFB 0002 plan and section. Scale 1:40

chemical analysis to see if the body could be identified (as part of research related to the Sutton Hoo project by P. Bethel) but results were inconclusive as variations may have related to the wood content rather than the hypothetical body.

The ring ditch was 5.2m by 4.5m externally. Immediately to the north there was an area of silty subsoil, which had possibly been extensively disturbed by tree roots or animals in the past as it contained some finds and was not easily distinguished from the artificial features, particularly the ring ditch, which accounts for the rather irregular planned edge. However the existence of the 'entrance' gap (0.55m wide) to the east was definite and a possible small post-hole, only 0.05m deeper than the ditch, was seen in the south terminal. A mixture of Roman and handmade Anglo-Saxon pottery was recovered from the dark brown sandy loam fill of the ditch.

Other Anglo-Saxon features

Two small pits, 0003 and 0019, situated to the west of the main Roman cremation burial group, contained handmade Anglo-Saxon pottery sherds, plus one piece of Middle

Saxon Ipswich ware from 0003. Pit 0003 was 1.2m wide and 0.4m deep, 0019 0.9m across and 0.25m deep.

To the north a narrow gully, 0055, ran almost south-north and turned towards the west; it appeared to stop before the quarry edge. Both the gully and a small pit or post-hole in the south terminal contained Ipswich ware. The gully was between 0.25m and 0.4m wide and about 0.1m deep.

Undated features

A few possible post-holes were excavated just to the north of the Roman cremation burials, but the most convincing group lay to the east (0059, 0058, 0040 and 0041, 0042, 0043) — however even these do not make an obvious structure, as the possible alignments only form a 90° angle if 0041 is ignored and there is no reason for the absence of a third side. Their location, between pits 0003 and 0019, might indicate an Anglo-Saxon date.

Another small pit, 0031, contained no finds at all.

The finds

Coins

Two copper-alloy coins were found in unstratified surface contexts:

1. Iron Age, surviving diameter 12mm, very corroded. Obv. illegible; Rev. the front of a 'Celtic' style horse to right. This is either a bronze unit, probably Trinovantian, or the copper-alloy core of a gold quarter stater.
2. House of Constantine, Gloria Exercitus with one standard, mint Trier(?), as LRBC I, 92-97, AD 335-341.

Another was found in SFB 0044:

3. ?Antoninianus, 3rd century

Metal artefacts

(not illustrated)

1. A copper-alloy pin head. Slightly flattened spherical head, diameter 6mm, with a small rib collar, missing most of shaft. Unstratified.
2. Lead weight (?), flat, roughly shaped disc, diameter 73mm, 10mm thick from SFB 0002.
3. Another similar, diameter 66mm, maximum 7mm thick, with a square hole 6mm across in the thinner centre. From SFB 0002.
4. Another similar, diameter 67mm, maximum thickness 9mm, with a slightly off-centre rounded hole 9mm across. From pit 0003

Iron nails were found in cremations 0006 (probably a hobnail), 0007, 0034, 0048, 0064, one was found in grave 0022, and others in other contexts, SFB 0002, pit 0003, ring ditch 0008 and unstratified.

Worked flint

Scattered flakes were found throughout the excavated area. Includes Mesolithic microlith pieces.

Loomweights

Several fragments of burnt clay loomweight were found in SFB 0002.

Pottery

The Anglo-Saxon pottery has been included with the report on the main excavation site in Chapter 5.

Roman pottery was found throughout the excavated area in generally small quantities — its absence in the excavated length of gully 0055 might suggest that there was less Roman debris in the north part of the site. The only fine wares represented were two pieces of samian (both Central Gaulish, 2nd century) and one Oxford ware sherd (Young 1977 type C52) from SFB 0002, plus the Colchester type colour-coated beaker listed below (0052).

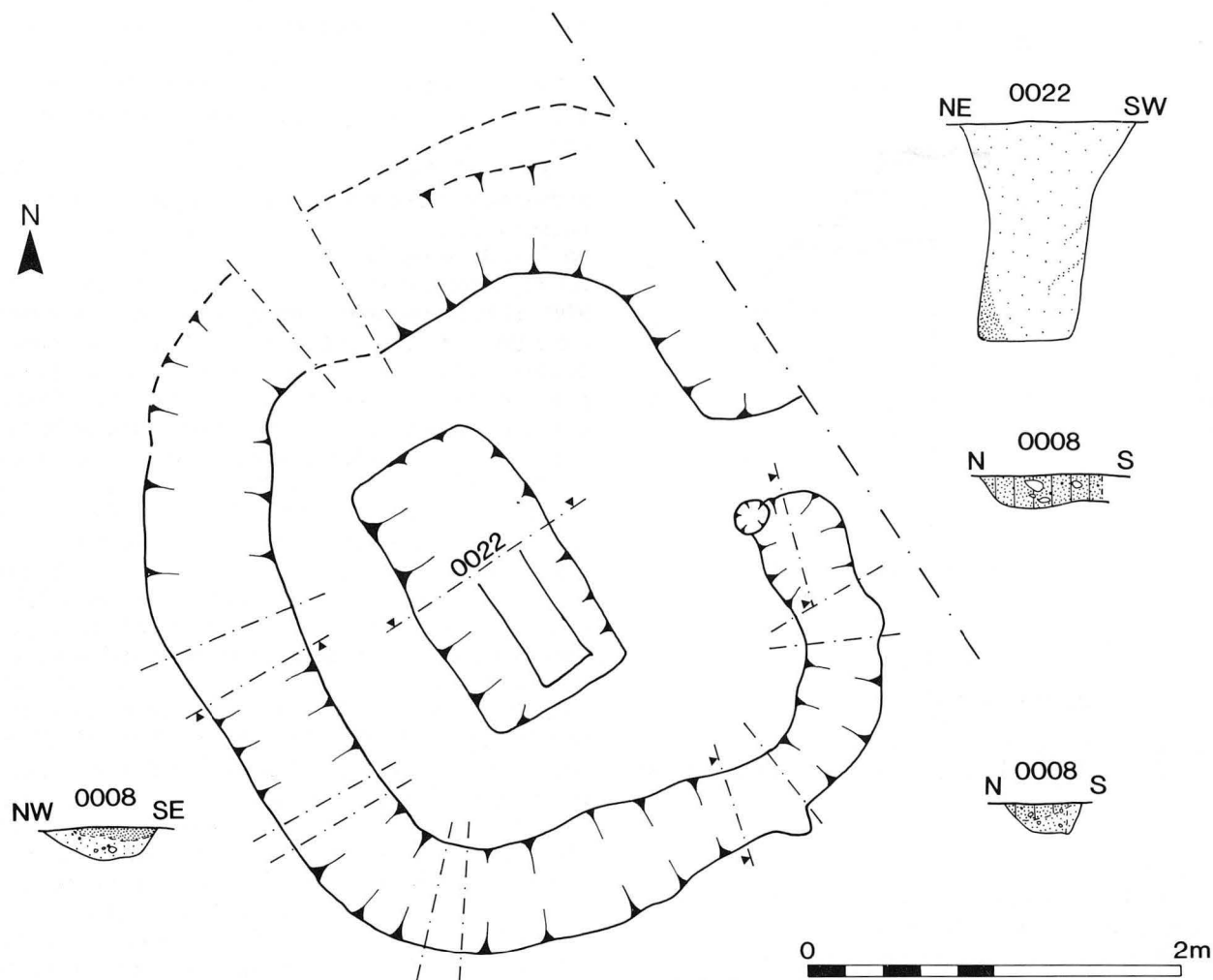


Figure 126 Ring ditch 0008 and grave, plan and sections. Scale 1:40

Cremation vessels

0006, not illustrated. Grey ware jar base, diameter 85mm, surviving 80mm high (probably two-thirds missing). Hard mid-grey fabric with fine quartz sand and some mica. Exterior burnished. Interior surface very pitted. Heavily worn on underneath.

0013, not illustrated. Grey ware wide-mouthed jar base, diameter 80mm, surviving height 125mm at the maximum body girth which has two grooves (the form was probably as type 30 in Chapter 5). Mid grey fabric with plentiful mica. Partially burnished exterior.

0048, not illustrated. Grey ware jar base, diameter 85mm, with 'cheese wire' marks on the underneath, smoothed exterior. Mid grey fabric with rounded quartz and some mica.

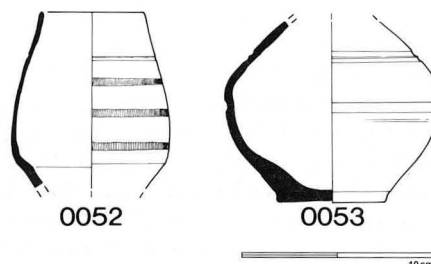


Figure 127 Pottery associated with the cremations. Scale 1:4

Fig. 127

These two vessels accompanied the burial in 0048:

1. 0052 Beaker, bag-shaped rouletted type, complete rim and substantial proportion of the body, fragmented. Orange fabric, yellowish at margins with a dark brown colour coat. As Colchester form 392 but examples from the kilns in Hull 1963 have broader bands of rouletting. Mid 2nd to early 3rd century.
2. 0053 Jar, narrow-mouthed with horizontal grooves on the body. Semi-complete but missing rim. Complete base, turned with a footing groove. Harsh mid grey fabric.

Unstratified complete vessel

Fig. 128

After the excavation was completed and during the ballast extraction a visitor to the site found a complete pot, which was loaned to Suffolk County Council Archaeological Service for recording. When discovered it contained yellowish sand, suggesting that it was not a cremation container.

The fabric is hard, very pale reddish brown ('buff'), with small (and occasional large) red inclusions (ironstone or grog?) and sparse rounded quartz grains. It is a narrow-mouthed vessel, with no handle or handle scar, with an applied face mask on the rim. There are five horizontal red paint stripes on the vessel, the top one also crosses the chin of the face; traces of red paint also survive on the hair. The exterior of the vessel is worn and has been damaged, possibly by heat, which has caused cracking and flaking of the surface; there are also numerous old small chips on the body.

This pot is similar in style to late Roman face mask flagons (such as Young 1977, type C11) but the form is smaller and not handled. The fabric is not immediately recognisable as being from one of the main production centres (such as Nene Valley or Oxford white wares), but yellowish discoloration from the soil may be adding to the difficulty of identifying the source.

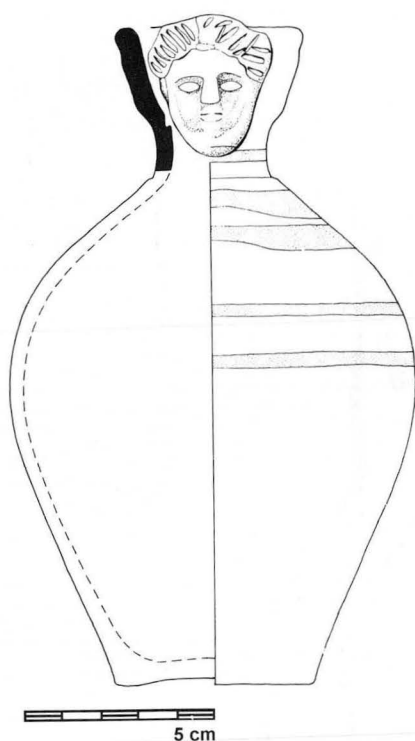


Figure 128 Pot with face mask found in quarry. Scale 1:2

Discussion

In spite of the damaged condition of the site it adds useful information to our understanding of the Roman settlement at Hacheston and to the subsequent history of the area.

The cremation burial group can only be dated by the small number of associated pots, most of which are in the isolated burial 0048 — the colour coated beaker was manufactured in the second half of the 2nd or the early years of the 3rd century. The remains of the containers in 0006 and 0013 are not closely datable and can only be put in the broad range between the later 1st and the mid 3rd century. However this is one of the first clear indications of an extra-settlement specific burial area for a Suffolk small town, rather than single cremations, often alongside the roads and probably on the edge of the occupied area (for example the cremation found in Area IV, and similar isolated cremations are known from Pakenham and Icklingham). The Gallows Hill group are definitely outside the settlement and not near to any known or suspected road. The assemblage appears poor in material terms — the burnt bone may have been placed in a bag or box of organic material when pots were not used, but there is also an absence of associated goods. Indeed the site may illustrate

why so few Roman cremation burials are recorded from the region — it would probably not have been noticed during ballast extraction because of the scarcity of artefacts and another 20cm of plough erosion would have completely removed the subsoil evidence.

The Anglo-Saxon activity on the site is also impossible to date closely, as the fairly small groups of pottery were undiagnostic plain wares and there was a lack of other artefacts; however the Ipswich ware in gully 0055 shows activity continued into the later 7th or 8th century. The SFB, 0002, is close to the average size of the huts at West Stow (West 1985, 115 and fig. 283) apart from being shallower due to the erosion of the site. The second probable SFB, 0044, suggests that this may be the edge of a group of settlement structures instead of the apparent isolation of the Area II example.

Rather more enigmatic is the grave with its associated penannular ditch. The absence of any trace of the body is not surprising in the gravel subsoil, and the presence of timber stains suggesting a coffin (without nails) or lined pit confirms the function. There is virtually no direct dating evidence from the grave — one fragment of Roman grey ware and a single iron nail fragment in the fill — but the ring ditch produced a mixture of Roman and early Anglo-Saxon pottery. This type of small ditch enclosing an inhumation grave is quite common in Anglo-Saxon cemeteries in the region such as Morningthorpe (Green *et al.* 1987) and Spong (Hills *et al.* 1984). The Hacheston example is slightly larger in diameter than the two Morningthorpe rings and similar to the smallest of the three complete Spong examples; it differs in not being a complete circle. These are probably 6th-century in date, but it should be noted that a rather similar ring ditch, interpreted as a mausoleum but also compared to the Anglo-Saxon examples, was found at Kelvedon around a definitely 4th-century grave (Rodwell 1988). The Hacheston example is unusual in being an apparently isolated burial and in being located only a couple of metres away from a sunken featured building (0002).

At present the Roman and the Anglo-Saxon phases of activity in this area seem well separated chronologically as Roman cremations generally give way to inhumations during the 3rd century and there is no evidence for any substantial markers or boundary features related to the cemetery. The only 4th-century evidence is the residual pottery in the SFB (including Oxford ware, which at West Stow was an element of 'collected' Roman groups in the SFBs (West 1985)), a single unstratified coin and the stray face-mask pot, which just might indicate a 4th-century inhumation that was missed somewhere in the quarried area.

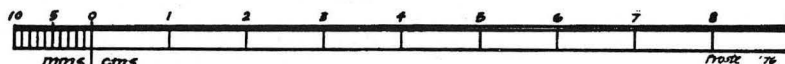
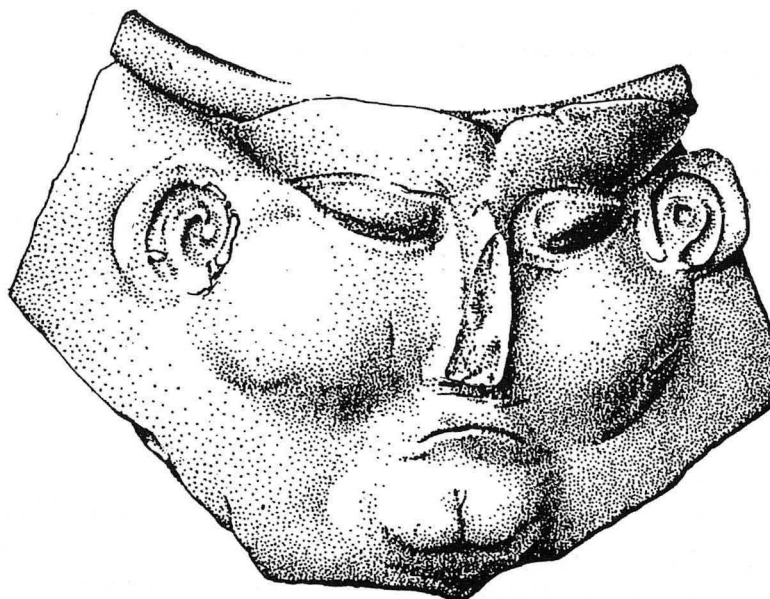
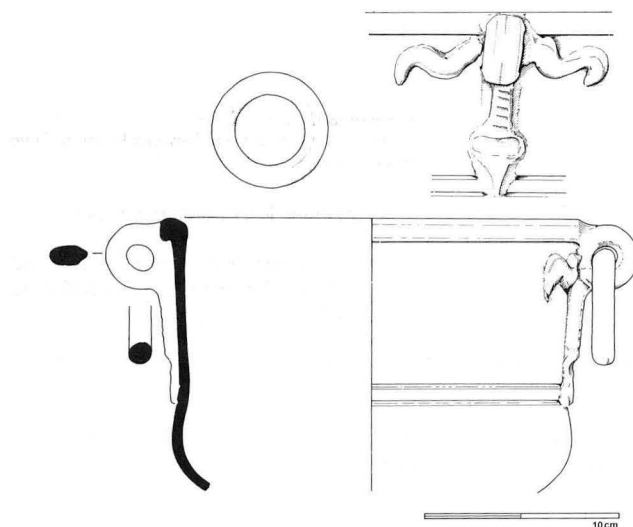
Appendix 2. Material found during road construction

by Judith Plouviez

After the 1974 excavations were completed and work began on earthworks for the construction of the new road local non professionals observed and recorded various features and finds which were exposed and destroyed. Most significant for interpretation of the site was the metalwork, including coins, which have been included in the main report. Other material did not contribute new information; however the two grey ware pots illustrated here are included for their intrinsic interest. Both are in grey ware fabrics, quite possibly products of the Hacheston kilns.

(Fig. 129)

1. Bowl imitating a metal cauldron, with applied features imitating handle mounts and an independent ring in the suspension loop. Form similar to Gillam 174.
2. Jar rim with applied face immediately below the rim. Unusually modelled features, not very comparable to examples in Braithwaite 1984.



Bibliography

- Allason-Jones, L. and Miket, R., 1984 *The Catalogue of Small Finds from South Shields Roman Fort*, Soc. Antiq. Newcastle upon Tyne Monogr. Ser. 2
- Allen, D.F., 1970 'The Coins of the Iceni', *Britannia* 1, 1–33
- Allen, D.F., 1971 'British Potin Coins: A Review' in Hill, D. and Jesson, M. (eds), *The Iron Age and its Hill-Forts* (Southampton)
- Arthur, P., 1986 'Roman amphorae from Canterbury' *Britannia* 17, 239–258
- Arthur, P. and Marsh, G., (eds) 1978 *Early Fine Wares in Roman Britain*, Brit. Archaeol. Rep. Brit. Ser. 57 (Oxford)
- Arthur, P. and Ricci, A., 1980 *Sistemi di quantificazione della ceramica proveniente da scavi archaeologici*, Dialoghi di Archaeologia, 2
- Ashwin T., Gill, D. and Tester, A., forthcoming *Excavations at Scole 1993–4*, E. Anglian Archaeol.
- Atkinson, D., 1914 'A hoard of samian ware from Pompeii' *J. Roman Stud.* 4, 27–64
- Barker, G., 1982 'The animal bones', in Whitehouse, D. *et al.*, 'The Schola Praeconum I; the coins, pottery lamps and fauna', *Papers of the British School at Rome* 50, 81–91
- Bayley, J. and Branigan, K., 1989 'The Romano-British metalwork from Poole's Cavern, Buxton, Derbyshire' *Archaeol. J.* 109, 34–50
- Beech, M., n.d. *The Animal Bones, Pakenham (PKM005), Suffolk*, unpublished report, (Suffolk County Council Archaeological Service)
- Bird, J., Graham, A.H., Sheldon, H. and Townend, P., (eds), 1978 *Southwark Excavations 1972–4*, Southwark and Lambeth Archaeol. Excav. Comm. Joint Pub. 1, (London and Middlesex Archaeol. Soc. with Surrey Archaeol. Soc.)
- Blockley, K., Blockley, M., Blockley, P., Frere, S.S. and Stow, S., 1995 *Excavations in the Marlowe Car Park and Surrounding Areas*, Archaeol. Canterbury 5
- Boon G.C., 1966 'Roman window glass from Wales' *J. Glass Stud.* 8, 41–47
- Bowen, H.C., 1961 *Ancient Fields* (London)
- Brailsford, J.W., 1958 *Guide to the Antiquities of Roman Britain*, 2nd edition (British Museum, London)
- Braithwaite, G., 1984 'Romano-British Face Pots and Head Pots' *Britannia* 15, 99–131
- Brown, A.E., 1994 'A Romano-British shell-gritted pottery and tile manufacturing site at Harrold, Beds' *Bedfordshire Archaeol.* 21, 19–107
- Brown, A.E., (ed.), 1995 *Roman Small Towns in Eastern England and beyond*, Oxbow Monogr. 52 (Oxford)
- Brown, R.A., 1986 'The Iron Age and Romano-British settlement at Woodcock Hall, Saham Toney, Norfolk' *Britannia* 17, 1–58
- Buckley, D.G. and Hedges, J.D., 1987 *Excavation of a cropmark enclosure complex at Woodham Walter, Essex, 1976*, E. Anglian Archaeol. 33, 1–47
- Bull, G. and Payne, S., 1982 'Tooth eruption and epiphysal fusion in pigs and wild boar', in Wilson *et al.*, 55–71
- Bullock, D. and Rackham, J., 1982, 'Epiphysal fusion and tooth eruption of feral goats from Moffatdale, Dumfries and Galloway, Scotland', in Wilson *et al.*, 73–80
- Bushe-Fox, J.P., 1913 *Excavations on the Site of the Roman Town at Wroxeter, Shropshire, in 1912*, Rep. Res. Comm. Soc. Antiq. London 1
- Bushe-Fox, J.P., 1949 *Fourth Report on the Excavations of the Roman Fort at Richborough, Kent*, Rep. Res. Comm. Soc. Antiq. London 16
- Butcher, S., 1985 'Roman brooches' in Draper, 27–28
- Butcher, S., 1993 'Brooches' in Darling with Gurney, 72–75
- Callender, M., 1965 *Roman Amphorae* (Oxford)
- Chadburn, A., 1996 'Iron Age Coins' in Jackson and Potter, 264–286
- Clarke, G., 1979 *Pre-Roman and Roman Winchester Part II The Roman Cemetery at Lankhills*, Winchester Studies 3 (Oxford University Press)
- Clarke, R.R., 1940 *The Iron Age in Norfolk and Suffolk*, reprinted from *Archaeol. J.* 95, (London)
- Collingwood, R.G. and Richmond, I., 1969 *The Archaeology of Roman Britain* (London, Methuen)
- Cool, H.E.M., 1983 *A study of the Roman personal ornaments made of metal, excluding brooches, from southern Britain* (unpubl. PhD thesis, Univ. of Wales, Cardiff)
- Cool, H.E.M., 1990 'Roman metal hair pins from Southern Britain' *Archaeol. J.* 147, 148–182
- Cool, H.E.M., Lloyd-Morgan, G. and Hooley, A. D., 1995 *Finds from the Fortress, The Archaeology of York 17(10)*, (London: Counc. Brit. Archaeol. for York Archaeological Trust)
- Crummy, N., 1983 *The Roman small finds from excavations in Colchester, 1971–9*, Colchester Archaeol. Rep. 2
- Crummy, N., 1992 'The Roman small finds' in Crummy, P., *Excavations at Culver Street, the Gilbert School and other sites in Colchester 1971–85*, Colchester Archaeol. Rep. 6
- Cunliffe, B., 1971 *Excavations at Fishbourne 1961–1969, Volume II: The Finds*, Rep. Res. Comm. Soc. Antiq. London 27
- Curle, A.O., 1923 *The Treasure of Traprain. A Scottish Hoard of Roman Silver Plate*
- Darling, M.J. with Gurney, D., 1993 *Caister-on-Sea Excavations by Charles Green, 1951–1955*, E. Anglian Archaeol. 60
- Suffolk Local History Council, 1984 *Deben Valley Place Names: Hacheston and Glevring* (Suffolk Local History Council, privately published)

- Déchelette, J., 1904 *Les vases céramiques ornés de la Gaule romaine* (Paris)
- Deniaux, E., 1980 *Recherches sur les amphores antiques de Basse-Normandie*, Cahiers des Annales de Normandie 12B (Caen)
- Detsicas, A. (ed.), 1973 *Current Research in Romano-British Coarse Pottery*, Counc. Brit. Archaeol. Res. Rep. 10 (London)
- Dickinson, B., 1986 'Potters' stamps and signatures on the samian', in Miller, L., Schofield, J. and Rhodes, M. *The Roman Quay at St Magnus House, London*, London Middlesex Archaeol. Soc. Spec. Pap. 8, 186–198
- Dickinson, B., 1990 'The samian ware', in McCarthy, M.R. *A Roman, Anglian and Medieval Site at Blackfriars Street, Cumberland Westmorland* Antiq. Archaeol. Soc. Res. Ser. 4, (Kendal), 213–236
- Dore, J. and Greene, K. (eds), 1977 *Roman Pottery Studies in Britain and Beyond*, Brit. Archaeol. Rep. Supplementary Ser. 30, (Oxford)
- Down, A., 1978 *Chichester Excavations III*, (Chichester Civic Society Excavations Committee)
- Draper, J., 1985 *Excavations at Hill Farm, Gestingthorpe, Essex*, E. Anglian Archaeol. 25
- Dymond, D. and Martin, E., 1988 *An Historical Atlas of Suffolk* (Suffolk)
- Elsdon, S.M., 1975 *Stamped Iron Age Pottery*, Brit. Archaeol. Rep. Brit. Ser. 10 (Oxford)
- Evans, J., 1987 'Graffiti and the evidence of literacy and pottery use in Roman Britain', *Archaeol. J.* 144, 191–204
- Farrar, R.A.H., 1973 'The techniques and sources of Romano-British black-burnished ware', in Detsicas, 67–103
- Farrar, R.A.H., 1977 'A Romano-British black-burnished ware industry at Ower in the Isle of Purbeck, Dorset', in Dore and Greene (eds), 199–227
- Fowler, E., 1960 'The origins and development of the penannular brooch in Europe', *Proc. Prehist. Soc.* 26, 149–177
- Frere, S.S., 1972 *Verulamium Excavations Volume I*, Rep. Res. Comm. Soc. Antiq. London 28
- Frere, S.S., 1984 *Verulamium Excavations Volume III*, Oxford Univ. Comm. Archaeol. Monogr. 1
- Frere, S.S. and Clarke, R.R., 1945 'The Romano-British village at Needham', *Norfolk Archaeol.* 28(4), 187–216
- Frere, S.S. and Wilkes, J.J., 1989 *Strageath Excavations within the Roman fort 1973–86*, Britannia Monogr. Ser. 9
- Gelling, M., 1978 *Signposts to the Past*
- Gill, D., Plouviez, J., Symonds, R. and Tester, C., 2001 *Roman pottery production at Bourne Hill, Wherstead*, E. Anglian Archaeol. Occas. Pap. 9
- Gillam, J.P., 1957 'Types of Roman coarse pottery vessels in northern Britain', *Archaeol. Aeliana* (4th ser.) 35, 180–251
- Goodburn, R., 1984 'The non-ferrous metal objects' in Frere, 19–67
- Green, B., Rogerson, A. and White, S., 1987 *The Anglo-Saxon Cemetery at Morningthorpe, Norfolk*, E. Anglian Archaeol. 36
- Green, C.M., 1976 'The coarse pottery', in Bell M., 'The excavation of an early Romano-British site and Pleistocene landforms at Newhaven', *Sussex Archaeol. Collect.* 114, 256–287
- Green, C.S., 1977 *Excavations in the Roman Kiln Field at Brampton, 1973–4*, E. Anglian Archaeol. 5, 31–95
- Green, M., 1992 *Animals in Celtic life and myth* (London)
- Gregory, T., 1991 *Excavations in Thetford, 1980–1982, Fison Way*, E. Anglian Archaeol. 53
- Grigson, C., 1982 'Sex and age determination of some bones and teeth of domestic cattle: a review of the literature', in Wilson *et al.*, 7–23
- Gurney, D., 1986 *Settlement, Religion and Industry on the Fen-edge; Three Romano-British Sites in Norfolk*, E. Anglian Archaeol. 31
- Hands, A.R., 1998 *The Romano-British Roadside Settlement at Wilcote, Oxfordshire II. Excavations 1993–96*, Brit. Archaeol. Rep. Brit. Ser. 265
- Hartley, B.R., 1972a 'The samian ware', in Frere, 216–262
- Hartley, B.R., 1972b 'The Roman occupations of Scotland: the evidence of samian ware', *Britannia* 3, 1–55
- Hassall, M.W.C. and Tomlin, R.S.O., 1995 'Roman Britain in 1994: inscriptions', *Britannia* 26, 371–390
- Hattatt, R., 1985 *Iron Age and Roman Brooches*, (Oxford, Oxbow)
- Hattatt, R., 1987 *Brooches of Antiquity*, (Oxford, Oxbow)
- Hattatt, R., 1989 *Ancient Brooches and other Artefacts*, (Oxford, Oxbow)
- Hawkes, C.F.C. and Hull, M.R., 1947 *Camulodunum, First Report on the Excavations at Colchester 1930–1939*, Rep. Res. Comm. Soc. Antiq. London 14
- Henderson, A.M., 1949 'Small objects in metal, bone, glass, etc.' in Bushe-Fox, 106–160
- Henig, M., 1978 *A Corpus of Roman Engraved Gemstones from British Sites* Brit. Archaeol. Rep. 8, 2nd edition (Oxford)
- Henig, M., 1985 'Bronzes and other non-ferrous metalwork', in Draper, 29–44
- Hermet, F., 1934 *La Graufesenque (Condatomago)* Paris
- Hills, C., Penn, K. and Rickett, R., 1984 *The Anglo-Saxon Cemetery at Spong Hill, North Elmham, Part III: Catalogue of Inhumations*, E. Anglian Archaeol. 21
- Hinchliffe, J. with Green, C.S., 1985 *Excavations at Brancaster 1974 and 1977*, E. Anglian Archaeol. 23
- Hinton, D.A., 1977 '"Rudely Made Earthen Vessels" of the Twelfth to Fifteenth Centuries AD', in Peacock, D.P.S. (ed), *Pottery and Early Commerce*, (London), 221–238
- Holmes N., 1978 'Some Iron-Age coins from Hacheston, Suffolk', *Numis.Chron. Ser.7*, 176–178
- Howe, M.D., Perrin, J.R. and Mackreth, D.F., 1980 *Roman Pottery from the Nene Valley: a Guide*, Peterborough City Mus. Occas. Pap. 2

- Hull, M.R., n.d. *Brooches from pre-Roman and Roman Britain*, (unpublished report in Colchester Museum)
- Hull, M.R., 1958 *Roman Colchester*, Rep. Res. Comm. Soc. Antiq. London 20
- Hull, M.R., 1963 *The Roman Potters' Kilns at Colchester*, Rep. Res. Comm. Soc. Antiq. London 21
- Isings C., 1957 *Roman Glass*, Archaeologica Traiectina (Groningen)
- Jackson, R., 1985 'Cosmetics sets from Late Iron Age and Roman Britain', *Britannia* 16, 165–192
- Jackson, R., 1993 'The function and manufacture of Romano-British cosmetic grinders: two important new finds from London', *Antiquaries J.* 73, 165–169
- Jackson, R., forthcoming *Cosmetic Grinders: An illustrated catalogue and discussion of a type unique to Late Iron Age and Roman Britain*, Brit. Mus. Occas. Pap. 104
- Jackson, R.P.J. and Potter, T.W., 1996 *Excavations at Stonea, Cambridgeshire, 1980–85*, (London, British Museum)
- Johns, C., 1996 *The Jewellery of Roman Britain*, (London, UCL Press)
- Jones, G., 1977a 'The animal bones' in Green, 88–90
- Jones, G., 1977b 'Animal bones', in Rogerson, 209–13
- Johnson, S., 1983 *Burgh Castle: Excavations by Charles Green, 1958–61*, E. Anglian Archaeol. 20
- Keen, R., 1979 *Little Russel Amphora Wreck Site B* (Guernsey)
- King, A. C., 1978 'A comparative survey of bone assemblages from Roman sites in Britain', *Bull. Inst. Archaeol. London* 15, 207–32
- King, A. C., 1984 'Animal bones and the dietary identity of military and civilian groups in Roman Britain, Germany and Gaul', in Blagg, T. and King, A. (ed.), *Military and Civilian in Roman Britain*, Brit. Archaeol. Rep. 136 (Oxford), 187–217
- Lloyd-Morgan, G., 1981 *Description of the Collections in the Rijkmuseum G.M. Kam at Nijmegen, IX The Mirrors* (Nijmegen)
- LRBC I *Late Roman Bronze Coinage*, R.A.G. Carson, P.V.Hill, and J.P.C.Kent (London, 1978)
- Ludowici, W., 1927 *Stempel-Namen und Bilder Römischer Töpfer Legions-Ziegel-Stempel Formen von Sigillata- und anderen Gefässen aus meinen Ausgrabungen in Rheinzabern, 1901–1914* (München)
- Ludowici, W. and Ricken, H. (ed), 1948 *Die Bilderschüsseln der Römischen Töpfer von Rheinzabern (Tafelband). Katalog 6, Ausgrabungen in Rheinzabern, 1901–1914* (Speyer)
- Macgregor, M., 1976 *Early Celtic Art in North Britain I. a study of decorative metalwork from the third century BC to the third century AD*, (Leicester)
- Mack R.P., 1975 *The Coinage of Ancient Britain*, 3rd edition (London, Spink and Son)
- Mackreth, D., 1977 'Brooches', in Rogerson, 129–134
- Mackreth, D., 1981 'The brooches', in Partridge, 130–151, 324–326
- Mackreth, D., 1985 'Roman brooches', in Hinchliffe with Green, 42–44, 198–205
- Mackreth, D., 1986 'Brooches', in Gurney, 61–67
- Mackreth, D., 1991 'Brooches of copper alloy and of iron', in Gregory, 120–129
- Mackreth, D., 1996 'Brooches', in Jackson and Potter, 296–327
- Manning, W.H., 1972 'The iron objects', in Frere, 163–95
- Manning, W.H., 1974 'Objects of iron', in Neal, 157–87
- Manning, W.H., 1984 'Objects of iron', in Frere, 83–106
- Manning, W.H., 1985 'Ironwork', in Draper, 46–60
- Manning, W.H. and Scott, I.R., 1986 'Iron objects', in Stead and Rigby, 145–162
- Margary, I.D., 1973 *Roman Roads in Britain*, (3rd edition. London, J.Baker)
- Margeson, S., 1993 *Norwich Households: Medieval and Post-Medieval Finds from Norwich Survey Excavations 1971–78*, E. Anglian Archaeol. 58
- Marsh, G., 1978 'Early second century fine wares in the London area', in Arthur and Marsh (eds), 119–225
- Marsh, G. and Tyers, P., 1978 'The Roman pottery from Southwark', in Bird *et al.*, 533–586
- Marshall, F.H., 1907 *Catalogue of the finger rings, Greek, Etruscan and Roman, in the Departments of Antiquities, British Museum* (London)
- Martin, E., 1988 *Burgh: The Iron Age and Roman Enclosure*, E. Anglian Archaeol. 40
- Martin, E., 1993 *Settlements on Hill-tops: Seven Prehistoric Sites in Suffolk*, E. Anglian Archaeol. 65
- Martin, E., Pendleton, C. and Plouviez, J., 1992 'Archaeology in Suffolk 1991' *Proc. Suffolk Inst. Archaeol.* 37(4), 371–390
- Millett, M. and Graham, D., 1986 *Excavations on the Romano-British Small Town at Neatham, Hampshire 1969–1979*, Hampshire Fld. Club Archaeol. Soc. Monogr. (Gloucester, Alan Sutton)
- Moore, I., Plouviez, J. and West, S., 1988 *The Archaeology of Roman Suffolk* (Suffolk County Council)
- Mould, Q., 1993 Various entries in 'The small finds', in Darling with Gurney, 72–140
- Myres, J.N.L., 1969 *Anglo-Saxon Pottery and the Settlement of England*, (Oxford University Press)
- Neal, D.S., 1974 *The Excavation of the Roman Villa in Gadebridge Park Hemel Hempstead 1963–8*, Rep. Res. Comm. Soc. Antiq. London 31
- Oldenstein, V.J., 1976 'Zur Ausrüstung römischer Auxiliareinheiten', *Bericht der Römisch-Germanischen Kommission* 57, 49–284
- Oswald, F., 1936–7 *Index of figure-types on terra sigillata*, Univ. Liverpool Annals Archaeol. Anthropol. 23, 1–4; 24, 1–4
- Owles, E., 1972 'Archaeology in Suffolk 1971', *Proc. Suffolk Inst. Archaeol.* 32(3), 282–291
- Panella, C., 1973 'Anfore', in Carandini, A. and Panella, C. (eds), 'Ostia III', *Studi Miscellanei* 21, (Rome), 463–633

- Parker, A.J., 1988 'The birds of Roman Britain', *Oxford J. Archaeol.* 7, 197–226
- Partridge, C., 1981 *Skeleton Green, A Late Iron Age and Romano-British Site*, Britannia Monogr. Ser. 2 (London)
- Peacock, D.P.S. and Williams, D.F., 1986 *Amphorae and the Roman Economy*, (Longman Archaeology Series)
- Philp, B., 1994 *The Iron Age and Romano-British Site at Lenham, Kent*, (Kent Archaeol. Rescue Unit)
- Plouviez, J., n.d. Pakenham site archive (PKM005), (Suffolk County Council Archaeological Service)
- Plouviez, J., 1976 'The pottery', in West with Plouviez, 85–102
- Plouviez, J., 1989 'A Romano-British pottery kiln at Stowmarket', *Proc. Suffolk Inst. Archaeol.* 37, 1–12
- Plouviez, J., 1995 'A hole in the distribution map: the characteristics of small towns in Suffolk' in Brown (ed.), 69–80
- Ravetz, A., 1964 'The fourth century inflation and Romano-British coin finds' *Numis.Chron. ser.7*, 15
- Reece, R., 1972 'A short survey of the Roman coins found on fourteen sites in Britain', *Britannia* 3, 269–276
- Reece, R., 1988 'The coins', in Rodwell, 80–81
- Reece, R., 1991 *Roman Coins from 140 Sites in Britain*, Cotswold Studies 4 (Cirencester)
- Rees, S.E., 1979 *Agricultural Implements in Prehistoric and Roman Britain*, Brit. Archaeol. Rep. 69
- Ricken, H. and Fischer, C., 1963 *Die Bilderschüsseln der Römischen Töpfer von Rheinzabern, Textband mit Typenbildern* (Bonn)
- Rigby, V., 1987 'Stamps on coarse wares', in Dannell, G.B. and Wild, J.P., *Longthorpe II The Military Works Depot: an episode in landscape history*, Britannia Monogr. Ser. 8 (London), 128–130
- Riha, E., 1979 *Die Römischen Fibeln aus Augst und Kaiseraugst*, Forschungen in Augst 3 (Basel)
- Rodwell, K.A., 1988 *The Prehistoric and Roman Settlement at Kelvedon, Essex*, Counc. Brit. Archaeol. Res. Rep. 63
- Rodwell, W.J., 1978 'Stamp-decorated pottery of the early Roman period in Eastern England', in Arthur and Marsh, 225–292
- Rogers, G., 1974 *Poteries Sigillées de la Gaule Centrale, I: les motifs non figurés*, Gallia Supplément 28 (Paris)
- Rogerson, A., 1977 *Excavations at Scole 1973*, E. Anglian Archaeol. 5, 97–224
- Rouvier-Jeanlin, M., 1972 *Les Figurines Gallo-Romaines en Terre-Cuite au Musée des Antiquités Nationales* (Paris)
- Schwab, I., 1978 '106–114 Borough High Street', in Bird *et al.*, 177–220
- Scott, E., 1990 'A critical review of the interpretation of infant burials in Roman Britain, with particular reference to villas', *J. Theoretical Archaeol.* 1, 30–46
- Sealey, P.R., 1996 'The Iron Age of Essex', in Bedwin, O. (ed.) *The Archaeology of Essex* (Essex County Council)
- Silver, I. A., 1969 'The ageing of the domestic animals', in Brothwell, D., and Higgs, E. (eds), *Science and Archaeology*, 2nd edition (London), 283–302
- Smedley, N. and Owles, E., 1959 'A Romano-British pottery kiln at Homersfield', *Proc. Suffolk Inst. Archaeol.* 28, 168–184
- Smedley, N. and Owles, E., 1960 'Two kilns making colour-coated ware at Grimstone End, Pakenham', *Proc. Suffolk Inst. Archaeol.* 28, 203–225
- Smedley, N. and Owles, E., 1961 'A small kiln at Grimstone End, Pakenham', *Proc. Suffolk Inst. Archaeol.* 29, 67–72
- Snape, M.E., 1993 *Roman Brooches from North Britain*, Brit. Archaeol. Rep. Brit. Ser. 235
- Soil Survey of England and Wales, 1983 *Soils of Eastern England*
- Stanfield, J.A. and Simpson, G., 1958 *Central Gaulish Potters* (London)
- Stanfield, J.A. and Simpson, G., 1990 *Les potiers de la Gaule Centrale*, Revue Archéologiques Sites, Hors-série 37 (Gonfaron)
- Stead, I.M. and Rigby, V., 1986 *Baldock, the Excavation of a Roman and Pre-Roman Settlement, 1968–72*, Britannia Monogr. Ser. 7 (London)
- Stead, I.M. and Rigby, V., 1989 *Verulamium, the King Harry Lane Site*, Hist. Build. Monuments Comm. England Archaeol. Rep. 12
- Swan, V.G., 1984 *The Pottery Kilns of Roman Britain*, Roy. Comm. Hist. Monuments Engl. Suppl. Ser. 5 (London, HMSO)
- Symonds R.P., 1992 *Rhenish Wares: Fine Dark Coloured Pottery from Gaul and Germany*, Oxford Univ. Comm. Archaeol. Monogr. 23 (Oxford)
- Symonds, R.P. and Wade, S.M., 1999 *The Roman Pottery from Excavations at Colchester, 1971–1985*, Colchester Archaeol. Rep. 10
- Thill, G., 1969 'Frühkaiserzeitliche gräberanlage bei Nospelt (Kreckelbiereg)', *Hémecht* 21 part 2, 183ff
- Tomlin, R.S.O. and Frere, S.S. (eds), 1991 *The Roman Inscriptions of Britain, Vol.2, Instrumentum domesticum (Personal belongings and the like)* Fasc.3 (Gloucester, Sutton)
- Tyers, P., 1978 'The poppy-head beakers of Britain and their relationship to the barbotine decorated vessels of the Rhineland and Switzerland', in Arthur and Marsh, 61–107
- Tyers, P.A., 1996 *Roman Pottery in Britain*, (London, Batsford)
- Van Arsdell, R.D., 1989 *Celtic Coinage of Britain*, (London, Spink and Son)
- Vertet, H. and Vuillemot, G., 1971–1974 'Figurines gallo-romaines en argile d'Autun', *Mémoires de la Société Éduenne des Lettres, Science et Arts* 52, 149–240
- von den Driesch, A., 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, (Cambridge, Mass.)
- von den Driesch, A. and Boessneck, J., 1974 'Kritische Anmerkungen zur Widerristhöhenberechnung aus Längenmassen vor- und frühgeschichtlicher Tierknochen', *Säugetierkundliche Mitteilungen* 22, 325–48
- Von Jenny, W.A., 1935 *Keltische Metallarbeiten aus Heidnischer und Christlicher Zeit*
- Wainwright, G.J. and Longworth, I.H., 1971 'The Rinyo-Clacton culture reconsidered', in Wainwright, G.J. and Longworth, I.H., *Durrington Walls: Excavations 1966–1968*, Rep. Res. Comm. Soc. Antiq. London 29, 240–243

- Walke, N., 1965 *Das römische Donaukastell Straubing-Sorviodurum*, Limesforschungen Band 3, (Berlin)
- Waugh, H. and Goodburn, R., 1972 'Non-ferrous objects', in Frere, 115–162
- West, S. 1952 'Romano-British kilns on West Stow Heath', *Proc. Suffolk Inst. Archaeol.* 26, 35–52
- West, S., 1985 *West Stow, The Anglo-Saxon Village*, E. Anglian Archaeol. 24
- West, S., 1990 *West Stow, The Prehistoric and Romano-British Occupations*, E. Anglian Archaeol. 48
- West, S. with Plouviez, J., 1976 *The Romano-British site at Icklingham*, E. Anglian Archaeol. 3, 63–125
- Wickenden, N.P., 1988 *Excavations at Great Dunmow, Essex: a Romano-British Small Town in the Trinovantian Civitas*, E. Anglian Archaeol. 41
- Williams, D., 1977 'Black-burnished ware from Mumrills: sources by heavy mineral analysis', in Dore and Green (eds), 177–187
- Williamson, T., 1984 'The Roman countryside: settlement and agriculture in N.W. Essex', *Britannia* 15, 225–230
- Wilson, M.G., 1972 'Catalogue of the pottery', in Frere, 265–370
- Wilson, B., Grigson, C. and Payne, S., (eds), 1982 *Ageing and Sexing Animal Bones from Archaeological Sites*, Brit. Archaeol. Rep. Brit. Ser. 109 (Oxford)
- Young, C.J., 1977 *Oxfordshire Roman Pottery*, Brit. Archaeol. Rep. 43 (Oxford)
- Yule, B., 1990 'The dark earth and late Roman London', *Antiquity* 64, 620–628

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