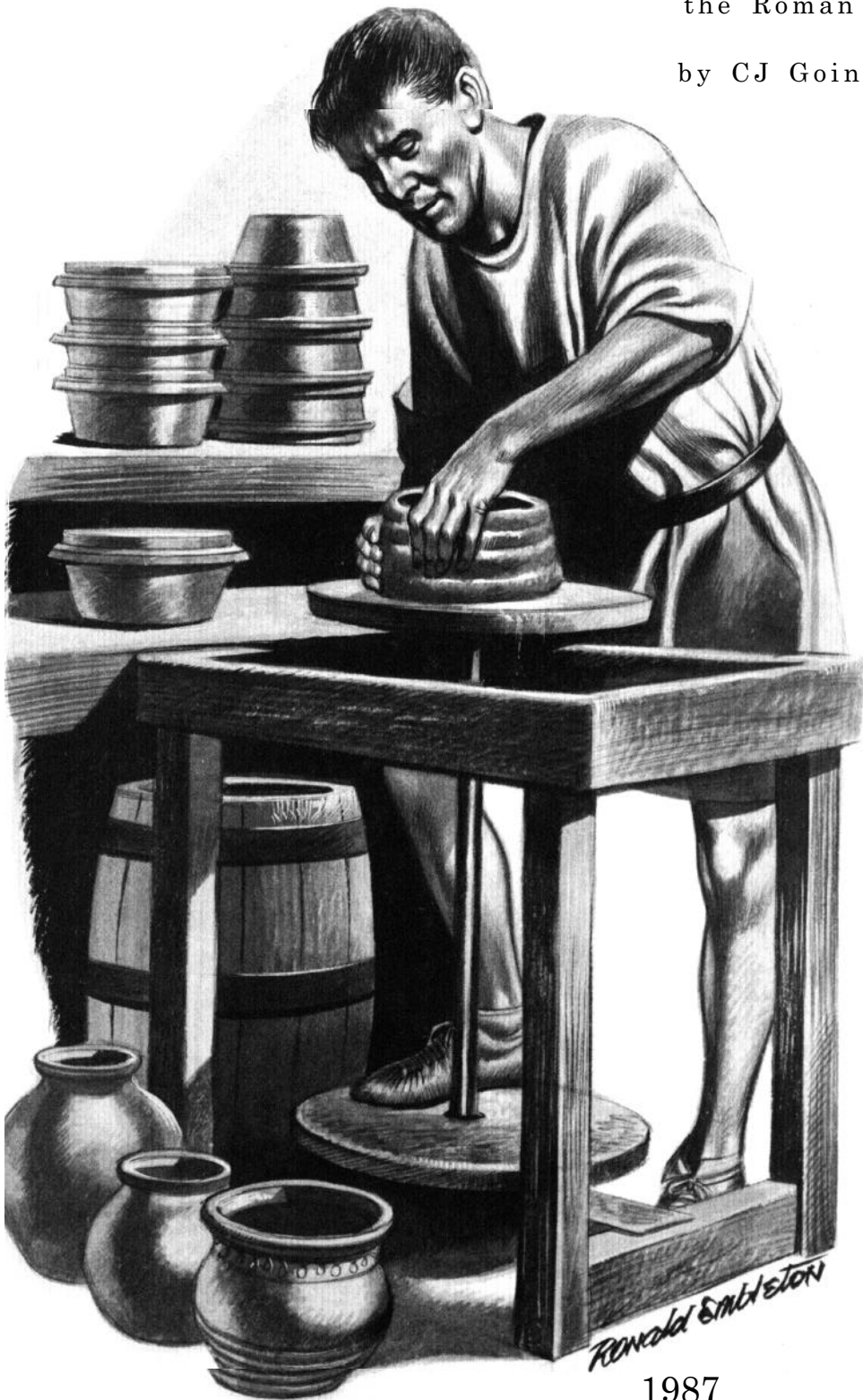


The Mansio and other
sites in the south-eastern
sector of Caesaromagus:
the Roman pottery

by CJ Going



Chelmsford Archaeological Trust
Report 3.2

**The Mansio and other sites
in the south-eastern sector
of Caesaromagus:
the Roman pottery**

by
C J Going

with contributions by J Bayley,
S A Butcher, P J Drury, J Evans, K F Hartley,
M W C Hassall, V A Rigby, K A Rodwell,
J P Wild and R P Wright

1987

Published by the Chelmsford
Archaeological Trust and the
Council for British Archaeology

Published 1987 by the Council for British Archaeology
112 Kennington Road, London SE11 6RE

Copyright © 1987 Chelmsford Archaeological Trust,
the Council for British Archaeology, and the Historic
Buildings and Monuments Commission for England

All rights reserved

The CBA wishes to acknowledge with gratitude the
grant from the Historic Buildings and Monuments
Commissions for England towards the publication of
this report

British Library Cataloguing in Publication Data

Going, C. J.

The Mansio and other sites in the south-eastern sector of
the Caesaromagus: the Roman pottery.-(Chelmsford
Archaeological Trust report; 3.2)-(CBA research report;
62) 1. Pottery, Roman-England-Chelmsford (Essex)

2. Excavations (Archaeology)-England--Chelmsford
(Essex) 3. Chelmsford (Essex)-Antiquities, Roman

4. England-Antiquities, Roman

I. Title II. Chelmsford Archaeological Trust

III. Council for British Archaeology IV. Series

738.3'09362'6752 NK3850

ISBN 0-906780-50-0

Printed in Great Britain by Henry Ling Ltd.,
at the Dorset Press, Dorchester, Dorset.

Contents

Illustrations	.....
Contributors	.....
I	Introduction	.....
II	The fabrics	.....
III	The typology	.....
IV	The stratified groups	.....
V	The Kilns at Moulsham Street, Chelmsford and Inworth	.....
	1 The Moulsham Street kilns	.....
	2 A late Roman kiln at Inworth by <i>CJ Going and K A Rodwell</i>	.....
	3 The Rettendon ware 'workshop' industry and the kilns at Chelmsford and Inworth	.....
VI	Textile impressions on Romano-British pottery by <i>J P Wild</i>	.....
VII	Residues on Romano-British pottery by <i>J Evans and C J Going</i>	.....
VIII	The samian ware by <i>W J Rodwell</i>	.....
	1 The decorated ware	.....
	2 The stamps and signatures	.....
	3 The plain ware	.....
	4 The Chancellor collection	.....
IX	Stamps	.....
	1 Stamps on Gallo-Belgic derivatives by <i>V A Rigby</i>	.....
	2 Mortarium stamps by <i>K F Hartley</i>	.....
	3 Decorative stamps on Flavian to early 2nd century fine wares	.....
	4 Other decorative stamps	.....
X	The graffiti by <i>C J Going, M W C Hassall, and R P Wright</i>	.....
XI	Terra cotta and pipeclay objects	.....
XII	Chelmsford pottery supply and use, c AD 60-400	.....
	1 Ceramic Phases 1-8	.....
	2 Summary of the trade pattern to Chelmsford, c AD 60-400+	.....
	3 Third century AD pottery in Essex: the Colchester 'Mithraeum' and Billingsgate Group 'Z' assemblages examined	.....
Bibliography	.....

Illustrations

Plates

- Plate 1 Inworth: the kiln chamber from the south-west
Plate 2 Inworth: the re-excavated kiln, stokepit and gully

Figures

- Fig 1 Platters; Dishes (Forms A1.1/1 to B5.2/1)
Fig 2 Dishes; Bowls (B5.3/1 to C12.2/1)
Fig 3 Bowls (C12.3/1 to C25.1/1)
Fig 4 Bowls; Mortaria (C25.2/1 to D1.6/1)
Fig 5 Mortaria (D2.1/1 to D9.1/1)
Fig 6 Mortaria; Bowl-Jars (D10.1/1 to E5.4/1)
Fig 7 Bowl-Jars; Jars (E5.4/2 to G5.5/1)
Fig 8 Jars (G5.6/1 to E16.2/2)
Fig 9 Jars (G17.1/1 to G22.1/2)
Fig 10 Jars (G23.1/1 to G29.3/1)
Fig 11 Jars (G30.1/1 to G35.3/1)
Fig 12 Jars (G36.1/1 to G42.3/1)
Fig 13 Jars; Beakers (G43.1/1 to H1.3/1)
Fig 14 Beakers (H1.3/2 to H14.2/2)
Fig 15 Beakers (H14.3/1 to H40.1/1)
Fig 16 Beakers; Flagons (H41.1/1 to J12.1/1)
Fig 17 Flagons; Cauldrons; Colanders (J13.1/1 to M2.2/1)
Fig 18 Funnels; Unguentaria; Miniatures; Miscellaneous (N1.1/1 to S2.1/1)
Fig 19 Amphorae (P1.1/1 to P4.1/1)
Fig 20 Pottery from S245
Fig 21 Pottery from S245
Fig 22 Pottery from S245, S230, S205
Fig 23 Pottery from S205
Fig 24 Pottery from S205
Fig 25 Pottery from S205, S215, AA2.2
Fig 26 Pottery from AA2.2, AR41, S149
Fig 27 Pottery from S149, S182, AA1.8
Fig 28 Pottery from Z15, S175iii, S763iii, S763iii-ii
Fig 29 Pottery from S175ii-i, S790iii-ii
Fig 30 Pottery from S790ii-i, S95i
Fig 31 Pottery from T31, AR13, T71/80
Fig 32 Pottery from T71/80, S35
Fig 33 Pottery from S35
Fig 34 Chelmsford, the Moulsham Street kilns
Fig 35 Chelmsford, pottery from the kilns
Fig 36 Inworth, location of kiln
Fig 37 Inworth, general plan of excavation
Fig 38 Inworth, the kiln
Fig 39 Inworth, sections of kiln and clay pit
Fig 40 Inworth, copper alloy objects, pottery stamp and Iron Age sherd
Fig 41 Inworth, pottery from the kiln
Fig 42 Inworth, pottery from the clay pit
Fig 43 The 'Rettendon ware workshop industry and 4th century pottery production zones in Essex
Fig 44 Textile impressions on Romano-British pottery
Fig 45 Decorated samian, 1-28
Fig 46 Decorated samian, 29-36, and plain samian, P1-2
Fig 47 Mortarium and Gallo-Belgic derivative stamps
Fig 48 Decorative stamps
Fig 49 Graffiti
Fig 50 Graffiti
Fig 51 Terra cotta fragments
Fig 52 Pottery supply to Chelmsford, AD 60-80

- Fig 53 Pottery supply to Chelmsford, AD 80-120/25
Fig 54 Pottery supply to Chelmsford, AD 120/25-160/75
Fig 55 Pottery supply to Chelmsford, AD 160/75-200/10
Fig 56 Pottery supply to Chelmsford, AD 200/10-250/60
Fig 57 Pottery supply to Chelmsford, AD 250/60-300/10
Fig 58 Pottery supply to Chelmsford, AD 300/10-360/70
Fig 59 Pottery supply to Chelmsford, AD 360/70-400+

Tables

- Table 1 Site and Ceramic phasing
Table 2 Fabric incidence by number of sherds and weight (all sites)
Table 3 The stratified groups
Table 4 Chelmsford (Moulsham Street) kiln products
Table 5 Inworth kiln products
Table 6 Sherds submitted for analysis of deposits
Table 7 Fine ware die-links
Table 8 Contexts selected from Ceramic Phases 1-8
Table 9 Fabric incidence by Ceramic Phases
Table 10 Incidence of vessel classes by Ceramic Phases

Contributors

- J Bayley, Ancient Monuments Laboratory, Historic Buildings & Monuments Commission for England, Fortress House, 23 Savile Row, London W1X 2AA
S A Butcher, Inspectorate of Ancient Monuments, Historic Buildings & Monuments Commission for England, Fortress House, 23 Savile Row, London W1X 2AA
P J Drury, Inspectorate of Historic Buildings, Historic Buildings & Monuments Commission for England, Fortress House, 23 Savile Row, London W1X 2AA
J Evans, Department of Chemistry, North East London Polytechnic, Romford Road, Stratford, London E15 4LZ
C J Going, Chelmsford Archaeological Trust, 1 Writtle Road, Chelmsford, Essex, CM1 3BL
K F Hartley, Flat A, 22 Shire Oak Road, Leeds LS6 2DE
M W C Hassall, Institute of Archaeology, 31-34 Gordon Square, London WC1H 0PY
V A Rigby, Department of Prehistoric and Romano-British Antiquities, British Museum, London WC1B 3DG
K A Rodwell, Chelmsford Archaeological Trust, 1 Writtle Road, Chelmsford, Essex, CM1 3BL
W J Rodwell, The Old Vicarage, Stockhill Road, Downside, Chilcompton, Somerset, BA3 4JQ
J P Wild, Department of Archaeology, University of Manchester, Manchester, M13 9PL
R P Wright, 5 Victoria Terrace, Durham, DH1 4RW

Contents

Illustrations	.....
Contributors	.....
I	Introduction	.....
II	The fabrics	.....
III	The typology	.....
IV	The stratified groups	.....
V	The Kilns at Moulsham Street, Chelmsford and Inworth	.....
	1 The Moulsham Street kilns	.....
	2 A late Roman kiln at Inworth by <i>CJ Going and K A Rodwell</i>	.....
	3 The Rettendon ware 'workshop' industry and the kilns at Chelmsford and Inworth	.....
VI	Textile impressions on Romano-British pottery by <i>J P Wild</i>	.....
VII	Residues on Romano-British pottery by <i>J Evans and C J Going</i>	.....
VIII	The samian ware by <i>W J Rodwell</i>	.....
	1 The decorated ware	.....
	2 The stamps and signatures	.....
	3 The plain ware	.....
	4 The Chancellor collection	.....
IX	Stamps	.....
	1 Stamps on Gallo-Belgic derivatives by <i>V A Rigby</i>	.....
	2 Mortarium stamps by <i>K F Hartley</i>	.....
	3 Decorative stamps on Flavian to early 2nd century fine wares	.....
	4 Other decorative stamps	.....
X	The graffiti by <i>C J Going, M W C Hassall, and R P Wright</i>	.....
XI	Terra cotta and pipeclay objects	.....
XII	Chelmsford pottery supply and use, c AD 60-400	.....
	1 Ceramic Phases 1-8	.....
	2 Summary of the trade pattern to Chelmsford, c AD 60-400+	.....
	3 Third century AD pottery in Essex: the Colchester 'Mithraeum' and Billingsgate Group 'Z' assemblages examined	.....
Bibliography	.....

Illustrations

Plates

- Plate 1 Inworth: the kiln chamber from the south-west
Plate 2 Inworth: the re-excavated kiln, stokepit and gully

Figures

- Fig 1 Platters; Dishes (Forms A1.1/1 to B5.2/1)
Fig 2 Dishes; Bowls (B5.3/1 to C12.2/1)
Fig 3 Bowls (C12.3/1 to C25.1/1)
Fig 4 Bowls; Mortaria (C25.2/1 to D1.6/1)
Fig 5 Mortaria (D2.1/1 to D9.1/1)
Fig 6 Mortaria; Bowl-Jars (D10.1/1 to E5.4/1)
Fig 7 Bowl-Jars; Jars (E5.4/2 to G5.5/1)
Fig 8 Jars (G5.6/1 to E16.2/2)
Fig 9 Jars (G17.1/1 to G22.1/2)
Fig 10 Jars (G23.1/1 to G29.3/1)
Fig 11 Jars (G30.1/1 to G35.3/1)
Fig 12 Jars (G36.1/1 to G42.3/1)
Fig 13 Jars; Beakers (G43.1/1 to H1.3/1)
Fig 14 Beakers (H1.3/2 to H14.2/2)
Fig 15 Beakers (H14.3/1 to H40.1/1)
Fig 16 Beakers; Flagons (H41.1/1 to J12.1/1)
Fig 17 Flagons; Cauldrons; Colanders (J13.1/1 to M2.2/1)
Fig 18 Funnels; Unguentaria; Miniatures; Miscellaneous (N1.1/1 to S2.1/1)
Fig 19 Amphorae (P1.1/1 to P4.1/1)
Fig 20 Pottery from S245
Fig 21 Pottery from S245
Fig 22 Pottery from S245, S230, S205
Fig 23 Pottery from S205
Fig 24 Pottery from S205
Fig 25 Pottery from S205, S215, AA2.2
Fig 26 Pottery from AA2.2, AR41, S149
Fig 27 Pottery from S149, S182, AA1.8
Fig 28 Pottery from Z15, S175iii, S763iii, S763iii-i
Fig 29 Pottery from S175ii-i, S790iii-ii
Fig 30 Pottery from S790ii-i, S95i
Fig 31 Pottery from T31, AR13, T71/80
Fig 32 Pottery from T71/80, S35
Fig 33 Pottery from S35
Fig 34 Chelmsford, the Moulsham Street kilns
Fig 35 Chelmsford, pottery from the kilns
Fig 36 Inworth, location of kiln
Fig 37 Inworth, general plan of excavation
Fig 38 Inworth, the kiln
Fig 39 Inworth, sections of kiln and clay pit
Fig 40 Inworth, copper alloy objects, pottery stamp and Iron Age sherd
Fig 41 Inworth, pottery from the kiln
Fig 42 Inworth, pottery from the clay pit
Fig 43 The 'Rettendon ware workshop industry and 4th century pottery production zones in Essex
Fig 44 Textile impressions on Romano-British pottery
Fig 45 Decorated samian, 1-28
Fig 46 Decorated samian, 29-36, and plain samian, P1-2
Fig 47 Mortarium and Gallo-Belgic derivative stamps
Fig 48 Decorative stamps
Fig 49 Graffiti
Fig 50 Graffiti
Fig 51 Terra cotta fragments
Fig 52 Pottery supply to Chelmsford, AD 60-80

- Fig 53 Pottery supply to Chelmsford, AD 80-120/25
Fig 54 Pottery supply to Chelmsford, AD 120/25-160/75
Fig 55 Pottery supply to Chelmsford, AD 160/75-200/10
Fig 56 Pottery supply to Chelmsford, AD 200/10-250/60
Fig 57 Pottery supply to Chelmsford, AD 250/60-300/10
Fig 58 Pottery supply to Chelmsford, AD 300/10-360/70
Fig 59 Pottery supply to Chelmsford, AD 360/70-400+

Tables

- Table 1 Site and Ceramic phasing
Table 2 Fabric incidence by number of sherds and weight (all sites)
Table 3 The stratified groups
Table 4 Chelmsford (Moulsham Street) kiln products
Table 5 Inworth kiln products
Table 6 Sherds submitted for analysis of deposits
Table 7 Fine ware die-links
Table 8 Contexts selected from Ceramic Phases 1-8
Table 9 Fabric incidence by Ceramic Phases
Table 10 Incidence of vessel classes by Ceramic Phases

Contributors

- J Bayley, Ancient Monuments Laboratory, Historic Buildings & Monuments Commission for England, Fortress House, 23 Savile Row, London W1X 2AA
S A Butcher, Inspectorate of Ancient Monuments, Historic Buildings & Monuments Commission for England, Fortress House, 23 Savile Row, London W1X 2AA
P J Drury, Inspectorate of Historic Buildings, Historic Buildings & Monuments Commission for England, Fortress House, 23 Savile Row, London W1X 2AA
J Evans, Department of Chemistry, North East London Polytechnic, Romford Road, Stratford, London E15 4LZ
C J Going, Chelmsford Archaeological Trust, 1 Writtle Road, Chelmsford, Essex, CM1 3BL
K F Hartley, Flat A, 22 Shire Oak Road, Leeds LS6 2DE
M W C Hassall, Institute of Archaeology, 31-34 Gordon Square, London WC1H 0PY
V A Rigby, Department of Prehistoric and Romano-British Antiquities, British Museum, London WC1B 3DG
K A Rodwell, Chelmsford Archaeological Trust, 1 Writtle Road, Chelmsford, Essex, CM1 3BL
W J Rodwell, The Old Vicarage, Stockhill Road, Downside, Chilcompton, Somerset, BA3 4JQ
J P Wild, Department of Archaeology, University of Manchester, Manchester, M13 9PL
R P Wright, 5 Victoria Terrace, Durham, DH1 4RW

I Introduction

This volume is a companion to Chelmsford Archaeological Trust Report 3.1 (CBA Research Report 66 *The Munsio and Other Sites in the South-Eastern Sector of Cuesaromagus*, by P J Drury). It deals, however, solely with the pottery found during the excavations published there. It was originally intended to treat the pottery in a fashion analogous to that used in Professor Frere's *Verulamium Excavations I* (M Wilson 1972). Developments in the study of Roman pottery embodied in the SCORP report (Young 1980) resulted instead in its being quantified using a system devised jointly with the Colchester Archaeological Trust. Approximately 600 kg of pottery (some 45,000 sherds) was recorded context by context, the archive of this material being maintained by the Trust together with a fabric and form type series (see Sections II and III). The two latter will necessarily be augmented in future publications. The archive of the pottery comprises the quantification of the pottery by context, in a tabular format, together with its dating evidence. In order to avoid unnecessary duplication of illustrations, only assemblages of particular interest or which contribute to a sequence are presented in Section IV.

Twenty-seven contexts yielded approximately one third of the pottery. These were divided into eight dated phases, independently of the site phasing (which is presented below, Table 1). Each 'Ceramic Phase' is discussed in Section XII.1, while Section XII.2 comprises a summary of the pottery supply to Chelmsford.

Unless otherwise indicated all percentages in the fabric section (II), typology (III) and phase discussions (XII) derive from 'estimated vessel equivalence' (EVE : Orton 1975). Data on fabric are presented in two forms; in Table 2 as a simple total, incorporating all sites, and in Table 9 as a percentage of the Ceramic Phase assemblages.

The conclusions drawn in this report are tentative. They will be amplified and modified by work on other material from Chelmsford to be published in subsequent reports, and by my colleagues in other Essex units. It is hoped that its publication separately from the site reports (3.1) will not result in its being consigned solely to the shelves of ceramic specialists. Section XII has been written in the hope that those working in other disciplines than Roman pottery will find something of use there.

One of the more interesting results was from a study of the carbonized and absorbed residues (Section VII). The possibility of detecting traces of vegetable, animal and perhaps fish fats and oils has interesting implications. Taken in conjunction with the faunal report (3.1, Section IX.1-2) such data may provide an insight into dietary habit, food preparation and vessel function in Chelmsford.

It is my pleasant task to thank Gill Andrews, Donald Bailey, Paul Barford, Ruth Birss, Chiña de Bernay, Maggie Darling, John Evans, Michael Fulford, John Gillam, Chris Green, Marion Green, Kevin Greene, Katherine Hartley, Mark Hassall, Rosemary Jefferies, Frank Jenkins, Philip Kenrick, John Kent, Geoff Marsh, Clive Orton, Rob Perrin, Judith Plouviez, Richard Pollard, Mark Pomel, Richard Reece, Valerie Rigby, Beth Richardson, Kirsty Rodwell, Warwick Rodwell, Paul Sealey, Vivien Swan, Robin Symonds, Bill Tildesley, Hugh Toller, Catriona Turner, Paul Tyers, Bryn Walters, Katherine Way, Graham Webster and John Peter Wild for the provision of information, unpublished data, or other assistance with this report. Last but not least my thanks must go to Paul Drury whose advice has been invaluable. The pottery drawings are by John Callaghan, Paul Drury, Kirsty Rodwell, Isobel Thompson and Sue Holden, who also prepared and mounted them. The maps and histograms are the work of John Callaghan. Paul Drury drew Fig 34, Sue Holden Fig 43, and Kirsty Rodwell Figs 45-6. Nick Wickenden and Sue Holden provided much assistance with the pottery quantification. I am especially indebted to Vivien Swan for reading and commenting on a draft of Section V, to Chris Young for his comments on a draft of the text, and to Carol Cunningham and Nick Wickenden for their help and patient editorial assistance.

The relevant sites were all excavated in advance of redevelopment by the then Chelmsford Excavation Committee (and earlier Chelmsford and Essex Museum), primarily because of their potential contribution to our knowledge of the Roman town. They comprise the following:

S	59-63 Moulsham Street TL 70730621 Excavated 1972-3
Z	18-21 Orchard Street TL 70870622 Excavated 1972-3
AD	Rear of 36-42 Roman Road TL 70920622 Excavated 1849/50, 1947-9, 1957-8
AK	36-42 Roman Road TL 70900623 Excavated 1975
AR	30 Orchard Street TL 70820627 Excavated 1977-8
T	Site of Orchard Street Hall TL 70900630 Excavated 1972-3
AA	Rear of 179-80 Moulsham Street TL 70730629 Excavated 1969

Table 1 Site and Ceramic phasing

Site phases

<i>Period</i>	<i>Date</i>	<i>Sites</i> S	<i>Mansio</i> (Z, AD, AK, AR)	T	A	A			
I	Early prehistoric								
II	Iron Age AD 43								
III	Pre-Boudican AD 60/5								
IV		1							
		2							
		3							
		4							
	AD 90								
V									
	AD 120/125								
VI			1 timber mansio						
		1 civilian Buildings	c AD130						
		c AD160/75	2 stone mansio						
		2 town defences	c AD150						
			3 alterations						
	AD 200/210								
VII		1	1	1					
		c AD300			c AD 250-300				
		2	c AD 250-300	2					
		c AD350			c AD 300-20				
		3	2	3					
	AD 410/20								
VIII	Sub Roman								
Ceramic phases	1	2	3	4	5	6	7	8	
	AD60	80	120/25	160/75	200/10	250/60	300/10	360/70	400+

II The fabrics

The wares were divided on a macroscopic basis into 85 fabrics (not including variants), subsequently reduced for publication to 60 fabrics or fabric groups. The great quantity of coarse wares (especially sandy grey wares, fabric group 47) has dictated their summary treatment. More detailed separation on the basis of minor perceptible differences, which were many and of uncertain significance, did not seem commensurate with the results except in the case of the kiln waste (Section V). Fabrics whose origins have not been determined, or which derive from more than one source, appear in italics in Table 2.

Doubtful sherds were examined in fresh fracture at $\times 20$ magnification. Reference is made wherever possible to published fabric descriptions, only those not fully defined elsewhere being described in detail. The total incidence of each fabric is given in Table 2, and its incidence by Ceramic Phase in Table 9 (Section XII.1). It should be noted, however, that some pottery (body sherds of storage jars) was discarded at the time of the excavations. Table 2 is, therefore, a comparative guide only.

Table 9 is calculated by 'estimated vessel equivalence' (EVE: Orton 1975, 32) for each phase assemblage as a whole. The figures given for the various fabrics over time have been plotted by grouping well-stratified contexts of all periods from all the sites reported in Volume 3.1 (see Section XII, Table 8). Where only body sherds are present the occurrence of the fabric, the number of sherds, and its weight (to the nearest five grammes) is noted.

The final pottery report will contain a section devoted to the results of a thin-sectioning programme which it is hoped will permit some of the fabrics to be located with more confidence than is possible on visual inspection alone.

1 Colchester colour-coat

Description Anderson 1980, 35; Green 1980, 72

This fabric occurs in Chelmsford from the mid 2nd century (Ceramic Phases 3-4 onwards). Unsurprisingly in view of the proximity of the manufactory, it was the commonest colour-coated fabric present. Supply appears to have been comparatively short-lived, declining drastically during the early 3rd century (although residual sherds give a misleading impression in Ceramic Phase 7). Both barbotine-decorated and white-painted pieces are exceptionally rare, and the latest beaker forms (eg Type H42) are entirely absent in the fabric (see also Fabrics 27 and 38).

Forms ?C18, H20.1/1, 2/1, 3/1; H22.1/1; H25.1/1; H26.1/1, 2/1; ?H27.2/1; H32.1; H33.1/1; ?H35.1/1

2 Nene Valley colour-coat

Description Anderson 1980, 38; Howe *et al* 1981, 9

Wares from this industry do not appear to have reached Chelmsford in any quantity until well into the 3rd century (Ceramic Phase 5), although they have been claimed elsewhere in the region (eg at Verulamium) in Antonine contexts (M Wilson 1972, fig 122.790-2, 795-6). Thereafter supply slowly increases but the total for any Ceramic Phase assemblage never exceeds 5%. In the later 4th century (Ceramic Phase 8) Nene Valley colour-coat is perhaps the commonest fine ware (not including fine grey wares) after the Hadham fabrics. Although often attributed to the Nene Valley, forms such as cornice-rimmed

'bag-shaped' beakers, and decorated types such as 'hunt cups' have here been assigned to Lower Rhineland fabric 1 on chronological grounds (cf Anderson *et al* 1982). The majority of fragments are from later forms, eg plain or flanged-rim dishes, 'Castor boxes', jars, beakers with white slip-trailed decoration, and more rarely, flagons. Forms B1.2/1; B6; B10.2; C8.4/1; C11.1/1; C18.1/1; G28.1/1; H23.1/1; H24.1/1, 2/1; H32.1/1; H39; H41.1/1, 2/1, 2/2; H42.1/1; J12.1/1; K7.1/1

Stamp IX.4, no 19

3 Oxfordshire red colour-coat

Description Young 1977, 123

This fabric is not present in any quantity at Chelmsford until shortly after the middle of the 4th century, and the few sherds from Ceramic Phase 7 contexts derive from levels accumulating to this date. The reasons for its introduction may be connected with the disruption of established markets in central, southern and south-western Britain after the mid 4th century (Fulford 1979, 125-6). Its late appearance in Essex is now well documented at, eg, Colchester (Hull 1958, 110; Going 1984, 47-9), Braintree (Drury 1976a, 46) and Rawreth (Drury 1977, 40), and is repeated elsewhere in the east, eg at Lincoln (Darling 1977, 25) and Icklingham (West with Plouviez 1976, 88-9). Prior to this date the Hadham manufactory, whose characteristic oxidized products were widely distributed in the area from the late 3rd century onwards (M Pomel, pers comm), may have prevented the Oxfordshire colour-coats making substantial headway north of the Thames and in East Anglia.

Forms B10.2/1; C8.1/1; C25.1/1, 2/1; D3.4/1, 5/1; D6.1/1, 1/2, 1/3; D8.1/1; D9.1/1; D12.2/1, 3/1; E4.2/1; H16.1/1

Stamps IX.4, nos 20-21

4 Hadham oxidized red wares

Description Harden & Green 1978, 170, 174, n6

Wares which conform to the description of the later Hadham oxidized red fabrics occur at Chelmsford sporadically from the Flavian period onwards (eg the ring-and-block stamped bowls of Rodwell's group 2: Rodwell 1978, 243-5), but the well-fired, slipped and/or burnished products appear to be widely distributed only after c AD 270-80. At Chelmsford the fabric does not occupy a prominent place in any assemblage until the later 4th century, where it averages (for Ceramic Phase 8) 13.78%. This is, however, likely to be something of an underestimate of the influence of the industry, since this fabric may only represent a small total of the Hadham manufactory's 4th century output. At all periods, it most commonly produced grey wares, only a minority of which are typologically distinct. These may comprise a much more substantial proportion of the supply to the town than the statistics indicate. However, the rarity or lack of even typologically characteristic forms, eg the 'Braughing' jar (Type G21) and the absence of flange-rimmed bowls (Type B6) with internal burnished decoration (eg Braintree: Drury 1976a, fig 26.23), suggests that Chelmsford always lay outside the main area of coarse ware supply from Hadham.

Forms ?B10.2; C8.20, 3/1; ?C11; D7.1/1, 2/1; D12.2; E3; E6.1/1; ?G26.1/1; G32.1/1; ?H17.1/1; 57.1/1; J11.1/1; N11.1/1; N4.1/1

Stamps IX.4, nos 15, 18, 22

Table 2 Fabric incidence by number of sherds and weight (all sites)

	<i>No of sherds</i>	<i>Weight (gm)</i>		
'Colour-coated fabrics			White wares	
A Romano-British			22 ?Ceramique a l'eponge	1 10
1 Colchester colour-coat	361	2625	23 'Eggshell ware	2 5
2 Nene Valley colour-coat	276	2595	24 Nene Valley 'self-coloured wares	54 2410
3 Oxfordshire red colour-coat	97	1350	25 Oxfordshire white wares	27 1365
4 Hadham oxidised red wares	243	3350	26 Brockley Hill wares	385 7760
B Imported			Buff wares	
5 Lyons ware	3	15	27 Colchester buff ware	1165 24050
6 Lower Rhineland fabric 1	68	325	28 Mortaria of Kentish or Gallic origin	11 1060
7 North Gaulish (?Argonne region)	19	125	29 Verulamium region fine ware	141 1300
8 Central Gaulish Rhenish ware	36	210	30 Oxfordshire 'parchment wares	2 35
9 East Gaulish Rhenish ware	5	25	31 <i>Unspecified buff wares</i>	473 5665
Glazed wares			Grey wares	
10 South East English glazed ware	3	25	32 ?North Kent grey wares	223 1880
Mica-dusted wares			33 'London wares	42 175
11 <i>?Imported mica-dusted fine wares</i>	13	25	34 <i>Fine Romanising wares</i>	332 3265
12 <i>?Local mica-dusted wares</i>	78	725	35 ?Hadham black surfaced ware	108 1490
White-slipped red wares			36 Hadham grey wares	49 650
13 Oxfordshire white-slipped red wares	6	90	37 ?Highgate grey wares	2 65
14 Hadham white-slipped wares	16	170	38 Grey wares of ?Colchester origin	8 135
15 <i>Miscellaneous white- or cream-slipped sandy red wares</i>	229	2190	39 <i>Fine grey wares</i>	2008 19810
Miscellaneous slipped red wares			40 Black-Burnished 1	86 2935
16 <i>Miscellaneous fine white- or cream-slipped red-buff wares</i>	35	545	41 Black-Burnished 2	196 3675
17 <i>Miscellaneous slipped red wares</i>	54	385	42 Unspecified Black-Burnished 2	1 60
Red wares			43 Alice Holt ware	32 940
18 A fine-slipped red ware of ?Hadham origin	12	65	44 <i>Storage jar fabrics</i>	2855 133440
19 'London-Essex stamped wares	37	190	45 <i>Romanising grey wares</i>	12037 10030
20 'North Essex stamped wares	1	10	46 New Forest grey wares	1 140
21 <i>Miscellaneous oxidised red wares</i>	734	5700	47 <i>Sandy grey wares</i>	19510 222185
			48 Rettendon wares	1467 27030
			49 'Grey-green mortaria	9 245
			Shell-tempered Fabrics	
			50 ?South Essex shell-tempered ware	534 5875
			51 <i>Late shell-tempered ware</i>	342 2695
			Miscellaneous tempered fabrics	
			52 ?'Lime'-tempered fabrics	9 80
			53 <i>Grog-tempered fabrics</i>	87 1890
			54 <i>Mayen ware</i>	3 315
			Amphora fabrics	
			55 South Spanish amphorae	59 7835
			56 South Gallic amphorae	8 1330
			57 Amphora fabric of uncertain origin	1 95
			58 Amphora fabric of uncertain origin	7 240
			59 'Chalk type	1 55
			60 All samian	(see Section VIII)

5 Lyons ware

Description Greene 1979, 13-42

Sherds from two bowls of Greene type 5.1 (*ibid*, fig 6) were found in a Period IV context (AR29), and a small fragment in Period IV3 context S211. The fabric generally occurs in pre-Flavian contexts, and the industry appears to have collapsed c AD 69.

Form F1.1/1

6 Lower Rhineland fabric 1

Description Anderson 1980, 14

Of the few colour-coated products noted in early to mid 2nd century contexts, the majority are likely to be continental imports from sources in the Lower Rhineland/Cologne region. The few rough-cast or barbotine-decorated 'hunt cups' from 2nd century contexts in the town are likely to be from this source rather than the Nene Valley, both on ceramic and chronological evidence (Anderson *et al* 1982, 233, 235).

Forms H20.1/1, 2/1, 3/1; ?H22.1; H23.1; H25.1

7 North Gaulish (?Argonne region) fabric 1

Description Anderson 1980, 28

The fabric has an incidence spanning the 2nd century, forms being restricted to cornice-rim beakers, both folded and plain, and occasionally vessels with everted rims. Examples were assigned to this group on the basis of the characteristic diagonal 'wipe marks' noted by Anderson (*ibid*, 28). Never common, North Gaulish products appear to have been progressively displaced in the 2nd century by Colchester fine wares. Anderson sees the distribution of our Fabrics 6 and 7 as virtually exclusive (*ibid*, figs 3, 5), but Fabric 7 occurs in London and may be present on other eastern sites in small amounts.

Forms H20.1/1, 2/1, 3/1; ?H26.1/1

8 Central Gaulish Rhenish ware

Description Greene 1978a, 18

Although it totals only 210g, Central Gaulish Rhenish ware is the commonest of the later 'Rhenish' imports. Vessels represented include a cup, pedestal and footring beakers, and fragments of rouletted, folded types (cf *ibid*, fig 2.3.4-5.9). The fabric occurs in contexts of c AD 170-200/40; sherds from later contexts are probably residual.

Forms F2.1/1; H27.1; H28.1

9 East Gaulish Rhenish ware

Description Orton 1977, 42; Greene 1978a, 18

This fabric is very uncommon at Chelmsford. Most sherds were from beakers. Only one had surface decoration, two zones of rouletting. Greene argues their importation from the later 2nd to the mid 3rd century, a date with which the Chelmsford evidence is not in conflict.

Form H27.W

10 South-east English glazed ware

Description Arthur 1978, 300

The fabric is represented only by a single bowl sherd, residual in the later 2nd century pit AA1.8 (Ceramic Phase 4), and two other fragments. The sources of

Romano-British lead-glazed fabrics are varied, but the 'south-east English' group to which the sherds belong probably originated in the Staines area (*ibid*, 298-308).
Form C24.1/1

11 ?Imported mica-dusted fine wares

Description Green 1980, 69

Only a few sherds of these wares are present. Few are sufficiently large for types to be recognized, although most sherds are from closed forms. Thought to be a continental import, probably from the Rhineland.

Forms H1.5/1; J5.2/1

12 ?Local mica-dusted wares

Description Marsh 1978, 122-3

The fabric group is uncommon at Chelmsford, occurring in Flavian to early/mid 2nd century contexts and residually thereafter. The form range is wide, including Marsh (1978) ff 3, 12, 20, 22, 24, 27, 34-5, 37, 42, and possibly 44. The fabric varies in colour from red to dark grey. The origins of these wares are varied, but most probably derive from Colchester (Hull 1963, 101, 107; figs 56, 59).

Forms A4.2/1; B1.6/1; C1.1/1,2; C1.2/1; C2; C34.1/1; H13.2/1; H34.1/1; JS.1/1

13 Oxfordshire white-slipped red wares

Description Young 1977, 117

The few sherds noted are all from mortaria of Young type WC7 (*ibid*, fig 38) of which no example was sufficiently complete to be illustrated here. Like Oxfordshire red colour-coat the fabric only occurs in mid to late 4th century (Ceramic Phase 8) contexts, although in Kent the fabric has been noted in later 3rd century contexts, eg at Chalk (Johnston 1972, 130 no 47) and Richborough (Young 1977, 122).

14 Hadham white-slipped wares

Description Brownish-orange matrix (2.5YR 5/8, 5YR 5/3), often developing a grey core. Either hard and smooth or sandy and friable to the touch. A slip is applied to the exterior of flagons and overall on open forms. It varies in colour from pure white (2.5Y 8/2) to a matt reddish-yellow (7.5YR 7/6-8/6) and appears to contain abundant quartz particles in suspension which give a 'roughcast' effect. Flagon forms are often burnished overall to give a smooth finish. A finer slip may be used on some closed forms.

This fabric is common in the west Essex/Hertfordshire border area, most notably in the 2nd century. It is prolific in a Harlow pit group of mid 2nd century date (Felmongers: unpubl) where the presence of nearly complete forms with vertical neck burnishing characteristic of later Hadham products strengthens the attribution. Forms found include ring-necked flagons, poppy beakers (these not at Chelmsford), 'block-stamped' mortaria, and carinated bowls. White-slipped wares persist until the end of the Roman period, eg in 4th century contexts at Culver Street, Colchester (R Symonds, pers comm), but none have been observed in late 4th century contexts at Chelmsford.

Forms D3.1/1; H13.1/1; J10.1/1

Stamp IX.2, no 12

15 Miscellaneous white- or cream-slipped sandy red wares

These fabrics probably derive from many sources and exhibit a wide range of minor typological variations. Like Fabric group 21, these have been little studied, although they are probably local products. It is hoped that it will be possible to characterize them in a subsequent report.

16 Miscellaneous fine white- or cream-slipped red-buff wares

Fine-slipped buff wares of uncertain origin, but probably originating in the Colchester kilns. Most common in the 1st to 2nd centuries. Vessels represented include flagons and other closed forms as well as miscellaneous open types. Only fragmentary forms, mainly of vessels of the flagon and beaker classes, were found.

Forms H1; J3

17 Miscellaneous slipped red wares

These are oxidized fabrics with a variety of slips and washes. Their origins are uncertain-either Colchester or Hadham is feasible. Vessels comprise mainly open forms and flagons, largely of late 1st to early/mid 2nd century date.

Forms H1; H1.2; J3

18 A fine-slipped red ware of ?Hadham origin

Description A fine fabric with sparse-moderate inclusions of quartzite <c 0.2mm, and sparse inclusions of black ironstone. The fracture is finely irregular. Colour of core, margins and surface where not slipped: red-light red (2.5YR 5/8-6/8); where slipped the surface is red (2.5YR 5/6)

A few sherds of a platter with a chamfered base were found in AK136 (VII-1). Some of the finest products assigned to the Hadham potteries resemble Argonne ware (see Hull 1958, 138, fig 58.17; Rodwell 1978, 260-2, fig 7.16:119-20). A range of stamped forms, mainly f37 bowls, were made in this fabric, possibly by potters familiar with Colchester samian manufacture (Rodwell 1982, 57).

Form B1

19 'London-Essex' stamped wares

Description Rodwell 1978, Group 2: 234-45

Vessels in this fabric occur in later 1st to early 2nd century contexts at Chelmsford. The fabric is strongly reminiscent of some early Hadham products, and probably originated in that area (*ibid*, more definitely asserted in Rodwell 1982, 56). The mid to late Flavian date range postulated by Rodwell suggests these wares are the earliest products of the industry to be traded over a wide area.

Forms C10.10; C12.1/1; ?C12.3/1; C23.1/1, 2/1, 3/1

Stamps IX.3, nos 1-6, 8

20 'North Essex' stamped wares

Description Rodwell 1978, Group 3: 245-8

A single sherd only, from a vessel of uncertain form (Rodwell group 3B). There is little evidence for a specific

source: Rodwell suggests either Hadham or possibly Colchester on the evidence of the number of his group 3A sherds found there.

Stamp IX.3, no 7

21 Miscellaneous oxidized red wares

A wide variety of fabrics (and forms) of disparate but probably local origin. The majority are perhaps products of the Colchester industry. Little has been done to isolate these fabrics, but it is hoped that it will be possible to characterize them in detail in the second Chelmsford report.

22 ?Ceramique à l'éponge

Description Fulford 1977, 45-6

Only a single sherd has been noted, from Period VII.3 (T2). It is abraded and the identification is not certain. The form appears to be closed, by contrast with the majority of finds elsewhere. Uncommon as a site find in Essex, and in the east of Britain generally, although Mucking has produced 16 sherds.

23 'Eggshell' ware

Description Marsh 1978, 129

Only three sherds from a closed form were found, in S182 (VI.1). Otherwise recorded in Essex only at Colchester, from which pre-Flavian examples are known (eg Hawkes & Hull 1947, pl LIII.65).

24 Nene Valley 'self-coloured' wares

Description Howe *et al* 1981, 9- 10

Products in this fabric are restricted to mortaria of Type D14 (*ibid*, fig 8.102) which occur in later 3rd to early mid 4th century contexts (Ceramic Phases 6-7). Never common, its absence from Ceramic Phase 8 contexts would match a possible decline in production during the later 4th century (*ibid*, 10). Apart from mortaria, Nene Valley 'self-coloured' products appear to have been confined to a largely local market.

Forms ?D10.1/1, D14.1/1, 1/2, 2/1

25 Oxfordshire white wares

Description Young 1977, 56

In contrast to the oxidized red colour-coats (Fabric 3) and white-slipped oxidized wares (Fabric 13), Oxfordshire white wares occur in Chelmsford from the mid to late 3rd century, at about the same time as the Nene Valley 'self-coloured mortaria' (24). There is some evidence that Oxfordshire white wares were appearing in Essex at a very early date-and the industry certainly appears to have won an East Anglian and Essex market for mortaria within a few decades of its expansion c AD 240 (Young 1977, 67-8). The likeliest reason for the early success of Oxfordshire mortarium production was the collapse of Colchester as a market force in the early 3rd century.

Forms D5.1/1, 1/2, 2/1, 3/1; D7.2; D12.1/1

26 Brockley Hill wares

Description Green 1980, 49

Although the fabric occurs in all Ceramic Phases, the manufactory appears only to have been in production c AD 60- 160/70. Although a prolific supplier to the London market, the industry never appears to have made

major inroads into the Essex region. At Chelmsford, it peaks at 2.72% in Ceramic Phase 2 (c AD 80-120/5). Reduced Brockley Hill sherds formed a very small proportion of the fabric total. The most successful form was the segmental bowl; demand for mortaria and flagons appears to have been negligible by comparison. Kiln sites have been excavated at Brockley Hill itself (Richardson 1948; Castle 1973), Bricket Wood (Saunders 1976), and Verulamium (Corder 1941; Anthony 1968).

Forms C16.1/1, 2/1, 2/2, 3/1, 4/1, 4/2, 5/1, 5/2; G12.1/1; J3.3/1, 4/1, 5/1; J6.1/1
Stamps IX.2, no 2

27 Colchester buff ware

Description Hull 1963, 107-8

First century forms include bowls, mortaria, drinking vessels and flagons. In the first half of the 2nd century the fabric is less common, but during the latter half of the century increases substantially, in concert with the expanding colour-coat industry (see Fabric 1). In this latter period, however, forms are restricted almost exclusively to mortaria. Both branches of the Colchester industry lost their impetus by the early 3rd century and after Ceramic Phase 4 (c AD 150-200/10) the fabric is present only in minute quantities.

Forms C26.1/1; D1.1/1, 2/1, 3/1, 3/2, 4/1, 6/1; D2.1/1, 1/2, 1/3, 2/1, 3/1; D3.2/1, 3/1; D4.1/1, 2/1; D11.1/1, 2/1; D13.1/1, 2/1; H37.1/1; J1.1/1, 2; 53.1/1, 2/1; Q1.1/1, 1/2; 42.1/1

Stamps IX.2, nos 1, 3-5, ?6, 7-11

28 Mortaria of a Kentish or Gallic origin

Description Hartley 1977, 11

As yet the sources of these products, which fall into two groups (I-II) on typological grounds, have not been isolated. They have been assigned a date range of c AD 55-85 and c AD 65- 110+ respectively. A few fragments of mortaria belonging to Hartley's group I have been noted at Chelmsford, but their products never took a major share of the mortarium market.

Form D1. 5/1

29 Verulamium region fine ware

Description Green 1978, 109- 18

The fabric resembles the Brockley Hill-Verulamium paste, although with much sparser inclusions. Only one form is represented-the distinctive ring-and-dot beaker, which is also known in a different fabric in the Cherry Hinton kilns, Cambs (McKenny Hughes 1904). The distribution of the former group is concentrated in the London area; it is rare in Essex, and unrepresented in the Colchester typologies. A Brockley Hill-Verulamium origin is probable.

Form H1.6/1

30 Oxfordshire 'parchment' wares

Description Young 1977, 81

Never common in Chelmsford, parchment wares from Oxfordshire, and perhaps the Nene Valley are only represented in the latest Roman levels. Open forms are present, but with one exception are too fragmentary for classification.

Form ?E3.1/1

31 Unspecified buff wares

Like Fabric groups 15 and 17, this group includes wares of disparate, but probably largely local origin: Colchester is the most likely source, but a south Essex, Hertfordshire, or East Anglian origin is possible. The fabric group is most common in the 1st and 2nd centuries, and is probably residual thereafter. Forms comprise drinking vessels, bowls, and miscellaneous closed forms, but these were fragmentary and seldom classifiable beyond class.

Forms C7.1/1; H1; H6; H7.1; H8.1; J1.2/1; J2.1/1, 2/1; J3.3-4; J4.1/1, 2/1; J8.1/1; J9.1/1; M1.1/1; Q3.1/1

32 ?North Kent grey wares

Description Green 1980, 69, 72

It is difficult to distinguish the sources of these distinctive, but relatively uncommon, wares. Forms comprise almost exclusively drinking vessels, either carinated cups or poppyhead beakers. There is evidence of the manufacture of the former in Colchester, but in the absence of more compelling evidence in favour of this source either a London or a north Kent origin is equally feasible. See also Fabric 33

Forms H5.1/1; H6.1/1, 2/1, 3/1; H10.1/1; 1/2; H14.2/1

33 'London' wares

Description Marsh 1978

In many ways similar to Fabric 32, with which it also shares several decorative traits. The only forms present are imitation Drag 37s with scribed semi-circles and vertical combing below the rim, and bowls with S-shaped profiles. Closed forms (eg Marsh 1978, f 51) are absent. The date range at Chelmsford is approximately Flavian to Hadrianic.

Forms C1.1/2; C6.1/1, 2/1; C10.2/1

34 Fine Romanizing wares

This resembles closely the much more common Fabric 45, and probably shares with it an origin in the Colchester/Ardleigh potteries. Other sources are possible: it closely resembles a fabric, probably originating in the Hadham region, which was widely marketed in the later Roman period (see Fabric 35 below). Most common in the 1st to later 2nd centuries.

Forms A2; A2.5/1; A4; A4.5-6; C4.1/1; C14.1/1, 2/1, 3/1; C15.1/1, 2/1; C22.1/1, 1/2, ?2/1, 3/1, 4/1; G29.1/1, 2/1; H1; H1.4/1; H10.1; H11.1/1, 1/2; H12.1/1; H14.1/1; H17.1/1; H18.1/1

35 ?Hadham black-surfaced ware

Description A distinctive fabric with a black-red core, dull reddish-black margins, and a very dark grey-black surface (7.5YR N2-3). Usually burnished with regular horizontal strokes to a high gloss overall, but once abraded difficult to distinguish from the mass of fine grey wares (Fabric 39). Decoration comprises occasional burnished lattice, or 'Romano-Saxon' motifs.

In absolute terms the fabric is more common than BB1 or BB2 and persists until the end of the Roman period. It is rare at Colchester (P Kenrick, pers comm), but common in west Essex and east Hertfordshire, where a wide range of forms is found. Small sherds are often hard to distinguish from 'fine Romanizing' fabrics (see 34 above).

Forms found at Chelmsford comprise plain, beaded and flange-rimmed dishes and Romano-Saxon decorated jars.
Forms B1.2/1, 3/1; B2; B3.1/1, 2/1; B6; G31.1/1, 1/2, 2/

36 Hadham grey wares

Description For references see Fabric 4

This fabric is rare at Chelmsford. Apart from its colour it is finished in exactly the same way, and occurs in many of the forms, as the oxidized red products (Fabric 4). The fabric appears to have been manufactured throughout the 4th century and distributed as widely as the oxidized products, probable examples being found as far afield as Water Newton (Johns & Carson 1975, fig 3), Littlecote, Berks (B Walters, pers comm), and Caister-by-Yarmouth (Higgins 1972, eg fig 8.68). Less distinctive examples are probably quite common throughout East Anglia, but are unlikely to have been separated from the mass of grey wares.

Forms G21.1/1; ?G40.3/1; ?H15.1/1

37 ?Highgate grey wares

Description Brown & Sheldon 1969, 63-4; 1971

A Highgate source for this fabric is possible; however, it is comparatively common in west Essex, and in view of the possible links between the 'London-Highgate (group 1) and 'London-Essex (group 2A) wares noted by Rodwell (1978, 243) the probability that a similar fabric was made at Hadham is high. Sherds of poppy beakers in this fabric occur in some quantity in the Felmongers pit, Harlow, deposited c AD 160 (unpubl). A variant of this fabric, visually similar to the Highgate material, can be seen under magnification to contain moderate-abundant quantities of black ironstone—a characteristic of Hadham oxidized red ware (4). The form noted here is a small closed vessel, possibly related to the poppy beaker.

Form ?H29.1/1

38 Grey wares of ?Colchester origin

While indistinguishable on fabric grounds from Fabric group 47, a number of vessels from 2nd to 3rd century contexts are very similar on typological and stylistic grounds to examples from Colchester, and were probably imported into Chelmsford with buff wares and colour-coated fabrics from the Colonia. Forms appear to be restricted to beakers, although the rare *Cam* 268B is probably also of Colchester origin.

Forms ?G25.1/1; H30.1/1, H35.2/1; H42.2/1

Stamp 1X.4, no 14

39 Fine grey wares

Fine grey wares form a group of fabrics characterized by the relative absence of sand or quartz fillers. Their origins are disparate, but few sherds can be characterized to source. Virtually all classes of vessels are represented except storage jars and amphorae. They constitute a substantial proportion of each assemblage. The abnormally high incidence of the group in Ceramic Phases 6-7 suggests an attempt to revive a fine grey ware industry in the later 3rd to early 4th centuries, and may be connected with a substantial increase in output by the Hadham industries at this date.

Forms A1.1/1; A2.2/1; A4.6; B1; B2.1/1, 2/1; B3; B3.2; B4; B4.2; B5; B6.1; B6.2; B9.1/1; C2.1/1, 2/1, 2/2; C3.1/1; C5.1/1; C12.2/1, 4/1; C13.1/1; C14.3; C20.1/1; E2.3;

E3.4/1; E5.1, 2, 4; G5.4; G5.5; G8.1; G9; G14; G16; G17; G17.1; G19; G19.2; G29.1; G36-40; ?G39.1; G40.3/2; H1.2; H1.2-3; H2.1/1; H7.3; H9.1/1; H14.2/2, 3/1; H19.1/1; H21.1/1; H31.1/1; H34.2; H35.1,2; H38.1/1; H42.2; S1.1/1

40 Black-Burnished 1

Description Farrar 1973, 86-97; Williams 1977, 189-90

This fabric never exceeds 3% of any Ceramic Phase in Chelmsford except 8, where the anomalously high figure of 6.7% is largely due to the assemblage from ditch T71/80 (Group 20). While the BB1 assemblage itself is unremarkable, it is interesting to note that it first occurs in Phase 3, but is then absent until Phase 6—taking advantage of the decline in BB2?

Interestingly, Gillam's suggestion (1977, 70-2) that his forms 229-30 and 330 were intended for use together is strongly supported by the discovery of such a pair of vessels (used as dish and lid) on site T (3.1, fig 36, T9; Fig 1, B1.4/1 and Fig 2, B6.3/1). The occurrence of BB1 in the late ditch T71/80 (Section IV, Group 20) suggests that the town continued to be supplied with small amounts of the fabric until almost the end of its production period, conventionally set at the mid 4th century for jars (Gillam 1977, type 14), but which probably continued almost until the close of the 4th century (Farrar 1981, 426). However, the latest BB1 jar types with oblique burnished lines and chevrons, present in post AD 360 contexts at Catsgore (Leech 1982, fig 109.422-5) and II-Chester (Leach 1982, figs 75.365, 76.369-70), and in Theodosian groups at Dorchester (G Andrews, pers comm), are absent from Chelmsford, suggesting that widespread trading had ceased by c AD 380/90.

Forms B1.4/1, 4/2, 5/1; B5.1; B5.2/1; B6.3/1, 3/2; G9.1, 4/1

41 Black-Burnished 2

Description Farrar 1973, 97-101; Williams 1977, 180, 195-6

The fabric is only sporadically represented in pre 3rd century contexts. Most sherds occur in contexts of 3rd to mid 4th century date, after which the fabric—by this time residual—is exceeded (in terms of EVE) by BB1. Towards its source areas, BB2 becomes increasingly difficult to define; 'allied types, both in form and fabric, abound. Colchester has been claimed as a production site (Williams 1977, 195-6), and Chelmsford BB2 is reminiscent of William's group XII (Colchester) products (*ibid*, 180). However, the source of the Chelmsford BB2 is perhaps equally likely to be south Essex or the Cliffe kilns. Neither Black-Burnished fabric was as common as a black-burnished fabric from the ?Hadham area (35). There is no evidence at Chelmsford, *contra* Williams (1977, 207) for production of BB2 types in Colchester as early as c AD 70, as claimed by Hull (1963, 178). Indeed the lack of the lattice decorated bead-rimmed dishes common in Kent, as Pollard (1982a) notes, suggests Essex BB2 production may have commenced in the later Antonine period, c AD 170-80. BB2 first appears at Chelmsford, as at Southwark (Marsh & Tyers 1978, 575-7), in contexts dated c AD 125/30. But see Section IV, Group 3, (Fig 22.79-81) for possible prototypes of the earliest BB2 dish form.

Forms ?B2.1; B2.3/1; ?B3.2; B4.2/1; G9.1/1

42 Unspecified black-burnished 2

Description Fabric with a grey-black core, margins and surfaces, with sparse-moderate inclusions of ill-sorted quartzite < 0.4mm in diameter and abundant ill-sorted ?limestone inclusions. Finely irregular fracture, smooth feel

Various sources apart from the Poole/Wareham area have been proposed for the manufacture of Black-Burnished 1, eg Rossington Bridge (Williams 1977, 194) and recently a source in Devon (Green 1980, 62), although the quantities of these products reaching the south-east is minute (*ibid*, fig 44). With Black-Burnished 2 the number of proposed centres is substantial (Williams 1977, 177-184; Peacock 1982, fig 44) and other minor sites undoubtedly await discovery. There is only a single sherd of this fabric (S, unstrat), which suggests a non-local source.

43 Alice Holt ware

Description Lyne & Jefferies 1979, 18

The fabric is first noted in contexts dated to the end of Ceramic Phase 7 (c AD 360/70), and there is little evidence for the trading of vessels from the Alice Holt potteries to the north-east of London prior to the mid 4th century. Where identifiable, the forms are almost exclusively storage jars of Lyne & Jefferies types 1C and 4.45 (*ibid*, figs 25, 30), although a single flagon of Lyne & Jefferies type 8.10-11 (*ibid*, fig 40) occurred in a late pit on site T (T3li-iv; Group 18, Fig 31.357). There was no dearth of 4th century storage jars made in the Chelmsford region (indeed they were produced in the kilns at Chelmsford and Inworth: Section V), so some credence may be attached to the view that the appearance of these jars was associated with a specific traded commodity (*ibid*, 57). The presence of the flagon is interesting. The form is known north of the Thames in small numbers (*ibid*, fig 50), but the presence of a probable New Forest grey storage jar rim in the same context (Fig 31.354) may hint at the movement of chattels (cf Fabric 46).

Form G41.1/1; J13.1/1

44 Storage jar fabrics

Storage jar fabrics probably derive from many centres both large and small. Early products are in a variety of reduced and oxidized fabrics with abundant inclusions of black grog. From the later 1st century AD the fabric is more commonly a grey ware with sparse to moderate large inclusions which protrude from the surface. There seems to be a relative decline in numbers of such vessels during the Roman period, from an early peak to negligible quantities in the early 4th century, then increasing towards the end of the century.

Forms G42.2/1, 2/2; G43.1/1; G44.1/1, 2/1, 3/1, 4/1, 5/1; G45.1/1

45 Romanizing grey wares

Description Varied fabric with a dull reddish-brown (5YR 5/3-4) or brown core (7.5YR 5/2), contrasting margins varying between 5YR 4/3 and 7.5YR 4/6. Surfaces range from a dark grey (10YR 4/1) to black (10YR 3/1). Sparse-abundant inclusions of red grog <3mm diameter; sparse, ill-sorted inclusions of black grog <3mm. Sparse-moderate inclusions of ill-sorted quartzite

< 0.5mm in diameter. Wheel-thrown, with an irregular fracture. Generally smooth feel

This fabric group which should be regarded as the post-conquest continuation of the grog-tempered fabric, recently studied by Thompson (1982), was one of the commonest during the 1st century, and most prolific in Ceramic Phase 1. It declined rapidly thereafter. The range of forms is wide. A possible origin for this fabric is the Colchester/Ardleigh kilns: certainly the fabric is most common in north Essex and the forms closely match those from Colchester.

Forms A1.1/1; A2.1/1, 1/2, 2/1, 3/1, 4/1; A3.1/1; B1.1/1; B2.4/1; B7.1/1, 1/2, 1/3; C9.1/1; C27.1/1; C28.1/1; C30.1/1; C31.1/1; C32.1/1; C33.1/1, 2/1, 2/2; E6.2/1; E8.1/1, 1/2; G1.1/1; G3.1/1, 2/1; G4.2/1; G5.3; G8.1/1, 1/2; G13.1/1; G14.1/1, 1/2, 2/1; G15.1/1; G16.1/1, 2/1, 2/2; G17.1/1, 1/2, 1/3, 2/1; G18.1/1; G19.3; G19.4/1, 4/2, 5/1; G20.1/1, 1/2, 2/1; G23.1; G29.3/1, G30.1/1, 1/2, 2/1; G38.3/1; H1.1/1, 2/1, 2/2, 3/1, 3/2, 4, 7/1; 8/1; H3.1/1; H4.1/1; H7.1/1, 2/1, 3/1; H8.1/1; K1; K2.1/1; K3; K4.1/1; M1.2/1; N3.1/1; R1.1/1

46 New Forest grey wares

Description Fulford 1971, 15

Grey wares formed a major component of the New Forest industry, and a wide variety of forms occurs in their immediate vicinity. About 80% were probably 'sold within a radius of 30 miles (Fulford 1975a, fig 54), although some may have reached Richborough (Young 1977, 152, cf his form C21). The presence of a single large bowl-jar so far from the kiln sites, and almost beyond the known range of the colour-coat fabrics (Fulford 1975a, fig 55; but cf Section XII.3) deserves some comment. A possible explanation, when this vessel (Fig 31.354) is taken in conjunction with the Alice Holt flagon and the comparatively large amount of BBI from the same context (T3li-iv; Group 18, Fig 31.346-357), is that these represent the household effects of individuals from the Hampshire region.

Form G41.2/1

47 Sandy grey wares

Description These fabrics are grey wares derived from a variety of sources, but not falling within Fabric groups 29-45. Colours range from brownish-buff through grey to near black, and inclusions vary in size and frequency from fine to coarse, sparse to abundant. The group includes all the coarse wares presumed to be of local origin and characterized by their reduced or sometimes partially-oxidized sandy fabrics. That the fabric group includes strays is to be expected, but unless these exhibit typological peculiarities they are unlikely to be picked up. Care was taken lest continental grey ware types be overlooked.

Initially the most common coarse ware was Fabric 45, but by the mid 2nd century it was replaced by sandy grey wares which remained the most prolific fabric group until the end of the Roman period. Its occurrence peaked in the 3rd century at c 65% of the Ceramic Phase 5 assemblage, declining to 29.70% in the mid to later 4th century (Ceramic Phase 8). Virtually all the main types of the typology are represented in grey wares.

Forms (those in italics are Moulsham Street kiln products). A4.1/1, 3/1, 4/1, 5/1, 6/1; B1.1/1, 3/1, 6; B2.1/1, 1/2, 5/1; B3.1/1, 2/1, 2/2; B4.1/1, 2, 2/2; B5.1/1, 1/2;

B6.1/1, 2/1; B8.1/1, 1/2, 2/1, 3/1; C7.2/1; C17.1/1; C19.1/1, 2/1; C21.1/1; C29.2/1; D7; *E1.1/1*, 2/1; *E2.1/1*, 2/1, 3/1; *E3.2/1*, 3/1, 4/2; *E4*; *E5.1/1*, 2/1, 3/1, 4/1, 4/2; *E6.3/1*; *E7.1/1*; *G3.1*; *G5.1*, 2, 3/1, 4/1, 5/1, 6/1, 6/2; *G7.1/1*, 2/1; *G8.1*; *G9.1*, 2/1, 3/1; *G10.1/1*, 2/1; *G11.1/1*; *G17.1-2*; *G18.2/1*; *G19.1/1*, 1/2, 2/1, 3/1; *G20*; *G22.1/1*, 1/2; *G23.1/1*, 2/1, 3/1, 4/1; *G24.1/1*, 1/2, 2/1, 2/2; *G25.1/1*; *G33.1/1*; *G34.1/1*, 1/2; *G35.1/1*, 2/1, 2/2, 3/1; *G36.1/1*, 2/1; *G37.1/1*, 1/2; *G38.1/1*, 1/2, 2/1, 4/1; *G39.1/1*; *G40.1/1*, 2/1; *G42.1*, 2, 3/1, 3/2; *G45.1/1*; *G46.1/1*; *H34.2/1*; *H36.1/1*; *H39.1/1*, 2/1; *H40.1/1*; *K1.1/1*, 2/1; *K3.1/1*, 2/1, 3/1; *K5.1/1*; *K6.1/1*, 1/2; *L2.1/1*, 1/2; *M2.1/1*, 1/2; *N2.1/1*; *R2.1/1*; *R3.1/1*, 2/1, 3/1; *S2.1/1*

48 Rettendon wares

Description A sandy grey ware with inclusions of colourless and milky quartz < 1mm in diameter, and moderate-abundant inclusions of ill-sorted flint < 3mm in diameter. The fracture is irregular and the finish is rough. Colour of core and margins: 7.5YR N3/, colour of surfaces: 2.5Y N5/, although there is considerable range of colour.

The term 'Rettendon' refers to a *style* of fabric rather than to its specific origin. It first occurs at Chelmsford in contexts dated to the final decades of the 3rd century. Although its apparent high incidence in Ceramic Phase 7 may be the result of the proximity of the only substantial early to mid 4th century contexts to the Moulsham Street kilns which produced the fabric, there seems to be little doubt that the early to mid 4th century was the *floruit* of the industry. The Moulsham Street kilns ceased production c AD 360/70, and this is well reflected in the Ceramic Phase 8 contexts (cf Section XII.2 and Table 8). Whether the fabric continued to be made elsewhere in the latter half of the 4th century is at present unknown, but a preliminary examination of contexts at Wickford suggests that the kilns at Rettendon were in decline at this period. The 'home market' of the industry appears to have been east central Essex: it occurs in some quantity at Wickford, c 2km south-west of the Rettendon kilns, and was also made at Sandon (Drury 1976b, 253-8) and Inworth (Section V). Vessels in *italics* were made in the Moulsham Street kilns.

Forms B1.2, 3; B3.2; B5.1; B6.1, 2; E1.1, 2; G24.1, 2; G35.1, 2; G40; G42.1/1, 1/2, 2, 3; L2. 1/1

49 'Grey-green' mortaria

Description A sandy fabric with moderate inclusions of colourless quartz < 1mm in diameter and sparse-moderate ?limestone voids < 1.5mm in diameter. Also sparse inclusions of ill-sorted flint < 2mm in diameter. Irregular, hackly fracture. Colour of core and margins: light grey to light greenish-grey (5Y 7/1-5GY 7/1). The surfaces are often badly mud-stained, but are yellow (5Y 7/8). Sparse-moderate ill-sorted trituration grits of flint < 3mm in diameter. Powdery feel

One of a number of mortarium fabrics of uncertain origin, but probably from a local or East Anglian source. The sherds found were too fragmentary for any forms to be identified.

50 ?South Essex shell-tempered ware

Description Green 1980, 65

This ware is commonly found over much of south Essex and in north Kent, where it was almost certainly

also made. Tempering material, fairly finely crushed shell, is abundantly available from shell deposits in the Thames estuary. Kilns have been found at Gun Hill (Drury & Rodwell 1973, 1, 15,24) and Mucking (Jones & Rodwell 1973). It is fairly common in central Essex in the 1st century AD, accounting for about 5% of pre-Flavian assemblages from Chelmsford. In south Essex it is probably the most abundant coarse ware, amounting to perhaps 70% of the 1st century groups from Mucking (R Jefferies, pers comm). By the Flavian period it was being replaced by sand-tempered fabrics, and it all but disappears in the early 2nd century. The principal forms are ledge-rimmed jars and, rarely, cauldrons.

Forms G2.1/1; G4.1/1; G5.1/1, 2/1; G6.1/1; L1.1/1, 2/1

51 Late 'shell-tempered' ware

Description Sanders 1973

Most of this pottery from Chelmsford appears to derive from a single, as yet uncertain, source. It ranges in colour from light brown (7.5YR 6/4) or reddish-brown (10R 5/4) to black-grey (7.5YR N3/), with abundant inclusions of fossil shell. Few of the sherds examined have the lighter red colour (5YR 6/6) of shell-tempered pottery perhaps made in the lower Nene Valley. One sparse inclusion, fragments of terabratalid brachiopod, may be diagnostic of pottery from this source (K Way, pers comm). Only jars with rilled shoulders (Type G27; Sanders type 3), and, rarely, flange-rimmed bowls (Type B5.3; Sanders type 5) are present. While the origins of late 'shell-tempered' pottery supplied to Chelmsford are uncertain, they have been provisionally sourced at Harold, Beds in Figs 58-9. (See also Ceramic Phases 7,8.) However, a lower Nene Valley (Howe *et al* 1981, 10) or Lakenheath source for the Chelmsford products, is at least possible (V Swan, J Plouviez, pers comm).

Forms B5.3/1; G27.1/1, 2/1

52 ?Lime-tempered fabrics

Description A coarse fabric with sparse-moderate inclusions of ill-assorted quartzite, also sparse-moderate voids < 2mm in diameter, with reaction rims suggesting the former presence of calcareous material. The shape of the voids rules out the use of shell as a tempering, and crushed chalk or lime was probably used.

Only a few coarse sherds were found; no forms were identified. Date range: Ceramic Phases 1-2

53 Grog-tempered fabrics

Description Thompson 1982, 20; similar to Fabrics 34 and 45, but with moderate-abundant inclusions of red grog < 0.5mm in diameter.

The fabric is common in late pre-Roman Iron Age contexts in Essex, but dies out soon after the Conquest. A few sherds only were present, and only a single form identified. The complete range is probably comparable to that for Fabrics 34/45.

Form G15.1/1

54 Mayen ware

Description Fulford & Bird 1975, 171-3

Very uncommon as a site find: the only known vessel from Chelmsford is a bowl with an inturned rim, residual on the Dominican Priory site.

55 South Spanish amphorae

Description Green 1980, 40

In terms of weight and EVE the overwhelming majority of the amphora assemblage comprised Dressel 20 fragments in this fabric which originates in the province of Baetica, on estates bordering the Guadalquivir. Importation was common from the conquest period into the 3rd century.

Form P1.1/1

56 South Gallic amphorae

Description Green 1980, 42

After **55**, the commonest amphora fabric from Chelmsford although comparatively a minute total (8 sherds). Sherds from two forms were noted, the Pelichet 47, and the Dressel 28. On present evidence these forms were exclusively used for wine.

Forms P2.1/1; P3.1/1

57 Amphora fabric of uncertain origin

Description Light grey ware (10YR 7/1), pinkish margins (5YR 7/4) and surfaces. Sparse-moderate inclusions of ill-sorted milky quartz <1mm in diameter, sparse-moderate ?limestone inclusions 0.5-1.5mm in diameter. The fracture is finely irregular and the face is slightly powdery. ?Rhodian

Sherds only, no form identifiable, from S725 (post-Roman)

58 Amphora fabric of uncertain origin

Description Fine fabric with a grey core (2.5Y N5/) with margins ranging from grey (2.5Y N5/) to pinkish (7.5YR 7/4). The surfaces are slipped white (10YR 8/2). Inclusions include sparse-moderate fine voids < 0.5mm in diameter, with reaction rims, suggesting the former presence of limestone. The fracture is finely irregular and the finish is smooth.

Sherds only; no forms identifiable. Date range: later 3rd to 4th century

59 'Chalk type

Description Peacock 1977a, 297-8; Sheldon 1978, 470

The origin of this late Roman type (Kapitän II) is not certain: examples have been found at Chalk in Kent (Peacock 1977a, 297), Southwark (Sheldon 1978, 470), and also in the Walbrook (Mus Lond, W110.24). Sherds have also been found in Essex at Witham (P Sealey, pers comm). The origin of the fabric may be north African, or more likely, eastern Mediterranean. Production appears to date to the 3rd and 4th centuries.

Form P4.1/1

III The typology

The typology is arranged in **Classes** from open to closed forms which have been grouped as far as logic permits by major features of shape. Within each class, **Types** which share most features of shape are isolated. Within these, vessels with similar minor characteristics are divided into notional **Forms**, of which any recorded example is classified as a **Form variant**. For example, a bead-rimmed dish (class B), if shallow, is characterized as Type B2; if deep, Type B4. Of Type B2, form 3 has a pointed bead-rim, a chamfered base, and densely-spaced lattice decoration on the exterior. The first example of this is designated B2.3/1.

The classes are: A Platters; B Dishes; C Bowls; D-Mortaria; E Bowl-jars; F Cups; G Jars; H Beakers; J Flagons; K Lids; L Cauldrons; M Strainers; N Funnels; P Amphorae; Q Unguentaria; R Miniatures; S Miscellaneous.

Dating evidence presented for each type or form may differ from that presented elsewhere. Dates of introduction or development may vary from region to region, and some forms may have production dates which are much broader than their occurrence at Chelmsford. This is particularly noticeable when products of major late Roman industries are considered. For example there is much to suggest that Oxfordshire red colour-coat products are absent from Chelmsford until *c* AD 360 or later, despite the fact that they were being widely distributed by *c* AD 280. Where two dates are thus available both are given, the Chelmsford incidence in italics. Otherwise, where dates are presented they are derived in the case of types and forms either from established local chronologies, or in the case of less well-known coarse wares such as 'Retendon ware' (Fabric 48), from the available stratigraphic evidence-as are form variants. At the end of each entry, the site contexts and phases in which the vessel occurred is given in brackets except when the drawing is of a more complete example published elsewhere. It is hoped that the date ranges of these and indeed most forms will be refined in future pottery reports. Specific references are given to close form variant parallels where they have been located.

Where only fragmentary examples exist of types better known elsewhere, drawings of the latter have been included. These are identified in italics in the figures, and a reference to the original drawing is included in the text. Form incidence by Ceramic Phases is summarized in Table 10, where classes K-N, Q-R, are subsumed under miscellaneous open and closed forms. The fabrics in which each form has been found are indicated in bold type at the end of each entry.

A Platters

The earliest groups include a small number of platter types (Ceramic Phase 1, *c* AD 60-80 contained 3.50%; Ceramic Phase 2, *c* AD 80-120/25,3.30%; declining after Ceramic Phase 3 to below 1%). From the later 2nd century the class is absent (at least by vessel equivalence) from the contexts examined, while dishes increase in quantity until they form 15% or more of Ceramic Phases 5-8.

In view of the military presence in the town during Ceramic Phases 1 and 2, the low percentage of platters is unsurprising-every soldier possessed a metal vessel which performed a similar function. In subsequent periods the dish was the commonest open vessel. The later Roman dish forms (the incipient flange-rimmed, fully flange-rimmed and deep plain-rimmed dishes) do not fulfil the same function as platters, which as a class are quite absent. It is notable that the range of *Camulodunum* platters are strongly reminiscent of wooden forms. It would be difficult to envisage a vessel repertoire which did not include large plates and platters; but these may well have been almost entirely of wood or pewter, and hence less likely to survive.

A1

Type with an upright, plain rim, concave side walls, low carination and a functional footing base.

A1.1 As Type, resembling *Cam* 24Ca. **39, 45**
1/1 **45**; *c* AD 40-70/80. VI.2 (AK 62)

A 2

Convex or S-shaped profiles, pointed or slightly inturned plain or bead rims, and devolved or vestigial footings.

A2.1 As Type, with recurved profile to an inturned, plain rim. **45**

1/1 Pre-Flavian to Flavian. VI.2 (AR 41)

1/2 Pre- to early Flavian. Site V, layer 13

A2.2 As Type, with a sharply curved profile and a short pointed rim. Pre- to early Flavian. **39, 45**

2/1 **45**; 1st century. IV.1 (S245)

A2.3 As Type, with thick, angular sides and an angular bead rim. **45**

3/1 Pre- to early Flavian. VI.1 (AR 284)

A2.4 As Type, with an irregular angular profile. **45**

4/1 Pre-Flavian. IV-V (Z110)

A2.5 As Type, with widely flaring sides and a bead rim. **34, 45**

5/1 **34**; Flavian. IV (AA 2.10)

A 3

Miscellaneous forms with outsplayed rims.

A3.1 As Type, with an everted bead rim and two internal mouldings. **45**

1/1 1st century. V (S215)

A 4

The platters of this class closely resemble dishes. The profile is generally convex, with a variety of rims. The bases are usually flat, with the occasional trace of a devolved footing, often merely a double groove (eg A4.3/1). **34, 47**

A4.1 As Type, with a plain pointed rim. **47**

1/1 1st century. VI.3 (AR 211)

A4.2 As Type, with a small bead rim, and slight basal offset. **12**

2/1 1st to early 2nd century. ?Residual in Period VI.2 (S790i)

A4.3 As Type, with a thick set wall and slightly out-turned bead rim, and vestigial footing. **47**

3/1 1st century. IV (AR 124)

A4.4 As Type, with flat-topped bead rim projecting both externally and internally. **47**

4/1 1st century. V (S202)

- A4.5** As Type, with a triangular bead rim. **34, 47**
 5/1 **47**; early to mid 2nd century. Post-Roman (S104)
A4.6 As Type, with an undercut, pointed bead rim. **34, 39, 47**
 6/1 **47**; early to mid 2nd century. V (AA 2.2)

B Dishes

Dishes are here defined as neckless vessels with more-or-less straight or flaring sides. However, the division is not hard or fast. The earliest types progressively replaced the Gallo-Belgic derivative platters (Class A) in the Hadrianic to early Antonine periods. Plain- and bead-rimmed types became common from *c* AD 120/30, and remained the most characteristic forms until the early 3rd century, after which the latter were progressively replaced by incipient flange-rimmed types (B5). These were themselves replaced within a few decades by the fully flange-rimmed type (B6). Forms 2-4 of the plain-rimmed Type B1 remained in use and were among the commonest open forms until the end of the Roman period. The stubby flange-rimmed bowls of Type B5.3 only appear to have been introduced into mid-Essex *c* AD 360/70. Dishes form a substantial proportion of Ceramic Phases 5-8, peaking in Ceramic Phase 7 (300/10-360/70) at 29.24%. The absence of large, platter-like dishes at all periods is interesting. Most dish forms, particularly from late Roman contexts, are comparatively small and deep. It is probable that large plate and platter forms were always more common in wood and metal.

B1

- Rimless shallow dishes with convex or slightly flaring side walls, and flat or chamfered bases, resembling *Cam* 40 (see also B3). The type comprises mainly local grey wares (**39** and **47**), but includes Black-Burnished 1 (**40**) and Black-Burnished 2 (**41**) examples (eg Types 4-5).
B1.1 As Type, with a flat-topped, slightly inclined rim, decorated with a burnished zone on the body. **45, 47**
 1/1 **47**; later 1st to early 2nd century. IV.4 (S205)
B1.2 Convex sides and a slightly inturned rim; flat base; usually burnished overall. **2, 35, 47, 48**
 2/1 **2**; 4th century. VII.3 (T71/80)
B1.3 Similar to B1.2, but with slightly flaring sides; usually burnished overall. **35, 39, 47, 48**
 3/1 **47**; *c* AD 125/30 to 4th century. Verulamium (M Wilson 1972, fig 135.1180). VII.2 (S368). Moulsham Street kiln product
B1.4 Plain rim, flaring sides, decorated with lightly burnished intersecting arcs. **40**
 4/1 *c* AD 125/30 to 4th century. Verulamium (M Wilson 1972, fig 133.1120). VII.2 (T9); found inverted over B6.3/1
 4/2 *c* AD 125/30+. VI.1 (S713)
B1.5 Similar to B1.4, with widely spaced acute lattice decoration. **40**
 5/1 *c* AD 120-180/200. Southwark (Marsh & Tyers 1978, fig 242, type IV.J.1). VI.2 (S175i)
B1.6 Generally larger examples of the type than forms 1-5 above, with a slightly inturned rim, usually burnished overall and mica-dusted. **12, 47**
 6/1 **12**; Flavian to early 2nd century. VI.2+ (AR16, 20, 28, 41)

B2

Shallow dishes with flaring sides and a variety of bead rims. The bases are flat or chamfered. Decoration is restricted to all over burnish, or in the case of Black-Burnished 1 and 2 examples, close-set acutely angled lattice (B2.3). At Southwark this type (Marsh & Tyers 1978, IVH) was restricted to Black-Burnished 2 (**41**), but at Chelmsford it is found in a variety of fabrics. The Type is broadly datable from *c* AD 125/50 to 230/50, and in Essex is the commonest dish form between these dates, comprising the majority of the open forms of Ceramic Phases 3 and 4. In Essex it is a common type, manufactured eg at Mucking (Jones & Rodwell 1973, 20, fig 4.10, type B).

- B2.1** As Type, with widely splayed rims and rounded or slightly elongated rounded bead rims. **39, ?41, 47**
 1/1 **47**; mid 2nd to early/mid 3rd century. Colchester (Hull 1963, fig 102, *Cam* 38). VI.2 (S790i)
 1/2 **47**; mid 2nd century to early/mid 3rd century. Post-Roman (Z2)
B2.2 As Type, generally smaller in size and finer, with a downrurned, undercut bead rim. **39**
 2/1 2nd century. V (S1020)
B2.3 As Type, with a chamfered base, pointed bead rim, and densely spaced acute lattice on the exterior. **41**
 3/1 *c* AD 125/30 to late 2nd century. VI (AA1.8). Southwark (Marsh & Tyers 1978, fig 242, type 1V.H.1)
B2.4 As Type, with a rounded bead rim and a burnished zone on the mid body decorated with oblique burnished lines. **45**
 4/1 2nd century. Site V, F49 layer 1
B2.5 As Type, with a pointed bead rim, decorated with irregular wavy line burnishing. **47**
 5/1 2nd century. V (AA2.2)

B3

Deep dishes with straight or slightly flaring sides, plain rims, and usually chamfered bases. The rim is often delineated by a groove or grooving (B3.2). Often burnished overall, occasionally with acute burnished lattice on the exterior. The commonest fabrics are fine or sandy grey wares. The type has a long life, from the 2nd to the later 4th centuries, and was made at many Essex kiln sites. **35, 39, 40, 47, 48**

- B3.1** As Type, with a slightly beaded rim and close-set lattice decoration on the exterior walls. **35, 47**
 1/1 **47**; 3rd-4th centuries. VI.1 (AK7)
B3.2 As Type, with a rim delineated by grooves producing a simple bead. The base is chamfered, and the type is undecorated except for overall burnishing. **35, 39, ?40, 47, 48**
 2/1 **47**; 3rd-4th centuries. Rawreth (Drury 1977, fig 11.47). Site AD feature 4 layer 1
 2/2 **47**; 3rd-4th centuries. Colchester (Hull 1958, fig 67.99). VII.2+ (S1062)

B4

Deep bead-rimmed dishes/bowls, related to Type B2, with slightly flaring sides and usually chamfered bases. Usually undecorated with a good finish, but sometimes decorated with burnished lattice (B4.2). The type begins somewhat later than B2, *c* AD 140, and lasts until the mid 3rd century or a little later when it is replaced by Types B5 and

6. It occurs in a variety of grey wares including Black-Burnished 1 (**40**) and Black-Burnished 2 (**41**). Kiln sites producing these vessels are known in Essex generally (eg Mucking) and the type represents, with B2, the commonest open vessel between the mid 2nd century and the mid 3rd century.

B4.1 Vessels with thick side walls and pointed bead rims. The dish is fairly crudely finished, with prominent wheel marks on the exterior. **47**

1/1 Early to mid 2nd century to mid 3rd century. VI.3 (2117)

B4.2 As Type, with a rounded or pointed bead rim and a chamfered base. Often decorated externally with close-set lattice (B4.2/1) or burnished lines (2/2). After c AD 180/90 usually undecorated. **39, 41, 47**

2/1 **41**; c AD 140+, but most common in the Antonine period. Colchester (Hull 1963, fig 102, *Cam* 37). VI+ (243).

2/2 **47**; c AD 140/50-230/50. Southwark (Marsh & Tyers 1978, fig 242, type IV.H.7). V (S1020)

B 5

Dishes with incipient flange rims, and plain or chamfered bases. The type occurs mainly in grey wares (**39, 47, 48**), although late shell-tempered (**51**: B5.3/1) and Black-Burnished 1 (**40**: B5.2/1) examples are known. Decoration of grey ware examples is usually restricted to an overall burnish, but those in Black-Burnished fabrics are almost invariably decorated with lattice or intersecting arc burnishing, and late shell-tempered examples are usually decorated with rilling on the upper body. The type begins c AD 230/50 and rapidly supersedes the bead rim types B2 and B4, to be replaced before the end of the century by fully-flanged rim dishes of Type B6, although one B5 form, the B5.3, only occurs in later 4th century contexts in Chelmsford, and is the only example of the type remaining in use, as far as is presently known, in the later 4th century.

B5.1 Dish/bowl with an incipient flange topped by a simple bead. The base is plain, and the form is usually burnished overall. **40, 47, 48**

1/1,2 **47**; c AD 230/50-270/80. VII.2+ (S1062); VI.1 (S1023)

B5.2 Dish/bowl with a groove in an otherwise simple flanged rim. The type is invariably decorated with widely-spaced acute lattice. **40**

2/1 3rd to early 4th century. (Gillam 1970, fig 23.226). VII.1 (S308)

B5.3 Dish with a thick incipient flange and a squared-off rim. The side walls are recurved to a flat base. The form is decorated on the upper walls by rilling. **51**

3/1 AD 360/70-400+. Chignall St James, Essex (after P Clarke 1979, fig 8d)

B 6

Fully-flanged dish/bowls with flaring sides and flat, occasionally chamfered bases. Usually undecorated, (in Fabric **2** (rarely), and **47**) or in the case of Black-Burnished 1 (**40**) or Black-Burnished 2 (**41**) examples, intersecting arc or lattice burnishing. The type, most commonly the B6.2 which resembles the *Cam* 305B, appears in this region c AD 260-80, replacing Type B5, and becoming, with Type B3, one of the commonest 4th century forms. It was made at virtually all Essex kiln sites in production in the 4th century. Absent from Chelmsford, how-

ever, are characteristic Hadham examples of the type with internal lattice or wavy line decoration (eg M Wilson 1972, figs 137.1256-7, 139.1293).

B6.1 Vessels with thick side walls, short stubby flange rims and plain bases. **39, 47, 48**

1/1 **47**; mid 3rd to late 4th centuries. Verulamium Theatre deposit (Geddes 1977, fig 17.17). VII.3 (T2)

B6.2 Vessels with pointed or slightly drooping flanges and flat or slightly chamfered bases. The form is usually burnished overall. **39, 47, 48**

2/1 **47**; later 3rd to 4th centuries. Colchester (Hull 1963, fig 105, *Cam* 305B). VII.2 (S368). A Moulsham Street kiln product.

B6.3 Vessels with pointed flanged rims. The form, which is invariably decorated with burnished lattice or intersecting arc decoration, is exclusively in Black-Burnished 1 fabric (**40**)

3/1 c AD 260-400+. Colchester (Hull 1963, fig 105, *Cam* 305B). VII.2 (T9); found with B1.4/1

3/2 c AD 260-400+. Colchester (Hull 1958, fig 67.104). VII.3 (T71)

B 7

Dishes with a recessed or grooved out-turned angular rim. The bodies, except for a mid wall groove, or grooving, are usually left undecorated. The type, especially B7.1, resembles the 'Surrey bowl' form identified at Southwark (Marsh & Tyers 1978, 577, fig 242, type IVK). The type is uncommon in Essex, and rare at Camulodunum (*Cam* 47B).

B7.1 As Type, with upturned grooved rim. **21, 34, 45**

1/1 **45**; 1st-2nd centuries. Southwark and Colchester. Post-Roman (AA2.17)

1/2 **45**; 1st-2nd centuries. Southwark (Marsh & Tyers 1978, type IV.K). Post-Roman (S1001)

1/3 **45**; 1st-2nd centuries. VI.3 (AR11)

B 8

Dishes with convex or straight flaring sides with flat-topped or angled rims. The type is usually undecorated, or burnished overall with occasional lattice decoration. Three forms have been isolated.

B8.1 As Type, with a flat pointed rim. The walls are thick and the finish is poor, with prominent wheel-marks on the exterior. **47**

1/1 1st to early 2nd centuries. VI.2 (AR28, 56)

1/2 1st to mid-2nd centuries. VI.1 (AR286)

B8.2 As Type, with a squared-off rim. **47**

2/1 1st to early 2nd centuries. Site AB, feature 4, layer 4.

B8.3 As Type, with a rounded flat-topped bead rim with slight internal projection. Decorated with burnished lattice. **47**

3/1 1st to early 2nd centuries. VI.2 (AR28, 42)

B 9

Dishes with tapering sides, and out-turned flat rims with downturned tips. The type is rare at Chelmsford.

B9.1 As Type, with all over burnish. **39**

1/1 Later 1st to early 2nd century. Site V, layer 11

B10

Shallow dish with an out-turned rim, upturned at the

tip. The type is possibly derived from Drag 36 and Curle 15, and is known in Nene Valley (2), Oxfordshire red colour-coat (3) (Young 1977, figs 48-9.C49-50) and in Hadham oxidized red ware (4) with 'Romano-Saxon' decoration on the rim. Where datable, the Oxfordshire plain form is *c* AD 240-400+. The Hadham variant is probably of a similar date. Rare at Chelmsford. Most of the few examples known are in oxidized, possibly Hadham fabrics.

B10.1 As Type. 21

1/1 2nd-4th centuries. VI.1 (S182)

B10.2 As Type, with a variety of painted motifs on the rim. The form was made in the Nene Valley, Oxfordshire and ?Hadham kilns. 2-4

2/1 3; *c* AD 360-400+. *c* AD 325-400+. Sandford (after Young 1977, fig 59:C50.3)

C Bowls

There are many 1st and early 2nd century types and forms present in Chelmsford, but the range contracts thereafter to four or five later Roman types. The earliest are the necked bowls of type C33 (*Cam* 230). Fine wares are restricted to Gallo-Belgic derivatives (eg C13) which are replaced in the Flavian period by various samian derivatives (eg Drag 29, C22; Drag 30, C23, and Drag 37, C10-11) which formed the majority of bowl types until well into the 2nd century. Coarse ware bowls included the characteristic segmental bowl (C16) mainly produced at the Brockley Hill/Verulamium potteries (26). After *c* AD 125/30 bowl forms were progressively superseded by the appearance of bead- and plain-rimmed dishes (Types B1-2, 4) which were ultimately the most common vessel class after jars (see Table 10). Bowl forms persisted, however; in the 3rd century cupped rimmed bowl-jars of Types E2 and E5 were the most common. They are a characteristic central/south Essex type and remained in production with slowly changing proportions until the mid 4th century (cf Jones & Rodwell 1973, fig 7.56-62, type K).

Later 2nd century fine ware types were mainly in samian. Only towards the end of the 3rd century were hemispherical bowls of Types C11.1 and bowl-jar E3 in Hadham (4), Nene Valley (2), and, in the case of the latter, Oxfordshire red (3) fabrics introduced. However, Type C8 remained the standard fine ware bowl during the 4th century, appearing in conjunction with dishes of Types B1, B3 and B6. Production of necked bowl-jars of Types E2 and E5 appears to have continued until *c* AD 350 with the much rarer E1, after which there is little evidence for continued manufacture, the remaining open forms comprising plain and flange-rimmed types, with Type C8 continuing. New introductions include the rare flange-rimmed Type B5.3 in late shell-tempered fabric (51), and after *c* AD 360 the carinated dish B10 (based on the samian form Drag 36) appears, both in Hadham oxidized red (4) and Oxfordshire red colour-coated wares (3). Type C8 also occurs in red Oxfordshire colour-coat (3) for the first time. After *c* AD 360, decoration is progressively simplified and the range of available bowl forms diminishes. With the exception of a Mayen ware bowl from the Chelmsford Dominican Priory site (not illustrated) and a possible sherd of *ceramique a l'éponge* (22), late imports are absent.

C1

Bowls with convex sides, usually undecorated (although some have an overall burnish), with out-turned down-bent bead rims, or incipient flange rims lacking grooving or beadings. This and the two succeeding types are based on hemispherical bowls of Marsh's ff34-5 (Marsh 1978, 166-9). While there is a great variety of rim types—the rim can be a simple hook, as here, or internally beaded.

C1.1 As Type, with a stubby recurved or rounded rim. 12, 33

1/1 12; Flavian to early 2nd century. VI.1 (S182)

1/2 33; Flavian to early 2nd century. London (Regis House; Marsh 1978, fig 6.15, type 34.7). V (S1020)

C1.2 As Type, with a flat, slightly drooping flange, 12 2/1 Flavian to early 2nd century. IV.4 (S205)

Shallow, convex sided bowls with a variety of horizontal or drooping flange rims. The type corresponds closely to Marsh 1978, types 33-4. The fabric is usually a fine grey ware (39), occasionally mica-dusted (12.)

C2.1 As Type, with a horizontal flange with a slight external bead. 39

1/1 Flavian to early 2nd century. V (S1020)

C2.2 Shallow bowl with horizontal flange and internal and edge beading. 39

2/1 Flavian to early 2nd century. Site V, feature 64 layers 1 and 3

2/2 Flavian to early 2nd century. VI.3 (AR 281)

C 3

Bowl with drooping pointed flanges separated from the rim, resembling Marsh 1978, type 35. 39

C3.1 As Type, with a pointed rim above.

1/1 Flavian to early 2nd century. Verulamium (M Wilson 1972, fig 108.333). VI.3 (AR 11)

C 4

Similar to C3, with a beaded flange below a bead or plain rim, which may be decorated with stabbing. 34, 39

C4.1 As Type.

1/1 34; Flavian to early 2nd century. Sewardstone, Essex (Huggins 1978, fig 18.224). V-VI.1 (S226, 1063)

C5

Generally similar to C1, but with a rounded, slightly up-turned rim.

C5.1 As Type, with an upturned rim decorated with stabbed decoration. 39

1/1 ?Flavian-early 2nd century. VI.2 (S1009)

C6

Bowls with an S-shaped or gently carinated profile and widely flaring mouth terminating in a beaded or plain everted rim. The type, which is rare in Chelmsford, corresponds loosely to Marsh's type 44 (Marsh 1978, fig 6.19-20), one of which (44.1) is clearly based on samian form Drag 29, although the influence of Terra Nigra and north African red slip ware (Hayes 1972, type 8A) is marked. The Chelmsford examples have less complete profiles; however, the rim is copied at Holt (Grimes 1930,

figs 70.156, 227.a-f), York (Perrin 1977, fig 7.1, nos 13-16), and Caerleon (Wheeler & Wheeler 1928, fig 20.33). Fabrics include 'London' (33), marbled and mica-dusted wares (11-12), but only (London' ware here.

C6.1 As Type, with an outbent, bead rim.

1/1 Flavian or later. VI.3 (AR46-7, 199, 210, 215)

C6.2 As Type, with a plain, outbent rim.

2/1 Flavian or later. VI.3 (AR210)

C7

This and the following Type comprise hemispherical bowls with plain rims and a variety of mid body flanges and bases. The commonest forms of these types are more or less closely modelled on samian forms Drag 24-5 (C7.1) and Drag 38 (C8). They occur in a variety of fine wares-C7.1 in an unspecified buff fabric (31) and C8.1-3 in Oxfordshire red colour-coat (3) and Hadham oxidized red wares (4). C7.1 is probably 1st century in date, and forms C8.1-4, where they occur at Chelmsford, are 4th century.

C7.1 Vessels with plain or small bead rims and rouletted decoration on the side walls above a drooping mid body flange. The form is probably derived from the samian form Drag 24/5. 31

1/1 Pre- to early Flavian. IV.4 (S205)

C7.2 As Type, with a plain rim, horizontal flange, and curvilinear or wavy line decoration below. 47

2/1 ?Late 3rd-4th centuries. Post-Roman (S60)

C8

Hemispherical bowls imitating Drag 38. These have been classified as mortaria although few, if any, possess trituration grits. The forms were made both in Oxfordshire (3) and at Hadham (4). The proportions and position of the flange vary widely.

C8.1 Oxfordshire type C51 (Young 1977, fig 59). 3

1/1 c AD 360/70-400+ (AD 240-400+). Oxfordshire (ibid, type C51.5-6). VII.2 (S368)

C8.2 As Type, with a thick, abruptly downturned flange. 4

2/1 4th century. Portchester (Fulford 1975b, fig 184.88.9). VII.3 (S35)

C8.3 As Type, with a downturned, pointed flange. 4

3/1 c AD 280-400+. VII.3 (T71/80)

C8.4 Squat variant, with a hooked flange. London (Old Ford: Sheldon 1974, fig 5.24). 2

4/1 c AD 360/70-400+. Stibbington (Howe *et al* 1981, fig 8.101). VII.3 (S44)

C9

Vessels with plain rims, stubby flanges below, and tapering sides.

C9.1 As Type. 45

1/1 Pre-Flavian to Flavian. Southwark (Graham 1978, fig 220.1867). IV.4 (S205)

C10

Deep hemispherical bowls loosely based on Drag 37 and connected with type 9. The type may be decorated with a variety of stamps and combed motifs.

C10.1 As Type, decorated with a band of rouletting on the lower body. 19

1/1 Flavian-Trajanic; Chelmsford (Rodwell 1978, fig

7.4:12). For stamp, see IX.3, no 4; Fig 48.4. Unstrat (S)

C10.2 As Type, with intersecting arc decoration below a small bead rim. 33

2/1 Flavian-Trajanic. VI.1 (S182)

C11

Shallow hemispherical bowls, loosely based on Drag 37, with heavy bead rims and footring bases (incomplete example here). The bodies are usually decorated with deep grooving between which is a zone of rouletted or roller-stamped decoration- The type occurs (but not at Chelmsford) in Hadham oxidized red wares (4), and in Nene Valley ware (2). 3rd-4th centuries.

C11.1 As Type, with rouletted decoration on the lower body.

1/1 2; late 3rd century to AD 400+. Orton Hall Farm (Howe *et al* 1981, fig 7.82). V.2 (S302)

C12

Deep bowls with convex sided walls, loosely based on Drag 30. The rim is usually beaded, and the body, below a plain zone of varying width, is decorated in a wide variety of techniques including stamping (C12.1) and stabbing (C12.3). The origin of the form, which comes in a variety of fine oxidized and reduced fabrics, is varied.

C12.1 As Type, with stamped decoration. The example illustrated is one of Rodwell's group 2 products (1978, 234-45, fig 7.6:36), for which he proposes a Hadham source. 19

1/1 Flavian-Trajanic. London (Old GPO site: Rodwell 1978, fig 7.6:31). For stamps, see IX.3, Fig 48.1,10. VI.1 (Z6)

C12.2 As Type. With vertical burnished lines below an undecorated zone. 39

2/1 Trajanic-Hadrianic. VI.1 (S183)

C12.3 As Type, similar to 12.2, with stabbed decoration within burnished chevrons. ?19

3/1 Flavian-Trajanic; West Stow (Rodwell 1978, fig 7.10:76). While the parallel is assigned by Rodwell to his West Stow-North Essex groups, the fabric of this piece suggests a Hadham source. VI.1 (S406)

C12.4 As Type, but undecorated. 39

4/1 Flavian to early 2nd century. VI.3 (Z117)

C13

Carinated bowl, loosely based on Drag 29, decorated with zones of burnished line ornament.

C13.1 As Type. 39

1/1 Flavian to early 2nd century. Site V, feature 93

C14

Bead-rimmed bowls usually decorated with zones on cordons between grooves. The type is rare at Chelmsford, and obviously closely related to the imitation Drag 29/30 types (cf C12, C22). They form, however, a distinct and unusual type.

C14.1 As Type, but with cordons, divided by a constriction decorated with oblique burnished lines above and below. 34

1/1 1st century. IV.1-2 (S245, S230)

C14.2 As Type, but lacking the pronounced cordons of 14.1. Decorated with zones of angled latticing. 34

2/1 1st century. VI.1 (S1104).

C14.3 As type, but undecorated. **34, 39**
 3/1 **34**; 1st century. VI.1 (S182)

C15

Bowls with bead rims with a cordon or cordons below. The precise shape is uncertain, but they are perhaps to be associated with Type C22.

C15.1 As Type, with an upturned rounded rim and with a wide cordon below bordered by narrow cordons. **34**
 1/1 1st century. VI.1 (S206)

C15.2 As Type, with a single narrow cordon below rim. **34**

2/1 1st century. Colchester (Hull 1958, fig 55.28). VI.1 (S182).

C16

Large bowls with a variety of out-turned, grooved or beaded rims and a mid body carination usually delineated by grooving. The rims show a typological development, becoming progressively more downbent and undercut or rolled, and some examples can be hooked. The form is a very characteristic product of the Brockley Hill industries (**26**) from the Flavian period to the mid 2nd century.

C16.1 As Type, with a straight flat-topped rim delineated by two grooves. **26**

1/1 Late 1st to early 2nd centuries. Colchester (Hull 1958, fig 54.9). V (S215), post-Roman (S1004)

C16.2 As Type, with a more emphatically beaded rim, still projecting straight out. The body is usually grooved. **26**

2/1 Verulamium (M Wilson 1972, fig 113.502). VII.1 (AR13)

2/2 Early 2nd century VI.3 (AR10, 16)

C16.3 As Type, with a slightly downbent bead rim. The mid body is delineated with two grooves. **26**

3/1 Early to mid 2nd century. Verulamium (M Wilson 1972, fig 114.512). VII.1 (AK13)

C16.4 As Type, with a downbent 'snub' rim. **26**

4/1 Early to mid 2nd century. Verulamium (*ibid*, fig 119.685). VI.3 (AR215)

4/2 early to mid 2nd century. V (AR343)

C16.5 As Type, with a 'hooked' rim. **26**

5/1 Early to mid 2nd century. Site V, feature 64

5/2 Mid 2nd century. V (S1020)

C17

Vessels with flaring upper side walls, a mid body cordon, decorated below with burnished lattice. An unusual type

C17.1 As Type. **47**

1/1 c AD 100+. ?Residual in Period VII.2 (Z8)

C18

Bowls with plain rims, a sharply offset shoulder and tapering sides to (usually) a pedestal or occasionally flat base. The form C18.1 is the 'Castor box' (Hull 1963, fig 105, *Cam* 308; Howe *et al* 1981, 24, fig 7.89), and is found in ?Colchester and Nene Valley colour-coated fabrics. The form is usually decorated on the upper body with all-over rouletting. Cf also lid K7

C18.1 As Type, with a thick tapered rim. **?1, 2**

1/1 **2**; probably 3rd century. Orton Hall Farm (after Howe *et al* 1981, fig 7.89)

C19

Neckless vessels with flat, bead or flange rims, vertical or slightly tapering sides below to a mid body carination

C19.1 As Type, with a bead rim. **47**

1/1 ?1st-2nd centuries. VI.2 (AR41-2)

C19.2 As Type, with a flange rim and flaring sides. **47**

2/1 ?1st to early 2nd century. IV.4 (S236)

C20

Vessels with out-turned rounded rims, tapering sides to a sharp, low carination

C20.1 As Type. **39**

1/1 Flavian to early 2nd century. VI. 1 (S1114)

C21

Vessels with everted rims, a cordon immediately below the neck, and steeply tapering sides

C21.1 As Type. **47**

IN Late 1st to 2nd century. VI.2 (AR41)

C22

Carinated bowls with a variety of beaded or plain rims, constricted side walls usually divided into two decorated zones by a narrow cordon, and a low body carination. The type occurs in a large variety of forms, all loosely based on Drag 29. The type probably lasted, like its prototype, into the Flavian period.

C22.1 As Type, with a small bead rim, two cordons below, and decorated zones divided by a narrow cordon. **34**

1/1 Claudian-Neronian. Camulodunum (Hawkes & Hull 1947, pl LIII, *Cam* 68). IV.1 (S245)

1/2 1st century; Braintree (Drury 1976a, fig 40.57). Site V, layer 11

C22.2 As Type, with an out-turned pointed rim, otherwise as C22.1. **?34**

2/1 Pre- to early Hadrianic. VI.1 (S220)

C22.3 As Type, with a single constricted decorated zone above carination. **34**

3/1 1st century. IV.3 (S216)

C22.4 As Type, with pointed rim, and globular lower sides. **34**

4/1 1st century. V (S1020)

C23

Bowls with bead rims, tapering side walls to a low carination, and a variety of footring bases. The type occurs in several fabrics, but is loosely based on Drag 30-31. The better-known imitation of Drag 30/37 (Type C12), lacking the low carination, has been classified separately. **19**

C23.1 As Type, with or without decoration.

1/1 Pre-Flavian to Flavian. Camulodunum. VI.1 (S1011)

2/1 Flavian to early 2nd century. V (S149A, S1020)

3/1 Mid to late Flavian. Eastwood, Essex (Rodwell 1978, fig 7.7:50). V+ (AR16, 43, 60, 61, 67). (For stamps see IX.3, Fig 48.2, 11)

C24

As C23, but in lead-glazed wares. **10**

C24.1 As Type, with white slip-trailed decoration below a glaze

1/1 Flavian-Hadrianic. Bradwell Villa, Bucks; Staines, Middx (Arthur 1978, fig 8.2:52-3). VI (AA1.8)

C25

Footring bowls with a low carination, in shape similar to C23-4, but with concave side walls.

C25.1 As Type, with stamped decoration. 3

1/1 *c* AD360-400+. *c* AD350-400+. Oxfordshire (Young 1977, fig 65.C84.14). For stamp see Section IX.4, Fig 48.20. VII.3 (T71/80)

C25.2 As Type, with rouletted decoration. 3

2/1 *c* AD360-400+. *c* AD300-400. (Young 1977, fig 64.C81.2). VII.3 (T71/80)

C26

Wide mouthed bead-rimmed bowls with a high carination with grooving or cordons below. The type is usually handled. The finish is good but the type is seldom decorated. Rare at Chelmsford; one known in Colchester buff fabric. The type is equivalent to *Cam* 331 (Hull 1958, fig 121), described as 'not rare'.

C26.1 As Type, with two handles and two grooves below the carination. 27

1/1 Late 1st to early 2nd centuries. Colchester (Hull 1963, fig 105. Cum 331A). VI (AA1.8)

C27

Bowl-jars with plain everted rims and multiple cordons above a mid body carination. The type is similar to the jar Form G17 and is related to *Cam* 218 (Hawkes & Hull 1947, pl LXXV). Only one example known from Chelmsford.

C27.1 As Type, with an everted, rounded rim, small cordon below and two wide lattice-decorated cordons above mid body carination. 45

1/1 Pre-Flavian to Flavian. IV (AA2.10)

C28

Neckless wide-mouthed bowls with flattened D-shaped bead rims.

C28.1 As Type. The finish is rough. 45

1/1 Pre-Flavian to Flavian. IV.1 (S245)

C29

Neckless wide-mouthed bowls with canted, everted rims.

C29.1 As Type. 21

1/1 ?Late 1st century. Site AD, feature 35

C29.2 As Type, although larger than C29.1, with a slightly hooked bead rim. 47

2/1 ?Later 1st century. Site V, layer 31

C30

Wide-mouthed bowls with undercut bead rims. The upper side walls are straight to a low carination. The walls are decorated with burnished line ornament.

C30.1 As Type. 45

1/1 Later 1st century. VI.3 (AR210, 215)

C31

Similar to C30, with a flattened bead rim projecting internally and externally.

C31.1 As Type. 45

1/1 Flavian to end of 1st century. Highgate (Brown & Sheldon 1971, fig 3.35). Unstrat (S)

C32

As Types 28-31, but with an elongated bead rim.

C32.1 As Type. 45

1/1 Later 1st to 2nd centuries. V (AA2.2)

C33

Wide-mouthed, squat bowls with out-turned bead or undercut rims. The type is generally similar to *Cam* 230, but lacks the cordons separating the neck from the body.

C33.1 As Type, with a small bead rim. 45

1/1 Claudian-Neronian. Camulodunum (Hawkes & Hull 1947, pl LXXVIII, *Cam* 230). Unstrat (AD)

C33.2 As Type, but substantially larger than C33.1. 45

2/1 Claudian-Neronian. Site V, feature 120

2/2 As 2/1. Camulodunum (*ibid*). V (S226)

C34

Tripod-based bowls. Not a common type in Chelmsford. The type corresponds with Marsh type 27 (1978, fig 6.13), although it is smaller than any of the examples illustrated there.

C34.1 As Type. 12

1/1 First to early 2nd century. Brentford (Marsh 1978, fig 6.13:27.6); London (Bank of England: *ibid*, fig 6.13:27.7). VI.2 (S1009)

D Mortaria

First century mortarium supply to Chelmsford was mainly from the Colchester manufactory (27), although some vessels from Brockley Hill (26), and from a Kentish/Gallic source (28), were also noted in Flavian-Hadrianic contexts. In the early 2nd century a few cream-slipped products appear. These are probably from the Hadham potteries both on the evidence of stamp no 12 (Section IX.2, Fig 47.12) and the fabric (14). After the collapse of the Brockley Hill industry *c* AD 160 mortaria supplied to Chelmsford were almost exclusively in Colchester buff ware (27), although the possibility exists that other, smaller centres supplied isolated examples. The rarity of the late *Cam* 497 and the absence of *Cam* 504 suggest that the contraction of the Colchester industry in the early 3rd century was severe (see Fabric 1). Certainly towards the mid 3rd century it was no longer in a position to meet demand, and was progressively replaced by early Oxfordshire white ware products (25; eg Young forms M12-13). The Oxfordshire and Nene Valley potteries (24) were the most substantial suppliers of mortaria to the town until the early 4th century, after which Hadham wall-sided mortaria became progressively more common. By the mid 4th century the Nene Valley self-coloured products disappear, the result, perhaps, of a market contraction postulated by Howe *et al* (1981, 10). The final (Ceramic Phase 8) mortarium supply to the town comprised almost exclusively Oxfordshire white and red wares and Hadham products. But while the bulk of the mortaria were derived from these sources, other smaller kiln sites such as Inworth (Section V) and Grays (K Rodwell 1983) may have supplied the odd example.

A notable feature which emerges from the examination of the mortaria is the decline in their diameter between the 1st and 4th centuries, which suggests a change in culinary function.

D1

Vessels with an out-curving, rounded rim with an internal bead or ledging, level with or lower than the rim. **D1.1** As Type, with thick side walls and flange. 27. Corresponds with *Cam* 496 (Hull 1963, fig 107), where it is dated to the Trajanic-Hadrianic period. Uncommon in Colchester and Chelmsford

1/1 VI.1 (S1104, S1109)

D1.2 As D1.1, although with thinner walls and flange. 27
2/1 v (S202)

D1.3 Similar to D1.1 -2, but the ledging or beading is level with the flange, and separated from it by a groove only. The form resembles *Cam* 497 (Hull 1963, fig 107), and is present only in Colchester buff ware (27) in Chelmsford.

3/1, 2 c AD 160-200. 27. V (AR66); unstrat (AD)

D1.4 As Type, but with a squared-off flange, otherwise as D1.3. 27

4/1 c AD 160-200. VI.1 (S1111)

D1.5 As Type, but with trituration grits extending over the flange. The form is one of Hartley's Group I-II mortaria, for which a Kentish or Gallic origin is proposed (Hartley 1977). 28

5/1 c AD 65-110 (Hartley 1977, fig 2.1:C). IV4 (S205)

D1.6 As Type, but with a very heavy, bulbous flange. 27
6/1 c AD 160-200. VI.3 (AR16)

D2

Mortaria resembling Type D1, but with a heavy, internally projecting bead.

D2.1 As Type. 27

1/1-3 c AD 160-200. VI.3 (AR146); unstrat (AA); V (S1020), VI.1 (S1023), post-Roman (S1008)

D2.2 As Type, with hooked flange. 27

2/1 c AD 160-200. VI.2 (AR88)

D2.3 As Type, with bulbous flange. 27

3/1 c AD 160-200. VII.1 (S714)

D3

Similar to D2, but with a bead on top of the rim. Among the mortaria classified in this type is one of the earliest Hadham types (14: D3.1/1). The majority, however, are Colchester products (27).

D3.1 As Type, with a squarish bead above a stubby flange. 14. Cf Rodwell 1978, fig 7.17:124-5

1/1 c AD 100-160 (cf Section IX.2, no 12 for stamp). VI.1 (\$183)

D3.2 Similar to D3.1, but with a more rounded bead. 27
2/1 Early to mid 2nd century. VI.2 (S790i)

D3.3 Similar to D3.2, with a downbent flange with a hooked tip. 27

3/1 c AD 160-200- VII.2+ (AR19)

D3.4 As Type, generally less massive and with a thin flange usually downbent at the tip. 3

4/1 c AD 360-400+. c AD 240-400+. VI.1 (S1004)

D3.5 Similar to D3.4, but with a less downturned flange. 3

5/1 c AD 360-400+. c AD 240-400+. VII.3 (T71/80)

D4

Mortaria with an internally bevelled rim, from which a drooping, oval-sectioned flange is sprung.

D4.1 As Type. 27

1/1 c AD 160-200+. Unstrat (AD)

D4.2 As Type, with a thinner flange. 27

2/1 c AD 160-200. VII.1 (S736)

D5

Mortaria with a heavy bead at the top of the rim and a variety of flanges below. The type, which corresponds with Young's Oxfordshire forms M12 and M18, has been divided into three forms.

D5.1 As Type, with a heavy bead and a horizontal, or slightly drooping flange. 25

1/1, 2 c AD 260-300. c AD 240-300. Unstrat (S); VII.1 (S1066)

D5.2 As Type, except with a squared-off bead separated from the flange by a groove. 25

2/1 c AD 260-300. c AD 240-300. VII.2 (225 layer 2)

D5.3 As Type, with a thick drooping triangular flange. The form corresponds with Young type M1 2. 25

3/1 c AD 180-240. Oxfordshire Churchill site (Young 1977, fig 20:M12.3). Post-Roman (S)

D6

Mortaria with an angular, short flange, either downbent, or turned in on itself. The rim is usually topped by a small beading.

D6.1 As Type. 3

1/1 c AD 360/70-400+. c AD 300-400+. Dorchester, Allotments (Young 1977, 331, fig 67:CI00.9)

1/2, 3 c AD 360/70-400. c AD 300-400. VII.3 (T71/80); VII.2 (225 layer 2); VI.2 (S1009)

D7

Mortaria with an upright rim, and a short stubby flange reminiscent of D5.3/1. They resemble Young form M22 (1977, fig 23). 47

D7.1 As Type, with a flat-topped rim. 4

1/1 c AD 280-400+. VI.2 (S763)

D7.2 As Type, with a rounded rim. 4, 25

2/1 4; c AD 280-400+. VII.3 (S35)

D8

Mortaria with a plain rim and a steeply downbent bulbous flange.

D8.1 As Type. 3

1/1 c AD 360/70-400+. c AD 280-400+. VII.1 (S370)

D9

Mortaria with a grooved rim and a short squared-off flange, turned back on itself.

D9.1 As Type. 3

1/1 c AD 360/70-400+. c AD 300-400+. VII.2 (225 layer 2)

D10

Hemispherical type with a stubby flange.

D10.1 As Type. ?24

1/1 ?Early 3rd-mid 4th centuries, VI.2 (S790i)

D11

Hammerhead mortaria with a flat or slightly inclined 'bevel' at the top of the rim and a slight internal beading. The type corresponds closely with *Cam* 498 (Hull 1963, fig 107). It only occurs at Chelmsford in Colchester buff fabric.

D11.1 As Type, with a slightly hooked rim. 27

1/1 c AD 160-220. VI.2 (S175ii)

D11.2 As Type, with a smaller rim, which is not hooked. 27

2/1 c AD 160-220. Colchester kiln 31 (Hull 1963, 119-20, fig 65.7). Post-Roman (S102)

D 12

Wall-sided mortaria

D12.1 Type with an internal bulge and an out-turned pointed tip to the wall. It corresponds to Young's form M13 (1977, fig 20) and is the only example known from Chelmsford. This example is also the most distant incidence of the form at present known (*ibid*, fig 14). 25

1/1 c AD 180-240. Gloucester, Eastgate (Young 1977, 261, fig 20:M13.3). Unstrat (Z)

D12.2 Wall-sided mortaria imitating Drag 45. 3, 4

2/1 3; c AD 360-400+. c AD 240-400+. Oxfordshire (Young 1977, fig 67:C97). VII.2+ (S1062)

D12.3 Wall-sided mortaria with a variety of incised decoration. The form is Young's C97.7-11. 3

3/1 c AD 360-400+. c AD 240-400+. Oxfordshire (after Young 1977, fig 67:C97.10)

D 13

Wall-sided mortaria decorated with grooving at the top and bottom of the flange. The type corresponds with *Cam* 501A-B, (Hull 1963, fig 107) and examples from Chelmsford are in Colchester buff ware.

D13.1 As Type, with thin side walls and a grooved top to the rim. 27

1/1 c AD 150-200; Colchester (Hull 1963, fig 107. *Cam* 501A). VI.3 (Z5)

D13.2 As Type, with thick side wall and rim. 27

2/1 c AD 160-200; Colchester (Hull 1963, fig 107. *Cam* 501B). VI.2 (S790i)

D 14

Flanged mortaria with a bead rim, grooving on the depressed flange, which is occasionally folded back underneath. The type occurs at Chelmsford only in Nene Valley 'self-coloured' fabrics, and is current c AD 260-360.

D14.1 As Type, with a slightly depressed flange. 24

1/1,2 c AD 260-360 (Howe *et al* 1981, fig 8.1-3). Post-Roman (S1001)

D14.2 As Type, with a more steeply depressed flange than D14.1. 24

2/1 c AD 260-360 (*ibid*, fig 8.3). VII.1 (S1066)

E Bowl-jars

Bowl-jar types comprise a small group in any of the phase assemblages. (They are subsumed under Bowls in Table 10). E1 is an unusual type manufactured both in the Inworth and Moulsham Street kilns. E2, E4 and E5 are characteristic central and south Essex types, and complementary to jar G5, which they resemble.

E 1

Globular, neckless bowl-jars with stubby flanges and pointed or squared-off bead rims. Uncommon as a type in Essex, the form was manufactured in the Moulsham Street and Inworth kilns, where it is dated early to mid 4th century (Section V, Fig 35.4, Fig 42.3-4). Lid Type K5.1, found at both kiln sites, may have been designed for use with vessels of this type. The type occurs in a range of sandy grey wares.

E1.1 As Type, with an inturned, squared-off rim over a rounded flange with a pointed tip. 47, 48

1/1 47; early to mid 4th century. VII.2 (S368)

E1.2 As Type, with an upturned rim above a rounded flange. 47, 48

2/1 47; early to mid 4th century. VII.2+ (S1062)

E 2

Bowl-jar forms with globular bodies, hollow footring bases and a variety of ledged or cupped rims. The type is related to the Mucking type G (Jones & Rodwell 1973, fig 5.31-8), and *Cam* 307 (Hull 1963, fig 105). It was also made at Chelmsford and Inworth (see Section V).

E2.1 As Type, with a ledged rim and a small constriction on the upper body, which is burnished overall. 47

1/1 Late 2nd to 4th century. Site V, feature 22

E2.2 Small, squat example of the type, with a pointed ledged-rim. Undecorated. 47

2/1 Late 2nd to 4th century. VII.2 (S368)

E2.3 As Type, with an outplayed, cupped rim. 39, 47

3/1 47; late 2nd to 4th century. Mucking (Well 1: after Jones & Rodwell 1973, fig 5.31)

E 3

Small necked bowl-jar forms with globular bodies. Rims vary greatly in shape. The vessels may be plain, decorated with small neck cordons, or with stamps and 'Romano-Saxon' motifs. 4, ?30, 39, 47

E3.1 As Type, with everted, upturned slightly hollowed rims. Usually hand made. ?30

1/1 Late 4th century. Portchester (Fulford 1975a, fig 185, type 93). VII.3 (S35)

E3.2 As Type, with an outsized, out-turned squared rim and a single neck cordon. 47

2/1 Site V, layer 16

E3.3 As Type, with a beaded, solid footring base. 39, 47

3/1 47; Site AD, feature 212

E3.4 As Type, with a flaring neck, bead rim and a restricted footring base. 39, 47

4/1 39; VII.2 (AR13)

4/2 47; VII.2+ (S1062)

E 4

Small bowl-jars, with a vertical or slightly tapering neck and a bead rim.

E4.1 As Type. 47

1/1 Site V, layer 24

E4.2 As Type, with rouletted decoration on the neck and painted decoration on the body. 3

2/1 c AD 360/70-400+. c AD 325-400+. Oxford (Young 1977, fig 61, type C75). VII.3 (T2)

E4.3 With 'Romano-Saxon' decoration-see Section V, Fig 41.9-10

E 5

Bowl-jars with bead rims, concave necks and rounded bodies. Larger than the preceding types, some of which they resemble (eg E2). Vessels are sometimes left plain, but more commonly either burnished overall, in zones or, in the case of E5.4, decorated with a zone of curvilinear or looped burnished lines on the neck. Like E2 the type is characteristic of central and south Essex, probably from the later Antonine period-although it is usually found in 3rd century contexts. It is rare at Colchester and not particularly common at Chelmsford. It was made in the Moulsham Street kilns (cf Section V, Fig 35.7-9) and at Mucking (type K: Jones & Rodwell 1973, fig 7.56-62).

E5.1 As Type. **39, 47**

1/1 **47**; mid 3rd to mid 4th century. Site V, layer 16

E5.2 As Type. A larger version of Type E5.1. **39, 47**

2/1 **47**; mid 3rd to mid 4th century. VII.2+ (S1068)

E5.3 As Type, with a pointed bead rim and occasional horizontal grooves on the body. **47**

3/1 Mid 3rd to mid 4th century. Unstrat (AD)

E5.4 As Type, with a bead rim, decorated with burnished zones on the body and wavy line or looped burnishing on the neck. The rim is often of wider diameter than the body in this late form. **39, 47**. Made in the Moulsham Street kilns. Earlier examples of the form were present in Group 16, Section IV, Figs 29.274-5, 30.312.

4/1 **47**; later 3rd to mid 4th century. Mucking type K (Jones & Rodwell 1973, fig 7.56-62). VII.2 (S305, 322)

4/2 **47**; later 3rd to mid 4th century. Mucking type K (Jones & Rodwell 1973, fig 7.58). VII.2 (S322)

E 6

Necked, high-shouldered bowl-jars with slightly inturned, vertical or flaring necks and bead rims. The type has a varied origin and a lengthy life. It occurs in a variety of grey wares, and in Hadham oxidized ware.

E6.1 As Type with a short neck, and a rounded bead rim. Burnished overall. **4**

1/1 c AD 270/80-400+. Gadebridge (Neal 1974, fig 112.419); Verulamium Theatre deposit (Geddes 1977, fig 12, type 14.1). VII.3 (S44)

E6.2 As Type, but with a more pointed rim and a concave neck. **45**

2/1 1st century. Woodham Walter (W Rodwell forthcoming b, fig 83.107). VI.2 (S175i)

E6.3 As Type, generally larger than E6.1-2, with a groove beneath the squared-off rim. **47**

3/1 Early to mid 2nd century. VI.1 (AK29)

E 7

The Type is closely related to the preceding class, but has a narrow neck cordon.

E7.1 As Type, with a slightly angular bead rim. **47**

1/1 VI.2 (AK48A)

E 8

A type similar to, but considerably larger than jar G30, and with vertical or flared neck. Both types appear to be based on *Cam* 263-4. The finish is rough, and decoration is restricted, as with Type G30, to shoulder stabbing.

E8.1 As Type, with a high shoulder and a concave or flared neck. **45**

1/1,2 1st century. Post-Roman (S1); unstrat (AD)

F Cups

Apart from samian forms 27 and 33 the cup class is restricted to two forms, exclusively continental imports.

F 1

Hemispherical cup with roughcast decoration on the interior and applied 'raspberry' roundels on the exterior. This type occurs only in Lyons ware here. **5**

F1.1 As Type

1/1 Pre-Flavian. Usk (after Greene 1979, fig 6.5:1)

F 2

Hemispherical cup with footring base and mid body grooving.

F2.1 As Type. **8**

1/1 c AD 180-200+. Verulamium (after Greene 1978b, fig 46.9)

G Jars

G 1

Neckless bead-rimmed jars. The type has a globular inverted piriform body and an inturned bead rim. The type probably has a pre-Conquest origin. Although prolific at Camulodunum (*Cam* 257, 259), it is uncommon at Chelmsford. The Camulodunum examples do not show the degree of rim inturn characteristic of the few Chelmsford examples noted. The other common related type at Camulodunum is the shell-tempered jar with an internal beading (*Cam* 254) which is entirely absent from Chelmsford. The type classified here closely resembles examples from Southwark, where it was thought to persist throughout the 1st and 2nd centuries.

G1.1 As Type, with an inturned, rounded bead rim. **45**

1/1 Pre-Flavian to early Flavian. Southwark (Marsh & Tyers 1978, fig 234.II A, 12-13). VI.1 (AR284)

G 2

Similar to G1, with an upturned rim and a slight shoulder angle decorated with stabbing. Like G1, rare at Chelmsford, although similar examples are known in south Essex and north Kent (eg Gun Hill: Drury & Rodwell 1973, fig 15.60).

G2.1 As Type, with simple stabbing on the shoulder. **50**

1/1 Pre-Flavian to early Flavian. London (Custom House site: Tatton-Brown 1974, fig 29.182). IV.1 (S245)

G 3

Neckless, high-shouldered jars with out-turned pointed rims. The type resembles *Cam* 256, whose rims 'may be short and thickened, approaching bead rim form' (Hawkes & Hull 1947, 269). The internal thickening on the example cited, *Cam* 256A, is absent from Chelmsford and a good pointer to a post-Boudican foundation date for the site. Its incidence at Camulodunum is Claudian-Neronian (Sheepen periods I-III).

G3.1 As Type. **45, 47**

1/1 **45**; mid to later 1st century. Kelvedon (K Rodwell forthcoming, fig 85.186). VI.1 (S220)

G3.2 As 3.1, but with a small out-turned pointed rim. **45**
Mid to later 1st century. Colchester (Hawkes &
Hull 1947, pl LXXXII, *Cam* 256A). IV.1 (S245)

Neckless jars with angular rims, beaded internally. The type is at present restricted to two examples related to Type G3.

G4.1 As Type. **50**

1/1 Claudian-Neronian. V (S1020)

G4.2 As Type. **45**

2/1 1st to early 2nd century. VI.1 (S381)

G 5

Neckless jars with a variety of ledged or 'rebated' rims. The type has a long history, originating in a south Essex form common in the conquest period (eg Gun Hill: Drury & Rodwell 1973; and Mucking: Jones & Rodwell 1973, type F). There is a slow evolution of the type, which first occurs almost exclusively in shell-tempered fabrics (G5.1), to a form with a sharply-pointed everted ledged rim, usually in a sandy grey ware with sparse shell inclusions or a plain sandy grey ware (G5.4). The typically pre- to early Flavian examples are roughly finished and undecorated except for the occasional pre-firing 'graffito' on the shoulder (Jones 1972; Section X, nos I-13). Later grey ware examples have a better finish and lack the 'graffito'. The only decoration noted is rilling on the shoulder of G5.3 (a single example), and which is probably not a south Essex product. G5.2 also appears to be a local variant (see below), as does G5.6, with complex rebated rims: these are more common at sites such as Heybridge (Drury & Wickenden forthcoming) than in south Essex, and they may be a distinct 3rd century form in that area. The type corresponds with Mucking type F (Jones & Rodwell 1973, fig 5.24-30).

G5.1 As Type, with a small finely-moulded rim. **47, 50**

1/1 **50**; pre-Flavian to Flavian. Mucking (Jones & Rodwell 1973, fig 5.24). VI.2 (AR41)

G5.2 As Type, with a wide lid seating. Undecorated. **47, 50**

2/1 **50**; perhaps a variant made at Chelmsford, on the evidence of possible kiln waste from site D (Going, in prep). Pre-Flavian to Flavian. IV.1 (S245)

G5.3 As Type, with a prominent internal projection for a lid seating, decorated with shoulder rilling. **45, 47**

3/1 **47**; 1st to 2nd centuries. VI.1 (S220)

G5.4 As Type, with a canted everted rim, and a less prominent ledge which is beginning to resemble a simple concavity. The form is related to bowl-jar Type E2. **39, 47**
4/1 **47**; 2nd to early/mid 3rd century. Mucking (Jones & Rodwell 1973, fig 5.25). VII.3 (S39)

G5.5 As Type, with simple cupped rim resembling Type E2.3/1. **39, 47**

5/1 **47**; 2nd to early/mid 3rd centuries. VI.2 (S175)

G5.6 As Type, with complex ledge rims. **47**

6/1 2nd to ?early 3rd century. VI (AA1.8)

6/2 As 6/1. Heybridge (Drury & Wickenden forthcoming). VI (AA1.8)

G 6

Squat neckless ledged rim jars with a recessed zone above an offset shoulder. Rare at Chelmsford, the type is related to early G5 forms. It occurs at, eg, Gun Hill (Drury &

Rodwell 1973, fig 16.87-92), commonly with a variety of stabbed motifs on the shoulder.

G6.1 As Type, undecorated. **50**

1/1 Pre-Flavian to early Flavian. Southwark (Marsh & Tyers 1978, fig 235.11 A 15); Gun Hill (Drury & Rodwell 1973, fig 16.88). VI.1 (S406)

G 7

Neckless jars with tapering upper bodies, and a groove or grooving on the body just below the rim, which is angular, with an internal ledge. Not a common type in Chelmsford, or in Essex generally: it is probably of Hertfordshire origin (cf M Wilson 1972, fig 118.660-I and 665). The fabric is a hard sandy grey ware and may be related to Brockley Hill products of Corder's (1941) type 6.

G7.1 As Type, with a finely moulded cupped rim. **47**

1/1 Early to mid 2nd century. Verulamium (M Wilson 1972, fig 118.661). VII.2 (S368)

G7.2 As Type, with a thickened triangular rim. **47**

2/1 Early to mid 2nd century. Verulamium (ibid, fig 118.660). Unstrat (AD)

G 8

Squat, oval or round-bodied jars with neck constrictions and out-turned rims. The shoulder is slightly offset. The type resembles Cum 264. Rare at Chelmsford.

G8.1 As Type, with a concave, pointed, or angular everted rim. **39, 45, 47**

1/1 **45**; Claudian to Neronian. Camulodunum (Hawkes & Hull 1947, pl LXXXIII, *Cum* 264B). V (S215)

1/2 **45**; Claudian to Neronian. Camulodunum (ibid, pl LXXXIII, *Cam* 264). Site V, feature 155

G 9

High-shouldered neckless jars with everted rims. This distinctive type originates in the early 2nd century, and persists, with changing proportions, into the later 4th century. Over time the forms become taller, and the rim more outplayed until it becomes the widest part of the vessel. The commonest form of decoration is a zone of burnished lattice which narrows as the angle of laticing becomes more obtuse (compare G9.1 with G9.4). The type occurs in a variety of local grey wares (39, 47), and also in BBI and BB2 (40, 41)

G9.1 As Type with a short pointed rim and a zone of acute lattice burnish on the body. **40, 41, 47**

1/1 **41**; c AD 125/30 to 150; (Gillam 1970, fig 16.137). VI.1 (S196)

G9.2 As Type, with a slightly more flared rim than 9.1. Decorated with burnished lattice or groups of vertical burnished lines. **?41, 47**

2/1 **47**; c AD 125/30 to 160/70. VI.3 (Z15 layers 1 and 2)

G9.3 As Type, but with a taller ovoid body. The rim is concave and flaring, approaching a true cavetto. There is a slight offset to the body. Decoration comprises a variety of burnished patterns. **?41, 47**

3/1 **47**; 3rd to early 4th century. Colchester (May 1930, pl LIV.234). Unstrat (T)

G9.4 As Type, with a widely flaring rim which is usually the widest part of the vessel. Decoration usually comprises a narrow zone of obtuse lattice. **40**

4/1 Mid to later 4th century. Kelvedon (K Rodwell forthcoming, fig 88.G38). VII.3 (T78)

G10

A type resembling in its general proportions G9, but dividing the rim from the body is either a narrow cordon or a zone of decoration. The type, rare in Chelmsford, is related to Southwark type II.E, where it is described as the 'commonest jar form of the Trajanic-Hadrianic period' (Marsh & Tyers 1978, 559), and they are common at Sewardstone and Verulamium. The type was made at Highgate (Production phase III, c AD 100-140; Brown & Sheldon 1974, 228-g), but the Highgate products have a distinctive iron-free white or grey slip which the few Chelmsford examples do not possess. However, they may be from a similar industry.

G10.1 As Type, with a narrow cordon. **47**

1/1 Flavian to later Hadrianic. Unstrat (AK)

G10.2 As Type, with a decorated zone on the shoulder. **47**

2/1 Flavian to later Hadrianic. Southwark (Marsh & Tyers 1978, fig 235.II E). VI.2 (AK78)

G11

Neckless jars with rounded bead rims. The body is plain, apart from a groove on the upper body. Rare at Chelmsford

G11.1 As Type. **47**

1/1 Mid/late 2nd to early 3rd centuries. VI.3 (2103)

G12

Oval-bodied neckless jars with flattened D-shaped rims. The type occurs in a wide variety of sizes. Rare at Chelmsford, it is known from Flavian and 2nd century deposits at Brockley Hill (Richardson 1948, fig 8.48-51; Castle 1973, fig 4.4), and from 'pit' 6 at Verulamium (Corder 1941, type 9; Anthony 1968, figs 10.8, 11.14, 12A.10).

G12.1 As Type, with a wide flattened D-shaped rim. **26**

1/1 Antonine. Southwark (Marsh & Tyers 1978, fig 237.11 J 3). VII.1 (AR6)

G13

Vessels resembling 'girth' beakers, but rather larger. The tapered neck is divided from the body by a cordon. Decoration comprises varied burnish zone and line ornamentation.

G13.1 As Type, with burnished chevron decoration. **45**

1/1 1st century. IV.1 (S245)

G14

Jar type resembling Beaker Type H7. The rims are everted and rounded. A cordon divides the neck from the body, which is decorated with a variety of burnished lines. **39, 45**

G14.1 As Type, the upper body decorated with burnished lattice, the lower, beneath a plain mid body zone, with burnished lines. **45**

1/1,2 Pre-Flavian to early Flavian. V (S215); IV.4 (S205)

G14.2 As Type. **45**

2/1 Pre-Flavian to early Flavian. IV.4 (S205)

G15

Jars with concave necks with multiple cordons producing a 'corrugated' effect. The type resembles *Cam* 229, to which the best parallels are pre-conquest (eg

Verulamium: Wheeler & Wheeler 1936, pl 99.11- 13; fig 9.3), but its appearance in deposits of periods I-VI at Sheepen suggests that it may have survived into the Neronian period. One example only from Chelmsford, from site AD

G15.1 As Type, with pointed shoulder cordons. **45, 52**
1/1 **45**; Claudian-Neronian. Camulodunum (Hawkes & Hull 1947, pl LXXVI, *Cam* 229); Kelvedon (K Rodwell forthcoming, fig 80.56). Unstrat (AD)

G16

Necked jar with an out-turned bead rim and concave neck divided from the high-shouldered body by a wide, plain cordon. The type has an origin in Cum 218,220A. The form is rare at Chelmsford.

G16.1 Squat form, otherwise as Type. **45**

1/1 Pre-Flavian to Flavian. VI.3 (AK53)

G16.2 As Type, with a slightly undercut bead rim. **45**

2/1 Pre-Flavian to Flavian. Camulodunum (Hawkes & Hull 1947, pl LXXV, *Cam* 220A). Site V, layer 16.

2/2 Pre-Flavian to Flavian. V (AR67)

G17

Necked jars resembling G16 and having a similar origin in the Cum 220A. Common in early (ie pre-Flavian to Flavian) contexts at Chelmsford, the type is almost invariably decorated with burnished lines, a feature which on the closely related Cum 218 was regarded by Hull as 'quite late' (Hawkes & Hull 1947, 261). Hull was of the opinion that *Cam* 218, 220 had a lengthy post-conquest survival, and at Chelmsford, certainly, its presence in contexts until the Hadrianic period suggests that it was in use well into the 2nd century.

G17.1 As Type, with beaded or out-turned rims, concave necks and a wide cordon, usually decorated with burnished latticing. **39, 45**

1/1 **45**; pre-Flavian to early 2nd century. Kelvedon (K Rodwell forthcoming, fig 94.362). VI.1 (S220)

1/2,3 **45**; Pre-Flavian to early 2nd century. Post-Roman (S103); V (AR67)

G17.2 As Type, with a comparatively narrow neck. **45**

2/1 Pre-Flavian to early 2nd century. Braintree (Drury 1976a, fig 38.24). IV.3 (S216)

G18

Squat almost biconical jars with steeply tapered sides. The lower wall is convex. The mid body is decorated with a flat cordon. The rims are out-turned and rounded or squared off. The cordons are undecorated, but the upper body is decorated with a variety of burnished line ornament. The type is related to G17, but is considerably less common.

G18.1 As Type, with an everted rounded rim and burnished decoration on the upper body. **45, 47**

1/1 **45**; 1st to early 2nd century. IV.1 (S245)

G18.2 As Type, with a squared-off rim and horizontal burnished lines on the upper body. **47**

2/1 1st to early 2nd century. IV.4 (S205)

G19

Jars with a recurved profile and a variety of hooked and beaded rims. The wide cordon has diminished to become narrow and pointed. The type resembles *Cam* 228, a development of *Cam* 218, while others (eg G19,1/2)

resemble *Cam* 221 on account of the narrow cordon. With the exception of G19.3 the type is not particularly common. It appears to have had a *floruit* from the mid 1st to the early 2nd centuries. 39, 45, 47

G19.1 As Type, with a vertical neck and an out-turned rounded rim. 47

1/1 Pre-Flavian to early 2nd century. VI.3 (AR47)

1/2 As 1/1. Camulodunum (Hawkes & Hull 1947, pl LXXVI, *Cam* 221B). Post-Roman (AK4)

G19.2 As Type, with a recurved neck and a fine hooked rim. 39, 47

2/1 47; pre-Flavian to early 2nd century. Camulodunum (Hawkes & Hull 1947, pl LXXVI, *Cam* 228). V (AA2.2)

G19.3 Similar to 19.2, but larger, and with a flat, rounded rim. 45, 47

3/1 47; pre-Flavian to early 2nd century. V (AA2.2)

G19.4 As Type, with a tapering or concave neck, everted bead rim, and a narrow shoulder cordon. 45

4/1,2 Pre-Flavian to early 2nd century. IV.1 -2 (S245, 230). Site V, feature 64

G19.5 As Type, but larger than 19.1-4. 45

5/1 Flavian to early 2nd century. VII.2 (225 layer 2)

G20

High-shouldered jar with a concave neck and a variety of beaded or rounded rim shapes. The type resembles *Cam* 221, 224. Decoration is restricted to overall burnishing, or burnished zones. Not common at Chelmsford. 45, 47

G20.1 As Type. 45

1/1 Pre-Flavian to early 2nd century. Camulodunum (Hawkes & Hull 1947, pls LXXVI, LXXVIII, *Cam* 221A). Site V, cremation 3

1/2 Pre-Flavian to early 2nd century. Camulodunum (Hawkes & Hull 1947, pls LXXVI, LXXVII, *Cam* 221). IV4 (S205)

G20.2 As Type, but with a deeper, concave neck and a squat body. 45

2/1 Pre-Flavian to ?early 2nd century. IV.1 (S245)

G21

'Braughing' jars. The type is very long-lived (1st to 4th centuries), and exhibits a slow evolution from the squat, high-shouldered 1st century forms with short necks and small rims (eg Partridge 1981, fig 44.15), to tall 4th century forms with a sharply inset neck and a thick out-turned or angled rim (eg M Wilson 1972, fig 137.1238-9). Although there is much variation, the earliest examples are often decorated with irregular all-over rilling, which is restricted in 2nd century and later examples to a band on the upper body or shoulder. Rare at Chelmsford

G21.1 As Type, with a thickened slightly angled everted rim. 36

1/1 2nd century. London (Billingsgate Buildings: Green 1980, fig 34.276); Skeleton Green (after Partridge 1981, fig 92.6)

G22

Bead-rimmed jars with concave necks and ovoid or high-shouldered bodies. The type is decorated with oblique slashes on the shoulder, reminiscent of some forms of 'Icenian rustication' (Swan 1981, fig 8.5A). Rare at Chelmsford

G22.1 As Type, with a rolled, or undercut rim. 47

1/1 ?Late 1st to 3rd century. Colchester 'Mithraeum' deposit (Hull 1958, fig 69.121). V (S764)

1/2 ?Early to mid 2nd century. VI.1 (S131)

G 2 3

Necked high-shouldered jars with a variety of beaded, undercut, or everted rims and low pedestal bases. Fragmentary examples are difficult to distinguish from ovoid jars of G24, which share with G23 an origin in *Cam* 266-7. The type represents, with G24, the commonest jar form at Chelmsford. Usually undecorated, but with a generally good finish. Rare in central Essex, but common in the north-east of the county.

G23.1 As Type, with a globular body and an undercut bead rim. 45, 47

1/1 47; 1st-2nd century. Camulodunum (Hawkes & Hull 1947, pl LXXXIII, *Cam* 266). V (AA2.2)

G23.2 Similar to 23.1, but with a slightly recessed neck and a bead rim. 47

2/1 1st-2nd centuries. Kelvedon (K Rodwell forthcoming, fig 96.401). IV (AR124)

G23.3 As 23.1, but taller. 47

3/1 1st-2nd centuries. Colchester (Hull 1958, fig 119, *Cam* 277A). IV (AR124)

G23.4 As Type, but with an everted, rounded rim and wavy line decoration on the body below a shoulder groove. 47

4/1 ?3rd century. V (AR81)

G 2 4

Oval-bodied jars with oval, pointed, and occasionally slightly undercut bead rims. A Moulsham Street kiln product.

G24.1 As Type, with out-turned rim and tapering neck. 47, 48

1/1,2 47; c 2nd-4th centuries. VII.2 (S305, 322)

G24.2 As Type, with a rolled, angular, or slightly undercut rim and short neck. 47, 48

2/1,2 47; c 2nd-4th centuries. VII.2 (AR13; S322)

G25

High-shouldered jars with undercut, pointed rims, short necks and restricted bases. The type resembles *Cam* 268B, described by Hull (1963, 183) as 'beyond question the commonest vessels in Roman Colchester'. It is nevertheless rare in Chelmsford and in west Essex generally, and it seems doubtful whether it was made in any numbers away from the Colchester kilns. Its absence suggests that Colchester did not trade extensively in coarse wares after the decline of Fabrics 34 and 45 (cf Section II). Hull thought that the *Cam* 268B was made well into the latter half of the 4th century on the evidence of the 'Mithraeum' deposit (Hull 1963, 183), but it had probably ceased production by AD 325/30 (cf Section XII.3).

G25.1 As Type. ?38, 47

1/1 ?38; 2nd to early 4th century. Colchester (after Hull 1963, fig 103. *Cam* 268B)

G 2 6

Jars with frilled rims, usually with oval bodies. A wide variety of forms were made, but the type is uncommon in central and east Essex. Vessels of this type are characteristic products of the Hadham kilns, of which

one of the most distinctive is *Cam* 290, which is 4th century (where datable).

G26.1 As Type, with a wide, bifid rim, frilled along the lower edge. ?4

1/1 3rd to 4th centuries. VI.2 (S763i), post-Roman (S1002)

G 2 7

Necked, oval-bodied jars with a variety of out-turned, squared-off or rounded rims. Like G21, the type is decorated with rilling on the body. The type is restricted to late 'shell-tempered' fabrics, and corresponds to Sanders (1973) forms 3-5. Jars are the commonest late 'shell-tempered' products found at Chelmsford; open forms such as B5.3 are rare here as elsewhere in Essex. There may be a chronological significance in the changing rim forms. Three possible production sites are known: Harrold in Bedfordshire, the lower Nene Valley, and Lakenheath (Suffolk). The form is dated at Chelmsford by the first occurrence of the fabric c AD 360/70.

G27.1 As Type, with an everted bead rim and an 'S'-shaped profile. 51

1/1 c AD 360/70-400+. Gadebridge (Neal 1974, fig 107.316). VII.3 (S35)

G27.2 As Type, with an out-turned, squared-off rim. 51

2/1 c AD 360/70-400+. VII.3 (S35)

G 2 8

Bifid-rimmed jar with a short neck and mouldings on the upper body. A Nene Valley type most often made in 'self-coloured' fabric (24), the single example here is in colour-coated fabric, and hence perhaps late (cf Howe *et al* 1981, fig 27.1, no 6).

G28.1 As Type. 2

1/1 ?3rd century. Stibbington (after Howe *et al* 1981, fig 8.90)

G29

Carinated jars with out-turned bead or squared-off rims, concave upper bodies to a mid body carination, convex sided below. The type is related to the *Cam* 227. It is never common, and the related *Cam* 241-2 do not appear to be present at Chelmsford. It appears to be Neronian at Colchester and to continue into the 2nd century. The finish is good, usually with an overall burnish, but with the exception of a groove emphasizing the carination of 29.2, is otherwise left undecorated.

G29.1 As Type, with an out-turned squared-off rim. 34, 39

1/1 34; pre-Flavian to early 2nd century. Braintree (Drury 1976a, fig 21.10); Kelvedon (K Rodwell forthcoming, fig 96.402). Site V, layer 2

G29.2 As Type, but with a bead rim and a sharp carination delineated by a groove beneath. 34

2/1 ?Claudian to early Flavian. Camulodunum (Hawkes & Hull 1947, pl LXXVII, *Cam* 227.9). VI.3 (AR47)

G29.3 As Type, with a sharp carination below a recurved neck. 45

3/1 1st century. Kelvedon (K Rodwell forthcoming, fig 83.114). V (S1020)

G 3 0

Squat jars with simple out-turned squared-off rims, concave necks and offset shoulders, usually decorated be-

neath with a stabbed zone which may be repeated below the rim (G30.2). Although uncommon, the type appears to be a characteristic central Essex one, occurring at Rivenhall, Kelvedon (K Rodwell forthcoming, fig 92.304) and Woodham Walter (W Rodwell forthcoming b, no 107).

G30.1 As Type, with zone of stabbing on offset shoulder. 45

1/1,2 1st century. IV.1 (S245)

G30.2 As Type, with stabbed zone beneath the rim and on the shoulder. 45

2/1 ?1st century. Site AD, feature 212

G31

Globular jars with footring base, with zones of 'Romano-Saxon' decoration.

G31.1 As Type. 35

1/1,2 c AD 350-400. For graffito see Section X, Fig 50.38. VII.3 (T71/80), VII.3 (S35)

G31.2 As Type, with zones of bosses between pendent triangles of dimples. 35

2/1 Later 4th century. VII.2+ (S1062)

G 3 2

Ovoid jars decorated with a variety of 'Romano-Saxon' motifs including animals.

G32.1 As Type, with running animals between pendent triangles of moulded bosses. 4

1/1 Later 4th century. Chelmsford site K (after Drury 1972, fig 5); Enfield (Gentry *et al* 1977, fig 23.21.16). For stamps see IX.4, Fig 48.15, 18

G 3 3

Globular jars with hollow pedestal bases, decorated with 'Romano-Saxon' motifs.

G33.1 As Type. 47

1/1 Early to mid 4th century. VII.1 (S305, 322, 368). The decoration of this piece, a probable kiln product (cf Section V) appears to have been inspired by a Hadham vessel. Certainly the stamp closely resembles those on some Hadham products (cf G32.1/1). Section IX.4, Fig 48.16-17

G34

Large narrow-necked jars with bead rims. Usually undecorated

G34.1 As Type. 47

1/1,2 3rd-4th centuries. IV (AR228); post-Roman (AA2.14)

G 3 5

Narrow-necked jars resembling Type G34, either undecorated, or with a zone of stabbing and burnished line decoration overall. The type is found in the Moulsham Street kilns (Section V, Fig 35.15-16).

G35.1 As Type. 47, 48

1/1 47; 4th century. Site V, feature 49

G35.2 As Type, but with stabbed decoration on the shoulder, and burnished lattice decoration on the body. 47, 48

2/1,2 47; early to mid 4th century. VII.2 (S368)

G35.3 As Type, with zones of wavy line burnish on the body. 47

3/1 4th century. VII.2 (S1062, 1066)

G36

Narrow-necked jars with out-turned, pointed or beaded rims, and a cordon dividing the neck from the body. The type is met with in grey wares at Hadham, and is dated at Colchester from the early 2nd to the end of the 4th century (Hull 1958, fig 120. *Cam* 280), although it perhaps ended in the 3rd century.

G36.1 As Type, with an out-turned, undercut rim and a narrow neck cordon. **47**

1/1 3rd to ?4th centuries. Site P, Well 1

G36.2 As Type, with a bead rim. **47**

2/1 End of the 2nd/early 3rd to ?4th centuries. VII.2 (S308)

G37

Narrow-necked jars with heavy rolled or undercut rims. No complete forms are known. **?39, 47**

G37.1 As Type, with an undercut or angled rim. **47**

1/1 Later 2nd to mid 3rd centuries. VI.2 (S790ii)

1/2 ?3rd to 4th centuries. Post-Roman (S1002)

G38

Narrow-necked jars with a variety of burnished decorated zones on a flat cordon on the upper body.

G38.1 As Type, with a variety of zig-zag lines on shoulder zone. **47**

1/1 3rd to 4th century. IV.1 (S245)

1/2 1st to early 2nd century. VI.2 (S1009)

G38.2 As Type, with zone of acute lattice decoration on neck. **47**

2/1 ?Early to mid 3rd century. VII.1 (AK57)

G38.3 Similar to 38.2, but with zone of obtuse laticing on neck. **45**

3/1 Flavian to end of 1st century. IV.4 (S205)

G38.4 As Type, with opposed panels of oblique burnished line decoration. **45, 47**

4/1 **47**; VI.1 (AK7)

G39

Narrow-necked jars with inverted piriform bodies offset from the neck. **?39, 47**

G39.1 As Type

1/1 **47**; later 1st century. IV.1 (S245)

G40

Narrow-necked jars resembling bottles. The type is similar to Mucking type O (Jones & Rodwell 1973, fig 9.88-93). **48**

G40.1 As Type, with a splayed lip and a bead rim; burnished overall. **?39, 47**

1/1 **47**; no dating evidence. Site V, feature 64, layer 2

G40.2 As Type, with a zone of vertical burnished line decoration on the neck. **47**

2/1 c AD 300-360. Moulsham Street kiln product (cf Section V). VII.2 (S322)

G40.3 As Type, but with a narrow cordon on the neck or grooving on the upper body. Rare at Chelmsford. **?36, 39**

3/1 **?36**; c 300-400. Caister-on-Sea (Higgins 1972, fig 7.52). VII.2 (S102)

3/2 **39**; 4th century. IV, V (AR67, 124)

G41

Neckless storage jars, uncommon in Essex

G41.1 Storage jars of Alice Holt origin, decorated with a variety of combed and burnished zones. **43**

1/1 cAD 360-400+. c AD 350-420. Alice Holt (after Lyne & Jefferies 1979, fig 29, type 4.45)

641.2 Bifid-necked storage jar with a frilled zone on the lower rim, and an internal thickening below a bevel. The only example is from the New Forest kilns. **46**

2/1 c AD 360-400+ (Fulford 1971, fig 9, type 20). VII.3 (T3li-iv)

G42

Small storage jars with short, slightly recessed, tapering necks. The type appears to be characteristic of central Essex. It is not present in the Colchester typologies. ?Later 3rd to 4th centuries

G42.1 As Type, with an oval or slightly undercut rim. The shoulder below the short, tapering neck is decorated with a line of 'wheat-ear' stabbing. It occurs in the Moulsham Street kilns (cf Section V). **44, 47, 48**

1/1, 2 **48**; c AD 280-400. VII.2 (S305)

G42.2 As Type, with a pointed, oval rim. **44, 47, 48**

2/1, 2 **44**; c AD 280-400. VI.1 (AR299); Site V, layer 3

642.3 As Type, but the shoulder zone is undecorated. **47, 48**

3/1 **47**; 4th century. Site V, feature 10

G43

Massive storage jar, in form very similar to G42.

G43.1 As Type, with a line of oblique stabbing on the shoulder. **44**

1/1 3rd to 4th century. VI.1 (S418), VII.1 (S419)

G44

High-shouldered storage jars with tapering necks to a variety of squared, tapering or undercut rims. These comprised the commonest type until the 4th century, when they seem to have been displaced by the smaller capacity G42.

G44.1 As Type, but undecorated. **44**

1/1 1st to early 4th centuries. IV.1 (S245iii)

G44.2 As Type, with a squared-off rim. **44**

2/1 1st to early 4th centuries. Unstrat (AD)

G44.3 As Type, with a rough, irregular finish. **44**

3/1 1st to 3rd centuries. IV.1 (S245)

644.4 As Type, with everted rim. **44**

4/1 IV.1 (S245)

G44.5 Very large, otherwise as Type. **44**

5/1 Pre-Flavian to Flavian. IV.1 (S245)

G45

High-shouldered storage jar with concave neck and undercut rim.

G45.1 As Type. **44, 47**

1/1 **47**; c 2nd to 3rd centuries. VI.2 (AR41-2)

G46

Storage jar of uncertain type with wavy line decoration below offset shoulder.

G46.1 As Type. **47**

1/1 No dating evidence. VI.2 (S1009)

H Beakers

H1

Globular beakers with short everted rims. The type is based on Gallo-Belgic derivatives of La Tène forms, of which the most comprehensive assemblage in the area is that from Camulodunum (Hawkes & Hull 1947, *Cam* 95-108). They occur in a wide variety of medium to fine fabrics, and are the commonest 1st century beaker forms in Chelmsford.

H1.1 Globular beakers with short everted rims. The bodies are undecorated. **16, 17, 34, 45**

1/1 **45**; 1st century. IV.4 (S205)

H1.2 As Type, with a variety of rouletted decoration on the body. **17, 39, 45**

2/1, 2 **45**; 1st century. IV.4-V (S205, 182); Site V, feature 64

H1.3 As Type, with a variety of stabbed decoration on the body (cf *Cam* 108). **39, 45**

3/1, 2 **45**; unspecified buff wares; 1st century. VI.1 (AR302); VI.2 (AR28)

H1.4 As Type with horizontal grooving on the body and burnished lattice decoration between. **34, 45**

4/1 **34**; ?1st century. IV.4 (S205)

H1.5 As Type, with a slight shoulder, and lines of pushed-out bosses on the body (cf *Cam* 95). **11**

5/1 Pre-Flavian to Flavian. IV.4-V (S205, 182)

H1.6 As Type, with an everted, straight or occasionally bead rim. The body is decorated with zones of dots and circles en *barbotine* (Green 1978, 9). **29, 31**

6/1 **29**; late Neronian to early Flavian. London (Green 1978, fig 5.1:3). IV.1 (S245)

H1.7 As Type, although generally large, with a variety of burnished line and stabbed or stamped motifs. **45**

7/1 1st century. IV.4-V (S245, 205, 225, 182)

H1.8 Similar to 1.7, with plain shoulder zone. **45**

8/1 1st century. IV.4 (S205)

H2

Generally similar to H1, but larger and undecorated.

H2.1 As Type, with shoulder and mid body grooves. **39**

1/1 1st century. VI.1-VI.2 (AR41-3, 61)

H3

Similar to H1-2, but with an offset, bevelled shoulder.

H3.1 As Type. **45**

1/1 Pre-Flavian to Flavian. V (S769)

H4

Neckless beaker type with an ovoid body, flat base, and a pointed bead rim.

H4.1 As Type. **45**

1/1 1st century. VII.1 (S1065)

H5

Squat type resembling poppyhead beakers of H6. Flavian-Antonine. Rare at Chelmsford

H5.1 As Type. **32**

1/1 Southwark (Marsh & Tyers 1978, fig 239, III E 1), or, if handled, Verulamium (M Wilson 1972, fig 124.845). VI.1 (AK7)

H6

Globular beakers with a narrow neck cordon, a recurved or flaring rim and a restricted footring base. The type is restricted to poppyhead beakers, for which manufacture is attested at Highgate, Brockley Hill, Upchurch and possibly Hadham. The Chelmsford examples appear to be exclusively in ?North Kent grey ware or London wares. There are probably other local production sites, although Colchester does not seem to have been producing the form. The type occurs in a wide variety of forms and decorative patterns, but few have survived in sufficient completeness for more than three forms to have been isolated. There appears to have been an evolution of the rim forms, from upright, slightly flared rims, to deep funnel-shaped rims (Marsh & Tyers 1978, fig 239. 569-70).

H6.1 As Type, with an upturned, slightly everted rim, with grooving separating the neck from the body. **32**

1/1 Later Flavian to Trajanic. VI.2 (AR60)

H6.2 As Type, with a narrow, ovoid body, more widely flared rim than 6.1, and barbotine lozenges on the body. **32**

2/1 Probably early to mid 2nd century. Verulamium (M Wilson 1972, fig 112.428). VI.2 (S175i)

H6.3 As Type, with a deeper 'finnel-shaped rim. **32**

3/1 Mid to later 2nd century. Faversham (Tyers 1978, fig 4.5:60). Unstrat (AD)

H7

A type comprising a variety of forms ultimately derived from the native but beaker (*Cam* 112-16). The rim forms are usually out-turned, pointed, or occasionally hooked (H7.3). Generally rare at Chelmsford

H7.1 As Type, with a short everted rim. The body is decorated with two narrow cordons, and the zone between is decorated with a variety of burnished latticing. **31, 45**

1/1 **45**; pre-Flavian to Flavian. IV.1 (S245)

H7.2 As Type, with a narrow cordon below the rim, and on the mid body. Otherwise undecorated except for a burnish overall. **45**

2/1 1st century. Skeleton Green (Partridge 1981, fig 23.74) there dated c 10BC-AD20 (F52); Kelvedon (K Rodwell forthcoming, fig 91.258), dated early to mid 1st century AD. Site V, layer 10

H7.3 As Type, with a hooked rim. The neck is horizontally burnished, and the body decorated with acute burnished latticing. **39, 45**

3/1 **45**; pre-Flavian to Flavian. IV.4 (S205)

H8

Similar to H7, with which it is probably contemporary. The neck is short and vertical, the rim beaded. Body cordons are slackly moulded and resemble grooving.

H8.1 As Type, with irregular combed decoration on the body. **31, 45**

1/1 **45**; 1st century. IV.1 (S245)

H9

The type resembles H8, with a vertical neck, bead rim, and a neck cordon; the body is decorated with rouletting or burnished latticing. The base is a flat pedestal.

H9.1 As Type, with a prominent neck cordon. The lower body is decorated with fine notched rouletting. **39**

1/1 1st century. V (AR86)

H10

Vessels with a mid body carination, restricted bases, and recurved necks to a vertical or slightly out-turned, plain rim. The type has an origin in the continental *Terra Nigra* industry (eg Nijmegen: Holwerda 1941), and was extensively copied in a variety of fine grey wares in the 1st century AD (eg *Cam* 120).

H10.1 As Type, with a high carination, undecorated save for an overall burnish. **32, 34**

1/1 **32**; 1st century. Colchester (*Cam* 120A). IV4 (S205)

1/2 **32**; 1st century. Colchester (*Cam* 120B). IV.1 (S245)

H11

Beaker type with a low carination, with convex or straight walls beneath, straight or slightly tapering upper walls and beaded or out-turned rims. The type is related to *Cam* 212-16, and specifically *Cam* 214B, Bb, Bc. **34**

H11.1 As Type

1/1, 2 1st century. V (S1020); Site AD, trench 1 over floor

H12

Type with a flaring mouth, bead rim and a restricted foot. There is a narrow mid body cordon, below which is a decorated zone above a low carination. The type shares the same origins as H11, and resembles variants of *Cam* 211-12.

H12.1 As Type, with vertical line burnish between the mid body cordon and the carination. **34**

1/1 Claudian-Flavian. Camulodunum (*Cum* 212). IV.1 (S245)

H13

Beakers with wide flaring upper bodies and bead rims. Although only fragments have been recovered from Chelmsford the type seems to be based on *Cum* 76 and related forms: ie cup-mouthed pedestal beakers with constricted middles and spherical lower bodies. The type is paralleled on the Continent (eg at Trier: Hawkes & Hull 1947, fig 49.1.5). The closest parallels to the Chelmsford pieces are Claudian or Neronian. The form probably continues in use into the 2nd century, for a possibly related form in a mica-dusted fabric occurs in London (Marsh 1978, fig 6.18, type 41).

H13.1 As Type, with a frilled bead rim. **14**

1/1 Mid to late 2nd century. V (AA2.2)

H13.2 As Type, but lacking the cordon separating the recurved neck from the body. This form may be loosely based on Drag **27.12**

2/1 Claudian-Neronian. Camulodunum (*Cam* 76A); Skeleton Green (Partridge 1981, fig 125.16); London (Bank of England; Marsh 1978, fig 6.18, type 41). Site V, layer 13

H14

Deep funnel-shaped beakers. The type is an uncommon one which appears to be loosely based on Gallo-Belgic and Gaulish beaker types (cf *Cam* 79, 85).

H14.1 As Type, with an everted bead rim, and a cordon below an undecorated zone, beneath which is a zone decorated with burnished lines. **34**

1/1 Claudian-Neronian, (*Cum* 85B). VI.1 (S149)

H14.2 As Type, with oblique burnishing or rouletting directly below a slightly out-turned, plain rim. **32, 39**

2/1 **32**; 1st century. Site AD, drain 1, 243

2/2 **39**; 1st century. VI.1 (S220)

H14.3 As Type, with a steeply tapered body and everted rim; decorated with the recessed zones of burnished lines. **39**

3/1 1st century. Site V, feature 62

H15

Funnel-necked beakers with an everted bead rim and concave sides to a squat, rounded body which tapers rapidly to a restricted foot. The type is probably derived from a metal form, but its inspiration here may be Drag 53, which was copied in both the Oxfordshire and Hadham kilns (Young 1977a, fig 56.C36.1). One example only from Chelmsford

H15.1 As Type, burnished overall but otherwise undecorated. **36**

1/1 4th century. Great Dunmow (Going & Ford forthcoming, fig 55.14). Site AF, layer 127

H16

Similar to H15, with a footring base, bulbous lower body and straight sides to an out-turned rounded or bead rim. The type is perhaps derived from Drag 53, and was copied in the Oxfordshire kilns (Young 1977, fig 56.C36, C38). The latter is rare in Essex (*ibid*, 296-7) and only one fragmentary example has been found in Chelmsford (*ibid*).

H16.1 As Type. **3**

1/1 c AD 360-400+. c AD 340-400+. Oxfordshire kilns; Colchester (Hull 1963, fig 105, *Cum* 334). For graffito see Section X, Fig 49.12. VII.2 (AR13)

H17

Beakers with bifid, usually frilled, rims and concave necks decorated with pushed out or applied face masks. The type has a long history, and an ultimate origin in the native 'face vases', *Cam* 288-9. No early examples are known from Chelmsford, and the type is always rare. The example recorded resembles the *Cam* 290, which is a late Hadham product.

H17.1 As Type, with a frilled rim and a moulded face on the neck. **34**

1/1 ?2nd century. VI.2 (S175i)

H18

Deep cylindrical beaker with a small bead rim, undecorated save for an overall burnish. Parallels are difficult to find: usually they are much shallower, eg *Cam* 121.

H18.1 As Type, with parallel sides. **34**

1/1 1st century. VII.2+ (S1062)

H19

Neckless beaker with an out-turned rounded rim, decorated with zones of oblique burnishing. Rare

H19.1 As Type. **39**

1/1 ?2nd century. Site V, layer 16

H20

Bag-shaped beakers with cornice rims and restricted ped-

estal bases. The type occurs in a wide variety of forms and decoration, and is decorated with roughcasting.

H20.1 As Type, with roughcast decoration to the rim. **1, 6, 7**

l/l **6**; c AD 130-70. IV.4 (S764)

H20.2 As Type, with roughcast decoration to a plain zone below the rim. **1, 6, 7**

2/l **6**; c AD 130-70. VI.3 (AR11, 16)

H20.3 As Type, decorated with roughcasting and folded. **1, 6, 7**

3/l **6**; mid to late 2nd century. VI.3 (AR47, 210)

H21

Similar beaker to H20, but decorated with a variety of rouletted zones

H21.1 As Type, with a plain zone below the rim. **39**
l/l VI.2 (S763ii)

H22

Cornice-rimmed bag-shaped beaker decorated with scales *en barbotine*. The type occurs on the Continent (eg in Lower Rhineland fabric 1: Anderson 1980, fig 7.5) and at Colchester (Hull 1963, fig 58.2). Rare at Chelmsford

H22.1 As Type, with all-over scale decoration to a plain zone below a class 1 cornice rim (Anderson 1980, fig 13.1). **1, ?6**

l/l **1**; c AD 120-80. Colchester (after Hull 1963, fig 58.2)

H23

Late bag-shaped beakers with pointed, angular rims derived from the cornice type. They may be plain, decorated with rouletted zones, or motifs *en barbotine*.

H23.1 As type. **2, 6**

l/l **2**; late 2nd to early 3rd century. Water Newton (after Howe *et al* 1981, fig 3.29)

H24

Plain-rimmed bag-shaped beakers. Decoration may comprise underslip barbotine, rouletting, or bands of vertical grooving spaced equally on the body of the vessel. The underslipped barbotine-decorated examples (eg 24.1) commonly have curvilinear or plant-derived motifs. It is worth noting that no vessels of this type could be definitely assigned to a Colchester origin, which strongly suggests that at the period when underslip barbotine decoration was at its most popular (c AD 190/200-50) the Colchester market was already contracting, and although new types continued to be produced at Colchester (eg *Cam* 395; Hull 1963, fig 89.3; H42 here), they were not widely marketed.

H24.1 As Type, with underslip barbotine decoration. **2**
l/l c AD 190-250. Leicester (Anderson 1980, fig 15.2). VI.2 (S790i)

H24.2 As Type, with bands of rouletting on the body. **2**
2/l c AD 190-250. Nene Valley (Howe *et al* 1981, fig 3.4). VI.2 (AR88)

H25

Beakers with globular, almost spherical bodies and recurved necks to plain rims, occasionally with roughcast decoration. Indented examples (cf *Cam* 396) are commoner than plain-bodied forms, although rim sherds cannot be identified to forms. The type appears ultimately

to be derived from Dechelette 12. As well as Colchester colour-coat, the type was made in samian and Lower Rhineland fabric 1 (Anderson 1980, form 3).

H25.1 As Type, grooved below the neck, with indentations on the body. Roughcast decoration. **1, 6**

l/l **1**; c AD 120/30-180. VII.2 (Z23)

H26

Globular beakers with everted rims and one or more body constrictions. The type was manufactured both on the Continent (Anderson 1980, fig 8.4) and in Britain at Colchester (*Cam* 397-8) where it occurs either with single or multiple girth constrictions, and is either roughcast or decorated with zones of rouletting. Rarer than the H25 (only two examples are known at Chelmsford)

H26.1 As Type, with an angular inset waist. The upper body may be roughcast or left plain. **1, 7**

l/l **1**; c AD 130-160/70. VI (AA1.12)

H26.2 As Type, with a waist constriction, and decorated either with rouletting or roughcasting. **1**

2/l c AD 130-160/70. Colchester (after Hull 1963, fig 58.19)

H27

Oval-bodied beakers with small bead (27.1) or plain rims (27.2); and restricted footring or pedestal bases (cf Howe *et al* 1981, fig 3.27; also *Cam* 392). The type is usually in East, or Central Rhenish or Romano-British colour-coated fabrics, although coarse ware variants are known. The type is derived from the bag-shaped beaker Types H20-24.

H27.1 As Type, with a bead rim and zones of rouletted decoration. **8, 9**

l/l **9**; Late 2nd to 3rd century. Gloucester (Greene 1978b, fig 46.5). VI (AA1.8)

H27.2 As Type, with a plain rim and wide bands of rouletting on the body. The form resembles *Cum* 392.

2/l One of the later vessels of ?Colchester origin found at Chelmsford. ?l. Late 2nd to early 3rd century. Colchester (Hull 1958, fig 70.134-5). VI.3 (Z15 layer 1)

H28

As 27, but decorated with animal and occasionally figural motifs *en barbotine*. The type is made in continental colour-coats (Rhenish wares), in the Nene Valley, and at Colchester, although no Colchester examples have been found at Chelmsford.

H28.1 As Type, with running animals *en barbotine*. **8, ?9**

l/l **8**; early to mid 3rd century. Verulamium (after M Wilson 1972, fig 131.1057)

H29

Beaker with recessed neck, offset shoulder, and an angular rim. Rare at Chelmsford

H29.1 As Type. **37**

l/l Early to mid 2nd century. VI.1 (S1104)

H30

Globular beaker with rouletted decoration between the grooves. Rare. An example from Colchester (grave 320; Hull 1963, fig 78.4) resembles it fairly closely.

H30.1 As Type. 38

1/1 Mid to later 2nd century. Colchester (Hull 1963, fig 78.4). VI.2 (S175ii)

H31

Beaker type with a bead rim, decorated with oval impressions below an offset shoulder. Rare at Chelmsford

H31.1 As Type. 39

1/1 4th century. Post-Roman (S121)

H32

Plain-rimmed folded beakers, decorated between folds with barbotine scales. The type was manufactured both at Colchester (eg kiln 32: Hull 1963, fig 96.15), and in the Nene Valley (Howe *et al* 1981, fig 4.38-9). Funnel necked types such as this began to appear in the Nene Valley *c* AD 225-35, and possibly persisted into the 4th century (*ibid.* 18). They are among the latest types to have underslip decoration. At Colchester the type appears to be exclusively 3rd century, although wasters of an elongated form, *Cam* 407, were found in kiln 25, which was arguably only backfilled *c* AD 360/70, and hence perhaps in use until well into the 4th century. However, none of the Chelmsford pieces is of this form.

H32.1 As Type. 1, 2

1/1 2; *c* AD 225/35 to ?310/20. Colchester (after Hull 1963, fig 96.15); Nene Valley (Howe *et al* 1981, fig 3.38-9)

H33

The type closely resembles Type H32, but lacks the latter's characteristic decoration *en barbotine*. Decoration is restricted to fine rouletting both above and below the folds, or the type may be left undecorated.

H33.1 As Type. 1

1/1 ?3rd century. Unstrat (AA)

H34

Folded beaker with a bead or pointed rim and high shoulder, decorated with occasional grooving. The body tapers to a restricted pedestal base. The body is usually burnished overall, occasionally with a mid body groove. H34.2 is the commonest folded beaker type at Chelmsford.

H34.1 As Type, with bead rim. 12

1/1 *c* AD 180/90 to 230/50. VI.2 (S763ii, iii)

H34.2 As Type, with pointed rim. 39, 47

2/2 47; *c* AD 180/90 to 230/50. Nene Valley (after Howe *et al* 1981, fig 4.41)

H35

Folded beaker with a short, tapering neck and a bead rim. The type is generally squatter than H34. Decoration comprises rouletted zones on the shoulders of otherwise plain variants (eg H35.1), or zones of roller-stamping on the main body of the vessel (H35.2). The latter technique appears to have been popular at Colchester in the 3rd century, and was imitated elsewhere (eg at Mucking). Uncommon at Chelmsford (Ford in prep)

H35.1 As Type, with rouletted zone on the shoulder. ?1, 39

1/1 ?1; early to mid 3rd century. Colchester kiln 24 (after Hull 1963, fig 86.7)

H35.2 As Type, with roller-stamped decoration on the body. 38, 39

2/1 38; early to mid 3rd century. Colchester 'Mithraeum' (after Hull 1958, fig 71.148). For a stamp, see Section IX. 4, Fig 48.14.

H36-9

These beaker types all appear to be late variants of the folded beaker series H32-5, which do not seem to have lasted much beyond the later 3rd century. Since no study of the late coarse ware industries of the region has been carried out, no satisfactory typology of these late forms has yet been published. Generally the neck attenuates while the body of the vessel remains squat. Deep folding, characteristic of the 2nd to 3rd century types is uncommon, and is replaced by shallow oval or circular 'facets', often highly burnished, and vertical grooving reminiscent of the colour-coated 'melon' beakers. These may occur in virtually any combination. Occasionally the 'facets' may themselves be decorated with burnished or dimpled motifs (Roberts 1982, pl 30, C35.2). The later Camulodunum series (Hull 1958, 1963) is generally deficient in these types, but whether this is as a result of a cessation of local production is at present uncertain. A good series has been found at Wickford, and a number of fragments of similar types occur on Chelmsford Site V, both to be published in due course.

H36

Beaker type resembling H32-5, but generally smaller. The tall neck is tapered to a small bead rim. The folds have become burnished 'facets'.

H36.1 As Type. 47

1/1 3rd to early 4th century. VII.1 (T44)

H37

Large ?beaker form. The type represented here is incomplete; superficially similar vessels are known from Mucking and Orsett (kiln group 2), where they have been dated to the late 3rd to 4th centuries (Rodwell 1974, fig 8.59). The only example found is in a Colchester buff fabric and is thus unlikely to be late.

H37.1 As Type. 27

1/1 ?late 2nd century. VI.1 (S197)

H38

Type with a globular body similar to H36, decorated with vertical grooves between circular folds. Similar to *Cam* 403 (Hull 1963, fig 107)

H38.1 As Type. 39

1/1 4th century. Kelvedon (K Rodwell forthcoming, fig 88.G33). VII.2 (Z25)

H39

Beakers with tall, tapering necks, low, bulbous bodies, and restricted pedestal bases. The decoration comprises 'faceted' folds, oval or narrow grooving, reminiscent of 'melon' beakers. The type usually occurs in a hard fine grey fabric, in contexts suggesting a 4th century date. Like H36-8 they appear to be late derivatives of the folded beaker series. 2, 47

H39.1 As Type, but with oval folding between vertical grooving. 47

1/1 4th century- Example from Wickford (Well 1, 4th century: Going, in prep)

H39.2 As Type, with vertical narrow folds. 47

2/1 4th century. Example from Wickford (Going, in Prep)

H40

Small, globular beakers with a pedestal base. The type is rare at Chelmsford. It resembles, but not closely, vessels of *Cam* 408-9.

H40.1 As Type. 47

1/1 3rd to 4th century. V11.2+ (S1062)

H41

Beakers with tapering necks, angular bead rims, and globular bodies, usually decorated on the shoulder, and lower body with rouletted zones. The body itself is usually decorated with white or cream slip-trails over the colour-coat. Significantly the type does not appear to have been made at Colchester, although it occurs in the Nene Valley during the latter part of the 3rd century. The absence of this diagnostic type and of the decorative scheme from Colchester suggests that the Colchester colour-coat production had all but ended by the latter half of the 3rd century (but see H42).

H41.1 Vessels with pointed bead rims, concave tapering necks, rouletted and slip-trailed decoration on the body. 2
1/1 3rd to early 4th century. Nene Valley (after Howe *et al* 1981, fig 5.49)

H41.2 As 41.1, but the form is more attenuated, and probably later. 2

2/1, 2 ?4th century. Site V, features 53, 79

H42

The type has a tapering neck to a plain or everted rim and a globular body with an undercut ('pentice') shoulder. It is one of the latest Colchester products (*Cam* 395; Hull 1963, fig 107). Hull dated the type to the 4th century, and described it as 'occurring in kilns 7-11 (Hull 1963, 178). Unequivocal wasters were found in the backfill of kiln 25 (*ibid*, fig 89.3), with sherds of Oxfordshire red colour-coat (*ibid*, fig 89.6-7). This suggests the kiln was still open, if not in use, perhaps as late as c AD 360-70. Even so its products have not been observed outside Colchester (H Toller, pers comm).

H42.1 As Type, with an out-turned rim. 2

1/1 Late 3rd to mid 4th century (after Howe *et al* 1981, fig 5.55)

H42.2 Similar, with rouletted zones on body and a sharp mid body carination. 38, 39

2/1 38; c AD 360/70-400+. VII.3 (T71/80)

J Flagons

Vessels in the class are characterized by closed bodies, restricted necks, and handles. Examples without handles are classed as narrow-necked jars (eg Type G40). No pre-conquest types are known at Chelmsford, and the class was, generally, a conquest period introduction. Until the mid 2nd century the overwhelming majority of flagons found at Chelmsford were in buff fabrics characteristic of the Colchester, and to a lesser extent, the Brockley Hill/

Verulamium regions. The earliest flagons are largely pre-Flavian collared types (J1-2), which were replaced during the Flavian period by ring-necked forms (J3), which remained common until the later 2nd century.

Flagons represent 12.55% of the Ceramic Phase 1 assemblage, but thereafter dwindle rapidly, representing only 0.75% of the assemblage by Ceramic Phase 5 (c AD 200/210-260/75). In Ceramic Phases 6-7 (c AD 260/75 to 360/170) they are absent in terms of EVE, although body sherds of probable flagons are present. Only in Ceramic Phase 8 (c AD 360/70-400+) does the proportion of flagons once again become appreciable (5.04%). By EVE, Phase 8 flagons are exclusively in Hadham oxidized red wares, although sherds of Alice Holt, Oxfordshire and Nene Valley colour-coated forms are present. Their absence from Ceramic Phases 6-7 is surprising when it is considered that the robust nature of their rims is likely to exaggerate their importance in terms of vessel equivalents. The reasons are difficult to identify. It may be that many flagons during the 3rd to mid 4th centuries were made in metal or glass, and therefore seldom feature in the archaeological record; or their lack may be the result of poverty. However, this period coincides with an apparent expansion of the markets of the later Romano-British pottery industries (Section XII.1-2). If this signifies increasing economic prosperity, a preference for vessels of metal or glass seems the more likely.

J1

Collared flagons of the 'Hofheim' type. This type is characteristically pre-Flavian, with a continental origin (Gose 1950, forms 359-364), introduced into Britain at the time of the conquest (eg *Cam* 140).

J1.1 As Type, with a flaring rim, concave, grooved neck with weak narrow cordons. 27

1/1 Pre- to early Flavian. IV.1 (S245)

J1.2 As Type, with a thicker, coarser rim than J1.1, and a tapering plain neck. 27, 31

2/1 31; pre- to early Flavian. Colchester/Sheepen (Hawkes & Hull 1947, pl LIX, Cum 136A). IV.1 (S245)

J2

Type with 'pulley-wheel' rims resembling Haltern 47 (Gose 1950). The type is linked to J1 above, and is equally rare in Chelmsford.

J2.1 Flagons with a pulley-wheel rim, the lower moulding smaller than the upper. The neck is not markedly flared. 31

1/1 Pre- to early Flavian. Camulodunum (Hawkes & Hull 1947, pl LX, *Cam* 136C). V (S1020)

J2.2 Form with a prominent flared rim divided into mouldings of equal size. The rim is slightly undercut. 31

2/1 Pre- to early Flavian. Colchester/Sheepen (Hawkes & Hull 1947, pl LXI, *Cam* 143.12). V (AR343)

J3

Ring-necked flagons. The type is common in Claudian/Neronian contexts at Camulodunum, and became the most common type from the Flavian period. There is a typological progression of the forms. The earliest have vertical necks and several rim mouldings. Over time these are less well marked and the neck is distinctly flared. This is the commonest flagon at Chelmsford.

J3.1 As Type, with a vertical neck and multiple mouldings below a small bead rim. The form has a three-ribbed handle. **27**

1/1 Neronian to early Flavian. *Cam* 154. IV4 (S205)

J3.2 As 33.1, but with a slightly 'cupped' neck and less marked mouldings. **21, 27**

2/1 **27**; Neronian-Flavian. IV.1 (S245)

J3.3 As Type, with a prominently cupped rim. The ring mouldings are deeply undercut. **26, 31**

3/1 **26**; Flavian to early 2nd century. VI.1 (AK7)

J3.4 As Type, with a weakly cupped rim, and few, ill-modelled mouldings. **26, 31**

4/1 **26**; early Antonine. Site V, layer 11A

J3.5 Similar to J3.4, with a widely flared rim with weak mouldings. **26**

5/1 ?Early to mid Antonine. VI.3 (ARL, 40, 46-7)

J4

Flagons with bead rims, short concave necks and a variety of body shapes. The handles are two- or three-ribbed.

J4.1 As Type, with a bead rim and triple-ribbed handle. **31**

1/1 Mid to late 2nd century. Post-Roman (S103)

J4.2 Larger variant, **31**

2/1 ?Early to mid 2nd century. VI.3 (Z15, layers 1 and 2)

J5

Flagons with a variety of handles in the shape of animals. The type corresponds loosely with Southwark classes 1F and 1G (Marsh & Tyers 1978, fig 223). Like J11 the type is derived from metal forms, which are discussed at length by Marsh and Tyers (*ibid*, 551-3). J5 is rare at Chelmsford, and probably of Colchester origin. The type varies considerably in detail. The divisions into forms were made on the basis of rim shape, and will require future revision.

J5.1 As Type, with a pointed bead rim. **12**

1/1 Later 1st to early/mid 2nd century. VI.1 (Z6)

J5.2 As Type, with an out-turned pointed rim, generally larger than J5.1. **11**

2/1 1st to early 2nd century. VI.2 (S763ii); post-Roman (S1005)

J6

Flagon with a sharply downturned, bead rim. The type is related to the ring-necked varieties. Rare at Chelmsford

J6.1 As Type. **?26**

1/1 ?Early to mid 2nd century. Site V, layer 10

J7

Flagons with a widely splayed, cupped rim, with a narrow ledge on the neck. The type is one of a variety of late Roman flagons made in the Hadham region.

J7.1 As Type. **4**

1/1 c AD 375-400+. Burgh Castle (Johnson 1983, fig 39.45, 52). VII.3 (S35)

J8

Two-handled flagons with D-shaped rims.

J8.1 As Type. **31**

1/1 ?2nd century. Site V, feature 59

J9

Very narrow-necked flagons with long necks and a mid-neck 'disk'. The handle is light and flimsy.

J9.1 As Type. **31**

1/1 ?Early to mid 2nd century. V (S393); VI.1 (S1105)

J10

Flagon with a widely splayed flat-topped rim decorated with a zone of comb stabbing.

J10.1 As Type. **14**

1/1 Late 2nd to early/mid 3rd century. VII.1 (AR25)

J11

Trefoil-mouthed flagons. Ultimately derived from metal prototypes (cf Eggers 1951, taf 11.123-6). The type occurs in pottery at, eg, Colchester (*Cam* 361) in a fine mica-dusted ware, London (Marsh & Tyers 1978, 1C.I) and in the Verulamium region (M Wilson 1972, fig 116.580, fig 123.821). Mica-dusted variants were also probably produced in the City of London (Marsh 1978, fig 6.6, type 1). None of these early forms has yet been noted at Chelmsford; 3rd to 4th century variants of the type were made in the Oxfordshire kilns (Young 1977, fig 54.C12), the Nene Valley (Howe *et al* 1981, fig 6.64-5), and the Hadham kilns.

J11.1 Vessels with a bead lip and a moulding or mouldings on the neck. **4**

1/1 4th century. Colchester (*Cam* 379). VII.3 (T2).

J12

Two- or three-handled flagons with a bifid rim and two-ribbed handles. The oval body is decorated on the upper zone by pushed-out stamps of various designs (cf Howe *et al* 1981, fig 7.74). The type is represented at Chelmsford by a single sherd decorated with a cruciform stamp (Fig 31.356 and Section IX.4, Fig 48.19).

J12.1 As Type. **2**

1/1 4th century (after Howe *et al* 1981, fig 7.74). For stamp see IX.4, Fig 48.19

J13

Single-handled flagons with triangular, slightly undercut rims, high-shouldered bodies and flat bases. The neck and upper body is decorated with burnished line or laticing. Rare at Chelmsford (one example only, sherds from T3li-iv and T71/80). The forms of the type occur in Alice Holt grey ware and New Forest fabrics (Lyne & Jefferies 1979, fig 40, type 8.10-14; Fulford 1975a, fig 33, type 20). The latter fabric has not previously been noted in Essex, but Alice Holt examples have been found at Mucking (Lyne & Jefferies 1979, fig 53).

J13.1 As Type. **43**

1/1 c AD 350-400+. c AD 270-420. Alice Holt (after Lyne & Jefferies 1979, fig 40, type 8.14).

K Lids

With the exception of a few obvious types or forms (eg K3), lids have seldom been examined in detail, nor, in a fragmentary state, frequently recognized. Moat must have been designed for use with specific vessel types and

forms (eg K7 with C18; and possibly K5 with E1). Away from kiln sites and cemeteries, however, such information is often scant. Few of the types in this section have close parallels, and more often than not their only dating evidence derives from the contexts in which they were found. One 'lid' is omitted from this section. This is the dish illustrated as Type B1.4/1, which was found inverted over B6.3/1; it confirms that these vessels were employed as a 'casserole set', as suggested on typological grounds by Gillam (1977, 70-2).

K 1

Lids with an inturned, plain or bead rim. Never common at Chelmsford, the type is paralleled in Colchester, where it is restored with a terminal knob.

K1.1 As Type, with a steeply inturned plain rim. **47**
1/1 ?3rd century. Colchester, kiln 32 (Hull 1963, fig 98.15). VII.1 (S1072)

K1.2 As Type, with a thicker, less inturned rim. **47**
2/1 Date range uncertain. VII.2 (AR13)

K 2

Lid with a gentle S-shaped profile and a bifid rim. Only one example from Chelmsford

K2.1 As Type. **45**
1/1 ?1st century. VI.2 (S175i)

K 3

Lids with a variety of terminal grips, occasionally with a 'steam vent': **45**

K3.1 As Type, with pointed bead rim and inverted conical grip. **47**
1/1 VI.3 (AR210)

K3.2 As Type, with a straight-sided grip and an out-turned bead rim. **47**
2/1 VI.3 (AR210)

K3.3 As Type, with a wide, flat grip and an out-turned, bead rim. **47**

3/1 Richborough (Bushe-Fox 1926, pl XII.32). Site V, feature 155

K 4

Type with a flattened profile, with a prominent beading above the rim.

K4.1 As Type. **45**
1/1 Flavian-Antonine. V (S149A)

K 5

Lids with a carinated profile, flaring plain rim either doubled back to terminate in a flange, or with an applied flange. An unusual type, unrepresented at Colchester. Made in the Moulsham Street and Inworth kilns (Section V, Figs 35.19; 41.24; 42.17-18). The type was probably intended for use with bowl-jars of Type E1.

K5.1 As Type. **47**
1/1 Early to mid 4th century. VII.2 (S368)

K 6

Lids with a shallow conical or slightly concave profile terminating in a plain rim.

K6.1 As Type. **47**
1/1 ?2nd to 3rd centuries. Unstrat (Z)
1/2 Early to mid 2nd century. VI.2 (AR28)

K 7

A characteristic lid made for use with the 'Castor box' (Cam 308; Type C18).

K7.1 As Type, with rouletting on the rim and body. **2**
1/1 3rd-4th century. Nene Valley (after Howe *et al* 1981, fig 7.89)

L Cauldrons

An unusual vessel class in central Essex, and rare in the south of the county, from which the examples recorded in Chelmsford are thought to have come. Cauldrons are one of the classes of vessel manufactured with ledge-rimmed and other jar types in ?South Essex shell-tempered fabrics during the 1st century AD, although they are considerably less common. Two types have been isolated (L1-2), but in neither case was it possible to reconstruct a full profile. An example from Mucking, however (unpubl), has a bulbous body below straight side walls, and a flaring neck.

L 1

As Class, with a flaring or vertical neck to an angular rim. The type has heavy suspension lugs with a single, central perforation.

L1.1 As Type, with a flared neck. **50**
1/1 Pre-Flavian to early Flavian. Gun Hill (Drury & Rodwell 1973, fig 16.80). Unstrat (AD)

L1.2 As Type, with a vertical neck
2/1 Pre- to early Flavian. Gun Hill (Drury & Rodwell 1973, fig 16.79). V (AR67)

L 2

Type with an everted, squared rim, vertical sides and a low cordon between the neck and the body, decorated with circular impressions representing rivets. Similar to Cam 302 (Hull 1963, fig 105). ?2nd-4th centuries

L2.1 As Class, with an out-turned, squared rim, concave sides and a zone of skeuomorphic 'rivets'. **48**. A Moulsham Street kiln product
1/1 Early-mid 4th century. Colchester (May 1930, pl LVII.263). VII.2 (S368)

M Strainers/steamers

The class is divided into two Types, of which the spouted strainer bowl, M1, is the most distinctive, with close parallels from Camulodunum (Cam 322-3). M2, a type with multiple pre- or post-firing perforations of the lower body and base, is comparatively common. These include bowls converted for secondary use as strainers, and round-based vessels whose most likely function is as steamers or sieves (eg Young 1977, fig 66.C118).

M 1

Bead- or flat-rimmed vessels with a variety of spouts beneath the rim. The type corresponds to Cam 322-3 (Hull 1963, fig 105) which have globular or carinated bodies. Usually burnished overall and decorated with occasional grooving.

M1.1 As Type, with horizontal two-ribbed handles and circular spout. **31**

1/1 1st to early 2nd century. Colchester (Hull 1958, fig 56.46). V (AR43), VI.2 (AR41-2, 61)

M1.2 As Type, with a square spout. **45**

2/1 1st to early 2nd century. Colchester (Hull 1958, fig 122). Unstrat (AD)

M2

Bowl-shaped vessels with basal perforations. The forms may differ widely. Rare at Chelmsford

M2.1 As Type, with solid footring bases. Cf *Cam* 298 (Hull 1963, fig 105). **47**

1/1, 2 1st-4th centuries. VI (AA1.8); V (S1020)

N Funnels

As a vessel class, rare at Chelmsford and elsewhere. Fragmentary examples may be mistaken for rimless bottles (eg Ospringle: Whiting *et al* 1931, pl XLIV.534; *Cam* 286: Hull 1963, fig 104), while others may be pieces of yet more complex vessels (eg insect traps or condensers; Beltran Lloris 1977).

N1

As Class, with a bead rim and one or more handles. The type is usually decorated with burnished lines.

N1.1 As Type, with burnished lattice on the body. **4**

1/1 Later 4th century. VII.3 (T71/80)

N2

As Class, and generally larger than N1; decorated with grooving forming weak cordons between the junction of the bowl and the spout.

N2.1 As Type. **47**

1/1 ?3rd century. VI.2 (S790i)

N3

Funnels with a tapering irregular spout to a narrow nozzle.

N3.1 As Type. **45**

1/1 1st-2nd centuries. Unstrat (AD)

N4

Flat-topped funnels, usually burnished overall, with an offset between the bowl and the spout.

N4.1 As Type. **4**

1/1 Later 4th century. Colchester (Wheeler 1921, fig 5.19). VII.3 (T71/80)

P Amphorae

(Absent by EVE from contexts selected from Ceramic Phases 1-8).

The number of amphorae from the south-eastern sector of Chelmsford is small, both in terms of the assemblages as a whole and absolute numbers. Most were of Dressel 20, in which olive oil from the Guadalquivir and elsewhere was transported throughout the Empire until at least the mid 3rd century. Considerably fewer in number were amphorae of other types. The assemblage

included 3 examples of Dressel 28, and the related Pelichet 47 is represented by a single rim sherd. Late Roman amphorae are restricted to a few sherds of type P4 (Kapitän II), which is assigned an eastern Mediterranean origin. It is notable that the amphora assemblage contains no definite Rhodian types, which should be present if the town were of pre-Boudican origin.

P1

Amphorae with globular bodies, spindle-shaped bases, and a variety of recurved rims. The type has many forms, of which the commonest by far is Dressel 20.

P1.1 Dressel 20. For a recent discussion of the form see Guenoche & Tchernia 1977 and now Sealey 1985. **55**

1/1 Early 1st century to c AD 250/60 (after Green 1980, fig 18)

P2

Two-handled amphora with a squared-off bead rim, high shoulder, and a restricted pedestal foot. One form has been classified: it resembles a variant of Dressel 28. Three examples have been identified at Chelmsford. Its likely origin is southern France. One example from S1088 (VI.2: c AD 160/75-200/10) is sealed with ?mastic.

P2.1 As Type. **56**

1/1 c AD 50-200 + . Colchester (after Hull 1963, *Cam* 188); Gadebridge (Neal 1974, fig 103.217)

P3

Type closely related to the Pelichet 47 and Dressel 28 forms, for which a South Gaulish origin has been convincingly demonstrated.

P3.1 As Type. **56**

1/1 1st to 2nd centuries. Velaux, Bouches-du-Rhône (after Tchernia & Villa 1977, fig. 7.3)

P4

Amphora type with peaked rod handles and a restricted pedestal foot. A few sherds only were found in 3rd-4th century contexts. The type corresponds with Kapitän II (Kapitän 1972, 248, fig 4). The illustration is of an example found in Southwark.

P4.1 As Type. **59**

1/1 c AD 240-400 + . Southwark (after Sheldon 1978, fig 209)

Q Unguentaria

The class occurs in very small numbers at Chelmsford. The typical 1st century form (*Cam* 196/7) is absent save for one doubtful specimen (Q2.1/1). The commonest Colchester form, *Cam* 389, is represented at Chelmsford by two specimens (Q1.1).

Q1

Type with a piriform body, 'pulley-wheel' rim, and a variety of pedestal bases, as *Cam* 389. Cf also Colchester kiln 22 (Hull 1963, 133, fig 72.28-33)

Q1.1 As Type. **27**

1/1, 2 1st century and later. VI.2 (AR88); Unstrat (Site N)

Q2

Vessels with an ovoid body and deep neck, slightly flared to a bead or grooved rim, corresponding to *Cam* 196/7.

Q2.1 As Type. **27**

1/1 1st century. Camulodunum (Hawkes & Hull 1947, pl LXVIII, *Cam* 196/7). Post-Roman (S121)

Q3

Type with ovoid body, usually rilled overall.

Q3.1 As Type. **31**

1/1 ?1st century. Site V, feature **49**

R Miniatures*R 1*

Bowl with a burnished line decorated zone on the body

R1.1 As Type. **45**

1/1 1st century. IV.1 (S245)

R 2

Necked bowl-jar

R2.1 As Type. **47**

1/1 Early to mid 2nd century. VI.1 (S380)

R 3

Necked jars

R3.1 As Type, with stabbing on shoulder. **47**

1/1 1st to 2nd centuries. Heybridge (Drury & Wickenden forthcoming). Site V, feature 16

R3.2 As Type, with vertical burnish on body. **47**

2/1 No dating evidence. Site V, layer 2

R3.3 As Type, with tapering neck. **47**

3/1 No dating evidence. Unstrat (Site K)

S Miscellaneous*S 1*

Inkwells. A very rare type: it shares the 'non spill' flange of the Hermet 18.

S1.1 As Type. **39**

1/1 No dating evidence. Site V, layer 2

S 2

'Triple vase' fragments

S2.1 As Type. **47**

1/1 ?3rd to 4th centuries. VII.2 (AR13)

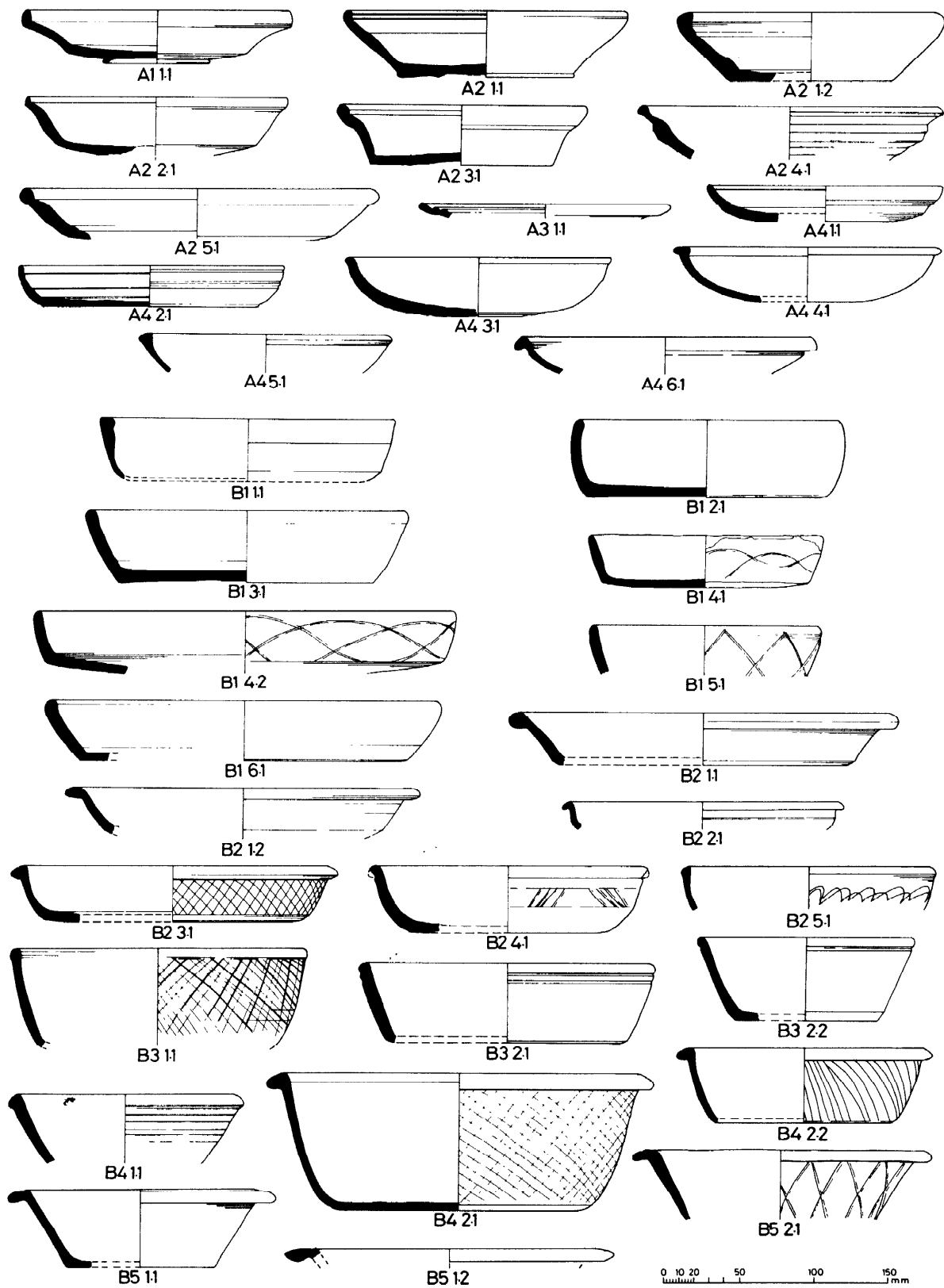


Fig 1 Platters; dishes (Forms A1. 1/1 to B5.2/1). Scale 1:4

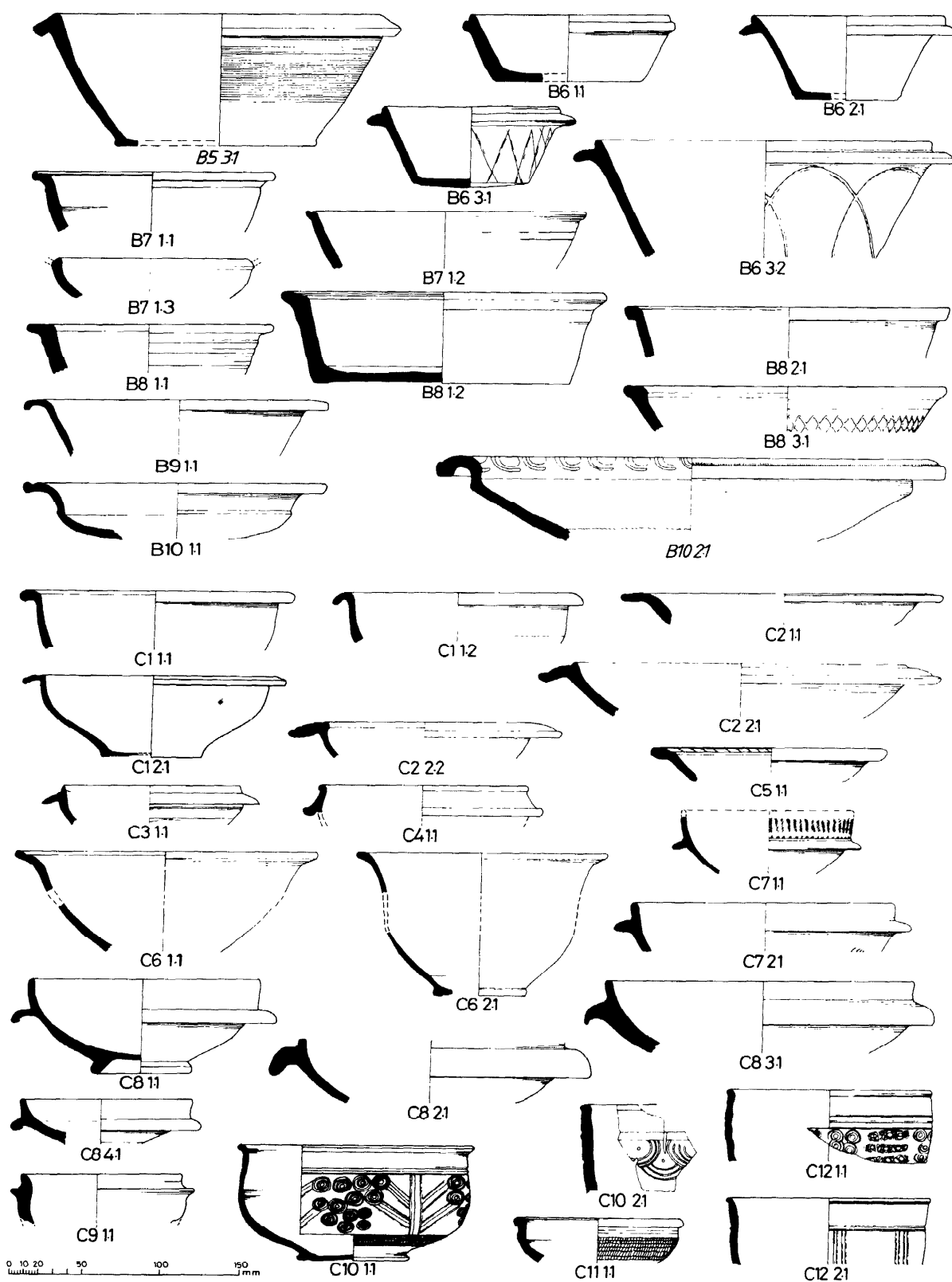


Fig 2 Bowls (B5.3/1 to C12.2/1). Scale 1:4

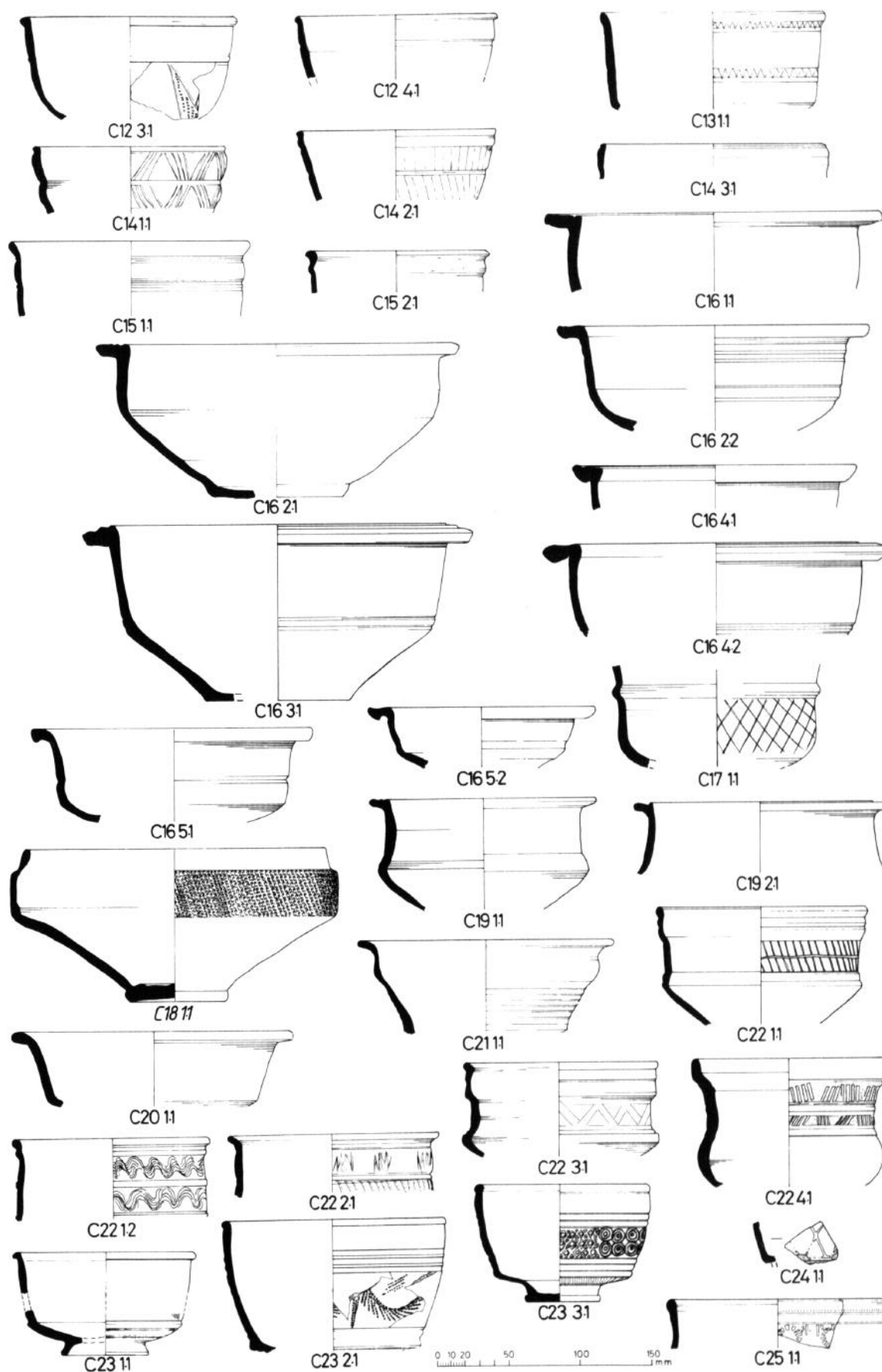


Fig 3 Bowls (C12.3/1 to C25.1/1). Scale 1:4

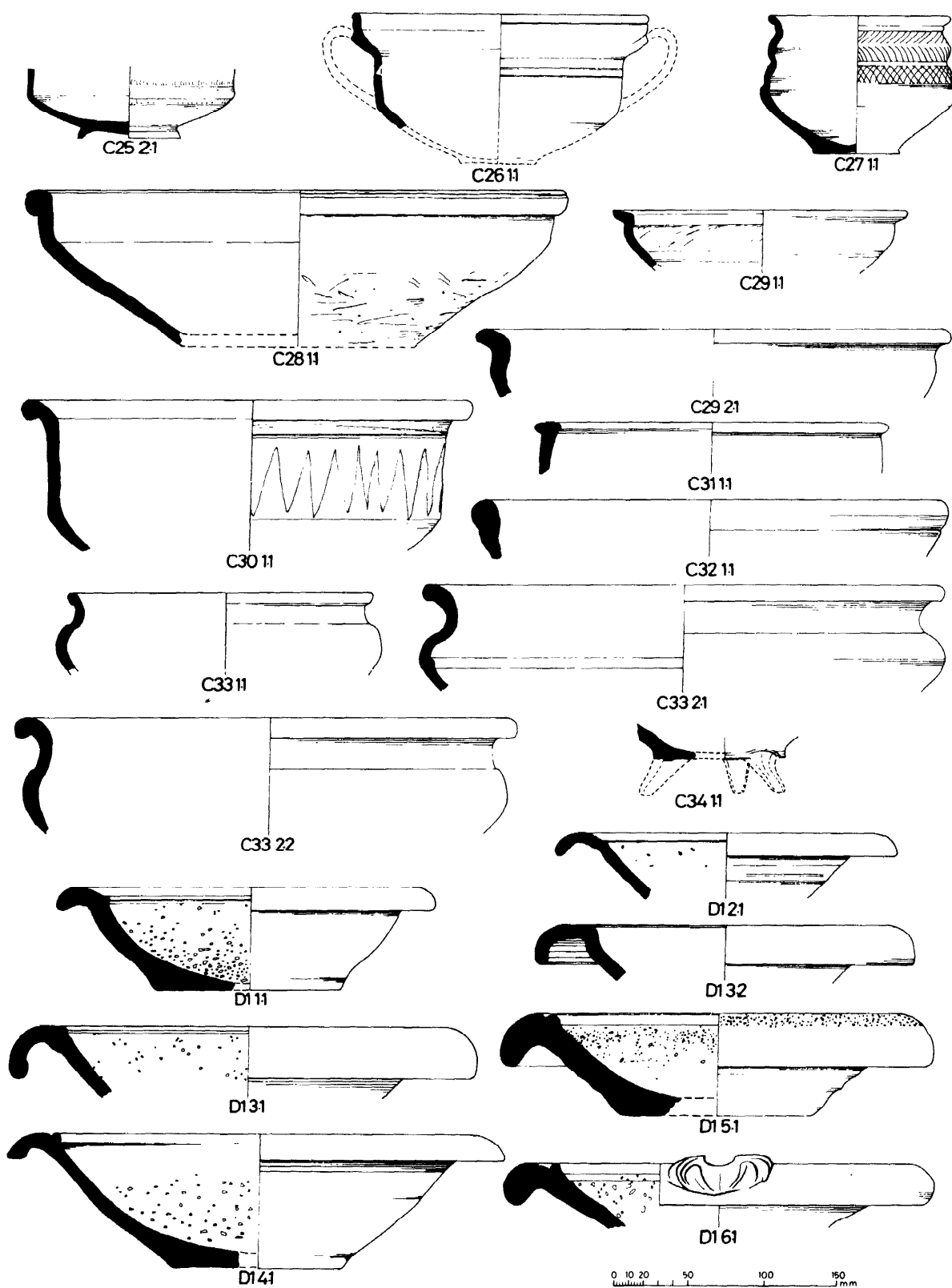


Fig 4 Bowls; mortaria (C25.2/1 to D1.6/1). Scale 1:4

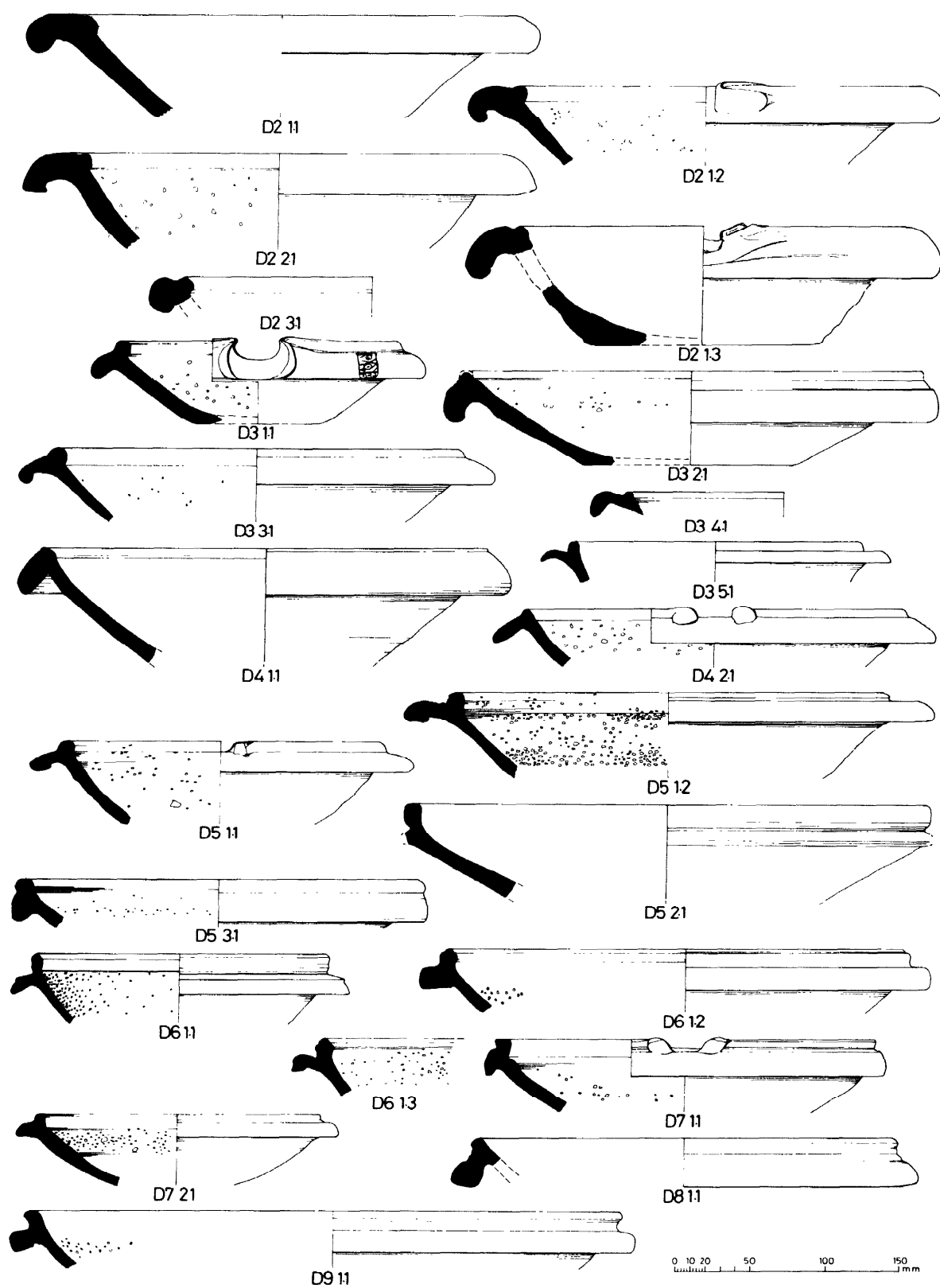


Fig 5 Mortaria (D2.1/1 to D9.1/1). Scale 1:4

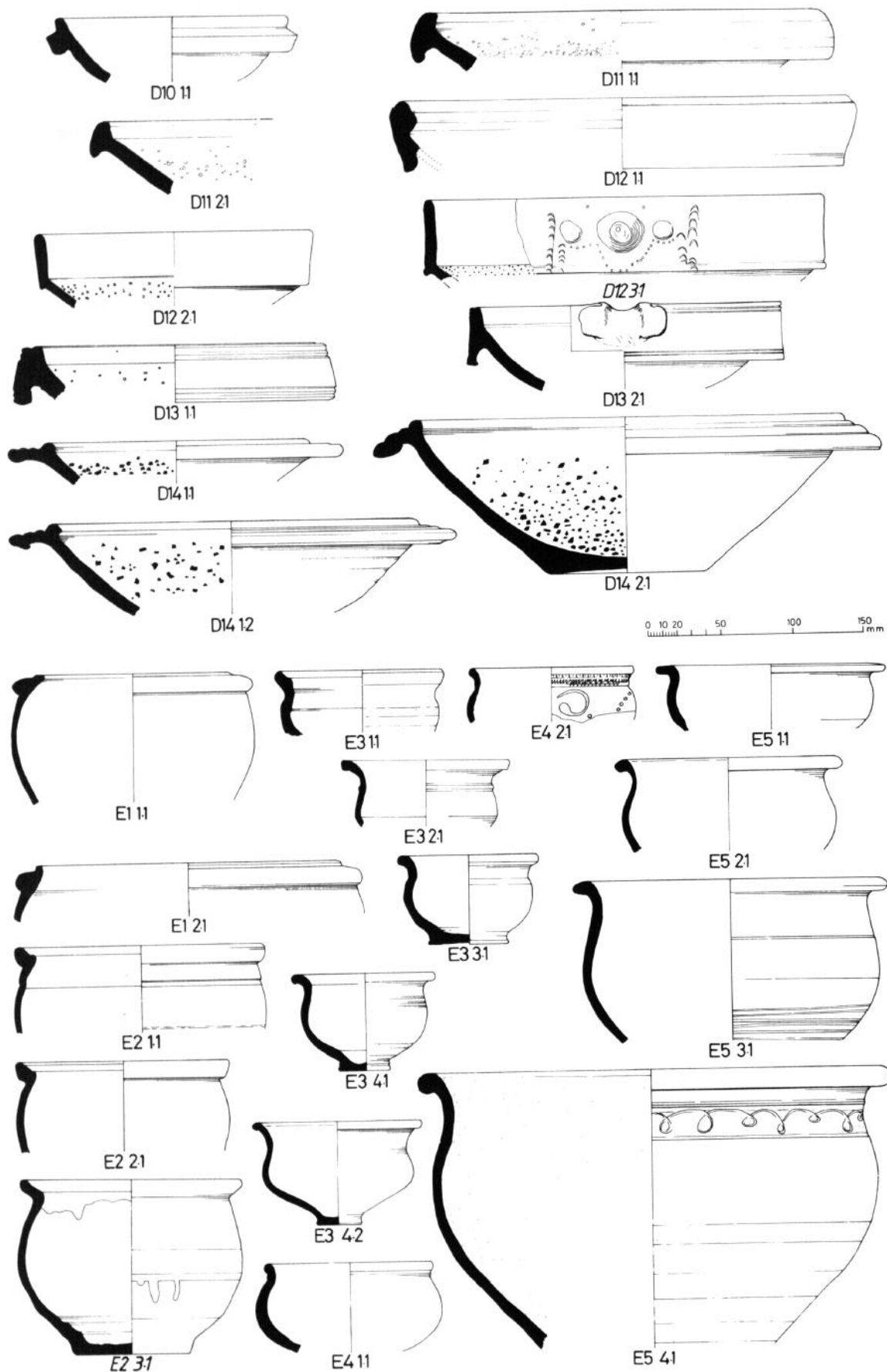


Fig 6 Mortaria; bowl-jars (D10. 1/1 to E5.4/1). Scale 1:4

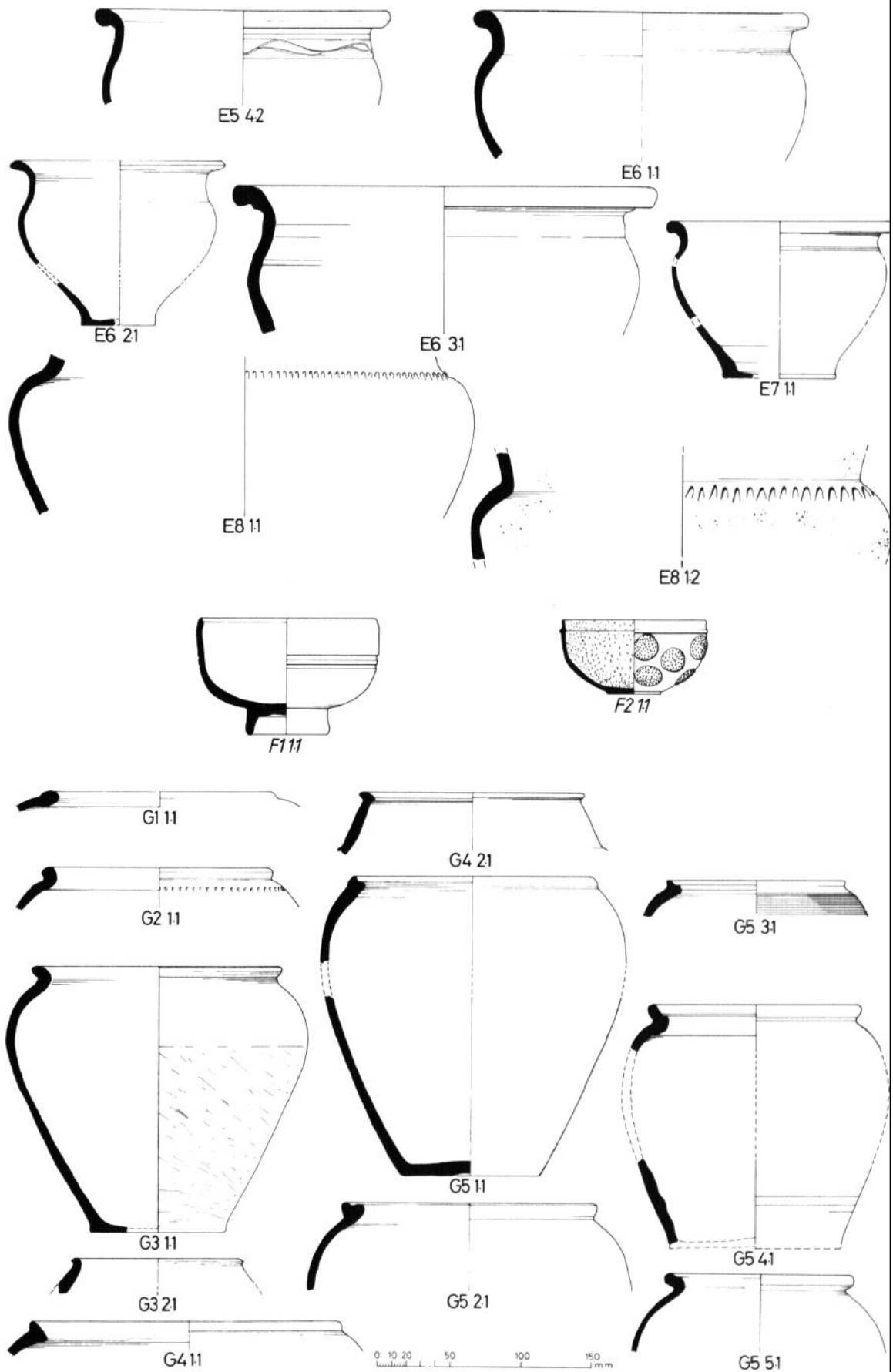


Fig 7 Bowl-yars; jars (E5.4/2 to G5.5/1). Scale 1:4

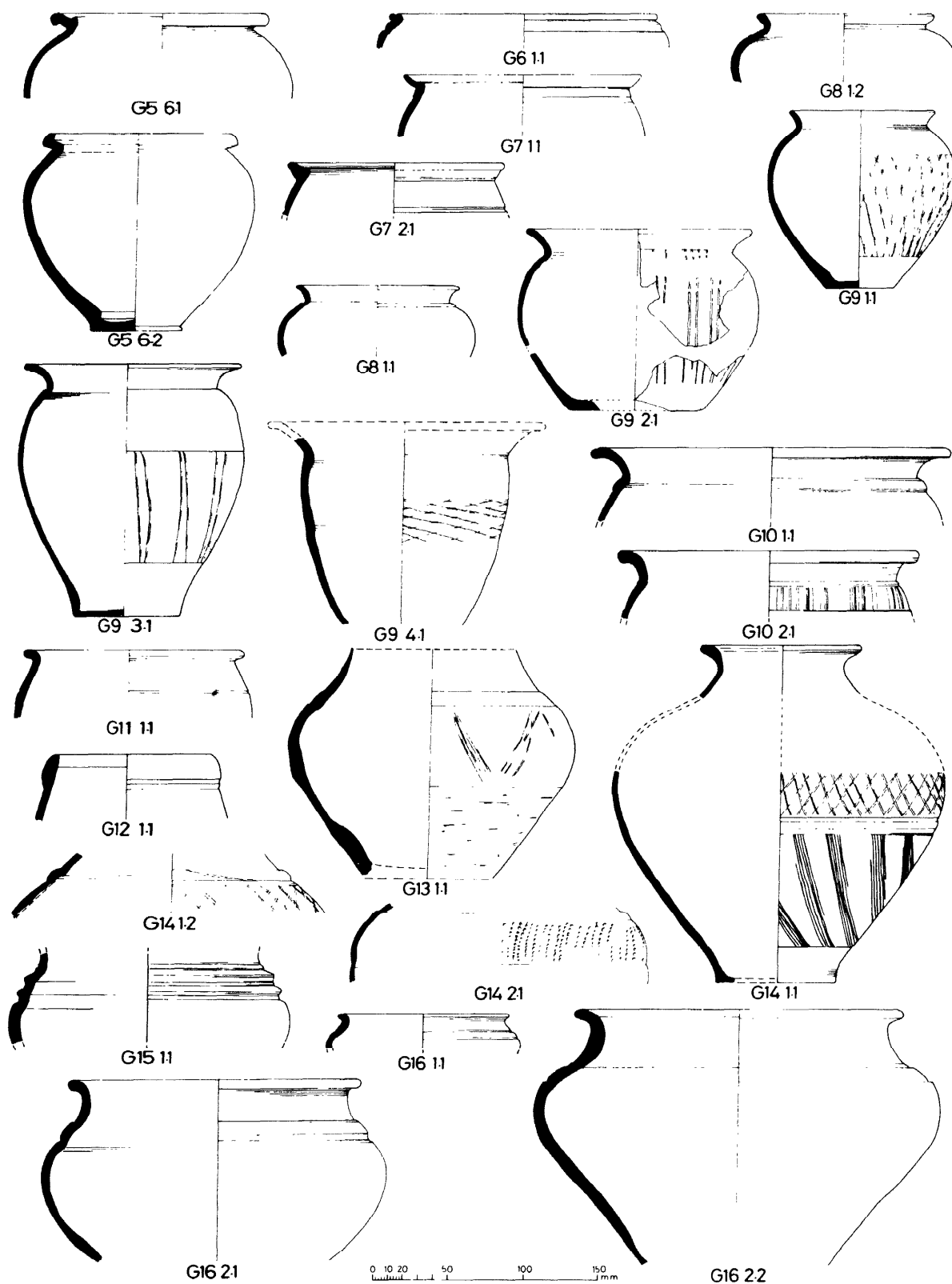


Fig 8 Jars (G5.6/1 to G16.2/2). Scale 1:4

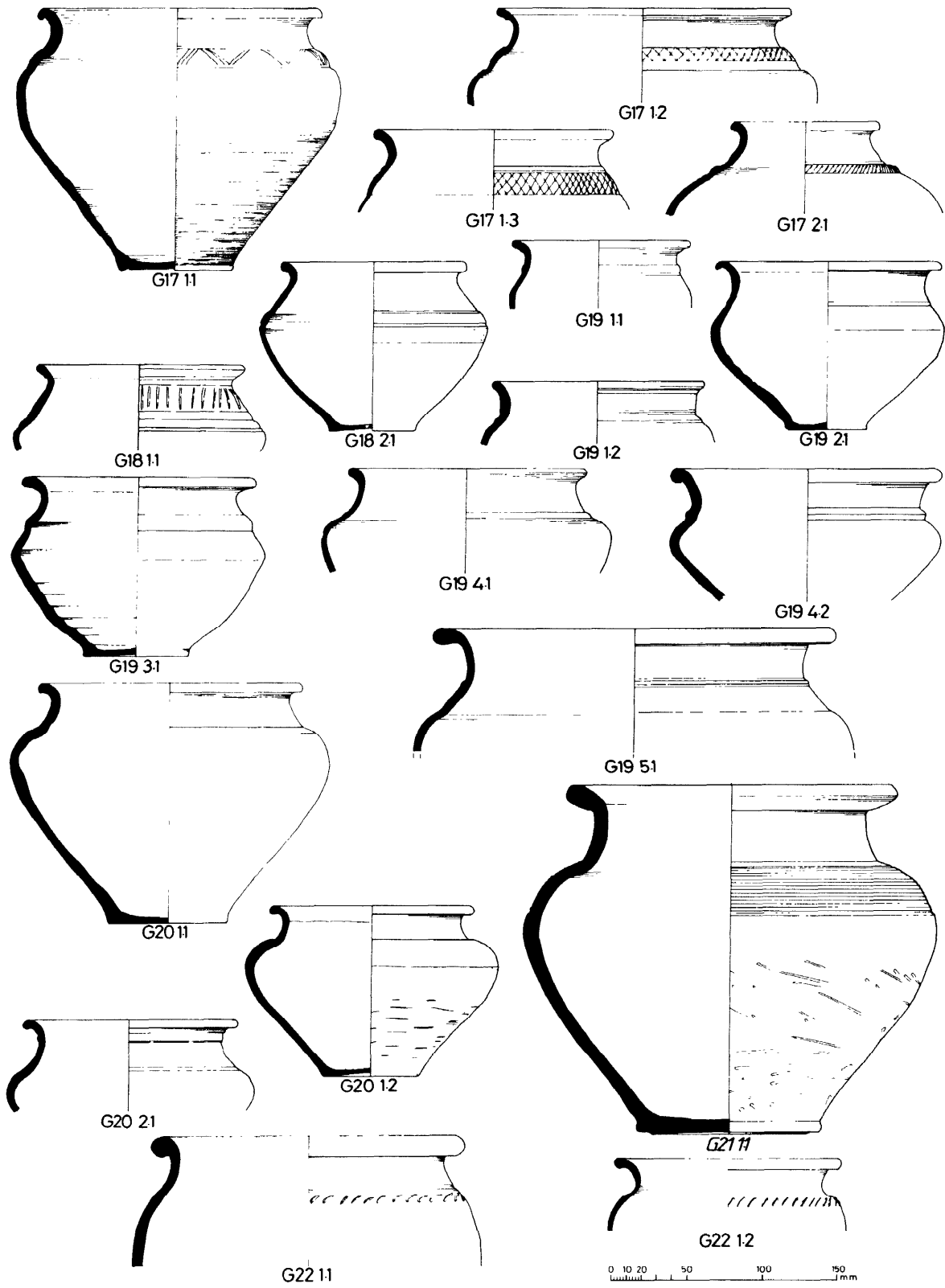


Fig 9 Jars (G17.1/1 to G22.1/2). Scale 1:4

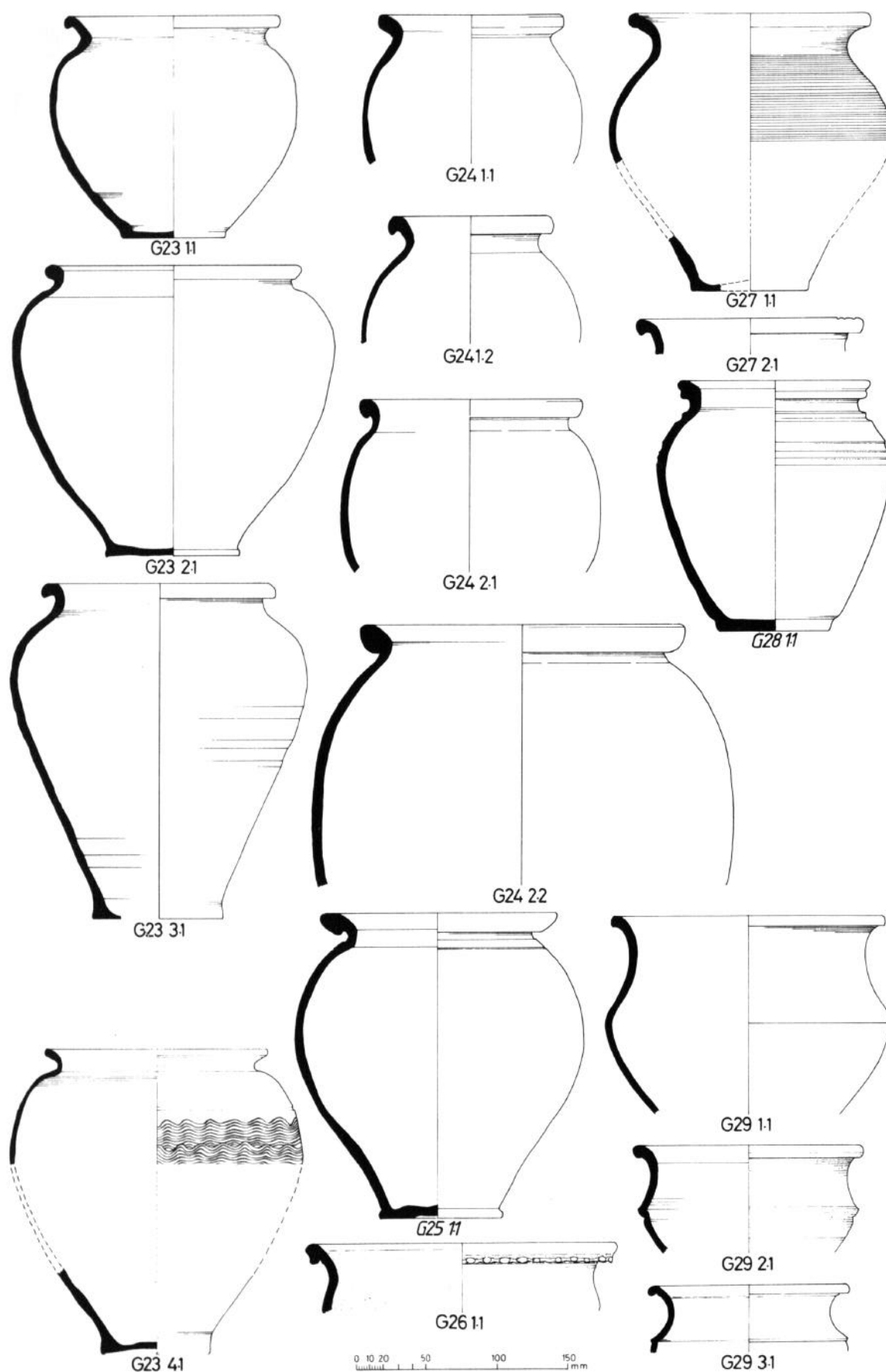


Fig 10 Jars (G23.1/1 to G29.3/1). Scale 1:4

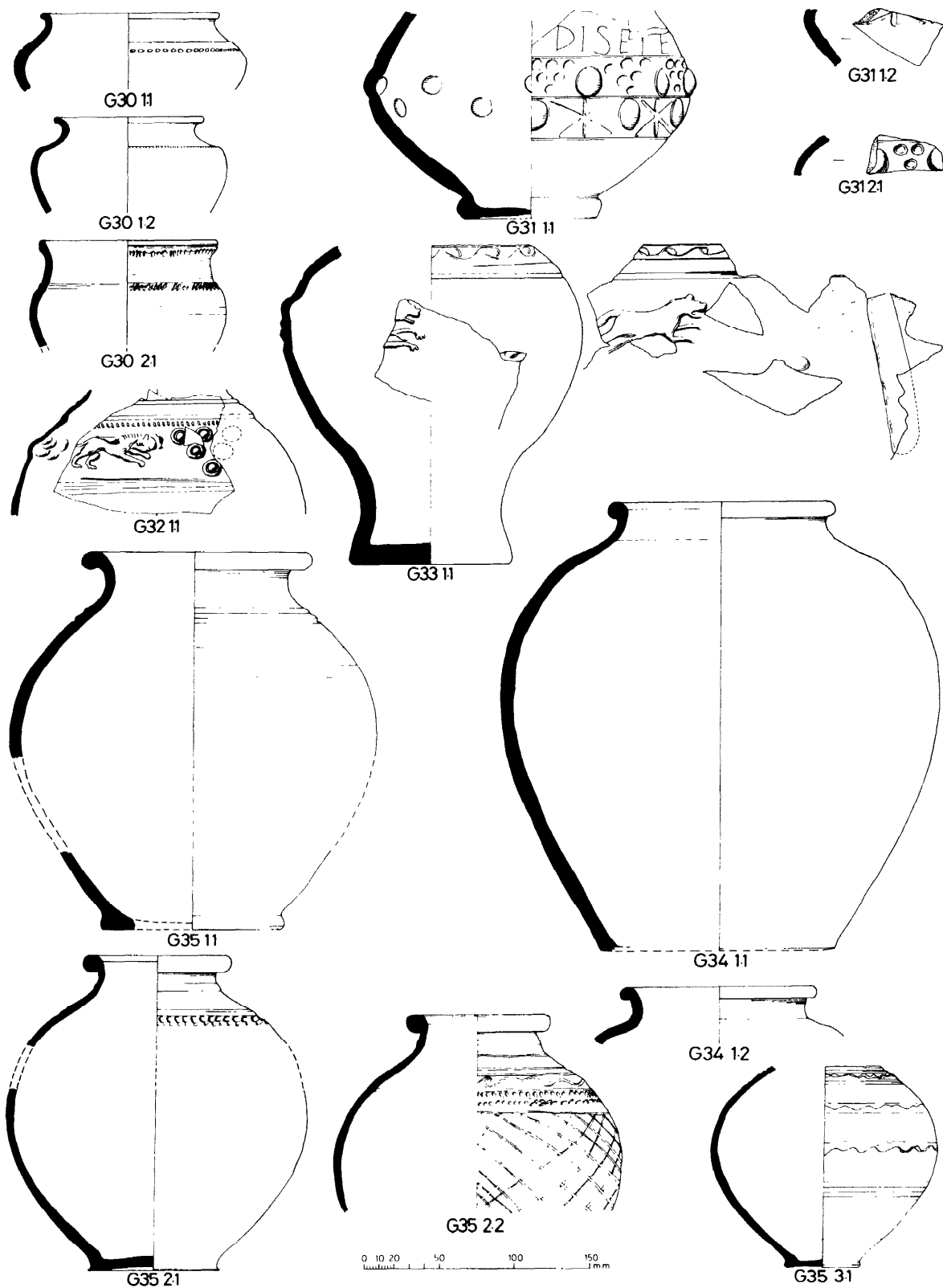


Fig 11 Jars (G30.1/1 to G35.3/1). Scale 1:4

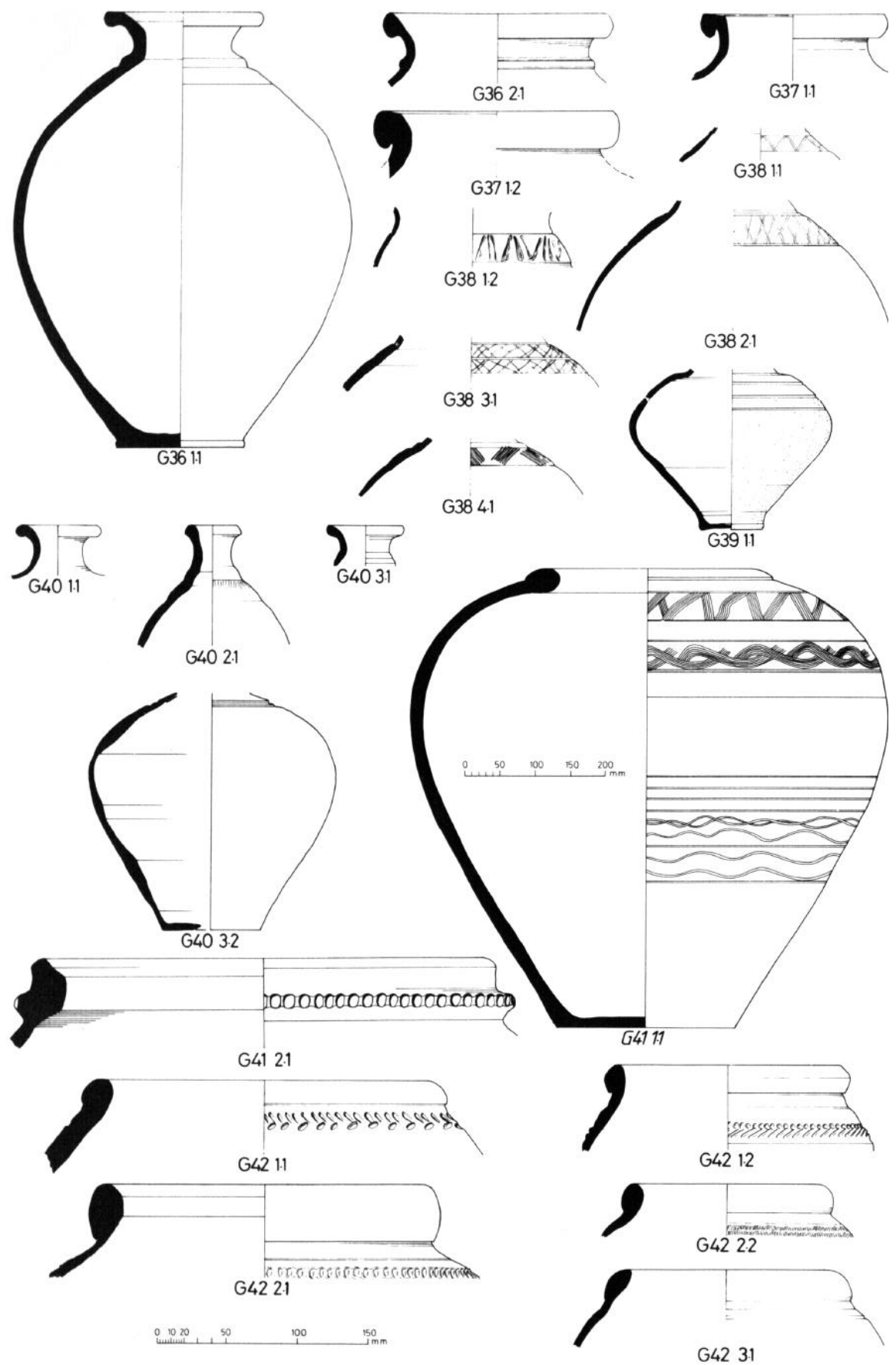


Fig 12 Jars (G36.1/1 to G42.3/1). Scale 1:4 except G41.1/1, 1:8

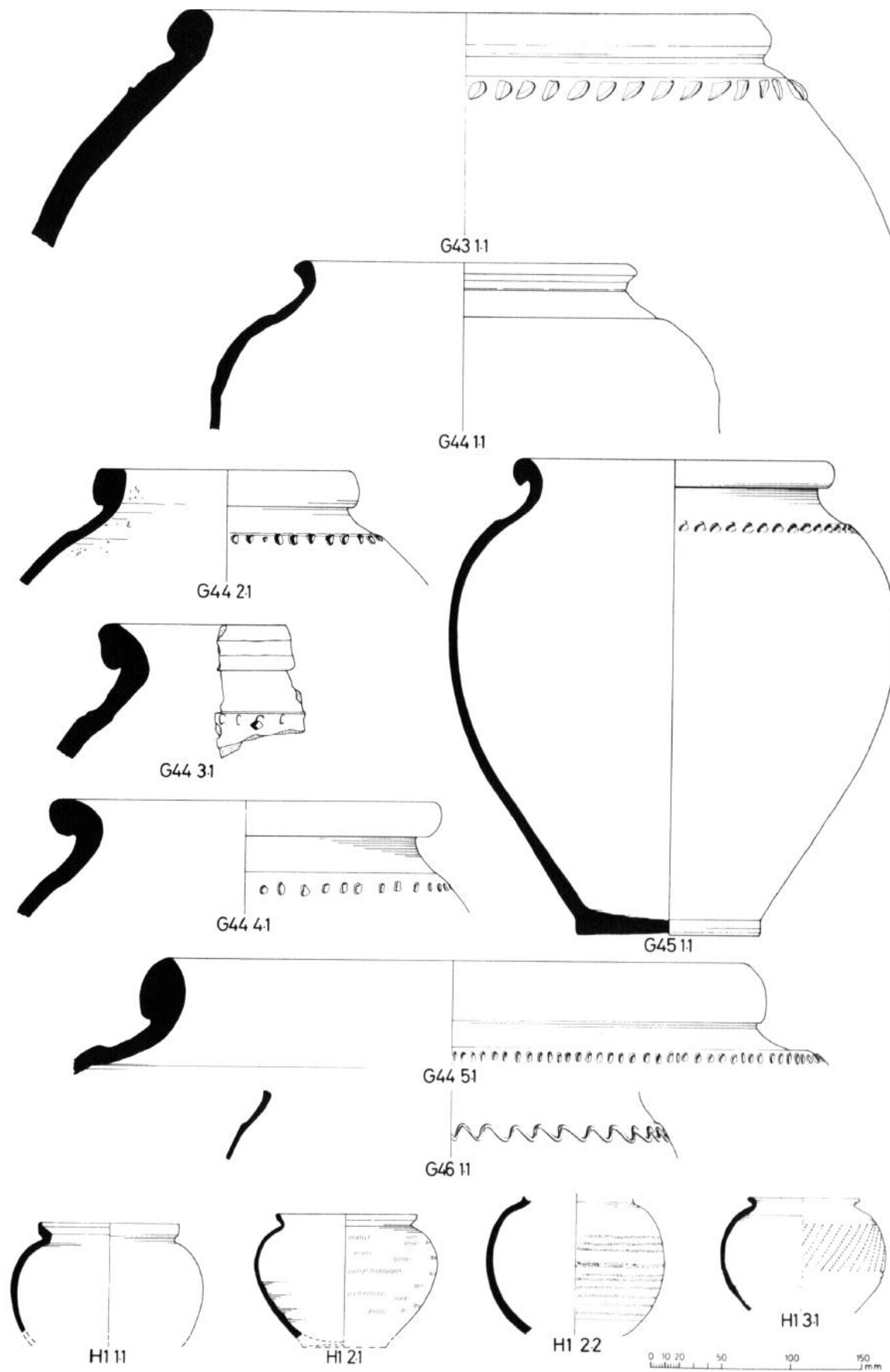


Fig 13 Jars; beakers (G43.1/1 to H1.3/1). Scale 1:4

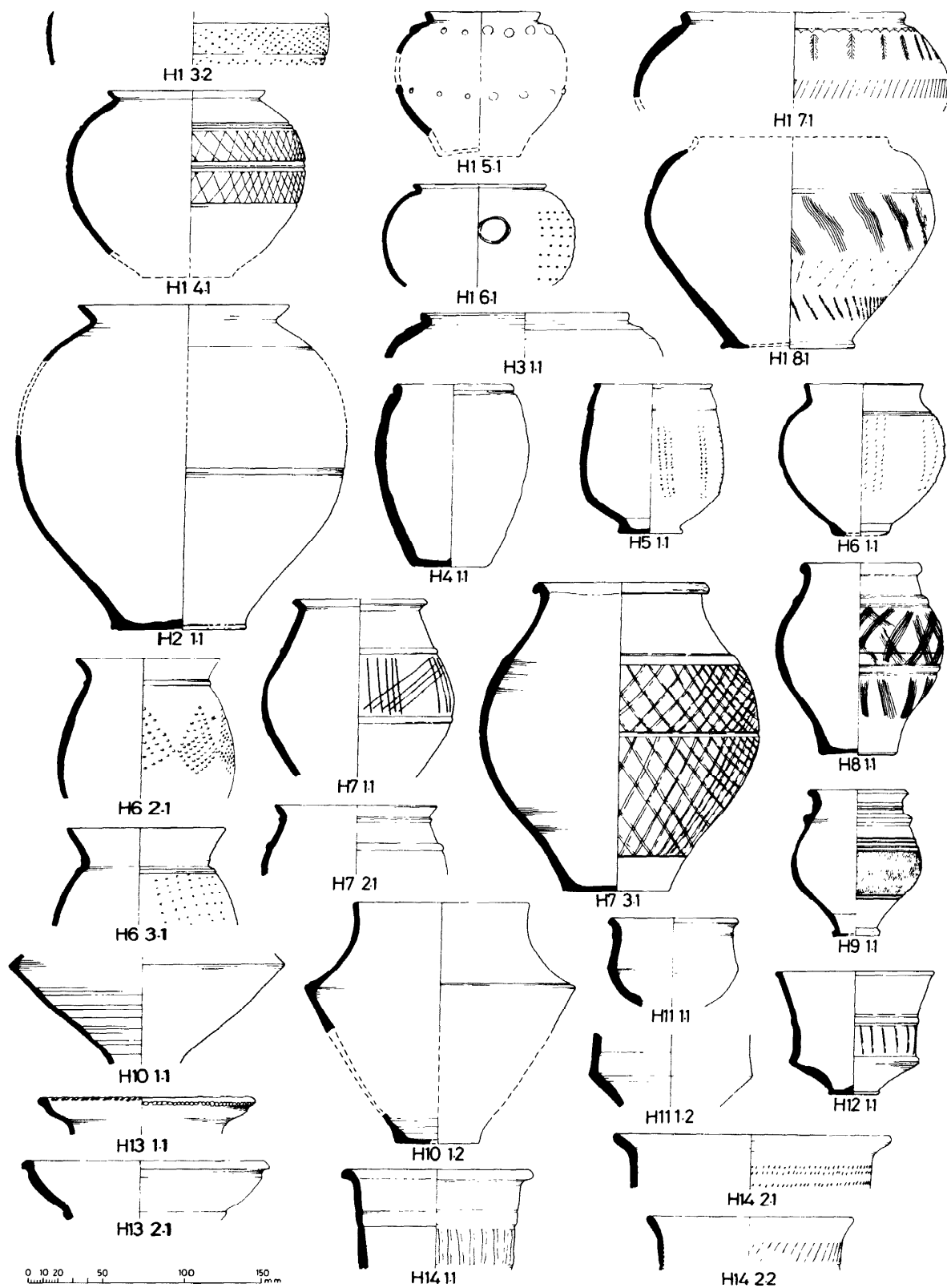


Fig 14 Beakers (H1.3/2 to H14.2/2). Scale 1:4

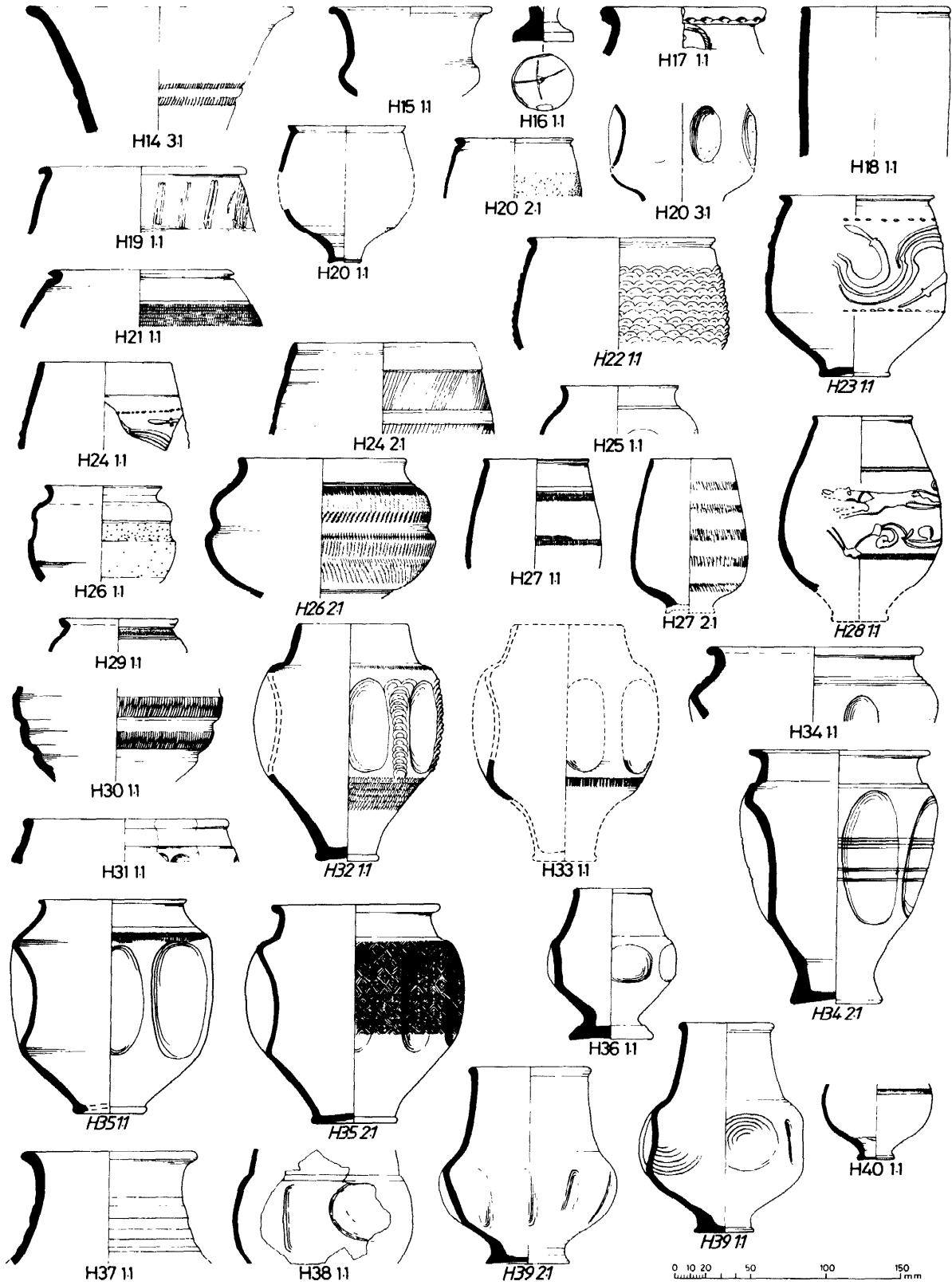


Fig 15 Beakers (H14.3/1 to H40.1/1). Scale 1:4

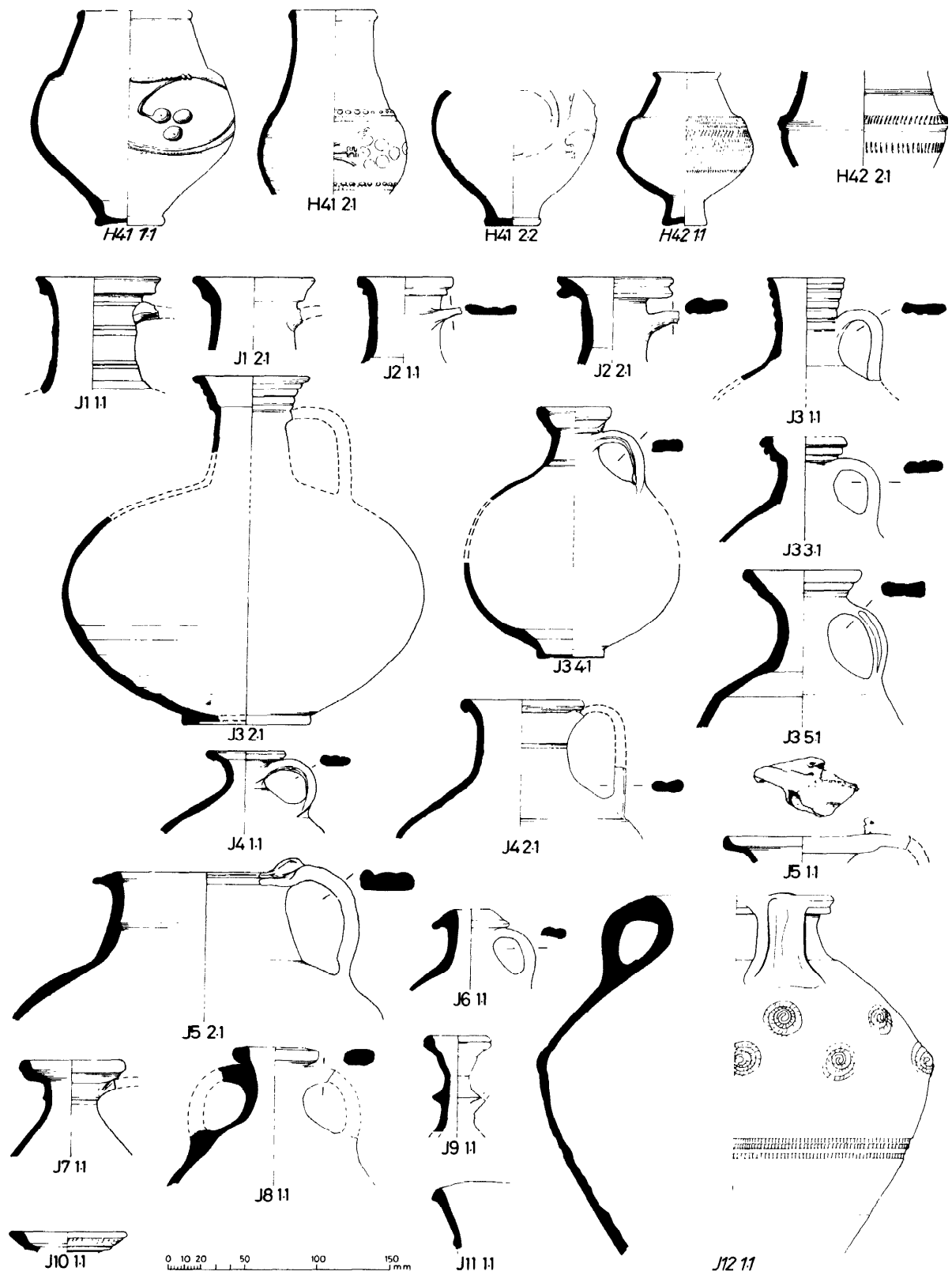


Fig 16 Beakers; flagons (H41.1/1 to J12.1/1). Scale 1:4

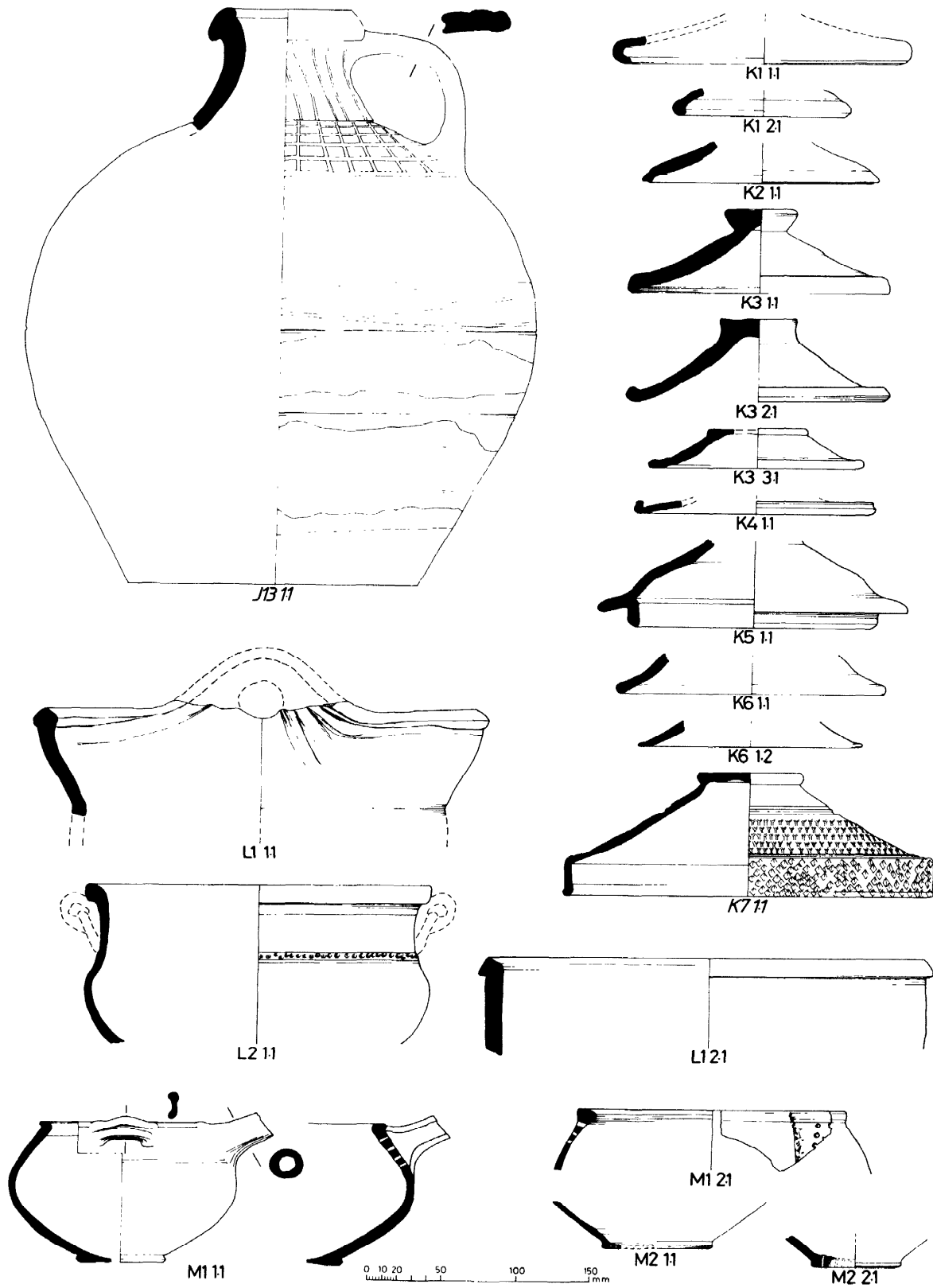


Fig 17 Flacons; cauldrons; colanders (J13.1/1 to M2.2/1). Scale 1:4

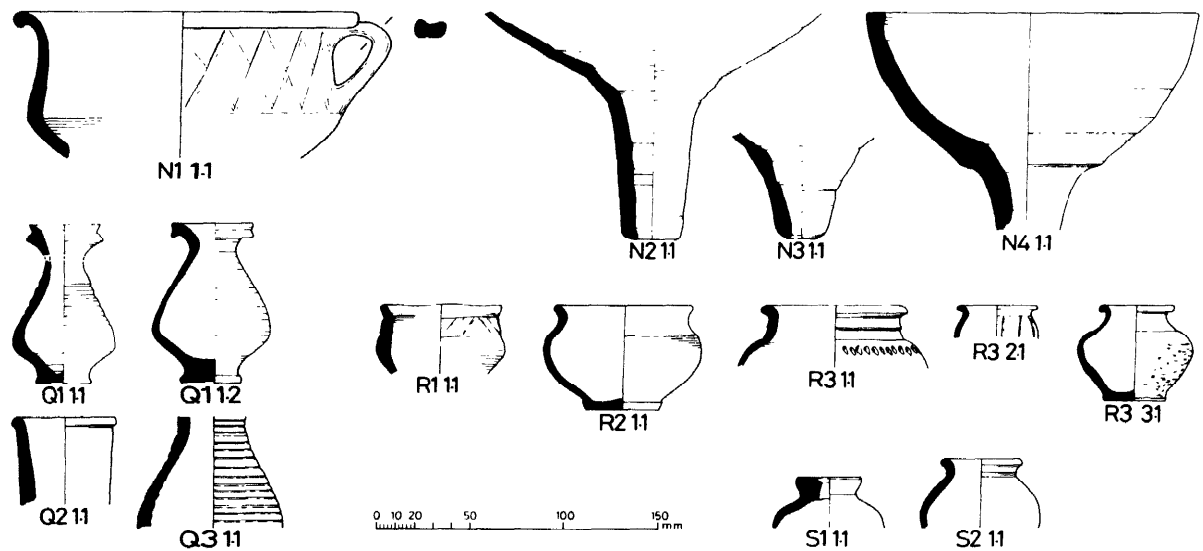


Fig 18 Funnels; unguentaria; miniatures; miscellaneous (N1.1/1 to S2.1/1). Scale 1:4

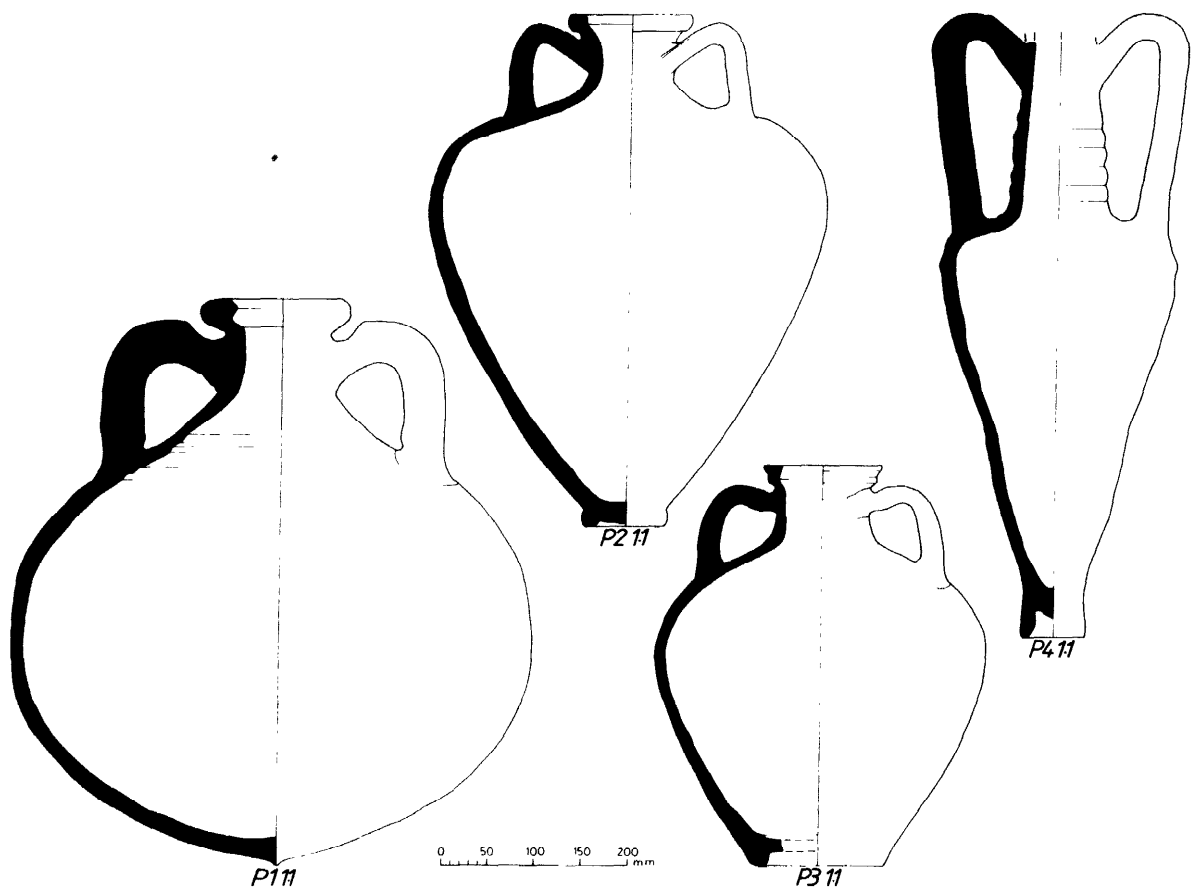


Fig 19 Amphorae (P1.1/1 to P4.1/1). Scale 1:8

IV The stratified groups

Of the pottery from the sites reported in 3.1, 424 illustrated vessels were in groups or assemblages which together form a useful sequence of the Types and Forms found at Chelmsford. In addition some of the groups are in contexts crucial for site dating. It was felt that to present these in terms of a typology alone would obscure their importance. Each group is therefore briefly discussed and dating evidence given. Vessel descriptions are kept as short as possible: forms are referenced to the typology (Section III) and fabrics to Table 2 in Section II. Entries in *italics* denote vessels also incorporated in the typology; where possible repetition of drawings has been kept to a minimum. Those illustrated in the typology alone are referred to at the end of the entry for the group in which they were found. Decorated samian illustrated in Section VIII.1 is noted; stamped samian and other vessels with stamps or graffiti are referenced to Sections VIII.2, IX and X respectively.

Group 1: S245 (IV.1)

Figs 20.1-22.71 (See Vol 3.1, Section IV, fig 41)

The main filling of this defensive ditch contained much Neronian material. The presence of ring-and-dot beakers (H1.6; Fig 22.61), and early 'poppyhead' types (H6; Fig 22.62-3) suggest infilling not before c AD 65-70. A relevant coin is a copy of Claudius I (AD 43-64; as RIC 66).

Primary fills: Fig 20.1 **45**(G5.3); 2 **39**(G17); 3 **44**(G44.1/1)
Main fills: Fig 20.4 **39**(A2.2/1); 5 **34**(A4); 6 **34**(A2); 7 **34**(A4.5-6); 8 **34**(A2.5); 9 **45**(C28.1/1); 10 **34**(C14.1/1); 11 **34**(C22.1/1); 12 **45**(G3.2/1); 13,14 **47**(G8.1); 15 **39**(G8.1); 16,17 **47**(G8); 18-20 **45**(G8); 21 **47**(G23); 22-25 **50**(G5.1); 26 **50**(G5.1, cf Section X.1 for discussion of graffiti type); 27 **50**(G5.1); Fig 21.28 **50**(G5.1); 29,30 **50**(G5.1, as 26); 31 **45**(G5); 32 **45**(G20.1); 33 **45**(G20); 34 **47**(G19); 35 **39**(G19.2); 36 **45**(G20.2/1); 37 **45**(G20); 38 **45**(G16); 39 **45**(G19); 40 **47**(G20); 41,42 **45**(G19.4); 43 **39**(G16); 44 **45**(G19); 45 **39**(G17.1); 46 **45**(G17.2); 47 **45**(G18.1/1); 48 **45**(G13.1/1); 49,50 **45**(G); 51 **45**(G30.1); 52 **45**(G30.1/2); 53 **45**(G); 54 **44**(G); 55 **45**(G); 56 **47**(G39.1/1); 57 **44**(G44.3/1); Fig 22.58 **39**(H1.2); 59,60 **39**(H1.3); 61 **29**(H1.6/1); 62 **32**(H6.1); 63 **31**(H6); 64 **45**(H7.1/1); 65 **45**(H8.1/1); 66 **32**(H10.1/2); 67 **32**(H10.1); 68 **34**(H12.1/1); 69 **31**(J1.2/1); 70 **26**(J3.3); 71 **27**(J3.2/1)

For two unusual graffiti, see Section X, Fig 50.27-8
Typology **45** G19.4/1, **45** G30.1/1, **44** G44.4/1; **27** J1.1/1
Decorated samian Fig 45.5, f29 SG; Bassus or Bassus-Coelus scheme. Fig 45.7, f29 SG, running scroll, probably Claudian (see also Group 8: S182)
Mortarium stamp IX.2, no 3

Group 2: S230 (IV.2)

Fig 22.72 (see Vol 3.1, Section IV, fig 41)

Road ditch, in part a re-cutting of ditch S245; filled c AD 65-70+

Fig 22.72 **47**(G3)

Table 3 the stratified groups

Entries in *italics* are for groups on which the Ceramic Phase discussions (Section XII.1-2) have also been partly based.

Group	Ceramic Phase	Context	Context description	Date	Site phasing
1	1	S245	Defensive ditch filling	c AD 65-70	IV.1
2	1	S230	Road ditch filling	c AD 65-70+	IV.2
3	2	S205	Pit	c AD 77-85	IV.4
4		S215	Pit	c AD 80-100	V
5		AA2.2	Pit	c AD 115-30	V
6		AR41	Pit	c AD 120-40	VI.2
7	3	S149	Wall trench	c AD 130-70	VI.1
8	4	S182	Slumping	c AD 160-80	VI.1
9	4	AA1.8	Pit	c AD 160-190	VI
10		Z15	Drain silting	c AD 160-200	VI.3
11	5	S175iii	Inner defensive ditch	c AD 175-210	VI.2
12	5	S763iii	Outer defensive ditch	c AD 175-210	VI.2
13	5	S763ii-i	outer defensive ditch	c AD 190-210+	VI.2
14	5	S175ii-i	Inner defensive ditch	c AD 190-210+	VI.2
15	5	S790ii	Linking ditch	c AD 190-210+	VI.2
16	5	S790i	Linking ditch	c AD 190-210+	VI.2
17	7	S95i	Town ditch	c AD 300-60+	VII.2
18		T31i-iv	Pit	c AD 325 - 360+	VII.3
19	8	AR13	Pit	c AD 330-370+	VII.2
20	8	T71/80	Ditch	c AD 360-400+	VII.3
21	8	S35	Gulley	c AD 388-400+	VII.3

Group 3: S205 (IV.4)

Figs 22.73-25.140 (see Vol 3.1, Section IV, fig 44)

A group from a pit perhaps marking the rear of a military building. A substantial quantity of pottery (22.60 EVE) was recovered, of which the majority dates from the pre-Flavian to early Flavian periods. The samian includes Claudian to early Flavian pieces. Relevant coins are a copy of an *as* of Agrippa (c AD 30-50; RIC Tib 32) and one of Vespasian (AD 77; RIC 753A).

Fig 22.73 45(A2.4); 74 45(A2.4, Section X.2 for graffito); 75,76 45(A2.3); 77-78 45(A4); 79 45(B1.1/1); 80,81 45(B1); 82 31(C7.1/1); 83 12(C1.2/1); 84 12(C2.3-4); 85 45(C9.1/1); 86 28(D1.5/1); 87 47(G3.1); Fig 23.88 47(G5.1); 89-91 50(G5.1); 92 50(G5.1, see Section X.1 for discussion of graffito type); 93-95 50(G5.1); 96,97 50(G5.1, as 92); 98 45(G19); 99,100 45(G19.4); 101,102 45(G19); 103,104 45(G19.4); 105 45(G20.1); 106 45(G19.4); 107 39(G19.4); 108 47(G17.2); 109 45(G17.1); 110 45(G); 111 45(G19.1); 112 47(G17.1); 113 45(G); 114 44(G); 115 44(G43-4); Fig 24.116 44(G44); 117 44(G44.4); 118 44(G44); 119 45(H1.1/1); 120,121 45(H1.1); 122 34(H1.4/1); 123,124 45(H1.2); 125 17(H1.2); 126 45(H1.8/1); 127 45(H1.7/1); 128 45(H1); 129 11 (H1.5/1); 130 45(H); 131 29(H1.6); 132 45(H7.3/1); 133 39(H7.3); 134 45(H7); 135 45(H); 136 39(H); 137 32(H10.1/1); Fig 25.138 27(J3.1/1); 139 27(J3.1); 140 27(J3.2)

Typology 47 G18.2/1; 45 G20.1/2; 45 H1.2/1

Decorated samian Fig 45.13, f37, SG. ?work of Frontinus, c AD 75-90

Stamped samian VIII. 2, no 16, Irtnvs of La Graufesenque f18. Probably Neronian; VIII.2, no 22. Passienus of La Graufesenque, f18 c AD 55-70; VIII.2, no 37, illiterate, La Graufesenque, probably pre-Flavian

Group 4: S215 (V)

Fig 25.141-55 (see Vol 3.1, Section IV, fig 45)

Pit S215 predated Building A on site S. It contained pre-Flavian samian, but one Antonine f 31R sherd. The coarse wares, however, are closely comparable with those from pit 205 (Group 3). A date range of c AD 80-100 is suggested for the pottery.

Fig 25.141,142 45(C); 143 45(G5); 144 45(G8.1); 145 45(G17); 146 39(G29); 147 45(G14.1/1); 148 39(G14); 149 47(G); 150 45(G); 151 39(H); 152 34(J3.3-4); 153 45(K1); 154 ?56(P); 155 ?56(?P3.1)

Typology 45 A3.1/1; 26 C16.1/1

Group 5: AA2.2 (V)

Figs 25.156-26.176 (see Vol 3.1, Section V, fig 54)

?Brickearth or daub pit. Debris in its filling connects it with iron-working activity. The group included five complete 'seconds' (Fig 25.163,26.170-1 and types G19 2/1-3/1). Samian included forms 18, 27, 29 and 35, mainly Flavian-Trajanic. The pit probably dates to c AD 115-130.

Fig 25.156 39(A1.1); 157 47(B2.5/1); 158 47(A4.4); 159 47(B8.1); 160 45(C32.1/1); 161 50(G5); 162 45(G); 163 45(G19.3); 164-166 45(G19.4); 167,168 45(G19); Fig 26.169 47(G); 170 47(G23-4); 171 47(G23.1/1); 172 47(G23); 173 29(H1.6); 174 39(H1.2); 175 14(H13.1/1); 176 ?55(P)

Typology 47 A4.6/1; 47 G19.2/1; 47 G19.3/1

Group 6: AR 41 (VI.2)

Fig 26.177-189 (see Vol 3.1, Section II, fig 13)

Make-up level under gravel AR28. c AD 120-40

Fig 26.177 45(A2.1/1); 178 12(B1.6/1); 179 21(C); 180 27(D4.2); 181 50(G5.1/1); 182-184 47(G); 185 45(G); 186 34(H1); 187 226(J3); 188 31(J3); 189 31(M1.1/1)

Typology 47 C19.1/1; 47 G45.1/1; 39 H2.1/1

Decorated samian Fig 45.14, f37, SG. Sherds of a panelled bowl c AD 75-90. Also in contexts 9, 24, 28, 58, 91 and 289 (VI.2-VI.3); Fig 45.15, f37, SG, c AD 75-90

Group 7: S149 (VI.1)

Figs 26.190-27.202 (see Vol 3.1, Section IV, fig 46)

This feature delineated the south wall of Building C on site S. The contents suggest that it was filled c AD 130-70.

Fig 26.190 21(B7.1); 191 41(B4.2); 192 39(A4.6); 193 27(D1.3); 194 39(G29.1); 195 45(G29); 196 39(G); 197 47(G); Fig 27.198 34(G); 199 34(G, cf Section X.3, Fig 50.29); 200 47(G, cf Section X.2); 201 31(J); 202 45(K3)

Typology 12 C1.1/1

Decorated samian Fig 46.31, f37, CG. Style of Cinnamus of Lezoux, c AD 150-80

Stamped samian VIII.2, no 14. Geminus vi of Lezoux, c AD 160-90, f31 CG; VIII.2, no 15, Gnatius ii of ?LMDV, c AD 130-55, f18/31

Group 8: S182 (VI.1)

Fig 27.203-215 (see Vol 3.1, Section IV, fig 46)

This group is from the filling of a hollow which developed over S205 (for the pottery from which see Group 3). The latest samian is Hadrianic-Antonine, and the coarse wares, which included bead-rimmed dishes and fragments of jars of type G9, suggest a date not earlier than c AD 160-80 for the end of its accumulation.

Fig 27.203 47(B4.2); 204 21(B10.1/1); 205 34(C14.3/1); 206 47(C19); 207 33(C10.2/1); 208 47(C); 209 27(D2.1), for stamp cf Section IX.2 no 8; 210 47(G5.2); 211 41(G9.1/1); 212 41(G9.1); 213 45(G19); 214 47(G); 215 21(J3)

Typology 34 C15.2/1

Decorated samian Fig 45.7 (see Group 1 above); Fig 46.30, Cinnamus ii of Lezoux c AD 150-80. Sherds in S381, S1104 (both VI.1). The stamp is unstratified.

Stamped samian VIII.2, no 9. Cocus ii of LMDV Incomplete retrograde signature f37, c AD 100-125; also fragments of vessels by Geminus vi and Gnatius ii in Group 7

Group 9: AA1.8 (VI)

Fig 27.216-36 (see Vol 3.1, Section V, fig 54)

This pit, like AA2.2 (Group 5), was associated with metalworking and appears to have had a complex history, but its filling probably took place in the later 2nd century. Most of the samian was of Hadrianic-Antonine date but the latest pieces include a decorated sherd in the style of Cinnamus, c AD 160-90 (not illustrated).

Fig 27.216 39(B1); 217 47(B3); 218 47(B2.1); 219 241(B2.1); 220 41(B2.3/1); 221 47(G5.5); 222 47(G5.6/1);

223 47(G5.6/2); 224 ?41(G9.2); 225 47(G9); 226,227 39(G9); 228 47(G9); 229-232 47(G23-4); 233 ?1(H); 234 8(H27.1/1); 235 47(H); 236 ?8(H27)

Typology 10 C24.1/1

Decorated samian Fig 46.29, f37, CG, style of Arcanus, c AD 130-50; Fig 46.35, f37, CG, style of Casurius, c AD 160-95

Stamped samian VIII.2, no 17, unidentified f31, CG, Antonine; VIII.2, no 20, Maritumus, f38, Le and T-F, c AD 150-80

Group 10: Z15.1 (VI.3)

Fig 28.237-253 (see Vol 3.1, Section II, fig 24)

Silting within a timber-lined drain (Z15.2) in the *mansio* courtyard. c AD 160-200

Fig 28.237 47(B1.3); 238 47(B1); 239 47(B4.2); 240 41(B4.2); 241 47(B3.2); 242 ?26(C16.5); 243 47(G5.4-5); 244,245 39(G9); 246 47(G24); 247 47(G23); 248-250 47(G24); 251 39(H); 252 ?1(H27.2/1); 253 8(H27)

Topology 47 G9.2/1; 31 J4.2/1

Groups 11-16: Site S (VI.2)

Figs 28.254-30.332 (see Vol 3.1, Section IV, fig 50)

It has been argued elsewhere (3.1, Section IV) that the terminal date for the Period VI.1 buildings on site S, demolished to make way for the defenses, lies within the date bracket c AD 160-75. The rapid silt or partial filling (iii) of ditch S175 contains Hadrianic-Antonine samian, while material from the middle fills included late Antonine pieces. The layer overlying these fills contained incipient flange-rimmed dishes, but no fully flange-rimmed dishes, which would be out of place in an early 3rd century context. However, both S175i and S790ii-i did produce fragments of pottery best interpreted as mid 3rd century or later (eg Fig 30.327), but these were probably derived from Period VII.1 ditch subsidence hollow S308i and S95ii, which contained a pottery accumulation to c AD 300/310.

S175iii: Fig 28.254 12(H34.1/1)

S763ii: Fig 28.255 39(B2.1, cf Section X.3, Fig 50.33); 256 47(B4); 257 39(B); 258 47(B); 259 39(E2.3); 260 47(G24); 261-263 47(G23-4); 264 39(G19); 265 39 (H21.1/1)

S763ii-i: Fig 28.266 ?4(G26.1/1); 267 47(G5.2)

S175ii-i: Fig 29.268 47(B1.6); 269 47(B1.3); 270 47(B1.2-3); 271,272 47(B4.2); 273 27(D11.1/1); 274,275 47(E5.4); 276 47(G5.5/1); 277 39(G19); 278 47(G); 279 47(G23-4); 280 47(G5); 281,282 47(G23-4); 283 47(G42); 284 47(G); 285 39(G36-40); 286 39(G); 287,288 47(H); 289 47(H, cf Section X.3, Fig 50.34); 290 1(H); 291 8(H); 292 39(H); 293 45(K3)

S790ii Fig 29.294 47(G); 295 44(G42); 296 47(G37.1/1); 297 6(H); 298 2(C); 299 11(J5.2/1)

S790i: Fig 29.300 39(G, cf Section X.3, Fig 50.31); 301 12(A44.2/1); 302 39(B4.2); 303 47(B2.1/1); 304 ?41(B2.1); 305 39(B4.2); 306 39(B3.2); Fig 30.307 47(B5.1); 308 ?4(C11); 309 ?24(D10.1/1); 310 27(D3.2/1); 311 27(O13.2/1); 312 39(E5.4); 313 47(G8.1); 314 39(G5.4); 315 47(G5); 316 47(G9); 317 47(G23-4); 318 47(G22.1); 319 47(G23-4); 320 47(G36-40); 321 34(G); 322,323 ?1(H26.2); 324 38(H35.2). For stamp see Section IX.4, Fig 48.14; 325 39(H); 326 2(H24.1/1); 327 2(H39); 328 ?1(H); 329 2(H20-8); 330 2(H); 331 1(H); 332 47(K3)

Typology 45 E6.2/1 (175i); ?4 H17.1/1(175i); 38 H30.1/1 (175ii); 45 K2.1/1(175i); 47 N2.1/1(790i)

Decorated samian Fig 45.10, f29, SG. Style of ?Sasmonos. Neronian

Group 17: S95i (VII.2)

Fig 30.333-345 (see Vol 3.1, Section IV, fig 51)

The primary fill (ii) of ditch S95 contained a coin of Tetricus II (RIC 274), giving a *terminus post quem* for S95i of AD 270-3. The level is unsealed, and contains a few sherds of late shell-tempered pottery and Oxfordshire red colour-coat, suggesting accumulation to c AD 360+.

Fig 30.333 47(B4.2); 334 47(B2.1); 335 47(B6.2); 336 39(B6.1); 337 39(B6.2); 338 2(C18.1); 339 39(G19); 340 39(G5.5); 341 39(G19); 342 47(G23-4); 343 39(G); 344 ?1(H35.1); 345 2(H)

Group 18: T31i-iv (VII.3)

Fig 31.346-357 (see Vol 3.1, Section VI, fig 35)

The lowest level of this pit (v) contained Rettendon ware and a sherd of Nene Valley thick white ware, suggesting initial filling in the early mid 4th century. This level also included coins of Tetricus I (AD 270-3; RIC 86) and Constantine II (AD 320-4; RIC 7 Lon 287), but nothing later. There were also no Oxfordshire red colour-coat or late shell-tempered wares, which suggests an upper limit of c AD 360/70 for the initial fill. The overlying layers contained nine coins of the 3rd and 4th centuries, including an issue of the House of Theodosius (see Vol 3.1, Section VIII.1), Oxfordshire red colour-coat and late shell-tempered wares, suggesting infilling during the remainder of the Roman period.

Fig 31.346 47(B1); 347 40(B6.3); 348 40(B5.1); 349 47(B6); 350 2(B6); 351 3(D6); 352 ?4(D12.2); 353 47(G); 354 46(G41.2/1); 355 39(G36-40); 356 2(J12.1, cf Section IX.4, Fig 48.19); 357 43(J13.1)

Group 19: AR13 (VII.2)

Fig 31.358-373 (see Vol 3.1, Section II, fig 15)

Although AR13 produced no coins, the presence of Oxfordshire red colour-coat (Fig 31.363,371) suggests that the feature remained open until after c AD 360-70.

Fig 31.358 39(B1.3); 359 40(B1.4); 360 40(B6.3, cf Section X, Fig 49.13, 23); 361 39(E5.4); 362 39(G29); 363 3(C); 364 48(G); 365 40(G9); 366 39(G); 367 47(G); 368 ?1(H20.2); 369 2(H41.1); 370 2(H); 371 3(H); 372 47(K); 373 39(E3.4/1)

Topology 3 H16.1/1, for graffito see Section X, Fig 49.12; 47 K1.2/1; 47 S2.1/1

Group 20: T71/80 (VII.3)

Figs 31.374-32.402 (see Vol 3.1, Section VI, fig 35)

A comparatively large group (10 kg) post-dating c AD 360/70 on the evidence of coins, Oxfordshire red colour-coat and late shell-tempered wares. Much of this material was found in a post-medieval ditch (T80) which cut the feature. Of the 13 coins from the ditch (see Vol 3.1, Section VIII.1), the latest issues were of Magnentius (AD 350-60; copy as CK8) and Valens (AD 364-78; CK 985 and as CK 97). Despite the coins it may be contemporary

with Group 21. However, the ceramic evidence is inconclusive.

Fig 31.374 40(B1.3); 375 39(B1.3); 376 39(B3.2); 377 39(B5); 378 40(B6.3); Fig 32.379 40(B6.3/2); 380 4(C8.3/1); 381 2(C); 382 3(D6.1/1); 383 3(D); 384-388 51(G27); 389 40(G9.4/1); 390 35(G31.1/1, cf Section X.3, Fig 50.38); 391 51(G27); 392 47(G); 393 ?43(G); 394 47(H); 395 3(H); 396 38(H42.2/1); 397 43(J13.1-same vessel as Fig 31.357); 398 4(N1.1/1); 399 4(N4.1/1); 400 47(M); 401 47(G); 402 39(G)
Typology 3 C25.1/1, 2/1; 3 D3.5/1

Group 21: S35 (VII.3)

Figs 32.403-33.424 <see Vol 3.1, Section IV, fig 51)

One of the latest features on site S; datable to post c AD 360-70 on the evidence of Oxfordshire red colour-coat and late 'shell-tempered' wares. The eight coins from this feature are all 4th century (see Vol 3.1, Section VIII.1) and include issues of Arcadius (CK 798) and the House of Theodosius (as CK 162), dated AD 388-402.

Fig 32.403,404 47(B6); 405 47(B5.1); 406 47(B6.2); 407 4(C8.2/1); 408 4(D7.2/1); 409 25(D7.2); 410 ?30(E3.1/1); 411 3(E4.2); 412 47(G); 413 48(G); 414 4(G); Fig 33.415 47(G); 416 48(G); 417 4(G); 418 51(G27); 419 51(G27.1/1); 420,421 51(G27); 422 35(G31.1/2); 423 51(G); 424 4(J7.1/1)

Typology 51 G27.2/1. For a graffito on this vessel see Section X, Fig 49.14.

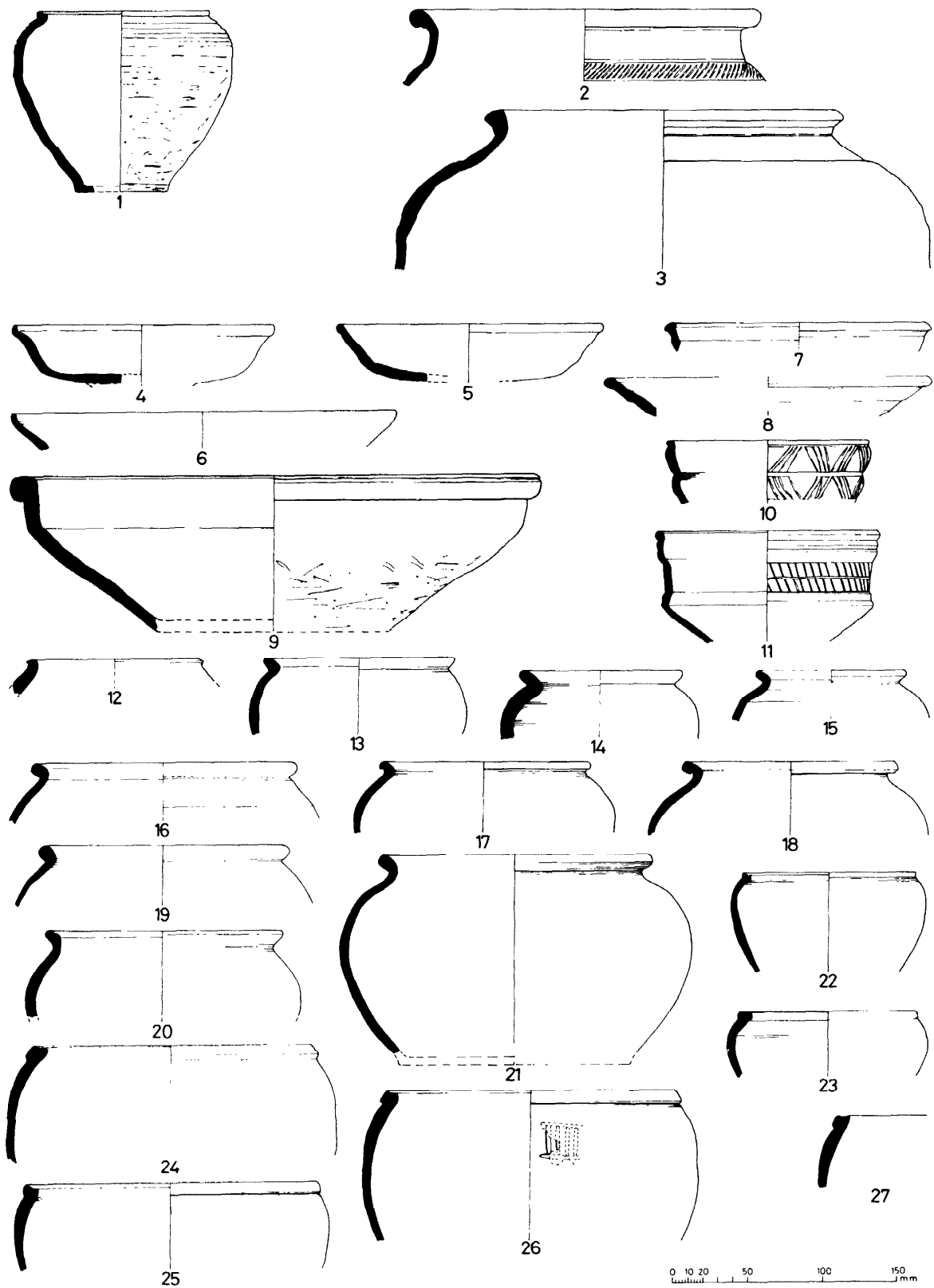


Fig 20 Pottery from S245iii (1), ii (2-3); S245 (4-27). Scale 1:4

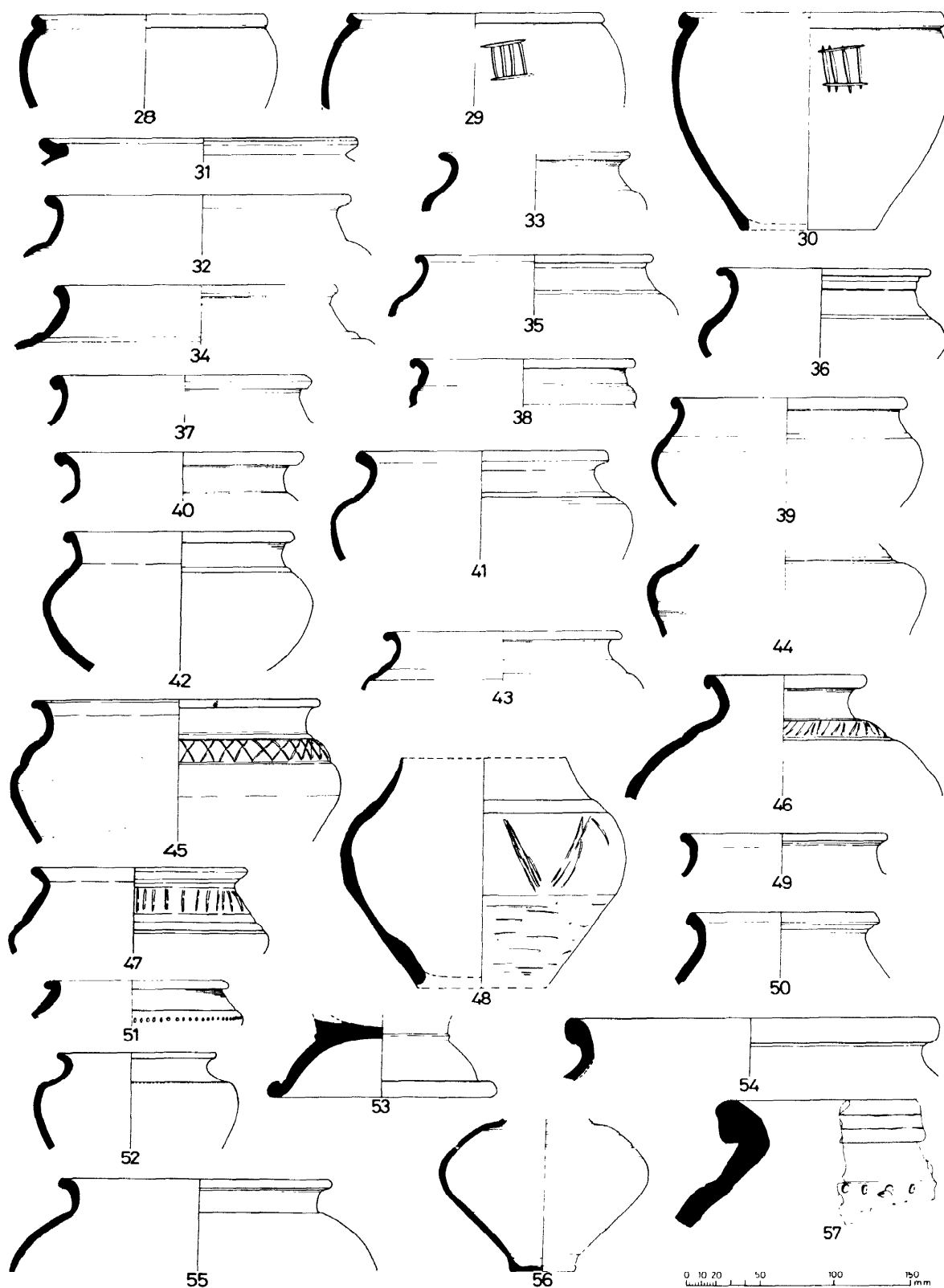


Fig 21 Pottery from S245 (28-57). Scale 1:4

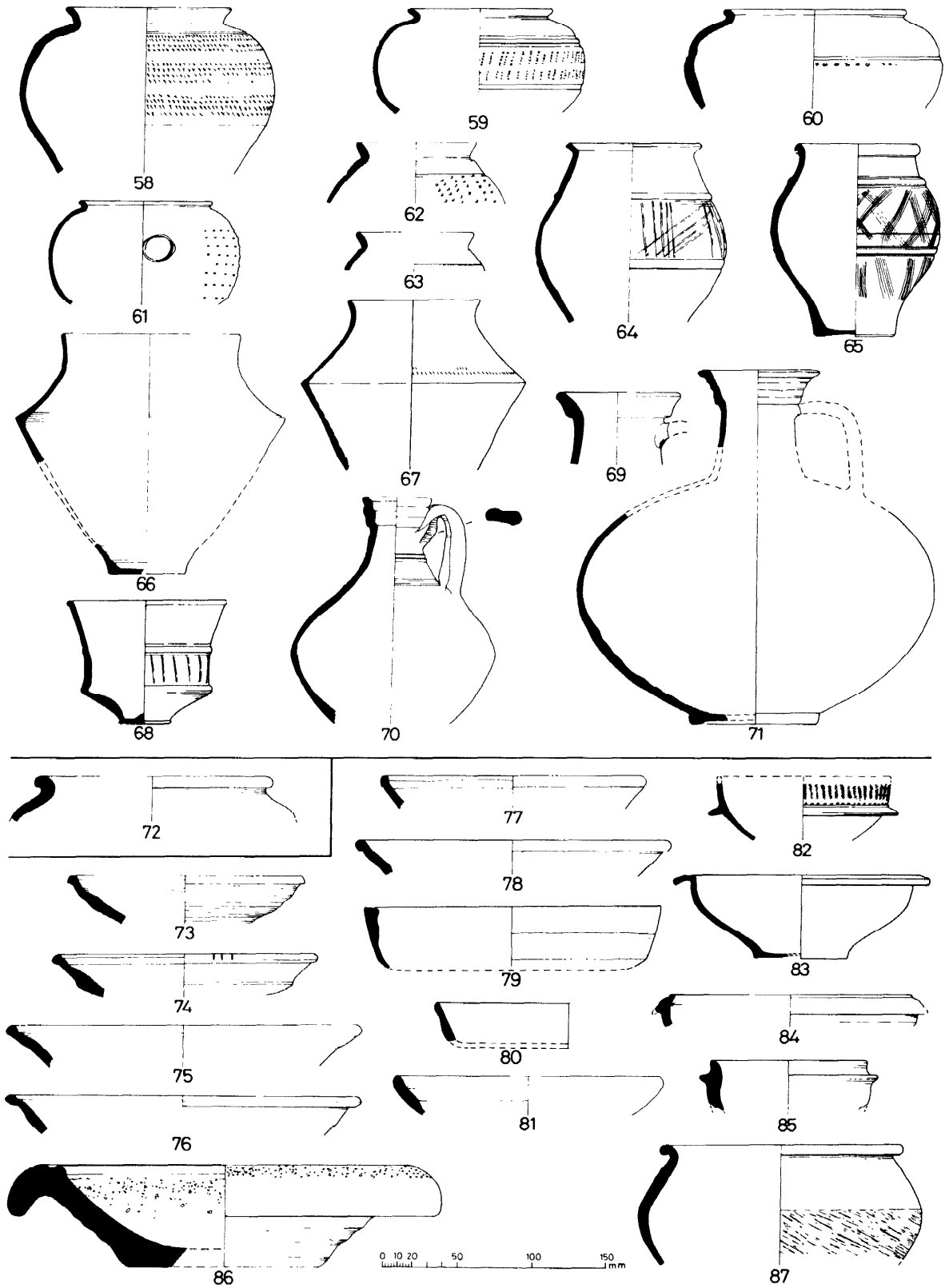


Fig 22 Pottery from S245 (58-71); S230 (72); S205 (73-87). Scale 1:4

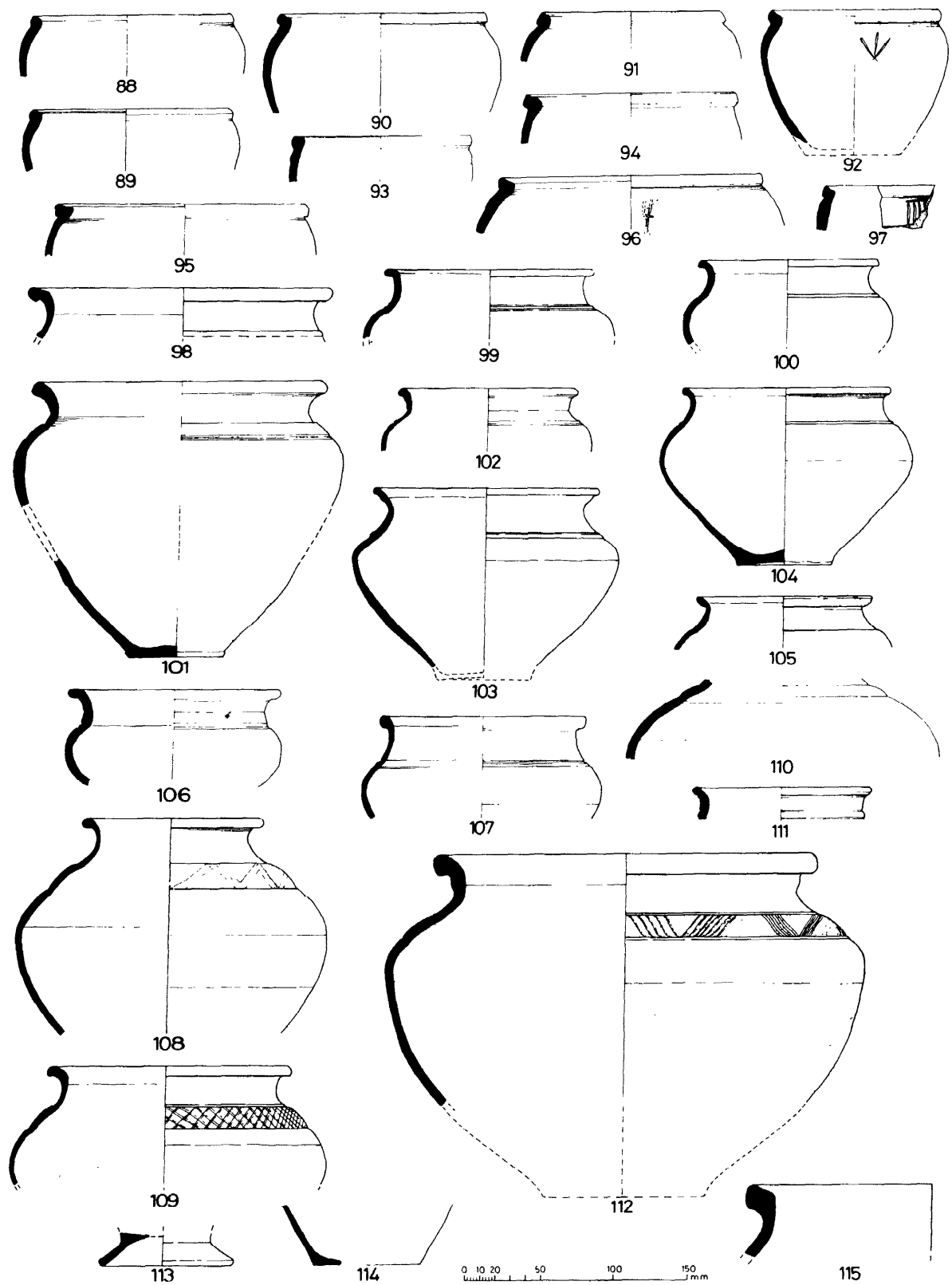


Fig 23 Pottery from S205 (88-115). Scale 1:4

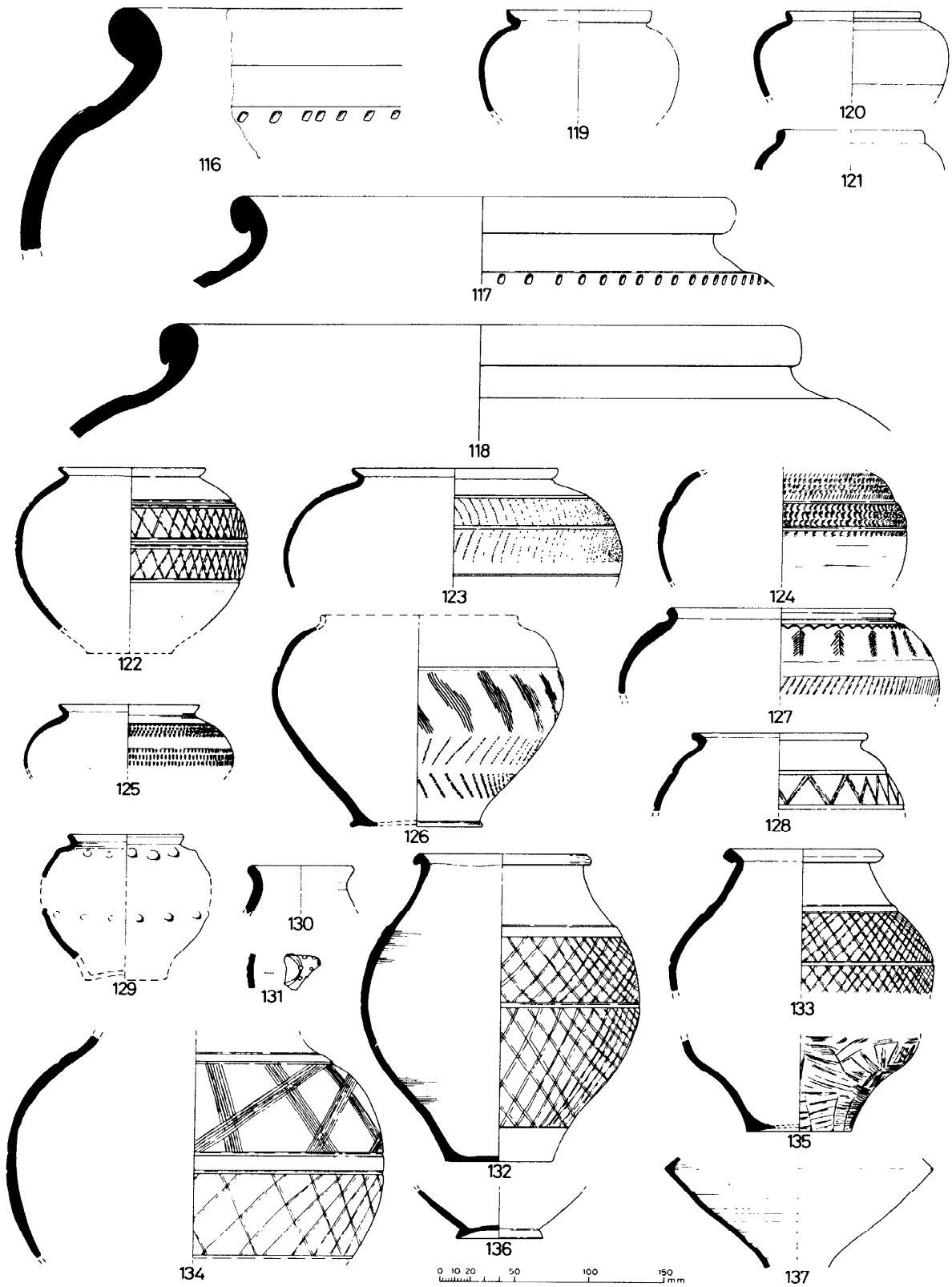


Fig 24 Pottery from S205 (116-37). Scale 1:4

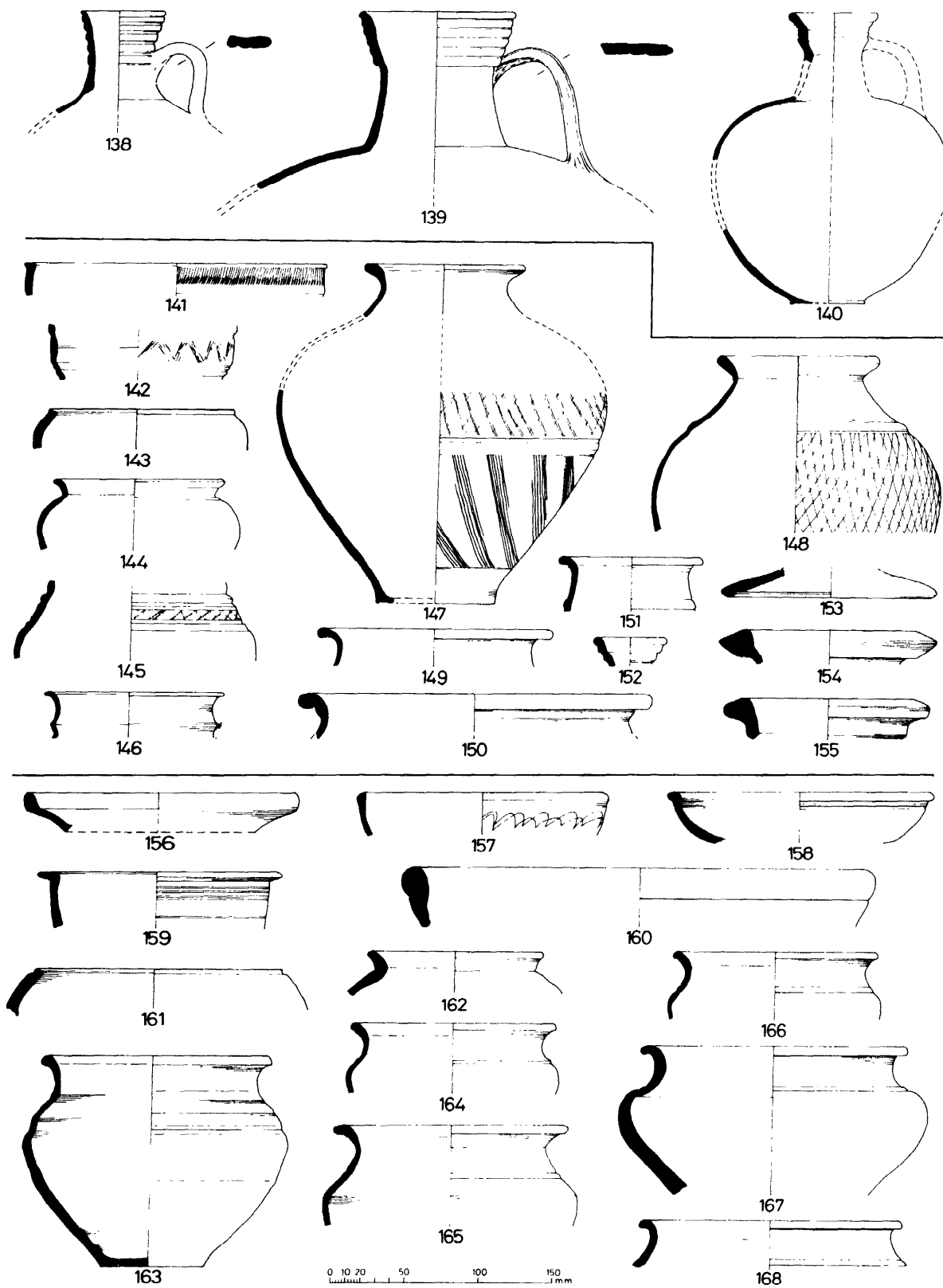


Fig 25 Pottery from S205 (138-40), S215 (141-55) AA2.2 (156-68). Scale 1:4

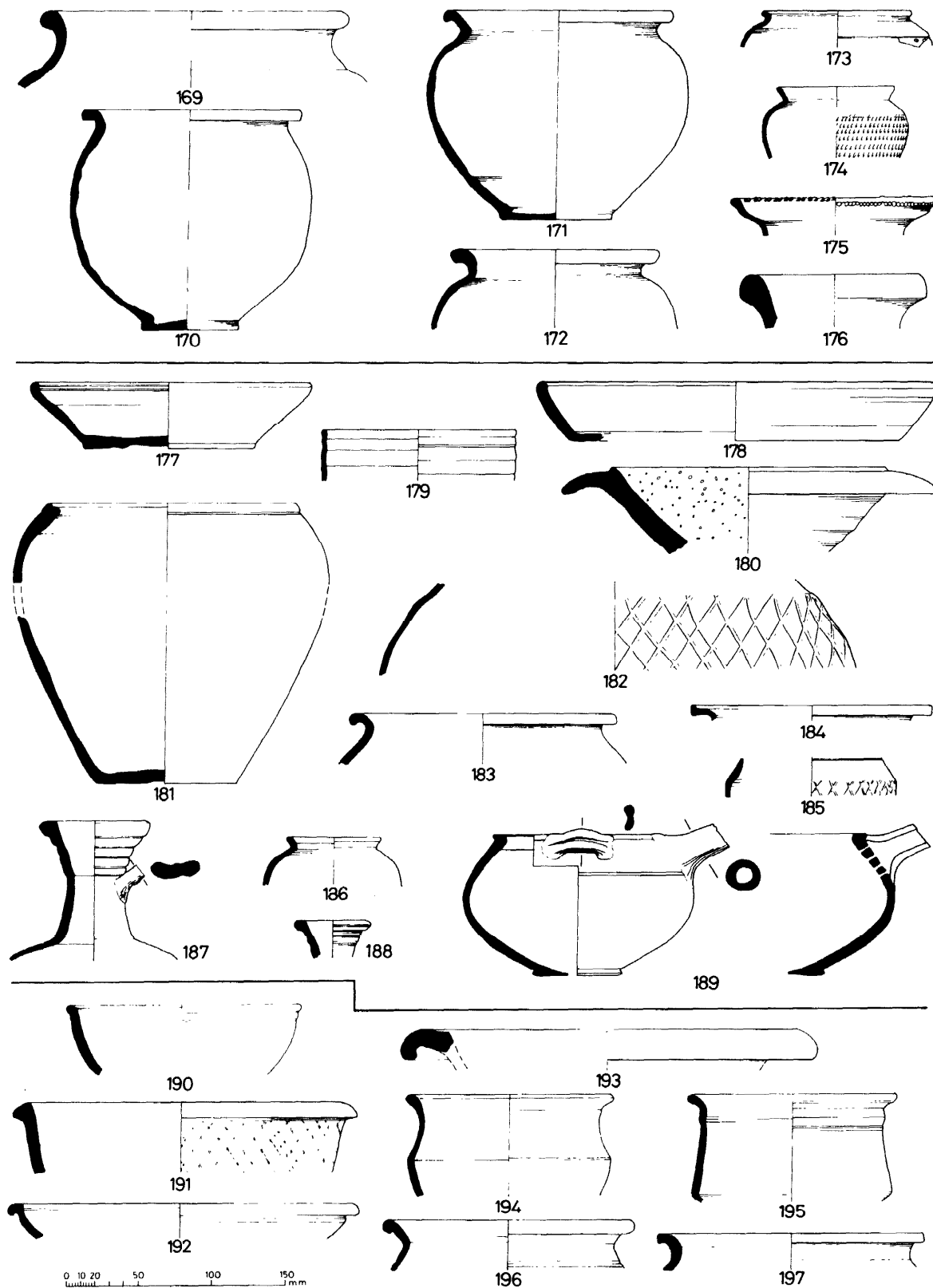


Fig 26 Pottery from AA2.2 (169-76), AR41 (177-89), S149 (190-97). Scale 1:4

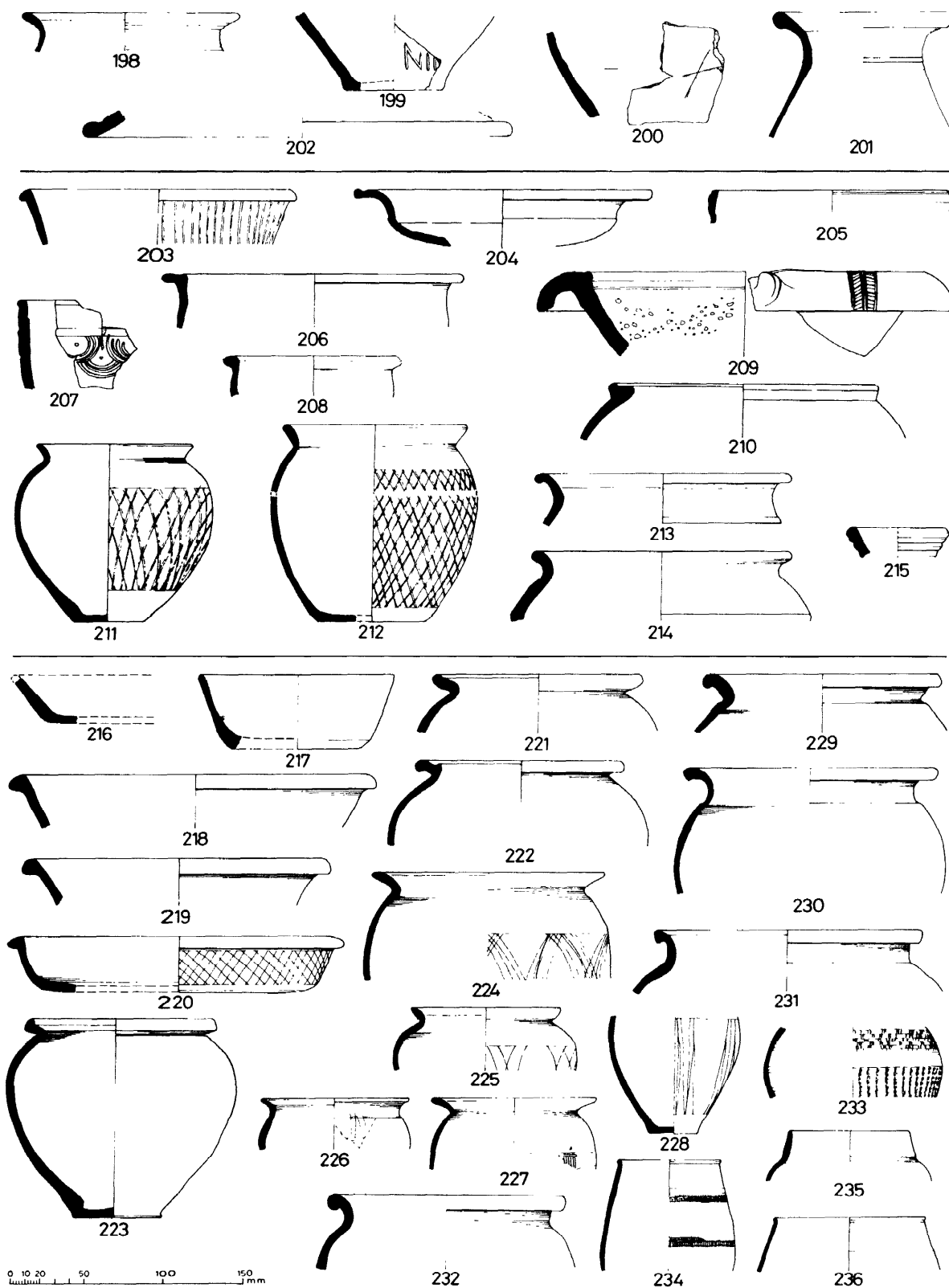


Fig 27 Pottery from S149 (198-202), S182 (203-10, 212-15), S192 (211) AA1.8 (216-36). Scale 1:4

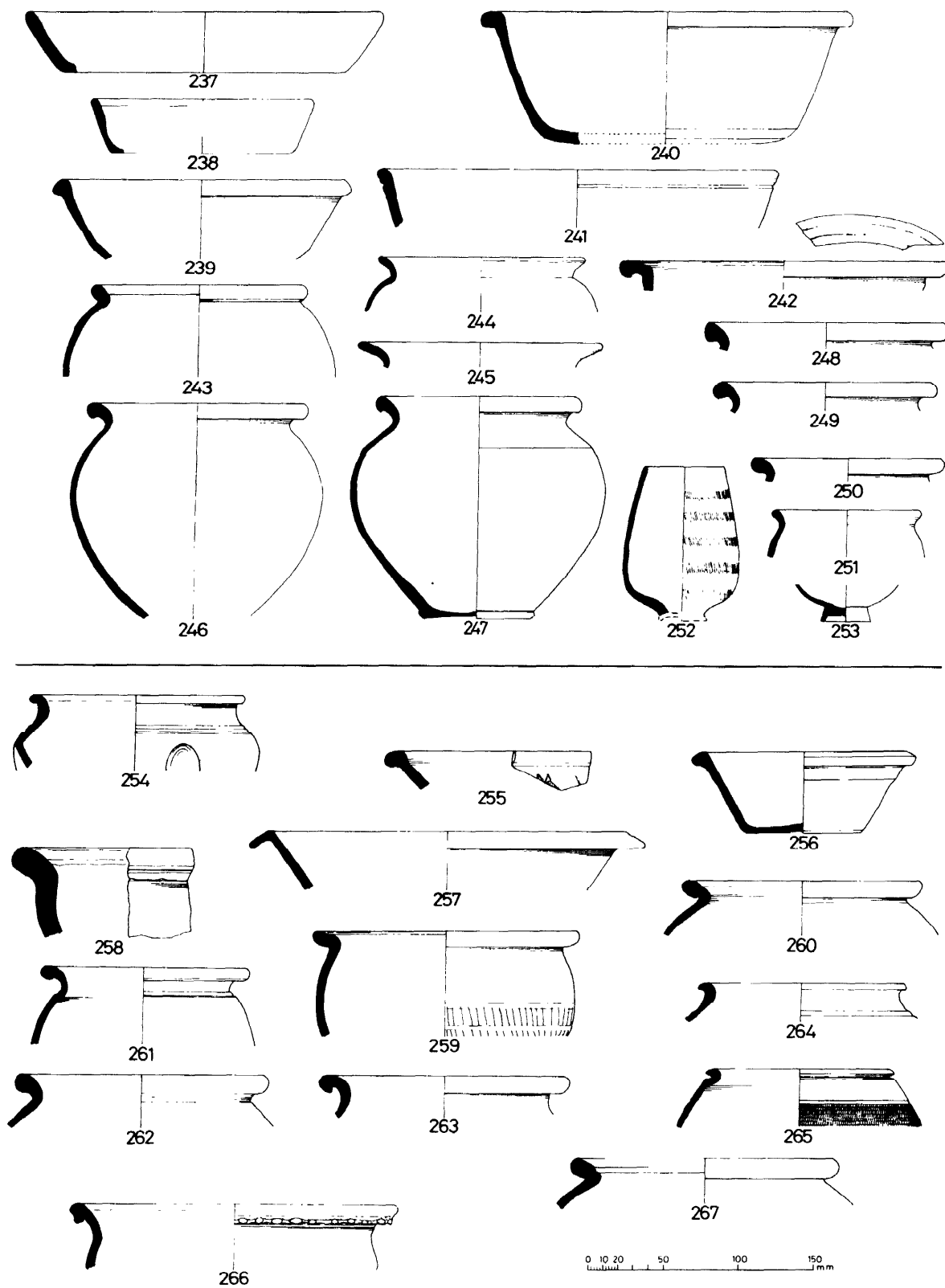


Fig 28 Pottery from Z15 (237-53), S175iii (254), S763ii (255-65), S763ii-i (266-7). Scale 1:4

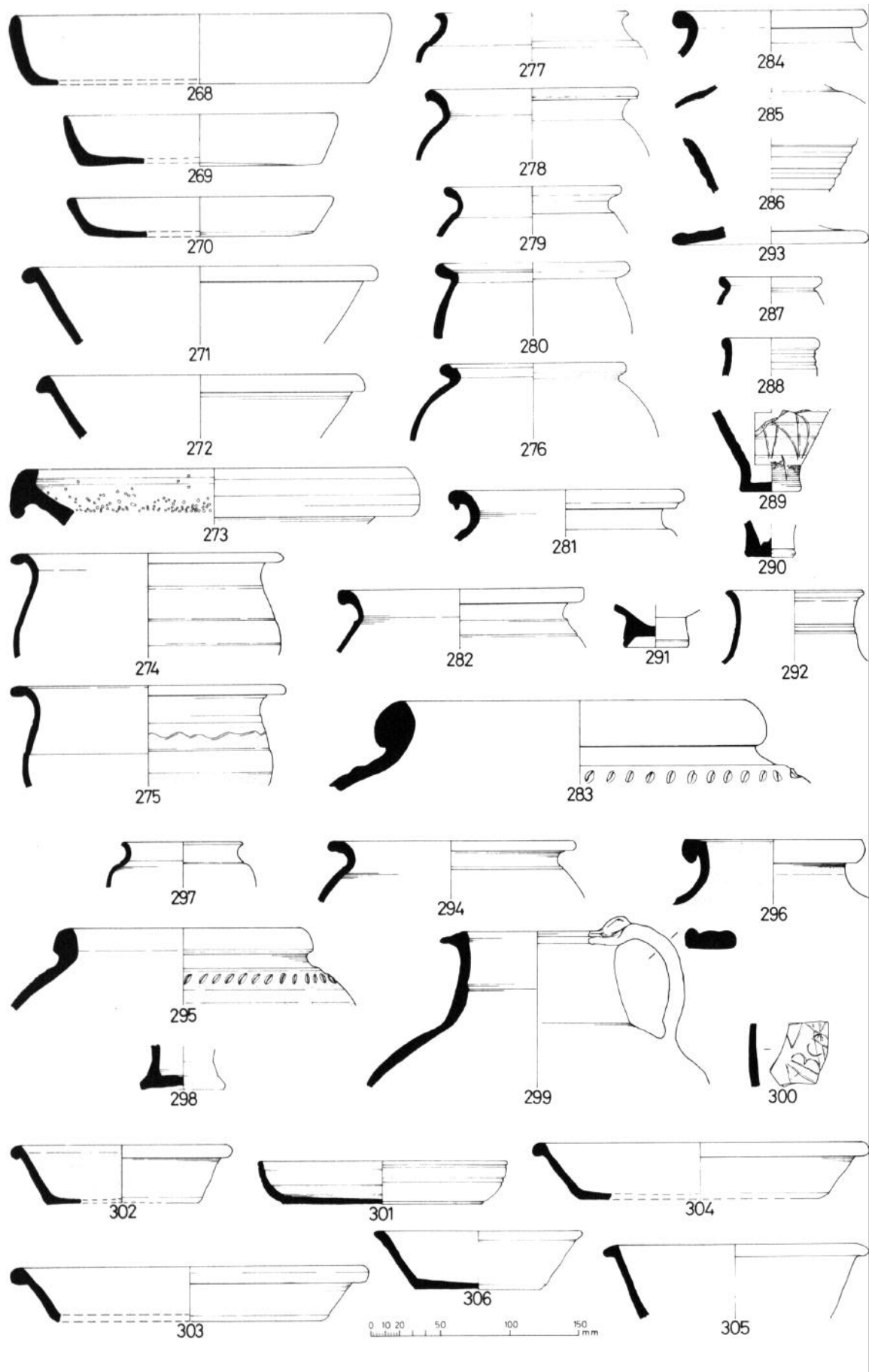


Fig 29 Pottery from S175ii-i (268-93), S790iii (294-9), 790ii-i (300-6). Scale 1:4

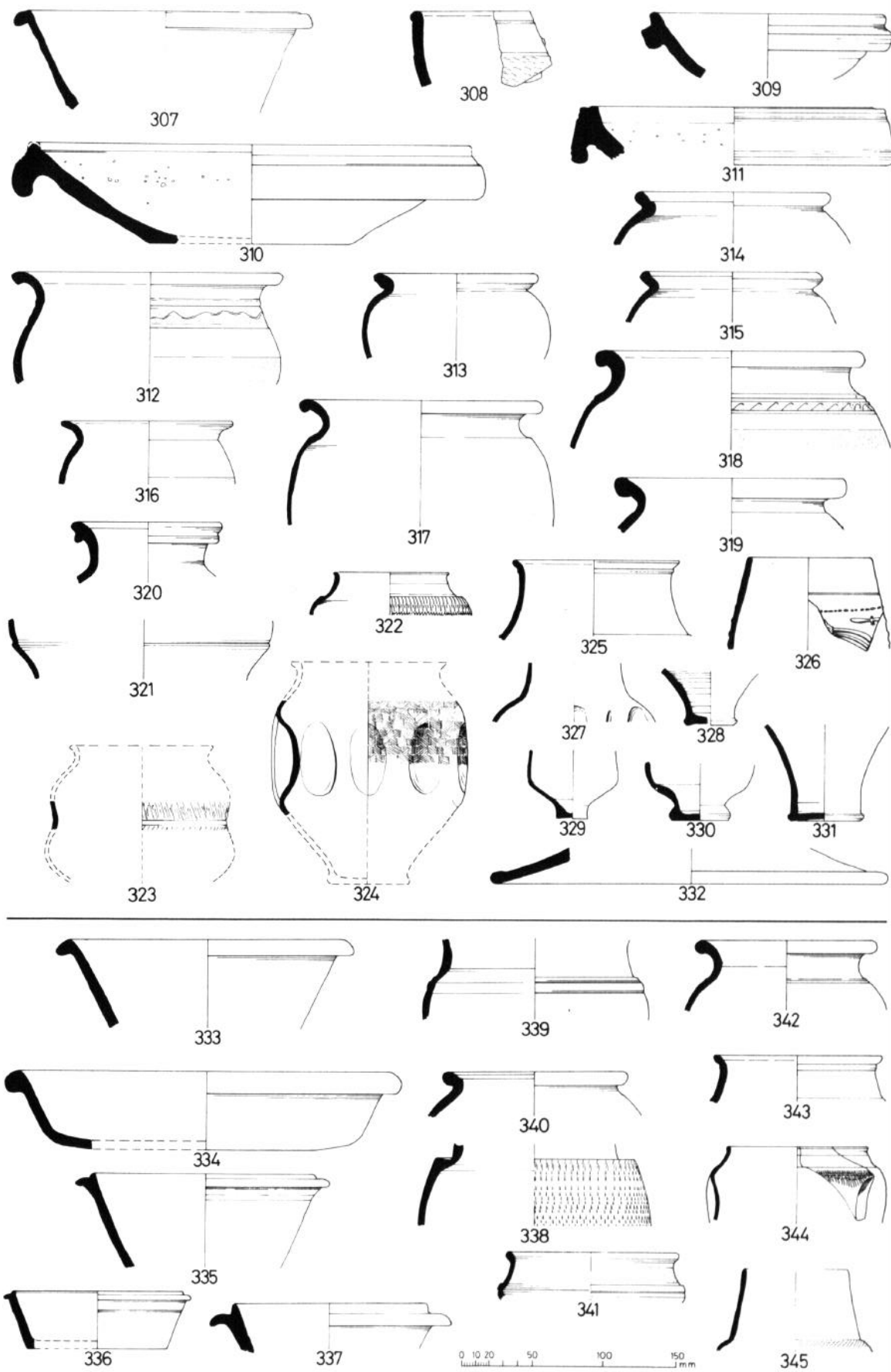


Fig 30 Pottery from S790ii-i (307-32) S95i (333-45). Scale 1:4

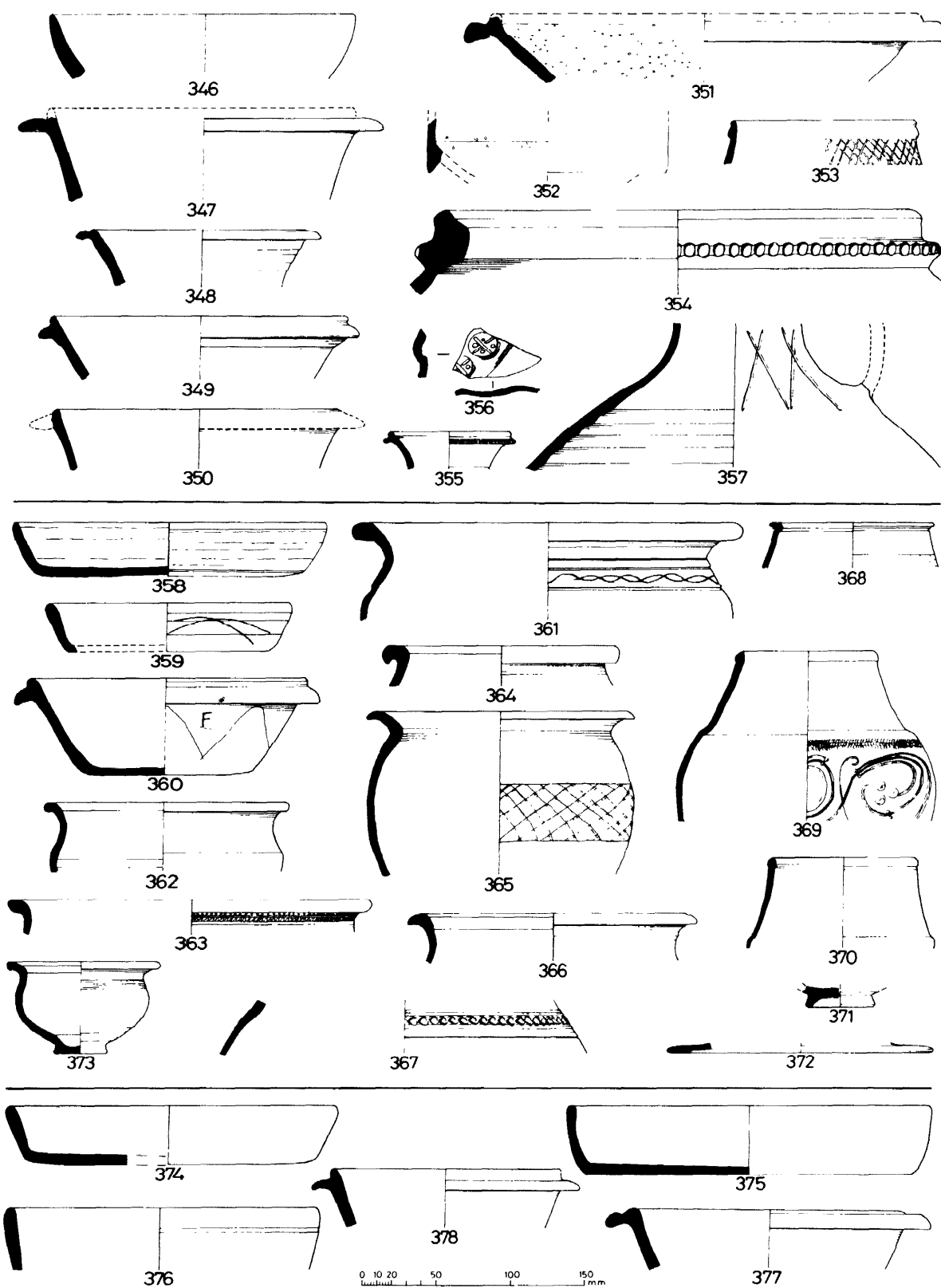


Fig 31 Pottery from T31 (346-357) AR13 (358-373), T71 (374-378). Scale 1:4

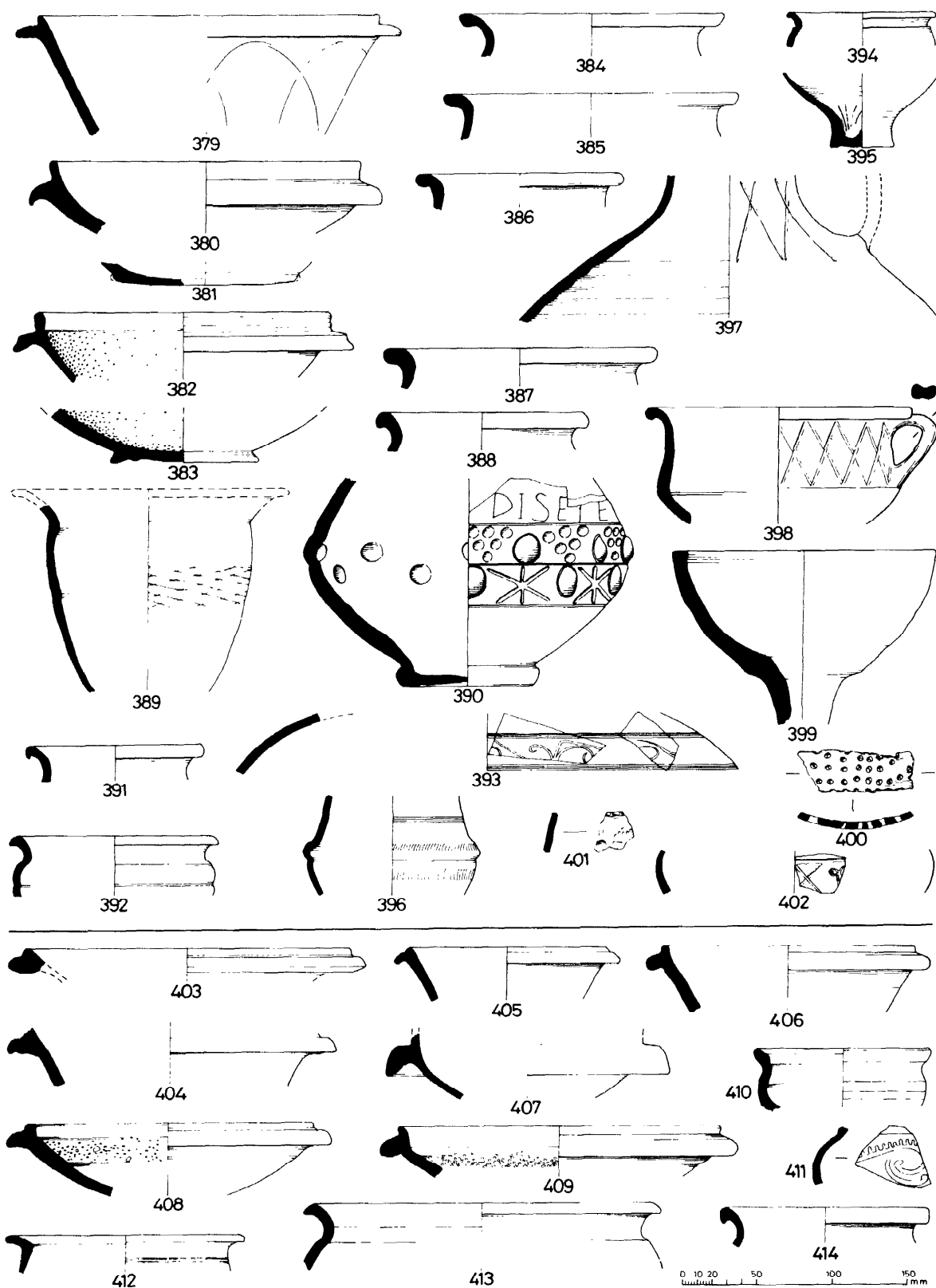


Fig 32 Pottery from T71 (379-402), S35 (403-414). Scale 1:4

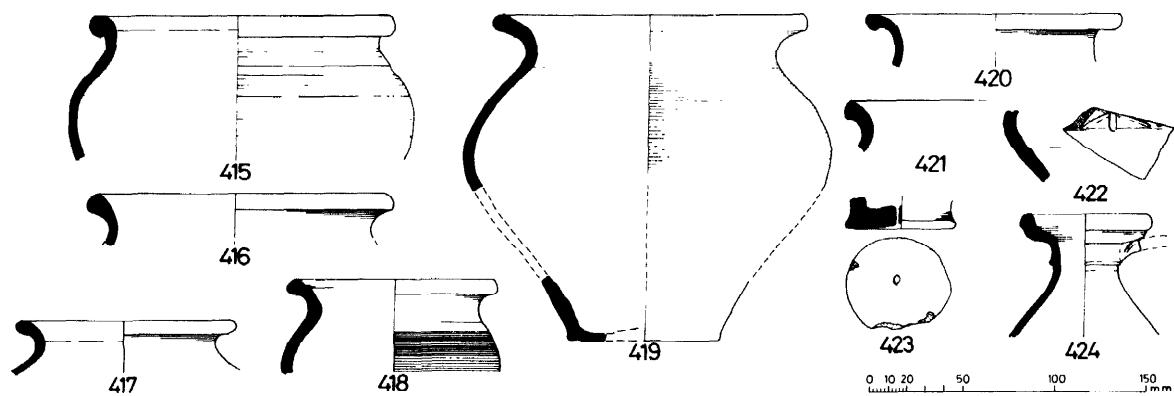


Fig 33 Pottery from S35 (415-424). Scale 1:4

V The kilns at Moulsham Street, Chelmsford and Inworth

The opportunity is taken here to publish the kilns on site S (Moulsham Street, see Vol 3.1) and a contemporary kiln at Inworth together, since their products have close affinities. In addition, the history of the industry of which they formed part and which is named after the type site at Rettendon, Essex (Tildesley 1971), is assessed (see Section V.3).

1 The Moulsham Street kilns

The structures

by P J Drury

The two kilns, opening from a common stokepit, 305, lay at the rear of site S (3.1, fig 51; Fig 34). They had been formed by excavating the natural brickearth and other strata, and firing the resulting hole. Kiln 368 had a large, low pedestal, so shaped that hot gases entering the chamber were deflected to both sides. Its walls had been intensely fired, and repaired with a partial secondary lining. The form is typical of kilns in Essex and East Anglia from the mid 2nd century onwards (Rodwell 1982), although here the pedestal is exceptionally broad.

Large fragments of charcoal from the bottom of the stokepit (305 II) consisted mainly of oak (*Quercus* sp) from mature timbers. A few fragments of *Leguminosae* twig (eg

gorse/broom) and one fragment of hawthorn-type (*Rosaceae*, subfamily *Pomoideae*) from mature timber were also present. From the bottom of kiln 368 came large fragments of mature timbers, mainly oak. Two pieces showed evidence of having been chopped into faggots prior to use. One fragment of *Leguminosae* twig was also present (AML Report 3048; author, C Keepax).

The shallow kiln, 322, appeared to have been fired only once or twice, its underfired final load remaining largely *in situ*. It was unfortunately cut away on the east by a post-Roman ditch. The bottom was flat, with no sign of a pedestal; indeed there would hardly have been room for one in so small a structure. In its lack of a pedestal the kiln compares with other 4th century examples in Essex (eg Inworth, p 78; Rodwell 1982, 38-42). Two fragments of charcoal, probably oak, were present.

The stokepit was subrectangular with a relatively flat bottom; a small step had been cut about halfway down the south side, probably to facilitate entry. The filling of both kilns and the stokepit consisted largely of charcoal and debris in a dark loam matrix (II, III), beneath a capping of grey-brown loamy brickearth (I).

The Romano-British pottery

by C J Going

The two kilns (S322, 368) and the stokepit (S305) produced a total of 2559 sherds, 58.265kg of pottery, of which 2332 sherds, 49.310kg (EVE: 38.14) were identified as kiln products and examined in detail (see Table 4).

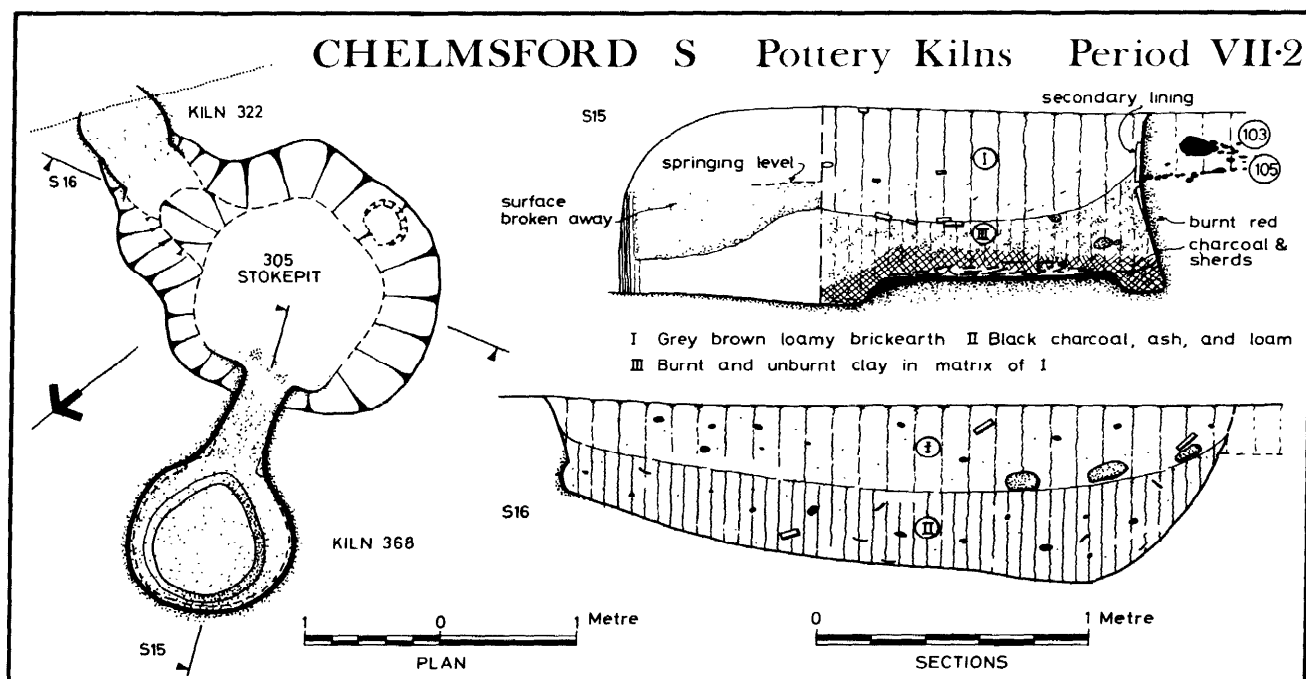


Fig 34 Chelmsford the Moulsham Street kilns

Table 4 Chelmsford (Moulsham Street) kiln products

Fabric		47/1			47/2			48			Total	
Fig	Type	Eves	% Eve	% Fabric	Eves	% Eve	% Fabric	Eves	% Eve	% Fabric	Eves	% Eve
<i>Dishes</i>												
1	B1.3	4.79	72.90	-	0.92	14.00	-	0.86	13.00	-	6.57	17.22
	B1.3	0.27	44.20	-	0.34	55.70	-	-	-	-	0.61	1.59
	Total	5.06	-	27.63	1.26	-	13.17	0.86	-	8.37	7.18	18.82
2-3	B6.2	1.27	39.30	-	1.65	51.00	-	0.31	9.50	-	3.23	8.46
	B6.2	1.71	100.00	-	-	-	-	-	-	-	1.71	4.48
	Total	2.98	-	16.27	1.65	-	17.25	0.31	-	3.01	4.94	12.95
<i>Bowl-jars</i>												
	E1	0.22	100.00	-	p	p	-	-	-	-	0.22	0.57
4	E1.1	0.74	45.10	-	-	-	-	0.90	54.80	-	1.64	4.29
	Total	0.96	-	5.24	p	-	p	0.90	-	8.76	1.86	4.87
	E2	0.10	100.00	-	-	-	-	-	-	-	0.10	0.26
5	E2.1	0.23	100.00	-	-	-	-	-	-	-	0.23	0.60
6	E2.2	0.24	100.00	-	-	-	-	-	-	-	0.24	0.62
	Total	0.57	-	3.11	-	-	-	-	-	-	0.57	1.49
	E5	0.33	73.30	-	0.12	26.60	-	-	-	-	0.45	1.17
7	E5	0.36	100.00	-	-	-	-	-	-	-	0.36	0.94
8-9	E5.4	1.11	100.00	-	-	-	-	-	-	-	1.11	2.91
	Total	1.80	-	9.83	0.12	-	1.25	-	-	-	1.92	5.03
<i>Jars</i>												
	G24	0.17	7.45	-	1.74	76.31	-	0.37	16.22	-	2.28	5.97
10-11	G24.1	-	-	-	1.03	36.26	-	1.81	63.73	-	2.84	7.44
12-13	G24.2	-	-	-	0.64	23.35	-	2.10	76.74	-	2.74	7.18
	Total	0.17	-	0.92	3.41	-	35.66	4.28	-	41.67	7.86	20.60
14	G33.1	p	p	-	-	-	-	-	-	-	p	p
	Total	p	p	p	-	-	-	-	-	-	p	p
15-16	G35.2	0.95	90.40	-	p	p	-	0.10	9.52	-	1.05	2.75
	Total	0.95	-	5.18	p	-	p	0.10	-	0.97	1.05	2.75
17	G40.2	0.55	100.00	-	-	-	-	-	-	-	0.55	1.44
	Total	0.55	-	3.00	-	-	-	-	-	-	0.55	1.44
18	G42.1	-	-	-	p	p	-	0.55	100.00	-	0.55	1.44
	Total	-	-	-	p	-	p	0.55	-	5.35	0.55	1.44
<i>Lids</i>												
19	K5.1	0.76	100.00	-	-	-	-	-	-	-	0.76	1.99
	Total	0.76	-	4.15	-	-	-	-	-	-	0.76	1.99
<i>Cauldrons</i>												
20	L2.1	-	-	-	-	-	-	0.16	100.00	-	0.16	0.41
	Total	-	-	-	-	-	-	0.16	-	1.55	0.16	0.41
<i>Misc open forms</i>												
		0.47	100.00	-	-	-	-	-	-	-	0.47	1.23
<i>Misc closed forms</i>												
		4.04	39.33	-	3.12	30.37	-	3.11	30.28	-	10.27	26.92
	Total	4.51	-	24.63	3.12	-	32.63	3.11	-	30.28	10.74	28.15
Grand total		18.31				9.56				10.27	38.14	99.94
%		48.00				25.06				26.92		

P = present

*The fabrics***Fabric 47 (Variant 1)**

A sandy grey ware with moderate-abundant inclusions of rounded and sub-angular quartz < 2mm in diameter. The colour of the core, margins and surfaces varies from pinkish grey to blue-grey. EVE: 18.21 (48.0% of kiln assemblage)

Fabric 47 (Variant 2)

A sandy grey ware with moderate-abundant rounded and sub-angular quartz fragments <2mm in diameter, and sparse inclusions of crushed flint. EVE: 9.56 (25.06% of kiln assemblage)

Fabric 48

A sandy grey ware with moderate inclusions of rounded and sub-angular quartz fragments <2mm in diameter, and moderate-abundant inclusions of crushed flint. EVE: 10.27 (26.92% of kiln assemblage)

Away from the kilns themselves Fabrics 47/1-2 cannot easily be distinguished within the grey ware fabric group, and Fabric 48, although identifiable, is unlikely to be exclusively from the kilns.

The forms

The forms (Fig 35.1-20) have been classified according to the main typology (Section III); entries in italics denote vessels incorporated in it. Where possible local kiln parallels are given for each type.

B Dishes

Dish Types comprised B1 (plain-rimmed) and B6 (flange-rimmed). There was no correlation between the rim diameter of each type. 31.77% of the assemblage

B 1

Shallow plain-rimmed dishes resembling *Cam* 40

B1.3 As Type with flaring sides and flat base, usually burnished overall. Diameter range 140-240mm, peaking at 180mm. EVE: 7.18. All kiln fabrics, most commonly 47/1 (70.47%). 18.82% of the assemblage. Kiln parallels: Mucking (type A; Jones & Rodwell 1973, fig 4.1-7); Orsett (Rodwell 1974, fig 8.53-6); Rettendon (type C; Tildesley 1971, fig 7.38-40).

Fig 35.1 *B1.3/1*, 47 Kiln S368

B 6

Flange-rimmed dishes resembling *Cam* 305A

B6.2 As Type with flat bases and a variety of rim shapes. Usually burnished overall. 12.95% of the assemblage. Diameter range 140-260mm. EVE: 4.94. All fabrics. Kiln parallels: Colchester; Mucking (Jones & Rodwell 1973, fig 4.18-20, type D); Orsett (Rodwell 1974, fig 8.57-8); Rettendon (Tildesley 1971, fig 7.31-5, type B); Sandon (Drury 1976b, fig 3.33-4); Sible Hedingham (Hull 1963, 178).

Fig 35.2 47 Parallel: Mucking Well 1 (Jones & Rodwell 1973, fig 4.20, type D). Kiln S322

Fig 35.3 *B6.2/1* 47 Parallel: Mucking Well 1 (Jones & Rodwell 1973, fig 4.19). Kiln S368

E Bowl-jars

E 1

Neckless bowl-jar with a globular body, pointed or squared-off rim separated from a convex-sided flange. The type is not paralleled at Colchester, or any other Essex kiln site save Inworth. It is a distinct but uncommon central Essex type probably intended to be used in conjunction with lids of Type K5.1, which are also found at Inworth. Diameter range 160-260mm. EVE: 1.86. All fabrics. 4.87% of assemblage

Fig 35.4 E1.1. 47 Parallel: Inworth (Fig 42.3-4). Kiln S368

E 2

Globular body as last, but with an out-turned, pointed angular rim with an inclined straight, or slightly dished lip; either left undecorated or burnished to the mid body. The type is similar in form to *Cam* 307 (Hull 1963, fig 105), dated by Hull from the early 3rd century. It also corresponds more or less closely to the Mucking type G (Jones & Rodwell 1973, fig 5.31 -8) and Orsett, fig 8.64 (Rodwell 1974). Diameter range 80-100mm. EVE: 0.57. Fabric 47/1. 1.49% of the assemblage

Fig 35.5 E2.1. 47 Kiln S368

Fig 35.6 *E2.2/1*. 47 Kiln S368

E 5

As Type, with a bead rim, concave neck and rounded body. The rim and body are almost of equal width. The vessels are well finished, and decorated with burnished zones on the neck and body. In addition the neck is usually, although not invariably finished with burnished wavy line decoration (cf Typology, E5.4). The type resembles a product of Colchester kiln 24 (Hull 1963, fig 86.23), unclassified in Hull's typology. It appears to have had a long life, occurring at Mucking in kilns dated from the 2nd to the 4th centuries. The general proportions of the Moulsham Street products closely resemble those of Mucking Kiln III, where the type is thought to persist to about the middle of the 4th century (Jones & Rodwell 1973, 26-8). It is paralleled at Billericay (Weller in Buckley *et al* forthcoming); Heybridge (Drury & Wickenden forthcoming); Mucking (Jones & Rodwell 1973, fig 7.56-62, type K), and Orsett kiln group 1 (Rodwell 1974, fig 7.42). EVE 1.92. Diameter range c 200-380mm. Fabrics 47/1 (93.75%) and 47/2 (6.25%), (5.03% of assemblage)

Fig 35.7 E5. 47 Kiln S368

Fig 35.8 *E5.4/1*. 47 Stokepit S305

Fig 35.9 *E5.4/2* 47 Parallel: Mucking Kiln III (Jones & Rodwell 1973, fig 7.58). Kiln S322

G Jars

The commonest kiln product if the miscellaneous closed forms are included, jars comprise 26.23% of the assemblage. Most can be paralleled to type level, but specific forms seldom occur more than a few miles afield. Where possible type and form parallels are given.

G24 corresponds loosely with *Cam* 268A (Hull 1963, fig 105), which appears to have become extinct at Colchester by c AD 350 (cf XII.3). G33 and G35 resemble *Cam* 280-1 (*ibid*, fig 104) and like the corresponding Mucking type N these vessels, along with E5, include the most highly and distinctively decorated kiln products. The storage jars correspond generally with *Cam* 273 (*ibid*, fig 103). The Chelmsford examples, like Mucking type S (Jones & Rodwell 1973, fig 10. 108- 12) retain conservative characteristics, for example, the 'D' - shaped pointed rim which is absent from corresponding 4th century types at Colchester (eg Cotton 1958, fig 95.4-5). The decoration, rows of 'wheat ear stabbing on the shoulder, is not commonly found at Colchester.

G 2 4

Oval-bodied jars with oval, pointed and occasionally slightly undercut bead rims; usually burnished overall or left rough.

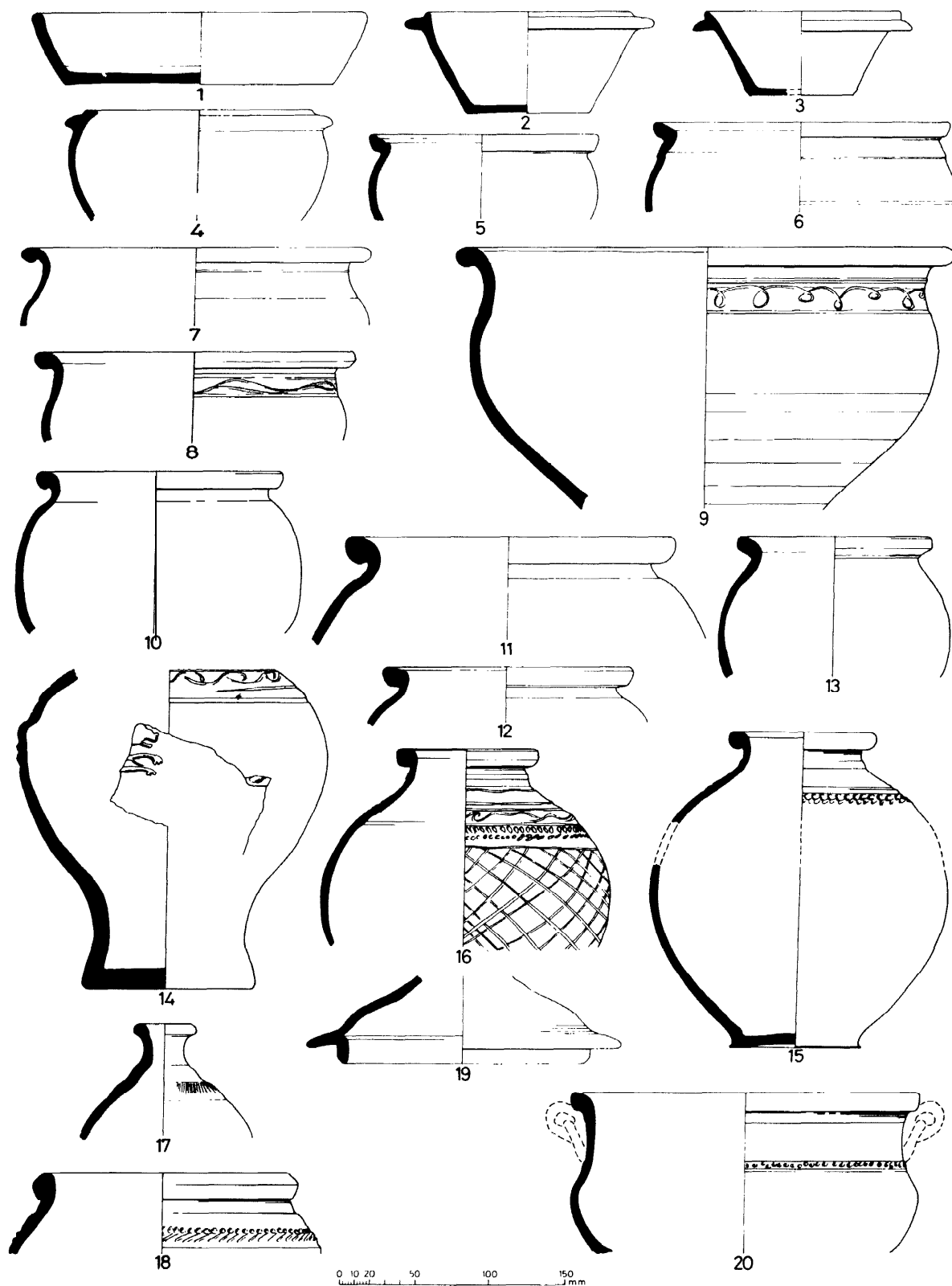


Fig 35 Chelmsford, kiln pottery. Scale 1:4

G24.1 As Type, but with a tapering, slightly recessed neck (Fig 35.11), or no neck at all (Fig 35.10). The rim is out-turned and angular. The vessels are usually given a perfunctory burnish or left rough. EVE 2.84. Fig 35.11 occurs in Fabric 47/2, while vessels resembling 35.10 occur in Fabrics 47/2 and 48. 7.44% of kiln assemblage. Diameter range for 10, 120-140mm; 11, 140-240mm. Kiln parallel: Rettendon type A (Tildesley 1971, figs 5-6.1-30)

Fig 35.10 G24.1/1 47 Stokepit S305, Kiln S322

Fig 35.11 47 Parallel: Rettendon (Tildesley 1971, fig 6.24). Kiln S322

G24.2 As Type, with undercut rims. EVE 2.74. Fabric 47/2, 23.35% of type; Fabric 48, 76.74% of type. Diameter range c 120-160mm. 7.18% of assemblage. Kiln parallels: Colchester (Hull 1963, fig 103, *Cam* 268A); Rettendon (Tildesley 1971, fig 6.14, 27-8)

Fig 35.12 G24.2/2 47 Parallel: Mucking Kiln II (Jones & Rodwell 1973, fig 6.44). Stokepit S305, Kiln S322

Fig 35.13 47 Parallel: Sandon (Drury 1976b, fig 3.29). Kiln S368

G 3 3

Pedestal-based narrow-necked jars. Of this type only one vessel was represented (G33.1/1). The type has a globular body recurving to a hollow pedestal base. The form is burnished overall, and decorated with a zone of curvilinear burnish between two shoulder grooves, and on the body with pushed-out lions *courant*. The body is also decorated with a narrow vertical groove between 'pelta'-shaped applique decoration (for this see Fig 11). The decoration of this most unusual form, almost certainly a kiln product, is inspired by the animal motifs common on 4th century Hadham products (Rodwell 1976b). A similarly-decorated vessel, perhaps also a kiln product, was found at Sandon (Drury 1976b, 255), while a jar sherd stamped with the same die was found on Canvey Island (see below, Section IX.4, Fig 48.16, and Rodwell 1976b, fig 12.5). Fabric 47/1

Fig 35.14 G33.1/1 47 Stokepit S305, Kilns 322, 368

G35

Narrow-necked jars, generally resembling *Cam* 280-1 (Hull 1963, fig 104). The sole form isolated has a bead rim, concave neck with a narrow cordon, and stabbed 'wheat ear' decoration on the upper body. The type can be plain (Fig 35.15) or decorated with curvilinear burnished lines at the base of the neck, stabbing on the shoulder, and with burnished lattice on the body (Fig 35.16). Diameter c 80-120mm. All kiln fabrics. EVE: 1.05. 2.75% of assemblage

Fig 35.15-16 G35.2/1-2 47 Kiln S368

G40

Narrow-necked jar type with a bead rim, concave neck and an irregular shoulder decorated with faint vertical burnished strokes. The type corresponds with Mucking type O (Jones & Rodwell 1973, fig 9.88-93). Diameter c 40mm (1 example). Fabric 47/1. EVE: 0.55. 1.44% of the assemblage. Kiln parallels: Mucking type O; Orsett Group 1 (Rodwell 1974, fig 7.49-50)

Fig 35.17 G40.2/1 47 Kiln S322

G42

Storage jars. The form isolated (G42.1) has stabbed 'wheat ear' or chevron decoration on the shoulder. The neck, below a pointed D-shaped rim, is slightly recessed and tapering. Similar to vessels of Mucking type S (Jones & Rodwell 1973, fig 10.108-12). Diameter c 160-180mm. Fabric 48. EVE: 0.55. 1.44% of assemblage. Also present in Fabric 47/2. Kiln parallel: Sandon (Drury 1976b, fig 3.40)

Fig 35.18 G42.1/2 48 Stokepit S305

K Lids

K 5

Lids with carinated profiles and luted, internal flanges. The single type isolated is paralleled at Inworth, and was probably intended for use with Type E1.1. Diameter c 200-210mm. Fabric 47/1. EVE: 0.76. 1.99% of the assemblage

K5.1 As Type with an out-turned, plain rim

Fig 35.19 K5.1/1 47 Parallel: Inworth (Fig 42.17-18). Kiln S368

L Cauldrons

Only one example of a vessel in this class, which is linked in form to E5.4, was found. Its shape at first cast some doubt on its being a kiln product, but the fabric is distinctive (48).

L 2

The type corresponds most closely to *Cam* 302 (Hull 1963, fig 105), described as 'rare' at Colchester, and dated by a single example in a grave of c AD 275.

L2.1 As Type, with a narrow cordon dividing the neck from the body, decorated with circular impressions intended to represent rivets. There is no evidence of handles. A close parallel to Fig 35.20 exists from the kiln site at Brampton (Knowles 1977, fig 5.3). One example, 240mm diameter. Fabric 48. EVE: 0.16. 0.41% of assemblage

Fig 35.20 L2.1/1 48. Kiln S368

Discussion

The forms

Dish types B1 and B6 are standard products, ubiquitous in 4th century Essex kilns. Type E2, a necked bowl-jar, has more emphatic links with the Thames-side industry and is also found among kiln waste at Heybridge (Drury & Wickenden forthcoming), Billericay (Weller in Buckley *et al* forthcoming) and elsewhere. The cauldron L2.1 has parallels both at Colchester and Brampton (Section III), but is not echoed in the forms of the Rettendon and south Essex dispersed industries. Forms E1.1 and K5.1, perhaps intended for use together, are paralleled closely at Inworth, but not elsewhere in Essex. The jar forms (Class G) are generally unremarkable with the exception of G33.1, which has decorative parallels at Hadham and Inworth (see below). The narrow-necked jars (G40) possess no specific regional affinities, but the storage jars (G42), like type E2, reinforce a central-south Essex association.

The fabrics

The fabrics betray links with the Rettendon industry, which should be regarded as a dispersed series of minor kiln sites producing similar forms in the same fabrics. Fabric 48 forms the most characteristic and strongest link. At Rettendon it was the commonest coarse ware (*c* 60% of the waste: J Tildesley, pers comm); it comprises 26.92% here. It was also found at Sandon (Drury 1976b, 253, fabric A). These characteristic flint-tempered wares are found in small amounts as far afield as Braintree (Drury 1976a, 45), Great Dunmow (Going & Ford forthcoming) and in west Essex at Sewardstone (Huggins 1978, 185, table 1). In west Essex, however, a coarse grey fabric resembling Rettendon ware, but probably from the Hadham region, confuses the picture. 'Rettendon' flint-tempered wares occur most commonly in the Chelmsford-Wickford region, and define what must be the industry's 'home' market (Fig 43).

Date of the industry

There is little evidence that flint-tempered fabrics were found in the Chelmsford region much before *c* AD 280/300 (see p 10, and Drury 1978, 87); thereafter they become rapidly more common, peaking at *c* 15% in the early to mid 4th century. However, the figures given for Ceramic Phase 7 (Table 9) are largely drawn from features in close proximity to the kilns. At present the evidence from Chelmsford and Braintree suggests a date bracket for the industry of *c* AD 280/300 to 360 or a little later, which compares with the activity of the excavated Rettendon kilns themselves (Tildesley 1971).

We owe an interesting side light on the textiles in use in the town in the 4th century to the Moulsham Street potters, who appear to have placed some of their products to dry in contact with rags which lay to hand in the workshop. For a report on the impressions, see Section VI.

2 A late Roman kiln at Inworth

by C J Going and K A Rodwell

In 1970 a local archaeologist, Mr H J D Bennett, discovered and partially excavated a pottery kiln in a ploughed field east of Inworth Church (TL 8835 1811) on the ridge overlooking the Blackwater valley. As pottery recovered included 'Romano-Saxon' vessels, it was decided to complete the investigation and examine a larger area in 1971, as an adjunct to excavations at Kelvedon (K Rodwell forthcoming).

Thanks are due primarily to Mr Bennett for bringing the site to our attention and for his assistance during its excavation, and to the landowner Mr A Bunting. The excavation was supervised by Dr W J Rodwell and Mr D J Fowler and post-excavation work carried out by the Chelmsford Archaeological Trust; Fig 41 was drawn by Helen Humphries. The authors are indebted to the following specialists for the reports: Sarnia Butcher and Justine Bayley (brooch and analysis of it); Carole Keepax (charcoal); Rosemary Luff (bones) and P J Drury (Iron Age sherd).

The excavation

by K A Rodwell

The kiln lay on a spur just above the 55m (175 ft) contour, at the junction of two geological strata, where the London clay of the Tiptree ridge was overlaid by the glacial Chelmsford gravels (Haggard 1972, 9).

The ploughsoil was stripped mechanically over some 210 sq m in the vicinity of the kiln to locate any associated features, but much of the area proved barren and denuded by ploughing. A single middle Iron Age sherd (see below, Fig 40.4) was the only evidence of pre-Roman activity. South of the kiln was a large clay pit still visible on the field surface as a depression, which was sectioned in two places. In both cuttings a layer of weathered clay (L6) was overlaid by soft black charcoally loam (L3, Fig 39.S4). The sides of the pit sloped gradually to a maximum depth below topsoil of 0.8m. In the fill was a large quantity of kiln waste unevenly distributed in pockets, a penannular bracelet and a disc brooch (Fig 40.1-2), and 38 fragments of cattle, pig, sheep, goat and dog bones together with fragments of the right proximal tibia and left humerus of a human infant.

A shallow curving gully, denuded at both its northern and southern ends, antedated the kiln and its stokepit; it had a charcoally loam fill and was not more than 0.3m deep (P12, Fig 37). The kiln showed two distinct phases of use. In the first, a short-flued chamber was constructed at the north-eastern end of an oval stokepit 2.3m long, 1.6m wide and up to 0.4m deep. The chamber was roughly circular with an internal diameter of 0.8m. The walls were constructed by lining the sides of the hole with clay up to 0.2m thick and firing *in situ*; they did not survive to a height of more than 0.4m and had been damaged by the next phase. The cheeks were simply turned out into the lip of the stokehole. The floor was of heat-reddened gravel and there was no evidence for a pedestal or other kiln furniture. After firing, the kiln appears to have been partially demolished, so that burnt debris filled the base of the chamber and stokepit (Fig 39. S1) to a depth of about 0.15m. The second phase of the kiln was constructed on top of this rubbish.

In this phase the flue was doubled in length by extending over the end of the stokehole with wedges of clay, which formed cheeks and a kiln facade (Fig 39.S3). The flue extension had a fired clay floor with a piece of tegula laid in the mouth. This was probably to facilitate raking out over the unstable backfilled stokepit. The chamber had been patched with large lumps of reused kiln structure which had been ranged round the sides of the earlier pit. (These are not shown on Fig 38 as the majority were removed by Mr Bennett). The top of the destruction debris was utilized as the floor and there was no purpose-made kiln furniture. However, two complete dish wasters (Forms B1.1 and B2.1) and the lower section of a wide-bodied jar which had been deliberately cut down were all found inverted on the kiln floor (P1 1). This suggests that they were being used as supports for stacking the load directly on the floor. A number of thick cut-down jar bases, resembling large counters, were also found and may have been used as spacing pieces.

Three samples of collapsed fuel ash were submitted to the Ancient Monuments laboratory for analysis. Those from the kiln stokepit contained single fragments of oak (*Quercus* sp) and probably Birch (*Betula* sp), both from

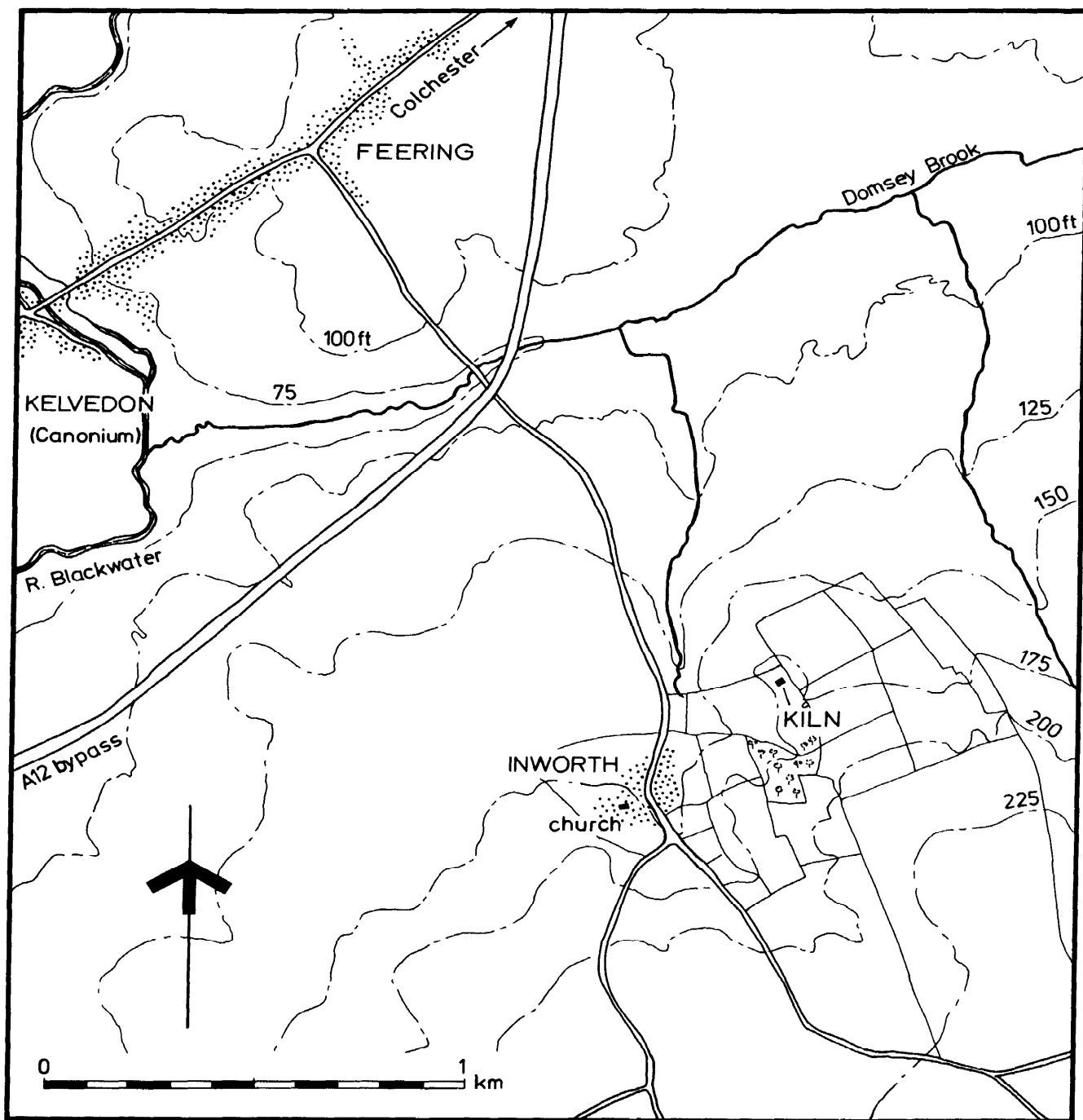


Fig 36 Inworth, location of kiln

fairly large timbers. From the kiln flue, a few fragments of poorly-charred wood, possibly from the *Papilionaceae* family (legumes), were recovered. From the clay pit (L3) there were fragments of *Papilionaceae*, and one fragment of hawthorn type (*Crataegus/Pyrus/Malus/Sorbus* sp.). (For the fuel-ash from the Chelmsford kilns see above, p 73.)

After the last firing, which appears to have been suc-

cessful, the kiln was demolished. The quantity of waste material in the clay pit suggests that there were other kilns in the vicinity but none was found within the excavated area. The range of kiln products, their dating and affinities are discussed below.

The clay pit itself was very large and only a fraction was cleared and sampled. The scale of extraction was far

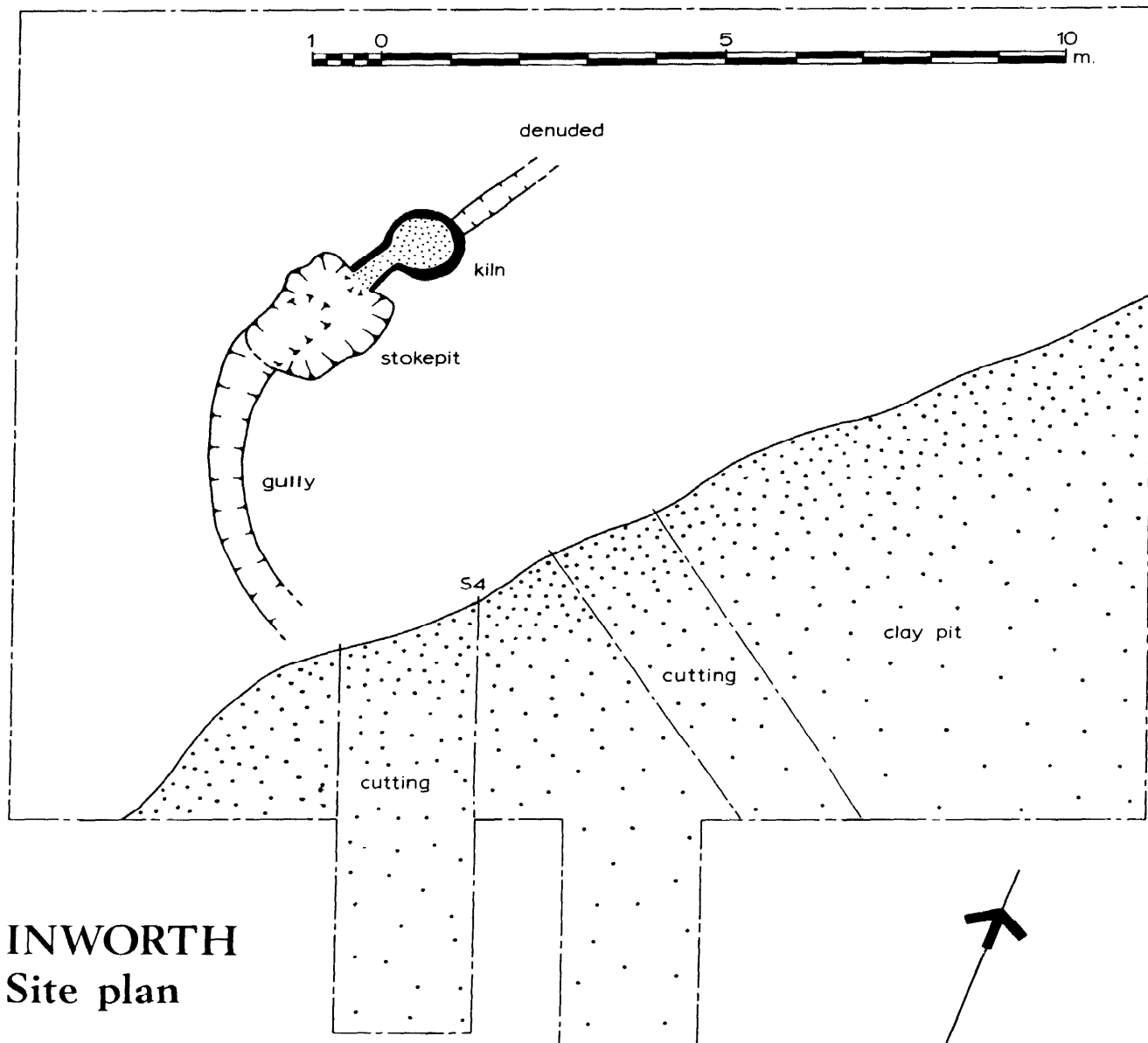


Fig 37 Inworth, general plan of the excavation

greater than could be required for intermittent pottery manufacture and implies that structural daub or a brick and tile industry was being supplied. An extensive but little-investigated tilery (and perhaps pottery) is known 3 km south-west in the adjoining parish of Great Braxted (VCH 1963, 57; Rodwell 1982, 65). Its status is unknown, but the industrial activity at Inworth probably served an individual estate, although it is not clear where this may have been centred. Few substantial Roman buildings are known east of the Blackwater; the closest is in Messing parish (just over 1 km to the north-east) but both Inworth and Messing churches contain Roman tile (Rodwell & Rodwell 1977, 110, 114).

Metalwork

The penannular bracelet (Fig 40. 1)

by K A Rodwell

Bronze penannular bracelet of round section tapering to flattened wedge-shaped snake-head terminals. These are slightly ridged and decorated with random punched dots and paired oval rings to simulate eyes. A groove to indicate a mouth was incised round the side of one of the pointed terminals. From the clay pit, L3.

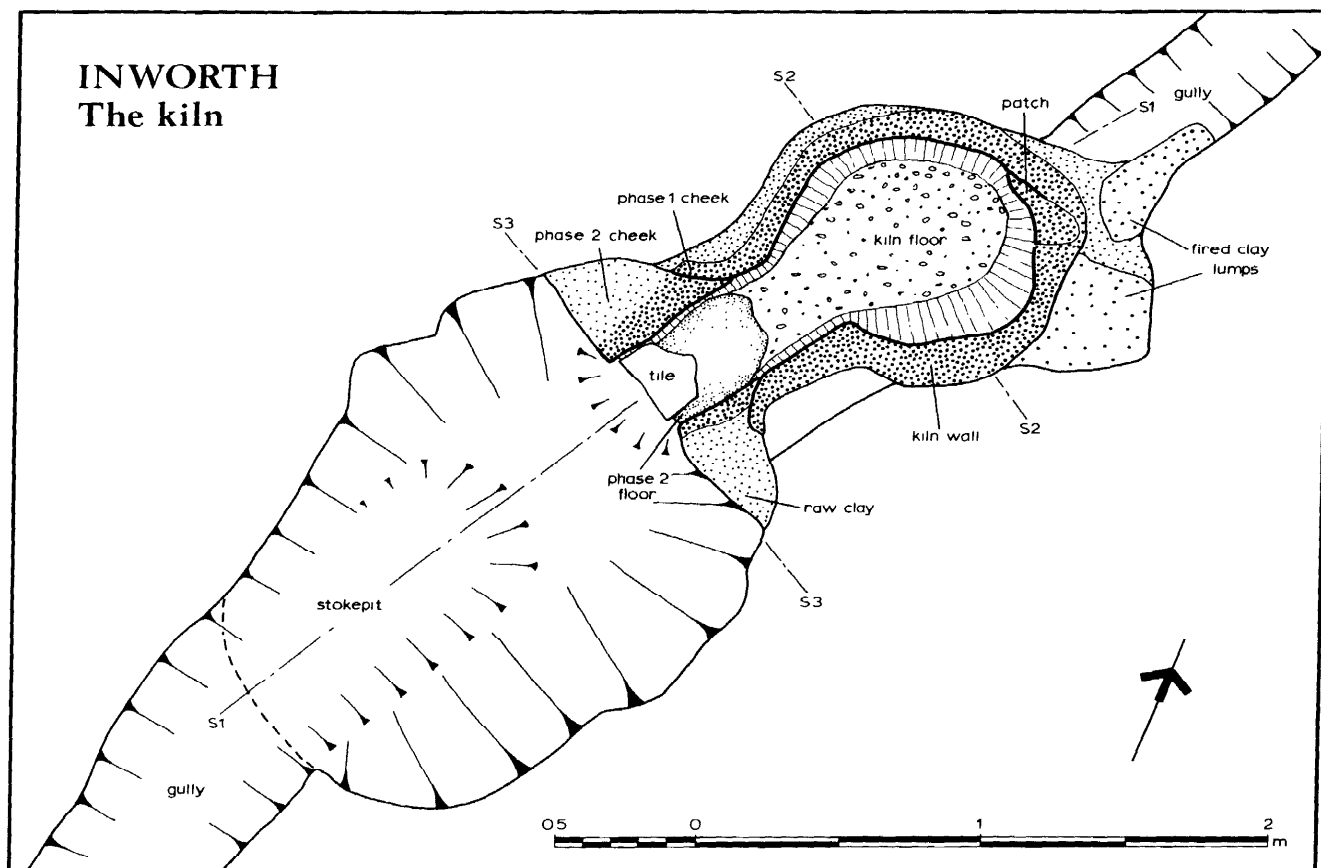


Fig 38 Inworth, the kiln

The closest parallels for bracelets of this type occur in a late Roman cemetery at Kelvedon, some 3 km distant (K Rodwell forthcoming) where they accompanied two inhumations (G19, fig 50.83; G25, fig 50.82) of mid or late 4th century date. The terminal of another of different design was found at the Gadebridge Park Villa (Neal 1974, fig 60.158) in a mid 4th century context. A more elaborate complete example from Rochester (Cool 1982, fig 9.7) is not closely datable within the 4th century.

There are no true snake-head types in the large and well-dated series of bracelets from Lankhills, Winchester (Clarke 1979, 301-11) but there is a single example of a bracelet with square butt-terminals decorated with ring stamps in the manner of eyes (*ibid*, fig 99.561) from a grave dated AD 360 to 370/80. It was also remarked that all bracelets with butt-terminals were rare there and might be more characteristic of a date after c 370.

As the closest parallels for this bracelet are also the nearest, it may be that it is a local type not as yet closely datable, but the consensus of evidence suggests that it was current in the mid or late 4th century.

The disc brooch (Fig 40.2)

by S A Butcher, incorporating analyses by J Bayley

Disc brooch, 28mm in diameter, of brass. The main field is a slightly sunken circular area 20mm in diameter, with a tinned surface. At its centre is a round hole with a raised

border. The broad rim of the brooch retains areas of mercury gilding. The back is plain except for a lug which holds the spring of four turns, and a catchplate of serpentine profile. From the clay pit, L3.

Most of these features occur on a well-known late Roman type which bears a conical paste setting in the central field (eg Bushe-Fox 1949, pl XXXI.63), but this example does not have the usual collar of metal to hold the paste in place. However, it is so similar in most respects that it is presumably of the same date and origin. An oval version of the type came from a late 3rd to early 4th century context at Fishbourne (Cunliffe 1971, 104, 43) and it is usually found in 4th century or later deposits.

The mould fragment (Fig 40.3)

by C J Going

A fired clay mould was found on the surface in the vicinity of the kiln. The surviving face measures 45 x 33mm, although it was originally c 45 x 45mm. The square-shanked projecting grip is missing, but the scar is clearly visible. The clay closely resembles Fabric 47. The figure represented is obese and ithyphallic. His weight is carried on his right leg and he holds a staff in his right hand (as seen in the positive). The figure may be intended to represent Hercules. Late stamp-decorated Hadham wares probably provided the inspiration for both the technique and motif (see also p 77).

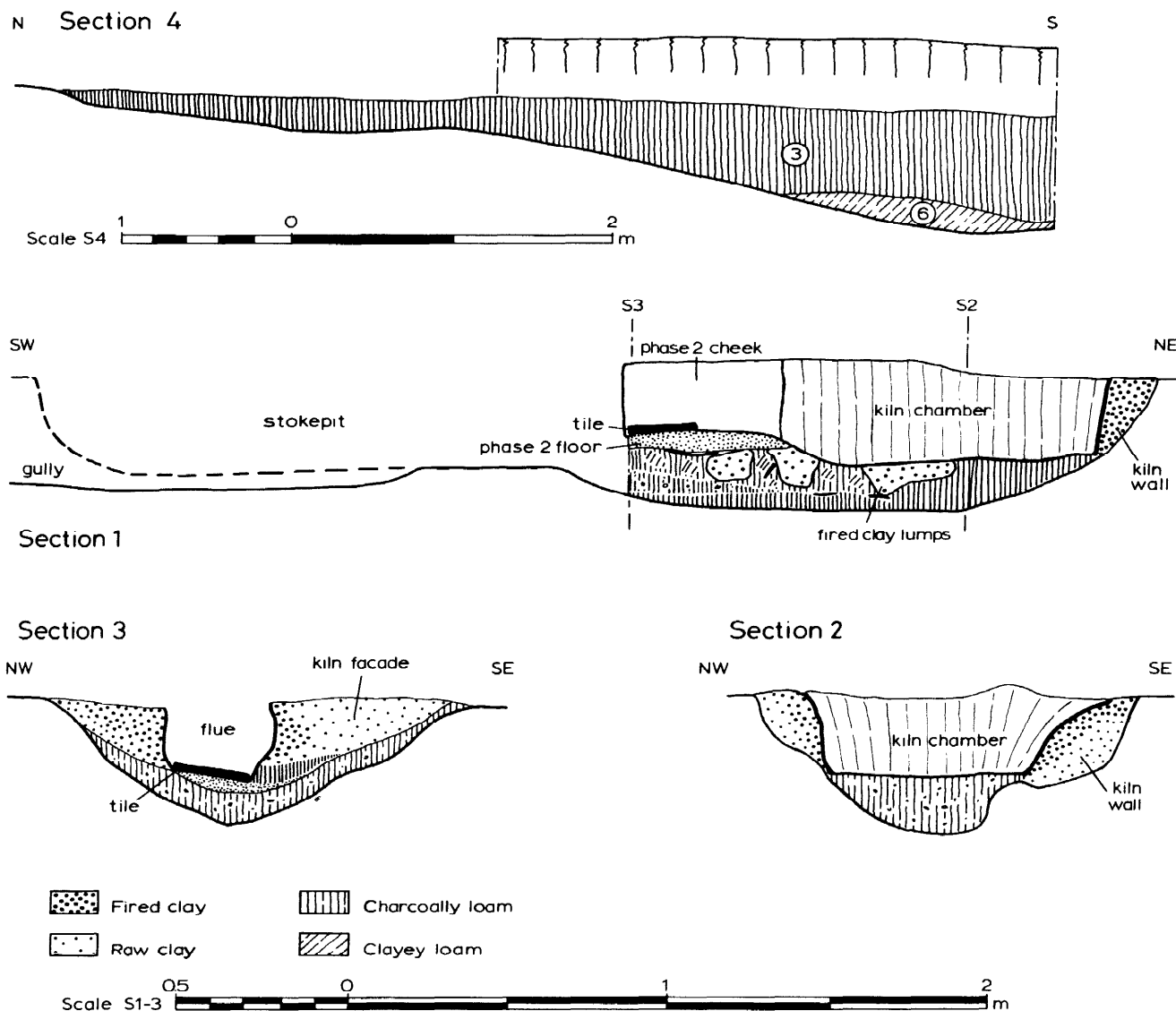


Fig 39 Inworth, sections of kiln and clay pit

An Iron Age Sherd (Fig 40.4)

by P J Drury

Sherd of a large vessel in a black fabric tempered with coarse sand (including quartz grains up to 2mm in diameter) and a little crushed flint grit. The fabric is similar to Little Waltham fabric H (Drury 1978, 58), and suggests a middle pre-Roman Iron Age rather than earlier date. The distinct carination is rare in Middle Iron Age pottery, but some early (Period II: 3rd-2nd century BC) vessels at Little Waltham, especially figs 43.33 and 44.63, provide close parallels for the profile. Unstrat.

The Romano-British pottery

by C J Going

Pottery from the kiln contexts (L1-3, the chamber; L7, kiln phase 1; L9, the stokepit; and L11, the flue) was examined and quantified in the same manner as the Chelmsford material (Fig 41; Table 5). These contexts produced 674 sherds, 20.965 kg of pottery, EVE: 22.51. Three sherds, totalling 65g, were identified as non-kiln products. The pottery from the clay pit was also examined both to supplement the kiln typology and to provide, if possible, dating evidence additional to that of the

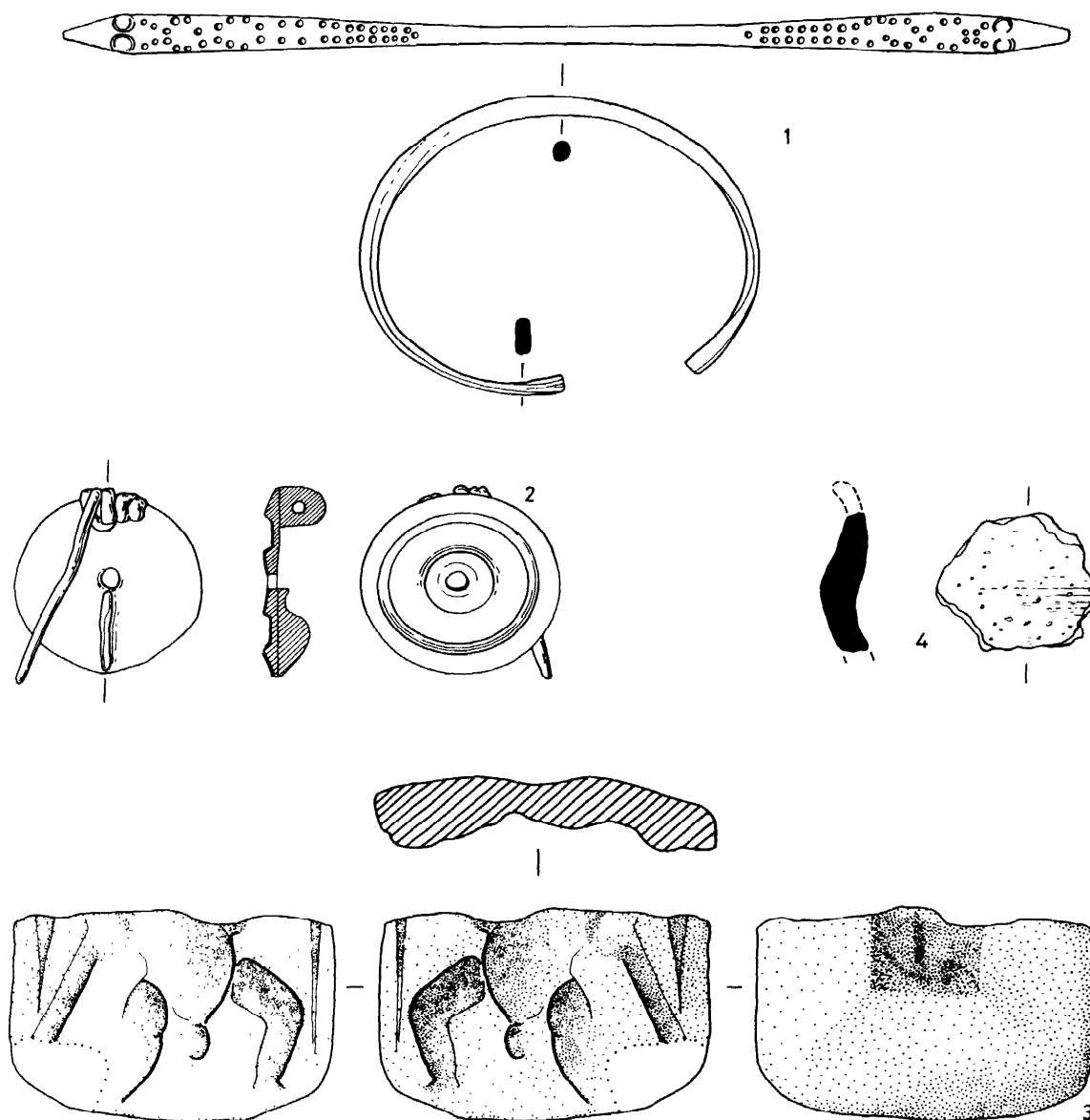


Fig 40 Inworth, copper alloy objects, pottery stamp and Iron Age sherd. Scale 1:1, except sherd 1:2

metalwork. Because of the nature of the pit deposits (small groups of pottery dumped sporadically amid the detritus of several kiln firings) and of the small area of the feature excavated, this assemblage was not treated *in extenso*. Vessel types and forms present in the pit, but not in the kiln, are listed with the kiln assemblage, but illustrated separately (Fig 42).

The fabrics

There were two main fabrics:

Fabric 47 EVE: 21.02 (93.38% of kiln assemblage)

Fabric 48 EVE: 1.49 (6.61% of kiln assemblage)

For a description, see pp 74-5 above.

The forms (Figs 41-2)

The types and forms have been classified according to the Chelmsford typology. Fabric and diameter ranges include both kiln and clay pit finds; otherwise figures given relate to the kiln assemblage alone.

The kiln products

B Dishes

Dishes comprised 40.24% of the total kiln assemblage (EVE: 9.06). Three types were isolated: Types B1 and B3 correspond to Cam 40; TVpe B3, with its grooved rim, resembling the illustrated example of Cam 40B (Hull

Table 5 Inworth kiln products

Fabric		47			48			Total	
Fig	Type	Eves	% Eve	% Fabric	Eves	% Eve	% Fabric	Eves	% Eve
41.									
<i>Dishes</i>									
1	B1	3.08	100.00	14.65	-	-	-	3.08	13.68
	Total	3.08	-	14.65	-	-	-	3.08	13.68
2	B3	0.34	100.00	1.61	-	-	-	0.34	1.51
	Total	0.34	-	1.61	-	-	-	0.34	1.51
3	B6	0.17	100.00	0.80	-	-	-	0.17	0.75
4	B6	5.47	100.00	26.02	-	-	-	5.47	24.30
	Total	5.64	-	26.83	-	-	-	5.64	25.05
<i>Bowls</i>									
	C2	p	p	p	-	-	-	-	-
5	C2	0.11	100.00	0.52	-	-	-	0.11	0.48
	Total	0.11	-	0.52	-	-	-	0.11	0.48
<i>Mortaria</i>									
6	D7	0.22	100.00	1.04	-	-	-	0.22	0.97
	Total	0.22	-	0.99	-	-	-	0.22	0.97
<i>Bowl-jars</i>									
	E2	0.35	100.00	1.66	-	-	-	0.35	1.55
	E2.2	p	p	p	-	-	-	p	p
	Total	0.35	-	1.66	-	-	-	0.35	1.55
	E4	p	p	p	-	-	-	p	p
7	E4.3	0.12	100.00	0.57	-	-	-	0.12	0.53
8	E4.3	0.19	100.00	0.90	-	-	-	0.19	0.84
	Total	0.31	-	1.47	-	-	-	0.31	1.37
	E5	p	p	p	-	-	-	p	p
9	E5	1.70	100.00	8.08	-	-	-	1.70	7.55
10	E5.3	0.24	100.00	1.14	-	-	-	0.24	1.06
	Total	1.94	-	9.22	-	-	-	1.94	8.61
<i>Jars</i>									
11	G5.4	0.21	100.00	0.99	-	-	-	0.21	0.93
	Total	0.21	-	0.99	-	-	-	0.21	0.93
	G24	4.46	90.28	21.21	0.48	9.71	32.21	4.94	21.94
12	G24.1	p	p	p	0.59	100.00	39.59	0.59	2.62
13	G24.1	0.10	100.00	0.47	-	-	-	0.10	0.44
14	G24.1	1.24	74.69	5.89	0.42	25.30	28.18	1.66	7.37
15	G24.2	0.41	100.00	1.95	-	-	-	0.41	1.82
16	G24	0.24	100.00	1.14	-	-	-	0.24	1.06
	Total	6.45	81.23	30.68	1.49	18.76	100.00	7.94	35.27
	G26	p	p	p	-	-	-	p	p
17	G26	0.17	-	0.80	-	-	-	0.17	0.75
	Total	0.17	-	0.80	-	-	-	0.17	0.75
	G36-40	p	p	p	-	-	-	p	p
18	G36-40	0.30	100.00	1.42	-	-	-	0.30	1.33
19	G36-40	p	p	p	-	-	-	p	p
	Total	0.30	-	1.42	-	-	-	0.30	1.33
20	G40	0.44	100.00	2.09	-	-	-	0.44	1.95
21	G40	1.00	100.00	4.75	-	-	-	1.00	4.44
	Total	1.44	-	6.85	-	-	-	1.44	6.39
22	G41-4	0.12	100.00	0.57	-	-	-	0.12	0.53
23	G41-4	0.24	100.00	1.14	-	-	-	0.24	1.06
	Total	0.36	-	1.71	-	-	-	0.36	1.59
<i>Lids</i>									
	K5	p	p	p	-	-	-	p	p
24	K5	0.10	100.00	0.47	-	-	-	0.50	0.44
	Total	0.10	-	0.47	-	-	-	0.10	0.44
Grand total		21.02	-	-	1.49	-	-	22.51	99.92
%		93.38			6.61				

1963, fig 102). Type B6 occurs in two forms, either with a recessed 'neck' (Figs 41.3, 42.2) or with tapering sides below the flange (Fig 41.4). The latter corresponds to *Cam* 305A (Hull 1963, fig 105). The diameters of Types B1, B3 and B6 were plotted (the last across the flange) in order to determine whether they were made for use together, as suggested for similar forms in BBl (Gillam 1977, 70-2). In view of the close correlation between their diameters it is quite possible they were matched in size to form a 'casserole set':

B 1

Plain or groove-rimmed dishes with flaring sides to a flat or chamfered base. Decoration is restricted to an occasional overall burnish. Fabric 47. Diameter range 75-120mm, peaking at 100-110mm (51.22% of incidence). EVE: 3.08. 13.68% of kiln assemblage

Fig 41.1 Kiln flue

B 3

Deep dishes with straight or slightly flaring sides and plain rims.

B3.2 Similar in most respects to B1, but with a groove below the rim. Fabric 47. EVE: 0.34. 1.51% of kiln assemblage

Fig 41.2 Kiln chamber fill

B 6

Flange-rimmed dishes with convex or tapering sides to a flat or chamfered base. The type may have a short, recessed 'neck' (Fig 41.3, 42.1), or straight, tapered sides (Fig 41.4). Fabric 47. Diameter 90- 150mm, peaking at 110- 120mm (48.62% of incidence). EVE: 5.64. 25.05% of kiln assemblage

Fig 41.3 Kiln stokepit

Fig 42.1 Clay pit, L3

Fig 41.4 Kiln stokepit

C Bowls

Vessels classed as bowls constitute only 0.48% of the kiln assemblage and are restricted to a single form which is not closely paralleled at Chelmsford, but corresponds roughly to Type C2.

C 2

Bowl with hemispherical sides and out-turned rim, grooved internally. Fabric 47. Diameter 140-200 mm. EVE: 0.11. 0.48% of kiln assemblage

Fig 41.5 Kiln chamber backfill

Fig 42.2 Clay pit, L1

D Mortaria

Sherds of a number of mortaria were found in the clay pit, but the only illustrable example comes from the kiln.

D 7

Mortarium with a bead rim and a stubby canted flange, downturned at the tip. The trituration grits comprise crushed angular flint <4mm in diameter, similar to the tempering used in Fabric 48. Fabric 47. Diameter 230mm. EVE: 0.22. 0.97% of kiln assemblage

Fig 41.6 Kiln stokepit

E Bowl-jars

Vessels of this class form 11.53% of the kiln assemblage. Form E1.1, represented in the clay pit but not in the kiln, closely resembles the form made at the Moulsham Street, Chelmsford kilns (Fig 35.4). The form is not known elsewhere. Form E2.2 is also paralleled at Chelmsford. Form E4.3, which is not paralleled in the Chelmsford kilns, comprises most of the pieces decorated with 'Romano-Saxon motifs'.

E 1

Globular, neckless bowl-jars with flange rims.

E1.1 Bowl-jar with an oblate body, pointed or squared-off interned rim separated from a convex, rounded or pointed flange. Fabric 47. Diameter 260-320mm. Parallel: Chelmsford (Moulsham Street) kilns (Fig 35.4-5)

Fig 42.3 Clay pit, L3

Fig 42.4 Clay pit, L3

Fig 42.5 Clay pit, L3

E 2

Bowl-jar with an out-turned, pointed angular rim with a flat, angled, or slightly hollowed interior. Here the type is either left undecorated, or burnished overall.

E2.2 As Type. Fabric 47. Diameter 120- 190mm. EVE: 0.35. 1.55% of kiln assemblage

Fig 42.6 Clay pit, L3

Fig 42.7 Clay pit, L3

E 4

Small bowl-jars, with a vertical or slightly tapering neck and a bead rim.

E4.3 Bowl-jars with a small bead rim and slight recessed neck decorated with a variety of 'Romano-Saxon motifs'. Nos 7-8 were from the kiln stokepit: other fragments were recovered from the clay pit.

Fig 41.7 As Form, with grooving below rim, and decorated with a stabbed zone above folding. The vessel is burnished overall and there are traces of an orange wash. Fabric 47. Diameter 90mm. EVE: 0.12. 0.53% of kiln assemblage. Kiln stokepit

Fig 41.8 As Form, with two grooves below rim. The body is decorated with groups of pushed-out bosses between pendent triangles of dimples above a lower body groove. One example. Fabric 47. Diameter 130mm. EVE: 0.19. 0.84% of kiln assemblage. Kiln stokepit

Fig 42.9 As Type, with upright, bead rim. Diameter 130mm. Fabric 47. Clay pit, L1

Fig 42.10 As Type but with a flat-topped rim. Diameter 110mm. Fabric 47. Clay pit, L3

Fig 42.11 As Type, decorated with pushed-out hollow bosses and dimples. Fabric 47. Diameter 150mm. Clay pit, L1

Fig 42.12 As Type, with hollow bosses as 42.11. Fabric 47. Clay pit, L3

E 5

Bowl-jar with a hooked or bead rim, deep concave neck, and a globular body. Here undecorated; occasionally with an overall burnish, or a mid body groove (Fig 42.13). Fabric 47. Diameter range 120-220mm, peaking at c

180-200mm (69,41%). EVE: 1.70. 7.55% of kiln assemblage

Fig 41.9 Kiln chamber backfill

Fig 42.13 Clay pit, unstrat

E5.3 As Type, with inward-sloping sides to a pointed bead rim.

Fig 41.10 As Type. Two examples. Fabric **47**. Diameter 120-130mm. EVE: 0.24%. 1.07% of kiln assemblage. Kiln stokepit

G Jars

G5

Jar with an internally-ledged rim. On the dating evidence from Chelmsford and elsewhere perhaps residual from kiln phase **1** (?3rd century) activity (p 78).

G5.4 As Type. Fabric **47**. One example only. Diameter 130mm. EVE: 0.21. 0.93% of kiln assemblage.

Fig 41.11 Kiln chamber backfill

G24

Oval-bodied jars with out-turned, pointed, angular (G24.1), or undercut rims (G24.2). Usually undecorated

G24.1 As Type, with an out-turned rim and tapering neck.

Fig 41.12 Kiln flue. Fabric **48**. Diameter range: 140-160mm. EVE: 0.59. 2.62% of kiln assemblage. Also present in Fabric **47**

Fig 41.13 Kiln chamber backfill. Fabric **48**. Diameter: 230mm (one example). EVE: 0.10. 0.44% of kiln assemblage

Fig 41.14 Kiln chamber backfill. Fabric **47** (74.69%); Fabric **48** (25.30%). Diameter range: 120-200mm. EVE 1.66. 7.37% of kiln assemblage

G24.2 As Type, with an undercut rim

Fig 41.15 Kiln chamber backfill. Fabric **47**. Diameter range: 140-180mm. EVE: 0.41. 1.82% of kiln assemblage

Miscellaneous jars of Type G24 comprised the majority of jar forms. Fabric **47** (90.28%); Fabric **48** (9.71%). EVE: 4.94. 21.94% of kiln assemblage.

In addition to the above a single example of a jar form with a rounded, slightly undercut bead rim, a short inset neck, separated from the body by a narrow cordon, was also found. While it has features seen in other types in the Chelmsford typology, it corresponds closely with none. It seems best to include it here.

Fig 41.16 Kiln stokepit. Fabric **47**. Diameter 155mm. EVE: 0.24. 1.06% of kiln assemblage

G26

Bowl-jar with a bifid rim, the lower part of which is frilled; concave neck to an offset, decorated shoulder, and globular body.

Fig 41.17 As Type, with an offset shoulder decorated with stabbing. One example. Fabric **47**. Diameter 260mm. EVE: 0.17. 0.75% of kiln assemblage. Kiln stokepit

Fig 42.8 Rim only, Fabric **47**. Diameter 205mm. Clay pit, L1

G36-40

Narrow-necked jars. Few survive in sufficient completeness for their precise forms to be identified. Vessels of this type tend to be decorated with a variety of burnished or grooved lines.

Fig 41.18 Kiln stokepit. Fabric **47**. Diameter 100mm. EVE: 0.30. 1.33% of assemblage

Fig 41.19 Kiln stokepit. One example only. Fabric **47**

Fig 42.14 Clay pit, L1. One example. Fabric **47**. Diameter 90mm

Fig 42.15 Clay pit, L1. One example

G40

Very narrow-necked jars with a rim diameter of c 80mm or less. Because rims of these small sizes tend to be robust they are over-emphasized by EVE.

Fig 41.20 Fabric **47**. Diameter 70mm. Kiln chamber backfill. EVE: 0.44. 1.95% of kiln assemblage

Fig 41.21 Fabric **47**. Diameter 50mm. Kiln chamber backfill. EVE: 1.00. 4.44% of kiln assemblage

G41-4

Storage jars. Uncommon types in the Inworth kilns. 1.59% of the assemblage. Three forms have been distinguished:

Fig 41.22 Jar with a concave neck and an angular, undercut rim, and a slightly offset, undecorated, shoulder. Fabric **47**. Diameter 190mm. One example. EVE: 0.12. 0.53% of kiln assemblage. Kiln chamber backfill

Fig 41.23 As Class with an turned, slightly rounded rim above a short, recessed tapering neck, and offset shoulder, which is decorated with lines of zig-zag burnish. One example. Fabric **47**. Diameter 200mm. EVE: 0.24. 1.06% of kiln assemblage. Kiln chamber backfill

Fig 42.16 Storage jars with trifid rims. One only from the lowest level in the clay pit. A similar form comes from a 3rd century well at Heybridge (Drury & Wickenden forthcoming, fig 21.123). Fabric **47**. Diameter 225mm. Clay pit, L6

K Lids

Generally rare. The only type isolated closely resembles the Moulsham Street lid form (K5.1; Fig 35.19), which may have been produced for use with the neckless bowl-jar Type El.1. Usually undecorated, although examples with rouletting on the rim were also found. Diameter 170-180mm. EVE: 0.10. 0.44% of kiln assemblage. Fabric **47**

Fig 41.24 Kiln flue

Fig 42.17 Clay pit, L3

Fig 42.18 Clay pit, L1

Miscellaneous closed forms

Fragments of large decorated closed forms, perhaps from narrow-necked jars of type G36-40, were found in the kiln chamber backfill and the clay pit. They have a variety of decorative motifs: either wavy line decoration (cf Fig 41.19), or horizontal stabbing. Fabric **47**. 3 sherds

Fig 42.19 Clay pit, L3

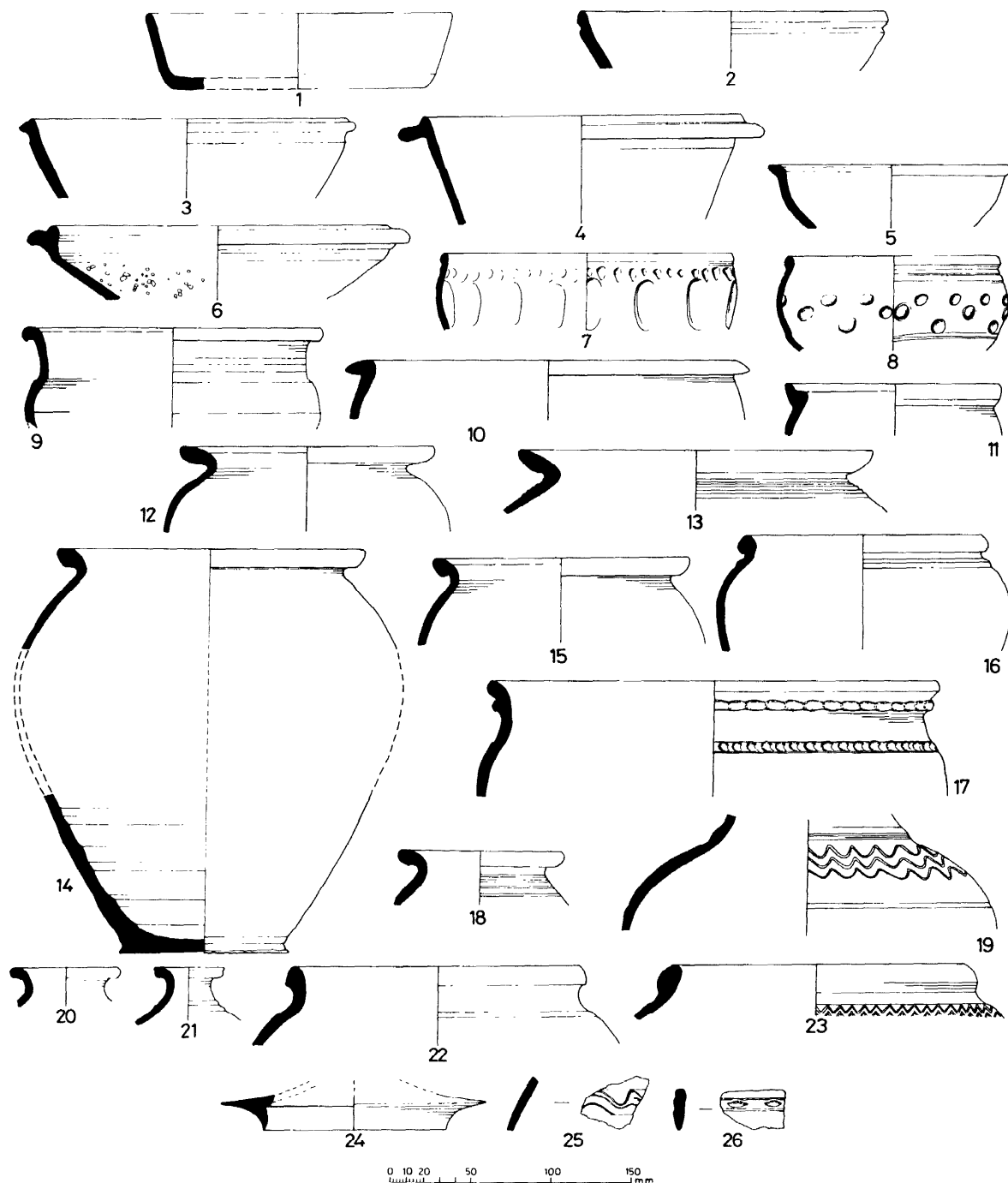


Fig 41 Inworth, pottery from the kiln. Scale 1:4

Discussion

The forms

The dishes closely resemble those from kilns known to be in production in the 4th century, eg Rettendon (Tildesley 1971); Sible Hedingham (Hull 1963); Halstead (VCH 1963); Moulsham Street, Chelmsford, and Muck-

ing (Jones & Rodwell 1973), while bowl-jar Types E1-2 may be regarded as local, as may bowl-jar Type E4—almost certainly kiln products—which, while decorated in a typical 'Romano-Saxon' manner, do not otherwise resemble the series of similarly decorated bowl-jars from the Hadham region (Roberts 1982, 21-3, eg p1 4, types 4-5). That other sites than Hadham were producing 'Romano-Saxon' pottery should occasion little surprise

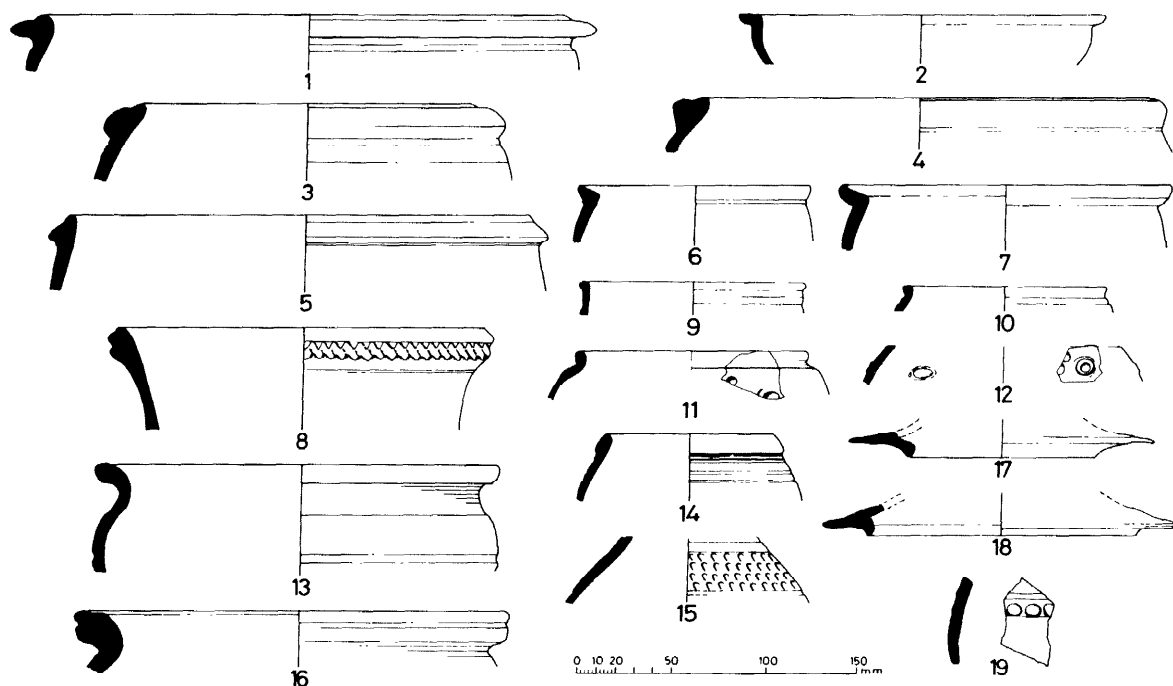


Fig 42 Inworth, pottery from the clay pit. Scale 1:4

(Gillam 1979, 110-11, 116; Pullinger & Young 1981). The mould fragment (Fig 40.3) suggests that another distinctive late Roman pottery type was also made at the kiln. Moulded animals and face masks are relatively well-known Hadham products: examples are known from a site at Clintons Farm, Little Hadham (Holmes 1972; W Rodwell 1982, 57, 67). Similar finds at the Moulsham Street kilns (eg Type G33) suggest that such decoration was widely produced in the region during the 4th century. That further production sites remain to be discovered is apparent from the range of animals and birds on sherds from Wickford which have few fabric or stylistic affinities with the above. The Inworth mould is as yet the only stamp known to portray a human figure.

The necked bowl-jars (E5) resemble only distantly their counterparts from the central-south Essex kilns, and none share the distinctive wavy line burnish on their necks or burnished zones on the body.

Jars comprised 45.26% of the kiln assemblage. The neckless ledged-rimmed jar (G5.4), if not residual, is one of the latest known occurrences of the form. The commonest jar, as at Chelmsford, was Type G24. The jar Class included the only forms made in 'Rettendon' ware (Fabric 48), which totalled 6.64% of the kiln assemblage. Decoration is uncommon on jars, being restricted to shoulder rilling on the everted-rimmed (G24.1: Fig 41.13) and narrow-necked types (G36-40: Fig 41.18). The Inworth storage jars are left plain, or decorated with wavy line burnish or grooving. Other decorative motifs are met with on sherds of large closed forms (eg Fig 42.19), probably narrow-necked jars. The lids (Class K) are unusual and distinctive, closely resembling those from the Moulsham Street kilns. Bowl-jar Type E1.1, perhaps associated with them, occurs in the clay pit (Fig 42.3-5).

The fabrics

'Rettendon' type ware (Fabric 48) comprises a much smaller fraction of the kiln assemblage (6.61%) than at Chelmsford (26.92%). Were it not for the presence of undoubted wasters, the small quantity and restricted number of forms might imply that the fabric was not made at the kiln, or that it was in operation when the use of this fabric was in decline (see Section XII.1, Ceramic Phases 7-8). Inworth, however, lies at the northern extremity of what appears to have been an essentially central and south Essex tempering tradition. The commonest fabric was a sandy grey ware (47).

Dating evidence

Although the associated clay pit contained two metal artefacts (see above), the comparative lack of closely-datable non-ceramic finds—a typical feature of kiln sites—forces us back on the pottery itself. The presence of fully flange-rimmed dishes (Type B6) reinforces the view that the kiln is essentially post c AD 250/60, and probably considerably later; a view strengthened by the complete absence, even from the lowest level of the clay pit (L6) of bead-rimmed dishes of Types B2 and B4, and folded beakers of Types H32-5. The associated clay pit, whose contents and proximity suggest that most of the kiln production waste was deposited there, contained a brooch and a bracelet probably dating to the 4th century (Fig 40.1-2). Non-kiln pottery included sherds of Hadham oxidized red wares (4), Oxfordshire red colour-coat (3), and two body sherds of at least one late shell-tempered ware jar (51). It is argued elsewhere (Section XII.1-2) that neither of the latter fabrics are found in this part of Essex until c AD 360/70. It is possible that

late shell-tempered wares might take some while to reach a coarse-ware production site such as Inworth in any quantity, but their minimal presence suggests that activity on the site ended within a few years of *c* AD 370, with the dumping of a mixture of kiln waste from the final firings and other pottery in a still-convenient tip. Whatever the explanation there is no evidence (*contra* Wilson 1972, 333) to suggest that production continued into the 5th century.

3 The Rettendon ware 'workshop' industry and the kilns at Chelmsford and Inworth

It is apparent that 3rd to 4th century coarse ware production in Essex, catering for more than specific hamlet or villa needs, may be divided on the basis of fabrics and forms into several distinct zones, the most clear-cut of which encircle the major manufactories of Hadham, Colchester/Ardleigh, and the Thames-side (Fig 43). Of these only one, Hadham, remained a major production centre until the end of the Roman period, but the dispersed Thames-side and other south Essex kilns provide a model for 'workshop' Romano-British pottery production (as defined by Peacock 1982, 90-9) in Essex generally.

The three kilns considered in this section are of broadly contemporary date, i.e. early 4th century to *c* AD 360/70, and although *c* 20km apart share a number of fabric and typological affinities; not least their claim to be production sites of 'Romano-Saxon' pottery (Gillam 1979, 110; Roberts 1982, 150-2, pl 54). Of more local interest is their production, as at Sandon (Drury 1976b) and Rettendon (Tildesley 1971), of a distinctive grey ware tempered with crushed flint (Fabric 48), which permits us to study the distribution of the products of a 'workshop' industry in Essex for the first time. The fabric first occurs in any quantity in Chelmsford *c* AD 280/300 (Ceramic Phase 6); and in the central and northern part of the region in which it occurs it appears to have had a *floruit* during the first half of the 4th century. Both the Inworth and Chelmsford kiln sites appear to have ceased production *c* AD 360/70, after which the proportion of 'Rettendon' wares in Chelmsford declines steeply from its Phase 7 peak of *c* 16%, to 4.97%. If the other kiln fabrics were represented in roughly similar proportion to the waste from the Moulsham Street kilns, then such production sites may have supplied a minimum of *c* 40-50% of all pottery reaching the town during Phase 7. The industry's decline after *c* AD 350 may be the result of a fall-off in demand (Section XII.2) or the availability of cheaper wares from elsewhere, for example late 'shell-tempered' products from Harrold and

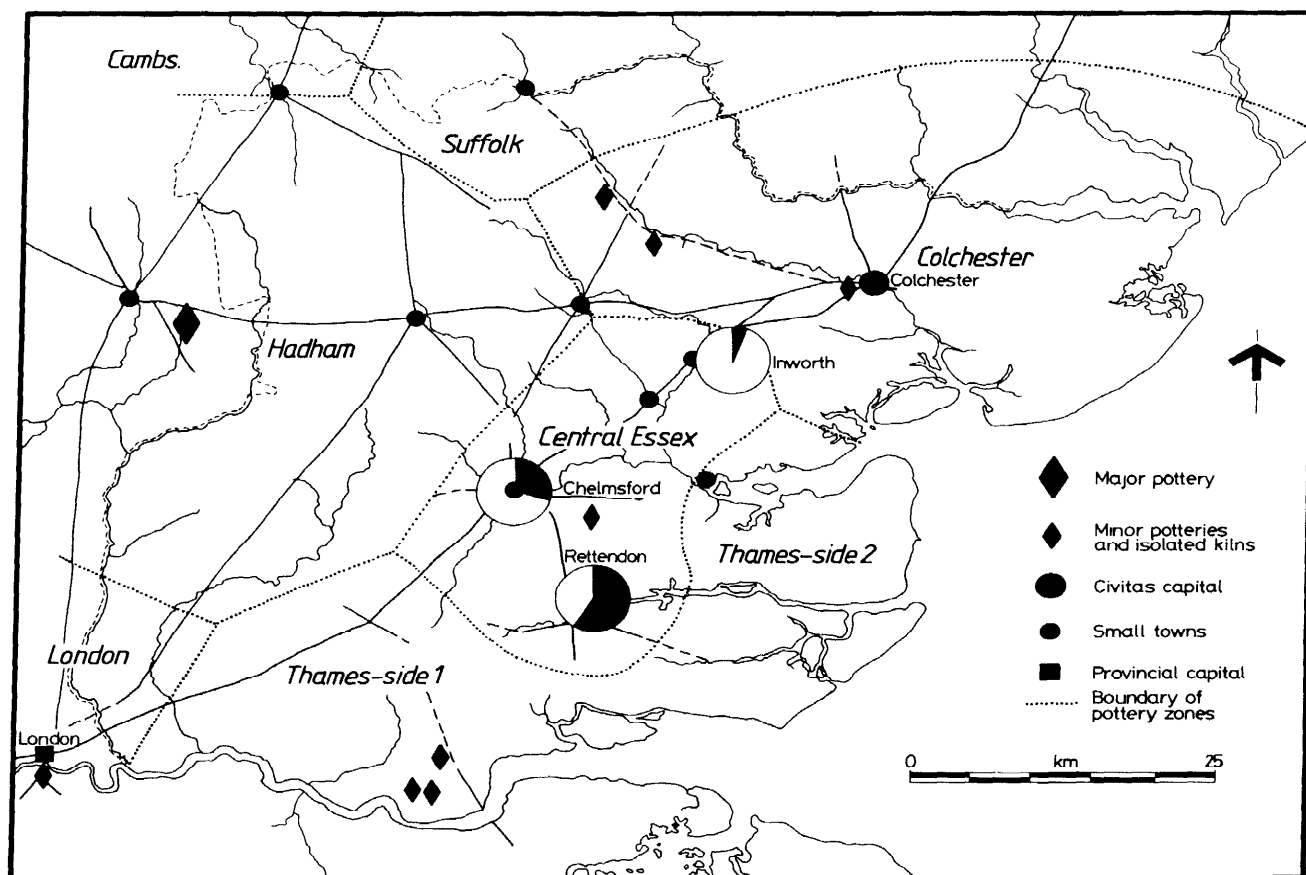


Fig 43 The 'Rettendon' ware workshop, industry and 4th century pottery production zones in Essex

possibly Lakenheath, which rapidly won a substantial proportion of the market, totalling over 15% of Chelmsford groups dated to the final decades of the Roman period. However, late 'shell-tempered' pottery is noticeably rarer in the southern part of the county, perhaps because of sustained local production there.

The restricted distribution of 'Rettendon' type wares, and the number of shared traits between the Chelmsford and Inworth kilns suggest a common potting tradition. On the evidence of a possible roller stamp die-link between Orsett and Mucking, Rodwell (1974, 35, fig 8.68) has argued that some south Essex sites were worked by a number of itinerant potters on an intermittent, probably seasonal basis. The Moulsham Street and possibly the Rettendon kilns (c 3 km from Wickford) were sited with a small-scale, predominantly urban market in view, and it is possible that the latter site, which seems to have been the largest, was a base from which several potters worked.

Referring to a similar hypothesis put forward for the much earlier site at Highgate, Peacock (1982, 92) suggests, on ethnographic grounds, that it would have been usual for small isolated kiln sites to be worked on a part-time basis in conjunction with farming or some other activity. In the later Roman period, it is quite likely that such concerns were worked by resident, part-time potters tethered under a colonate system. However, the siting of the Rettendon kilns close to the river Crouch may be a hint that a wider trade, and perhaps greater production was envisaged. Unfortunately neither the fabrics nor the forms of most of the kiln products permit their sources to be precisely identified. The Chelmsford 'Rettendon' wares may all be from the Moulsham Street kilns, but equally, a proportion may come either from isolated kiln sites near the town (at least one is known; VCH 1963, 66) or from centres further afield. Some Inworth products, however, may be identifiable away from the kiln. The characteristically thick-bottomed jar from the late 3rd to 4th century Kelvedon grave 15 (K Rodwell forthcoming, fig 87.G15a) may be one, as may be a bifid-rimmed jar from Heybridge (Wickenden in Drury & Wickenden forthcoming, fig 21.123) which is similar to a jar of Type G41-4 (Fig 42.16) from the lowest clay pit layer at Inworth.

VI Textile impressions on Romano-British pottery

by J P Wild

Fig 44.1 Basal sherd of a grey ware jar in Fabric 47, from S95ii, dated c AD 280-300/10, and possibly associated with the earliest production phase of the nearby kilns (see Section V). Faint traces of a negative textile impression on the sherd appear to show a very fine plain weave in which one system (perhaps the weft) was dominant. System 1 has a count of 10 threads per cm, and is wide spaced: no spin direction can be made out. System 2 has c 25 threads per cm, and is apparently Z-spun yarn.

Fig 44.2 Sintered base of a grey ware jar in kiln Fabric 48, probably datable c AD 280-360/70 (residual in post-medieval context S1002). The negative impression of a fine plain weave extends from beneath the base of the pot to the lower 10mm of the wall. A strip of about 6 sq cm can be seen, but indistinctly. Both warp and weft are of fine yarn with a count of c 14 threads per cm. Both are very weak spun (possibly Z-spun), which suggests that the fibre may have been flax.

Given that one must allow for some shrinkage during firing, the textiles which made these impressions are finer than the average for Roman Britain (Wild 1970, 46, 89). Plain weave, however, is common. It is possible that 44.1 and probable that 44.2 were produced in the Moulsham Street kilns. When the vessels were set out to dry they came into accidental contact with pieces of rag lying in the potters' workshop. One may be reasonably confident that the textiles were in use in Chelmsford in the late 3rd to early/mid 4th century.

Three textile impressions on Roman potsherds have recently been recorded at Mucking (Jones 1979, pl LXXIIa-b). One of them is comparable with the ?weft faced cloth on vessel 2. No others are known at present; but at Cantley (Doncaster), there is a possible textile impression on kiln lining. Textile impressions are often seen on Roman tiles (eg Ashtead, Beauport Park, Doncaster, Heybridge, and Wroxeter) and on briquetage from saltern sites.

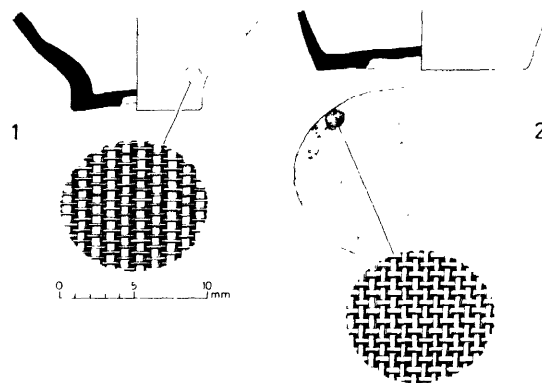


Fig 44 Textile impressions on Romano-British pottery. Scale of pots 1:4, textile patterns 2:1

VII The Residues on Romano-British pottery

by *J Evans and C J Going*

During quantification a substantial number of sherds were found with deposits, mostly carbonized residues. A sample was submitted for analysis (Table 6). Further work on this topic is envisaged in subsequent reports.

Of the twelve sherds submitted, seven contained carbonized residues, one of which, no 5, was unusually shiny and hard. Samples 1, 2 and 12 had white/buff deposits whilst 3 and 4 contained no deposits at all.

All the residues were examined under the scanning electron microscope. None contained recognizable debris and the carbonized systems exhibited the usual vesicular structure associated with charred residues. The crude residues were examined by infra-red spectroscopy. The complex spectra obtained for the carbonized systems suggest the presence of organic mixtures. The white/buff systems all suggested the presence of inorganic materials.

The residues and samples of the sherds were crushed and passed through a 100 mesh sieve. The fine material was then extracted in a soxhlet apparatus with the following series of solvents: hexane, chloroform, 2-propanol and water. This group of solvents was employed because they not only extract specific groups of organic compounds, but also were suitable for subsequent analysis by High Performance Liquid Chromatography (HPLC).

The various extracts were examined by several chromatographic techniques including thin layer, gas-

liquid and HPL chromatographies. Wherever possible the separated extracts were also examined by infra-red spectroscopy.

Of the seven carbonized residues only no 6 gave positive results. Its thin layer pattern and the fatty acids detected by gas-liquid chromatography suggested the presence of olive oil. Additionally traces of protein were also observed. Electrophoresis and the amino-acid patterns suggested the protein to be albumen. However, the low levels of material made certain identification impossible.

Of the corresponding sherds, sample 6 gave similar results to its residue. Sample 5 appeared to contain a wood resin. This coupled with the unusual hard shiny appearance of the residue, suggests that it was produced accidentally by burning wood. Samples 8 and 11 gave triglyceride and fatty acid patterns similar to those of pork. Additionally low levels of amino acids were detected, but in insufficient quantities for the identification of their protein origin. No sugars or starches were detected.

The white deposits gave no useful data. They were mainly calcium carbonate systems. Samples 1 and 12 had structures suggesting water scale; 2 appeared to be an amorphous powder.

Traces of phosphates were detected in both pots and residues in samples 6, 8 and 11, giving further support for the presence of animal products.

The two 'lean' pots (3 and 4) gave no worthwhile results. Possibly they were used for dry storage, although in the case of 4, a platter of Type A2.3, this is unlikely. However, the absence of organic compounds does indicate that no appreciable contamination from ground organic substances had occurred.

Table 6 Sherds submitted for analysis of deposits

<i>Sample</i>	<i>Fabric</i>	<i>Form</i>	<i>Feature/ context</i>	<i>Phase</i>	<i>Visible deposit</i>
1	Grey ware	m/c	AR210	VI.3	?Scale
2	Grey ware	B2	Z15	VI.3	?Powder
3	Grey ware	m/c	S245	IV.1	?Clean
4	Romanising grey ware	A2.3	S211	IV.3	?Clean
5	Romanising grey ware	m/c	S205	IV.4	Carbonised
6	Grey ware	D	S149	VI.1	Carbonised
7	Grey ware	m/c	S149	VI.1	Carbonised
8	Grey ware	m/c	S175i	VI.2	Carbonised
9	Unspecified buff ware	m/c	S175i	VI.2	Carbonised
10	Grey ware	m/c	S95i	VII.2	Carbonised
11	Grey ware	m/c	S95i	VII.2	Carbonised
12	Unspecified buff ware	m/o	S103	Post-Roman	?Scale

m/c = miscellaneous closed form

m/o = miscellaneous open form

VIII The samian ware

by W J Rodwell

The samian pottery from the excavations at Chelmsford constitutes one of the largest collections from a 'small town in Roman Britain. From the town overall, there are several thousand plain and decorated sherds and about 140 potters stamps, of which less than 20 are undecipherable or hopelessly fragmentary. The material comes from excavations in many parts of the settlement, and nothing has been discarded on account of small size or presumed residuality. In aggregate, the *sigillata* available for study must comprise a random sample of that class of material imported into Roman Chelmsford. Furthermore, ?military occupation probably began soon after the Boudican revolt and was followed by rapid settlement which continued, unbroken, throughout the Roman period: there is thus no *a priori* reason why the assemblage of samian found at Chelmsford should not be typical of the region, and perhaps of settlements with similar histories in lowland Britain generally. If there are differences, they need to be demonstrated and explained, but until several excavated collections of comparable reliability have been studied and published the data for comparison do not exist. A further point of relevance is that Chelmsford did not have any significant Iron Age settlement preceding the Roman town, and there is thus, almost exceptionally for a site of this type, no likelihood of confusing pre-conquest imports of samian with those which arrived after AD 43.

It is not practicable to publish extended lists of samian pottery site by site, hence the material is being used and presented in three ways. First, the significant pottery for dating structures and phases is incorporated in the relevant sections of the main excavation report (3.1); secondly the potters stamps and a selection of the decorated ware are published here both for their value as supporting evidence and for their intrinsic interest; and thirdly, a full analysis and general discussion will be presented in the final volume.

Details relating to the origins and dates of the potters stamps have kindly been supplied by Mr B R Hartley and Miss Brenda Dickinson; the die numbers given are those which will appear in B Hartley forthcoming. I am very much indebted to Mr Hartley for continually assisting with the study of samian pottery from Chelmsford over the last 15 years. The illustrations have been prepared by Kirsty Rodwell.

Stanfield & Simpson 1958 is abbreviated in the catalogue to 'S & S'. References to figure-types in Oswald 1937 are pre-fixed by 'O'.

1 The decorated ware (Figs 45-46)

Thirty-six vessels are described below, representing three-quarters of the decorated samian found on the sites reported in 3.1. Small, undistinguished sherds, 'routine pieces of late South Gaulish ware and unexceptional work in the Cinnamus style have not been illustrated. The bulk of the material described is from site S, and there is an obvious emphasis on South Gaulish ware of the Flavian period, reflecting the 1st-century ?military activity on the site.

Kiln designations are abbreviated as follows:

SG South Gaulish
CG Central Gaulish
EG East Gaulish

- 45.1 Form 29, SG. A small fragment of upper zone showing part of a scroll with rosettes and acorn terminals. Probably Claudian, *c* AD 45-55. S, below 1011 (VI.1)
- 45.2 For 30, SG. Probably Claudian, *c* AD 45-60. AR66 (V)
- 45.3 Form 30, SG. Small sherd with vertical wreath and figure of Pudicitia, similar to 0.925. The ovolo is poorly moulded, but is Knorr 1919, taf 52.29. Probably the work of *Masclus*, *c* AD 45-60. AR200 (I/IV)
- 45.4 Form 29, SG. Two sherds with slight traces of burning, showing a leaf scroll in the lower zone. The large leaf was used by potters such as *Billicatus*, *Gallicanus* and *Murranus*; the last also employed both large and small rosettes (Knorr 1952, taf 45). The general scheme of decoration is not uncommon (eg *ibid*, taf 72A). *c* AD 45-60, S1028 (IV.1)
- 45.5 Form 29, SG. The saltire motif in the upper zone is paralleled on the work of *Bassus* (*ibid*, taf 8B) and the scroll of the lower zone finds potential parallels in a *Bassus-Coelus* scheme (*ibid*, taf 9C). *c* AD 45-60. S245 (IV.1)
- 45.6 Form 29, SG. Small fragment of upper zone with lyre motif, as used for example by *Aquitanus* (*ibid*, taf 5). Probably Claudian. *c* AD 45-60. AA2.10 (IV)
- 45.7 Form 29, SG. Lower zone showing running scroll. Thin-walled bowl, probably Claudian. *c* AD 45-60. S182, S245 (IV.1)
- 45.8 Form 30, SG. Neat double-bordered ovolo with a plain tongue, ending in a round terminal; similar to that used by *Masclus* (Knorr 1919, taf 52.29). *c* AD 45-60 S245 (IV.1)
- 45.9 Form 30, SG. A small fragment showing part of a scroll. Claudio-Neronian, *c* AD 50-60. AR221 (IV)
- 45.10 Form 29, SG. Part of lower zone with a continuous wreath and animals below. Small dog not identified; larger dog to right is akin to 0.1935/1936. The pair of hind legs presumably belong to a hare or stag. The scheme is reminiscent of the bowl by *Senicio* in the Chancellor Collection (W Rodwell, in prep); and Knorr (1919, taf 70, 2, 3, 7; 1952, taf 53A) illustrates a closely similar animal trio on work of *Sasmonos*, *c* AD 55-70. S175 (VI.2)
- 45.22 Form 29, SG. Fragment of lower zone with basal wreath and gadroons, *c* AD 55-70. AR200 (I/IV)
- 45.12 Form 29, SG. Lower zone, running scroll, somewhat smudged. The style was used by *Labio* and his contemporaries, *c* AD 65-70. Z106 (V)
- 45.13 Form 37, SG. Bowl divided into horizontal zones. Double-bordered ovolo with trifid tongue. Upper band of festoons with leafy borders, each containing a spiral; lower band comprises a winding scroll, under one arc of which is a hare, 0.2096. This bowl exhibits some features which are commonly seen on the work of *Frontinus*, *c* AD 75-90. S205 (IV.4)

- 45.14 Form 37, SG. Eight sherds of panelled bowl. Double-bordered ovolo with rosette terminal. Row of festoons with opposed ducks, 0.2220 and 0.2257. Fragmentary figures in lower panels may include cupids; the medallion contains a twelve-armed pomegranate motif. *c* AD 75-90. AR9, 24, 28, 41, 58, 91 and 289 (VI.2-VI.3)
- 45.15 Form 37, SG. Panelled bowl. Double-bordered ovolo with tongue ending in large rosette. Hare to left not in Oswald's *index*: his nearest is 0.2098, *c* AD 75-90. AR41 (VI.2)
- 45.16 Form 37, SG. Part of a small panelled bowl, containing figures, foliage and arrows in the compartments. Hind legs of uncertain animal to right; kneeling cupid similar to 0.502, but smaller, *c* AD 75-90. Z43 (V)
- 45.17 Form 37, SG. Double-bordered ovolo with trifid tongue consistently damaged in the mould. Below, probably a continuous zone of animals amidst multi-branched trees, an arrangement preferred by *Germanus* and his associates (cf Knorr 1907, taf 8.1). *c* AD 80-100. S unstrat
- 45.18 Form 37, SG. Eight sherds of a panelled bowl with three repeating designs (composite drawing). Double-bordered ovolo with bent trifid tongue; rivet repair holes. Erotic scene, Oswald 1937, plXC A. Satyr, 0.597. Uncertain male (?) figure to left. The style and layout of this bowl is generally similar to that of a f30 from La Graufesenque: Hermet 1934, pl 79.14. *c* AD 80-100. AR21, 28, 37, 59 and unstrat (VI.2+)
- 45.19 Form 37, SG. Composite drawing made from three sherds of a panelled bowl with repeating pattern. Double-bordered ovolo with trifid tongue; opposed gladiators, 0.1007 and 0.1008. The decoration is very indistinct and presumably results from the use of a worn of clogged mould. Cf work of Crucuro (Knorr 1919, taf 29B) and *Mercato* (Knorr 1919, taf 57), *c* AD 80-110. Select Cinema, 1915 (Vol 3.1)
- 45.20 Form 37, CG. Winding scroll decoration; fabric of Les Martres-de-Veyre. The leaf, bud and scroll binding can all be matched on the work of the *Medetus-Ranto* group (cf S & S, pl32.384, 386). *c* AD 110-130. S1104, 1109 (VI.1)
- 45.21 Form 37, CG. Panelled bowl in the distinctive style of Igocatus of Les Martres-de-Veyre. Two almost identical sherds show the figure of Paris (0.843) alternating with the tier of cups (S & S, fig 6.2). The general scheme of decoration is paralleled in many pieces by *Igocatus* (eg S & S, pl 17.218). *c* AD 100-20. S1104 (VI.1)
- 45.22 Form 37, CG. A standard bowl of Drusus i (X3 potter) of Les Martres-de-Veyre, with inverted pairs of dolphins used in place of a regular ovolo. The figures, from left to right, are: a warrior with shield, 0.163; a draped figure of uncertain identity; seated Bacchus with a cup, 0.571; a dancer, 0.356; seated Diana with her bow, 0.111; and seated Jupiter who is not represented in Oswald's *index*, but is known on the work of *Drusus* (cf S & S, pl 10.121). *c* AD 100-20. Select Cinema, 1915 (Vol 3.1)
- 45.23 Form 37, CG. Freestyle bowl with signature cut in the mould below the decoration, CO[CI]. This is probably the work of *Cocus* ii of Les Martres-de-Veyre (VIII.2, no 9). Against a crowded background of vegetation there are traces of the limbs of at least one animal, but it is impossible to define detail. *c* AD 100-25. S182 (VI.1)
- 45.24 Form 37, CG. Two sherds of a bowl in the style of *Cettus* (small S potter) of Les Martres-de-Veyre. One sherd is burnt, and on one piece the ovolo had been partly removed during the formation of the rim band. The ovolo is *Cettus* no 3 and the small leaf with bent stalk is one of his principal characteristics (S & S, fig 42.4). His large lion 0.1450, appears in part on both sherds; the nude male figure approximates to 0.637. *c* AD 110-30. S764 (V)
- 45.25 Form 37, CG. Panelled bowl in the style of the *Quintilianus* group. The borders are a mixture of bold wavy lines and very fine bead rows (the latter smudged almost to a straight line). The definition of a festoon with a coarse wavy line is an unusual feature, but occurs on a signed bowl by *Quintilianus* from Dorchester (S & S, pl 68.3). The small dog running to the right is not matched in Oswald's *Index*. *c* AD 125-50. AK unstrat
- 45.26 Form 64, CG. A badly excoriated sherd in the intricate style of *Libertus-Butrio* of Lezoux. Some of the detail is unclear, but a Triton, 0.25, seems to emerge from an acanthus leaf supported on a pillar: cf a vessel by *Libertus* from Vichy (S & S, pl 51. 604). Hadrianic. S322 (VII.2)
- 45.27 Form 37, CG. Two sherds of a panelled bowl characterized by bold wavy lines and large rosettes. The style is that of the elusive potter *G. I. Vibius/Gelenus* and closely matches in every detail the vessel illustrated in S & S, pl 66.19. The head to the right is perhaps that of a dancer, and the ovolo is S & S, fig 15.1. This vessel has been repaired in antiquity, and one rivet hole remains. Hadrianic. S167 (post-Roman), 1025 (VI.1)
- 45.28 Form 37, CG. Sherd from the lowest part of the decoration with the mould stamp below reading OFISACRI[. For the stamp see VIII.2, no 25. The work of *Sacer* of Lezoux. This is a freestyle bowl, the animals being typically interspersed with tufts of grass. The hind legs to the left are probably those of a stag. For the style, on a signed bowl from London, see S & S, pl 82.6. *c* AD 125-45. T, unstrat
- 46.29 Form 37, CG. Winding scroll bowl in the style of *Arcanus* of Lezoux. In each loop is a leaf, connected to the scroll, and a pair of birds, 0.2252 and 0.2298. Beneath the arcades are alternating figures of Hercules with snakes, 0.783, and an erotic scene, Oswald 1937, pl XCB. The ovolo, wavy line border and general composition match the work of *Arcanus*: cf S & S, fig 20.1. *c* AD 130-50. AA1.8 (VI)
- 46.30 Form 37, CG. Many sherds of a large panelled bowl by *Cinnamus* ii of Lezoux. Remains of stamp [CIN]NAMI, retrograde, in mould (VIII.2, no 7). The decorative scheme repeats after every fourth panel. The ovolo is *Cinnamus* large one, no 1. The figure of Vulcan is closely similar to 0.66, but is not a perfect match;

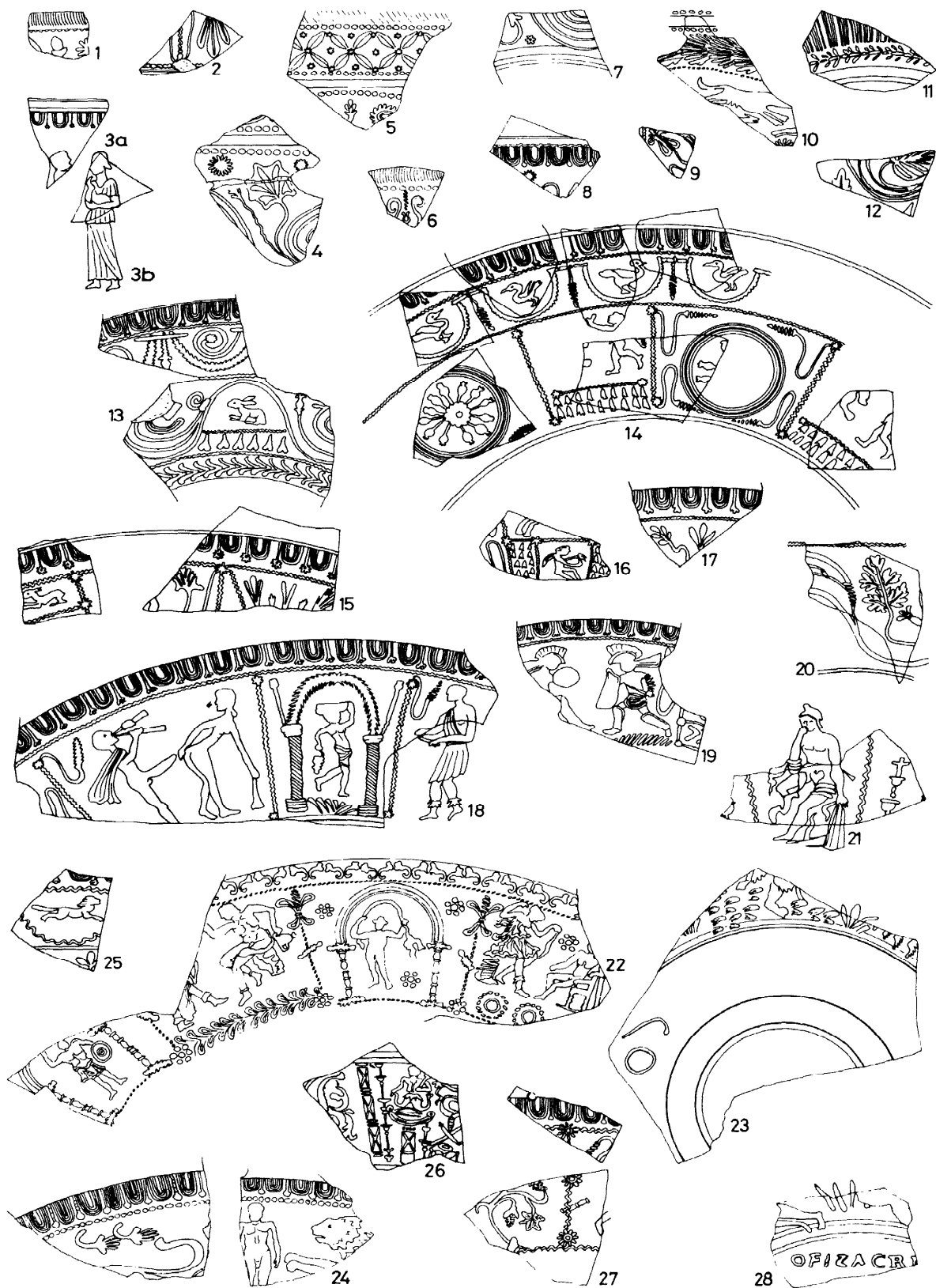


Fig 45 Decorated samian, 1-28. Scale 1:2.

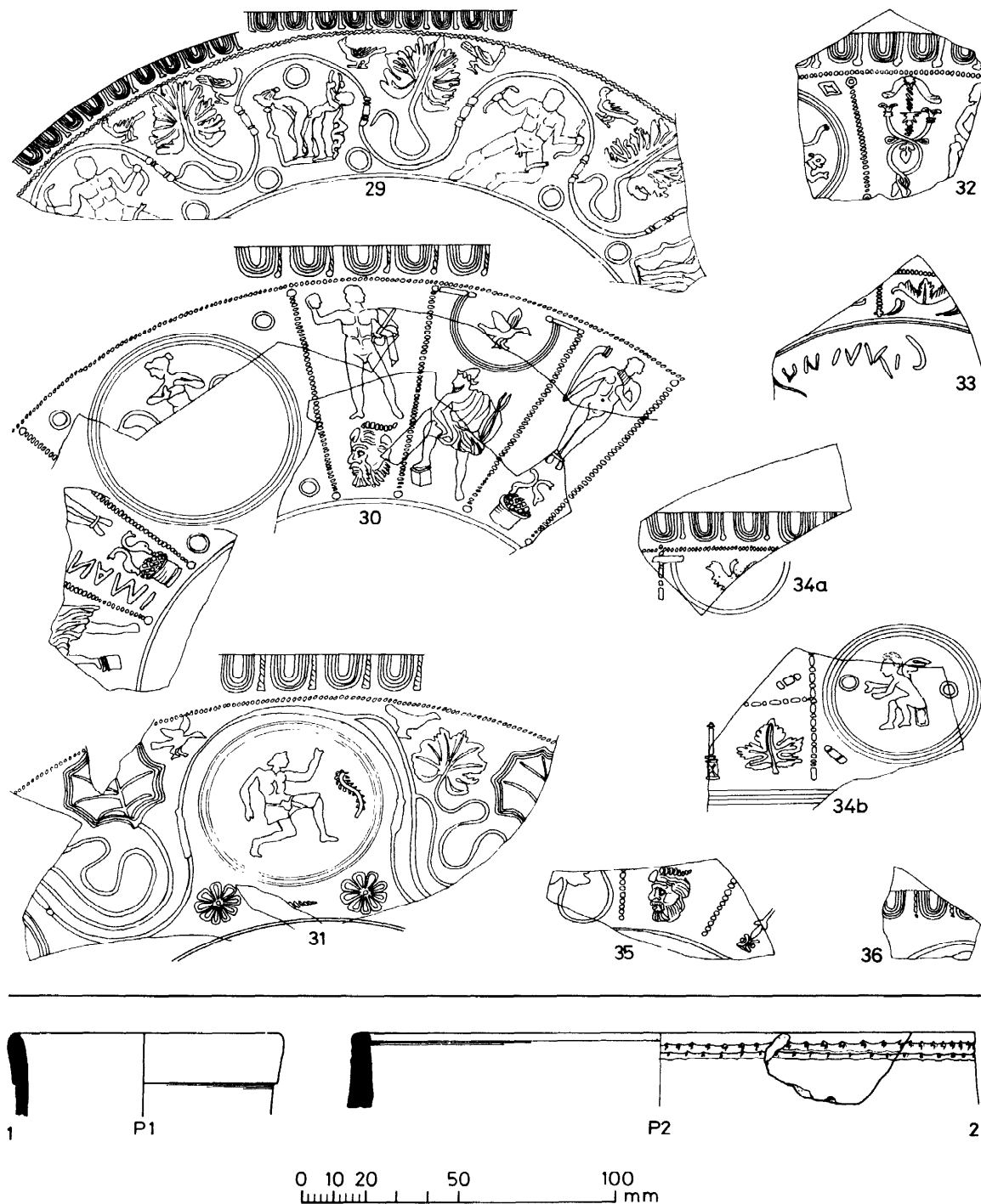


Fig 46 Decorated samian, 29-36 and plain samian, P1-2. Scale 1:2.

Perseus, 0.234; Venus, 0.331; Pan, 0.711; and the mask is 0.1214. The Chelmsford sherds match precisely a bowl from London, and could perhaps be from the same mould: S & S, pl 160.35, where Vulcan is without tongs. c AD 150-80. S182, 381, 1104 (VI.1); the stamp is unstrat

46.31 Form 37, CG. Several sherds of a large bowl in the style of *Cinnamus* of Lezoux. His ovolo no 4. The winding scroll encloses medallions and large rosettes, with leaves and birds in the loops. The athlete is 0.204. The basic layout is similar to S & S, pl 162.60. c AD 150-80. S149, 1009 (VI.1, VI.2)

- 46.32 Form 37, CG. Panelled bowl in the style of *Cinnamus* of Lezoux. His ovolo no 2 and candelabrum. Figure of Vulcan, 0.66, and part of a medallion containing the head of one animal and the tail of another: both may be lions, closely similar to a bowl from Verulamium: Hartley 1972, fig 97.122. *c* AD 150-80. AA, unstrat
- 46.33 Form 37, CG. Part base of a panelled bowl showing only an acanthus leaf. Below the decoration is a retrograde mould signature, reading *Cinnamus* (see also VIII.2, no 8). This is similar to the signature on a bowl from Chester (S & S, pl 162.57). Mr Hartley informs me that this signature belongs to Cinnamus' earliest style, *c* AD 135-45. AR211 (VI.3)
- 46.34 Form 30, CG. Two sherds of a panelled bowl in the style of *Parernus* of Lezoux. His ovolo no 1 and mixed borders of medium-sized beads and astragali (cf S & S, pl 108.35). Seated cupid, 0.444, in double-bordered medallion; trifid leaf (damaged) in simple festoon. The vine leaf and column-like feature (S & S, fig 30.24) are commonly used by *Paternus*, as are astragali and simple rings in the field. *c* AD 160-90. S unstrat
- 46.35 Form 37, CG. Panelled bowl in the style of *Casurius* of Lezoux; profile head, 0.1214. For the general arrangement see S & S, pls 133.19, 136.46, etc. Heavily burnt. *c* AD 160-95. AA1.8 (VI)
- 46.36 Form 37, EG. Ovolo in Rheinzabern fabric; burnt. cf Ricken 1948, taf 262.25. Late Antonine. S23 (modern)
- 46.30. This is a common die, used in the mould; local records include Canvey Island and Rochford. *c* AD 150-80. S182, 381, 1104, 1109 (VI.1.2)
- 8 **Cinnamus ii** of Lezoux. Form 37, with retrograde cursive signature cut in the mould below the decoration. Mr Hartley informs me that this is Cinnamus's earliest style of signature; for the decoration see Fig 46.33. *c* 135-45. AR211 (VI.2)
- 9 **Cocus ii** of Les Martres-de-Veyre. Form 37, with incomplete retrograde signature, CO[CI], cut in the mould below the decoration. The footring is unworn. For the decoration see Fig 45.23. *c* AD 100-25. S182 (VI.1)
- 10 **Conatius** of Rheinzabern. Form 31, stamped CONATI[VSF] (die 3a); centre of base only, much abraded and mended with a lead rivet. This die recorded locally at Great Chesterford. Late Antonine, to judge by the forms made by this potter, such as Ludowici Tb. S82 (post-Roman)
- 11 **Cracissa** of Lezoux. Form 38, stamped CRACISM (die 4a); small base only. *c* AD 130-55. AR11 (VI.3)
- 12 **Escusius** of Lezoux. Form 31, stamped [ESC]VSSI.MAV (die la); centre of base only. *c* AD 155-195. AK14 (VI.3)
- 13 **Firmus i** of La Graufesenque. Form 15/17 or 18, stamped FIRMI.M[] (die 5a); centre of base only, and apparently cut down for secondary use; stamp partly excoriated. *c* AD 70-90. S149 (VI.1)
- 14 **Geminus vi** of Lezoux. Form 31, stamped GEMINIF (die 6a); near-complete vessel with a well-worn footring and two post-firing graffiti (a lozenge and a cross) under the base. This die recorded locally at Great Chesterford and Rivenhall. *c* AD 160-90. S149, 182 (VI.1)
- 15 **Gnatus ii** of Les Martres-de-Veyre (?). Form 18/31, stamped GNATIM (die 1b), poorly impressed and very indistinct; base and part of wall, with graffito 'V' cut on the footring. *c* AD 130-55. S149/S182 (VI.1)
- 16 **Irtius** of La Graufesenque. Form 18, stamped IRTNVS FI (die la') retrograde; two-thirds complete, with a well-worn footring and soot encrustation in the fractures. The vessel is slightly burnt. This die recorded locally at Colchester (as die la, before the loss of the original swallowtail ends). Probably Neronian. S205 (IV.4)
- 17 Unidentified stamp apparently reading IVLT[...].IM on form 31; half base. CG fabric. The middle of the stamp is thoroughly excoriated: the third letter is probably 'L', while the fourth seems fairly certainly to be 'T'. This, together with the length of the name, seems to preclude a reading such as IVLLINI.M. Possibly part of a double or joint name-IVL(I)VS T. . . . Antonine. AA1.8 (VI)
- 18 Unidentified stamp beginning MA[], on a fragment of base, form 33. CG fabric. Antonine. S385 (post-Roman)
- 19 **Magio i** of Lezoux. Form 33, stamped .MAGIONI (die la); base only, with little wear on the footring. Recorded locally at Great Chesterford. *c* AD 155-85. S790ii-i (VI.2)
- 20 **Maritumus** of Lezoux and Terre-France, Vichy. Form 38, stamped MAR.ITVMIMA (die 2a'); base only. very crudely trimmed for reuse as a disc *c* 70mm in diameter. The die was probably used at
- ## 2 The stamps and signatures
- 1 **Albillus ii** of Lezoux. Form 33, stamped ALBILLIM retrograde (die 2b); base only, with graffito 'III' cut on footring. This die recorded locally at Wickford and Colchester (several). *c* AD 160-200. S1053 (post-Roman)
- 2 **Albucianus** of Lezoux. Form 79, stamped [ALB]VCIANI (die 6c); quarter base, well worn. This die recorded locally at Kelvedon. *c* AD 165-200. AD unlocated
- 3 **Banuillus** of Les Martres-de-Veyre. Form 18/31, stamped]BANV[ILLIM] (die 2a); chipped centre of base only. This die recorded locally at Great Chesterford. *c* AD 130-155. AR13 (VII.2)
- 4 **Bassus i** of La Graufesenque. Form 27, stamped BASSJ (die uncertain); a small cup, two-thirds complete, with imperfect stamp. *c* AD 45-65. AR281 (VI.3)
- 5 **Caupa** of Lezoux. Form 18/31, stamped [CA]VPAM retrograde (die la); fragment of centre of base. This die recorded locally at Canvey Island. Antonine. S1011 (VI.1)
- 6 **Celsus** of La Graufesenque. Form 27 g, stamped OFCELSI (die lb); base only. This die recorded locally at Colchester. *c* AD 75-95. S764 (V)
- 7 **Cinnamus ii** of Lezoux. Form 37, stamped [CIN]NAMI retrograde (die 5b); many fragments from various layers. For the decoration see Fig

- both Lezoux and Vichy; it originally read MARITVMIMAN. *c* AD 150-80. AA1.8 (VI)
- 21 **Mercussa** of Lezoux. Form 80 or Tx, stamped MERC[VSSFEC] (die 3a'); part base only. *c* AD 155-90. S763iii (VI.2)
- 22 **Pass(i)enus** of La Graufesenque. Form 18, stamped [O]FPASSE (die 9a); half-complete vessel, with graffiti 'II' cut on rim, 'II' cut on lower part of wall, and 'I' cut on footring; very little wear. *c* AD 55-70. S205 (IV.4)
- 23 **Patricius ii** of Lezoux. Form 18/31, stamped PATRICI.M (die 7b); complete base. *c* AD 140-60. S, under 1009 (VI.1-2)
- 24 **Potitianus i** of Lezoux. Form 79, stamped [POTI]TIANI (die 4a); half base only, with incomplete graffito on underside (Fig 50.39). *c* AD 160-95. S790ii-i (VI.2)
- 25 **Sacer i** of Lezoux. Form 37, stamped in the mould below the decoration, OFISACRI (die 1a). For the decoration see Fig 45.28. *c* AD 125-45. T1 (VII.1)
- 26 **Sacer-Vasil...** of Les Martres-de Veyre. Form 18/31, stamped [SAC]ER.VASIL[F] (die 1a); centre of base only. *c* AD 100-25. AR1 (post-Roman)
- 27 **Saturninus ii** of Lezoux. Form 31, stamped [SAT VR]NIN (die 11a); part base. Recorded locally at Harlow. *c* AD 160-200. S122 (VII.3)
- 28 **Scoplus** of Lezoux. Form 33, (small) stamped SCOPLI.M (die 1a); half base and part wall, Recorded locally at Great Chesterford. *c* AD 165-95. S790i (VI.2)
- 29 **Severus i** of La Graufesenque. Form 15/17 or 18, stamped [OFS]EVERI (die 7t); part base with no wear on footring. This die recorded locally at Colchester. *c* AD 60-80. S 104 (post-Roman)
- 30 **Severus i** of La Graufesenque. Form 18R, stamped OFSEVERI (die 7p); part base with little wear on footring, and rivet hole through stamp; six-armed cross scratched under centre of base. *c* AD 70-90. AR33 (VI.3)
- 31 **Tauricus i** of Lezoux. Form 33, stamped TAVR[ICIE] (die 5a); quarter base. *c* AD 150-65. AR40 (VI.3)
- 32 Unidentified stamp on form 18/31R, CG, reading...]SI; small sherd from centre of base. Hadrianic-Antonine. S381 (VI.1)
- 33 Unidentified stamp on form 31, CG, reading...]NIM; part base with unworn footring. Antonine. AA2.2 (V)
- 34 Unidentified stamp on form 31, CG, stamped...]ERIS retrograde; small fragment. Antonine. AR23 (VII.1)
- 35 Illiterate stamp, die 464, from La Graufesenque, on form 18, near-complete. Little wear on footring, which also carries four graffiti in the form of single 'I' strokes, well spaced out. Flavian (?), but could be Neronian on form. S393 (V)
- 36 Illiterate stamp on form 33 (small) in CG fabric; half base, much abraded and with the stamp severely exoriated. Hadrianic or Antonine. S1004 (post-Roman)
- 37 Illiterate stamp on form 27g in the fabric of La Graufesenque; half the base and part of the lower wall, with a slight trace of burning. Under the base are what appear to be remains of a single-letter graffito 'T'. Probably pre-Flavian. S205 (IV.4)
- 38 Illiterate stamp on form 27g, with possible reading

IINNVI; two-thirds complete, with little wear on footring; cut down to mid-wall angle when first damaged. SG fabric. Probably Flavian. AR28 (VI.2)

- 39 Rosette stamp on form 46; one-third complete. CG, possibly to be equated with Terrisse 1968, pl LV.28. Hadrianic. S381 (VI. 1)

In addition to the above, there are several fragments of potters' stamps, comprising only one or two letters, not worthy of illustration.

3 The plain ware (Fig 46)

This is not of exceptional interest, either stratigraphically or intrinsically: the majority of sherds, as with the potters' stamps, come from contexts which are demonstrably much later than their date of manufacture. There is nothing which need be early Claudian and only a small quantity which is Claudio-Neronian. However, Neronian and early Flavian vessels feature markedly amongst the samian, particularly from site S. A few of these sherds are burnt. Late Flavian and Trajanic pottery is only sparsely represented, but from *c* AD 120 onwards there is a good spread of material. Heavily burnt samian of the late Antonine period I(*c* AD 160+) forms a noticeable proportion of the wares of that period.

There is a small amount of East Gaulish sigillata of the Antonine period, particularly Rheinabern ware, and a trickle of sherds originating in the Colchester kilns. One unusual vessel which probably originated in the Argonne (Fig 46.P1), is represented by the rim of a small cup or jar from a post-Roman context (1004) on site S. The slip is rather orange in colour and has a good gloss. It belongs probably to the 3rd century. Also from a post-Roman context (S727) was a rim sherd of an Argonne ware bowl with rouletted decoration (Fig 46.P2). Like Fig 46. P1, it has a good orange-red glossy slip; it belongs probably to the 3rd to 4th centuries. A fuller consideration of the plain wares will be reserved for the final samian report.

4 The Chancellor collection

In the *Essex Chronicle*, 15 January 1850, Chancellor noted 'a fragment of a very fine piece of Samian ware' among the finds from his excavations on the *mansio* site, and in the context of the list given (Vol 3.1) the implication is that it was the only piece retained from the site. The 'Chancellor collection', now in Chelmsford and Essex Museum, however, includes many artefacts not listed in 1850. It was acquired by the Museum in two parts, donated in 1927 and 1942 by Chancellor's son Wykeham, who believed that all the items came from his father's excavations, and they were so catalogued by the Museum in the 1960s.

Although never fully published, the samian has often been cited as containing evidence relevant to the early history of Chelmsford, and the potters' stamps have been listed by Brinson (VCH 1963, 71). The lack of correlation with the 1850 finds list, as well as the lack of any comparable pre-Flavian samian from recent excavations, which have included the re-excavation of the *laconicurn*

found by Chancellor (on site AK; Vol **3.1**), make it most unlikely that the more spectacular pieces were found locally. This is also true of other antiquities in the collection (Vol **3.1**).

Almost certainly the majority of the collection came from London (W Rodwell, in prep), where Chancellor had an office in Finsbury Circus from 1853 to 1896. The only vessels likely to have come from Chelmsford are as follows:

Labio	LG	f27	[F]LAB (6a). <i>c</i> AD 40-65 (CHMER B18048)
Natalis v	HY	f18	NATALIS F (1a). Late 2nd century (CHMER B18044)
Sacer-Vasil	LMDV	f18/31	SACER (1a). (CHMER B18045)
Virthus	LG	f18	[VIR]THVS FEC (3a). <i>c</i> AD 45-70 (CHMER B18050)
Rosette	CG	f38	(158) Antonine (CHMER B18051)
Rosette	?Col-	f32	(159) Antonine (CHMER B18055)
	chester		

Abbreviations: LG, La Graufesenque; LMDV, Les Martres-de-Veyre; HY, Haute-Yutz

IX Stamps

1 Stamps on Gallo-Belgic derivatives (Fig 47)

by V A Rigby

Fig 47.13 .VTOS, probably for BOVTOS or IDVTOS, the first two letters worn away, central on the base of a cup or bowl in a soft fine-grained brown ware with burnished black surfaces. Similar to Fabric 34. Possibly imported; probably pre-Flavian or early Flavian. No other impression of this skilfully cut die is known. VI.3 (Z15i-ii)

The names Boutus and Idutus both appear on *terra nigra* (TN) on the Continent and at Camulodunum. Should the stamp be proved to belong to either potter it will be an extremely important find, for only two Gallo-Belgic potters (Catullus and one using a trade mark) are known by their stamps to have made both *terra rubra* (TR) and coarse ware 'copies'. (Hawkes & Hull 1947, nos 69 & 248). In any case the stamp is important in its own right since it is, or rather was a recognizable name, rather than an illiterate trademark. It may be significant that more stamps of the potter Boutus have been found in Camulodunum than elsewhere, and that four occur in pre-Boudican contexts, suggesting that he was working in the Claudian period, and possibly at Camulodunum (*ibid*, 209, nos 56-7).

AI[...] (AR343); *not illustrated*. Central stamp on a devolved native copy of a Gallo-Belgic platter with a non-functional footring. Brown fabric, fine sand tempering, grey margins, black surfaces, well burnished internally (Fabric 34)

2 Mortarium stamps (Fig 47)

by K F Hartley

The sites reported in this volume produced twelve stamps; five herringbone, the remainder either name-stamps or trade marks. The full report is in the Trust Archive.

Name stamps

- 47.1 Macrinus ?27 : MACRINVS. Example of same die from Lower Hacheston (Suffolk). Three others in another die known from Colchester. Probably a local potter. The rim profiles would fit a date within the period AD 50-110. Post-Roman (S 99)
- 47.2 Matugenus 26:]FECIT. Brockley Hill, c AD 80-125 (K Hartley 1984, 286). V (S1020 and unstrat)
- 47.3 Sextus Valerius Saturninus 27 (D2.1): SATVRN VALER FHCIT. Both stamps survive. Colchester, c AD 55-85. IV.1 (S245 ii)

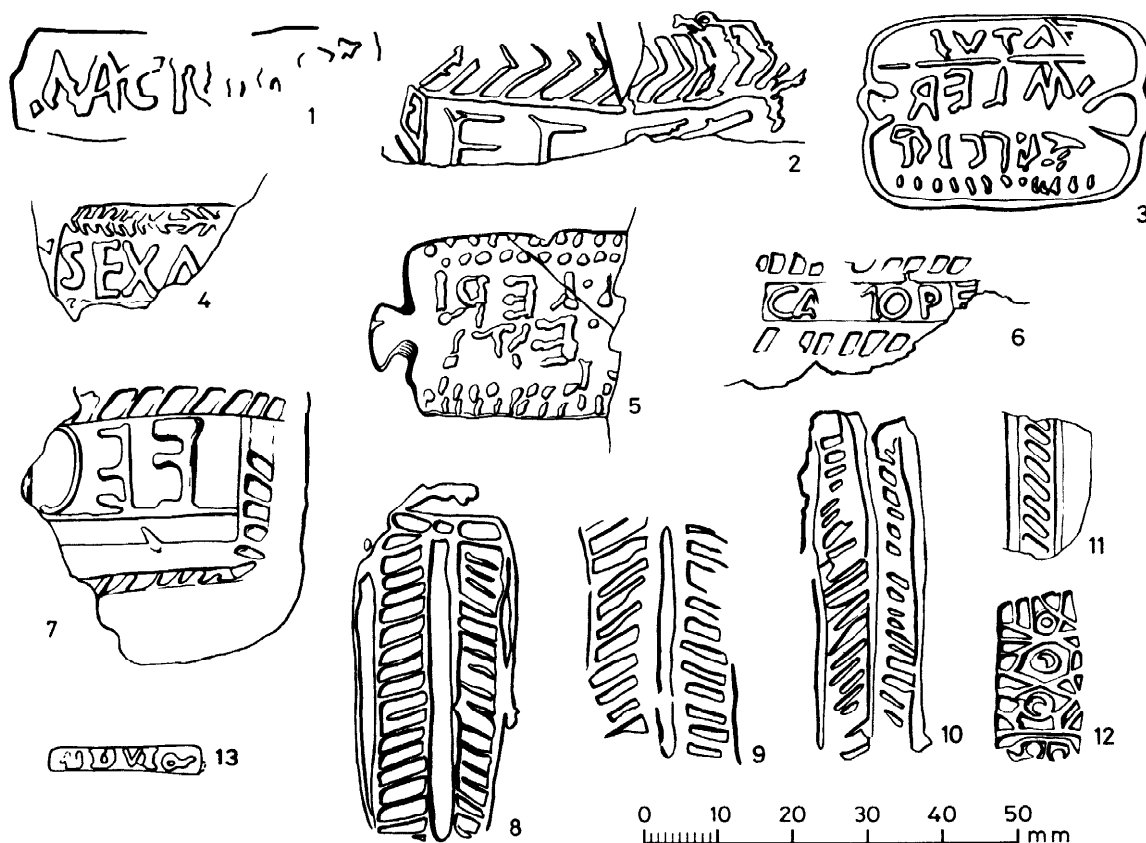


Fig 47 Mortarium (1-12) and Gallo-Belgic derivative stamps (13). Scale 1:1

- 47.4 Sextus Valerius Saturninus 27 : SEXA Colchester, c AD 55-85. V (S213)
 47.5 Sextus Valerius 27: JALERI JECTA. Second line possibly Fecit, c AD 55-85. VI.1 (S1009)
 47.6 Cunopectus 27 : CV[N]OPE. Colchester, c AD 160-200. Unstrat (Z)
 47.7 Unidentified ?27 :FEC[IT] retrograde. Die unrecorded, probably a Colchester product, but uncertain, c AD 70-140. VI.2 (AR79)

Herringbone stamps (All probably Colchester products)

- 47.8 27 (D2.1) See Hull 1963, fig 60.30. c AD 130-70. Both stamps survive. VI.1 (S182, 1104)
 47.9 27 (D2). c AD 130-70. Worn die. VI.1 (S1011)
 47.10 27 (D2). c AD 130-70. Possibly Hull 1963, fig 60.33. VI.1 (S1009)
 47.11 27 (D2). c AD 130-70. V (S1020)

Trade mark

- 47.12 14 (D3.1/1) Rodwell die B1 (1978, 287, fig 7.17.125). ?Hadham, Flavian-early 2nd century. VI.1 (S183) and unstrat

3 Decorative stamps on Flavian to early 2nd century fine wares (Fig 48)

Stamps on these vessels have been classified by Warwick Rodwell (1978, 225-92). Chelmsford produced examples of his Groups 2A-D and 3A-B (see Table 7). The suggested origin for his Group 2 London-Essex wares (*ibid*, 234-45) is the Hadham area, while his Group 3 North Essex wares are assigned to either Hadham or Colchester, on the evidence of the fabric and number of sherds found there.

Table 7 Fine-ware die-links

The following are based on Rodwells die numbers. Where another die occurs on the same vessel, a reference to this is given in brackets,

Figure	Dies	Fabric	Form	Period	Context
Ring stamps (R)					
48.1	R3.5 (10: B10)	19	C12.1/1	VI.1	Z 6
48.2	R3.13 (11: B5)	19	C23.3/1	VI.2	AR60
48.3	R.4.3 (12: B3)	19	C12	Unstrat	S
48.4	R.4.3	19	C10.1/1	VI.1,P-R	S182,211,725
48.5	R3.9?	19	C	VI.2	AR42
48.6	R2 (new die)	19	C	V	AR343
48.7	R3.7 (9: Ros 1)	20	VO	VI.2	S1009
48.8	R3 (13: B)	19	VO	VI.1	AR284
Rosette stamp (Ros)					
48.9	Ros 1(see no 7)			As no 7	
Block stamps (B)					
48.10	B10 (see no 1)			As no 1	
48.11	B5 (see no 2)			As no 2	
48.12	B3 (see no 3)			As no 3	
48.13	B unparallelled (see no 8)			As no 8	

4 Other decorative stamps (Fig 48)

Roller stamp

- 48.14 H35.2 (38) Roller stamp comprising seven square facets with angled hatching on body. c AD 190-210+. VI.2 (S790i)

Roller stamping was a feature both at Colchester in the 3rd century (Hull 1963,41-2) and in south Essex, where a distinctive style of chequerboard (*schachbrett*) rouletting was adopted (Jones & Rodwell 1973, figs 7.61, 9.80-2) and more rarely roller stamping of the type encountered here (*ibid*, fig 9.83). This example is closely paralleled in the Colchester Mithraeum (Hull 1958, fig 71. 148), and is likely to be a Colchester product. It was thin-sectioned by B Ford, as part of her study of roller-stamped vessels (Ford, in prep). The fabric closely resembles that of similarly decorated vessels from Colchester Kilns 27-8.

Embossed figurative stamps

Animal stamps are a characteristic feature of the Hadham potteries, although the Moulsham Street (Chelmsford), and Inworth kilns (Section V above) also produced them. The stamps found at Chelmsford are of animals, although moulded face flagons are known from all the major late manufactories (eg Young 1977, 150, fig 53.CII; Howe *et al* 1981, fig 8.96). The distribution of animal-embossed vessels is wide (W Rodwell 1976b; forthcoming a). Examples from Hadham are known as far afield as Littlecote, Berks (Walters, pers comm; see also Roberts 1982, pls 16, 31-2, 40-l). Other, as yet unknown, sites in eastern England were producing sophisticated stamps at this time (eg a winged cantharus on a vessel from near Grantham, Lincolnshire: M Darling, pers comm). Three stamps are known so far from Chelmsford:

- 48.15 Lion running right, G32.1/1 (4); Fig 11. For a die parallel, cf Great Dunmow (Rodwell 1976a, fig 12.A). From the Temple site (K), Chelmsford (Drury 1972, fig 5)

(Not illustrated) Rear quarters of lion from same die as 48.15, G (4) c AD 350-400. Post-Roman (S84)
 48.16-17 Lion running right, between applique decoration. G33.1/1 (47); Fig 11. Moulsham Street kiln product. The stamp may have been made by applying clay to a Hadham vessel bearing an impression similar to 48.15. Die parallel from Canvey Island (Rodwell 1976a, fig 12.5). VII.2 (S305, 322, 368)

Embossed, non-figurative stamps

- 48.18 Stamp on same vessel as 48.15; fragment of similar on 16
 48.19 St Andrew's cross with circular pellets set between the arms (Roberts 1982, pl 49.X24.2). 2 Fig 31.356. The form is probably Howe *et al* 1981, fig 7.74-here J12.1/1. c AD 360+. VII.3 (T31i-iv)

This is the only stamped Nene Valley vessel known from Chelmsford. For a close parallel in Hadham oxidized red ware from London, see McIsaac 1980, fig 17.230; cf also Roberts 1982, 125, pl 44.D39.7, and Silchester (May 1916, pl 82B, fabric not noted).

Rosette stamps on Oxfordshire red colour-coats

- 48.20 C25.1/1 (Young 1977, C84) c AD 360+. VII.3 (T31ii)
 48.21 C25.1 (*ibid*, C84) c AD 360+. VII.3 (T71/80)

Although a large number of stamps are present on Oxfordshire products (*ibid*, 130, fig 39), they have not been studied at the same level of detail as, for example, those on Flavian to early 2nd century fine wares (Rodwell 1978). The stamps common on late colour-coated products found in Essex include the occasional herringbone or comb 'stamps': but most often rosette and demi-rosette types, 'not common before the mid 4th century' (Young 1977, 132).

Ring stamp

- 48.22 Triple ring stamp from a necked bowl-jar. Burnished over after impression. 4 (E3). 4th century. ?Intrusive in VI.2 (S1009)

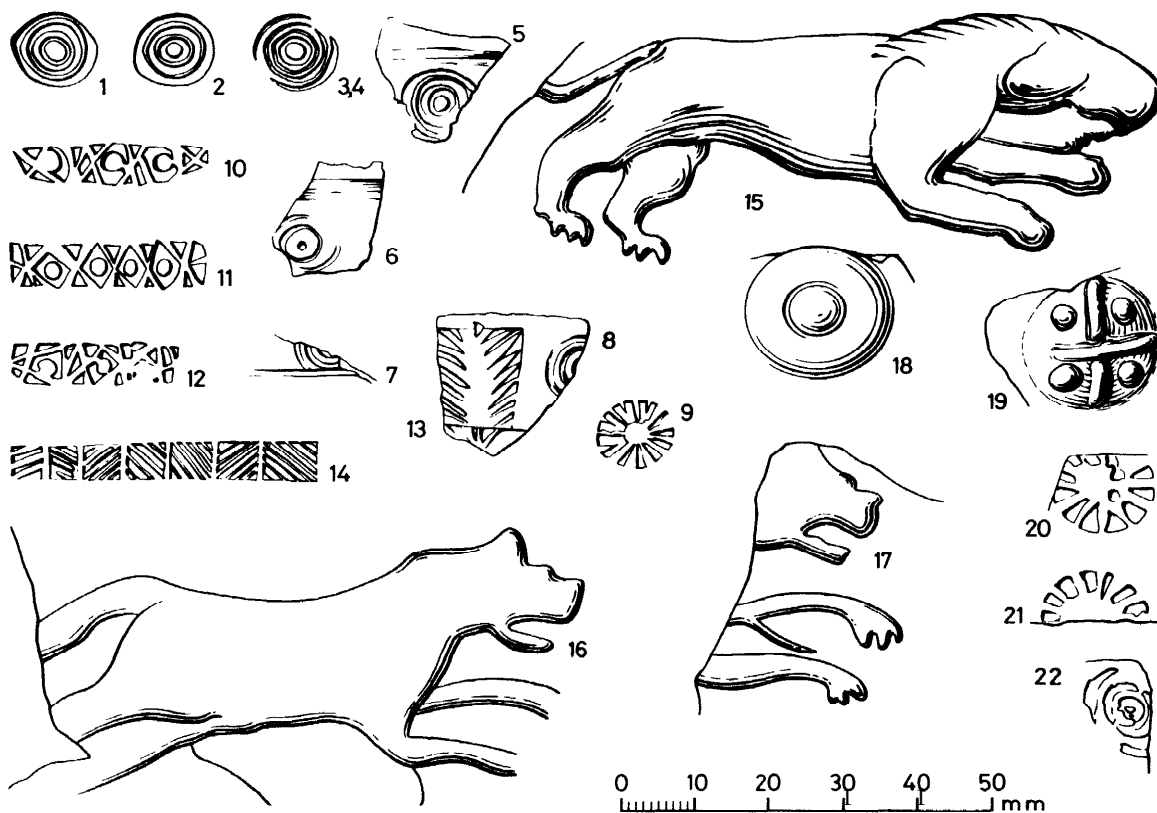


Fig 48 Decorative stamps, 1-22. Scale 1:1

X The graffiti (Figs 49-50)

by C J Going, M W C Hassall and R P Wright

Sixty graffiti on pottery and two on tile were found on the sites reported in Vol 3.1. Of these thirty-eight are illustrated below. The remainder are too fragmentary to draw. Descriptions below adopt the same format as for Section IV

1 Symbols inscribed before firing on the shoulders of ledge-rimmed jars (Type G5) in ?South Essex shell-tempered fabric (50). These have been discussed by Jones (1972). Her distribution map may now be extended to include Dunmow, Felsted and Colchester.

Fig 49.1, IV4 (S205); 2, VII.1 (T27); 3, IV (AR130); 4, V (S1020); 5, IV 1 (S245); 6, V (AR66); 7, V (S393); 8, IV4 (S205); 9, IV (AR108); 10, IV.4 (S205)

Three others were found in IV.1 context S245 (see Figs 20.26 and 21.29-30) and another, unillustrated, in post-Roman context AA 2.14.

2 ?Capacity estimates, ?votive, and non-literate marks. Since most of the twenty-eight found are on open forms they are unlikely to be capacity estimates. All are post-firing unless otherwise noted.

Simple 'X'

Fig 49.11, 1(H) on base, VI.3 (AK2); 12, 3(H16 1/1) pre-firing on base (Fig 15), VII.2 (AR13); 13, 40(B6.3) on basal interior, VII.2 (AR13). Same vessel as Fig 49.23. Others, unillustrated, from IV.1 (S245); VI.1 (S149 x 3, but see Fig 27.200, S178, S182, S196, S206); VI.2 (S790i); VII.3 (T2, T71/80). Post-Roman (S1053)

Notches and crosses on rims, and miscellaneous

Fig 49.14, 51(G27,2/1) VII.3, S35; 15, 35(B1) VII.3, T2; 16, 47(B2-4) VI.2 (AR176); 17, 47(VO) unstrat (AD); 18, 47(G) VI.1 (S197); 19, 47(B2-4) unstrat (S); 20, 39(G) post-Roman (S725)

Others, unillustrated, from IV4 (S205 x 2), but see Fig 22.74; V (S393); VI.1 (S149, S182); VI.3 (AR33)

3 Literate graffiti. While substantial in number these were mostly very fragmentary. Few names or complete words were decipherable.

Fig 49.21, 47(G) ..]AMAR. Possibly complete at end. Hassall & Tomlin 1977,437.50. VI.3 (AK5); 22, tile fragment ..]AG[. pre-firing. Post-Roman (AK49A); 23, 40(B6.3) 'F' on side wall. Same vessel as Fig 49.13. VII.2 (AR 13); 24, 45(G) 'V' (or 'A' if inverted) on body. IV (AR 97); Fig 50.25, tile fragment, pre-firing 'XI' (or 'IX' if inverted) and various loops. Hassall & Tomlin 1980, 410.24. V (AR66); 26, 47(G) III[. on base. Robber trench (AR 271); 27, 45(G16-20) illegible, but probably writing. IV.1 (S245); 28, 45(G16-20). Possibly 'A' with diagonal central bar IV1 (S245); 29, 34(G) 'NIII[. . NE[. VI.1 (S149); 30, 34(VC) 'A'. Post-Roman (S155); 31, 39(G) ABCDE[FG.. Alphabet. VI.2 (S790ii); 32, 27(D11.1/1) 'R' on lower side wall. VI.2 (S175ii); 33, 39(B2.1) . ..]MI. See Fig 28.255 for sherd. VI.2 (S763 ii); 34, 47(H) illegible or, if inverted, I^AM. See Fig 29.289 for sherd.

VI.1 (S175i); 35, 45(G) ..]AI, or, if inverted, IB[. or IE[. VI.1 (S1104); 36, 45(B) 'II'(E) on junction of exterior base and side wall. VII.3 (T2); 37, 45(B) 'OI' on base, or if inverted 'IO'. VII.2 (T9); 38, 35(G31.1/1) 'DISETE', 'for Diseta'. Originally published as being from Kelvedon (Rodwell 1970, 264). See Fig 32.390 for vessel. VII.3 (T71/80); 39, samian base, Walters f79 ..]SAMCI[. Wright & Hassall 1974, 464.16. VI.2 (S 763)

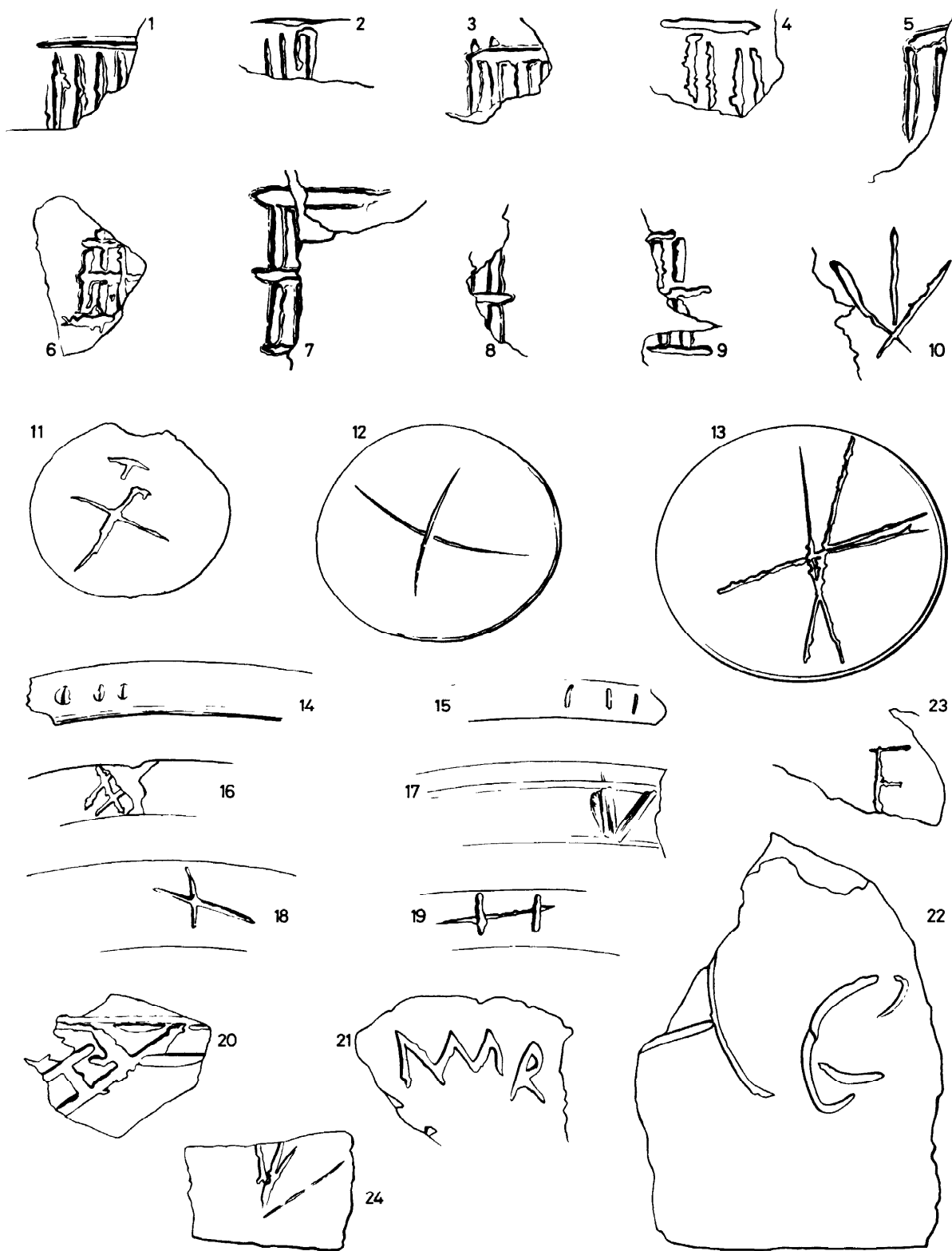


Fig 49 Graffiti, 1-24. Scale 1:1



Fig 50 Graffiti, 25-39. Scale 1:1

XI Terra cotta and pipeclay objects

1 The terra cotta fragments (Fig 51)

Two terra cotta fragments from a moulded ?statuette were in the filling of Chancellor's excavation on site AK (49A, post-Roman). They are in a very hard dull yellowish-brown fabric (10YR 7/3-4) with no visible inclusions. Decorative detail on the exterior has been emphasized by painting in a dull red slip (10R 4/3). Slip-trails are also evident on the interior, suggesting that the object had an open base or top. It seems to have been made in a composite mould. No reconstruction can be attempted, but some of the detail suggests a figure wearing a pleated garment. Its antiquity is uncertain.

2 The pipeclay figurine fragment

Unstratified on site S was a small pipeclay nose with traces of prominent eyebrows (not illustrated). It could not have been intended for a face more than c 50mm high. This is far too small for a theatre mask (cf Marsh 1979), and although slightly larger it is strongly reminiscent of the grotesque pipeclay figurines found in the so-called 'childs grave' at Beverley Road, Colchester (Hull 1958, 254; May 1930, 251, p1 LXXV 3b; Toynbee 1962, pl 172). These are superior to the normal range of pipeclay figurines: a Rhenish or central Gaulish origin is likely (Rouvier-Jeanlin 1972: see also Marsh 1979, 264-5 for references). Although the fragment was unstratified, the evidence of the 'childs grave' (post c AD 43-60) suggests a 1st century date.

A pipeclay figure in the Chancellor Collection has been published by Jenkins (1978).

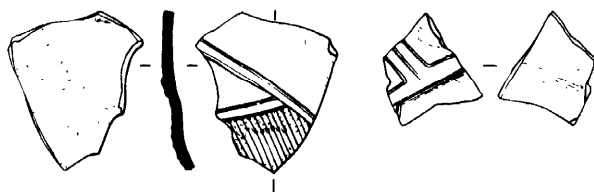


Fig 51 Terra cotta fragments. Scale 1:2

XII Chelmsford pottery supply and use, c AD 60-400

1 Ceramic Phases 1-8

Approximately one third of the pottery quantified for this report was derived from 27 contexts or groups of contexts (either specific deposits or dated accumulations). These were divided into eight phases independently of the site phasing (Tables 1,8) and used to provide the basis of an overview of the pottery supply to the town during the Roman period.

Phase 1 c AD 60-80

Fabrics and trade (Fig 52; Table 9)

The fabric composition of the groups of this phase shows traits which persist throughout the Roman period. It largely comprises pottery of undetermined but presumably local origin. The forms made in Fabrics **34** and **45** are closely akin to the Colchester type series (Hawkes & Hull 1947; Hull 1958; 1963), and suggest an origin in the Colchester/Ardleigh region. It is immediately evident how rare are fine or 'table' wares by comparison with sites such as London; for example, samian comprises less than 2% of the assemblage.

The bulk of the white and buff wares (Fabrics **22-31**) is probably of Colchester origin (eg **27**); while a smaller proportion comes from Brockley Hill (**26**). ?South Essex shell-tempered fabrics (**50**) make up a small but distinct proportion (4.86%) of the Phase 1 assemblage, and represent a trade pattern continued in later phases by grey wares. It is worth noting that there is no evidence of bead-rim dishes (B2-4) in BB1, BB2 or allied fabrics at Chelmsford before c AD 125/30, *contra* Hull (1963, 180; *Cam* 37-8) who dated them from c AD 70. However, possible prototypes of the form were found in S205 (Type A4, also Fig 22.77-8). The types of Romano-British fine wares present (eg **29**), though as sparsely represented as continental fine-ware imports, attest a trade between central Essex and the potteries supplying London in the 1st and 2nd centuries.

The later Neronian foundation of Chelmsford (**3.1**, Section X) is reflected fairly strongly in the pottery assemblages (see Section IV; Groups 1-2). Comparison with earlier sites such as Cirencester/Leaholme (Rigby 1982), Gloucester/Kingsholm, abandoned c AD 65 (Webster 1980, 42-4), and Colchester/Sheepen (Hawkes & Hull 1947), shows major ceramic differences. At Chelmsford the lack of Tiberian or Claudian samian (see Section VIII), the presence of 'ring and dot' beakers (H1.6: Green 1978) in the earliest features, and the almost complete absence, for example, of Rhodian amphorae (Peacock 1977b, 269-70), the commonest single amphora type at Gloucester/Kingsholm, and the lack of *salazon* containers (eg Beltran I,II,I-IIa; *Cam* 186B) all

Table 8 Contexts selected from Ceramic Phases 1-8

Groups in bold type are illustrated in Section IV.

Group	Ceramic Phase	Context	Type	Date (c)	Weight (Kgs)	EVE
1	1	S245	Ditch	AD65-70	31.780	28.83
2	1	S230	Ditch	AD65-70	2.340	2.23
	1	S211	Slot	AD65-70	1.115	1.00
3	2	S205	Pit	AD77-85	27.290	24.79
	2	S769	Pit	AD70-90	4.445	6.18
	2	S764	Pit	AD70-90	2.985	4.76
	2	S149A,213	Slot and associated post-hole	AD120-40	1.905	1.90
	3	S1020	Rampart levelling	AD120-40	13.490	13.34
7	3	S149	Building demolition	AD130-70	6.680	7.36
8	4	S182	Slumping	AD160-80	9.645	15.12
9	4	AA1.8	Pit	AD160-90	9.995	11.39
	4	AK2.9	Pit	AD160-200	2.285	3.16
	4	AR46	Pit	AD160-200	1.885	1.80
11/14	5	S175iii-ii	Defensive ditch	AD175-210+	2.680	2.22
14	5	S175i	Defensive ditch	AD190-210+	11.150	12.79
13	5	S763ii-i	Defensive ditch	AD190-210+	2.325	2.66
16	5	S790ii-i	Linking ditch	AD190-210+	16.870	19.18
	5	S1072	Layer	AD210-230	1.130	1.15
	6	S95ii	Town ditch, lower fill	AD280-310	2.675	2.58
	6	S1066	Layer	AD280-310	3.015	2.56
	6	T1,3,5,7	Pits	AD280-310	4.620	7.42
17	7	S95i	Town ditch, upper fill	AD300-360+	6.735	7.63
	7	S1062	Layer	AD330-360	13.740	17.21
19	8	AR13	Pit	AD330-370+	4.795	5.74
20	8	T71/80	Ditch	AD360-400+	11.370	7.03
21	8	S35	Gulley	AD388-400+	8.115	6.75
	8	S44	Gulley	AD370-400+	1.590	1.63

Table 9 Fabric incidence by Ceramic Phase

<i>Fabric</i>	<i>Ceramic Phase</i>							
	1	2	3	4	5	6	7	8
1	-	-	-	2.68	0.40	10;55	3.74	0.65
2	-	-	-	-	1.05	1.74	2.36	3.55
3	-	-	-	-	-	-	0.64	3.00
4	-	-	-	-	1;25	1;10	32;235	13.78
5	1;5	-	-	-	-	-	-	-
6	-	-	7;40	0.34	-	-	-	1;5
7	-	0.27	4;25	1;5	1;5	-	-	-
8	-	-	-	0.66	0.13	-	1;5	1;5
9	-	-	-	1;5	-	-	-	-
10	-	-	-	1;5	-	-	-	-
11	1;5	1.36	-	-	-	-	-	-
12	-	1;5	0.73	-	-	1;5	3;35	-
13	-	-	-	-	-	-	-	2;35
14	-	-	-	2;10	-	1;10	1;5	-
15	3;145	0.29	0.27	3.10	-	0.76	-	1;10
16	5;15	0.13	-	-	-	-	-	-
17	-	0.46	-	0.94	18;130	2;20	-	1.03
18	-	-	-	-	-	-	-	-
19	0.53	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-
21	2.81	3.48	2.06	2.79	15;125	18;95	0.24	29;165
22	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-
24	-	-	-	-	1;25	1.18	5;150	-
25	-	-	-	-	-	1;10	0.29	0.38
26	11;230	2.72	1.14	-	4;135	7;215	3;45	2;85
27	7.45	4.63	4.27	5.97	0.73	0.41	2;40	6;70
28	-	0.73	-	-	-	-	-	-
29	6.79	-	0.36	-	-	-	-	4;65
30	-	-	-	-	-	-	-	-
31	0.41	0.59	0.59	8;85	-	2;10	3;10	3;40
32	2.62	1.49	0.68	3;15	0.48	-	1;5	5;25
33	-	-	-	1;10	0.56	-	-	-
34	0.82	1.74	1.74	2.23	0.37	2.71	-	1.85
35	-	-	-	-	1.73	1.18	3.15	6.34
36	-	-	-	-	-	-	3;15	3;55
37	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-
39	2.36	9.07	4.50	9.18	14.20	2.58	12.35	7.60
40	-	-	0.50	-	-	2.85	0.68	6.78
41	-	-	1.65	3.45	-	0.41	10;140	3;35
42	-	-	-	-	-	-	-	1;60
43	-	-	-	-	-	-	1;5	5;135
44	5.65	0.84	7.81	1.43	2.59	3.48	1.13	1.53
45	48.84	46.14	28.42	19.06	3.94	13.17	0.78	1.25
46	-	-	-	-	-	-	-	-
47	15.38	14.47	38.54	38.23	65.45	60.73	55.83	29.70
48	-	-	-	-	-	4.63	16.49	4.97
49	-	-	2;50	-	-	-	-	-
50	4.86	5.09	1.93	0.27	1;5	1.18	-	1;5
51	-	-	-	-	-	-	0.83	16.57
52	1;10	1;10	-	-	1;5	-	-	-
53	4;55	-	-	-	-	-	-	1;5
54	-	-	-	-	-	-	-	-
55	-	2;295	1;145	-	1;80	-	1;110	-
56	-	-	-	-	-	-	-	-
57	-	-	{ 12;460	-	-	1;75	-	-
58	-	-		-	2;950	-	-	2;185
59	-	-	-	-	-	-	-	-
60	1.42	6.40	4.69	9.60	8.30	2.99	1.42	0.92
Total	99.94	99.90	99.80	99.93	99.93	100.00	99.93	99.92

The incidence is expressed as a percentage of the 'Ceramic Phase' by EVE in bold; or by number of sherds and weight in grammes in the format '1;25'.

suggest a post *c* AD 60 foundation date, as, indeed, does the absence of any evidence of Boudican destruction. However, the lack of fine ware imports such as Lyons ware or north Italian colour-coats compared, say, with the Neronian legionary fort at Usk (Greene 1979) may be a reflection of the small size and comparatively low status of the Chelmsford garrison.

Assemblage composition (Table 10)

The commonest platter types were devolved Gallo-Belgic forms (A1-4), with samian vessels making up the remainder of the class: dishes, as defined in the typology, were entirely absent. Bowl forms were mostly imitation Drag 29s and allied types in fine grey wares (39) and, in the Flavian period, imitations of samian ff30 and 37. Samian bowls comprised f29s with a few early f37s. A few segmental bowls in Brockley Hill fabric (26) were also present. Mortaria were exclusively Colchester wall-sided types, with the occasional vessel from a Kent or Gaulish source (28; D1.5). In this and all other ceramic phases, however, the commonest vessel class was the jar, which comprised over 60% of the Phase 1 assemblage. Most common were the high-shouldered types with or without neck cordons (eg G16-17, G19), while neckless types, with the exception of G5, were distinctly rarer. Of these, G6 was considerably more frequent in pre- to early Flavian contexts in London (Marsh & Tyers 1978). Early examples of neckless jars (especially Type G5) were almost exclusively in ?South Essex shell-tempered fabric (50). Jars in this fabric with internally-thickened rims, which are characteristic of Claudio-Neronian sites (eg Camulodunum: Hawkes & Hull 1947, 267, *Cam* 254), are notably absent from Chelmsford. Of the drinking vessels the cup class comprises almost exclusively samian f27s, and fine ?local mica-dusted vessels resembling samian forms (H13.2/1).

The beaker was the commonest drinking vessel, and of these over 80% were of the globular, everted-rimmed type (H1). The remainder comprised devolved butt and carinated types (H7; H10-12, H14). The commonest Phase 1 flagons were collared (J1-2) and ring-necked (J3) types, the former being progressively replaced during the Flavian period by the ring-necked forms.

Lids are uncommon in every phase, perhaps because the majority were made of wood, while pitched cloth, or organic sealants like fat may also have been common. K2 may be an early form, and perhaps K6, but dating evidence is scant. In distinct contrast to London, amphorae are very rare, and are restricted almost exclusively to the Dressel 20. The rarity of the cauldron class (L) has also been noted. Only the distinctive 1st century forms Ll-2 are known from Chelmsford, but not in the contexts examined here. Save for one doubtful specimen (Q2.1/l), unguentaria are absent.

Phase 2 *c* AD 80-120/25

Fabrics and trade (Fig 53; Table 9)

In this phase, samian substantially increased its market share of the continental imports, and was by far the commonest continental fabric group, although some sherds of imported colour-coats have been identified. Of the Romano-British fine wares characteristic of the early 2nd century (Marsh 1978, 119-223), a small proportion of mica-dusted wares (11-12) is apparent, while London

wares (33), though never common, form with ?North Kent grey wares (32) a significant proportion of the bowl and beaker classes. Some, at least, of the former may be early Hadham region products. Hadham's early output is imperfectly known, but there is evidence from Harlow and elsewhere to suggest it was marketing a white-slipped fabric (14), perhaps in competition with the Brockley Hill industries, at about this time. The fabric, however, is very rare at Chelmsford and first occurs in Phase 4 (*c* AD 160/75-200/10). White wares mainly comprise Brockley Hill and Colchester buff fabrics (26, 27). The latter supplied almost all the mortaria to the town, the former mainly bowls and flagons. As ever it is the grey wares which form the majority of the ceramics of the phase, the sandy grey ware group (47) taking an increased share of the market at the expense of fabrics 34/45. The fine grey wares (39) and ?North Kent products (32) account for most of the new drinking vessel forms (eg H6). ?South Essex shell-tempered fabrics (50) maintain their market share, but with the technique of using shell as a temper dying out it is difficult after Ceramic Phase 2 to distinguish contemporary south Essex products at least on fabric grounds. As with Phase 1, only a small proportion of the assemblage, less than 10% including samian, was imported to Chelmsford from a distance of more than 80 km.

Assemblage composition (Table 10)

The majority of the platter and dish classes were of samian: f18, f18/31, and the occasional f31. The devolved Gallo-Belgic platter forms (A1-4) lingered on, with bead- or plain-rimmed dishes being introduced at the end of the phase (B1-3). Bowl forms comprised, in samian, late f29s, and ff30 and 37. The coarse ware bowls consisted increasingly of Brockley Hill segmental types, while the repertoire of comb- and stamp-decorated ('London' ware) types include some probable early Hadham pieces. During the Hadrianic-Antonine period, the high-shouldered jar forms (G16-20) were progressively replaced by oval- and round-bodied types which became and remained the commonest jar types in Roman Chelmsford from the mid 2nd century onwards. Cups were almost exclusively in samian at this time, the forms mainly comprising the f27, which was progressively replaced by f33 from the Hadrianic period. There was a substantial decline in the numbers of beakers, the globular type (H1) being progressively replaced by poppyhead types (H5-6), and by the occasional colour-coated import in Lower Rhineland or North Gaulish fabrics. Similarly, flagon forms declined both in absolute proportions and typological range, and comprised by this time mainly ring-necked variants (J3), although there are a number of fine ware forms based on metal prototypes (J4-5). Amphorae continue to be represented only by Dressel 20s. Interestingly, culinary use of olive oil has been noted in a context from this or the next phase (Section VII, no 6). Among less common forms, the spouted strainer bowls (M1) belong to this period.

Phase 3 *c* AD 120/25-160/75

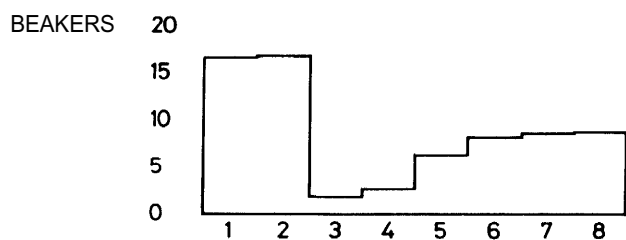
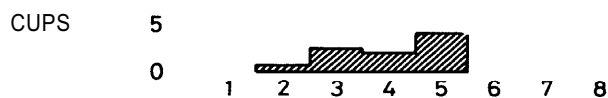
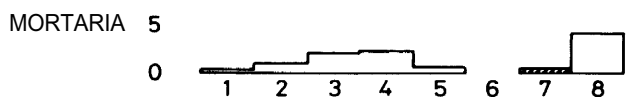
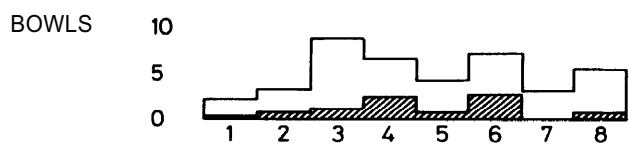
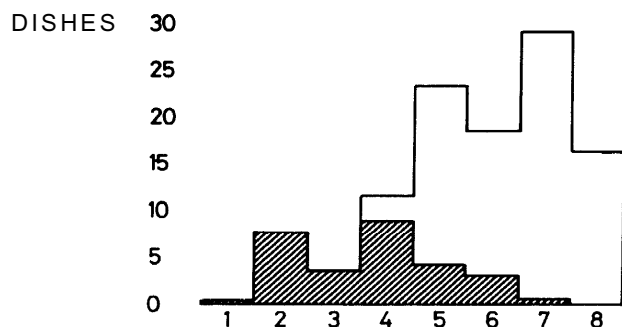
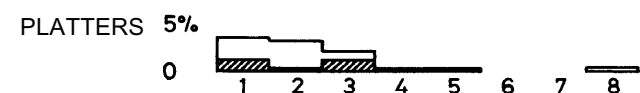
Fabrics and trade (Fig 54; Table 9)

Of the continental imports the most marked decline in the early part of the phase is in samian, a phenomenon observed elsewhere (Marsh 1981, fig 11.16). In addition,

TABLE 10:

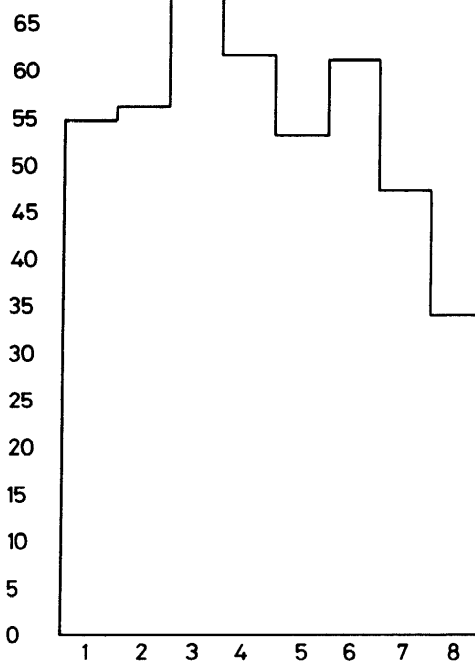
Incidence of vessel classes by
Ceramic Phases

(Samian shown hatched)

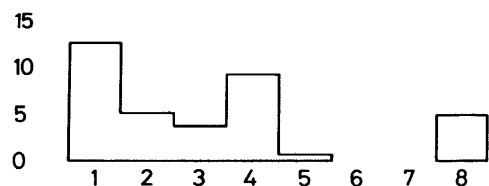
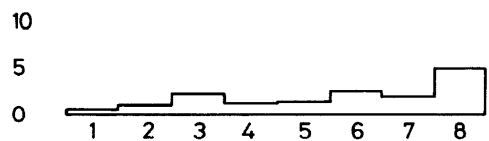


JARS

70%

STORAGE
JARS

FLAGONS

MISC.
OPENMISC.
CLOSED

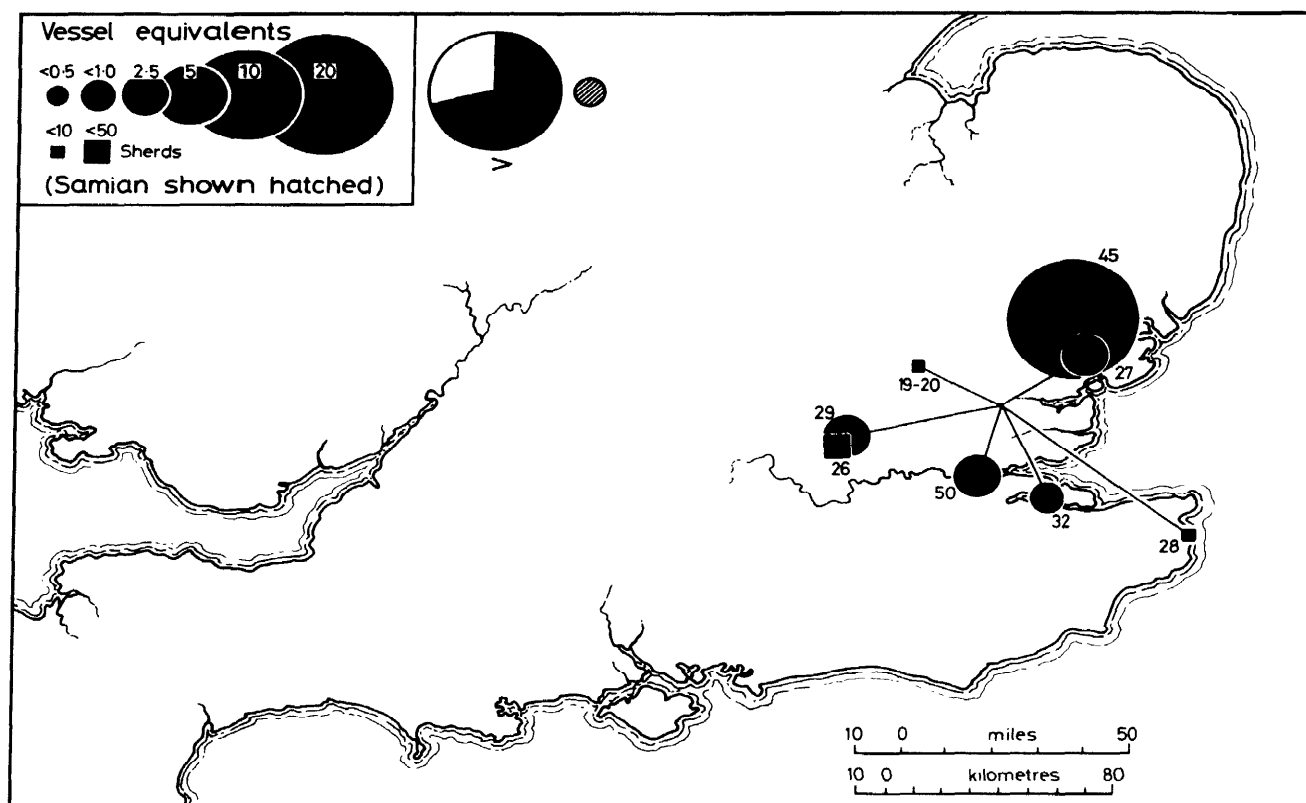


Fig 52 Pottery supply to Chelmsford, c AD 60-80. The legend (box) should be used with Figs 52-59. The two proportional circles in the top left of this and the following figures indicate (left) the size of the phase assemblage by EVE. The proportion of pottery assigned sources is shown black. The smaller circle (right) indicates the proportion of imports. The proportion of samian is shown hatched. The fabric numbers in the figures refer to Table 2 (p 4)

the proportion of non-samian colour-coated imports (Fabrics 6-7) remains small, and their share of the market, restricted to beaker types, began to be eroded at the end of the phase by Colchester colour-coated vessels. Products of the early fine ware industries, eg 'London ware' (33), lead-glazed pottery (10) and mica-dusted wares (11-12) peter out by the mid 2nd century, although Table 9 does not demonstrate this clearly. Of the white and buff wares, Brockley Hill's market share (26) dwindles from its high point of 2.72% in Phase 2 to 1.14%; and after its collapse in c AD 160 the industry's place was largely taken by Colchester buff products, by this time mainly restricted to mortaria. By the mid 2nd century the characteristic black-surfaced grog-tempered fabrics (34/45) have declined to around 30%, while both fine and sandy grey wares take up c 43% of the market. Shell-tempered fabrics (50) have all but disappeared, to be replaced by wares virtually indistinguishable, except on typological grounds, from the sandy grey ware group. The presence of BB1 in contexts of this phase attests the beginning of a wider provincial trade (Fig 54).

Assemblage composition (Table 10)

Ceramic platters were all but replaced by dish or bowl types which take up c 12% of the assemblage, samian forming the majority of the vessels of the class. The commonest types are plain- and bead-rimmed dishes (B1 -2),

which appear c AD 125/30 and rapidly become the most prolific 2nd to early 3rd century forms. They are almost completely restricted to BB1, BB2 and other grey wares. Brockley Hill segmental bowls (Type C16), with progressively more hooked and downturned rims, remain a common bowl type until the collapse of the industry in c AD 160. After this date its share of mortarium supply (always small) was taken up by Colchester products. The jar class includes a number of new types, of which the most diagnostic is the everted-rimmed G9, while the characteristic cordoned 1st to early 2nd century high-shouldered types (G16-20) are becoming superseded by oval-bodied and globular types (G23-4). Cup forms remain almost exclusively samian f33s, with the odd residual f27, although the class is uncommon until bulk samian supply recommences c AD 140/50. Flagons have dropped to c 3% and consist almost exclusively of later ring-necked (J3) types, which disappear with the collapse of the Brockley Hill industry.

Beaker forms include some early ?Colchester pieces, but the majority of colour-coated types still appear to originate in the Rhineland and northern France, while poppyhead beakers (H6) remain among the most common drinking vessels until approximately the mid 2nd century.

As noted, this phase sees the commencement of sporadic long distance provincial trade, with the appearance of BB1. The pottery supply is beginning to resemble that of London in its pattern of sources.

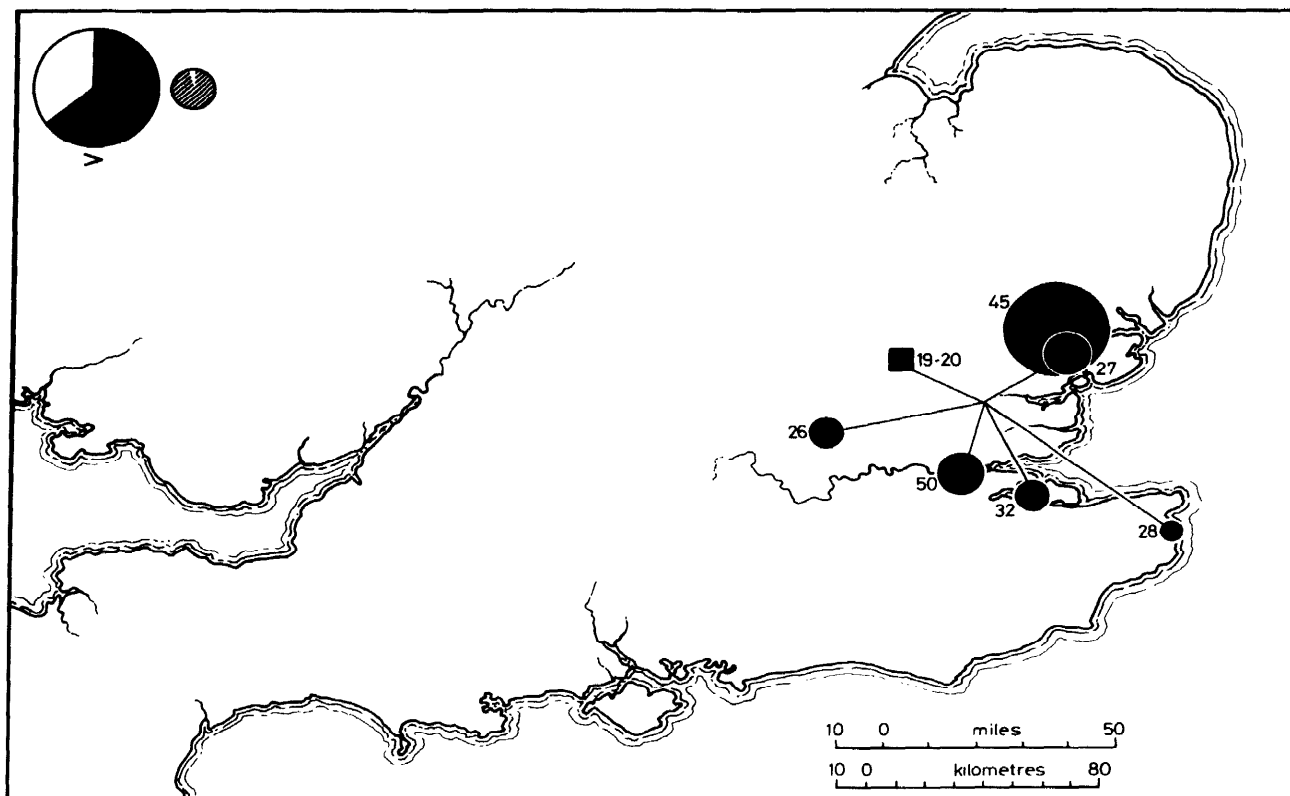


Fig 53 Pottery supply to Chelmsford c AD 80-120/25

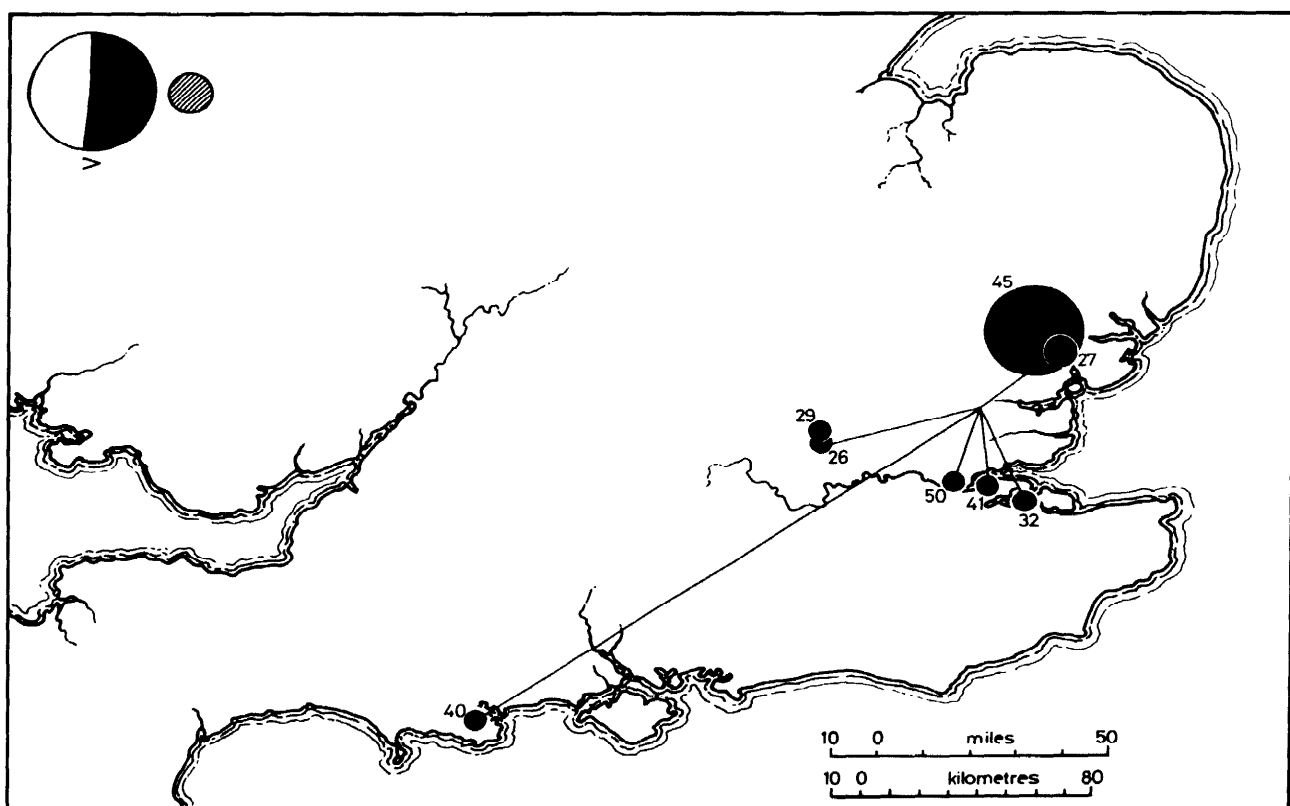


Fig 54 Pottery supply to Chelmsford, c AD 120/25-160/75

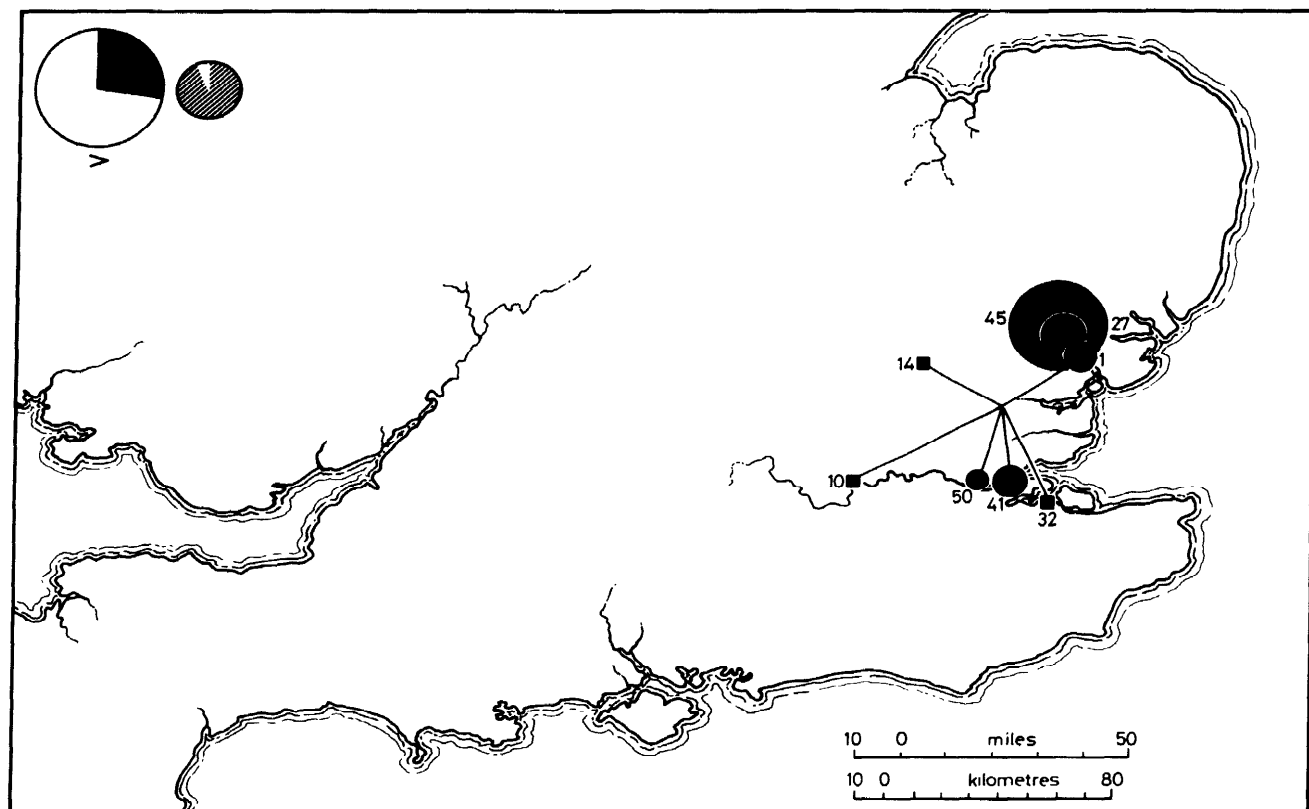


Fig 55 Pottery supply in Chelmsford, c AD 160/75-200/10

Phase 4 c AD 160/75-200/10

Fabrics and trade (Fig 55; Table 9)

With the exception of samian, the provincial colour-coat industries—Colchester, and, by the end of the next phase, the Nene Valley—are of greater importance, in terms of quantity, than the continental ones. Colchester colour-coated products (1) form 2.68% of the assemblage, while Nene Valley wares (2), if present at all, are restricted to a few body-sherds of cornice-rimmed types. While a few sherds of oxidized Hadham wares are present, the town continues to lie outside the principal market catchment of the industry. Continental fine ware imports, with the exception of samian which peaks with c 10% of the assemblage in this phase, generally take a decreased market share; while of the white and buff wares, residual Brockley Hill products form a negligible proportion of the assemblage, whereas Colchester buff wares (27), principally mortaria, expand in concert with the colour-coat industry, to take c 6% of the assemblage. Of the grey wares, the black-surfaced fabric 34/45 has declined by a third of its previous total, suggesting, if its source was Colchester, that there had been a reorganization of its output, with concentration on colour-coats and buff wares. Sandy grey wares take an increased share of the reduced fabric range. BB2 (41) takes a greater share of the market while BB1 (40) is absent from these contexts. It is surprising that BB2, if the term is applied *sensu stricto*, is comparatively rare in central Essex, whereas in Kent the market west of the Medway appears to be increasingly

dominated by BB2 from this time (Pollard 1982b, 61). That south Essex was a pottery supplier to Chelmsford is fairly clear (see especially forms G5, E5), but the comparative absence of BB2 suggests that the latter fabric was a far stronger component of the Kentish market (*ibid*), and supports Pollard's suggestion that it had a comparatively late start in Essex.

Assemblage composition (Table 10)

Groups of this phase highlight the growing importance of the dish class, which consists almost exclusively of bead- and plain-rimmed types among the coarse wares, and includes a substantial proportion of samian forms 31 and Walters 79. Bowl forms mainly comprise samian forms 30 and 37, while the bowl-jar forms E2 and E5 are introduced in the latter half of the 2nd century, and become characteristic of the 3rd. Mortaria are restricted, with the exception of the occasional samian forms 38 and 45, to Colchester wall-sided type D13. Of the jar forms the everted-rimmed Type G9 remains common, as do later ledge-rimmed forms (G5.5-6) of central/south Essex origin. Of the *Cam* 268 (G25), however, there is little sign: its comparative absence, and the decline of Fabric 34/45 is a strong hint that by this period the overwhelming majority of the coarse wares came from sites nearer than Colchester, as the pottery supply patterns change (eg Thompson 1982, 6, map 1; compare with Fig 43). From this period onwards Chelmsford is linked (in terms of ceramics), more with south central and perhaps south Essex than the Colchester area. That Chelmsford also lay

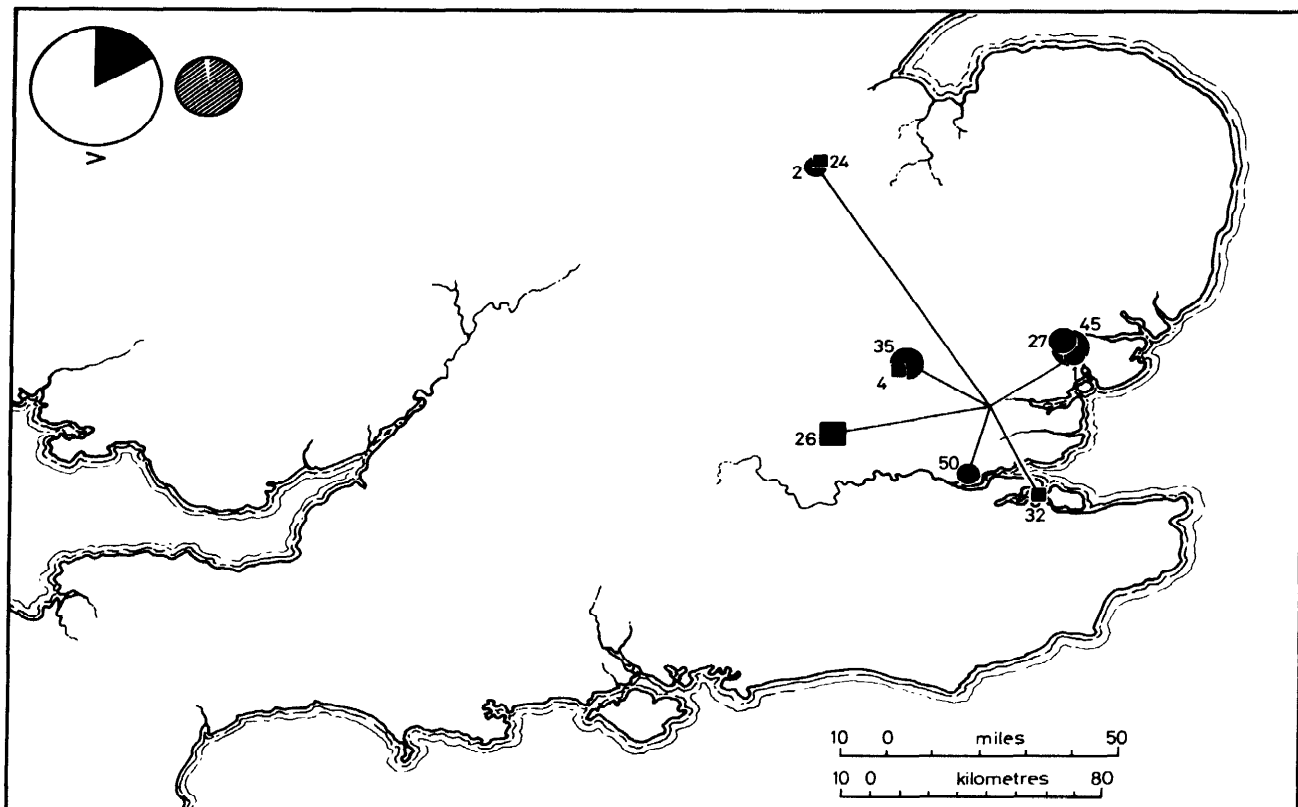


Fig 56 Pottery supply to Chelmsford c AD 200/10-250/60

on the fringe of Colchester's fine ware distribution may also be reflected in the comparative lack of Colchester samian compared with, eg, Kelvedon, c 15 km to the north-east (K Rodwell forthcoming; W Rodwell 1982, 49, and Sections VIII-IX).

Phase 5 c AD 200/10-250/60

Fabrics and trade (Fig 56; Table 9)

The period is one of considerable change. Ceramics dating to this phase are not immediately recognizable, and many towns appear to have suffered some form of hiatus at this time (Sheldon 1981). It is fortunate, therefore, that there are a number of groups which may be assigned to the start of this period (Section IV, Groups 11-16, Figs 28-30). Of the Romano-British colour-coats, Colchester has declined drastically to less than 1%, while Nene Valley products are only present in very small quantities (1.05%). With the decline of the samian industries continental imports are substantially diminished, although Central and East Gaulish Rhenish wares are present. Further evidence of a collapse in the Colchester industry is apparent in the decline of the share of buff wares taken by Colchester during this period, to 0.73%. At the end of the phase this vacuum was rapidly filled by other industries: from c AD 250/60 most of the mortaria are white ware products from the Nene Valley and Oxfordshire (24, 25).

A black-surfaced fabric (35) appears in small quantities in this phase. It seems to be an attempt to produce reduced fine ware, and its distribution is possibly cen-

tred on the Hadham region. The majority of the other grey wares remain local products.

Assemblage composition (Table 10)

The commonest dish forms were plain and rounded bead-rimmed types (B1-2), which form the great majority of the open forms of this date. However, the bead-rimmed type B2-4 was dying out by the middle of the century and was being replaced by B5, but it is difficult to know how long it remained in production. The plain-rimmed dish (B1), however, remained a common open form until the end of the Roman period. Bowl forms include the late samian f38, and in coarse wares, bowl-jars of Type E5. The staple jars at this period were the ledge-rimmed Type G5, and G23-4, necked variants loosely resembling *Cam* 266. Beaker forms comprise mainly coarse ware types, the commonest being the folded beaker H34-5, which evolved with a number of variations, towards the end of the 3rd century. By comparison few plain-rimmed bag-shaped beakers, and few barbotine-decorated forms are present. None of these latter are recognizable Colchester colour-coated products, which suggests that no new Colchester forms were reaching the town in this period (see also Section XII.3).

Phase 6 c AD 260/75-300/10

Fabrics and trade (Fig 57; Table 9)

Of the Romano-British colour-coat fabrics, Colchester has further declined from its meagre Phase 5 total to a mere

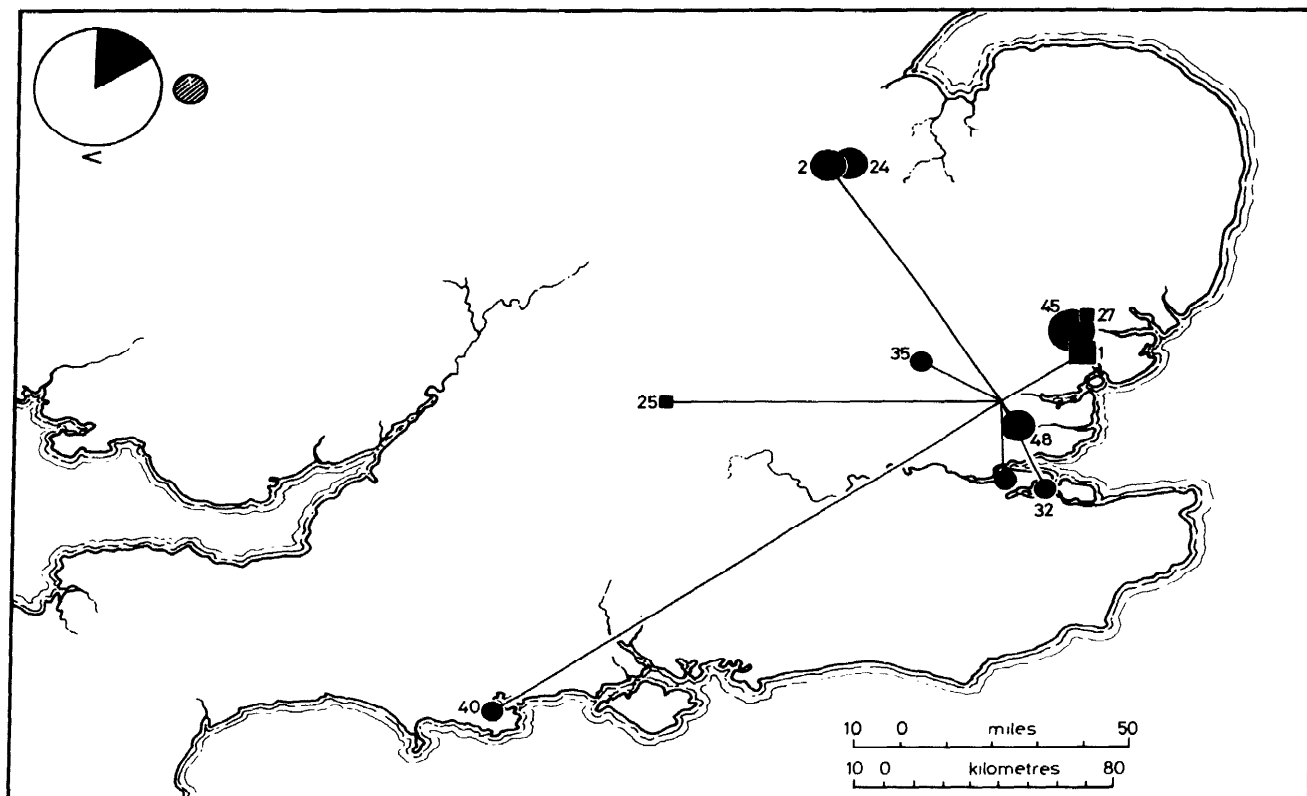


Fig 57 Pottery supply to Chelmsford c AD 260/75-300/10

presence, suggesting no new supply by the industry. However, with such small quantities the figures may be subject to distortion. By contrast, the Nene Valley colour-coat industry appears to be enlarging its output, increasing its market share to 1.74%. Hadham likewise survived, its characteristic red wares (4) beginning to be traded widely from towards the end of this period (M Pomel, pers comm). However, while this fabric was not well represented in Essex to the south-east of the kilns until the 4th century, grey wares of a possible Hadham origin may be represented in some quantity. Despite the expansion of the Oxford industry, Oxfordshire red colour-coats are entirely absent in this phase. Continental imports declined substantially: residual samian totalled c 2.9%, while fabrics such as Rhenish ware (8-9) are represented by only a few sherds. New fabrics occurring in the white and buff groups include Nene Valley white wares, which are exclusively restricted to mortaria of Type D14, and Oxfordshire white-ware mortaria. Like the Colchester colour-coats, Colchester buff fabrics are represented by a few sherds only. Of the grey wares, ?Much Hadham black-surfaced ware (35) maintains its presence, but at a slightly lower level than in Phase 5. The most interesting change is the increase in the proportion of fine grey wares, an echo perhaps of the early 2nd century fine ware industries. BB1 regains a small proportion of the market (2.85%), but BB2 is virtually absent (0.41%); this was not surprising if the loss of the military market c AD 250, after decades of domestic retrenchment, reduced the pro-

duction sites to 'ailing local potteries' (Farrar 1973, 101-2). The characteristic Rettendon ware fabric (48) is becoming established in contexts dated c AD 280/300, subsequently rapidly increasing in volume to take over 15% of Phase 7 (early to mid 4th century) contexts.

Assemblage composition (Table 10)

Open forms comprise mostly plain, incipient-flange and flange-rimmed dishes in fine or sandy grey wares, and occasionally in Black-Burnished fabrics. The plain-rimmed dish remained the commonest type until the end of the Roman period. Bowl forms are generally rare, while bowl-jars of Type E2 remain in use, but in small numbers. Some typical 'late' forms, eg the 'Castor' box (C18) and the hemispherical bowl of Type C11 first appear in this phase, while they have their *floruit* in the 4th century, with imitation f38 types. Mortaria comprise mainly Hadham, Oxfordshire and Nene Valley products, either wall-sided types, such as the flanged type D12, or D14, from the Nene Valley. Jars remain, as always, the commonest class, mainly in a variety of necked, oval-bodied forms (eg Types G23-4). Cup forms entirely disappear, being replaced by the progressively more attenuated beakers of Types H39, 41-2, and devolved bag-shaped beakers (H24). The folded beaker remains in use, with the folds developing, particularly in the 4th century, into circular facets and deep narrow grooves.

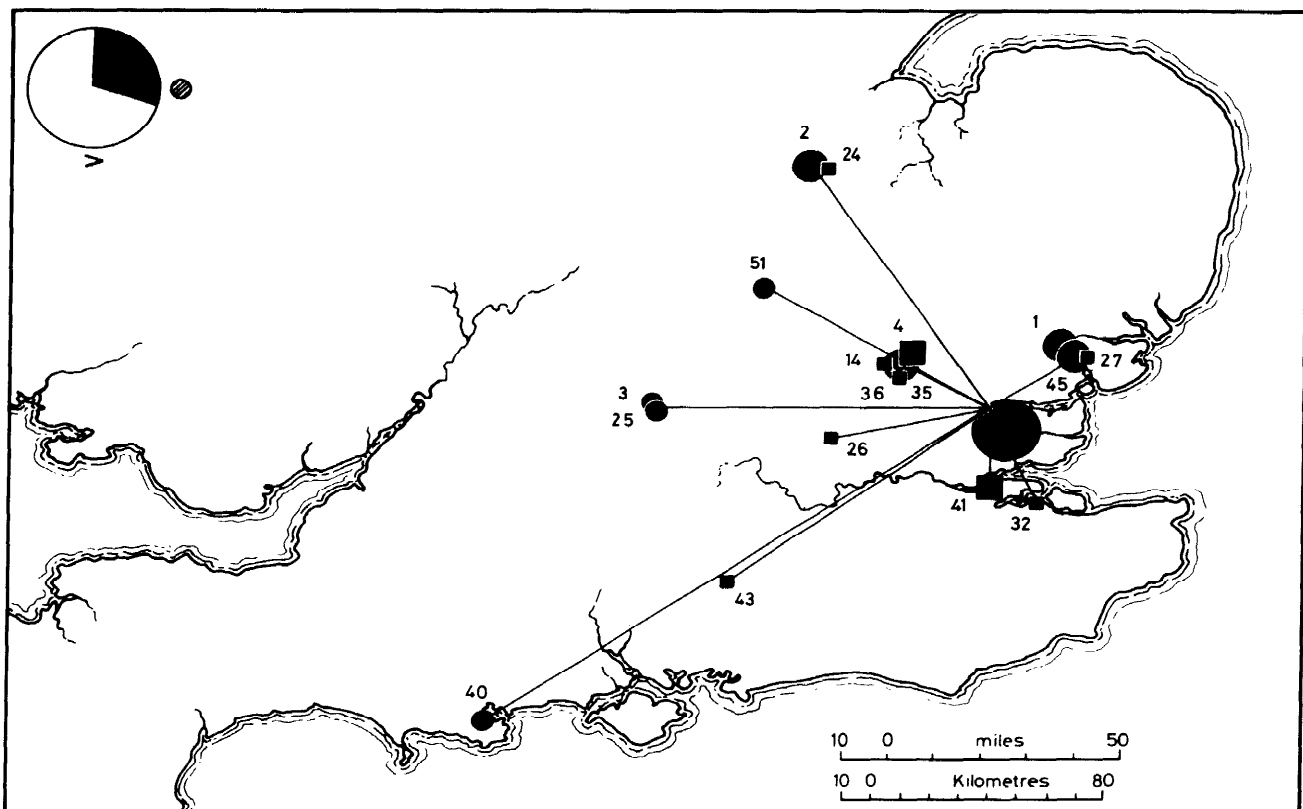


Fig 58 Pottery supply to Chelmsford c AD 300/10-360/70

Phase 7 c AD 300/10-360/70

Fabrics and trade (Fig 58; Table 9)

Of the Romano-British colour-coats, Colchester accounts for 3.74%, which is anomalously high and mostly the result of a single well-preserved vessel, while the Nene Valley has slightly expanded its market share, mainly supplying beaker forms, and more rarely, plain- and flanged-rim dishes. Only at this period, in contexts still accumulating to c AD 360/70, is Oxfordshire red colour-coat in evidence (eg pit T31: Group 18), while Hadham oxidized red wares, although considerably commoner than in the previous phases, are unrepresented by vessel equivalence. Of the white wares, the Nene Valley has slightly expanded its share of the mortarium market, but in the next phase it has gone. Oxfordshire white wares, although less common, form a significant proportion of the mortarium assemblage of this phase, while Colchester buff fabrics are virtually absent, and are now almost certainly residual. Of the grey wares, ?Hadham (35) has increased its market share to 3.15%, while fine grey wares (Fabric 39) have declined considerably in absolute quantity. BB1 has decreased from 2.85% in Phase 6 to 0.68% in Phase 7, although below c 2% the figures are perhaps not reliable indications of trade trends. The incidence of 'storage jar' fabrics (44), grouped separately for ease of reference in Table 9, shows a decline to just over 1%, while Rettendon wares show a considerable increase, to 16.5%. Late 'shell-tempered' wares (51) are barely present (0.83%), and then only in contexts accumulating at the end of the phase (c AD 360/70).

Assemblage composition (Table 10)

The open forms comprise mostly plain- and flange-rimmed dishes, the former predominating. The fabrics are restricted to sandy grey wares, BB1 and BB2, with occasional Nene Valley colour-coated examples. With few exceptions bowl forms comprise imitation Drag 38s in Hadham and Oxfordshire red wares (Type C8). Of the coarse ware bowls, type E5—a Moulsham Street kiln product—remains in production, on present evidence to around the mid 4th century. A new coarse ware type is the neckless bowl-jar, E1, never common, and presumably of restricted date-range. As at other times, necked jars comprise the majority of the closed forms, and the bulk of the assemblage.

Phase 8 c AD 360/70-400+

Fabrics and trade (Fig 59; Table 9)

The trade pattern visible in Ceramic Phase 7 is maintained, and although residuals cloud the picture, three industries achieve considerably greater prominence at Chelmsford in this period, while Rettendon wares go into decline. Oxfordshire red colour-coat (3), which is absent from contexts sealed prior to c AD 360, is present for the first time in significant quantities, while Hadham oxidized red wares have increased their market share to c 13%. Late 'shell-tempered' pottery, (attributed to Harrold in Bedfordshire for the purposes of Figs 58-9), has also increased its share of the market, from 0.83% c AD 360/70, to approximately 16% by EVE. There appears

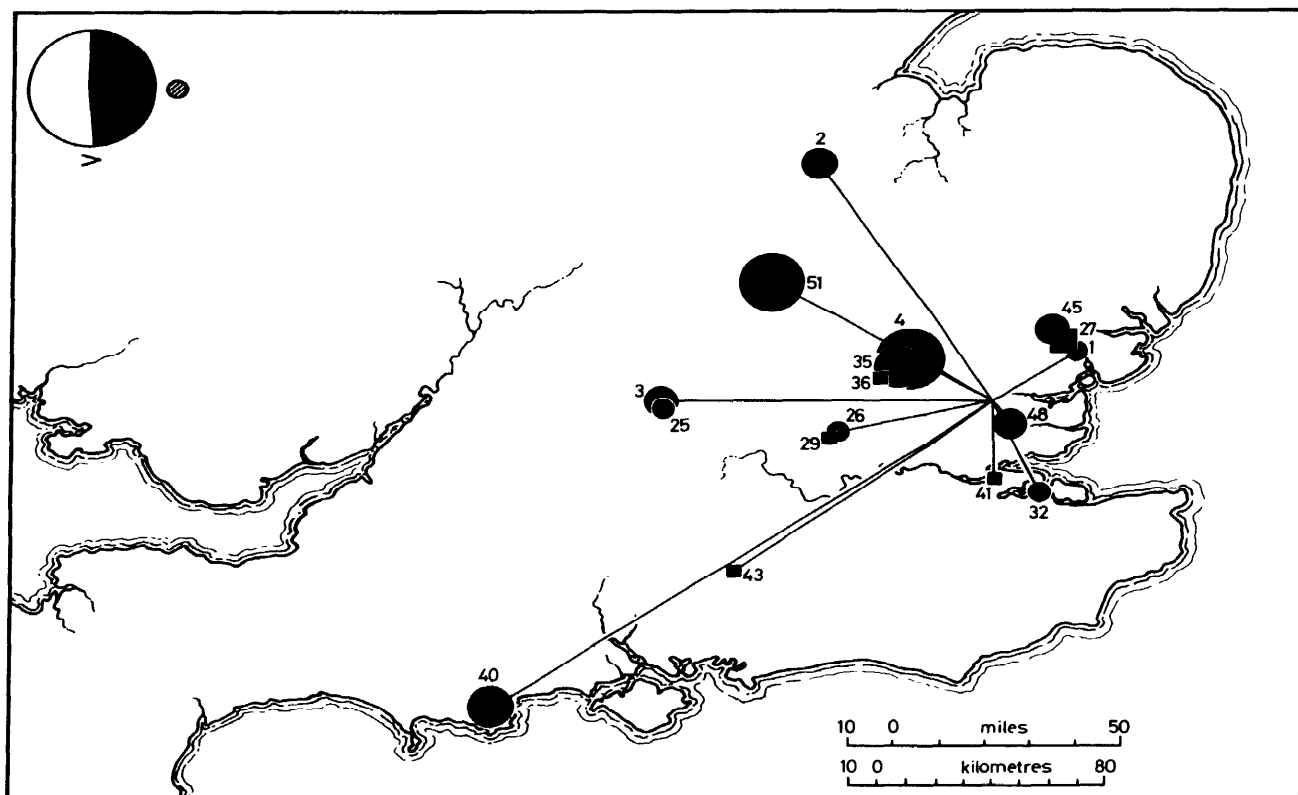


Fig 59 Pottery supply to Chelmsford, c AD 360/70-400+

to be a substantial fall-off in the incidence of this ware in south Essex, however, and at Chelmsford the maximum share of late shell-tempered pottery in any single context (Section IV, Group 21; S35), at 15%, does not compare with late Roman features in the north of the county, for example at Great Dunmow, where it reaches a generally higher proportion. There is no sign of the Portchester D wares identified in south Essex (eg at Leytonstone and Mucking; R Birss, pers comm). Virtually the only late Roman import is Mayen ware (54), represented so far by a single vessel from Chelmsford Dominican Priory. A single sherd of possible *à l'éponge* (22) was also noted.

It is noteworthy that Hadham increases its market share substantially in this period, and that late shell-tempered, Alice Holt (43) and Oxfordshire red colour-coat fabrics all appear in quantity for the first time in this phase as Icenian and Trinovantian markets are exploited. It might be assumed that an expansion of the catchment areas of these potteries was evidence of increased volume of manufacture: but there are pointers which suggest this was not in fact the case. Elsewhere, ceramic evidence suggests that this period, far from being one of expansion and prosperity, was one of change, decline and retrenchment, in which to maintain even a constant level of production each pottery might be forced to sell its wares ever more widely, despite the greater transport costs involved and progressively diminishing returns as the demands of long-established markets were eroded. It is hoped to devote further attention to this aspect of pottery supply elsewhere (Going, in prep; see also below, Section XII.2).

Assemblage composition (Table 10)

Plain-rimmed dishes with chamfered bases (B3.2) remain the most common open form (43.47%), flange-rimmed vessels (BS-6) being in the minority (31.52%). Some of the latter are non-local, mainly BB1 products, while bowl forms are almost exclusively Oxfordshire and Hadham imitation Drag 38s (Type C8.1-3). Mortaria are mainly Oxfordshire and Hadham types, while Nene Valley white ware mortaria are absent—a result, perhaps, of a contraction of the market in the latter half of the 4th century (Howe *et al* 1981, 10). Jar forms include angular-rimmed vessels reminiscent of the Moulsham Street kiln products, but of the *Cam* 268 (G25) and related vessels there is little sign. Storage jars are present in slightly greater numbers, and show conservative characteristics. The late north Essex type (eg Cotton 1958, fig 95.4-5) is absent. Some exotics belong in this class—Alice Holt storage jars of types IC and 4.45 (Lyne & Jefferies 1979, figs 25, 29), and a rim exactly resembling a New Forest jar type (Fig 31.354). That the latter vessel was traded as an object in its own right over such a distance seems unlikely. An explanation is the movement either of personal goods or of a traded commodity from the relevant area (Lyne & Jefferies 1979, 57). Beakers and flagons remain rare; the latter reappear in this group after an absence of almost a century. This may be the result of an unfortunate choice of contexts for examination, but the site assemblages as a whole show a similar picture. Possible explanations are chance recovery, use of metal or glass, economic factors, or fashion. Interestingly, jugs are almost equally rare. No

single answer is likely to be correct, and further work is needed (cf Section III, Class J). The absence of shallow plate and platter forms is worthy of remark—the most characteristic open forms are small and deep.

2 Summary of the trade pattern to Chelmsford, c AD 60-400+

Local production appears to have provided Chelmsford with the bulk of its ceramic requirements throughout the Romano-British period, but with the exception of a few centres, it has proved impossible to identify the local coarse ware industries. Leaving aside continental imports, the pattern of pottery supply was overwhelmingly local until the Hadrianic-Antonine period, after which the range of more distant provincial sources from which Chelmsford obtained its pottery closely resembles the pattern of supply to London (Green 1980, figs 43-5). Comparison of the assemblages from these two sites highlights the difference between a typical Romano-British 'small town' and the pre-eminent urban settlement in Roman Britain. Those from London contain a far higher proportion of both provincial and imported fine wares, and imports of every type, notably amphorae, at all periods. In terms of quantity, too, it is not possible to match the size of these groups, whose consistently greater numbers suggest a larger number of vessels in use, and more rapid breakage and disposal, than was the case at Chelmsford. Curiously, there has hitherto been little evidence to suggest that any local industries were specifically geared to supply what must have been London's substantial and perhaps relatively constant demand after the disappearance of such industries as Highgate and Brockley Hill in the mid 2nd century (Dyson & Schofield 1981; see now Yule 1982). In the 3rd century small quantities of grey wares were even sent from France (Richardson & Tyers 1984). By contrast, in Essex there is little doubt that small local industries accounted for much of the ceramic supply until the end of the Roman period.

From the latter half of the 1st century AD until the Hadrianic period there were two known local centres supplying significant quantities of pottery to *Caesaromagus*. The Colchester potteries provided the bulk of the buff wares, and, if Fabrics 34/45 derive from the Colchester-Ardleigh region, the same area supplied most of the remainder. Products of the south Essex/Thames-side kilns are a distinctive, if by contrast uncommon, constituent of 1st century assemblages. Fine wares comprise a small proportion of the early assemblages, limited supplies reaching Chelmsford from ?North Kent, Hadham, and the Verulamium/Brockley Hill region.

This fundamental pattern remained largely unchanged during the first half of the 2nd century, the disappearance of provincial fine ware production sites in the second quarter of the century (Marsh 1978, 119-23), and the collapse of the Verulamium/Brockley Hill industry around AD 160, having only marginal effects on supply. By the mid 2nd century local production appears to have been rapidly increasing. During this period (c AD 150-200), imported colour-coated wares, never common, faced increased competition from the emerging Colchester colour-coat industry, which established itself as

the major supplier of 'table' wares (other than samian) in the latter half of the century. From c AD 125/30 more long-distance provincial trade is attested by the appearance of BB1 from Dorset. Somewhat surprisingly, BB1 accounts for almost half of the Black-Burnished wares present in the town overall. This strongly suggests either that the relevant Essex concerns were chiefly geared to exporting to the northern frontier—rather than to enlarging their potentially considerable 'home' market, or that in contrast with the Kentish centres, BB2 vessels formed only a small proportion of their output.

The ill-understood events of the early to mid 3rd century seem to have had a major impact on the existing centres and delayed the growth of others. Colchester appears to have declined rapidly during this period. It never regained its former markets. Contributory factors to Colchester's reduction to the status of a local producer may have included its awkward siting for land transportation, the migration of potters to other centres, and the fact that as the most prolific production centre in the region at the time (Hartley 1973, fig 7), its fortunes may not merely have been checked, but reversed by the 'recession' which Young perceived as retarding the growth of the Oxford industries between c AD 180-240. The latter's survival, Young suggests, may have owed much to the 'largely local nature of its markets' (Young 1977, 236). Fulford (1975a, 109-11) has detected a similar decline in the New Forest potteries at this date, and argues that they did not recover until after the 260s. The fact remains that unlike Colchester, and later in the century, the BB2 industries, these centres, with those of Hadham and the Nene Valley survived to become the late giants. Although it was slow, there was growth in this period: products from the Nene Valley and Oxfordshire potteries first appear in Chelmsford, admittedly in negligible quantities, around or shortly before AD 250. Their largest market shares, however, date to the later 4th century. Hadham, after a time in the Flavian-Trajanic period when its early fine wares are quite widely distributed (Rodwell 1978, fig 7.8), does not appear to have supplied increased quantities of ceramics until c AD 270-80 (M Pomel pers comm) when there was some local expansion. Like the Nene Valley and Oxfordshire its greatest market penetration occurs at least in central and south Essex—only after c AD 350/60 (Ceramic Phase 8).

Of the local coarse ware industries at this date little can be said at present, except that if they operated at a 'workshop' level, never aiming to supply more than local needs, they should have been at least as resilient as the Oxfordshire and Hadham concerns. Indeed this may be suggested for the dispersed industries of south Essex, which, while linked with the north Kent producers by Pollard (1982b), seem to have suffered a different fate. While BB2 products from Cliffe had apparently achieved 'complete domination of the west and mid Kent market for both burnished and plain wares' by c AD 250 (Pollard 1982b, 61), the industry had all but collapsed by the end of the century. By contrast minor related concerns on the Essex side of the Thames, like the Mucking kilns, continued to cater to a local market until the later 4th century (Jones & Rodwell 1973, 38-9).

The 3rd century Chelmsford assemblages are, in general, more characteristic of south than north-east Essex, although some grey ware vessels appear to be Colchester products (eg H35.2), suggesting a continued trade with that centre on a reduced level. But, as noted above,

while the early 3rd century still presents us with problems, it does not appear to have been a period of complete retrenchment (see Section X11.3).

With the expansion of the major late Roman potteries in the latter half of the 3rd century, the pattern of later Roman pottery supply to Chelmsford becomes clearer: new types and fabrics appear in Essex and new zones of production may be discerned (see Fig 43). Colchester's decline resulted in a failure to meet even the low demand for mortaria, which were increasingly supplied by Oxfordshire white ware and Nene Valley 'self-coloured' types. By *c* AD 270/80 Hadham commences its expansion, marketing oxidized red and also fine reduced wares, although no certain examples of the latter have been found at Chelmsford. More locally, a dispersed coarse ware industry probably centred on Rettendon, *c* 15 km south-east of Chelmsford, markets over the central Essex region for the first time (see Section V and Fig 43).

By *c* AD 300/20 (Fig 58) the late Roman pattern is quite well developed, although none of the major manufacturers of the period gained substantial markets in Chelmsford until *c* AD 360/70, when late 'shell-tempered' products (51) appeared and rapidly won a sizeable market, eclipsing the already declining 'Rettendon' wares. Also evident for the first time are Alice Holt and Oxfordshire red colour-coated products. Precisely why the latter should have remained absent for so long is obscure; but if Fulford is right in detecting market disruptions at this date (1975a, 114-16, 132-7), Oxfordshire's expansion into a new region, long available to their mortaria, was one industry's response to the marketing problems of the period. However, with the possible exception of the Saxon Shore forts, which are producing evidence of atypical assemblages containing perhaps as much as one third Oxfordshire products among the fine wares (mirroring the situation in Kent; Young 1977), it did not make much headway in East Anglia. The region seldom yields major assemblages of Oxfordshire red colour-coat (Fulford & Hodder 1974), and never the proportion met with, for example, in Angel Court, Walbrook, layer 9, dated to post AD 364 (*c* 19% of all pottery; Orton 1977, fig 12).

The latest (ie post AD 360) levels in Chelmsford contain the highest proportion of 'fine' wares (in the restricted sense of colour-coats) of any of the groups (*c* 20%). This figure broadly agrees with the findings of Fulford and Hodder (1974) for walled towns, although the qualitative distinction between 'fine' and 'coarse' wares at this period was less marked, and the cost difference perhaps smaller, than hitherto. Of the former, Hadham, with *c* 12%, dominates the assemblages. As noted, late shell-tempered fabrics make a substantial and increasing impact, although this drops off noticeably towards London and the Thames, and the ware is all but absent in Kent (Lyne & Jefferies 1979, fig 52). Its absence in south Essex may be explained either by locational factors, or sustained local production by the Thames-side or Rettendon group kilns, although the latter do not on present evidence appear to have continued producing much beyond the mid 4th century, at least in central Essex. Curiously, there is no evidence in Essex of the late hand-made wares typical of 'household' industries met with in Kent and elsewhere in the 3rd and 4th centuries (Pollard 1982b, 61; Peacock 1982, 88).

The assemblages from these late contexts show the greatest fabric changes, suggesting a dynamism in terms of marketing which is not expressed in typological var-

iety or stylistic innovation. As noted above this vitality can indicate either a healthy economy, or increasing competition for a shrinking market. It has been suggested on the evidence of typological and stylistic fossilization that the major potteries were in decline from *c* AD 350 (Fulford 1979, 129), a view supported by apparently declining amounts of pottery at Chelmsford and, perhaps, by the evidence of cessation of production at Inworth, Chelmsford, and possibly Rettendon. Elsewhere in the county small production sites appear to be in decline: at Mucking, for example, the latest kiln (III) produced 'a more limited range of vessel forms than hitherto' (Jones & Rodwell 1973, 36-7, 39). The rapid changes in fabric proportions at this time suggest it may be possible to date ceramic deposits on these grounds rather than on ever more meagre typological or coin evidence. It will be instructive, for example, to examine the fabric proportions of contexts in the Allen and Hanbury site at Ware, phase 10 (Partridge forthcoming), ascribed on coin evidence to *c* AD 400-20 (R Reece, pers comm), as such assemblages will throw some light on the composition of groups contemporary with the final collapse of the pottery industries of this area.

Despite the influence of the giants, however, no less than 50-60% of the final Chelmsford assemblages may be from small 'workshop' or even 'household' concerns whose roots were very similar to those of the Saxon period (Peacock 1982, 90-9). Unlike the major industries, these might have weathered a 'recession' similar to that postulated for the period *c* AD 180-240. That they did not, even in a region where there is evidence of town and rural life continuing well into the 5th century and perhaps beyond (Rutherford Davies 1982, 60-5; Rodwell & Rodwell 1986) is remarkable. Like other sites in the area, Chelmsford appears on present evidence to have become aceramic (if indeed it still existed) by *c* AD 410-20 at the latest.

The collapse of all types of pottery production in areas such as central Essex where traces of Saxon occupation are very slight (Rodwell 1975, 95), requires examination. Fulford has convincingly postulated a slow decline, caused by decreasing demand, from *c* AD 350 leading to a cessation of production by *c* AD 400/10. This could account for the comparative lack of ceramic innovation in the later 4th century, and in all probability, the eventual disappearance of *all* types of manufacture (Fulford 1975a, 114-18; Young 1977, 240-1), since the major manufactories could have held out only until they ceased to be economic, after which collapse would be rapid. Minor concerns probably quickly followed suit-although in some areas there is evidence of a few isolated household, or at their most substantial, small workshop industries in the post-Roman period (Rahtz 1974). None have been so far found in Essex.

The major late potteries expanded in an economic and social climate crucial to their growth, most rapidly at a time when, perhaps significantly, coin loss in Britain included a substantial proportion of 'small change' (Reece 1973, 250-1). After *c* AD 350 this element is absent. It seems likely that the period AD 250-350 was one when the Romano-British economy saw rising prosperity, at first broad-based, but finally enriching the wealthiest stratum of a society with many seigniorial features. Any subsequent 'decline' would be most marked in its effects on those industries which depended on a moderately affluent, numerically large clientele. Their impoverishment

would set in train events which would lead in all probability to their collapse. While the pottery allows some light to be shed on the date, at least, when these events occurred, the causes properly belong in the rescript of the economic historian.

3 Third century AD pottery in Essex: the Colchester 'Mithraeum' and Billingsgate group 'Z' assemblages examined

Ceramic Phase 5 (c AD 200/10-250/60) spans a period fraught with difficulty, not least for the ceramic specialist (Fulford 1975a, 109-10; Swan 1977, 480). In view of the assemblages from the defensive ditches (Section IV, Groups 11-16) which have been assigned to this period, some consideration must be made of two deposits of pottery which have also recently been dated to the early to mid 3rd century: Billingsgate (London) Group 'Z' (Green 1980, 72-6, fig 40.375-87), and the Colchester 'Mithraeum' assemblage, initially assigned to the mid 4th century by Rex Hull (1958, 107-13, 132-45, figs 57, 60-71), but redated to at least a century earlier by Chris Green (Harden & Green 1978, 163-75). Hull dated the main assemblage from the 'Mithraeum' to post c AD 337 on the evidence of a coin of Constans as Augustus (AD 337-50) 'sealed in the lowest layer, near the floor of room D' (Hull 1958, 112). As presented in Harden and Green (1978, fig 6), the histogram of the coin evidence does suggest that the coin is intrusive. However, omitted from the figure is a coin of Claudius Gothicus (AD 268-70) 'in the bottom also' (Hull 1958, 112, 116, no 69). Unless this coin, too, is dismissed as intrusive the argument for re-dating the initial filling of the 'Mithraeum' to the first half of the 3rd century cannot be sustained. There are other doubts also: Hull found 'no difference' between the pottery from the lowest filling (the main assemblage), and the rubble layer above, while the overlying layer of stiff loam, which followed 'fairly quickly' (*ibid*, 110), contained a coin of Valentinian (*ibid*, 117, no 84), and a 'new element' in the pottery: 'flanged bowls copying Dragendorff f38 in a fine red ware, [ie Oxfordshire red colour-coat]. They are of distinctive outline and have been found repeatedly in the town in late associations, but this [ie AD 364-75] is the best-dated occurrence so far' (*ibid*, 110). Green took this to mean that it was only in this level that Oxfordshire red colour-coat appears at all, 'confirming the conventional date in the late 3rd century for its widespread use outside the Oxford region' (Harden & Green 1978, 172). In fact Hull was referring only to Oxfordshire form C51 (Young 1977, fig 59). Unfortunately, Green was unable to gain access to all the relevant material from the lowest levels of the Mithraeum. These also contain Oxfordshire red colour-coat (M Green, pers comm).

Recent excavations have shown that Oxfordshire red colour-coat is all but absent on Essex sites prior to c AD 360 (eg Braintree: Drury 1976a, 44-6; Colchester: Going 1984, 48-9; Rawreth: Drury 1977, 40-2; Sewardstone: Huggins 1978, 185; for Chelmsford, see Fabric 3, Section II). This is much later than either Green or Young (1977, 133-4) suggest. Other evidence from the mass of

pottery in the initial fill points to a mid 4th century date: the Nene Valley colour-coated flagons are identical to vessel types independently dated to the 4th century on sites in the vicinity of the manufactories (compare Hull 1958, fig 61.28-31, 35, with Howe *et al* 1981, fig 6.64-7). Also, the assemblage of Hadham ware flagons in the same level (Hull 1958, fig 62.36-45) is quite inconsistent with an early to mid 3rd century deposit. On the evidence of sites such as Baldock and Braughing, Hadham's major expansion began c AD 270/80, when their characteristic bright oxidized red wares (Fabric 4) were marketed widely for the first time. Moreover, none of these Hadham ware vessels even remotely resembles the Hadham flagons for which Green was seeking a 3rd century parallel (Harden & Green 1978, figs 1,3). Indeed, the 'Mithraeum' vessels are much more akin to 4th century types found elsewhere (cf, eg, Hull 1958, fig 62.36 with Geddes 1977, fig 12.2, a vessel in the late 4th century Verulamium theatre deposit). But Green is right, however, in seeing much of the 'Mithraeum' pottery as 3rd century: Hull did not recognize just how much was residual, and in consequence was led into difficulties by his (accurate) dating of the *deposition* of the assemblage. For example, having prolonged the life of *Cam* 268B ('beyond question the commonest vessels in Roman Colchester': Hull 1958, 285) to the mid 4th century and beyond largely on the 'Mithraeum' evidence, Hull, unsurprisingly, found its absence from mid to late 4th century levels on the nearby Kent Blaxill site 'very remarkable' (Hull 1955, 57; Going 1984, 48).

Turning to Billingsgate Group 'Z' one finds similar problems: the group contains two Saxon sherds (Rhodes 1980, 141, fig 80.714), but as Green observes, 'the coherence and preservation of the assemblage and the absence of 4th century types argues against its being a straightforwardly 'residual' group', although it is regarded as 'too small to be of much statistical significance' (Weight: 6.3kg; EVE: 6.6; see Hodder 1983 for the sizes of groups for which valid statistical results may be drawn). The group is remarkable in that it contains no less than eighteen (22.6% by EVE) examples of *Cam* 306, which are paralleled in the 'Mithraeum' (cf Green 1980, fig 40.377-9 with Hull 1958, fig 67.87). The type is also represented by 'a few examples' in Southwark, where it is thought to be one of the rare distinctively 3rd century forms (Green 1980, 72). Its presence in both these groups, and in 3rd century contexts south of the Thames, suggests it is a diagnostic 3rd century type. Discussing the resemblance of this form with those from Colchester, and in addition, the Essex affinities of the narrow-necked jar (Green 1980, fig 40.383), Green suggested that London may either have been 'heavily reliant on Essex sources for part of its pottery during part of the 3rd century' (*ibid*, 77), or that the resemblance between the two groups may be caused by the presence at Billingsgate either of personal chattels, or a specific consignment of pottery from Colchester.

The case for a link with Essex rests heavily on the *Cam* 306, but this argument for a coarse ware trade with Colchester has been weakened by the recent discovery of a later 3rd century well in Southwark containing wasters of this form (Yule 1982, figs 2-3, 244-5, 245). The date corresponds with that suggested by the coin of Claudius Gothicus referred to above, in the 'bottom' of the 'Mithraeum'. If there was migration of potters from Colchester to other centres in the 3rd century-quite likely

in view of its debilitated state at the time (Rodwell 1982, 56-7), there is a strong probability that some came to London. That they might produce a form similar to one in the *Cam* series should not be surprising. It would also account for the absence of the *Cam* 306 from Chelmsford groups 11-17, which cannot easily be explained if the Colchester coarse ware potteries were still exporting in any quantities at this time. A hint that they were not is suggested by the fact that 3rd century pottery from Chelmsford shares distinct regional characteristics not with Colchester, but with south Essex.

Of the apparently diagnostic 3rd century types encountered at Chelmsford, bowl-jar Form E5.4 is not classified in Hull's typology (although it is present in Colchester Kiln 24: Hull 1963, fig 86.23). Later forms of the jar Type G5, while common at Chelmsford, are virtually absent at Colchester, where their place was taken by *Cam* 266 and 268. Notably, the latter is very rare at Chelmsford (G25), while Type E4 (*Cam* 307) is the only coarse ware in the bowl-jar class which occurs in any numbers in both towns. All three types occur in small quantities in London (eg McIsaac 1979, figs 15.4, 16.16- 17; 1980, fig 7.3), but at no time in the 3rd century do links between Essex and London seem very strong; certainly no more so than in the 1st to 2nd centuries. Nor is there any obvious increased dependence after the late 3rd century: for example, Rettendon wares (48) while prolific in central Essex *c* AD 280-360, seem rare in London. It must be admitted that while few late fabrics and forms of Essex origin are so distinctive, pottery in later contexts from London show far more influence from the Hadham complexes than from any Essex source.

Bibliography

- Anderson, A C, 1980 *A guide to Roman fine wares*, Vorda Res Ser, 1
- Anderson, A C, & Anderson, A S (eds), 1981 *Roman pottery research in Britain and north-west Europe*, Brit Archaeol Rep, **S123**
- Anderson, A C, Fulford, M G, Hatcher, H, & Pollard, A M, 1982 Chemical analysis of hunt cups and allied wares from Britain, *Britannia*, **13**, 229-38
- Anthony, I, 1968 Excavations in Verulam Hills Field, St Albans, 1963-4, *Hertfordshire Archaeol*, **1**, 9-50
- Arthur, P, 1978 The lead glazed wares of Roman Britain, in Arthur & Marsh 1978, 293-356
- Arthur, P, & Marsh, G (eds), 1978 *Early fine wares in Roman Britain*, Brit Archaeol Rep, **57**
- Beltran Lloris, M, 1977 *Ceramica Romana tipologia y clasificacion*, (Zaragoza)
- Bird, J, Graham, A H, Sheldon, H, & Townend, P, 1978 *Southwark excavations 1972-1974*, Southwark Lambeth Archaeol Excav Committee
- Brown, A E, & Sheldon, H L, 1969 Post-excavation work on pottery from Highgate, *London Archaeol*, **1.3**, 60-5
- , & —, 1971 Highgate Wood 1970-1971, *ibid* **1.13**, 300-3
- , & —, 1974 Highgate Wood: the pottery and its production, *ibid*, **11.9**, 222-31
- Buckley, D G, Weller, S, & Benians, P, forthcoming *Excavations at Buckenham's Field Noak Hill Road; Billericay: 1973-77*, *E Anglian Archaeol*
- Bushe-Fox, J P, 1926 *First report on the excavation of the Roman fort at Richborough, Kent*, Soc Antiq Res Rep, **6**
- , 1949 *Fourth report on the excavation of the Roman fort at Richborough, Kent*, Soc Antiq Res Rep, **16**
- Casey, P J (ed), 1979 *The end of Roman Britain*, Brit Archaeol Rep, **71**
- Castle, S A, 1973 Trial excavations in Field 410, Brockley Hill, Part 1, *London Archaeol*, **11.2**, 324-7
- Clarke, G, 1979 *The Roman cemetery at Lankhills*, Winchester Studies, **3.11**
- Clarke, P, 1979 *Chignall St James* (Essex County Council limited publication)
- Coll Ecole Francaise de Rome, 1977 *Méthodes classiques et méthodes formelles dans l'étude des amphores*, Collection de l'Ecole Française de Rome, **32**
- Cool, H, 1982 The bracelets, in Rochester 1974-75 (A C Harrison), *Archaeol Cantiana*, **97**, 125-31
- Corder, P, 1941 A Roman pottery of the Hadrian- Antonine period at Verulamium, *Antiq J*, **21**, 221-98
- Cotton, M A, 1958 The excavations of 1950, in Hull 1958, 180-9
- Cunliffe, B, 1971 *Excavations at Fishbourne*, Soc Antiq Res Rep, **26**
- Darling, M, 1977 *A group of lace Roman pottery from Lincoln*, *The archaeology of Lincoln*, **16/1**
- Detsicas, A, 1973 *Current research in Romano-British coarse pottery*, CBA Res Rep, **10**
- Dore, J, & Greene, K (eds), 1977 *Roman pottery studies in Britain and beyond*, Brit Archaeol Rep, **S30**
- Drury, P J, 1972 The Romano-British settlement at Chelmsford, Essex: *Caesaromagus*. Preliminary report, *Essex Archaeol Hist*, **4**, 3-29
- , (ed), 1976a Braintree: excavations and research, 1971-76, *Essex Archaeol Hist*, **8**, 1-143
- , 1976b 'Retendon' Ware kiln debris and other material from Sandon, *ibid* **8**, 253-58
- , 1977 Excavations at Rawreth, 1968, *ibid*, **9**, 20-47
- , 1978 *Excavations at Little Waltham 1970-71*, CBA Res Rep, **26**
- , 1984 The Temple of Claudius at Colchester reconsidered, *Britannia*, **15**, 7-50
- Drury, P J, & Rodwell, W J, 1973 Excavations at Gun Hill, West Tilbury, *Essex Archaeol Hist*, **5**, 48-112
- Drury, P J, & Wickenden, N P, forthcoming *Prehistoric settlement and the Romano-British 'small town' at Heybridge, Essex*
- Dyson, T, & Schofield, J, 1981 Excavations in the City of London: Second Interim Report 1974-1978, *Trans London Middlesex Archaeol Soc*, **32**, 24-81
- Eggers, H J, 1951 *Der Römische Import in Freien Germanien* (Hamburgisches Museum Für Völkerkunde und Vorgeschichte)
- Farrar, R A H, 1973 The techniques and sources of Romano-British black-burnished ware, in Detsicas 1973, 67-103
- , 1981 The first Darfield Hoard and the dating of black-burnished ware, in Anderson & Anderson 1981, 417-30
- Frere, S S, 1972 *Verulamium excavations*, **1**, Soc Antiq Res Rep, **28**
- Fulford, M G, 1971 Excavation of three Romano-British pottery kilns in Amberwood Enclosure near Futham, New Forest, *Proc Hampshire Fld Club Archaeol Soc*, **28**, 5-28
- , 1975a *New Forest Roman pottery*, Brit Archaeol Rep, **17**
- , 1975b The pottery, in *Excavations at Portchester Castle, L Roman* (B Cunliffe), Soc Antiq Res Rep, **32**, 270-366
- , 1977 Pottery and Britain's foreign trade in the later Roman period, in Peacock 1977c, 35-84
- , 1979 Pottery production and trade at the end of Roman Britain: the case against continuity, in Casey (ed), 1979, 120-32
- Fulford, M G, & Bird, J, 1975 Imported pottery from Germany in late Roman Britain, *Britannia*, **6**, 171-81
- Fulford, M G, & Hodder, I R, 1974 A regression analysis of some late Romano-British pottery: a case study, *Oxoniensia*, **39**, 28-35
- Geddes, S, 1977 *The late Roman pottery from the Verulamium Theatre*, M A thesis, Univ London
- Gentry, A, Ivens, J, & McClean, H, 1977 Excavations at Lincoln Road, London Borough of Enfield, November 1974-March 1976, *Trans London Middlesex Archaeol Soc*, **28**, 101-89
- Gillam, J P, 1970 *Types of Roman coarse pottery vessels in northern Britain*
- , 1977 Coarse fumed ware in north Britain and beyond, *Glasgow Archaeol J*, **4**, 57-80
- , 1979 Romano-Saxon pottery: an alternative interpretation, in Casey 1979, 103-18
- Going, C J, 1984 Pottery, in Drury 1984, 46-49
- , in prep *Quantification and pottery production: progress and problems*
- Going, C J, & Ford, B A, forthcoming *The Roman pottery*, in *Excavations at Great Dunmow, Essex: a Romano-British small town in the Trinovantian Civitas* (ed N P Wickenden)
- Gose, E, 1950 Gefässtypen der Römischen Keramik im Rheinland, *Bonner Jahrbucher*, Beiheft 1
- Graham, A, 1978 Swan Street/Great Dover Street, in Bird *et al* 1978, **pt ii**, 473-97
- Green, C, 1978 Flavian 'ring and dot' beakers from Londinium: Verulamium form 130 and allied types, in Arthur & Marsh 1978, 109-18
- , 1980 The Roman pottery, in D M Jones 1980, 39-79
- Greene, K, 1978a Imported fine wares in Britain to AD 250: a guide to identification, in Arthur & Marsh 1978, 15-30
- , 1978b Roman trade between Britain and the Rhine provinces: the evidence of pottery to c AD 250, in *Roman Shipping and trade: Britain and the Rhine provinces* (eds J du Plat Taylor & H Cleere), CBA Res Rep, **24**, 52-8
- , 1979 *The pre-Flavian fine wares. Report on the excavations at Usk 1965-1976*
- Grimes, W F, 1930 *Holt, Denbighshire: The works depot of the Twentieth Legion at Castle Lyons*
- Guenoche, A, & Tchernia, A, 1977 Essai de construction d'un modèle descriptif des Amphores Dr 20, in Coll Ecole 1977, 241-59
- Haggard, H J E, 1972 *The sand and gravel resources of the country around Witham, Essex*, Inst Geol Sci Rep, **72/6**
- Harden, D, & Green, C, 1978 A late Roman grave-group from The Minories, Aldgate, *Collectanea Londiniensia*, London Middlesex Archaeol Soc Spec Pap, **2**, 163-75
- Hartley, B R, 1972 The decorated samian and samian potters' stamps, in Frere 1972, 216-62
- , forthcoming *Index of potters stamps on samian ware*
- Hartley, K F, 1973 The marketing and distribution of mortaria, in Detsicas 1973, 39-51
- , 1977 Two major potteries producing mortaria in the first century AD, in Dore & Greene 1977, 5-18
- , The mortarium stamps, in *Verulamium Excavations*, **3** (S S Frere), 280-291
- Hassall, M W C, & Tomlin, R S O, 1977 Roman Britain in 1976, **2**, Inscriptions, *Britannia*, **8**, 426-49
- , & —, 1980 Roman Britain in 1979, **2**, Inscriptions, *ibid*, **11**, 403-17
- Hawkes, C F C, & Hull, M R, 1947 *Camulodunum*, Soc Antiq Res Rep, **14**
- Hayes, J W, 1972 *Late Roman pottery: a catalogue of Roman fine wares* (The British School at Rome)
- Hermet, F, 1934 *La Graufesenque*
- Higgins, D C, 1972 Three-groups of Romano-British coarse pottery from Caister-on-Sea, Norfolk, *Norfolk Archaeol*, **35**, 279-301

- Hodder, I, 1983 *Excavations at Wendens Ambo. The archaeology of the M11*, 2 (Passmore Edwards Museum)
- Hodder, I, & Orton, C, 1975 *Spatial analysis in archaeology*
- Holmes, J W, 1972 *Excavations at Clintons Farm, East Herts Archaeol Soc Newsletter*, 31
- Holwerda, J H, 1941 *De Belgische Wear in Nijmegen*, Beschrijving Verzameling Museum Nijmegen, 2
- Howe, M D Perrin, J R, & Mackreth, D F, 1981 *Roman pottery from the Nene Valley: a guide*, Peterborough City Mus Occas Pap, 2
- Huggins, R M, 1978 *Excavations of a late Roman site at Sewardstone Hamlet, Waltham Holy Cross, Essex, 1968-75, Essex Archaeol Hist*, 10, 174-88
- Hull, M R, 1955 *The south wing of the Roman 'forum' at Colchester: recent discoveries*, *Trans Essex Archaeol Soc*, 25, Pt 1, 24-61
- , 1958 *Roman Colchester*, *Soc Antiq Res Rep*, 20
- , 1958 *The Roman potters' kilns of Colchester*, *Soc Antiq Res Rep*, 21
- Jenkins, F, 1978 *Roman pottery statuettes in Chelmsford Museum, Essex, Essex Archaeol Hist*, 10, 231-33
- Johns, C, & Carson, R, 1975 *The Water Newton hoard, Durobrivae*, 3, 10-12
- Johnson, S, 1983 *Burgh Castle: excavations by Char & Green, 1958-61, E Anglian Archaeol* 20
- Johnston, D E, 1972 *A Roman building at Chalk, near Gravesend, Britannia*, 3, 112-48
- Jones, D M, 1980 *Excavations at Billingsgate Buildings, Lower Thames Street, London, 1974*, *London Middlesex Archaeol Soc Spec Pap*, 4
- Jones, M U, 1972 *Potters' graffiti from Mucking, Essex, Antiq J*, 52, 335-8
- , 1979 *Textile impression on a Romano-British sherd from Mucking, Essex, ibid*, 59, 413-14
- Jones, M U, & Rodwell, W J, 1973 *The Romano-British pottery kilns at Mucking, Essex Archaeol Hist*, 5, 13-47
- Kapitan, G, 1972 *Le Anfore del Relitto Romano di Capo Ognina (Syracusa)*, in *Coll Ecole Francaise de Rome, 1972, Recherches sur les amphores Romaines*, Collection de l'Ecole Francaise de Rome, 10
- Knorr, R, 1907 *Die Verzierten Terra-Sigillata-Gefässe von Rottweil*
- , 1919 *Töpfer und Fabriken verzierter Terra-Sigillata des Ersten Jahrhunderts*
- , 1952 *Terra-Sigillata-gefässe des Ersten Jahrhunderts mit Töpfernamen*
- Knowles, A K, 1977 *The Roman settlement at Brampton, Norfolk: interim report, Britannia*, 8, 209-21
- Leach, P, 1982 *11 chesler, 1. Excavations 1974-1975*, *Western Archaeol Trust Excav Mono*, 3
- Leech, R, 1982 *Excavations at Catsgore 1970-1973. A Romano-British village*, *Western Archaeol Trust Excav Mono*, 2
- Lyne, M A B, & Jefferies, R S, 1979 *The Alice Holt/Farnham Roman pottery industries*, *CBA Res Rep*, 30
- Marsh, G D, 1978 *Early second century fine wares in the London area*, in *Arthur & Marsh 1978*, 119-224
- , 1979 *Three theatre masks from London, Britannia*, 10, 263-5
- , 1981 *London's samian supply and its relationship to the development of the Gallic samian industry*, in *Anderson & Anderson 1981*, 173-238
- Marsh, G D, & Tyers, P, 1978 *The Roman pottery from Southwark*, in *Bird et al 1978*, pt ii, 533-86
- May, T, 1916 *The Roman pottery found at Silchester*
- , 1930 *Catalogue of the Roman pottery in the Colchester and Essex Museum*
- McIsaac, W, 1979 *Roman pottery*, in *Excavations at Old Ford 1972-5* (W McIsaac, I Schwab & H Sheldon), *Trans London Middlesex Archaeol Soc*, 30, 62-76
- , 1980 *The other Roman pottery*, in *Excavations at Goodman's Yard, 1978* (R Whytehead), *ibid* 31, 39-41
- McKenny Hughes T, 1904 *The War Ditches, near Cherry Hinton, Cambridge, Proc Cambridge Antiq Soc*, 10, 452-81
- Neal, D S, 1974 *The excavations of the Roman villa in Gadebridge Park, Hemel Hempstead 1963 - 8*, *Soc Antiq Res Rep*, 31
- Orton, C R, 1975 *Quantitative pottery studies. Some progress, problems and prospects, Sci & Archaeol*, 16, 30-5
- , 1977 *The Roman pottery (excluding samian)*, in *Excavations at Angel Court, Wallbrook, 1974* (T Blurton), *Trans London Middlesex Archaeol Soc*, 28, 30-53
- Oswald, F, 1937 *Index of figure-types on Terra Sigiillata*
- Partridge, C, 1981 *Skeleton Green. A late Iron Age and Romano-British site*, *Britannia Monograph Ser*, 2
- , forthcoming *Excavations at Ware, Herts*
- Peacock, D P S, 1977a *Late Roman amphorae from Chalk, near Gravesend, Kent*, in *Dore & Greene 1977*, 295-300
- , 1977b *Roman amphorae: typology, fabric and origins*, in *Coll Ecole 1977*, 261-78
- (ed), 1977c *Pottery and early commerce: characterisation and trade in Roman and later ceramics*
- , 1982 *Pottery in the Roman world: an ethno-archaeological approach*
- Perrin, J R, 1977 *Legionary ware in York*, in *Dore & Green 1977*, 101-12
- Pollard, R, 1982a *The Roman pottery of Kent*, PhD thesis, Dept Archaeology, Univ Reading
- , 1982b *Roman pottery in Kent: a summary of production and marketing trends*, in *Archaeology in Kent to AD 1500* (ed P E Leach), *CBA Res Rep*, 48, 61-3
- Pullinger, J, & Young, C J, 1981 *Obelisk Kilns, Harston, Proc Cambridge Antiq Soc*, 71, 1-24
- Rahtz, P A, 1974 *Pottery in Somerset, AD 400-1066*, in *Medieval pottery from excavations* (eds V I Evison, H Hodges, & J G Hurst), 95-126
- Reece, R, 1973 *Roman coinage in Britain and the western Empire, Britannia*, 4, 227-51
- Rhodes, M, 1980 *Saxon pottery*, in *D M Jones 1980*, 139-41
- Richardson, B, & Tyers, P, 1984 *North Gaulish coarse wares in Britain, Britannia*, 15, 133-141
- Richardson, K M, 1948 *Report on the excavations at Brockley Hill, Middlesex; August and September 1947*, *Trans London Middlesex Archaeol Soc*, 10, pt 1, 1-23
- Ricken, H, 1948 *Die Bilderschüsseln der Römischen Topfer von Rheinzabern, Ludowici Katalog*, 6 (Speyer)
- Rigby, V, 1982 *The coarse pottery*, in *Early Roman occupation at Cirencester* (J Wachter, & A McWhirr), *Cirencester Excavations*, 1, 153-200
- Roberts, W I, 1982 *Romano-Saxon pottery*, *Brit Archaeol Rep*, 106
- Rodwell, K A, forthcoming *The prehistoric and Roman settlement at Kelvedon Essex*, *Chelmsford Archaeol Trust Rep*, 6, *CBA Res Rep*, 63
- , 1974 *The excavation of a Romano-British pottery kiln at Palmer's School, Grays, Essex, Essex Archaeol Hist*, 15, 11-35
- Rodwell, W J, 1970 *Some Romano-Saxon pottery from Essex, Antiq J*, 50, 262-76
- , 1974 *The Orsett 'Cock' cropmark site, Essex Archaeol Hist*, 6, 13-39
- , 1975 *Trinovantian towns and their setting*, in *The small towns of Roman Britain* (eds W Rodwell, & T Rowley), *Brit Archaeol Rep*, 15, 85-102
- , 1976a *Some unrecorded archaeological discoveries in Essex, 1946-75, Essex Archaeol Hist*, 8, 234-48
- , 1976b *A relief moulded vessel*, in *Drury 1976b*, 255
- , 1978 *Stamped decorated pottery of the early Roman period in eastern England*, in *Arthur & Marsh 1978*, 225-92
- , 1982 *The production and distribution of pottery and tiles in the territory of the Trinovantes, Essex Archaeol Hist*, 14, 15-76
- , forthcoming a *Relief moulded pottery of the late Roman period*
- , forthcoming b *The pottery and its implications*, in *Excavations at Woodham Walter, 1976* (D G Buckley), *E Anglian Archaeol*
- Rodwell, W J, & Rodwell, K A, 1977 *Historic churches: a wasting asset*, *CBA Res Rep*, 19
- , & —, 1986 *Rivenhall: investigations of a villa, church and village, 1950-77*, *Chelmsford Archaeol Trust Rep*, 4, *CBA Res Rep*, 55
- Rouvier-Jeanlin, M, 1972 *Les figurines en terre cuite au Musée des Antiquités Nationales*, 24th Supp, *Gallia*
- Rutherford Davies, K, 1982 *Britons and Saxons. The Chiltern region 400-700*
- Sanders, J, 1973 *Late Roman shell-gritted ware in southern Britain*, unpublished BA thesis, Univ London
- Saunders, C, 1976 *Verulamium Museum, rescue excavations 1974-75*
- Sealey, P R, 1985 *Amphoras from the 1970 excavations at Colchester Sheepen*, *Brit Archaeol Rep* 142
- Sheldon, H, 1974 *Excavations at Toppings and Sun Wharves, Southwark, 1970-72*, *Trans London Middlesex Archaeol Soc*, 25, 1-116
- , 1978 *93-95 Borough High Street*, in *Bird et al 1978*, 423-72
- , 1981 *London and south east Britain*, in *The Roman west in the third century* (eds A King, & M Henig), *Brit Archaeol Rep*, 109, 363-82
- Stanfield, J P, & Simpson, G, 1958 *Central Gaulish potters*
- Swan, V, 1977 *Review of Fulford 1975a-b, Britannia*, 8, 480-2
- , 1981 *Caister-by-Norwich reconsidered and the dating of Romano-British pottery in East Anglia*, in *Anderson & Anderson 1981*, 123-56
- Tatton-Brown, T W T, 1974 *Excavations at the Custom House site, City of London, 1973*, *Trans London Middlesex Archaeol Soc*, 25, 117-219
- Tchernia, A, & Villa, J P, 1977 *Note sur le matériel recueilli dans la fouille d'un atelier d'amphores à Velaux (Bouches-du-Rhône)*, in *Coll Ecole 1977*, 231-40

- Terrise, J-R, 1968 *Les ceramiques sigillées Gallo-Romaines des Martres-de-Veyre*
- Thompson, I, 1982 *Grog-tempered 'Belgic' pottery of south-eastern England*, *Brit Archaeol Rep*, **108**
- Tildesley, J M, 1971 Roman pottery kilns at Rettendon, *Essex J*, **6.2**, 35-50
- Toynbee, J M C, 1962 *Art in Roman Britain*
- Tyers, P, 1978 The poppy-head beakers of Britain and their relationship to the barbotine decorated vessels of the Rhineland and Switzerland, in Arthur & Marsh 1978, 61-108
- VCH, 1963 *The Victoria History of the County of Essex*, **3**
- Webster, G, 1980 *The Roman invasion of Britain*
- West, S E, with Plouviez, J, 1976 The Romano-British site at Icklingham, *E Anglian Archaeol*, **3**, 63-126
- Wheeler, R E M, 1921 An Insula of Roman Colchester, *Trans Essex Archaeol Soc n ser*, **16**, 7-41
- Wheeler, R E M, & Wheeler, T V, 1928 The Roman Amphitheatre at Caerleon, Monmouthshire, *Archaeologia*, **78**, 111-218
- , & —, 1936 *Verulamium. A Belgic and two Roman cities*, *Soc Antiq Res Rep*, **11**
- Whiting, W, Hawley, W, & May, T, 1931 *Report on the excavation of the Roman cemetery at Ospringe, Kent*, *Soc Antiq Res Rep*, **8**
- Wild, J P, 1970 *Textile manufacture in the northern Roman provinces*
- Williams, D, 1977 The Romano-British black-burnished industry: an essay on characterisation by heavy mineral analysis, in Peacock 1977c, 163-220
- Wilson, D, 1972 Roman Britain in 1971, *Britannia*, **3**, 299-367
- Wilson, M, 1972 The other pottery, in Frere 1972, 263-370
- Wright, R P, & Hassall, M W C, 1974 Roman Britain in 1973, **2**. Inscriptions, *Britannia*, **5**, 461-70
- Young, C J, 1977 *Oxfordshire Roman pottery* *Brit Archaeol Rep*, **43**
- (ed), 1980 *Guidelines for the processing and publication of Roman pottery from excavations*, DoE. Occas Pap, **4**
- Yule, B, 1982 A third century well group and the late Roman settlement in Southwark, *London Archaeol*, **4.9**, 43-9



*Pl 1 Inworth, the kiln chamber from the south-west, as excavated by Mr Bennett, showing the facade and pots in situ.
Photo by H J D Bennett*



Pl 2 Inworth, the re-excavated kiln, stoke pit, and gully from the south-west. Photo by W J Rodwell