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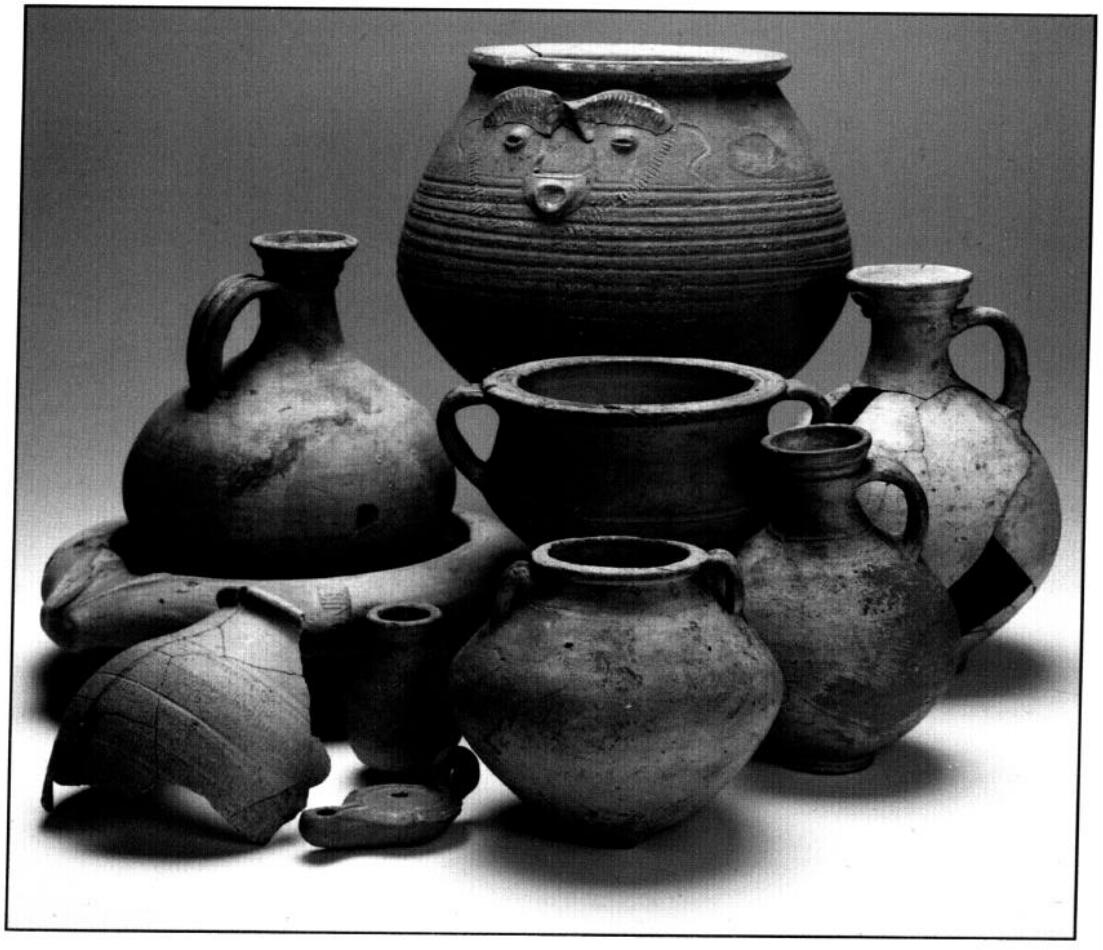
A dated corpus of early Roman pottery from the City of London

Barbara Davies, Beth Richardson, and Roberta Tomber



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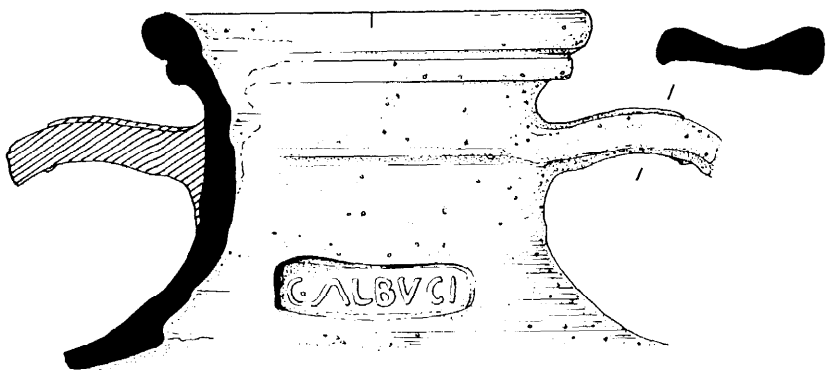

Frontispiece. Sugar Loaf Court flagon stamped by Caius Albucius (Scale 1:2)

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Volume 5:

A dated corpus of early Roman pottery from the City of London

by
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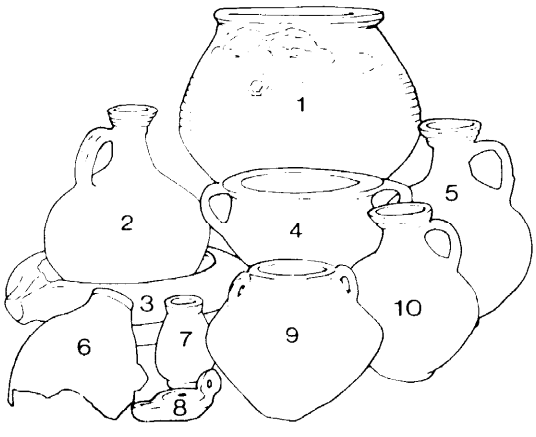

Front cover: Oxidized wares from the Verulamium Region.
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Summary

This volume presents the early Roman pottery from the City of London, both typologically and as chronological groups, for the period 50-160. The text is divided into seven chapters and five appendices.

The introduction (Chapter 1) provides a short history of Roman pottery studies in London, and outlines the main data base used here. One site, Newgate Street (GP075), provides a framework for the early Roman sequence, due to its well-defined stratigraphy in conjunction with nearly one tonne of pottery. Although some intrusive pottery was identified from the sequence, detailed analysis indicated that this did not distort the overall ceramic conclusions. The problems of the site and its sequence are set-out both in this chapter and in Appendix 1.

The evidence from GPO75 was supplemented by quantified data from nine other sites throughout London (Fig 182). By amalgamating the data from these ten sites it was possible to construct five ceramic horizons or ceramic phases for this period. These will provide an important basis for testing future ideas about the variability of ceramic distribution within London, as well addressing other questions of a social and economic nature.

In addition to this quantified data, incidence records noting presence were interrogated for over 250 London sites in order to test the conclusions presented here. Finally, the typology was enhanced by the illustration of complete vessels present in the Museum of London Reserve Collection.

Chapter 2 provides a summary of the methods of classification, the presentation of the remainder of the text and abbreviations used. The pottery is classified by both fabric and form type. Fabric is described in detail and in most cases referred to by common name - codes which are given to those types which occur with regularity, form a stylistic group or for which a source is known. Abbreviations for common names are expanded in Appendix 2. Forms are divided into seven main categories: flagons (I), jars (II), beakers (III), bowls/dishes (IV), plates (V), cups (VI) and mortaria (VII) which are further subdivided in the text. Pottery is quantified by weight and estimated vessel equivalents (Eves), measuring rim sherds. The raw data can be found in Appendix 5.

The core of the text (Chapters 3-6) is devoted to a description of the different ceramic industries present in London. The date, fabric, forms and, where possible, source are discussed for each industry or fabric. In the case of amphorae, contents is also discussed. Supporting illustrations and graphs accompany the text where appropriate.

As one of the major towns of early Roman *Britannia,* London boasts a diverse range of imported pottery, although not necessarily in large quantities. This is clearly seen through the amphorae, presented in Chapter 3. Large quantities of the common Baetican Dressel 20 and Gaulish amphorae dominate during this period, together with other Spanish types from both Baetica and Cadiz (Haltem 70, Dressel 28, Camulodunum 186). In addition, a number of imports from further afield can also be identified. The latter include the Cretan Dressel 43, Rhodian-style (Camulodunum 184) vessels from the Aegean and elsewhere, North African Cylindrical amphorae (a rare find for this early period), Dressel 2-4 wine amphorae from a variety of sources, as well as possible imports from elsewhere in the Mediterranean (Camulodunum 189 and Kingsholm 117).

The chapter also includes an important discussion, arguing a Gaulish source for the 'London 555' *(contra* Sealy & Tyers 1989). Finally although not common, the Italian Richborough 527, presented here, is perhaps more frequent in London than elsewhere in Britain.

Chapter 4 turns to the oxidized wares, including mortaria. Of great interest here is a local type, Sugar Loaf Court ware (SLOW), produced during the pre-Flavian period. The forms indicate a variety of continental influences, the most distinctive of which is the 'Schultertopfe' jar. In balance, the material indicates a potter originating from western Switzerland, between the valleys of the Saane and the Aare. One vessel is stamped by C ALBVCI, a name most common in northern Italy.

A second oxidized ware - Local Oxidized wares (LOXI) - diagnostic during the Hadrianic/Antonine period, may be local in origin, although a possible relationship with the Verulamium Region potteries is also discussed. Verulamium remains the most abundant oxidized ware throughout the sequence. Seven fabrics are presented in addition to the classic white ware, with two of these (Verulamium Region Coarse White-slipped ware and Brockley Hill White-slipped ware), tentatively assigned to the Verulamium region based on fabric comparisons between London material and the kiln sites, VCWS is of special interest, seemingly representing the end of the Verulamium production sequence, mainly during the early Antonine period. Other British sources represented by oxidized wares include Eccles and Hoo in Kent, as well as ?Gloucester.

Imported oxidized wares are mostly mortaria, from Aoste (Isire), Italy, the Rhone Valley and the Rhineland. One group, described here as North French/Southeast English can now almost certainly be attributed to France (K Hartley, pers comm). This group, including both flagons and mortaria, comprises a series of closely related fabrics associated with particular forms and occurs from the Neronian to early Antonine period. The most common of these groups is represented by the Gillam 238 or Hartley Group II mortarium.

Reduced wares are discussed in Chapter 5. Some-

what specialised categories of reduced wares are defined by technological characteristics (eg black-burnished) and where appropriate fabrics are discussed within these parameters. The most common and important reduced ware industry is the local one at Highgate Wood. The production site has been systematically excavated and a chronological sequence of three fabrics identified, of which the latter two are frequently present in the City: the first, a handmade grog-tempered ware (HWB), occasionally with red slip (HWBR) generally producing native forms is most common during the 1st century; the second, a wheel-made quartz-tempered fabric (HWC) producing Romanized forms dominates from 100-40, although production may continue to 160/80. Other wares thought to be local are not confinned by production sites, but include Copthall Close Grey ware, Early Roman Micaceous Sandy ware, Early Roman Sandy wares and Early Roman Sandy Iron-rich ware. ERMS is of special interest, as a stamp on this vessel indicates contact of some sort with sites in Sussex.

Non-local Romano-British reduced wares come from a variety of sources and the common ones include wares from Alice Holt (Surrey), and black-burnished wares from Dorset (BB1), Kent and Essex (BB2). Of the shelly wares, only those from north Kent are common, although sources in south Essex can also be identified by lesser amounts of pottery. East Sussex is represented by a rare grog-tempered ware. The only reduced ware imported from the Continent is represented by the North Gaulish Grey wares, a type more diagnostic of the later periods and only rarely found here.

Finally, Chapter 6 presents the non-samian fine wares. These, again, are discussed within technological categories (eg colour-coated wares). As for the amphorae, the variety of wares imported from the Continent is notable, with sources in Spain, south, central and northern Gaul, the Rhineland, Italy and possibly the Mediterranean present, None are common, but of these the Central Gaulish Colour-coated wares are best represented. South Gaulish Colour-coated ware is rare in Britain and as such the presence of four vessels from a single pit in London is significant.

Generally, the dating and typology of these wares is in keeping with the evidence from the Continent, although the Pompeian Red wares may be somewhat unusual. Firstly, the Campanian fabric (PRWl) which appears to be the most common fabric elsewhere in Britain is greatly out-numbered here by PRW3, with a possible source at Lezoux. The dating of this latter type may also be unusual, for the quantity of vessels in Hadrianic and Antonine deposits in London, if not residual, indicate a life extending beyond their normally accepted late 1st century date.

Many of the fine wares remain unsourced, particularly the reduced ones, but those interpreted as local include Marbled (LOMA), Mica-dusted (LOMI), Eggshell (LOEG) and some reduced fine wares including London (LONW) and three micaceous Fine Micaceous fabrics (FMIC-1659, ?FMIC-1746, ?MICA-383).

Non-local Romano-British wares from known sources are rare, but comprise Colchester, other sources in Essex and Kent. The Ring-and-dot Beaker fabric, common during the late Neronian and Flavian periods, may originate in the Verulamium region, where the production of Mica-dusted (VRMI) and Marbled (VRMA) wares is known.

The final section, Chapter 7, provides an overview of the main ceramic trends through time, presented as five ceramic phases, with accompanying illustrations and graphs. London is compared with other sites in the area for which quantified data was available. General trends which are identified include the decrease of imported Continental and Mediterranean pottery through time, the decline in oxidized wares and the gradual change in the ratio of bowls to jars, with bowls increasing in importance. A chronological discussion of the ceramic supply also shows a gradual consolidation in the number of source areas represented. The Boudiccan destruction serves as a critical breaking point for many of the ceramic trends. The five ceramic phases (with samian ware included here) are described in detail in the main text.

London's prime position, at the junction of major road and water systems, is reflected in the large number of Continental and Mediterranean imports present. In addition to receiving pottery, London undoubtedly served as a major, though not the sole, redistribution centre for a hinterland within the southeast. Not only imports, but many of the Romano-British wares present in London, were also supplied via waterways.

The importance of local industries to London's pottery supply is witnessed by a variety of grey ware producers during the 1st century, and a growing number of tie ware industries during the later 1st and 2nd centuries. In contrast, white wares were exclusively supplied by industries outside the immediate vicinity of London and the history of the potteries at Verulamium was largely influenced by the needs of London.

The period between 50 and 160, which coincides with London's maximum growth and size, falls into five main ceramic phases of development, each of which is related to distinct changes in supply. The pre-Boudiccan (RCP 1A) settlement largely clustered around the area east of the Walbrook, and in a ribbon development along the main east-west road. The original settlement dates from *c* 50 in Southwark, although in the City development later in the 50s is attested by the predominance of Neronian samian. New ceramic evidence - the earliest Highgate products in conjunction with early shelly wares - may, however, require revision of our current understanding of the City. This first phase of Roman London was destroyed by a fire in 60/l.

Most pre-Boudiccan assemblages are small in comparison with those from the later 1st century, indicating a relatively smaller population. Despite this, the pre-Boudiccan period was the time of greatest ceramic importation from outside Britain. The local

potteries at Highgate Wood were able to meet the demands of cooking pots through native grog-tempered wares, while more Romanized forms were predominantly supplied by producers outside London. Building techniques used during this period suggest that at least part of the population may have been Gallic or Italian in origin; the establishment of a local ceramic industry in London by a continental potter(s), probably from western Switzerland, also argues for an immigrant population.

After the Boudiccan uprising, the provincial capital was transferred from Colchester to London. Assemblages of late Neronian pottery indicate some activity in the town between 60/1 and 70 (RCP 1B). Pottery differs subtly from that seen in the pre-Boudiccan period, with non-sigillata fine ware imports reduced or absent; in most respects the same trends are present and these groups can be seen as intermediary, incorporating traits of both pre-Boudiccan and Flavian assemblages.

Between 70 and 80 London acquired the attributes of a major town, as witnessed by the scale and official character of the waterfront, the earliest phase of the first forum and various bath houses. Occupation spread west of the Walbrook, and further expansion continued during the Flavian period as witnessed by the second forum and enlarged waterfront. This expansion is reflected by the growing number of contexts and the larger size of ceramic assemblages assigned to the Flavian period (RCP 2). During this time there was a greater dependence on larger industries such as Alice Holt and the urban potteries at Verulamium.

Expansion and town planning continued throughout the Trajanic period (RCP 3) with completion and development of existing public buildings and the waterfront, and more intensive occupation both east and west of the Walbrook. The Upper Walbrook area was now developed for the first time. By this time Britain had achieved a certain degree of economic independence in terms of ceramic production, and this is evident from the diversification in fine wares, many of which are local. Native traditions of pottery manufacture were replaced by Romanized fabrics and vessel types.

A second wide-scale conflagration in London has been proposed as marking the beginning of the Hadrianic period (RCP 4). The waterfront was reorganized in the mid to late 2nd century, while building activity established northern limits of the city. The pottery of this period shows a marked change that continues into the early Antonine period (RCP 5). In common with the rest of Britain, London was now receiving regional wares, such as BB1 and BB2. Rare imports such as fine wares from Cologne herald the importance of ceramic patterns realized in the later Roman period.

The Hadrianic period was the last main phase of construction in the western part of the City; in the middle Walbrook bath houses were dismantled in the late 2nd/early 3rd century, but may have been abandoned earlier; while in the Upper Walbrook Valley occupation continued into the 3rd century. The comparative rarity of assemblages dating to the later 2nd century suggests a real decline in the population during this period. A change in ceramic patterns are witnessed by the cumulative decrease in material from Highgate Wood and to a lesser extent Verulamium. The continuation of this trend, during the period 160-80, is more fully understood and complemented by the study of London's development and pottery supply during the late Roman period (Symonds & Tomber 1991).

Résumé

Ce volume traite de la céramique romaine du Haut-Empire trouviée dans la Cite de Londres, à la fois au plan typologique et en tant que groupes chronologiques, ceci pour la période allant de 50 à 160 après J.C. Le texte est divisé en sept chapitres et cinq appendices.

L'introduction (chapitre 1) nous fournit un bref aperçu des etudes relatives à la céramique romaine de Londres, et expose à grands traits le fichier central de données utilisé ici. Un site comme Newgate Street (GPO 75) par exemple, présente un canevas ideal pour la sequence concernant la période romaine précoce, grace à sa stratigraphie bien définie concurremment à presque une tonne de poteries trouvées. Bien que l'on ait identifié dans cette séquence certains exemples de céramiques intrusives, une analyse detaillée indiqua que ceci ne faussait pas les conclusions générales concernant la céramique. Les problèmes relatifs à ce site et à sa séquence sont exposes à la fois dans ce chapitre et dans l'appendice 1.

L'évidence fournie par le site GPO 75 fut complétée grâce à une information quantifiée émanant de neuf autres sites à travers Londres (Fig 182). En amalgamant les données issues de ces demiers on a pu établir cinq horizons de céramiques ou phases céramiques concernant cette période. Ceux-ci nous fourniront une base importante pour tester toute idée future relative à la variabilité de la distribution des céramiques au sein de Londres, de même que pour soulever d'autres questions d'une nature économique et sociale.

Outre cette information quantifiée, nos banques de données furent consult&es pour plus de 250 sites londoniens dans le but de tester les conclusions présentées ici. Pour finir, la typologie fut mise en

valeur grace à l'illustration de vases complets appartenant à la collection des reserves du Musée de Londres.

Le chapitre 2 comprend un résumé des méthodes de classification, la presentation du reste du texte et les abréviations utilisées. La céramique est classifiée à la fois par type de pâte et par forme. La pate est décrite en detail et dans la plupart des cas mentionnée sous son nom commun - ces codes sont donnés à des types qui apparaissent régulièrement, formant un groupe stylistique ou pour lesquels la source en est connue. Les abréviations des noms communs sont exposées dans l'appendice 2. Les formes sont divisées en 7 categories principales: cruches (I), jarres (II), gobelets (III), jattes/plats (IV), assiettes (V), coupes (VI) et mortiers (VII) - ces categories sont subdivisées plus amplement dans le texte. La céramique est quantifiée par son poids et par le nombre d'équivalents-vases (N.E.V.) en mesurant les fragments des rebords. Les données brutes sont classifiées dans l'appendice 5.

La partie centrale du texte (chapitres 3-6) est dévalue à la description des différentes productions de céramiques présentes à Londres. La datation, les pates, les forrnes et, si possible, les sources sont passées en revue pour chaque production ou pour chaque type de céramique. Dans le cas des amphores, le contenu est aussi pris en consideration. Des illustrations et des graphiques accompagnent le texte si nécessaire.

En tant que ville majeure de Britannia au debut de l'époque romaine, Londres pouvait se vanter de recevoir une gamme variée de céramiques importées, pas nécessairement en grande quantité. Ceci est nettement mis en evidence par les amphores présentées dans le chapitre 3. Des quantités importantes de Dressel 20 de Baetica et d'amphores gauloises indiquent la preponderance de celles-ci durant cette pet-lode, de même que d'autres types espagnols provenant à la fois de Baetica et de Cadiz (Haltem 70, Dressel 28, Camulodunum 186). On peut de mime identifier un certain nombre d'importations émanant de pays plus lointains. Ce demier groupe comprend les Dressel 43 crétoises, les recipients de style rhodien (Camulodunum 184) provenant de la Mer Égée et d'ailleurs, les amphores cylindriques d'Afrique du Nord (une découverte rare pour cette période précoce), les amphores à vin Dressel 2-4 ayant plusieurs origines, de même que des importations émanant probablement d'autres endroits de la Méditerranée (Camulodunum 189 et Kingsholm 117).

Ce chapitre comprend, de même, une discussion importante quant à l'origine gauloise de l'amphore «London 555» *(contra* Sealey & Tyers 1989). Enfin, bien que peu répandue, l'amphore italienne Richborough 527, présentée ici, se rencontre sans doute plus fréquemment à Londres que partout ailleurs en Grande-Bretagne.

Le chapitre 4 est consacré aux céramiques à cuisson oxydante, y compris les mortiers. Un type local de grand intérêt ici est celui dénommé «Sugar Loaf Court» (SLOW), produit durant l'époque préflavienne. Les formes trahissent une variété d'influences continentales, dont la plus significative est la jarre «Schultertopfe». Tout bien considéré le materiel pointe dans la direction d'un potier originaire de la Suisse de l'ouest, entre les vallées de la Saane et de l'Aare. Un récipient est estampillé au nom de C ALBVCI, un nom des plus commun dans le nord de l'Italie.

Une seconde production à cuisson oxydante - céramiques locales à cuisson oxydante (LOXI) - symptomatique de la période hadrienne/antonine, semble être d'origine locale, bien qu'une relation possible avec les ateliers de la region de Verulamium soit aussi matière à discussion. Les céramiques à cuisson oxydante de Verulamium sont les plus abondantes tout au long de la sequence. Sept types de céramiques sont présentées parallélement aux productions classiques à pâte blanche, avec deux d'entre elles (VCWS ou pâte granuleuse à engobe blanc de Verulamium et celle à engobe blanc de Brockley Hill), attribuées provisoirement à la region de Verulamium à partir de la comparaison des pâtes entre le matériel de Londres et celui des sites où ont été trouvé les fours. VCWS est d'un interêt tout special, en ce qu'elle représente apparemment la fin de la sequence de production de Verulamium, principalement pendant les premiers temps de la période antonine. Les origines d'autres céramiques à cuisson oxydante incluent Eccles et Hoo dans le Kent, de même que peut-être Gloucester.

Les céramiques à cuisson oxydante importées sont essentiellement des mortiers, provenant de 1'Aoste (Isére), d'Italie, de la vallée du Rh›ne et de la Rhénanie. Un groupe décrit ici comme étant «de la France du nord/du sud-est de 1'Angleterre» peut maintenant être attribué presque sans aucun doute à la France (K Hartley, comm pers). Cet ensemble, comprenant à la fois des cruches et des mortiers, présente une série de pates étroitement apparentées entre elles tout en étant associées à des formes particulières, qui apparaissent de la période de Néron jusqu'au debut de l'ère antonine. Le groupe le plus commun est représenté par les mortiers Gillam 23 ou Hartley groupe II.

Les céramiques à cuisson réductrice sont passées en revue dans le chapitre 5. Des categories un tant soit peu spécialisées de cette céramique se définissent grâce à leurs caractéristiques technologiques (par exemple, la ((black-burnished ware))) et lorsque cela est nécessaire les pâtes sont examinées à l'intérieur de ces paramètres. La production la plus courante et la plus importante de céramiques à cuisson réductrice est celle de Highgate Wood. Le site a été systématiquement fouillé et une séquence chronologique de trois pâtes a pu être identifiée. Les deux demiéres sont présentes dans la cite de Londres; la premiere de celles-ci, une céramique modelée «a dégraissant de chamotte» (HWB), parfois avec engobe rouge (HWBR) produisant généralement des formes indigenes se rencontre couramment au ler siècle; la deuxième, tournée à pâte à «inclusions quartzeuses» (HWC) produisant des formes romanisées domine à

partir des années 100-140 après JC, bien que la production se soit poursuivie jusque dans les années 160 à 180. L'origine locale d'autres céramiques ne peut être confirmée par les sites de production, parmi celles-ci figurent la céramique «Copthall Close à pâte g-rise» (CCGW), la «céramique précoce romaine à pate sableuse micacée» (ERMS), la «céramique précoce romaine à pâte sableuse» (ERSA, ERSA/B et ERSAB) et la «céramique précoce romaine à pâte sableuse et à riche teneur en fer» (ERSI). ERMS est d'un intérêt tout special car une estampille sur un des recipients indique la presence d'une certaine forme de contact avec des sites du Sussex.

Les céramiques romano-britanniques non locales à cuisson réductrice proviennent d'une variété de sources, parmi les plus courantes figurent celles de Alice Holt, Surrey (AHSU) et les «black-burnished wares» du Dorset (BBl), du Kent (BB2) et de l'Essex (BB2). Parmi les céramiques à «inclusions de coquillages», seulement celles du nord du Kent (NKSH) sont abondantes, bien que de moindres quantités trahissent aussi la presence de productions dans le sud de l'Essex. L'est du Sussex se signale par la presence d'une céramique rare. La seule production à cuisson reductrice importée du Continent est celle des céramiques grises du nord de la Gaule, un type plus typique des périodes posterieures et trouvé seulement rarement ici.

Finalement, le chapitre 6 présente les céramiques fines non-sigillées. Celles-ci sont aussi considérées en fonction de leur appartenance à des categories technologiques (par exemple, celles couvertes d'un engobe de couleur). Quant aux amphores, la variété des poteries importées du Continent est remarquable, provenant d'Espagne, du sud, du centre et du nord de la Gaule, de la region du Rhin, d'Italie et probablement de la Mediterranée. Aucune n'est courante, mais parmi celles-ci les céramiques engobées du centre de la Gaule sont les mieux représentées. Celles du sud de la Gaule sont rares en Grande-Bretagne et par consequent la presence de quatre de ces récipients trouvés dans une même fosse à Londres est significatif.

En general, la datation et la typologie de ces vases sont corroborées par les exemples émanant du Continent, bien que les céramiques à «vernis rouge-pompéien» soient quelque peu inhabituelles. Tout d'abord, la pâte campanienne (PRW1) qui semble être la pâte la plus courante dans d'autres regions de Grande-Bretagne est nettement moins présente ici que PRW3, avec une origine probable à Lezoux. La datation de ce type de céramique semble être de mime, inhabituelle, car la quantité de vases trouvés dans des dépots de la période hadrianique et antonine à Londres, s'ils ne sont pas residuels, indique une durée de vie bien supérieure à celle qui leur est normalement attribute - c'est-à-dire jusqu'à la fin du ler siècle.

L'origine d'un grand nombre de ces céramiques fines reste méconnue, particulièrement celles à cuisson réductrice, tandis que celles reconnues comme étant locales incluent les «marbrées» (LOMA), les «mica-dorées» (LOMI), les «coquilles d'oeuf» (LOEG), et certaines céramiques fines à cuisson réductrice comme la «London» (LONW) et trois pates fines micacées (FMIC-1659, ?FMIC-1746, ?MICA-383).

Des vases romano-britanniques non-locaux de source sure sont assez rares, mais on en trouve néanmois provenant de Colchester, et d'autres endroits de l'Essex et du Kent. La pâte des gobelets dits à «anneaux et points», courante vers la fin de l'époque de Néron et à la période flavienne, semble trouver son origine dans la region de Verulamium, où la production de céramiques «mica-dories» (VRMI) et «marbrées» (VRMA) est connue.

La section finale, le chapitre 7, nous fournit une vue d'ensemble des tendances céramiques principales durant le Haut Empire, présentée sous forme de cinq phases céramiques, accompagnées d'illustrations et de graphiques. Londres est comparé à d'autres sites de la region pour lesquels des informations quantifées sont disponibles. Parmi les tendances générales identifiées figurent la diminution des importations de céramiques provenant du Continent et de la Mediterranée à travers les décennies, le déclin en céramiques oxydées et le changement graduel dans le ratio jattes/jarres, avec les jattes prenant de plus en plus d'importance. Une discussion au plan chronologique de l'approvisionnement en céramiques nous montre de même une consolidation progressive dans le nombre de regions d'origine représentées. La destruction causée par Boudicca sert de limite critique pour de nombreuses tendances concernant les poteries. Les cinq phases céramiques (la sigillée étant inclue ici) sont décrites en detail dans le texte principal.

La position privilégiée de Londres, au carrefour d'importantes voies de communication terrestres et fluviales est reflétée par le nombre important d'importations continentales et méditerranéennes. A part le fait d'avoir été le port de destination de ces céramiques, Londres sans aucun doute servit de centre majeur de redistribution, parmi d'autres, du sud-est vers l'arriére-pays. Outre les importations, beaucoup de céramiques romano-britanniques présentes à Londres furent aussi acheminées par voies fluviales.

L'importance des centres de fabrication locaux pour l'approvisionnement de Londres en céramiques est mise en evidence par bon nombre de productions de céramiques grises au ler siécle, et un nombre croissant de productions fines vers la fin du ler siécle et au 2ème siècle. Par contre, les céramiques à pate blanche ètaient fournies exclusivement par des ateliers situés en dehors de la périphérie immediate de Londres et l'histoire des centres de production de Verulamium était largement influencée par les besoins de la capitale.

La période située entre 50 et 160, qui coincide avec les années durant lesquelles Londres connut une croissance et une taille maximales, correspond à cinq phases céramiques principales de développement, chacune d'entre elles étant liée à des changements distincts quant à l'approvisionnement. L'agglomération précédant Boudicca (RCP 1A) s'étendait à

travers la region située à l'est du Walbrook, formant un <<ruban>> de développement le long de la route principale est-ouest. Le peuplement d'origine date d'environ 50 à Southwark, bien que dans la Cite un développement postérieur aux années 50 soit attesté par la predominance de la sigillée de l'époque de Néron. De nouvelles évidences concernant la ceramique - les premieres productions de Highgate en conjonction avec des céramiques précoces à ((inclusions de coquillages>> - peuvent, néanmoins, nécessiter une révision de notre comprehension actuelle de la Cite de Londres. Cette premiere phase du Londres romain fut détruite par l'incendie de 60/l.

La plupart des <<assemblages>> précédant la révolte de Boudicca sont de moindre importance comparés à ceux de la fin du ler siécle, trahissant une population relativement moins nombreuse. Malgré cela, la période précédant Boudicca est l'epoque la plus importante pour l'importation de céramiques provenant ailleurs que de la Grande-Bretagne. Les ateliers locaux de Highgate Wood étaient en mesure de pourvoir aux besoins en pots utilisés pour la cuisine grace aux vases à <<dégraissant de chamotte>> indigenes (GROG), tandis que la plupart des formes romanisées étaient principalement produites par des fabricants en dehors de Londres. Les techniques de construction de l'époque laissent à penser qu'au moins une partie de la population était d'origine gauloise ou italienne; l'implantation d'une production de céramiques locales à Londres par un ou plusieurs potiers provenant du continent, probablement de la Suisse de l'ouest, témoigne aussi de la presence d'une population immigrée.

Aprés l'insurrection de Boudicca, la capitale provinciale fut transferee de Colchester à Londres. Des <<assemblages>> de céramiques de la fin de l'époque de Néron indiquent un semblant d'activité dans la ville entre 61 et 70 (RCP 1B). Les céramiques sont légèrement différentes de celles de l'époque précédant Boudicca, et les importations en céramiques fines non-sigillées sont réduites ou même absentes; à bien des égards, les mêmes tendances sont présentes et ces groupes peuvent être considérés comme étant intermédiaires, incorporant des traits appartenant à la fois à la période précédant Boudicca et aux <<assemblages>> flaviens.

Entre 70 et 80 Londres acquit les attributs d'une ville importante, comme en témoignent l'échelle et le caractére officiel des quais, les phases initiales de construction du premier forum et divers établissements de bains. L'occupation s'étendit à l'ouest du Walbrook, et une nouvelle expansion se poursuivit pendant la période flavienne comme en témoignent le second forum et l'élargissement des quais.

Cette expansion se refléte dans le nombre croissant de contextes et l'augmentation des <<assemblages>> céramiques appartenant à la période flavienne (RCP 2). 11 y avait à cette époque une dépendance plus grande des ateliers tels que Alice Holt et les centres de production urbains de Verulamium.

L'expansion et l'aménagement de la ville se prolong&rent tout au long de la période de Trajan (RCP 3) durant laquelle furent achevés et développés les bâtiments publics deja existants et les quais, parallélement à une occupation plus intense à la fois à l'est et à l'ouest du Walbrook. La region du Haut-Walbrook fut alors développée pour la premiere fois. La Grande-Bretagne avait atteint à cette époque un certain degré d'indépendance économique au plan de la production de céramiques, ceci étant evident par la diversification des céramiques fines, dont la plupart sont locales. Les traditions indigenes dans les ateliers de fabrication furent remplacées par des pâtes et des types de recipients romanisés.

11 a été suggéré que le deuxiéme embrasement de grande envergure touchant Londres marqua le début de l'époque d'Hadrien (RCP 4). Les quais furent réorganisés du milieu jusqu'a la fin du 2éme siécle, tandis que de nouvelles constructions établissaient les limites septentrionales de la ville. La production de cette période est marquee d'un changement notable qui se poursuit jusque dans les premiers temps de la période antonine (RCP 5). En commun avec le reste de la Grande-Bretagne, Londres recevait alors des céramiques regionales, telles que la BB1 et la BB2. Des importations rares comme les vases fins de Cologne annoncent l'importance des modéles de céramiques réalisés vers la fin de l'époque romaine.

La période d'Hadrien representa la demière des phases principales de construction dans la pat-tie ouest de la Cite. Au niveau du cours moyen du Walbrook des établissements de bains furent démanteles soit vers la fin du 2ème siécle soit au debut du 3ème, ou encore ont pu être abandonnés avant cela, tandis que la vallée du cours supérieur du Walbrook continua à être occupée jusqu'au 3éme siécle. La rareté comparative des <<assemblages>> datant de la fin du 2éme siécle suggére un déclin reel de la population à cette époque. Un changement dans les modéles de céramiques accompagne une diminution cumulative du materiel provenant de Highgate Wood et à un moindre degré de Verulamium. La continuation de cette tendance, durant les années 160-80, est plus amplement appréhendée et complétée par l'étude du développement et de l'approvisionnement en céramiques de Londres dans le Bas-Empire (Symonds et Tomber 1991).

Zusammenfaßung

Dieser Band stellt frührömische Tonwaren der Londoner City aus den Jahren 50-l60 AD vor und gruppien sie typologisch und zeitlich in sieben Kapiteln und fünf Anhängen.

Das erste Kapitel, die Einleitung, gibt einen kurzen, geschichtlichen Überblick über die Tonwarenforschung in London und einen Abriß der hier verwendeten Databank. Die Ausgrabung in Newgate Street (GP075) mit ihrer gut definierten Stratigrafie und fast einer Tonne Scherben liefert den Rahmen für die frükhrömische Sequenz. Obwohl sich dabei auch einige intrusive Stücke befanden, zeigt doch detaillierte Analyse, daß diese die allgemeinen keramischen Schlußfolgerungen nicht beeintrtächtigen. Die Problematik der Ausgrabung und ihrer Sequenz werden in diesem Kapitel und im Anhang 1 dargelegt.

Gewichtmäßig erfaßte Daten von neun anderen, über London verstreuten Ausgrabungen ergänzen das GPO75 Material (Abb 182). Die Vereinigung der Daten von diesen zehn Ausgrabungen ermöglichte es, fünf keramische Horizonte oder uch Phasen fur den besagten Zeitraum herauszuarbeiten. Letztere liefern uch die Gnundlage dafür, künftige Ideen über die Variationsbreite keramischer Verteilungen in London zu testen und Fragen sozialer und wirschaftlicher Natur anzugehen.

Zusätzlich zu den gewichtmäßig erfaißten Daten wurden auch noch Aufzeichnungen über vorläufig datierte Keramikvorkommen in über 250 weiteren Londoner Ausgrabungen einbezogen, um die hier getroffenen Schlußfolgerungen zu testen. Schließlich wurden zur Verbesserung der Typologie noch Illustrationen vollständiger Gefäße hinzugefügt, die sich in der Reserve-Sammlung des Museum of London befinden.

Kapitel 2 faßt die Methoden der Klassifizierung zusammen und stellt den restlichen Text und die verwendeten Abkürzungen dar. Die Gegenstände werden nach Tonart und Formtypus klassifiziert. Der Ton wird im einzelnen beschrieben und in den meisten Fallen unter seinem volkstümlichen Namen geführt. Typen, die regelmäßig vorkommen erhalten eine Kode und werden einer stilistischen oder - wenn bekannt - einer Herkunftsgruppe zugeordnet. Die Abkürzungen volkstümlicher Namen werden ausführlich in Anhang 2 behandelt. Alle For-men fallen in eine der sieben Hauptgruppen: Krüge (I), Töpfe (II), Becher (III), Schüsseln/Schalen (IV), Teller (V), Tassen (VI) und Mörserarten (VII), die dann jeweils weiter unterteilt werden. Die Tonwaren werden durch Vermessung der Randscherben nach Gewicht bestimmt und die Anzahl der Gefäße geschätzt (Eves). Anhang 5 enthält die unaufbereiteten Daten.

Kapitel 3-6, das Kemstück des Textes, befassen sich mit den verschiedenen keramischen Werkstätten, die es damals in London gab. Datierung, Ton, Form und wo immer möglich Herkunft werden für jede Werkstatt und Ton erörten. Bei Arnphoren wird auch der Verwendungszweck behandelt. Wo es angemessen ist, begleiten Illustrationen und Grafiken den Text.

Als eine der bedeutenderen Städte des frührömischen Britanniens kann sich London einer besonderen Vielfalt importierter Tonwaren rühmen, wenngleich auch nicht immer in großer Menge. Dieses kann man deutlich an den in Kapitel 3 beschriebenen Amphoren sehen. Große Mengen der gewöhnlichen Baetica Dressel 20 und gallische Amphoren herrschen ebenso wie andere spanische Arten aus Baetica und Cadiz (Haltem 70, Dressel 28, Camulodunum 186) in diesem Zeitraum vor. Auch Importe von weiter entfernten Orten kann man identifizieren. Dazu gehören kretische Dressel 43, Gefäße im rhodischen Stil (Camulodunum 184) aus der Ägäis und von anderen Orten, sowie zylindrische, nordafrikanische Arnphoren - was in dieser frühen Zeit selten ist - aber auch Dressel 2-4 Weinamphoren verschiedenster Herkunft und Importe aus möglicherweise anderen Mittelmeergegenden (Camulodunum 189 und Kingsholm 117).

In demselben Kapitel werden auch noch andere bedeutende Themen erörtert wie z.B. die gallische Herkunft des 'London 555' (im Gegensatz zu Sealy & Tyers 1989). Schließlich ist auch der italienische Richborough 527 in London vertreten, wenn auch nicht weir verbreitet so doch vielleicht häufiger als sonst in Britannien.

Kapitel 4 behandelt die oxydierten Tonwaren einschließlich der verschiedenen Mörserarten. Besonderes Interesse verdient hier ein lokaler Typus, die Sugar Loaf Court Ware (SLOW) aus präflavianischer Zeit. Die Formen weisen auf eine Reihe kontinentaler Einflüße, insbesondere des 'Schultertopfs'. Im ganzen gesehen weisen die Formen auf einen Töpfer aus der Westschweiz irgendwo zwischen dem Saane- und Aaretal. Eines der Gefäße ist mit C ALBVCI gestempelt, einem in Norditalien weitverbreiteten Namen.

Eine zweite Art oxydierter Ware (Local Oxidized Ware: LOXI), kennzeichnend fir die hadrianiscti antonianische Periode, mag lokalen Ursprungs sein, obwohl auch eine mögliche Beziehung mit Ware aus der Gegend von Verulamium diskutiert wird. Verulamium Ware ist die meist vertretene durch die ganze Sequenz. Außer der klassischen weißen Ware werden weitere sieben Tonarten vorgestellt, von denen zwei mit weiß geschlämmtem Überzug (Verulamium Region Coarse (VCWS und Brockley Hill) vorläufig und basierend auf Tonvergleichen mit London der Gegend um Verulamium zugeordnet werden. Besonderes Interesse verdient VCWS, weil es scheinbar das Ende der verulamischen Produktionfolge kennzeichnet, die im wesentlichen in der frühen antonianischen Periode lag. Oxydierte Ware anderer britischer Herkunft kommen aus Eccles, Hoo (Kent) und ?Gloucester.

Die importierte oxydierte Ware besteht in den meisten Fallen aus Mörserarten, die aus Aoste (Isére), Italien, dem Rhonetal und dem Rbeinland stammen. Eine Gruppe, die man bisher als 'nordfranzösisch/ südostenglisch' klassifiziert hat, kann jetzt fast mit Sicherheit Frankreich zugeordnet werden (gestützt auf unveröffentlichte Information von K Hartley). Diese Gruppe von Krügen und Mörsern aus nahe verwandtern Material und ähnlichen For-men gibt es von der neronischen bis zur frühen antonianischen Periode. Die meist verbreiteten Beispiele dieser Gruppen sind Gillam 238 und Hartley Group II Mörser.

Kapitel 5 behandelt reduzierte Tonwaren. Einige, in gewisser Weise Sonderarten, der reduzierten Ware werden entsprechend ihren technologischen Besonderheiten definiert (z-B, schwarz glatt). Wo es angebracht erscheint, wird in diesem Zusammenhang auch deren Material erörtert. Die meist verbreitete und bedeutendste reduzierte Ware wurde lokal in Highgate Wood hergestellt. Bei der systematischen Ausgrabung der Produktionsstätte konnte eine Sequenz von drei Tonarten identifiziert werden, von denen die letzten beiden auch in der City vorkommen. Die erste, eine von Hand gemachte, grog-gemagerte Ware (HWB), gelegentlich auch mit einem roten Überzug (HWBR) zu finden, wurde im allgemeinen zur Herstellung 'eingeborener' Formen verwendet und ist am weitesten im 1. Jh. verbreitet. Die zweite, eine auf der Scheibe gedrehte, quarz-gemagerte Ware (HWC), wurde meist zur Herstellung romanisierter Formen verwendet und herrschte in den Jahren 100-140 AD vor, obwohl ihre Produktion bis 160-180 AD weitergegangen sein mag. Andere Waren, vermutlich such lokaler Art, können nicht durch Produktionsstätten bestätigt werden. Zu ihnen gehören Copthall Close Grey und frührömische, glimmerhaltige Ware (ERMS) sowie frührömische Sand- und eisenreiche Sandware. Die ERMS ist von besonderem Interesse, da der Stempel auf einem Gefäß auf Kontakte mit anderen Stätten in Sussex hinweist.

Nicht lokale, romano-britische reduzierte Ware stammt aus einer Reihe von Quellen. Verbreitet ist Ware aus Alice Holt (Surrey), 'schwarz-glatte' aus Dorset (BBl), Kent und Essex (BB2). Von der muschel-gemagerten Ware ist nur die aus Nordkent verbreitet, obwohl such Quellen in Südessex, wenn auch an Hand nur weniger Stücke, identifiziert werden konnten. Aus Ostsussex kommt eine seltene grog-gemagerte Ware. Die einzige vom Kontinent importierte reduzierte Ware ist nordgallische Grauware, die jedoch mehr in späteren Perioden und dann auch nur selten vorkommt.

Kapitel 6 schließlich behandelt die nicht-sigillata, feine Ware, die wiederum entsprechend technologisthen Kategorien erörtert wird (z-B. 'farbüberzogene Ware'). Bemerkenswert ist die Vielfalt der vom Kontinent importierten Amphoren. Sie kommen aus Spanien, Nord-, Süd- und Zentralgallien, dem Rheinland, Italien und möglicherweise aus dem weiteren Mittelmeerraum. Wenn auch keine von ihnen weite Verbreitung genießst doch die zentralgallische Ware mit Farbüberzug noch am besten vertreten. Da südgallische Ware mit Farbüberzug in Britannien selten ist, kommen den vier in einem Grube gefundenen Exemplaren besondere Bedeutung zu.

Obwohl im allgemeinen Datierung und Typologie mit denen auf dem Kontinent übereinstimmen, ist die pompeji-rote Ware etwas ungewöhnlich. Während Ton aus Kampanien (PRWl) anderswo in Britannien der verbreitetste zu sein scheint, überwiegt in London PRW3, möglicherweise aus Lezoux. Auch die Datierung dieser Art mag ungewöhnlich sein, da die Anzahl der Gefäße in hadrianischen und antonianischen Lagen, falls sie nicht residual sind, auf ihr Fortleben über das normalerweise akzeptier-te 1. Jh. hinaus hinweist. Viel dieser feinen, besonders der reduzierten Ware, bleibt der Herkunft nach unbestimmt. Zu denen, die als lokal interpretiert werden, gehören marmotierte (LOMA), glimmerbesttäubte (LOMI), Eierschale (LOEG), einige Stücke reduzierter feiner Ware einschließlich London (LONW) und drei glimmerhaltige Tone (FMIC-1659, ?FMIC-1746, ?MICA-383).

Nicht-lokale, romano-britische Ware bekannter Herkunft ist selten. Zu den bekannten gehören z.B. Colchester sowie einige Orte in Essex und Kent. Das Kreis-mit-Punkt Becher Material, verbreitet in spätneronischer und flavianischer Zeit, mag seinen Ursprung in der Umgebung von Verulamium haben, wo die Produktion glimmerbestäubter (VRMI) und marmorierter (VRMA) Ware bekannt ist.

Kapitel 7, der letzte Teil, gibt einen Überblick über keramische Tendenzen während dieser Jahre, dargestellt in fünf keramischen Phasen und begleitet von Illustrationen und Grafiken. London wird mit anderen Ausgrabungsstätten in der Gegend, die über gewichtmäßig bestimmte Daten verfügen, verglichen. Allgemeine Tendenzen, die über einen Zeitraum identifiziert werden können, sind z.B. das Schrumpfen der Importe kontinentaler und mittelmeerischer Töpferei, der Rückgang oxydierter Ware und die allmähliche Veränderungen im Verhältnis zwischen Töpfen und Schüsseln, wobei letztere an Bedeutung gewinnen. Auch eine Betrachtung unter zeitlichem Aspekt zeigt, daß allmählich eine Konsolidierung der Herkunftsgegenden stattfindet. Mit der Budicca Zerstörung kommen viele der Trends zum erliegen. Die fünf keramischen Phasen, die in diesem Fall auch die terra sigillata einschließen, werden hier im Detail beschrieben.

Londons Sonderstellung am Kreuzpunkt größerer Straßen- und Wassersysteme zeigt sich an der großen Zahl kontinentaler und mittelmeerischer Importe. Dazu kommt such, daß London unzweifelhaft wesentlither, wenn auch nicht einziger Umschlagplatz für das südöstliche Hinterland war. Nicht nur die importierte sondem auch die romano-britische Ware benutzte den Wasserweg.

Die Anzahl der Grauwarenherstcller im London des 1. Jhs. und die wachsende Zahl der Hersteller feiner Keramik im späten 1. und während des 2. Jhs. zeugen von der Bedeutung der lokalen Tonwarenindustrie. Im Gegensatz dazu stammt die weiße Ware ausschließlich

von außerhalb Londons und seiner Umgebung. In dieser Hinsicht bestimmten die Bedürfnisse Londons weitgehend die Entwicklung der Töpferwerksttätten in Verulamium.

Die fünf Hauptphasen der keramische Entwicklung fallen in den Zeitraum von 50-l60 AD, eine Zeit in der London am stärksten wuchs und sein größtes Ausmaß erreichte. Jede dieser Phasen zeigt einen deutlichen Wandel im Angebot. Die prä-Budicca Siedlung (RCP 1 A) konzentrierte sich hauptsächlich auf die Gegend östlich der Walbrook und als Reihensiedlung entlang der von Ost nach West führenden Hauptstraße. Die ursprüngliche Siedlung entstand in Southwark urn ungefähr 50 AD, während die Entwicklung der City in den späten 50er Jahren durch die vorherrschende terra sigillata bezeugt ist. Neue keramische Anhaltspunkte - die frühesten Highgate Produkte zusammen mit früher Muschelware - mögen jedoch eine Revision unseres gegenwärtigen Bildes von der City notwendig machen. Diese erste Phase des römischen Londons zerstörte das Feuer in 60/61 AD.

Die meisten prä-Budicca Fundgruppen sind klein im Vergleich zu denen des späten 1. Jhs. und weisen auf eine relativ geringe Bevölkerung. Dennoch weist die prä-Budicca Periode die größten Importe von außerhalb Britanniens auf. Die lokalen Töpfereien in Highgate Wood deckten den Bedarf an Kochtöpfen mit Hilfe der eingeborenen, grog-gemagerten Ware, während die mehr romanisierten Formen von außerhalb Londons kamen. Bautechniken dieser Zeit lassen den Schluß zu, daß zumindest ein Teil der Bevölkerung aus Galliern und Italienern bestand. Auch die Tatsache, daß die lokale Keramikherstellung von einem oder mehreren kontinentalen Töpfern - vermutlich aus der Westschweiz - begründet wurde, spricht fur eine eingewanderte Bevölkenmg.

Nach den Budicca Aufständen wurde die Provinzhauptstadt von Colchester nach London verlegt. Anhäufungen spätneronischer Tonwaren weisen auf einige Aktivität in der Stadt zwischen 6l-70 AD (RCP 1B). Die Tonwaren unterscheiden sich nur geringfügig von der prä-Budicca Periode. Auch sind die Importe von nicht-sigillata feiner Ware geringer oder fehlen überhaupt. In meister Hinsicht herrschen die gleichen Trends vor, so daß man sie als eine Zwischengruppe ansehen kann, die sowohl prä-Budicca als such flavianische Züge träggt.

Zwischen 70-80 AD erwarb London die Merkmale einer bedeutenden Stadt, gekennzeichnet durch das Ausmaß und den offiziellen Charakter der Bautätigkeit im Hafenviertel, die früheste Phase des ersten Forums und die zahlreichen Badehäuser. Die Besiedlung greift üiber die Walbrook nach Westen, der eine weitere Ausdehnung in flavianischer Zeit folgt, wie der Bau des zweiten Forums und die Erweiterung des Hafenviertels bezeugen. Diese Wachstum spiegelt sich auch in der zunehmenden Anzahl von Grabungskontexten wider und in den größeren keramischen Funden der flavianischen Periode (RCP 2). Während dieser Zeit wuchs auch die Abhängigkeit von größeren Fertigungsstätten wie Alice Holt und den städtischen Töpfereien in Verulamium.

Ausdehnung und Stadtplanung setzten sich über die gesamte trajanische Zeit fort (RCP 3). Bestehende öffentliche Bauten und das Hafenviertel wurden vollendet und weiter entwickelt. Die Besiedlung östlich und westlich der Walbrook wurde dichter. Zum ersten Mal erreicht die Entwicklung such die obere Walbrook. Zu dieser Zeit erlangte Britannien mit seiner keramischen Produktion einen gewissen Grad der Unabhängigkeit. Dieses zeigt sich auch in der Diversifikation der feinen Ware, von der schon viel lokal hergestellt wird. Romanisierte Tone und Gefäßformen ersetzen die lokalen Traditionen der Tonwarenherstellung.

Eine zweite großflächige Feuersbrunst kennzeichnet nach allgemeiner Annahme den Beginn der hadrianischen Zeit (RCP 4). Das Hafenviertel wurde von der Mitte bis ins späte 2. Jh. reorganisiert und die Bautätigkeit erreichte die nördliche Citygrenze. Die Töpferei dieser Zeit unterliegt einem deutlichen Wandel, der sich bis in die frühantonianische Periode fortsetzt (RCP 5). Wie im restlichen Britannien kommt jetzt such regionale Ware wie BBl und BB2 nach London. Seltene Importe, wie feine Ware aus Köln, kündigen die Bedeutung keramischer Verbreitungsmuster an, wie sie in spätrömischer Zeit anzutreffen sein werden.

Die hadrianische Periode sieht die letzte Bautätigkeitsphase im westlichen Teil der City. Im späten 2. und frühen 3. Jh. werden die Walbrook Badehäuser abgebrochen, aber sie mögen auch schon früher leer gestanden haben. Die Besiedlung der oberen Walbrook setzt sich bis ins 3. Jh. fort. Die im spaten 2. Jh. vergleichsweise seltenen Keramikfunde lassen auf einen fühlbaren Bevölkerungsschwund schließen. Der Rückgang der Ware aus Highgate Wood und in geringerem Maß aus Verulamium zeugen von einem Wandel in der keramischen Verbreitungsstruktur. Die Fortsetzung dieses Trends in den Jahren 160-180 AD ist Gegenstand einer Studie über Londons Entwicklung und Versorgung mit Tonwaren in spätrömischer Zeit (Symonds & Tomber 1991).

1. Introduction

1.1 Background

The publication of London's Roman pottery began in the late 18th and early 19th century. Its recent study dates from the formation of the Department of Urban Archaeology (DUA) in 1973, concerned with sites in the City of London (hereafter City); and outside the City since the early 1970s (various regional groups amalgamated into the Department of Greater London Archaeology - DGLA - in 1983). In December 1991 the two departments were amalgamated as the Museum of London Archaeology Service (MoLAS). Within the two pre-existing departments, pottery studies had developed somewhat differently. While form analysis had played an important role in most pottery reports, work at the DUA emphasized the examination of fabrics and presentation of quantified data, with Orton's (1977) report on Angel Court being the first publication to employ the new system of analysis for pottery recording, now used extensively throughout the country (Chapter 2). The development of this approach is exemplified by Green's (1980b) publication of Billingsgate Buildings and Richardson's (1986) of New Fresh Wharf. Within the DGLA, the major contribution was the compilation of a formalized typology, arranged in fabric groupings, for early Roman pottery (Marsh & Tyers 1978) and the presentation of well-dated groups by Hammerson (Bird *et al* 1978; Hinton 1988).

For the first time, the present corpus brings together the two approaches, providing detailed fabric analysis within the DGLA's structured typology, together with accompanying quantified data. This method of presentation was selected as conventional site-based reports could neither keep pace with the numerous excavations being undertaken, nor provide the necessary synthesis. Its aims are to present a dated typology of the main pottery types found in the City from the early Roman period and at the same time to synthesize the overall ceramic trends within the broad chronological or ceramic phases that have been identified.

Green's (1980b) work laid the foundation for the study of early Roman pottery in London, outlining the major imports and coarse wares to be found, and including excellent fabric descriptions. The major advance here is the extension of the chronological framework and the collection of additional quantified data, as well as the identification of additional non-local imports and the definition of numerous new coarse ware fabrics, both local and non-local, Much of the information in this corpus was first generated for unpublished DUA archive reports, instigated by Dr P Tyers (Chadburn & Tyers 1984; Davies 1983, 1984; Davies & Tyers 1983a, 1983b; Tyers 1983), and additional detail can be found in them. They have proved invaluable in the compilation of this corpus, and most of their conclusions remain unaltered.

The obvious basis for this corpus was the pottery from the 1975-9 excavations at Newgate Street, a site which had produced the largest group of stratified Roman pottery (nearly one tonne) then recovered in the City. This came from a complex sequence dating from 50-160, with parallel coin evidence and two fire horizons, spanning the most intensive period of pottery use in Roman London. The site was therefore used as a fixed point against which other sequences and deposits could be compared. In this way, it has been possible to build up a chronological model of the changing trends of pottery supply in Roman London, which can be expanded or revised by new evidence.

Despite its well-stratified sequence, Newgate Street suffered from some slumping which resulted in the presence of intrusive material in the northern area of the site. It was possible to identify much of the intrusive pottery with ease (eg medieval types, late Oxfordshire mortaria, black-burnished ware), but it was not certain to what extent pottery types which could ***not*** be easily identified as intrusive might be distorting the overall patterns. The pottery distributions were compared with and without the intrusive contexts and were shown to be virtually identical. On this basis, contexts with intrusive pottery have been included in the analysis and only those sherds which were positively identified as intrusive were excluded.

There is still some question as to whether and how far the proportions of pottery might be distorted at Newgate Street, but this has been clarified by current work on Leadenhall Court which refines ceramic trends for 70-100 and indicates that proportions differ substantially only for London ware and particular Highgate C forms (Davies & Groves forthcoming). Relevant developments are noted here in the industry sections in Chapters 5 and 6.

The proportion of residual pottery from quantified deposits was also assessed, using both the samian stamps and samian assemblages as a whole, based on conventional samian dates (eg Webster 1983). The former showed a high proportion of residuality from the Trajanic period onwards, as seen in Appendix 1. However, the bulk of the samian, displayed on Fig 153, incorporates what is seen as a very low proportion of residual pottery. Notable exceptions are surprisingly large quantities of Drag 15/l7 and Rt 12 in the Flavian period and small upsurges in Drag 18 and Drag 29 in the Trajanic; Drag 18 continues to be present in fairly large quantities in the Hadrianic and

early Antonine periods.

Fig 153 also informs about intrusive pottery. The small amounts of Drag 33 from Newgate Street and 25-6 Lime Street in the pre-Boudiccan period are unusual, but not necessarily intrusive.

This corpus is concerned with pottery up until 160, but the end of the sequence is somewhat ill-defined due to the lack of material dated 160-80, the main comparative assemblage from New Fresh Wharf only beginning *c* 180 (Richardson 1986). Work at the DUA on late Roman pottery addresses this problematic interim period (Symonds & Tomber 1991).

Three main sources of evidence were drawn upon for the compilation of this corpus: presence data, quantified data, and the Museum of London Reserve Collection. Presence data was obtained from the primary or 'spot dating' record. Here each fabric and form type was recorded for over 250 sites, many of which have long sequences represented by large amounts of pottery. The earliest and latest date and relevant information on the condition of the pottery (eg abraded) are also given. Spot date records were systematically consulted for a number of sites both east and west of the Walbrook (Fig 182), in conjunction with their stratigraphic phasing, in order to evaluate the date range for individual fabrics suggested by quantified deposits from Newgate Street and elsewhere. The entire spot dating records from the City were examined to provide a relative estimate of the quantity of each fabric type.

Though the pottery from Newgate Street forms the main quantified data, the evidence from any single deposit may exhibit variability determined by, for example, site function, location and status, or assemblage size. In order to compensate for variability peculiar to a single site or deposit, the Newgate Street findings were supplemented by deposits from nine other sites. The data are amalgamated for presentation and in this way provide a generalized picture or mean of ceramic trends. The discussion of individual sites, and of variability due to topography or function, is reserved for later publications, when more data can be compiled. Short summaries for each site contributing quantified data can be found in Appendix 1. These supplementary data fall into three categories: assemblages from large pit or well groups which are homogeneous and result from single depositions; dated assemblages with stratigraphic sequences that parallel those at Newgate Street; and other groups which are independently well dated to a specific period.

The analysis of these assemblages, together with the examination of the unquantified pottery from topographically diverse locations within the City, shows consistent distribution patterns for fabrics and forms in groups of a similar date. This has enabled a sequence of five main Roman Ceramic Phases (hereafter RCP) to be identified, and they are discussed and illustrated in Chapter 7. The interpretation is not definitive, and subsequent excavations will no doubt amplify the conclusions drawn here. However, it is hoped that the ceramic phases will provide a standard measure against which other groups can be dated and from which those of special character (either functionally or socially) will stand out significantly.

Since the quantified assemblages do not include the full range of 1st and 2nd century pottery types found in the City, unusual examples from both DUA sites and sites excavated by the Guildhall Museum prior to 1973 are included. In addition, the Museum of London's Reserve Collection contains a large number of complete vessels which have aided the compilation of the type series, particularly when the same forms arc represented only by fragmentary sherds from excavated assemblages. The Reserve Collection was also useful in extending the range of form types that could be identified within particular industries. All major forms produced by every industry are discussed, but the corpus does not necessarily include each individual form type occurring in the City.

All the major fabric types occurring in the City during the period 50-160 are presented here. Two types, Moselkeramik and Nene Valley Colour-coated ware, which occur in contaminated deposits at Newgate Street but apparently not elsewhere in the City at such an early date, are excluded. Lamps and samian are also treated differently. Within the limits of current resources it was only possible to provide a specialist report on the samian stamps. The remainder of the samian has been catalogued and fully quantified by form type, distinghishing between fabrics representarive of Montans and the micaceous fabric from Lezoux; all other sherds are recored as 'samian'. For this reason samian is not catalogued in the corpus, but contributes to the conclusions in Chapter 7 and proportions illustrated on Fig 153. Because of their functional difference, lamps were also excluded from the corpus, although when linked to other ceramic industries their presence is recorded. this was a regrettable omission due to restricted time; a complete reference collection is available for consulation at MoLAS. It was not practicable to continue expanding the corpus indefinitely for this particular publication and the material illustrated here represents data gathered until approximately 1987, although exceptional vessels are included after this date.

The corpus presented here represents our current understanding of Roman pottery-in London, and it is hoped that it will provide a firm basis for future work. Because of the wide range of pottery types found in London, this corpus will be of value far beyond London. The detailed knowledge of typology, fabrics and dating readily encourages thematic studies, such as the distribution of ware types throughout London and its environs. These topics are critical to our understanding of the development of London as a whole and should form our future priorities for research.

1.2 Table 1: Summary of fabrics by source area

2. Method

2.1 Classification

Pottery classification followed standard DUA procedure (Orton 1979a; Tyers 1984b; Tyers & Vince 1983) based on identification of forms within fabric types.

Fabric

Fabric types are defined on the basis of inclusions, surface treatment and method of manufacture. They were isolated using a binocular microscope (x20) and fabric descriptions are essentially from this level of analysis; where supplementary information was necessary, fabrics were also investigated in thin section by I Freestone, R Tomber and A Vince. Fabrics examined in thin section are indicated by an asterisk.

Each fabric is assigned a number within a sequence; often a fabric will be represented by many variations, each with its own numerical code. In these cases the fabric group as a whole may frequently be assigned a single number which is referred to as the 'group' code. Fabrics can also be denoted by 'common name' codes which are given to those types which occur with regularity, form a stylistic group, or for which a source is known (Appendix 2). In most cases these common name codes are distinct from those used by the Department of Greater London Archaeology (Hinton 1988, 193–7).

During spot dating, many fabrics which can be subdivided into fabric variants, eg Fine Micaceous wares (FMIC), are recorded only by their common name, and detailed trends within these groups can be determined only from the quantified data. Some common name groups refer to known kilns or kiln groups (eg Verulamium region kilns) for which some, but not necessarily all, kilns have been identified. In these cases, although vessels found in the City have been assigned to the main group, they are not necessarily a product of one of the known kilns.

Some common names are used as catch-all categories for unknown fabric types which do not recur, and these are not included in the corpus. Those which may, in aggregate, be numerically significant include unclassified fabrics of sandy grey (SAND), shelly (SHEL), oxidized (OXID), and grog-tempered wares (GROG), as well as mortaria (MORT) and amphorae (AMPH). Individual fabric types within these groups are not informative and are therefore not catalogued. More significant fabrics within catch-all groups are isolated by use of their common name and numerical code (eg OXID-1861).

Fabric descriptions follow the guidelines suggested by Peacock (1977a, 29). Both free descriptive terms and Munsell soil values (Munsell 1969) have been employed for colour reference. Textural description is used where appropriate and is based on the following parameters (Orton 1977, 28; Orton 1979b, 13):

smooth: flat or slightly curved, no visible irregularities
finely irregular: small, closely spaced irregularities
irregular: larger, more widely spaced irregularities
hackly: large and generally angular irregularities
laminated: stepped effect
sub-concoidal breaks somewhat like flint or glass.

Many of the fabric descriptions refer to silt-sized inclusions and this is defined as 0.06mm or less. Other abbreviations include:

A:	Angular
R:	Rounded
SA:	Sub-angular or sub-rounded
I:	Irregular (concave or convex)
F:	Flat.

The majority of fabrics are composed of quartz and other common inclusions which fall within a limited size range permitted by technological considerations. For this reason they are difficult to distinguish from each other by description and some are supplemented by colour photographs of fresh sherd breaks (Plates 5a-bf). The photographs emphasize local coarse wares and imported types which may not have a wide distribution throughout Britain. Apart from amphorae which comprise distinct fabrics, frequently with complex inclusions, most fabrics have a brief description followed by a more detailed one. Iron-rich compounds are difficult to identify in the hand specimen. When examined in thin section they normally comprise both opaques and naturally occurring iron-rich clay pellets. These are only described fully if significant to the fabric definition; otherwise they have been termed 'iron-rich inclusions'.

Form

Coarse ware vessel forms are referenced to Marsh and Tyers' (1978) series, established for the early Roman coarse pottery from Southwark. This is a hierarchical system, where Roman numerals refer to the major class (eg flagons = I, jars = II) with subdivisions into form types denoted by letters. Further division is indicated by arabic numerals. This allows vessels to be classified to varying degrees of precision, and those not belonging to specific sub-types can be classified as, for example, II. In this scheme, decoration is an

important criterion in defining form types. Unless specified, all wares are wheelmade.

Since the publication of the Southwark form series in 1978, a large number of excavations have resulted in the processing of literally tonnes of pottery from the City. The detailed information obtained from this material may warrant some change in the typological referencing system in use at MoLAS in the future. However, it does not hinder our understanding of the main trends and dating of the types.

The main Southwark types used within the volume are defined below. Definitions follow Marsh and Tyers (1978), although they have been modified occasionally. Their system has been somewhat simplified, and in most cases sub-divisions by arabic numerals have not been used.

There is a degree of overlap in definition between bowls (IV) and plates (V), for some bowls (particularly IVJ) are consistently as shallow as plates. For this reason, the IVJs have been combined with the Vs when compiling statistics. To minimise any discrepancies, bowls, dishes and plates are all discussed under the same heading.

Form descriptions

I Flagons

IA Collared or Hofheim flagon.

IB Ring-neck flagons. Subdivided on the basis of ring typology. **IB2** Trumpet mouth with well-moulded rings, sometimes very angularly cut. **IB3** Characterized by upright mouth and rings, and flat rim. **IB5** Flagon of approximately the same general size as IB2, but distinguished by a very prominent rounded upper ring. **IB7** Short expanding ring-neck flagon with a very short flaring rim.

IC Pinched-mouth flagon. The distinguishing characteristic of this class is that the rim is pinched together, so that the two sides meet to form either a distinct spout or a minor constriction for ease of pouring.

ID Disc-mouth flagon. One-handled flagon with a distinctive rim which is triangular in section.

IE Two-handled flagon with a squat, bulbous body, cylindrical neck and a small moulding on the rim

IF A series of flagons characterized by two concentric mouldings (or lid seating) on the inner lip. The external profile shows a flaring rim, a slightly tapering neck and a distinct division between neck and body. The body is ovoid or globular in shape. The vessels vary considerably in minor detail and may have a spout, knob on the rim, or other detail.

IG Flagon similar to class IF, but the rim lacks the strong moulding and instead has a slight groove on the inner lip. The external profile also lacks any distinct division between body, neck and rim, and forms a continuous curve. There is a slight groove or cordon where the handle joins the body.

IH Wide-mouth flagon or jug characterized by the body, neck and rim forming a continuous curve. The rim lacks the moulding or lid seat seen on the IF and IG classes.

IJ Large, two-handled vessels, some of which are referred to as amphora-types. There is a great variety of rim form, although all are thick and heavy. Most have some internal seating on the rim.

II Jars

IIA Bead-rim jars. Neckless bead-rim jars; the rim is usually a simple rounded swelling. **IIA15** Bead-rim jar with grooves on the shoulder. **IIA16** Variant of bead-rim jar with a ledge on the rim.

IIB Necked jar with rounded body and a thickened or out-turned rim, There is no groove or cordon to mark any neck/shoulder junction.

IIC Necked jar with a sharply carinated shoulder and a cordon or groove defining the base of the neck. The rim is either sharply turned out in a 'figure-7' or simply beaded and thickened.

IID Necked, round-shouldered jar distinguished by a 'figure-7' rim, with burnished decoration on a shoulder zone delineated by cordons and grooves.

IIE Round-bodied jar with a zone of burnished line decoration on the shoulder. The rim varies considerably in form, but is usually thickened or beaded. None of the examples exhibit the 'figure-7' rim of form IIC and IID.

IIF Jars with everted rims, sometimes with a beading on the lip. The body is decorated, usually with a burnished lattice. **IIF1-2** Distinguished by an almost upright rim with a distinct bead on the lip and burnished wavy line on the rim. **IIF6** Characterized by slightly curved, everted rim, and always with grouped lattice decoration, distinct from the later jars with cavetto rims referred to as IIF9. **IIF11** A miniature ever-ted-rim jar.

IIH Large neckless jar; the rim is either horizontal or pointing slightly upward, and there is usually some moulding on its upper surface.

IIJ Simple neckless jar (sometimes called unguent or incense pots - UJ) in which the rim springs directly from the body. The rim is usually an upright, slightly elongated bead. Such jars occur in a wide range of sizes.

IIK Two-handled vessel generally referred to as a honey pot. Vessels of this class sometimes have applied or barbotine decoration.

IIM Storage jar with squat, sharply turned-out rim and stabbed or incised decoration on the shoulder.

IIR Narrow-necked jar or flask.

III Beakers

IIIA Butt beaker. Relatively tall, narrow vessel with a rounded decorated body and short everted rim.

IIIB Ovoid beaker with high rounded shoulders and a short, sharply everted rim.

IIIC Beaker with a short, frequently sharply everted rim; lacks the high shoulder of the IIIB

IIIE Beaker with a short, ever-ted rim and no neck or shoulder. There is always a groove below the rim, defining a zone of decoration. **IIIE2** Similar vessels with handles.

IIIF Beaker with a taller rim than the previous classes: the rim is not sharply everted but is usually slightly curved, and delineated by a groove or a slight cordon. The class consists mainly of poppy beakers, decorated with rows of barbotine dots.

IIIG Carinated beaker with tall, slightly tapering rim.

IIIH Bulbous beaker with a tall, slightly tapering rim and a high rounded shoulder,

IV Bowls and dishes

IVA Bowl with a distinctive moulded flange on the rim and usually with a carinated body, although some round-bodied examples do occur. This class includes reeded-rim bowls, although it is inaccurate to use this term for all the varieties.

IVB Bowl with a deep, hooked flange.

IVC Deep cylindrical bowl imitating samian form Drag 30.

IVD Wide bowl with a sharp carination and a series of moulding on the rim and body, including imitations of samian form Drag 29.

IVE Hemispherical bowl with a bead rim, imitating samian form Drag 37.

IVF Bowls with slightly curved upper walls and rounded bottoms, or simple rounded bodies, having flat, hooked or folded-over rims. They can be difficult to distinguish from IVAs if part of the profile is absent.

IVG Bowls/dishes with straight, usually vertical, upper wall and a flat base; the rim is usually flat or slightly hooked. **IVG3** Variants with triangular rims.

IVH Bowls/dishes with a straight or slightly curving wall and a triangular or rounded rim. **IVH1-4** Examples with triangular rims and burnished decoration, normally lattice. **IVH5-7** Undecorated examples with rounded rims.

IVJ Dish with plain rim, frequently in-turned.

IVK Dish with a groove on the rim and distinctive moulding midway down the wall. The exact shape varies and, while the wall is usually upright, flaring examples are known.

V Plates

VA Plate with a smooth external profile; the interior is moulded.

VB Plate with a moulding on the exterior.

VC Plate with a wide, flat rim.

VI cups

VIA Campanulate cup imitating samian form Drag 27.

VIB Conical cup with a short vertical upper wall, similar to Cam 56.

VIC Wide-mouth cup with a narrow foot, sharply carinated body and slightly concave upper wall.

Some additional form categories and codes have been added to the Southwark series. These include:

VII Mortaria
VIII Lamps and lamp holders
IX Other vessel forms (including lids, tazze, tettina, triple vases)

Additional abbreviations:
NJ Necked jars. Used for all necked jars which do not conform to the very specific parameters of the IIB-E.
SJ Storage jars. Used for all storage jars which do not conform to the IIM.
FACE Face pots.
CRUC Crucibles.
G Gauloise amphorae, followed by the specific form number.

Mortarium rim forms are recorded as follows:
WAL Wall-sided mortarium.
HOF Hooked-flange mortarium.
BEF Bead-and-flange mortarium.
HAM Hammer-head mortarium.

The Southwark system was intended specifically for coarse wares. In this volume, fine ware forms which could be easily assimilated into the Southwark system are cross-referenced to it but other systems are also

used. Many of the imported colour-coated wares are classified according to Greene (1979) and Romano-British Glazed wares to Arthur (1978). London, mica-dusted, Romano-British eggshell and marbled wares studied by Marsh (1978) refer to his typology. Other specialized wares (ie mortaria and amphorae) refer to well-established corpora where appropriate.

Quantification

Forms, within fabric types, are recorded both by weight and estimated vessel equivalents - 'Eves' (Orton 1975) measured for rims.

2.2 Presentation

The main body of the text is devoted to a discussion of the known industries, or industries postulated on the basis of fabric affinities (Chapters 3-6). These are ordered according to technological consideration (amphorae, oxidized, reduced and fine wares). In this way attention is drawn to classes of pottery which generally serve the same function and therefore compete with each other for the same market; this helps to clarify their chronological trends. Within these categories, fabrics are divided into Romano-British (local followed by other source areas) and Imported wares. A breakdown of fabric types by source area is given in Table 1. Industries producing a wide range of ware types, such as Verulamium, are discussed under their principal ware group.

The treatment of each industry or fabric type comprises a fabric description (with photograph where appropriate), catalogue of form types (with accompanying drawings) and a general discussion including dating. Although in some cases the dating may seem to rely on small quantities of material, it represents consistent patterns which have emerged from both the quantified and unquantified data. It distinguishes dates derived from ceramics alone from those where site phasing and additional finds evidence was available (see also Appendix 3). Vessel illustrations are ordered according to the numeration of the Southwark typology, from closed to open forms. Types represented by only fragmentary sherds are not always illustrated. Where quantity permits, bar graphs show the chronological distribution of the fabric type (by weight) and forms (by Eves). Chronological groups follow the Roman Ceramic Phases, fully described in Chapter 7, and based on the following parameters:

RCP IA	Pre-Boudiccan	50/5-60/l
RCP 1B	Late Neronian-early Flavian	60/l -75
RCP 2	Flavian	75-100
RCP 3	Trajanic	100-20
RCP 4	Hadrianic	120-40
RCP 5	Early Antonine	140-60

An indication of the incidence of fabrics, derived from all spot dating records, is recorded as follows:

Rare	< 10 entries
Sparse	>10
Moderate	>100
Common	>500
Abundant	>1000

For fabrics which continue into the late Roman period, their frequency during the early period is estimated.

Industry sections are followed by an overall discussion of the five main ceramic phases identified from City excavations for early Roman London, accompanied by the graphical display of data, and by maps and form illustrations, which are explained in more detail in the introduction to Chapter 7.

Appendix 1 gives a summary for all sites which are included in the quantified data. All common name codes with their expansions appear in Appendix 2. Appendix 3 provides contextual and dating information for all illustrated sherds, while Appendix 4 is a concordance between drawings from Chapter 7 (in most cases duplicated from Chapters 3-6) and the more detailed information in Appendix 3. Raw data from quantified assemblages are given in Appendix 5.

2.3 Abbreviations

The following abbreviations have been used throughout:

AT	Arthur type. Arthur 1978
Cam	Hawkes & Hull 1947
Cu	Curle 1911
Dr	Dressel 1891
Drag	Dragendorff 1895
Gillam	Gillam 1970
GT	Greene type. Greene 1979
Kn	Knorr 1919, 1952
MT	Marsh type. Marsh 1978
Rt	Ritterling 1913
RCP	Roman Ceramic Phase
Wa	Walters 1908

3. Amphorae

The corpus presented here is based primarily on material from Newgate Street, and the large quantities of amphorae from Pudding Lane; material from the other quantified sites was included in the graphs but receives less emphasis in the study as a whole. A much larger body of reliable, petrologically identified and quantified data is needed before a definitive statement can be made on the quantities, provenance and date of amphorae coming into London throughout the early Roman period. However, the major trends can be observed from the deposits and supplementary sources used here.

The general sparsity of amphorae at Newgate Street is worth mentioning. At the most, perhaps 10–15 vessels are represented on a site whose occupation spanned the period of most intensive amphora usage in the City. This compares unfavourably with quantities of amphorae from the generally richer and more intensively occupied 1st and 2nd century domestic sites in the eastern half of the City, and with waterfront sites where amphorae are particularly common, sometimes constituting as much as 70–80% of the total pottery by weight.

Amphora studies have advanced considerably in the last ten to fifteen years, and it is becoming increasingly clear that comparatively few amphorae conform absolutely to type, that there is a multiplicity of form/fabric combinations, and that it is often unwise to attempt to classify even quite large and featured body sherds without the presence of a rim, and ideally a handle and base from the same vessel, unless the type is so well known and so consistent (Dr 20 for example, or Cam 189) as to make identification a near certainty. There is an inevitable quantitative bias towards the well known amphorae such as Dr 20 with its readily identifiable heavy, curved body sherds and distinctive fabric, and it may be that other amphorae, Dr 2–4 and Rhodian in particular, are under represented.

Amphora terminology can be difficult. The names commonly used in this country, especially the Camulodunum series and relatively newly classified types, such as Richborough 527 and Kingsholm 117, are not always recognized on the Continent or in America. Some synonyms are given in the text, and identities should be clear from descriptions and illustrations. Certain works, most notably by Peacock, on southern Spanish (1971, 1974), Rhodian (1971, 1977e) and Italian (1977d) amphorae, by Laubenheimer on French amphorae (1989), and, more generally, works by Sealey (1985) and Peacock and Williams (1986) have proved invaluable but, to make the text more readable and to avoid repetition, are cited only on specific points. Drs I Freestone of the British Museum and A Vince formerly of the Museum of London examined the thin sections, and their comments are incorporated within the text. Amphorae are recorded by their common name only for spot dating; additional fabric divisions are included for quantification.

3.1 Dressel 20 (DR20)

Source and content

There is no doubt that Dr 20 was made in the Guadalquivir Valley of southern Spain (in the Roman province of Baetica), and that it was a container for olive oil.

Dating

Fig 1

This is consistently the commonest amphora type in the City, occurring abundantly, although instances of complete or even semi-complete excavated examples are surprisingly rare. It was most common throughout the 1st and 2nd centuries, but high instances of residuality for all amphora sherds make dating increasingly unreliable from the late 1st century onwards. However, the chronological distribution accords with general patterns for Britain as a whole (Williams & Peacock 1983). The quantified data (Fig 1) show a decrease during the Hadrianic and early Antonine periods.

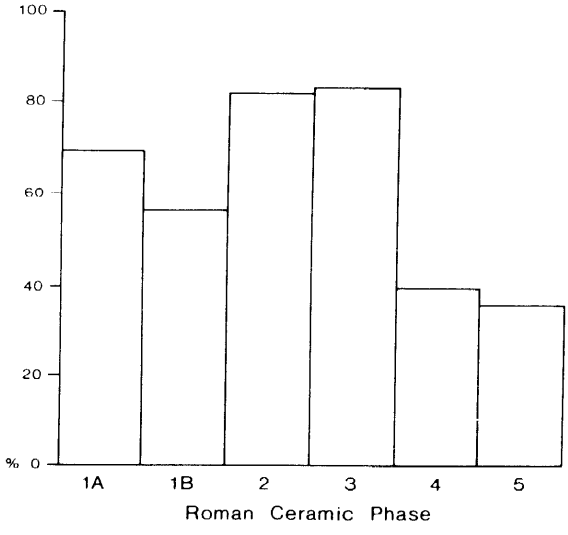


Fig 1 Bar graph Of Dressel 20 as a percentage of all amphorae by weight

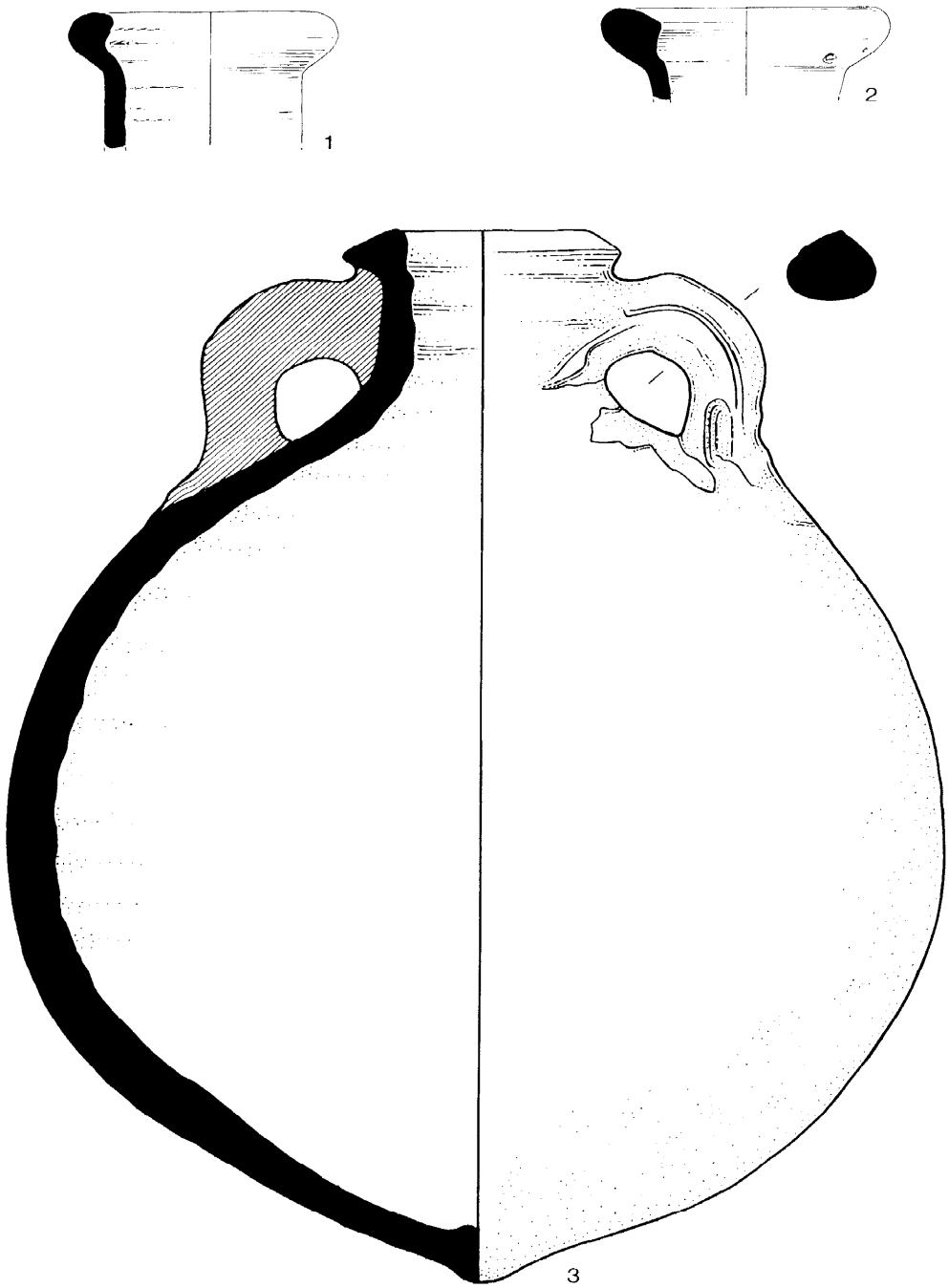


Fig 2 Dressel 20 amphorae, nos 1-3 (Scale 1:4)

Form
Fig 2, Nos l-3

The Dr 20 is globular with round-sectioned handles and a short plugged basal spike. It is easy to identify from its distinctive form and fabric, although small body sherds may occasionally be confused with those of Haltern 70. Except for a tendency towards a more flattened angular rim profile in the 2nd and 3rd centuries, there is no obvious typological development, but it should be stressed that while rounded rims (1) are consistently Neronian or early Flavian in the City, there are also some very early angular rims from deposits of the same date (eg 2). Very angular rims have also been noted from pre-Roman levels, for example at Skeleton Green (Peacock 1981, 201-2, fig 81, 1). The handles are sometimes stamped. Surprisingly few (45) of the many handles from City sites are stamped, but those that are have been read by Dr P P A Funari, whose catalogue is in the Archive.

*Fabric

The body colour is usually yellowish-buff (10YR 8/4) or grey (2.5Y 8/8)-occasionally with reddish-brown (5YR 7/8-6/8) margins. Surfaces are yellow (2.5YR 8/4) or off-white (2.5Y 9/2) and are sometimes slipped. The fabric is hard with an irregular or laminar fracture, and contains abundant inclusions of quartz, feldspar and metamorphic rock fragments (A, SA *c* <0.1-1.0mm, usually 0.4mm>) with generally sparser limestone (sometimes fossiliferous), red iron-rich inclusions and gold and white mica in a calcareous matrix.

3.2 Haltern 70/Camulodunum 185 (H70)

Source and content

Like Dr 20, this type has a southern Spanish (Baetican) source. Haltern 70 amphorae from the Port Vendres II shipwreck bear inscriptions naming the contents as *defrutum,* a concentrated grape syrup used as a sweetener and preservative (Colls *et al* 1977, 71, 87; Parker & Price 1981, 223). The inscription on one admittedly unusual example from the City (Fig 5, 9), reads *mur(ia)* or *matr met* (Hassall & Tomlin 1982, 417, 61). Joining sherds from this vessel were recovered from different contexts and pieced together over a protracted period, the vessel's identity being changed from Haltern 70 to Dr 2-4 (Sealey 1985, 64), and back, on discovery of the rim, to 'Haltern 70 variant'. If the inscription is read as *muria* (fish sauce), the most likely interpretation, and the vessel is accepted as a type of Haltern 70, it provides evidence for the occasional carriage of salazon products in these amphorae.

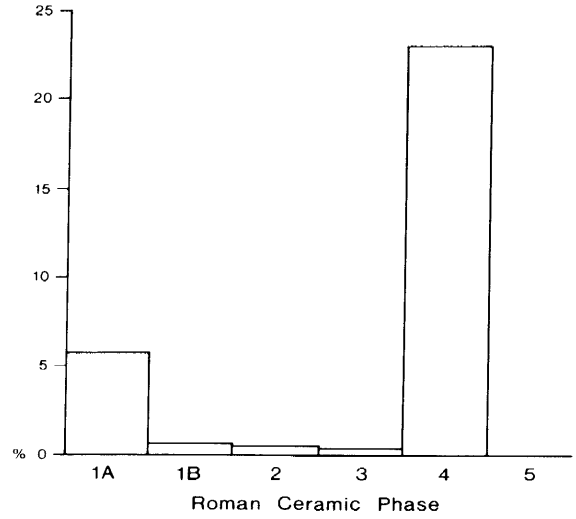


Fig 3 Bar graph of Haltem 70 as a percentage of all amphorae by weight

Dating
Fig 3

This type is consistently present, occurring in moderate quantities, in 1st and early 2nd century deposits in the City (not apparent on Fig 3). It was particularly common during the pre-Flavian and Flavian periods. A later form, of which there are two near-complete examples, accounts for the increase in quantity during the Hadrianic period.

Form
Figs 4-5, Nos 4-9

The form is found to change significantly throughout the 1st and early 2nd centuries. The heavily collared and fairly compact type vessels from Camulodunum and Haltern (both pre 50) show marked stylistic differences from later 1st and early 2nd century vessels which are uncollared, or vestigially collared, and elongated, with funnel necks and flaring rims.

The classic Haltern 70 form is cylindrical, with a collar rim, deeply grooved handles and a solid spike. Numbers 4 and 5 are rare examples of this type. The vast majority of our 'Haltern 70' amphorae, however, are uncollared (eg 7), or vestigially collared (6), and although their bodies and base spikes are approximately the same size and shape as those of Haltern 70, their necks and flaring trumpet-shaped rims are much longer. These amphorae must be a development of the Haltern 70 form, although it may be that the differences are so marked that another name should be coined for this later variety.

There are marked similarities between the vestigially collared examples (eg 6) and Cam 185b. It might be suggested, especially now that the only example of a Cam 186b from the City (Green 1980b, fig 19, 12) is found to be in a Haltern 70 (Baetican) fabric, that the Cam 185b is in fact a development (perhaps mid-late

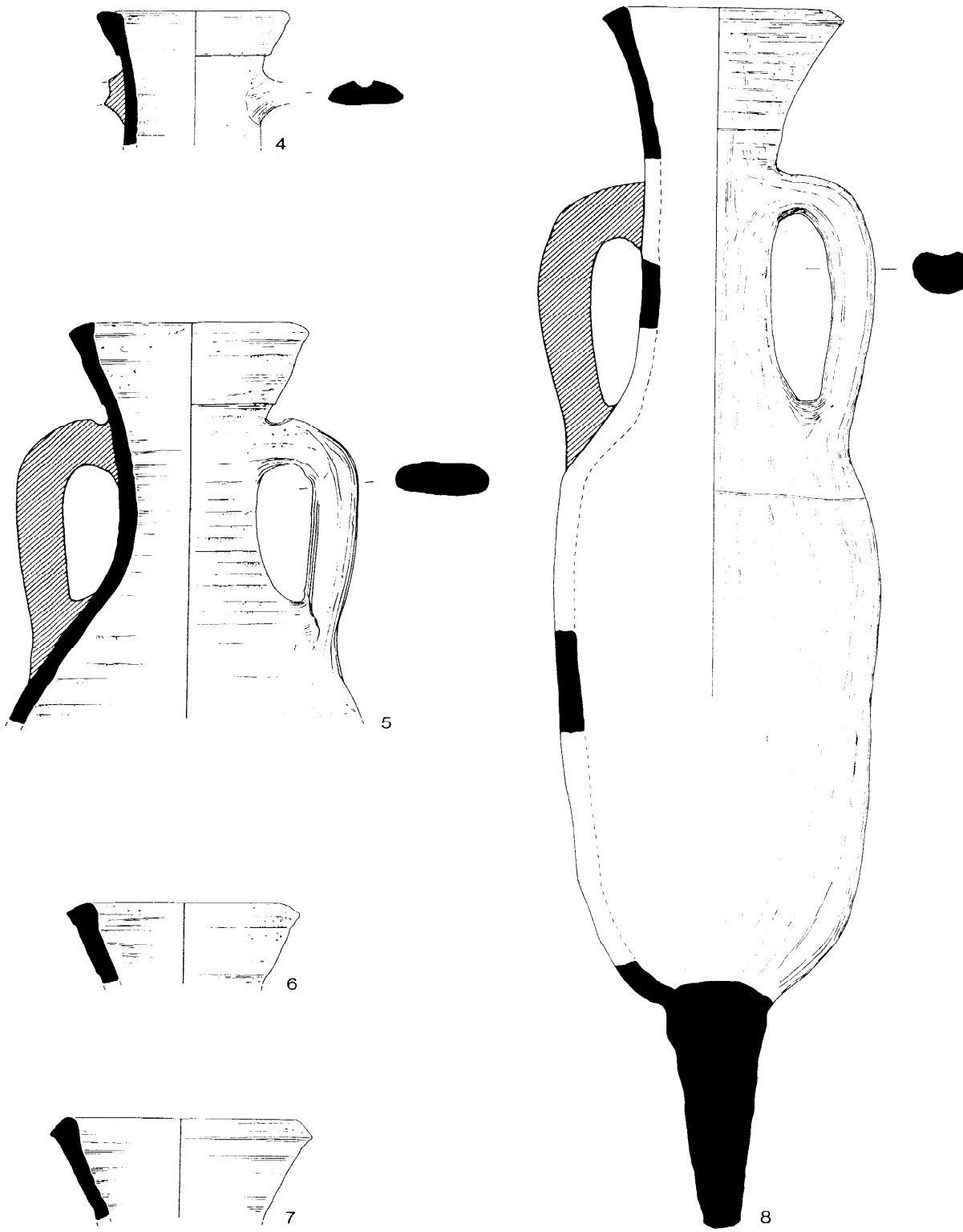


Fig 4 Haltem 70 amphorae, nos 4-8 (Scale 1:4)

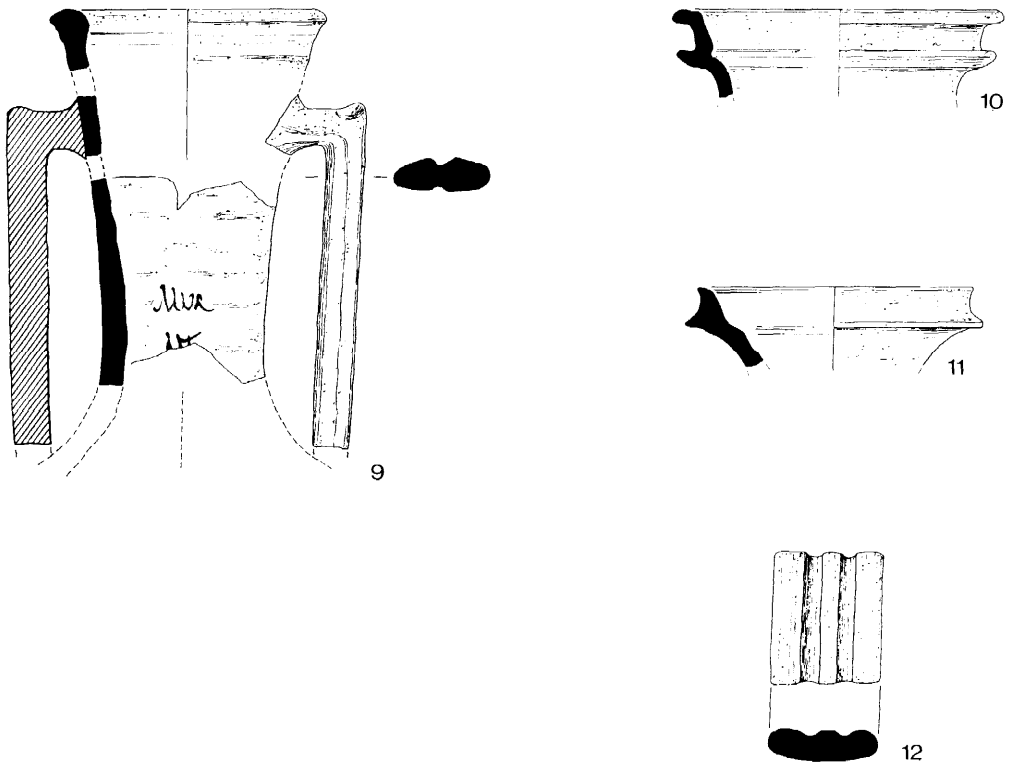


Fig 5 Haltern 70 amphorae, no 9; Dressel 28 amphorae, nos 10-12 (Scale 1:4)

1st century) of the Haltern 70/Cam 185a, and that the mid-late 2nd century form, typified by 8, is the latest variant in the range.

*Fabric

The fabric is similar or identical to that of Dr 20. It seems certain that the two types come from the same source, the Guadalquivir Valley.

3.3 Dressel 28 (DRB)

Source and content

The type was made in several production areas throughout the Roman Empire. Virtually all the City examples are thought to be of typical Baetican fabric and form. Colls *(et al* 1977, 45) draws on painted inscriptions to show that this variety of Dr 28 originated in Baetica (see Parker & Price 1981, 222, for an alternative viewpoint). Although it is thought that these pitch-lined amphorae probably contained wine, there is, as yet, no conclusive evidence for their contents.

Dating

This type is comparatively rare in the City, generally occurring as single sherds in 1st century contexts. Our pre-to early Flavian dating evidence corresponds well with the Claudian date from the Port Vendres II wreck, the reported date of *c* 100 from the Tiboulen St Maire wreck (Colls *et al* 1977, 47), and with dated British examples (eg Timby 1985, fig 28, 122). All the quantified sherds are from Flavian deposits (<l% of all amphorae by weight). The most complete example from the City and the only example with a painted inscription (Green 1980b, fig 21, 37) is dated to at least the early 2nd century.

Form

Fig 5, Nos l0-12

Dr 28 is a fairly loose, generic name for a double-lipped flagon-like amphora which was made, with small stylistic variations, throughout the Roman Empire. The Baetican Dr 28 is flat-based and double-lipped with ribbed handles like all Dr 28 amphorae, but the pincer-like double lip is particularly pronounced, the body walls noticeably thin (but tough

because of the roughness of the inclusions), and the base high-kicked with a small footring.

***Fabric**

The Baetican Dr 28 has a particularly distinctive fabric which makes it easy to identify. It is hard, with an irregular fracture, and light grey (5Y 2.5/l) with off-white to yellowish-grey or cream (5Y 9/l-9/2) surfaces, which are rather blotchy from the dark colour of the mineral inclusions. It contains moderate amounts of angular quartz, limestone, feldspar, gold mica and flat, elongated black/brown fine-grained rock fragments (0.3-1.0mm). Thin sections show consistently large quantities of plagioclase and orthoclase feldspar and occasional crystals of fresh pyroxene (suggesting some volcanic input) as well as metamorphic rock fragments such as slates, schists and phyllite. The inclusions are consistent with the suggested south Spanish source.

3.4 Camulodunum 186 (C186)

Source and content

An Iberian amphora used to carry seafoods, particularly *garum* and *muria,* the fermented fish sauces which formed a liquid medium for many Roman recipes. The main area of supply for London and the rest of the western Empire was southern Spain, particularly the Cadiz region of Baetica. In the City the majority of sherds conform to Peacock's description of the Cadiz fabric (Peacock 1971, 168-9) and occur in forms Cam 186a and c.

Dating

Fig 6

This type occurred throughout the 1st and 2nd centuries; among the quantified data it peaks during the pre-Flavian.

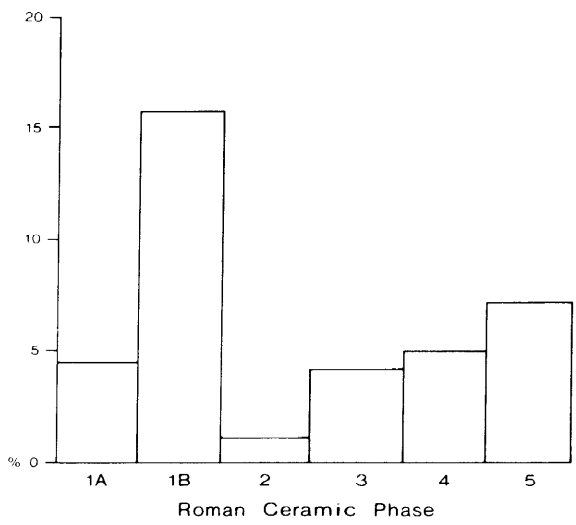


Fig 6 Bar graph of Camulodunum 186 as a percentage of all amphorae by weight

Form

Fig 7, Nos 13-17

Cam 186a-c are distinguished by typological details of neck and rim (Peacock 1971, 168; Peacock & Williams 1986, 120-2). Cam 186b is either rare in City deposits, or difficult to distinguish from Cam 186a and c, which are present in some quantity. The two varieties are contemporary from *c* 50 onwards. Cam 186a seems to be a predominantly 1st century type, but Cam 186c persists well into the 2nd century.

Fabric

***C186+1176**

Fig 7, Nos 13-15

The Cadiz fabric is characterized by bright colours: pink (2.5YR 7/6), yellowish-buff (10YR 9/4-8/4), light orange (2.5YR 6/8), often with an off-white (5Y 9/2) exterior. The fabric is hard and slightly rough, with varying quantities of quartz (SA, R 0.3-0.5mm, but occasionally <2.0mm), fossiliferous limestone (<0.5mm, often sub-visible) and, most conspicuously, rounded, hard red iron ore (<6.0mm). Mica is rare or absent in all examples, except for a variant which contains medium quantities of gold and white mica; another variant contains large quantities of quartz and black iron ore with a more open vesicular matrix.

***C186-2848**

Fig 7, Nos 16-17

A small group has been identified in a fabric very similar to that of Dr 20/Haltem 70. It is slightly softer and siltier than the classic Baetican fabric and has an irregular fracture. It is light beige (10YR 9/2-9/4) and contains large quantities of quartz (R), iron-rich inclusions and metamorphic rock fragments (gneiss, quartz-mica-schist), gold mica, feldspar and large rounded pieces of fossiliferous limestone (0.5-1.5mm). Gold mica is visible on the surfaces.

3.5 'London 555' (L555)

Source and contents

Recent work in France (eg Dangreaux & Desbat 1988; Desbat 1987) has shown that the London 555 form and other forms such as Dr 2-4 and a version of Cam 186 (Dr 9), were made in and around Lyons in the Rhone Valley. These amphorae are in the characteristic Lyons fabric, a buff-beige, calcareous clay containing sand, quartz-mica-schist and granite/gneiss-derived agglomerates. Some variations in the fabrics are more micaceous than others, and Desbat (1987, 160) notes that the London 555 ('Haltem 70 similis') in particular has at least two fabric variants, one resembling Gauloise 4, the other much coarser.

The carbonate-rich clays and abundance of metamorphics in London 555 amphorae could be

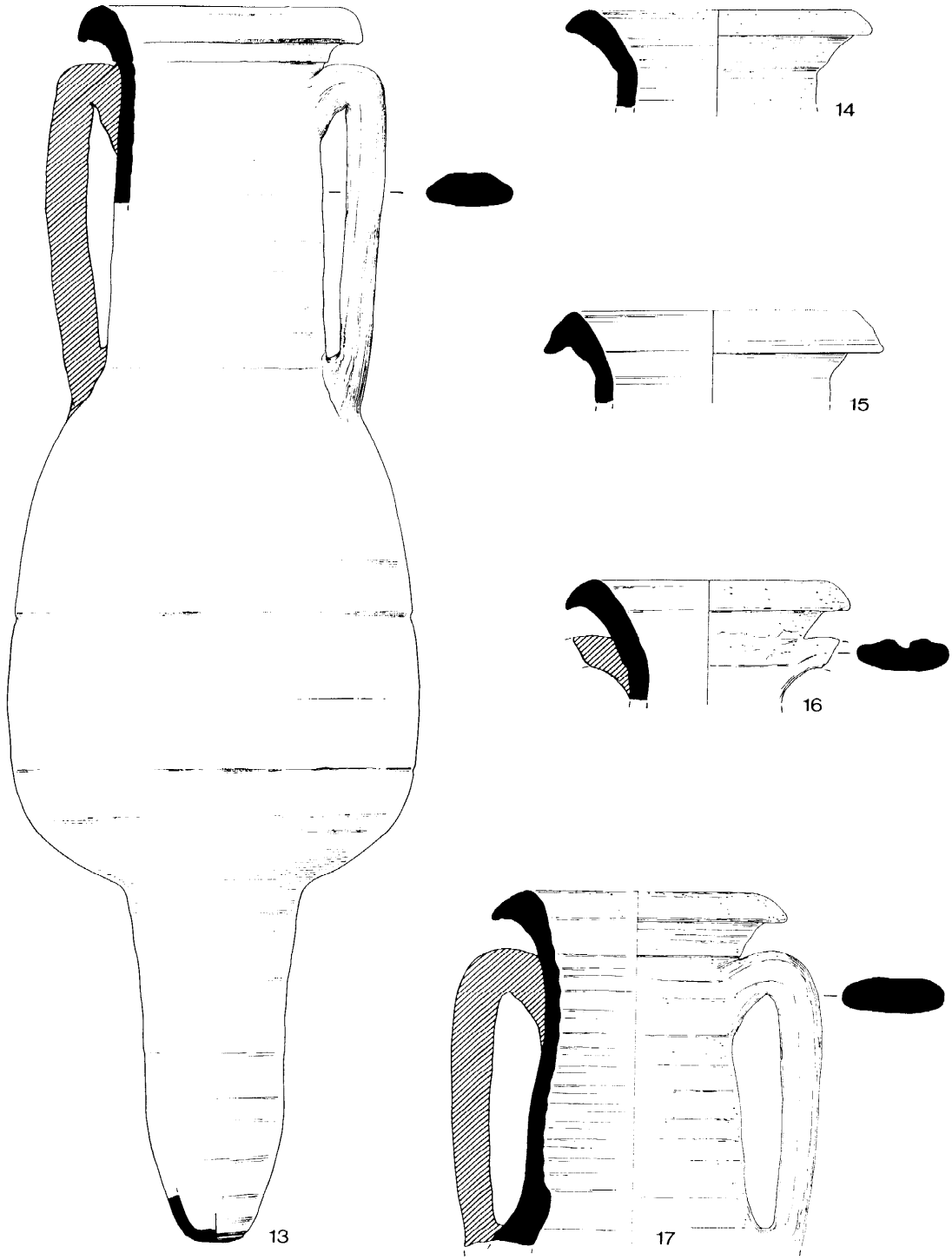


Fig 7 *Camulodunum 186 amphorae, nos 13-17 (Scale 1:4)*

matched in most areas of Spain, France and other parts of Europe. However, given the similarities between many London 555s and the southern French Gauloise fabrics, a south Gaulish source is indicated here. This view is not universally held. Sealey and Tyers (1989, 63-5) consider that the typological, petrological, epigraphic and content evidence indicate a Baetican source, and that the new French evidence is not sufficient to suggest mass-production and exportation. They also note two examples of London 555 rims in the coarse Baetican fabric. One of these is from Colchester; the other, from the City (Fig 9, 22), is much larger than the typical London 555 rim, and is interpreted here as a Haltem 70 variant, although it is illustrated with the L555s. In the absence of agreement, it is suggested that there appear to be obvious similarities between the south French and London 555 fabrics, that the majority of London 555s in the City may originate from the Lyons area and other kilns and production areas in Gallia Narbonensis and Gallia Lugdunensis, but that a Baetican or, indeed, a more general south Spanish source should not be discounted at this stage.

London 555 amphorae are known to have carried olives, and the Pan Sand amphora contained over 6000 olive stones (Sealey & Tyers 1989, 56). A recent City find has an inscription which reads 'OL, AL, CCL, C.L.A. Averni', translated as '250 . . . of green (lit 'white' olives) (transported) by Gaius L... A... (under the control?) of Avernus' (Hassall & Tomlin 1990, 369-70, no 24).

Dating

Fig 8

This was a sparse 1st and early 2nd century amphora type in the City. Its normal distribution is not represented by the quantified data on Fig 8, for it is known from pre-Boudiccan assemblages in the City. The peak in the Hadrianic period results from a single nearly complete vessel found at 5-12 Fenchurch Street.

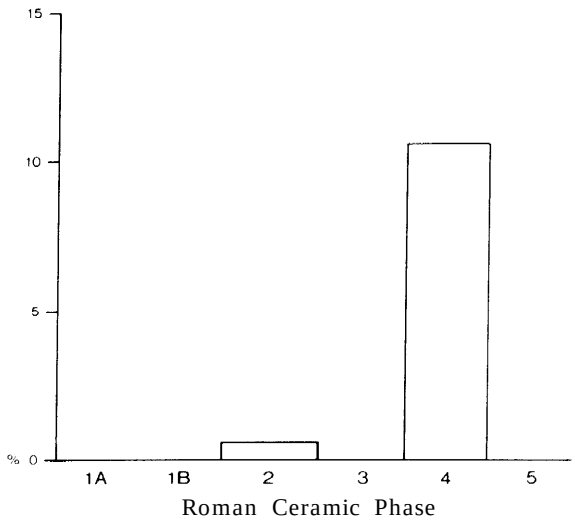


Fig 8 Bar graph 'London5.55' as a percentage of all amphorae by weight

Form

Fig 9, Nos 18-22

Rims of this amphora type have been illustrated in many British publications, but it has only recently been assigned to a named category. The amphora has been variously called 'Neuss type' after a complete example from Novaesium (C M Green, pers comm) and, since 1983, 'London 555' (Sealey 1985, 167-8) after the complete example illustrated in Wheeler's *London in Roman Times* (1930, pl 55, 5). Peacock and Williams (1986, 214) also use Wheeler's example as a type specimen, and list the type as number 59 Wheeler Group E. Recent City finds of complete amphorae and substantially complete rims/necks of this type display general homogeneity of form and fabric with the sort of minor stylistic and petrological variations displayed by Cam 186a-c and Haltern 70 and its variants. In the case of London 555 it is not yet possible to determine whether these variations have chronological or typological significance.

The general form is spindle shaped with slightly sloping shoulders, weakly grooved oval-sectioned handles and a solid spike. The neck, which is continuous with the shoulder, bulges outwards above the handle to a substantial rounded-bead lip. The majority of examples are deeply grooved below the rim, but this feature is not necessarily diagnostic. At least two examples are ungrooved with flat-topped rather triangular-shaped rims. Number 19, from a Hadrianic fire deposit - the same context as Halter-n 70 (8) - is unusually slender, with a correspondingly small capacity. The different shape may reflect its date.

*Fabric

P1 5a

The London 555 fabric is consistently pale buff-cream (10YR 8/2; 7.5YR 8/2) or light orange-red (2.5YR 7/6-6/6) in colour, fairly hard and fine textured with numerous calcareous and micaceous inclusions. In the hand, though harder and coarser, it is not dissimilar to the fabrics from Gallia Narbonensis (Section 3.6). Surfaces are fairly rough, and sometimes further roughened on the neck and body with scatters of coarse quartz, rock fragments and gold mica. All samples are characterized by abundant, very fine specks of fossiliferous limestone (R <0.3mm) and flecks of white and gold mica (<0.2mm, occasionally 0.5-1.0mm). Quartz (SA <0.4mm) is notably sparse, although some examples are coarser with abundant quartz inclusions. Red iron-rich inclusions, feldspar, and metamorphic rocks such as quartzite, quartz-mica-schist and phyllite are present but not abundant (<0.5mm). At least three fabric groups are distinguishable under magnification (x20), but their general

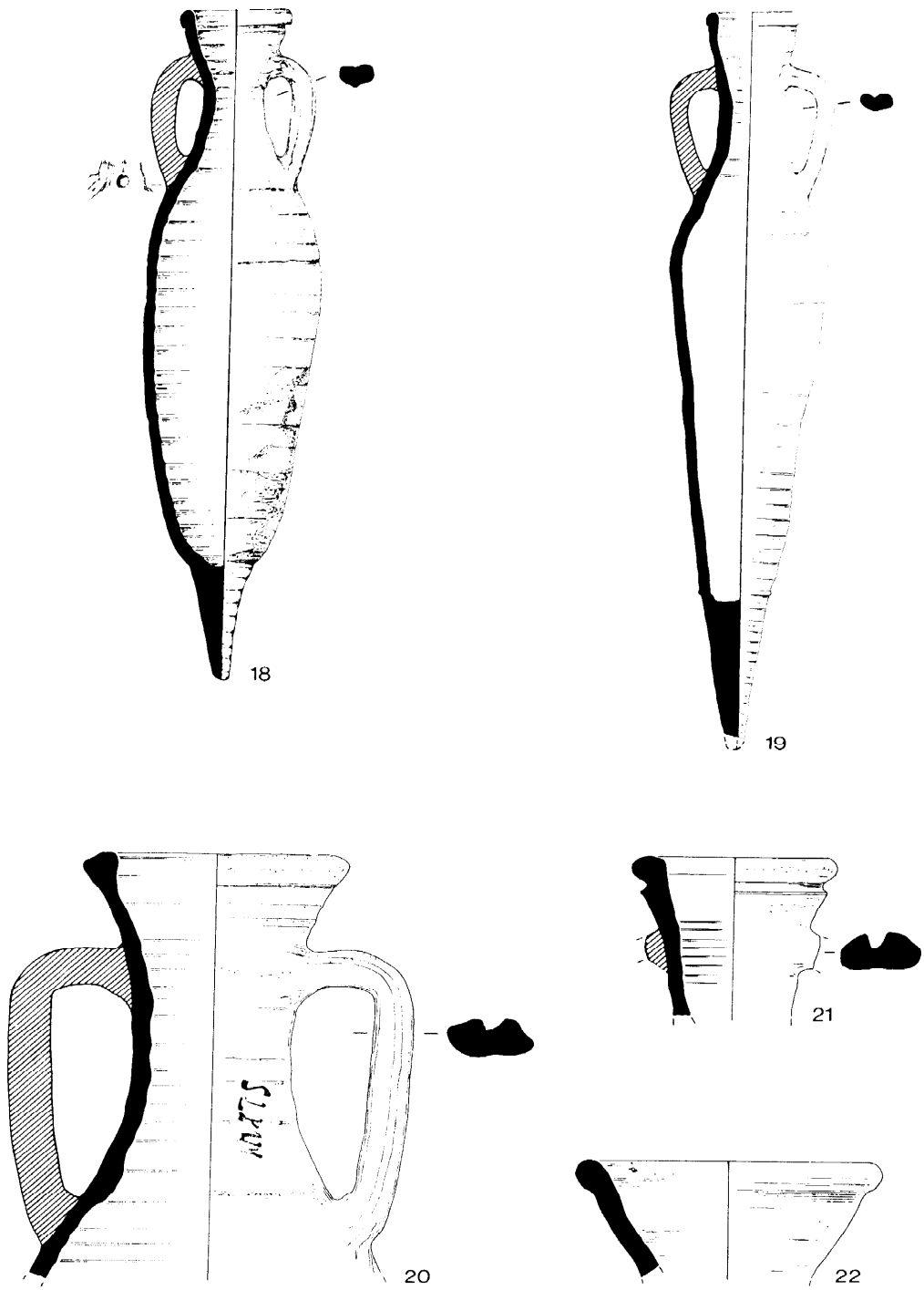


Fig 9 'London 555' amphorae, nos 18-22 (Scale 1:4; nos 18-19 1:8)

similarity is such that a single production area is indicated.

3.6 Gauloise amphorae (PE47)

This amphora type derives its common name from the identification by Pelichet (1946). Although the series is now seen to be much more complex and is divided into a number of different forms by Laubenheimer, the code PE47 is maintained in spot dating.

Source and content

It is clear from the work of Pélichet (ibid), and more recently Panella (1973, 538-51) and Laubenheimer (1985, 1990), that a wide range of amphora forms were made in the south French province of Gallia Narbonensis, and that kilns were scattered from Narbonne in the west to Nice in the east with apparent concentrations in the Rhone Valley and the Narbonne-Beziers region.

It is thought that all these amphorae were principally used as wine containers, although painted inscriptions show that the form was also used for fish sauce (Panella 1973, 547), and probably other products as well.

Dating

Fig 10

These types are primarily 1st century amphorae, with the exception of Gauloise 4 which persisted well into the 3rd century and accounts for the later data on Fig 10. In aggregate they are abundant.

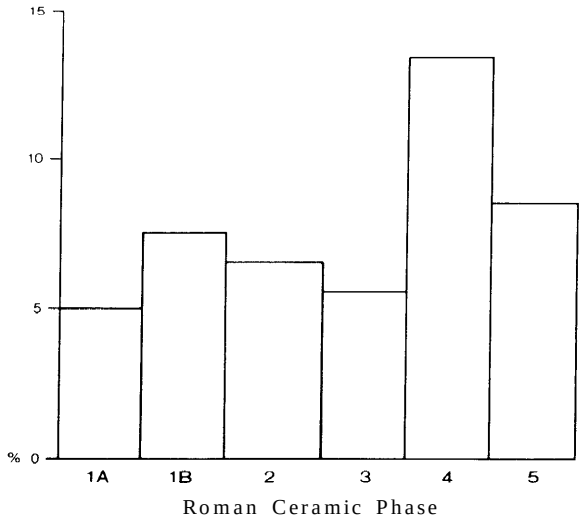


Fig 10 Bar graph of Gauloise (PE47) as a percentage of all amphorae by weight

Form

Figs 11-12, Nos 23-34

Laubenheimer (1990, 166-7) has categorized several distinct flat-bottomed types, occurring within Gauloise 1-12, in a new typology which distinguishes the common Pélichet 47 (Gauloise 4) as one among many similarly shaped amphora types varying chiefly in rim detail but also in size, shape and base diameter. The different types were often made in the same small kilns or groups of kilns.

Four Gauloise amphora forms have been found in City excavations. By far the most common, Gauloise 4 (23-4), is also the most common indigenous form of the group in southern France and in the rest of the Roman Empire; it occurs frequently in Italy (at Ostia for example, Panella 1973, 538, tabella 11), and in the northwest provinces (Peacock 1978). It is characterized mainly by its round lip, narrow neck and narrow, flat base. In the City it was present from the 1st to the early 3rd centuries (Green 1980b, 42) and is probably the second most common amphora type, although body, base and handle sherds in south French fabrics have been grouped and quantified as 'Pélichet 47' when they may have come from other Gauloise forms. Despite being made in a number of widely dispersed kilns, the form almost invariably occurs in a fine micaceous fabric (Laubenheimer 1985, 267).

Gauloise 5 (25-6), a 1st to early 2nd century form, also appears to have been fairly common. It is characterized principally by its thick, flat rim and long, narrow neck. The handles, body shape and base are broadly similar to those of Gauloise 4. It occurs in a range of fabric variations and, like most of the Gauloise forms, was made in at least two sizes.

Gauloise 1 (27-9) is a 1st century form which is characterized by its flared collar rim and double-grooved handle. It has an almost spherical bag-shaped body and fairly wide base. Present in a range of fabric variations, it occurs as a few isolated examples in 1st century contexts, and residually at Billingsgate Buildings in unpublished, disturbed 2nd-3rd century contexts. Number 30 is an unusual variant, Laubenheimer's 'Forme 1 de Atelier de Gueugnon' (Laubenheimer 1989, 128-9).

Gauloise 3 (31-4), sometimes categorized as Hofheim 77, has a flared double moulded lip/neck, and a body shape and base broadly similar to those of Gauloise 1. It occurs in a range of fabric variations and is present as a few single examples in 1st century contexts.

*Fabric

Laubenheimer (1985, 211, 349) distinguishes two main fabric variants. One is soft and fine, cream buff-beige (10YR 9/4) in colour, and contains sparse or moderately abundant inclusions of limestone (often sub-visible), sparse fine quartz and metamorphic rock fragments (generally <0.1mm), and abundant fine white and gold mica. The other is coarser (though still finer than most amphora fabrics), sometimes a darker

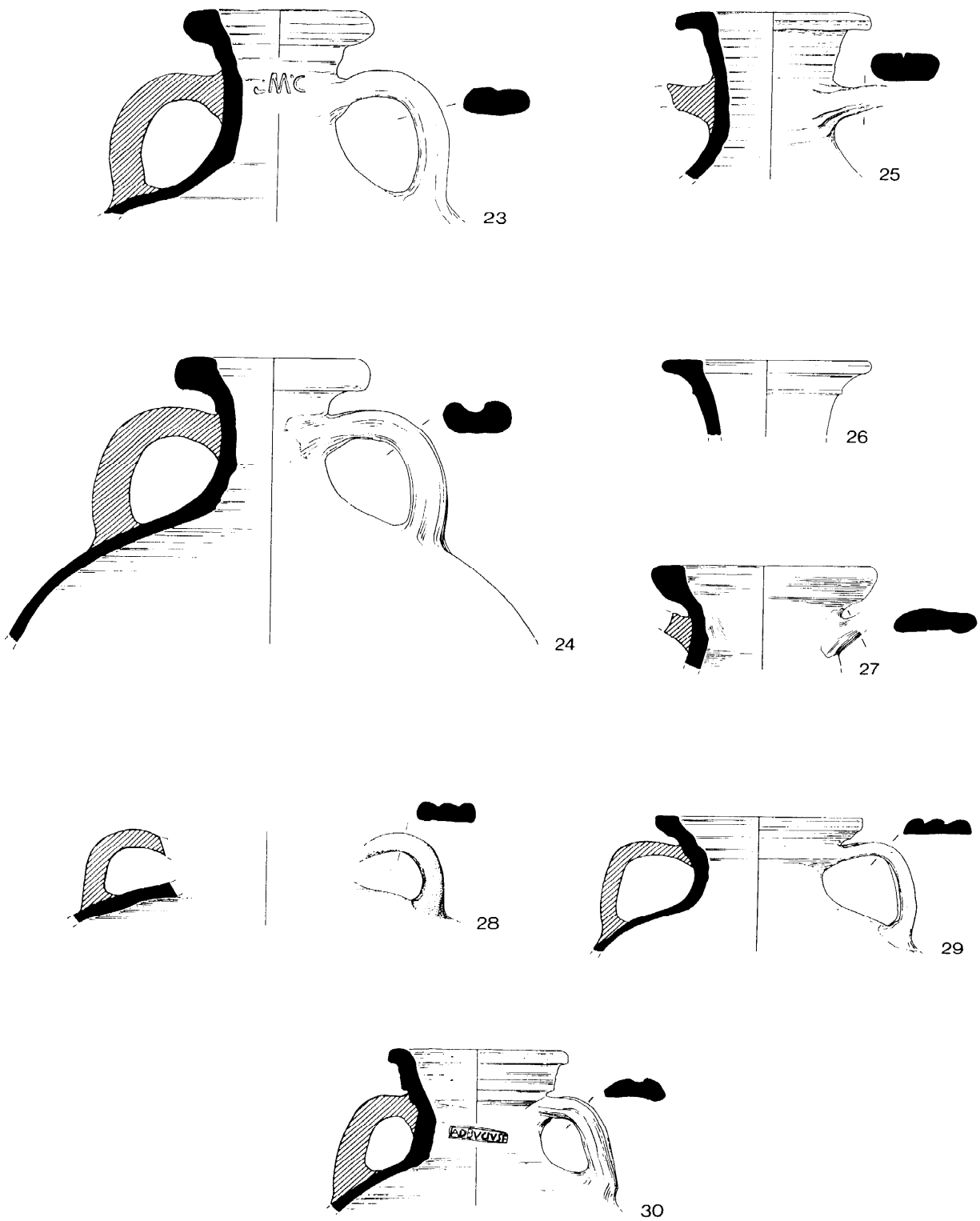


Fig 11 Gauloise (PE47) amphorae, nos 23-30 (Gauloise 1, 4 and 5) (Scale 1:4)

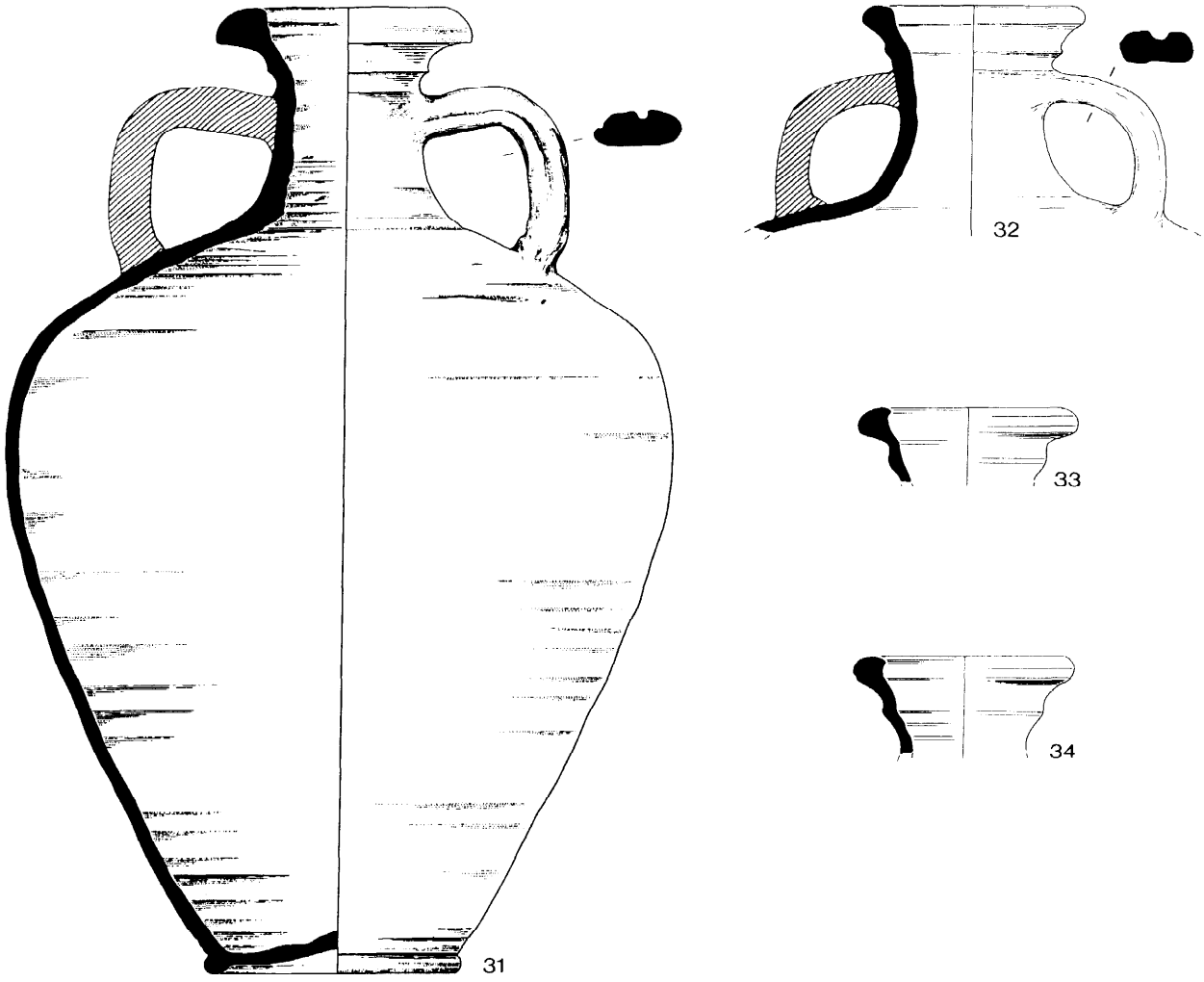


Fig 12 Gauloise (PE47) amphorae, nos 31-4 (Gauloise 3) (Scale 1:4)

beige-pink or orange (7.5YR 8/4; 5YR 8/4; 5YR 7/6), and contains larger quantities of the same range of inclusions. Both fabrics have clean or sub-conchoidal and fine fractures, slightly rough surfaces and a wiped appearance reminiscent of dough.

Thin sections of City examples match Laubenheimer's descriptions but show quite a wide range of fabric variations which appear to be associated with form. Gauloise 4 fabrics are notably fine grained and micaceous with a scatter of limestone, feldspar and granite, while Gauloise 1, 3 and 5 are coarser and more varied. This apparent grouping of fabrics by form is probably coincidental as there is evidence from France of a variety of forms being made in the same kilns and presumably the same clays. However, as stated, the Gauloise 4s from the City are very often in a notably fine micaceous fabric.

3.7 Dressel 2-4 ('Koan')

Source and content

These amphorae were widely made throughout the Roman Empire and the diversity of fabrics and variability of forms reflects both the large number of production sites and the common use of the form as a wine container in the 1st and 2nd centuries. Particularly diverse examples in late 1st century contexts may, as Sealey (1985, 127-32) suggests, demonstrate a sudden expansion of viticulture in Italy, Spain and southern France, although there is some evidence, as for other wine amphorae including Dr 1 and Gauloise 4, that the form was also used as a primary container for products such as fish sauce and fruit (Hassall & Tomlin 1984, 344, 37; Sealey 1985, 47).

The Dr 2-4 form is known to have been made in Italy (Peacock 1977d), central and southern France (Dangreaux & Desbat 1988; Desbat 1987; Laubenheimer 1986), Catalonia (Keay & Jones 1982), Baetica (Peacock 1974) and, on a very small scale, at Brockley Hill near London (Castle 1978). Apart from the possible exception of a few rim sherds which may come from large flagons, Brockley Hill/Verulamium region Dr 2-4 amphorae have not been recorded from City excavations. Two almost complete examples from Lion Walk, Colchester (Symonds & Wade forthcoming) demonstrate that they are occasionally found outside the immediate area of the kilns.

Some of the more characteristic and common fabrics found are described below. They derive generally from small rim, handle and spike sherds, and are not always illustrated.

Dating

Fig 13

In the City the type is generally 1st and 2nd century. Where possible, more detailed dating evidence is given for individual fabrics. As a group they occur in moderate quantities.

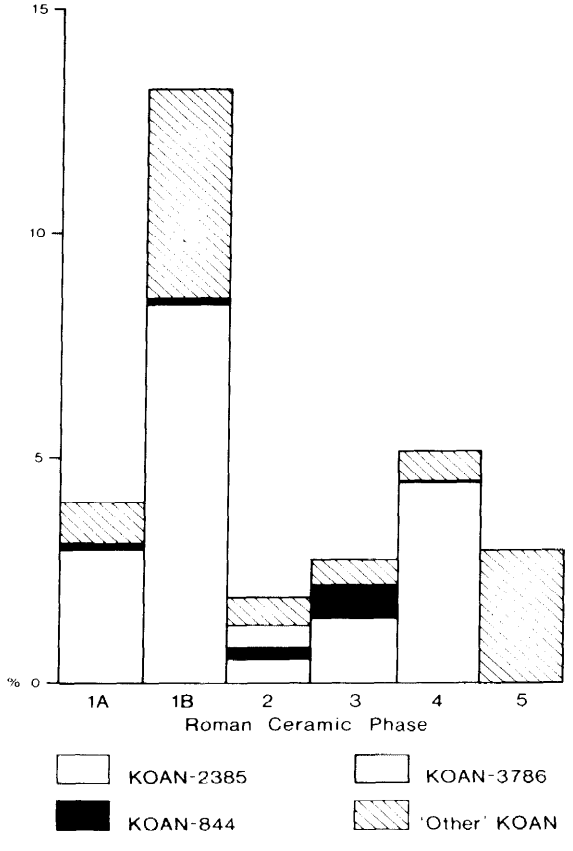


Fig 13 Stacked bar graph of Dressel 2-4 (KOAN) amphora fabrics as a percentage of all amphorae by weight

Form

The most obvious characteristics of the form are the double-rod handles, simple rounded rim, sharply carinated shoulder and peg base.

Fabric

*Koan-2385

Fig 13; Fig 14, Nos 35-6

The most easily identifiable, though not necessarily the most common, fabric is the Italian Campanian with its characteristic brick-red (1 OR 6/8) colour, white (5Y 9/1-9/2) slipped surfaces and granular texture with generally abundant well-sorted inclusions of black sand (mainly augite, garnet and volcanic glass), volcanic rock fragments, feldspar and quartz (SA 0.5-0.7mm). Quantities of volcanic inclusions vary considerably. Campanian amphorae are generally found in the City in contexts of the mid 1st century (c 50-70) and do not appear to have been imported much later than the late 1st century; later occurrences are probably residual.

*Koan-844

Fig 13

Contemporary with the Campanian fabrics and continuing into the late 1st or early 2nd century is a variety of fine micaceous fabrics. Frequently light pinkish-orange (2.5YR 7/8-6/8) and sometimes with a white (SYR 9/1) slip, they contain very large quantities of white and gold mica and varying but generally abundant quantities of limestone and sparse quartz (SA <0.3mm). It is thought that they are also Italian (Green 1980b, 42), although they are difficult to assign to a particular area.

*Koan-3786

Fig 13; Fig 14, Nos 37, 39

Another distinctive and fairly common Dr 2-4 fabric is characterized by its light pinkish-orange (2.5YR 7/6) or buff-red (5YR 8/4) colour, cream (10YR 9/2) slip, and particularly by its very large (A, SA 1.5-3.5mm) inclusions of volcanic origin, such as light-coloured feldspars, and pyroxenes, and a conspicuous lack of sand. In thin section these amphorae form a very well-defined group. They contain a large range of volcanic inclusions, typically altered volcanic glass, green pyroxenes, very large, clear, fresh alkaline feldspars and medium to large quantities of reddish-yellow mica. Dr I Freestone comments that a south Italian source is probable, and certainly the fabric is very similar to the south Italian mortaria which were imported in the 1st and 2nd centuries (ITMO, Section 4.11). Among the quantified data they are restricted to the Flavian period.

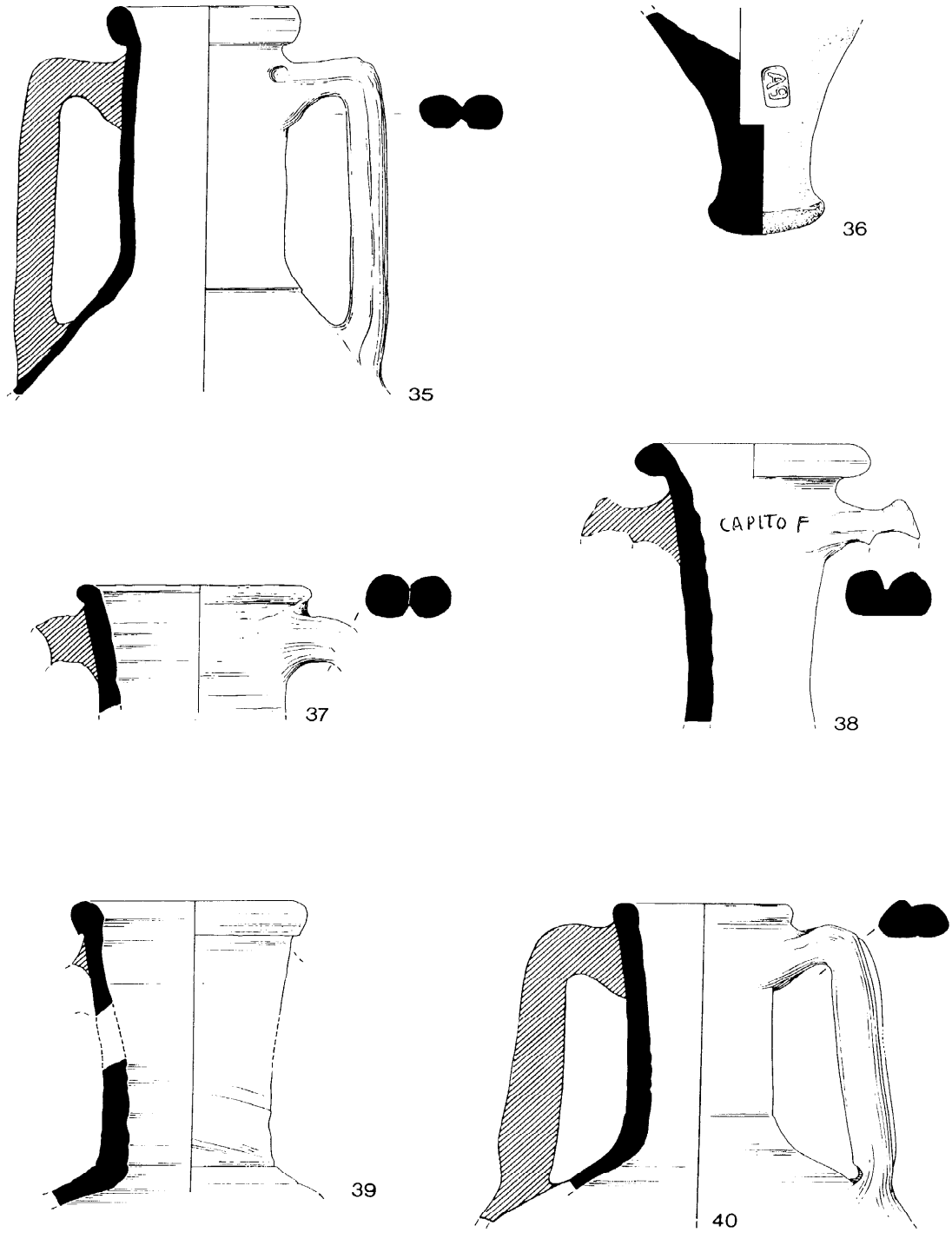


Fig 14 Dressel 2-4 (KOAN) amphorae, nos 35-40 (Scale 1:4)

Koan-3488

Fig 14, No 38

This vessel is in a hard, finely irregular light orange-buff (5YR 8/4) fabric with white (10YR 9/1) surfaces and with abundant fine quartz (SA <0.3mm) and red iron-rich inclusions, as well as some rounded limestone, white mica and feldspar. The graffito, CAPITO F ('Capito made this', Hassall & Tomlin 1984, 344, no 36), on an unstratified vessel, was incised before firing.

***Koan-4127**

Fig 14, No 40

This type has a pale cream or buff fabric (2.5Y 9/2), is hard with an irregular fracture, and comprises a micaceous (white and gold) clay containing abundant poorly sorted quartz, quartzite (SA <1.0mm), metamorphic rock fragments (<2.0mm) and abundant foraminifera (<0.5mm). In thin section rock fragments can be identified as quartz-mica-schist, phyllite, feldspar and amphiboles. A source in the Lyon/Rhone Valley area is suggested. The type vessel comes from an unquantified Flavian context.

3.8 Richborough 527 (R527)

Source and content

It now seems certain that these amphorae were made in the area of the Bay of Naples in southern Italy. Their contents are unknown, but dried fruits have been suggested (Arthur 1989, 251-4; Williams & Arthur 1991, 396).

Dating

Fig 15

Sherds of Richborough 527 come from several City sites, more complete vessels from redeposited dumps and waterfront infills at Billingsgate Buildings (Green 1980b, 44) and New Fresh Wharf (Green 1986, 101, 1.4). The type occurred from the Neronian period onwards (late Neronian-early Flavian among the quantified data), and although normally the majority of City examples are from 1st century contexts, there is strong evidence for small-scale importation throughout the Roman period (Arthur 1989; Williams & Arthur 1991). Certainly the most complete City examples are from 3rd century contexts, and it may be that 4th century examples which were previously thought to be residual are also in primary contexts. In absolute quantities the type is sparse.

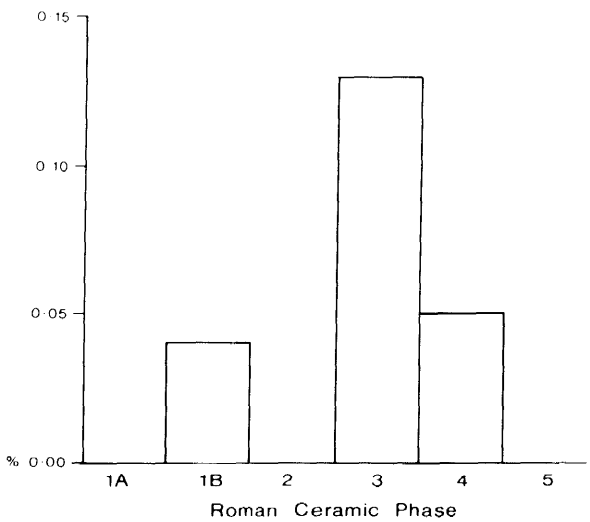


Fig 15 Bar graph of Richborough 527 as a percentage of all amphorae by weight

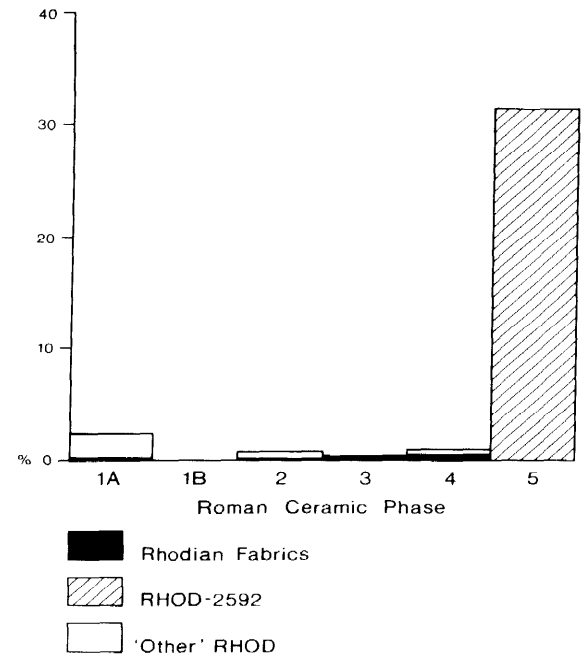


Fig 16 Stacked bar graph of 'Rhodian' amphora fabrics as a percentage of all amphorae by weight

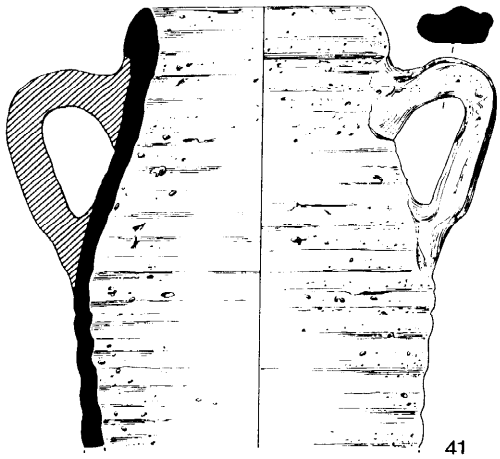
Form

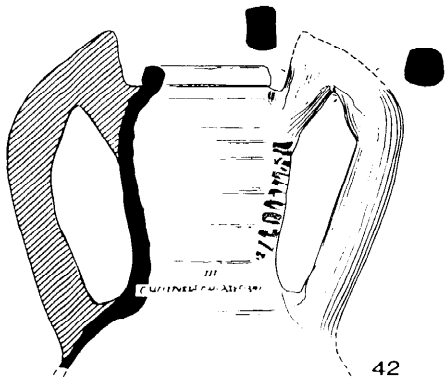
Fig 17, No 41

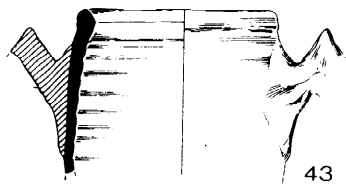
The form appears to be fairly consistent. It is a rilled cylindrical amphora with a large open mouth and rounded or bead rim. The base is a stub and the handles are short, curved and ridged. Arthur (1989) has shown that a later development of the form has a smaller and less beaded rim.

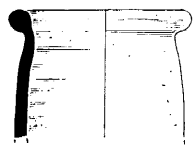
*Fabric

The hard, rough fabric is distinctive and characterized by its coarse manufacture and the volcanic inclusions. It is greenish or white-grey (10Y 9/2-8/2) in colour and contains abundant inclusions of clear volcanic glass (0.5-0.6mm) which have remelted in firing and









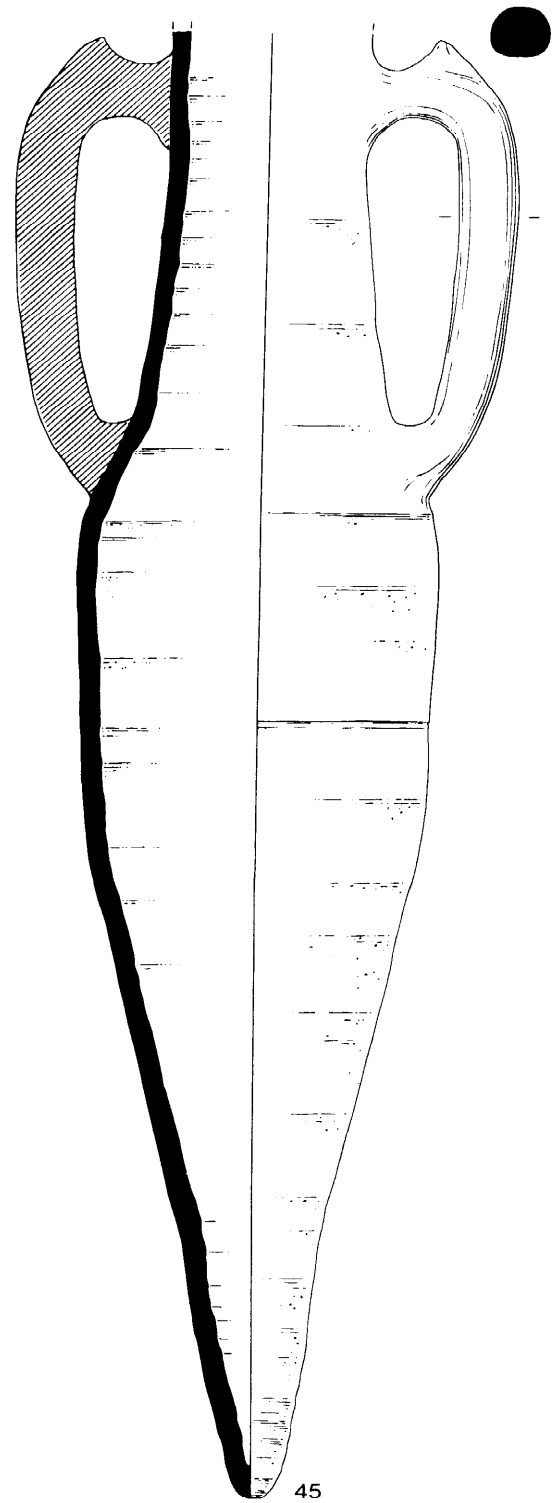
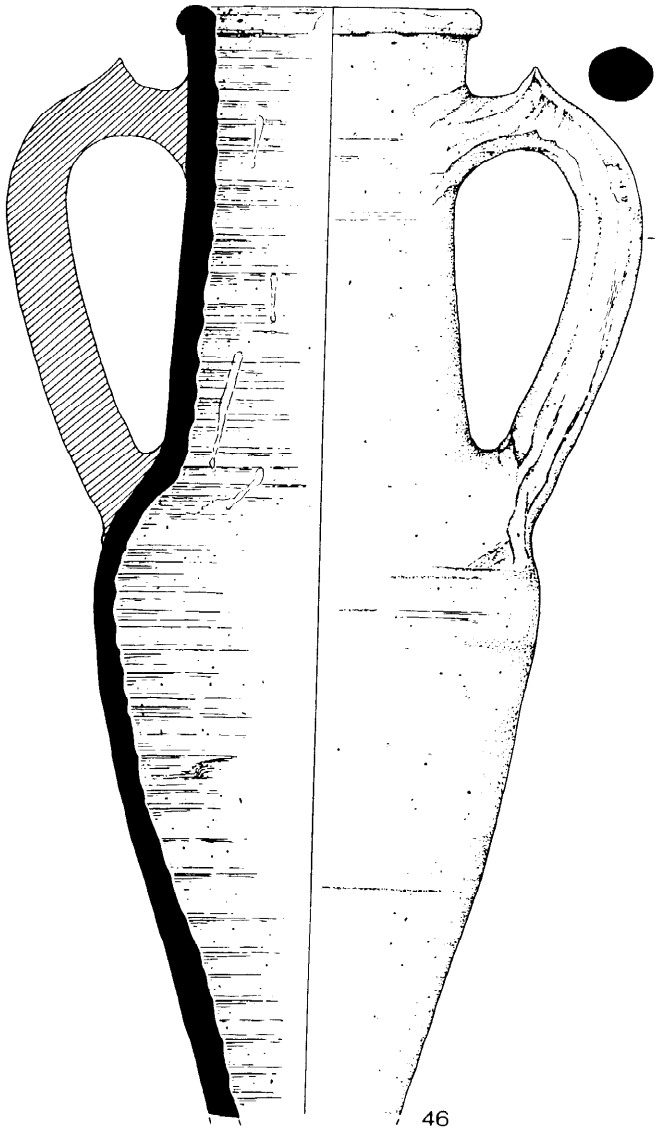


Fig 17 Richborough 527 amphorae, no 41; 'Rhodian' amphorae, nos 42-5 (Scale 1:4)



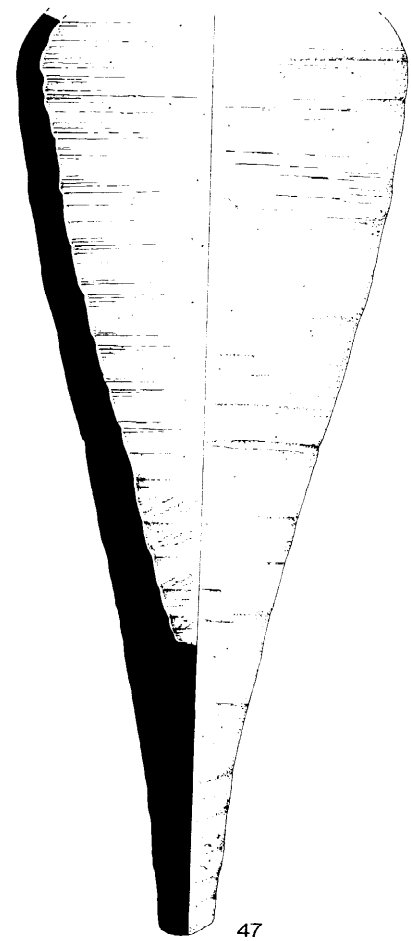


Fig 18 'Rhodian amphorae, nos 46-7 (Scale 1:4)

erupted through the surfaces, lava and rock fragments, abundant rounded limestone (0.4-0.7mm), and varying quantities of quartz, feldspar and gold mica.

3.9 Rhodian and Rhodian-type amphorae (RHOD)

Source and content

Dr 43 was made on Crete (Empereur et *al* 1991) while Cam 184 occurs in a far wider variety of fabrics (including a Rhodian one) and, like Dr 2-4, was obviously made in a number of production centres. Both types are known to have contained wine and, occasionally, figs (Sealey 1985, 56-7).

Dating

Fig 16

These amphorae are generally 1st to mid 2nd century, and where possible more detailed dating evidence is given with separate fabrics below. As a group they occur in moderate quantities.

Form

Two related amphora forms are known as 'Rhodian': Dressel 43, and the 'Rhodian-type' or 'style' Cam 184. Dr 43 is very small and thin walled with a collared rim, and high peaked single-rod handles which flare above rim level. Cam 184 is a very similar shape but its handles peak below rim level. Both amphorae have sloping shoulders and tapering bodies, but the Cam 184 is much larger and more comparable in size to a Dr 2-4. Body sherds of Cam 184 and Dr 2-4 can be confused, although generally the Cam 184 tends to have thinner walls.

Fabric

The main fabrics found in the City are described below. Fabrics from unfeatured body sherds, and rim sherds which might be Rhodian or Dr 2-4, are not included here.

RHOD-1522

Fig 17, No 42

Dr 43 is present but rare in the City. There are two virtually identical examples in the Reserve Collection, one of which is illustrated. Both vessels are in a hard, fine, pink (7.5YR 8/4) fabric with lighter (2.5Y 9/2) slipped surfaces. Under magnification (x20) the only visible inclusions are very sparse fine quartz and limestone. The matrix is a mass of sub-visible red flecks. There are no stratified examples of this form.

RHOD-1894 (Cam 184 fabric 1894)

Fig 16; Fig 17, Nos 43-4

Cam 184 Rhodian-style amphorae are fairly common, and occur in the City from the mid 1st to the mid-late 2nd century. An early and distinctive type is very small and similar to the Dr 43, the main difference being that its handles peak below the rim. It consistently occurs in a hard yellow-buff (10YR 8/6) fabric with abundant limestone inclusions (sometimes altered with bleached or dark reaction rims), some fine quartz and moderate to abundant dull red sub-angular splinters of serpentine. All inclusions average 0.l-0.3mm, but are generally less than 0.2mm. This is the classic Rhodian fabric, corresponding to Peacock's fabrics 1 and 2 (1977e, 266-8; Peacock & Williams 1986, 103-4) and it was present from the pre-Boudiccan period (coded 'Rhodian Fabrics' on Fig 16).

RHOD-3745 (Cam 184 fabric 3745)

Fig 17, No 45

The fabric belongs to Peacock's (1977e, 268-9, fig 3, 8) fabric 6, and his type vessel from the Reserve Collection is illustrated here. It is hard, distinctively pink or light red (5YR 7/6-7/8), and contains very large, angular inclusions (0.8-3.0mm) mainly of quartz, but also feldspar, rock fragments and gold mica in a very fine matrix, suggestive of a granitic source. A few body sherds in this fabric have been observed from unquantified groups, but are too rare to indicate when the type was current.

*RHOD-2592 (Cam 184 fabric 2592)

Fig 16; Fig 18, Nos 46-7

This incorporates RHOD-2591-3, a very hard fabric; some sherds are notably calcitic, with an irregular fracture. In the hand specimen, it is brick red (2.5YR 6/6) in colour with moderate to abundant rounded and sub-angular limestone, sub-angular quartz and white and gold mica. Most inclusions are less than 0.3mm. In thin section a basic fine-grained igneous rock,

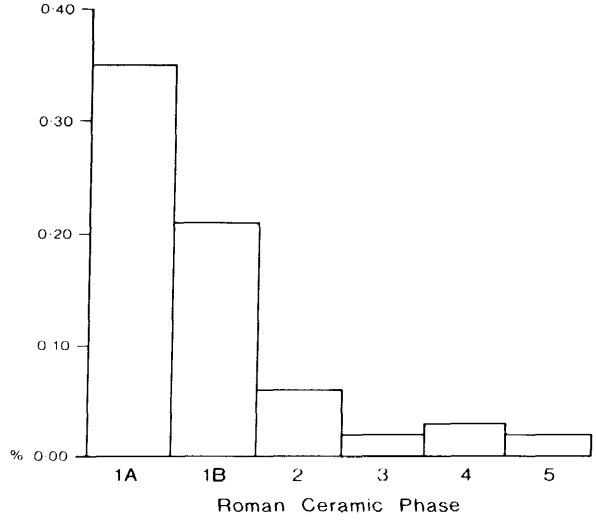


Fig 19 Bar graph of Camulodunum 189 as a percentage of all amphorae by weight

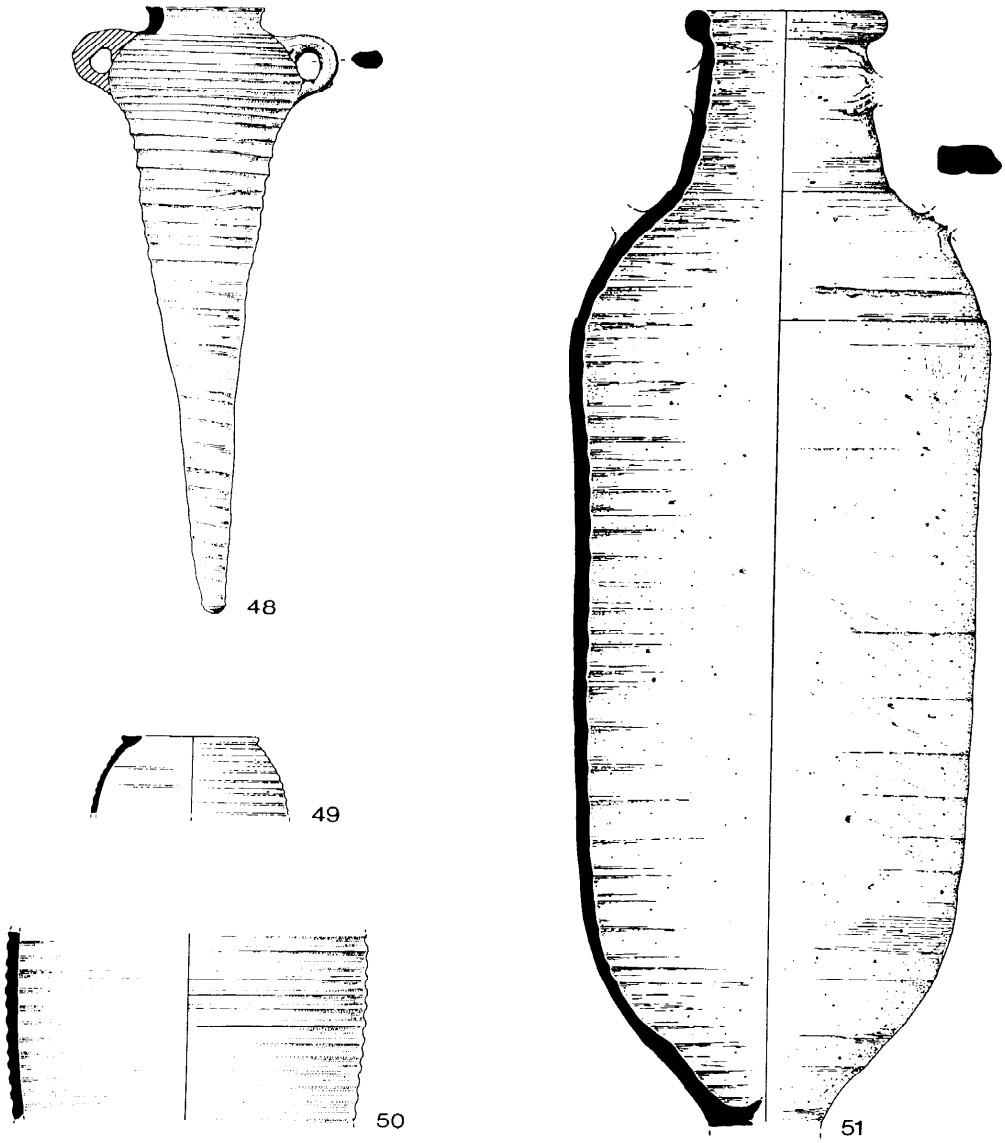


Fig 20 Camulodunum 189 amphorae, nos 48-9; Kingsholm 117 amphorae, no 50; North African Cylindrical amphorae, no 51 (Scale 1:4)

plagioclase feldspar, and altered ryholite can also be identified (Tyers 1984a, 371). The illustrated examples are two of perhaps four vessels from 28-32 Bishopsgate *(ibid)* and account for the large quantities during the early Antonine period on Fig 16. A recent find from Leadenhall Court comes from a 1st century context.

3.10 Camulodunum 189 (C189)

Source and content

The source and content of this distinctive amphora are still unknown. Its fabric, but not its distribution, suggests a Mediterranean source (Peacock & Williams 1986, 109).

Dating

Fig 19

This primarily 1st century type occurs in moderate quantities from pre-Boudiccan deposits in the City,

Form

Fig 20, Nos 48-9

A carrot-shaped amphora which is small with a heavily rilled body and distinctive small looped handles. The two illustrated examples demonstrate the variable shape of the rim. It has the virtue of being immediately recognisable, although it might be confused with the related and larger but rare Kingsholm 117.

***Fabric**

Generally orange-red (2.5YR 7/l0) or reddish-grey (2.5YR 5/6), the fabric is hard with an irregular fracture and abundant or moderately abundant inclusions of well-rounded quartz and limestone, and smaller quantities of red iron-rich inclusions (0.2-0.5mm). Mica is very sparse or, more usually, absent.

3.11 Kingsholm 117 (K117)

Source and content

This type appears to be related by both fabric and typology to Cam 189, and it too remains unsourced. However, Sealey (1985, 90) notes a vessel containing dates from a wreck at La Tradehere.

Dating

Only one example of this type, a body sherd, has so far been noted from the City in an unquantified, pre-Flavian context.

Form

Fig 20, No 50

The Kingsholm 117 takes its name from this site (Timby 1985, fig 28, 117) and appears to be a larger, more cylindrical version of the Cam 189.

Fabric

The fabric is the same as that described for Cam 189.

3.12 North African Cylindrical amphorae (NACA)

Source and content

This central Tunisian amphora probably contained fish products, although it may also have carried olive oil (Peacock & Williams 1986, 154).

Dating

The type is typically of the mid 3rd century in London and elsewhere in Britain, but rare examples occurred in the City from the early Antonine period, In particular, a nearly complete vessel occurs in a context at 28-32 Bishopsgate dated c 140-60. This accounts for all the quantified NACA, 7% of all amphorae by weight in the early Antonine period. Early examples can be found on other sites, for example at Ostia from the early 2nd century (ibid).

Form

Fig 20, No 51

Only one example of a rim comes from the early deposits and this belongs to an Africana I or 'Piccolo' *(ibid,* fig 79). The type in general is tall and cylindrical with a short, hollow spike. The Piccolo is exemplified by a thickened ever-ted rim which is concave on the inside and convex on the outside. Small round handles are joined to the neck.

Fabric

PI 5b

Two main North African amphora fabrics can be identified. Both are typically brick-red (10R 5/8), sometimes with a black or grey (2.5R 5/0) margin, and frequently with a white (5YR 9/l) self slip. They are hard, slightly rough to the touch, with a fine fracture and contain abundant quartz and variable amounts of limestone (SA, R <0.4mm). Examples from early contexts, including the illustrated vessel, tend to have a lime-rich fabric (cf Peacock & Tomber 1991, 294, 301).

4. Oxidized wares

The term oxidized is used here to represent all pale or light-coloured wares fired under oxidizing conditions. In London the majority of these are from pure clays containing little iron, thus firing a white or off-white colour. Some of the more iron-rich fabrics, which fire red or orange, are covered with slip to imitate the white clays.

4.1 Sugar Loaf Court ware (SLOW)

SLOW derives its name from the Sugar Loaf Court site where it was first recognized; it has been discussed in detail by Chadburn and Tyers (1984, 15-20). The presence of both seconds and wasters, including some very heavily distorted examples (Fig 22, 59; Fig 24, 95), indicated local manufacture, while the lack of kiln structures on site suggested that the area may have served as a dumping ground for nearby production including burnt debris, rather than being the production site itself, Some fragments of fired clay in a fabric similar to SLOW were collected and these may represent kiln fragments or lining.

The range of forms produced in SLOW places it firmly within a Continental tradition and suggests that a migrant potter using local clays was involved (ibid, 18-20). Nearly all the forms identified in SLOW can be paralleled in Gaul or the Rhineland, and within its British context close parallels can be drawn between SLOW and the products of Usk (Greene 1973) and Wroxeter (Darling 1977, 59-64) potters. Western Switzerland would seem to have been the primary influence on these potters, although the lack of publications from the French side of the France-Swiss border may unduly bias the evidence towards Switzerland. However, angle-shouldered and moulded-rim jars have a restricted distribution on the Continent, and parallels, particularly at Augst, point towards an origin fur the potter in western Switzerland in the region between the valleys of the Saane and the Aare.

An amphora in this fabric from a Neronian context at Ironmonger Lane imitates the Gauloise 3 form and is stamped C ALBVCI on the neck by Caius Albucius (see frontispiece). The name - which is likely to identify the SLOW potter - is associated with Celtic regions; the largest number of known examples come from northern Italy (M Hassall, pers comm).

Dating

Fig 21

The material from Sugar Loaf Court was found in association with imported fine wares and samian that indicated a pre-Flavian date. It occurs, albeit in small quantities, in most Neronian assemblages and is rarely present later than the early Flavian period. The relatively large quantity of SLOW at the type-site (and reflected on Fig 21) is not often seen in other pre-Flavian sites from the City, and overall it can be described as moderate. This may be due, in part, to the rather small assemblages generally obtained from sites of this date. The excavations at 5-l2 Fenchurch Street are the exception, where it forms 15% by weight of all pottery from the Neronian levels (Chadbum & Tyers 1984, 23).

Relatively large amounts of SLOW are frequently found in deposits where Verulamium Region White ware (VRW) is either absent or present in small quantities. This evidence, together with that from Southwark, where VRW is absent from earliest pre-Flavian deposits at 201-11 Borough High Street (Bird *et al* 1978, figs 33-7, 14-59), suggests that SLOW may be a useful marker to the earliest occupation in the City, prior to c 55/60. Additional evidence comes from the SLOW mortaria which are, without exception, ungritted. Hartley notes that the use of trituration grit was not a regular practice in Britain until *c* 55 (Detsicas 1977, 26) and the implication here is that the SLOW mortaria were produced before this date. In view of the absence of Claudian material from the City, it is suggested that SLOW production occurred within the pre-Boudiccan period, perhaps as early as *c* 50/5.

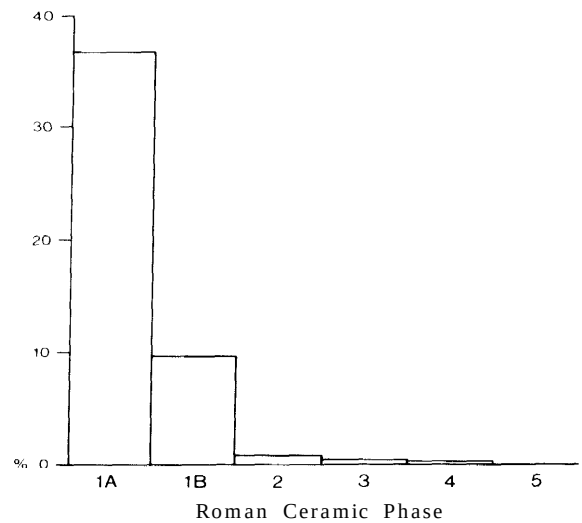


Fig 21 Bar graph of Sugar Loaf Court ware as a percentage of all oxidized wares by weight

*Fabric and technology

Pls 5c-d

The SLOW fabric comprises four variants, both oxidized and reduced, which are distinguished by texture. The most characteristic feature of this sandy fabric is its surface appearance, which is extremely hard fired, producing a crystalline effect where quartz and white mica protrude through the surface. Bands of alternating oxidation and reduction are characteristic of the external surface.

Experimental firings of City brickearth mixed with local sands compare well with this fabric (N Tobert, pers comm) and provide additional evidence for local manufacture. The brickearth extends over a wide area and inevitably there are other Roman oxidized wares using similar tempering. However, the distinctive typology of SLOW, together with its narrow date range, enables it to be distinguished from other local oxidized wares.

In general, this fabric has clay with white mica and a fine silty matrix, containing moderate well-sorted quartz (SA), lesser iron-rich inclusions (SA) and rare white clay pellets and flint. The fracture is generally hard and irregular. SLOW-2565 (PI 5d) the most common variant, has orange (2.5YR 6/8) surfaces and margins and a greyish-brown (2.5YR 4/6) core. Inclusions are frequently to c 0.6mm and always less than l.0mm. A coarser variant (2566, Pl 5c) is similar in colour, while a rare reduced one (2626) has burnished surfaces ranging from dark grey (7.5YR 3/0) to pinkish-grey (7.5YR 6/2) and pale brown (10YR 6/3) with a greyish-brown (10YR 31 2-6/2) core. Finally, 2563 is the finest textured with rare inclusions (< 0.4mm). The orange-brown (2.5YR 6/6) surface is smoothed, and the core is orange (2.5YR 618).

Forms

Apart from the obvious wasters, the majority of SLOW vessels are very well made and frequently thin walled. The rims, in particular, are often delicate and finely tooled. Forms include all major vessel types, with jars the most common. Lampholders or open lamps, also in this fabric, are distinguished from the rest of the industry by being handmade, but they are not presented below. Plate 2 illustrates a selection of the form types produced in SLOW.

Flagons Fig 22, *Nos* 52-9 Although flagons form a high proportion of the SLOW products they are thin walled and therefore normally survive only as fragments. For this reason it has not been possible to reconstruct any complete profiles, but rare neck and shoulder sherds indicate that they were made in two pieces and luted together. The majority of SLOW flagons are collared types (IA, 52-6), some having simple (55) and others more pronounced (53) ever-ted rims. Number 56 is an unusual variant, featuring a slight groove on the upper lip; 54 has a small bead.

Larger vessels with two handles, sometimes classed as jugs, are much rarer. One example of an IE variant (57) was probably double handled but only one handle survives. It has a short, ever-ted and grooved rim, with a groove beneath the handle. A similar form is paralleled among the Eccles kiln material (Detsicas 1977, fig 3.4, 82), and includes double handles which rise sharply above the rim. The example of a large two-handled flagon or amphora (IJ, 58) is similar to a Gauloise 3 (see also frontispiece). The pronounced ever-ted rim is rather distorted and the handles show three fine ribs. The stamped vessel described above is in a similar form and is lined with pitch. A heavily wasted flagon base with small foot is also illustrated (59).

Jars Figs 22-3, *Nos* 60-9 Like the flagons, most of the jars are thin walled, with the exception of 60 and 69. The majority of the SLOW jars are of the necked variety (NJ). Most have simple, ever-ted rims of various shapes, with short necks and high rounded shoulders (62-5). The rims are finely executed and the simple knife-trimmed base is raised towards the centre. Typically there is a groove at the junction of the neck and shoulder (eg 62), but 64 has a group of small moulded cordons. Number 63 is almost completely reduced and the orange lower body suggests that it was placed inside another pot during firing. Number 66 has a rim and groove similar to those just described, but the neck is virtually absent and the shoulder slopes.

The most distinctive of the jars are 67-8 with sharply angular shoulders, referred to as 'Schultertöpfe' in the Continental literature. These are paralleled at many Swiss sites including Vindonissa (Ettlinger & Simonett 1952, taf 5), Augst (Ettlinger 1949, taf 15, 2), Solothum (Roth-Rubi 1975, taf 8, 93) and Neu Allschwil (Ettlinger 1977, abb 6, 57).

Less frequently represented are bead-rim jars (IIA, 60), honey pots (IIK, 61), and a jar with a moulded rim (69). Numerous bubbles from over-firing, on the exterior surface and in section, suggest that 69 is a second. This vessel displays affinities with central Gaulish products, which in turn influenced potters in western Switzerland, as seen by examples from Augst (Ettlinger 1949, taf 12, 8-10 in Chadbum & Tyers 1984, 19).

Beakers Fig 23, Nos 70-7 Most beakers are ovoid, with high shoulders (IIIB, 70-2, 74), including rim variants with a concave internal depression (7 l-2). Decoration is usually limited to horizontal incised lines, but 74 has unusual roller-stamped decoration. Sherds decorated in this way were present at Sugar Loaf Court, although the illustrated vessel is an unprovenanced example from the Reserve Collection. The base, 73, is one type probably associated with the IIIB.

Other beaker forms include vessels with small upright rims (75) and flattened bead rims with no neck and low, sloping shoulders (76). Number 77, a thin walled vessel with a long, slightly evened rim, has a flat shoulder which carinates sharply at the maximum girth, and may be a beaker or a small jar.

Bowls and dishes Figs 23-4, Nos 78-84 Bowls fall into two categories: carinated IVAs with grooved walls (78-9), which are the most common, and those with straight walls and flat or clubbed rims (80- 1). In other fabrics, particularly Verulamium Region White ware, IVAs do not occur until the Flavian period. However,

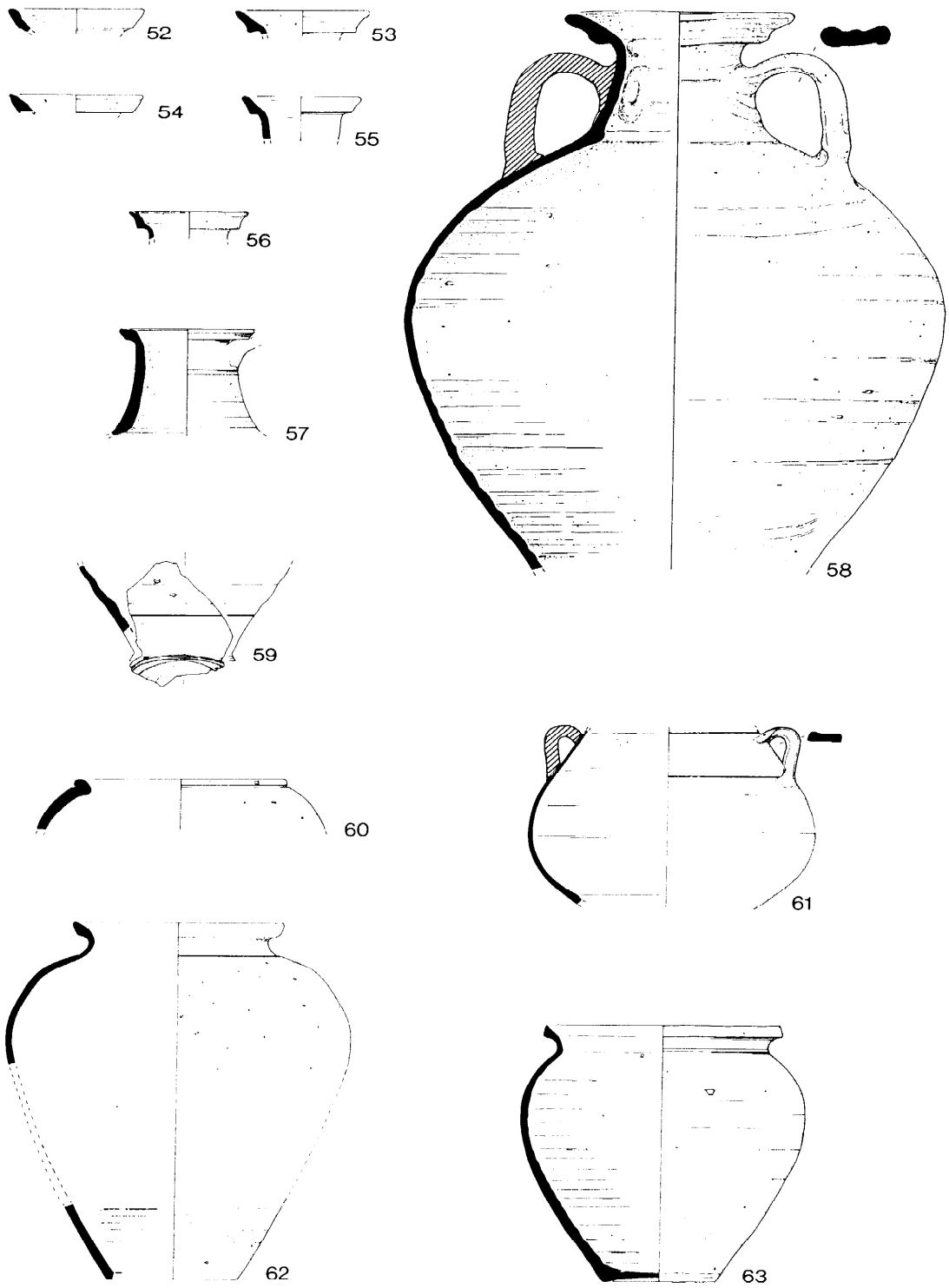


Fig 22 *Sugar Loaf Court ware, flagons, nos 52-9; jars, nos 60-3 (Scale 1:4)*

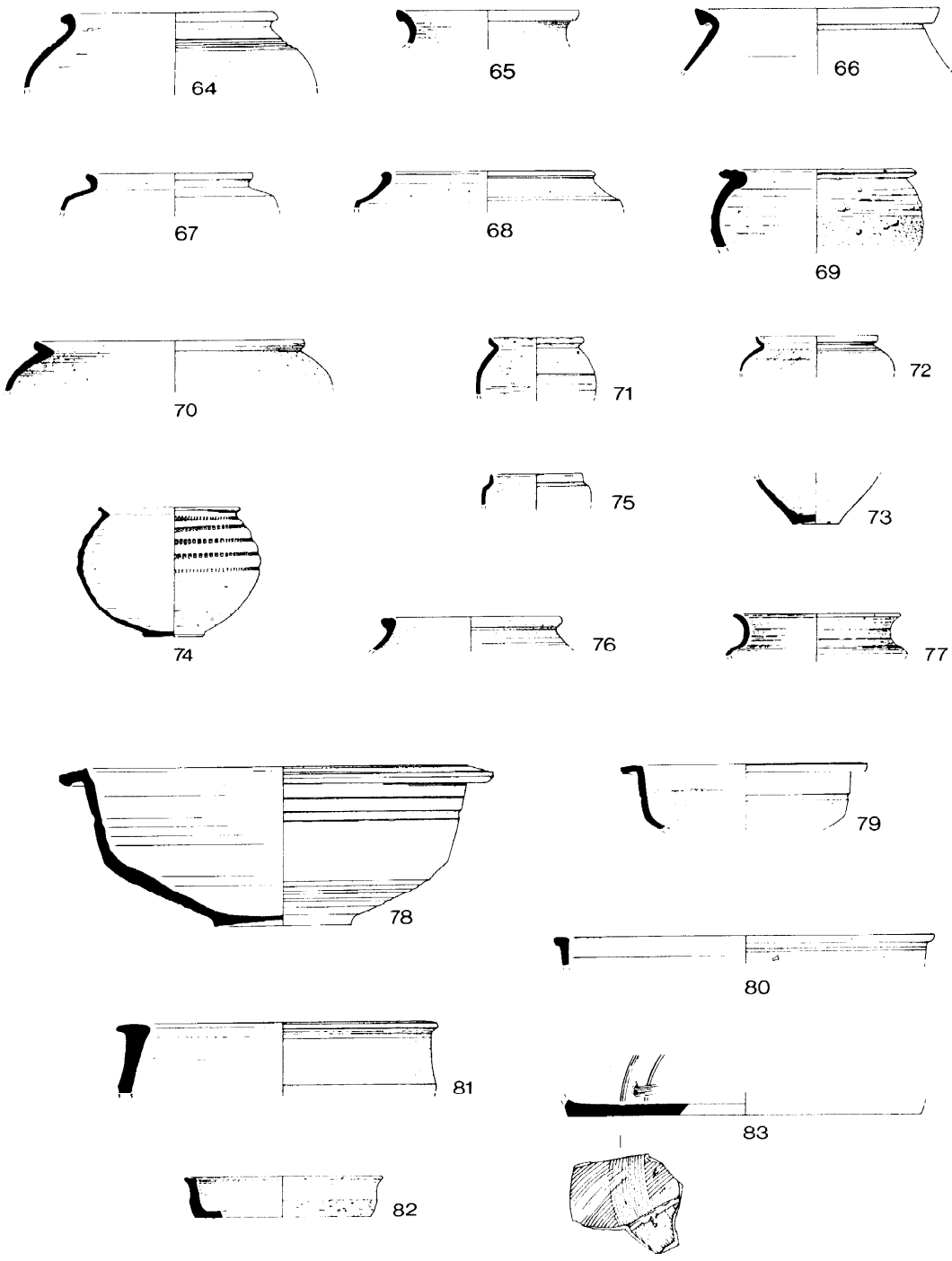


Fig 23 Sugar Loaf Court ware, jars, nos 64-9; beakers, nos 70-7; bowls/dishes, nos 78-83 (Scale 1:4)

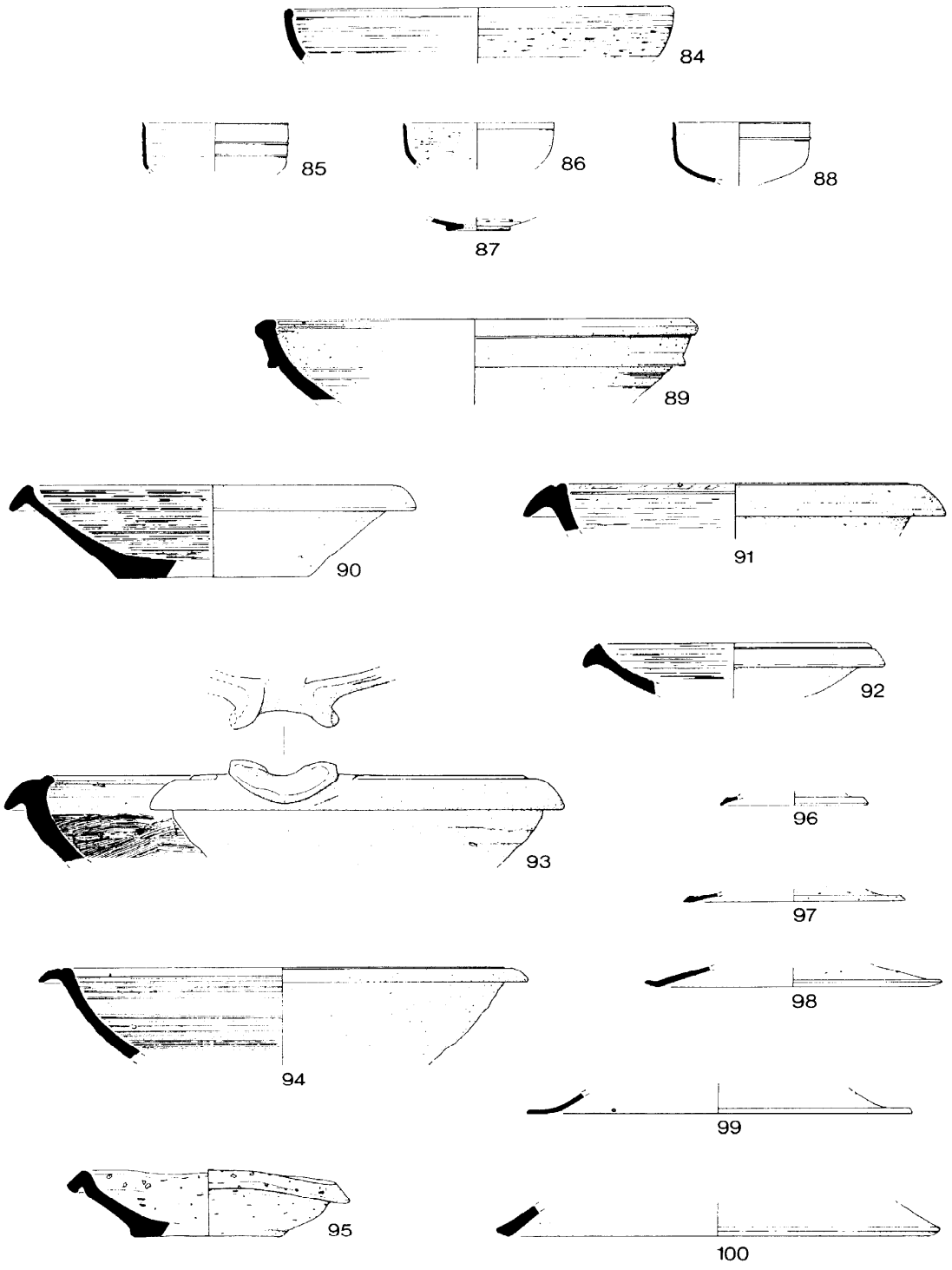


Fig 24 Sugar Loaf Court ware, bowls/dishes, no 84; cups, nos 85-8; mortaria, nos 89-95; other forms, nos 96-100 (Scale 1:4)

it is clear from 5-12 Fenchurch Street that in SLOW these bowls are pre-Flavian.

Shallow bowls or dishes are extremely rare, but three examples are included here. These comprise an internally moulded-rim dish (VA, 84) with burnishing over the lower part of the body; 82, a dish with a lid seating on a slightly out-turned rim, similar to a grooved-rim bowl (IVK); and 83, a flat base with two concentric grooves incised on the upper side and combed on the underside. The decoration on 83 is reminiscent of Pompeian Red ware.

Cups Fig 24, Nos 85-8 Cups illustrated here are all from the early Neronian assemblage at 5-12 Fenchurch Street, but sherds are known from other pre-Boudiccan groups. All these finely tooled and delicate vessels are hemispherical in shape and based on an Italian tradition; they feature cordons and grooves as decoration (85-6, 88). The low footring (87) is one of the possible base forms associated with this type.

Mortaria Fig 24, Nos 89-95 Both wall-sided (WAL, 89) and hooked-flange (HOF, 90-4) mortaria are found, with flanged ones more common at the type site. None of the mortaria are gritted and the flanged vessels feature pronounced scoring on the internal surface. This scoring can be paralleled by other early mortaria, for example at Longthorpe (Chadbum & Tyers 1984, 19). Although the shapes can also be paralleled at Eccles (Detsicas 1977, fig 3.4, 98; fig 3.5, 6), they lack the striations typical of SLOW. Number 95 is ungritted, but the extremely coarse fabric contains large crushed flint inclusions. These flanged mortaria belong to a different tradition from those of the early Verulamium region potters. No clear origin can be proposed, although eastern or central Gaul could be a source of influence (Chadbum & Tyers 1984, 19).

Other forms Fig 24, Nos 96-100 Lids are also represented. Most are thin walled with a straight profile and slightly flaring, plain or grooved rim (97-9) and are probably intended to fit the bowls. Number 100 is a thicker variant; 96 is an exceptionally small example (105mm), with an upright rim, and may have been used with the cups.

4.2 Local Oxidized wares (LOXI)

This group consists of a number of broadly interrelated fabrics that are grouped together here because of their proposed local origin and similarities in form. Four sub-groups, which vary in quantity of quartz tempering and firing techniques, can be identified. Apart from 2599, the fabric sub-groups are consistent with the local brickearth. LOXI-2599 is composed of a variegated clay similar to material from the Reading clay beds (A Vince, pers comm), which occur within and around London. A single vessel in LOXI-2604 contains a large pellet apparently similar to VRW clay, suggesting that manufacture took place within the area of VRW distribution, and therefore in keeping with localized production. Macroscopically, some of the fabrics resemble a group of Local Mica-dusted wares (LOMI Section 6.3), in particular their distinctive grey core, which are thought to be locally made. Comparison of the fabrics in thin section shows textural differences, but this does not exclude a common source. There is also a marked relationship between some of the vessel types in LOX1 and LOMI, particularly flagons (IF, IJ), bowls (IVA) and dishes (IVJ). Chronologically, their distribution differs, for the mica-dusted wares peaked in the early 2nd century, whereas LOXI predominated during the Hadrianic and early Antonine periods. Equally, the fabric may represent unknown kilns within the Verulamium region, and it is sometimes difficult to distinguish from the later Verulamium products (VCWS, Section 4.6). The assumption of local production cannot be confirmed, but further analysis of the fabrics and the distribution of the material in and around London and Verulamium may elucidate the source of these wares.

Dating

Fig 25

There are slight chronological differences between the fabric variants classified as LOXI, but it first occurred in sparse quantities during the Flavian period and flourished from the Hadrianic to Antonine. The Flavian examples may result from slumped stratigraphy at Newgate Street. LOXI-2599 is again an exception and was very rare until the early 2nd century. LOXI-2600 is the most common fabric within the group and follows the overall trend described here. As a group it is moderately common.

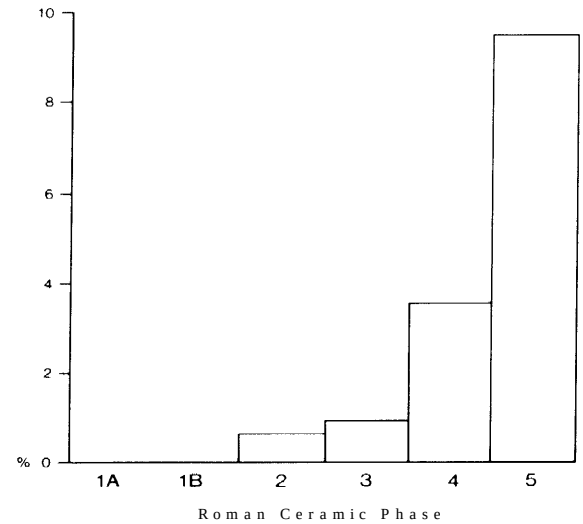


Fig 25 Bar graph of Local Oxidized wares as a percentage of all oxidized wares by weight

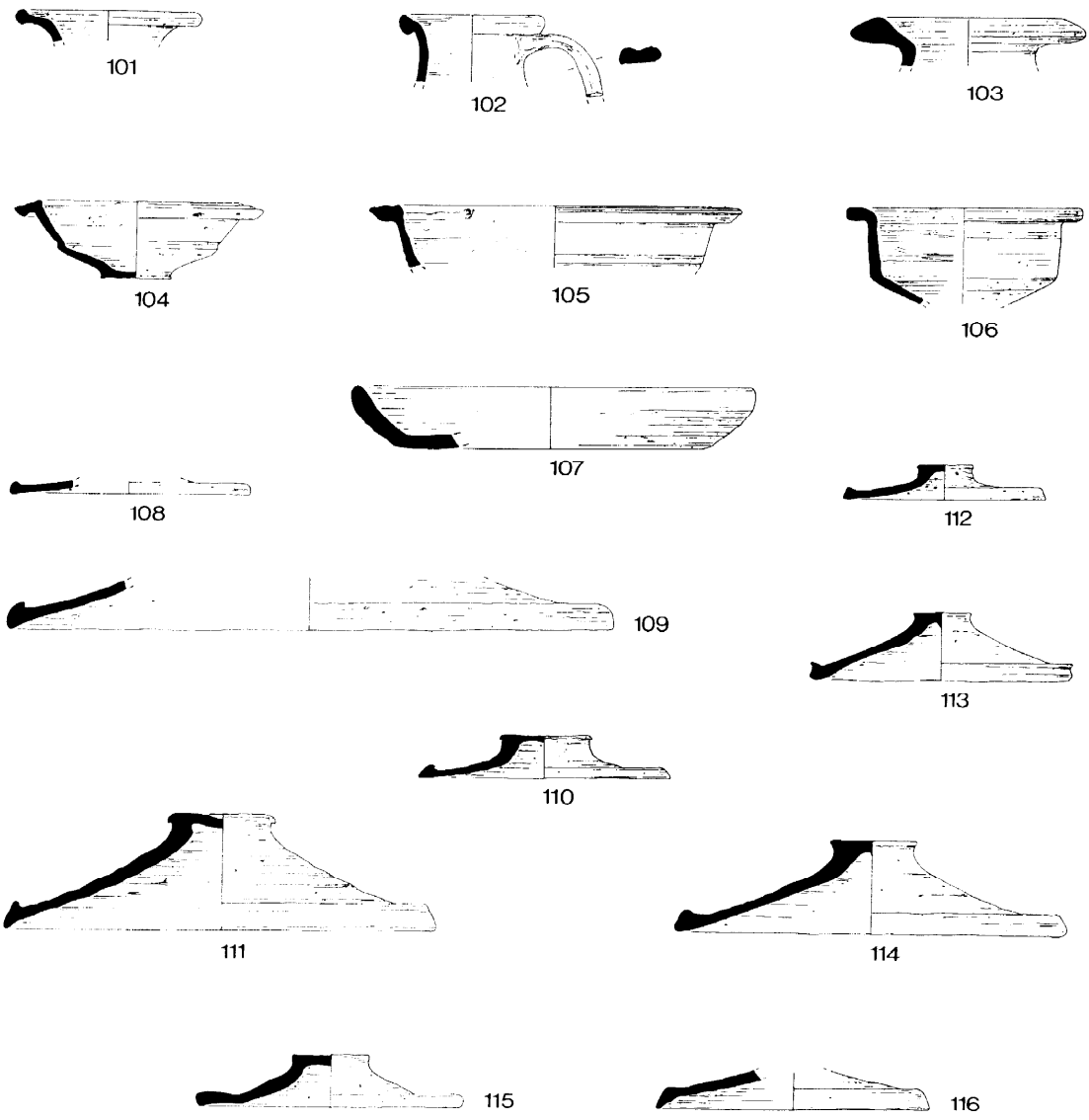


Fig 26 Local Oxidized wares, flagons, nos 101-3; bowls/dishes, nos 104-7; other forms, nos 108-16 (Scale 1:4)

***Fabric and technology**

Pls 5e-f

This group of fabrics is distinctively hard fired to orange with a thick grey core, and contains abundant well-sorted quartz and some white mica. Occasionally, large limestone inclusions erupt on the surface.

A common technological feature of the lids, and more rarely of the flagons and bowls, are distinctive concentric striations on the handle or base formed by removing the vessel from the wheel by wire, rope or similar tool.

Variant 2599 (Pl 5e) is the most distinctive of this group. A hard rough fabric, with irregular fracture, it is generally reddish-yellow or orange (7.5YR 7/6; 5YR 7/6) with slightly lighter surfaces and a distinct light grey core (2.5YR 7/0). Abundant, moderately well-sorted and densely packed quartz (SA <0.50mm, but occasionally (1.0mm), with sparser amounts of limestone (SA <0.5-l.0mm) and red iron-rich inclusions (R 0.3-1.3mm), are set in a calcareous, micaceous silty matrix. Prominent pellets of limestone (R <5.0mm) occasionally protrude through the surface and large clay pellets (<1.0mm) can also be identified. Rare flint inclusions, in the size range of the quartz, are present. Distinctive white streaks may give the paste a variegated appearance similar to material from the Reading clay beds.

The remaining fabric variants are similar in range and size of inclusions, differing primarily in density. However, they all lack the

variegated clay and large limestone inclusions characteristic of 2599 and instead have sparse small ones in the same size range as the quartz. Both 2603 and 2604 are similar, but contain slightly less quartz. LOXI-2604 is high fired and in thin section shows an isotropic clay matrix, while 2600 (Pl 5f) is a low-fired variant and tends to range in colour from light brown to reddish-yellow (5YR 6/ 3-7/6), often with a grey (10YR 6/l) core.

Forms

Lids are by far the most common vessel type for each of the LOX1 fabric variants, with smaller numbers of bowls, followed by flagons.

Flagons Fig 26, Nos 101-3 Flagons occasionally occur and include vessels with lid-seat rims (IF, IF/G, 101-2), and larger flagons or amphorae (IJ, 103).

Bowls and dishes Fig 26, Nos 104-7 Carinated bowls with moulded rims (IVA, 104-6) are the most common bowl form; an example of a plain-rim dish (IVJ, 107) is also present. Rare examples of the IVA occur from the Trajanic period.

Other forms Fig 26, Nos 108-16 Lids are the most common form and their dating mirrors the industry as a whole. Most of them have concave profiles, typically fairly flat, with a variety of rim forms. Rims can be broadly divided into rounded ones, sometimes undercut (108-9), more flattened and undercut examples (110-l 1) and those with a ridged or double lip (112-l 4). Two unusual lids have more convex profiles. Number 115 has a plain rim, somewhat square in profile, while 116 has an upright, pointed profile. Within LOXI-2599 the lids vary in diameter from 120-360mm, the smaller examples being generally earlier in date than the larger ones.

4.3 Eccles ware (ECCW)

This fabric is perhaps the most distinctive of the early oxidized fabrics and can tentatively be assigned to the Eccles kiln in Kent, where production is associated with a villa on the same site (Detsicas 1977). Both the fabric and the form types of the City examples are paralleled at the kiln site. Neronian products have not been previously recorded away from Eccles itself (Pollard 1988, 42, 189). However, its presence in the City verifies non-local distribution, which is complemented by brick, roofing tile and flue tiles ascribed to an Eccles source (in a comparable fabric) and identified in London from c 50-75/80 (Betts forthcoming).

Dating

Fig 27

The distribution of Eccles ware in moderate quantities was largely confined to the pre-Flavian period in the City. This supports the evidence from Eccles, where the industry had apparently ceased by 65 (Detsicas 1977, 29), indicating that the small amounts of later material from the City are residual.

*Fabric and technology

P1 5g

This is a fine, slightly sandy, buff fabric with occasional large limestone inclusions. It compares well, both macroscopically and in thin section, with kiln samples.

This fabric group varies slightly in its details, but typically has a pale buff (10YR 7/4) or occasionally yellow (10YR 9/4) or pink (2.5YR 8/4) core with buff (10YR 7/4), light grey (10YR 8/4) or orange-brown (2.5YR 6/6) surfaces. It is hard and has a smooth or slightly conchoidal fracture. Moderate quartz (R 0.1-0.5mm), rarer iron-rich inclusions (I <0.2-0.3mm) and a scatter of limestone, often grey in colour (I, R <0.5mm, but rarely 1.0mm>), are set in a very fine textured, slightly micaceous matrix. In an uncommon, finer version of the fabric (2560) the inclusions, particularly the quartz, are less frequent. Rare sherds have a pale wash (1 OYR 9/2) or a dark reddish-brown (2.5YR 5/8) slip.

Forms

The Eccles kilns produced a wide range of vessels. Mortaria, jugs and flagons are the commonest forms among published wasters (Detsicas 1977), and this is reflected in the City material. With the possible exception of a honey pot (IIK), all the forms found in the City can be paralleled at Eccles.

Flagons Fig 28, Nos 117-21 Flagons are the most common type. Typical forms include collared ones (IA, 117-18) and a disc-mouth vessel (ID, 120). Also present in late Neronian-early Flavian levels is a finely made, ring-neck flagon (IB, 119). A flagon base with square footring (12 1) is illustrated.

Jars Fig 28, Nos 122-3 The most unusual vessel among the ECCW jar repertoire is a variant of a bead-rim jar with triangular holes cut in the lower wall (IIA,

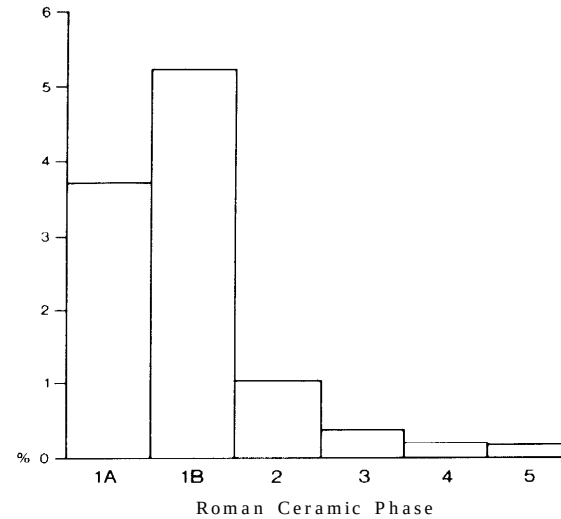


Fig 27 Bar graph of Eccles ware as a percentage of all oxidized wares by weight

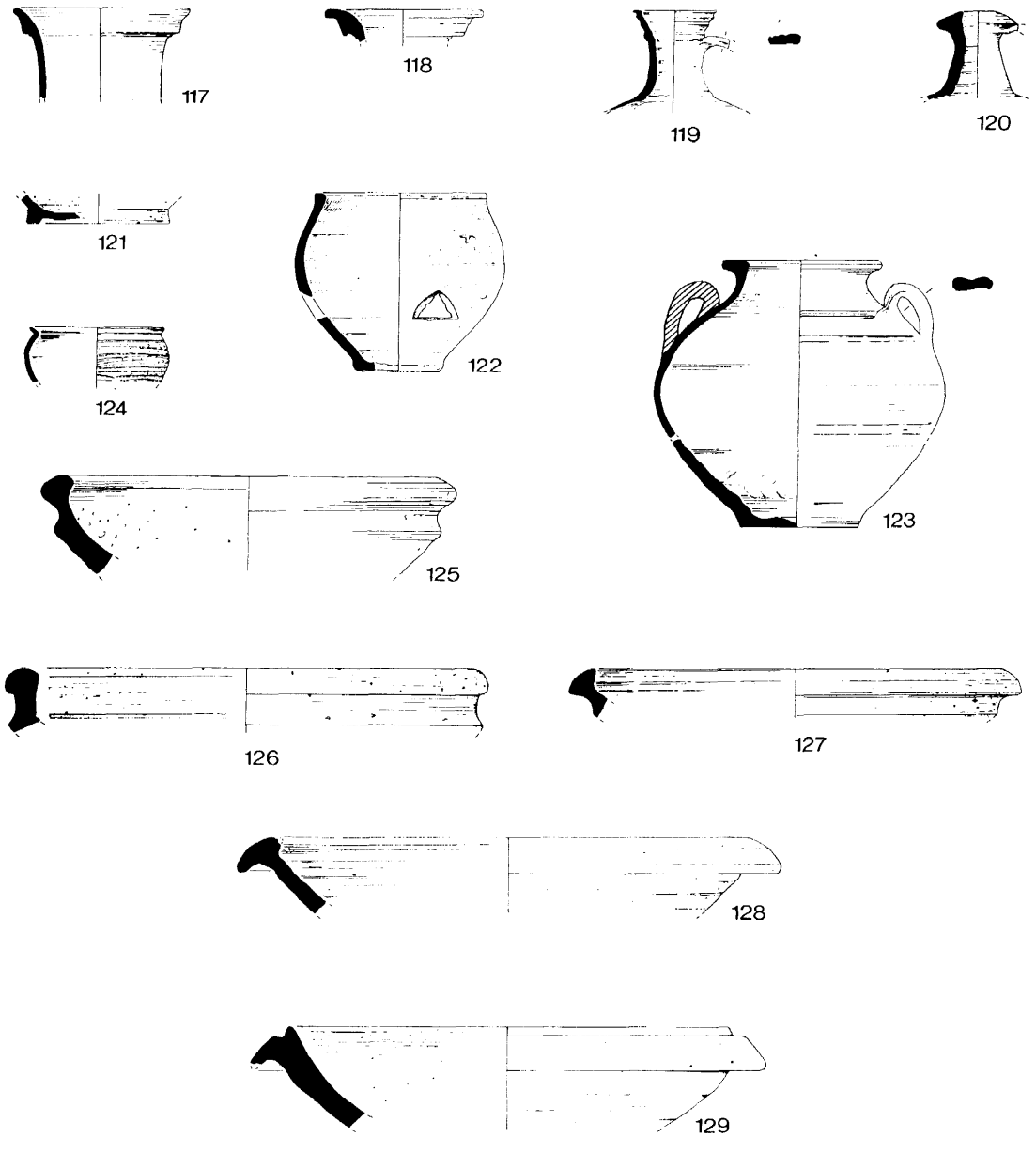


Fig 28 Eccles ware, flagons, *nos 117-21; jars, nos 122-3; beakers, no 124; monaria, nos 125-9 (Scale 1:4)*

122). The form appears to be unique to Eccles and corroborates the source of this material. Detsicas (1981, 443-5) has discussed their possible function as lampshades or plant propagators, favouring the latter. The City evidence supports his views, for the complete vessels are unsooted. Although none have been found from excavated assemblages, two complete examples are in the Reserve Collection. Undiagnostic sherds could easily be confused with flagons and this may account for their absence from stratified deposits. A honey pot (IIK, 123) is the only standard jar form present in ECCW.

Beakers Fig 28, No 124 As yet only one example of a colour-coated, roughcast beaker with ever-ted rim has been identified.

Cups A body sherd from a cup with a raspberry applique has been identified from an early Flavian deposit at Pudding Lane (cf Detsicas 1977, fig 3.1, 17).

Mortaria Fig 28, *Nos 125-9* Two main types of mortaria have been identified. Most common are wall-sided vessels (WAL, 125-7), although flanged ones (HOF) are also present, including examples with undercut (128) and upright (129) rims.

4.4 Hoo ware (HOO)

Pottery manufacture at Hoo St Werburgh, off the north Kent coast, was first suggested by Blumstein (1956). Despite the absence of kilns, the standardized repertoire of flagons, including some wasters and kiln debris, indicated production. Re-examination of the material by Monaghan (1987, 27) supports this interpretation and places the oxidized Hoo products within the general reduced Upchurch manufacturing tradition. Although there is little evidence to show that production was confined to the Hoo Island, the pottery is sufficiently distinct both typologically and chronologically to merit individual discussion.

The reduced Upchurch fabric found in the City (North Kent Fine ware - NKFW, Section 6.8) is discussed with fine wares.

Dating

Fig 29

Although present from the earliest phases, HOO was most common in the late Neronian and Flavian periods, continuing in small amounts into the Trajanic. It was virtually absent by the Hadrianic, and North Kent White-slipped ware (NKWS) may be a 2nd century continuation of this tradition. As a group, it is common.

*Fabric and technology

P1 5h

This is an extremely fine-textured, white-slipped fabric with abundant, naturally occurring iron-rich clay pellets; some sherds also have abundant microfossils.

Almost one-third of the bases investigated by Blumstein (1956, 274) featured a distinctive series of three swirls on the basal interior. This feature is seen on a similar proportion of our examples (Fig 30, 136), although the swirls are less uniform. Their shape and incised nature suggest that the marks were made by a tool, probably a stick or a stick tied with a rag. This would have been used either to remove excess clay (often in the form of a dimple on the basal interior) or to soak up the slurry which frequently remains in the bottom after a pot has been completed. A heavy or thick base is more likely to crack in the kiln and removal of the slurry would also speed drying time.

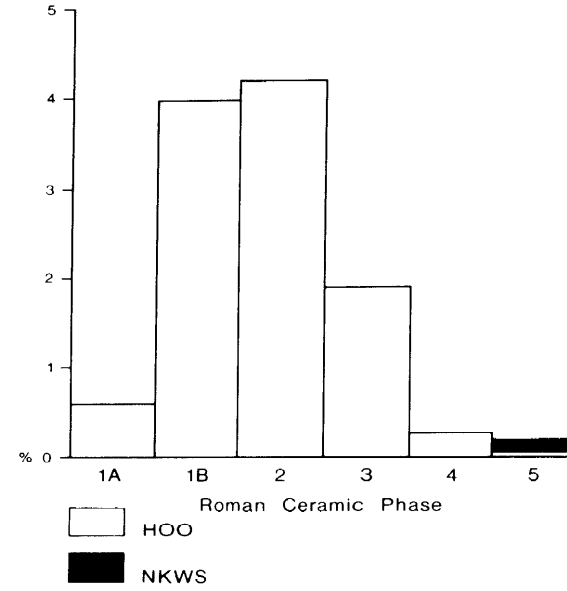


Fig 29 Stacked bar graph of Hoo and North Kent White-slipped wares as a percentage of all oxidized wares by weight

Like other flagons, these vessels were formed in separate segments and later joined at the neck. Generally, when a vessel is thrown on the wheel, the base is completed before the sides are drawn up. The swirls on these bases suggest that the potter hurriedly completed the sides first, then later used a tool to remove the excess material from the base, perhaps because the body was very tall or narrow. Although the vessels are generally well executed (particularly the rims, necks and footrings), the handles are often poorly applied, causing the body wall beneath the handle to sink. This may suggest 'assembly-line' production, with tasks divided between various workers rather than a single potter producing individual vessels (S Lang, pers comm).

A light red (2.5YR 6/6 -6/7) fabric with a paler core that is often reduced to pale grey (2.5YR 6/0), it is fairly hard in texture and finely irregular in fracture with a slightly soapy feel. The inclusions are fine, consisting mainly of silt-sized quartz and sparse, fine white mica, which is more visible on the surface. The fabric is characterized by red iron-rich clay pellets (<0.5 mm, occasionally <1.0mm). It is remarkably consistent, with few variants apart from the occasional sherd containing abundant calcareous particles (I, R 0.05-0.1mm), some with hollow centres, which are microfossils (A Vince, pers comm).

The slip is thin white or yellowish-white (5Y 9/2) in colour and in general it survives patchily, often weather or stained. Strong wiping marks beneath it may have helped the slip to adhere to the leather-hard clay.

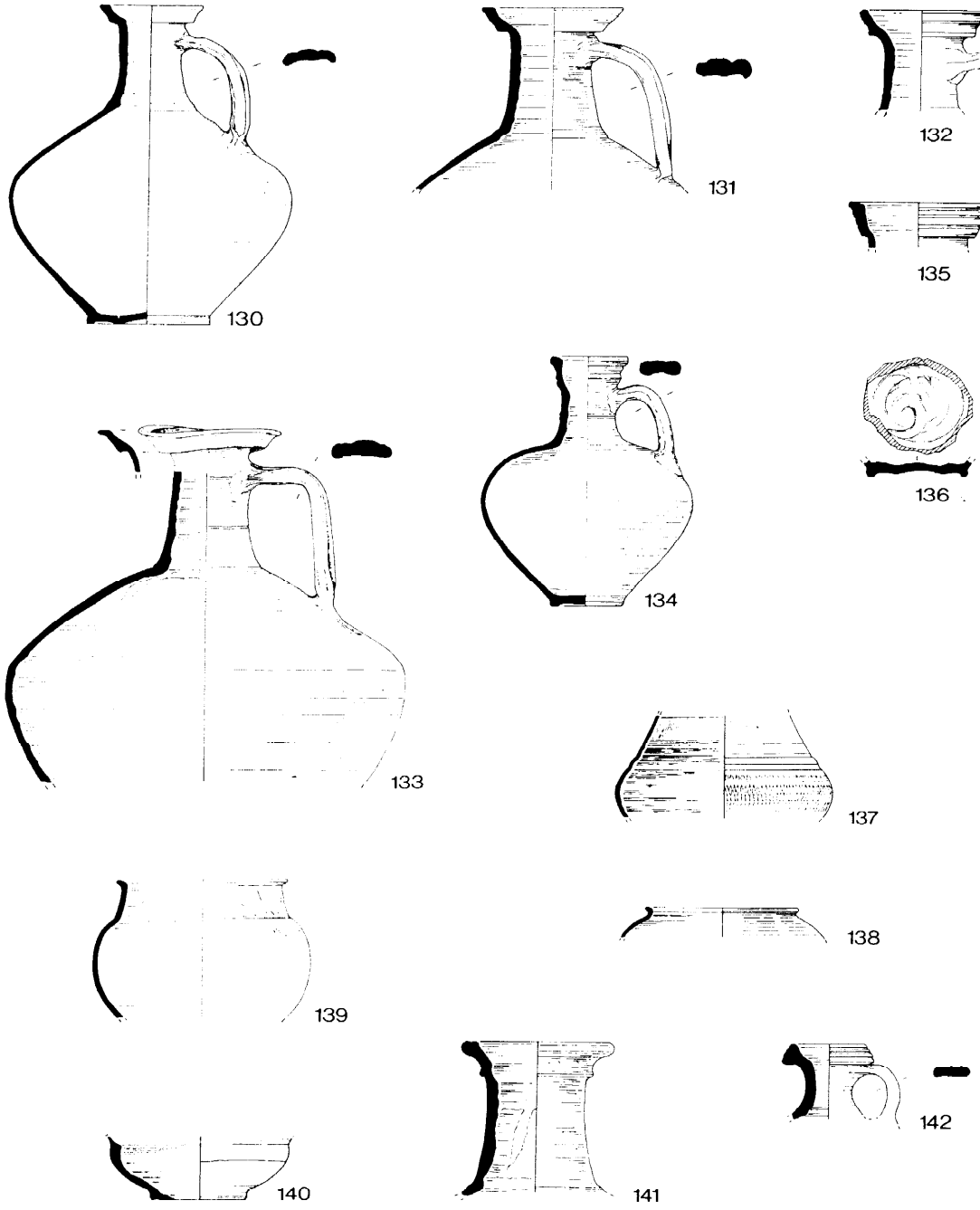


Fig 30 Hoo ware, flagons, nos 130-6; beakers, nos 137-9; cups, no 140. North Kent White-slipped ware, flagons, nos 141-2 (Scale 1:4)

Forms

Flagons are the predominant vessel form produced in HOO, although rare beakers and cups have also been identified. All major form types are represented among the kiln material, and the collared flagons can be identically paralleled (cf Blumstein 1956, fig 7, l-6).

Flagons Fig 30, Nos 130-6 Collared flagons (IA, 130-3) are the most common vessel type and have a distinctive flat rim top. In the City the form is found in late Neronian and Flavian contexts. Number 133 is a poorly made example, probably a kiln second, with a twisted rim and marked indentations where the narrow three-ribbed handle has been attached to the body wall. A variant, 132, has a more intricate rim.

Variants of ring-neck flagons (IB, 134-5) are much rarer, and generally appear in Flavian and Trajanic phases. Number 135, from a pre-Boudiccan context, is an exception. A flagon base is represented by 136.

Beakers Fig 30, *Nos 137-9* Beakers are rare, but several different variants have been identified. Rouletted sherds, probably belonging to a butt beaker (IIIA, 137), occur in a pre-Boudiccan level; an ovoid beaker with everted rim (IIIC, 138) and a beaker with small, sharply everted rim and rounded body (139) are also present.

Cups Fig -30, No *140* The most unusual vessel is the base and walls of a finely executed cup, imitating Drag 27 (VIA).

4.5 North Kent White-slipped ware (NKWS)

This rare fabric is virtually identical to Hoo ware (Section 4.4), but since the forms cannot be paralleled among the 1st century material from the supposed kiln site (cf Blumstein 1956) they have been separated here. It is possible that these flagons represent later white-slipped production in the north Kent area and were exploiting a clay source similar to that used in the production of Hoo. Equally, the two identified vessels may be residual in 2nd century contexts.

Dating

Fig 29

The type is rare but is first associated with early Antonine deposits.

*Fabric and technology

The fabric is the same as HOO, but is higher fired with a thicker off-white (10YR 8/3) slip. Like the HOO flagons, vessels were constructed by joining two segments at the neck and body wall.

Forms

Flagons Fig 30, Nos 141-2 Two vessels have been identified in the fabric. Number 141 is a variant of a collared flagon (IA) with a flaring rim and prominent rounded upper lip. There is a slight lid seating and external moulding on the collar, as well as a cordon at the shoulder junction. While there is no evidence of a handle scar, the vessel is only partially complete. A second vessel (142) has a triangular-ringed rim, with a slight lid seating or internal bevel. It can be paralleled in Kent, where Pollard (1988, 87) suggests a possible source at Grays Thurrock Palmers School in Essex.

4.6 Verulamium Region wares

The potteries situated near Verulamium (modern St Albans) and alongside Watling Street to the south were major suppliers of coarse pottery to southeast England in the 1st and 2nd centuries. Comprising at least five kiln centres, they are grouped together here as the Verulamium region industry. The white wares, principally flagons and mortaria, dominated London's pottery assemblages from the mid 1st to the early-mid 2nd centuries. The cover of this report depicts a range of Verulamium wares discussed here.

The history of the industry has been summarized by Marsh and Tyers (1978, 534-5), Tyers (1983, l-2) and more recently Swan (1984, 97). Swan *(ibid)* considers that the industry had begun by *c* 50, with the early phases well represented by the kiln at Bricket Wood/Little Munden (Saunders & Havercroft 1977). This includes material interpreted as debris from a kiln used by Oastrius, a potter of the Lugdunum group dated c 55-70. A small pit group from Brockley Hill can probably be assigned to the same period. However, the bulk of the excavated material from Brockley Hill most likely dates to the Flavian-Trajanic period, the peak of mortarium production, while Hadrianic-Antonine activity is found both here and at Verulam Hills Field.

These chronological trends seen at the kiln sites are also represented on occupation sites. Verulamium Insula XIV, dated c 49-60, yielded a number of vessels from the Verulamium region (Wilson 1972, fig 101, 53, 54, 57-60). Coarse wares (as opposed to mortaria) were clearly widely distributed locally and held a large part of the local market for oxidized wares by 60/l.

The industry is best known for its production of white wares (VRW), but other fabrics can be tentatively assigned to a Verulamium region source by fabric analogy. Grey (VRG), Mica-dusted (VRMI), Marbled (VRMA), and White-slipped (VRR) wares all share the fabric distinctive to VRW. Verulamium Region Coarse White-slipped ware (VCWS) has been found at the Verulam Hills Field kiln (B Davies, pers inspect), although there is no firm evidence for its actual production there. Fabrics similar to Brockley Hill White-slipped ware (BHWS) have been seen at Brockley Hill (1972 Site C, Kiln 2, D Devereux, pers comm), although there may be other sources as well. The body of one City flagon (Fig 46, 258) is in VCWS, while the handle is in the typical VRW fabric, suggesting that the two clay types could be obtained within the same locality. Both VCWS and BHWS are

typologically similar to the standard Verulamium products, providing additional support for a source within the region.

X-ray fluorescence of kiln material indicates that individual Verulamium region kilns can be distinguished from each other, and that more than one fabric was produced at each kiln site (Devereux *et al* 1982). However, these differences are not necessarily reflected in macroscopic appearance and therefore chemical analysis can only supplement methods of visual analysis.

Most of the major form types attributed to the Verulamium region can be paralleled among the published kiln material (eg Anthony 1968; Castle 1972a, 1972b, 1973a, 1973b, 1974). Exceptions to this, which occur with some frequency in the Verulamium fabric, include tettina (present at Brockley Hill but not from kiln groups, Castle & Warbis 1973, fig 5, 7), spiked 'amphora stoppers' and face pots. Other unusual examples include a flask (IIR), rouletted butt beaker (IIIA), dishes (IVJ), crucibles (IX) and lamps (VIII). Numerous rim variants can also be observed but, given the wide range of the Verulamium products and the sparsity of published kiln material, they are not itemized.

Because there is little or no variation in forms between the fabric types, VRW is comprehensively illustrated and, where appropriate, vessels in the other fabrics are paralleled; exceptions are unusual variants or complete profiles.

Verulamium Region white ware (VRW)

Dating

Fig 31

The developments noted at the kiln sites are mirrored in the London assemblages, where VRW is abundant. It is present from the earliest contexts on City sites, including sealed pre-Boudiccan groups. Substantial pre-Flavian assemblages where VRW is absent may indicate earlier activity in the London area. It seems certain that the industry was closely tied to demand and the prosperity of London, as usage peaked in the Flavian-Trajanic period and declined sharply *c* 140-60. At this date, its place in London's pottery supply was partly taken by a coarse white-slipped fabric which is interpreted as another product of the Verulamium region (VCWS).

*Fabric and technology

Pls 5i-j

A rough and granular fabric, generally off-white, with a very clean clay matrix containing abundant well-sorted quartz. The variety of clays available to the VRW potters is demonstrated by the range of naturally occurring clay pellets that can be identified within a single vessel, including both the typical VRW fabric and siltier clays similar to VCWS.

The fabric is white (2.5YR 9/0-5/0) or off-white (10YR 9/1), occasionally pink (5YR 9/2) or orange (2SYR 6/8) in whole or part. It is hard, granular and rough to the touch, with a somewhat laminar fracture. It contains abundant well-sorted multi-coloured quartz (SA 0.1–0.8mm) and sparse red iron-rich inclusions, occasionally occurring up to 6.0mm (R, SA), set in a clean clay matrix. Rare ferruginous sandstone can also be identified. Minor variations in quartz size are not correlated to individual kilns, and slightly finer variations of the typical fabric have been found for all periods at many of the kiln sites. However, many pre-Flavian examples belong to a finer variant (1294) with greater amounts of iron-rich inclusions which is associated with the Bricket Wood kiln.

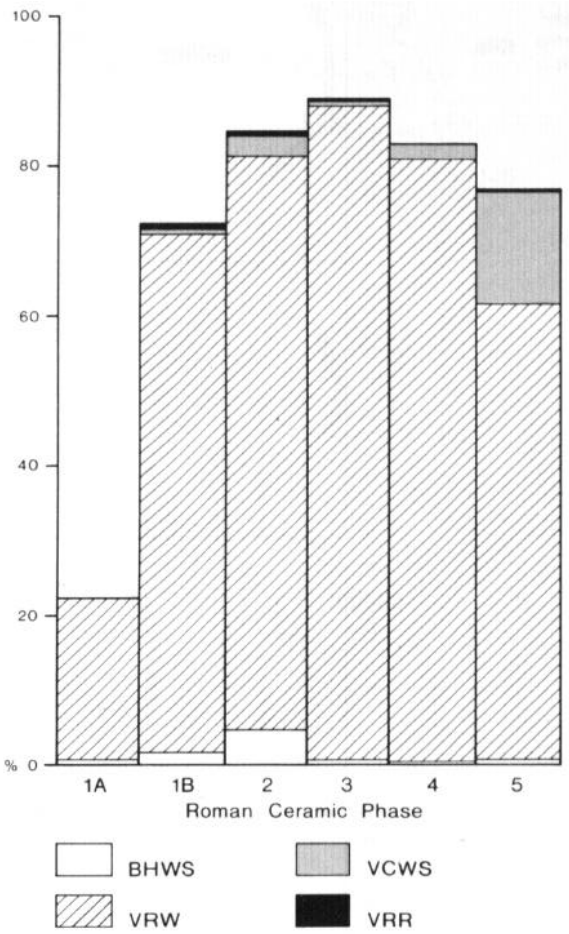


Fig 31 Stacked bar graph of Verulamium Region oxidized fabrics as a percentage of all oxidized wares by weight

Forms

London received nearly the total range of Verulamium products, with the exception of Dr 2–4 amphorae produced at Brockley Hill (Castle 1978). Although absent from the City, they occur at Lion Walk, Colchester, in deposits *c* 50–5 (Symonds & Wade forthcoming). Lampholders or open lamps are also frequently present in this fabric, but are not included here.

Flagons Figs 32–3; Figs 34–6, Nos 143–72 Flagons (Fig 32) are the commonest Verulamium region form found in the City. The earliest types, pulley (171–2) and collared (IA, 143–6) rims are present in pre-Boudiccan and Neronian/early Flavian contexts. They

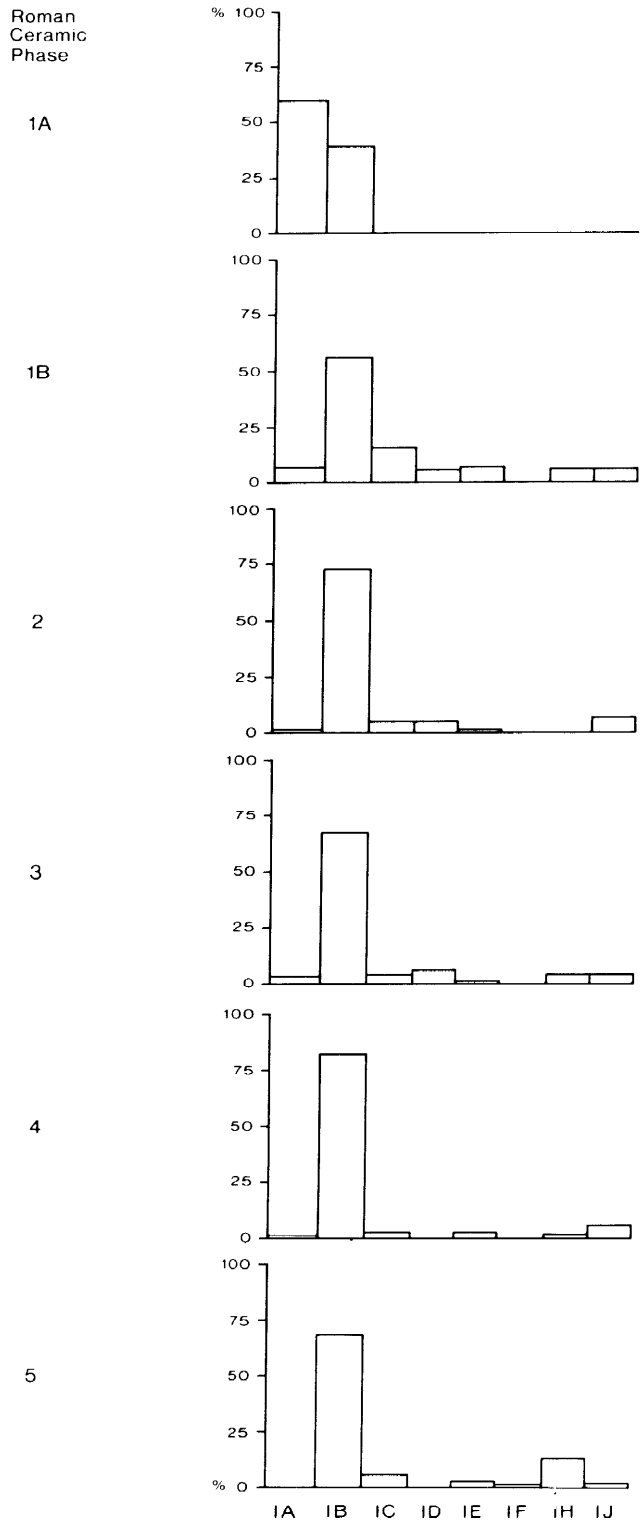


Fig 32 Bar graph of Verulamium Region White ware flagons as a percentage of all VRW flagons by Eves

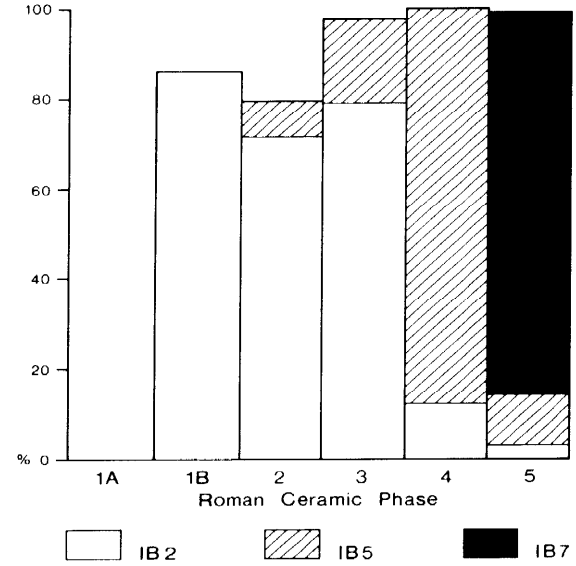


Fig 33 Stacked bar graph of all Verulamium Region White ware ring-neck flagons (IB2, IBS, IB7) as a percentage of all VRW IBs by Eves

are superseded in the Flavian period by the extremely common ring-neck flagon (Fig 33) which developed from a flared trumpet mouth (IB2, typically 148-9) most common c 60-120, and then by a variant with a prominent, rounded upper rim (IB5, 151-5) first appearing in the Flavian, but most frequently found in Hadrianic fire destruction levels. This developed into a type with an expanding ring-neck rim (IB7, 156-8) which was common from the early Antonine period. Some variants such as the IBl (147), IB3 (150) and 159 are also found. It is notable that all ring-neck flagons have footrings, while most other varieties tend to have flat or slightly domed bases. These ring-neck flagons provide an important dating framework and the trends seen here are mirrored by those at both Southwark and Verulamium (Bird *et al* 1978; Wilson 1972, 1984).

Other flagons are far less common (Fig 32), but generally they began and were most numerous in the late Neronian-early Flavian period. Small two-handled flagons (IE, 164-5) are most notably clustered in the late Neronian-early Flavian, while disc-mouth (ID, 162-3) ones had a fairly clear use life from the late Neronian to the Trajanic period. The distribution of other types is uncertain, with sporadic occurrences to the end of the sequence. This includes pinched-mouth (IC, 160-l) flagons, wide-mouth flagons or pitchers/jugs (IH, 166-7) and large double-handled amphora (IJ, 168-70) types. The latter are similar to south Gaulish amphora forms Gauloise 3 and 4 (Section 3.6) and there is some evidence for them having been lined with pitch.

Jars Figs 36-7, Nos 173-83; Fig 41, No 230 This vessel

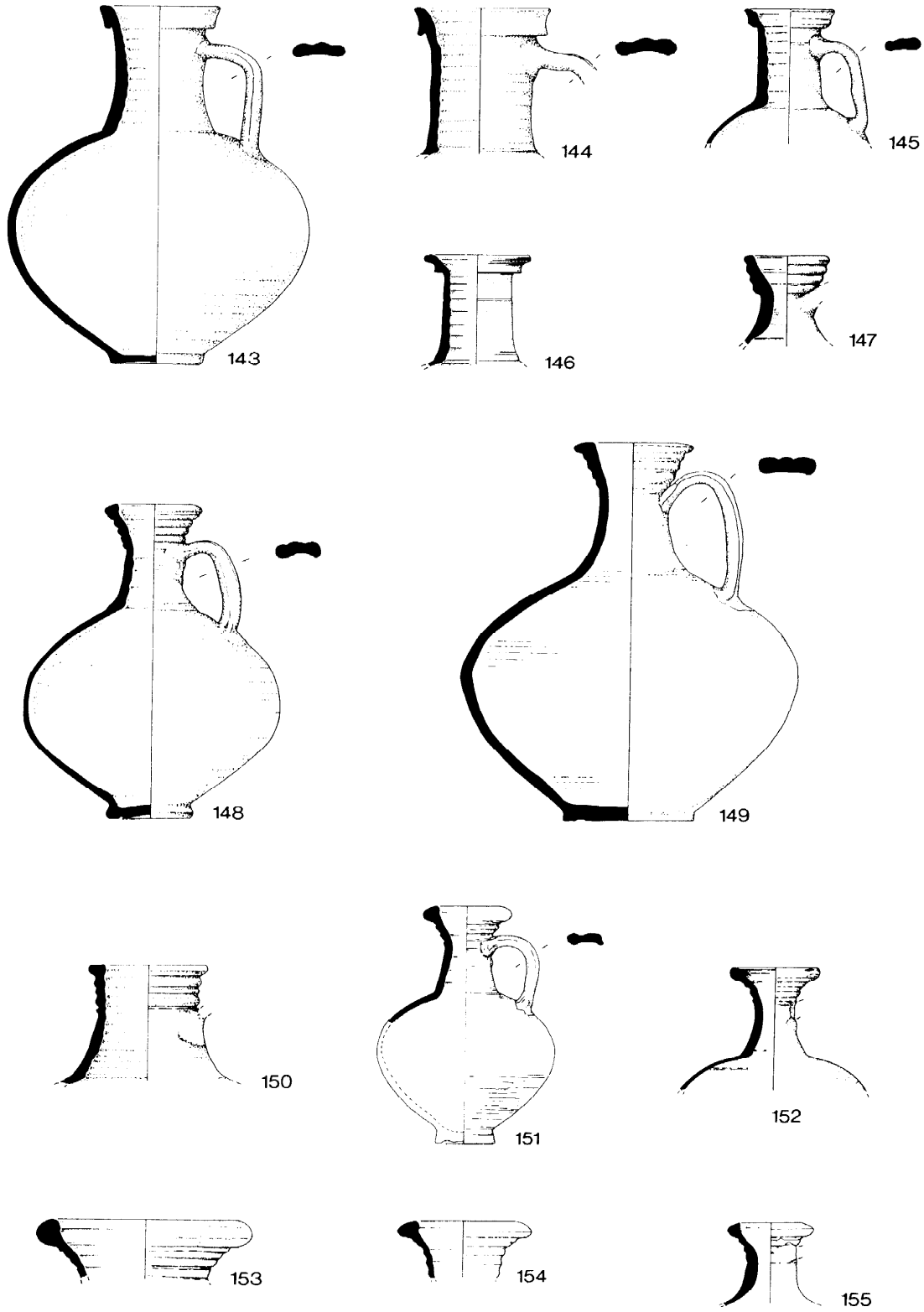


Fig 34 Verulamium Region White ware, flagons, nos 143-55 (Scale 1:4)

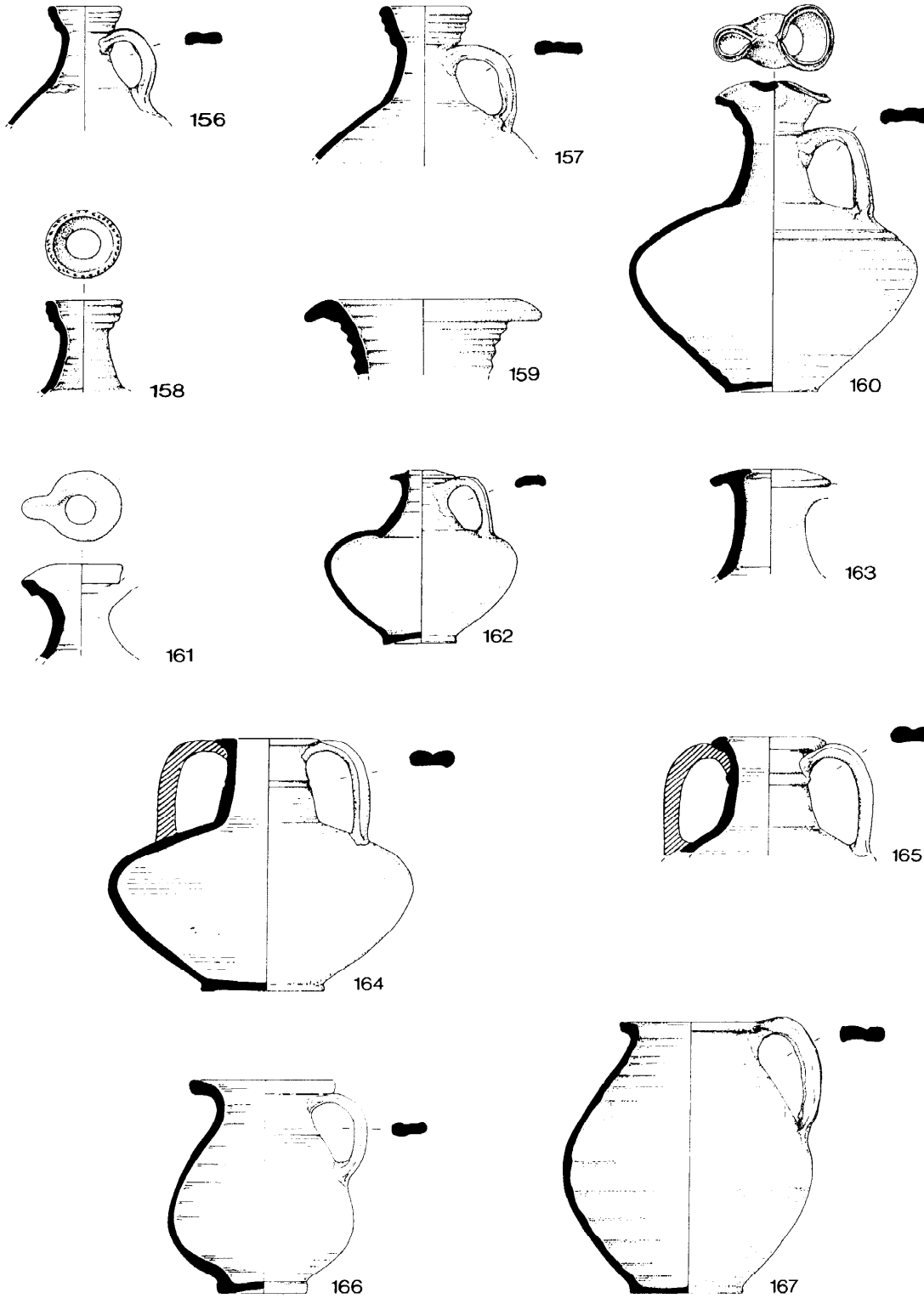


Fig 35 Verulamium Region white ware, flagons, nos 156-67 (Scale 1:4)

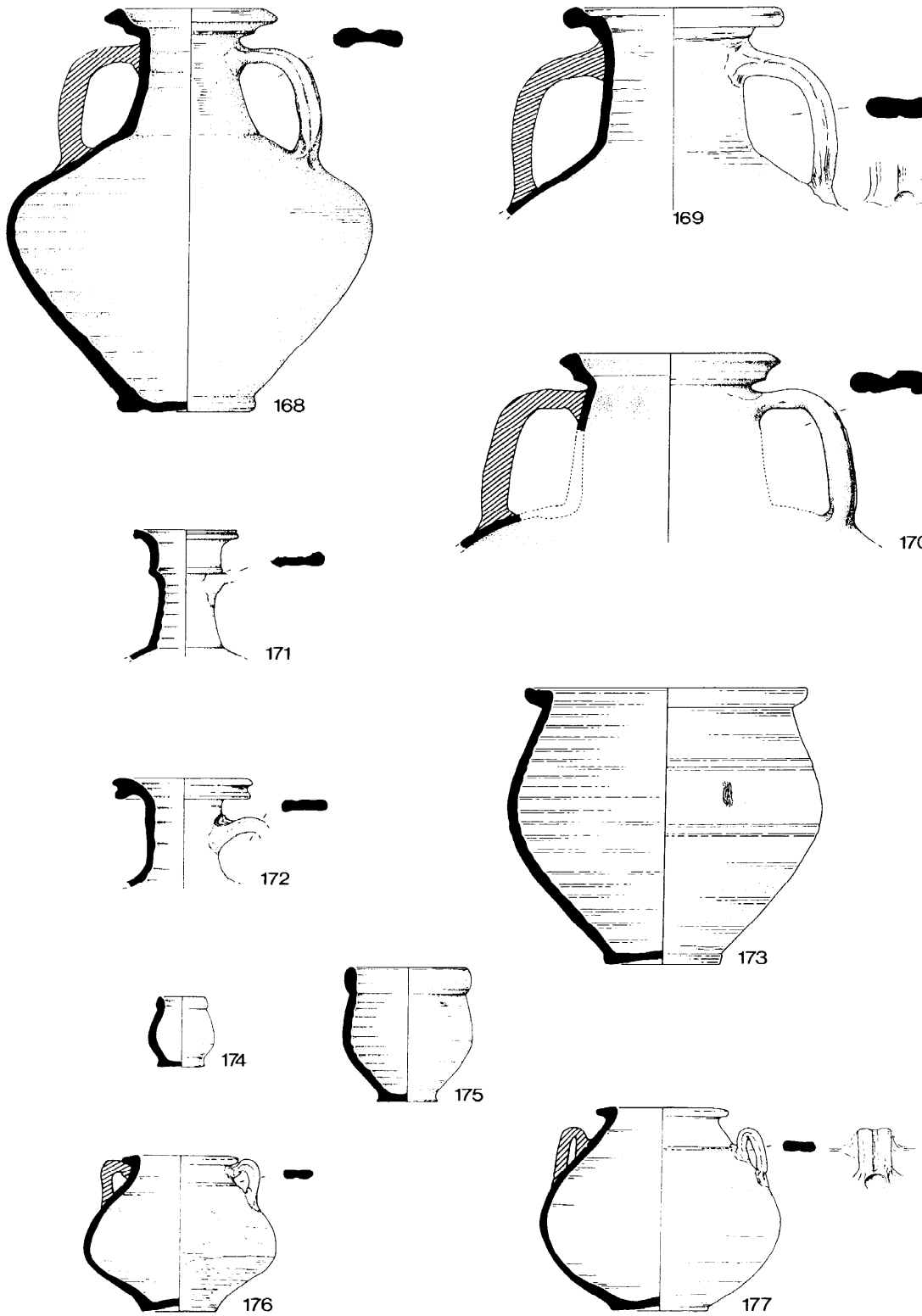


Fig 36 Verulamium Region White ware, flagons, nos 168-72; jars, nos 173-7 (Scale 1:4)

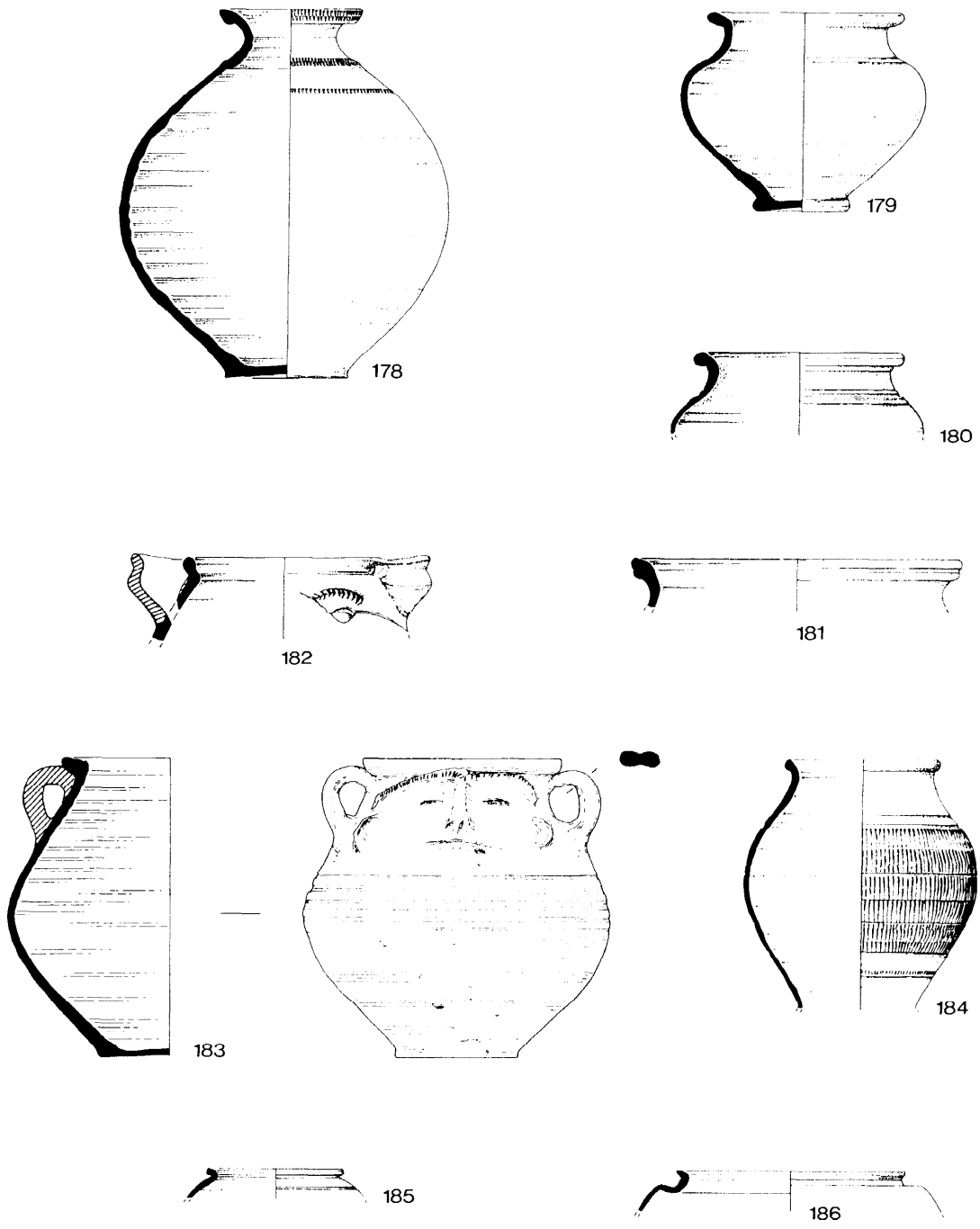


Fig 37 Verulamium Region White ware, jars, nos 178-83; beakers, nos 184-6 (Scale 1:4)

type forms a small proportion of the City Verulamium region assemblage and is difficult to date with precision.

Necked jars (NJ, 179-81) are present from the beginning of the sequence, but most appear to be from 2nd century deposits. Unusual forms such as honey pots (IIK, 176-7) occur more rarely and are generally late Neronian-Trajanic, whereas face pots (182-3) appear mainly in 2nd century deposits, and those with rouletted eyebrows (cf 183) from the mid 2nd. Their occurrence provides evidence for wider distribution of VRW face pots than assumed by Braithwaite (1984, 108) who noted their absence from London; she identified another group, which might well be the VCWS fabric. Unlike the VCWS vessels, they apparently have two rather than three handles. Rare examples of flasks (IIR, 178) and neckless jars (IIH, 173) can also be identified and the latter began in early Antonine deposits.

Flat-based unguent vessels (IIJ) are also included in the jar category, although their function is rather uncertain. Although rare, their size range is particularly marked, falling loosely into small (174), medium (175) and large (230), and they occurred from the Flavian period onwards. Large vessels were sometimes used as crucibles and appear to be Antonine in date.

Beakers Fig 37, *Nos* 184-6 Beakers were not typical of the VRW potters, and this market may have been filled by the more common Flavian ring-and-dot vessel (RDBK, Section 6.4) thought to have been produced in the Verulamium area (Green 1978). Number 184 is a fine example of a butt beaker (IIIA); an ovoid beaker with high shoulder (IIIB, 185) and another high-shouldered one with grooved or corniced rim (186) are also illustrated.

Bowls and dishes Figs 38-9, Nos 187-203 Bowls were uncommon before the 2nd century and those that are present are normally, as at Verulamium, reduced (VRG). By the Trajanic-Antonine period, however, they formed a significant proportion of the VRW assemblage. Many vessels are sooted on the base and may have been used for cooking. Overwhelmingly the most common form belongs to moulded-rim IVAs (187-98) which are either carinated (eg 189, 191) or grooved but rounded at the girth (eg 192, 194), although some examples (187) lack either characteristic. Rare, handled examples are also present (188). The form follows the dating trends for bowls in general and there appears to have been a marked increase in vessel size as the 2nd century progressed.

Plain-rim dishes (IVJ, 200-l) were rarely made in VRW, but examples occur in 2nd century contexts, particularly in the Hadrianic period and later. These dishes are similar to products of the Local Mica-dusted ware fabric and they also occur in VRMI. Other rare types include a grooved-rim dish (IVK, 202), a moulded, bead-rim, handled dish (203), and a copy of Drag 29 (IVD, 199).

Cups Fig 39, *No 204* Cups are rare, but the illustrated example copies Drag 27 (VIA). If they were used for the same purpose as some beakers, their rarity may again be explained by the abundance of ring-and-dot beakers.

Mortaria Figs 39-40, Nos 205-14; Fig 142, Nos 205, 207-l0, 212 Mortaria were the most widely distributed Verulamium region product, and by far the commonest mortarium type in mid 1st and 2nd century deposits.

Stamped and associated unstamped mortaria from Newgate Street have been compared with published stamps, as well as both stamped and unstamped mortaria from the Reserve Collection. This has allowed a broad sequence of typological development of hooked-flange (HOF) and bead-and-flange (BEF) mortaria to be constructed, which is supported by evidence from recent excavations.

The earliest examples, pre-early Flavian in date, have a high, hooked and deep flange (HOF) with external gritting and slight beading. A complete example from the Boudiccan destruction horizon at Newgate Street is stamped L. Arrius Caludus (205) with a LUGUD counterstamp (not illustrated), which can be independently dated c 55-70. Number 206, with double beading on the rim, is a variant which is present in a late Neronian-early Flavian context. Both types gave way in the Flavian period to mortaria with slightly thickened lower flanges and more rounded bodies. Number 207 is stamped with an elaborate border and an unidentified potter's stamp, while 208, a form with a low bead, which persists into the early 2nd century, is stamped by Albinus with a LUGUD counterstamp, generally dated c 65-95. The final development in this series, a type with an inturned and thickened flange, exemplified by 209, first appeared in the late Flavian period but was most common in the early 2nd century. The type example is stamped by Matugenus with a FECIT counterstamp, generally dated *c* 90-125. Number 210, stamped by Lallaius *(c* 90-130) is a single Hadrianic example of an unusual but related type with a high, thickened, flaring flange and low internal beading.

It is clear that there were fewer VRW mortaria in use by the Hadrianic-early Antonine period, and that there was a significant change in the rim form (HOF variant). Number 211, with a high hooked flange, low internal beading and straight body wall, supersedes 209. Dating of the vessel form is confirmed by stamps of Driccius *(c* 110-50) and Melus *(c* 95-l 35) from Newgate Street and the Reserve Collection (not illustrated).

Mortaria with a high, prominent bead, frequently grooved (BEF, 213-14), appeared *c* 120, although they were not typical until *c* 140. Number 214 is often the only Verulamium region mortarium form present in Antonine deposits, and may have persisted as late as c 180-220.

A stamp of Sextus Valerius, discussed in full with VRR and BHWS (p 61), occurs in a post-Roman context at Newgate Street (HOF, 212, profile not illustrated).

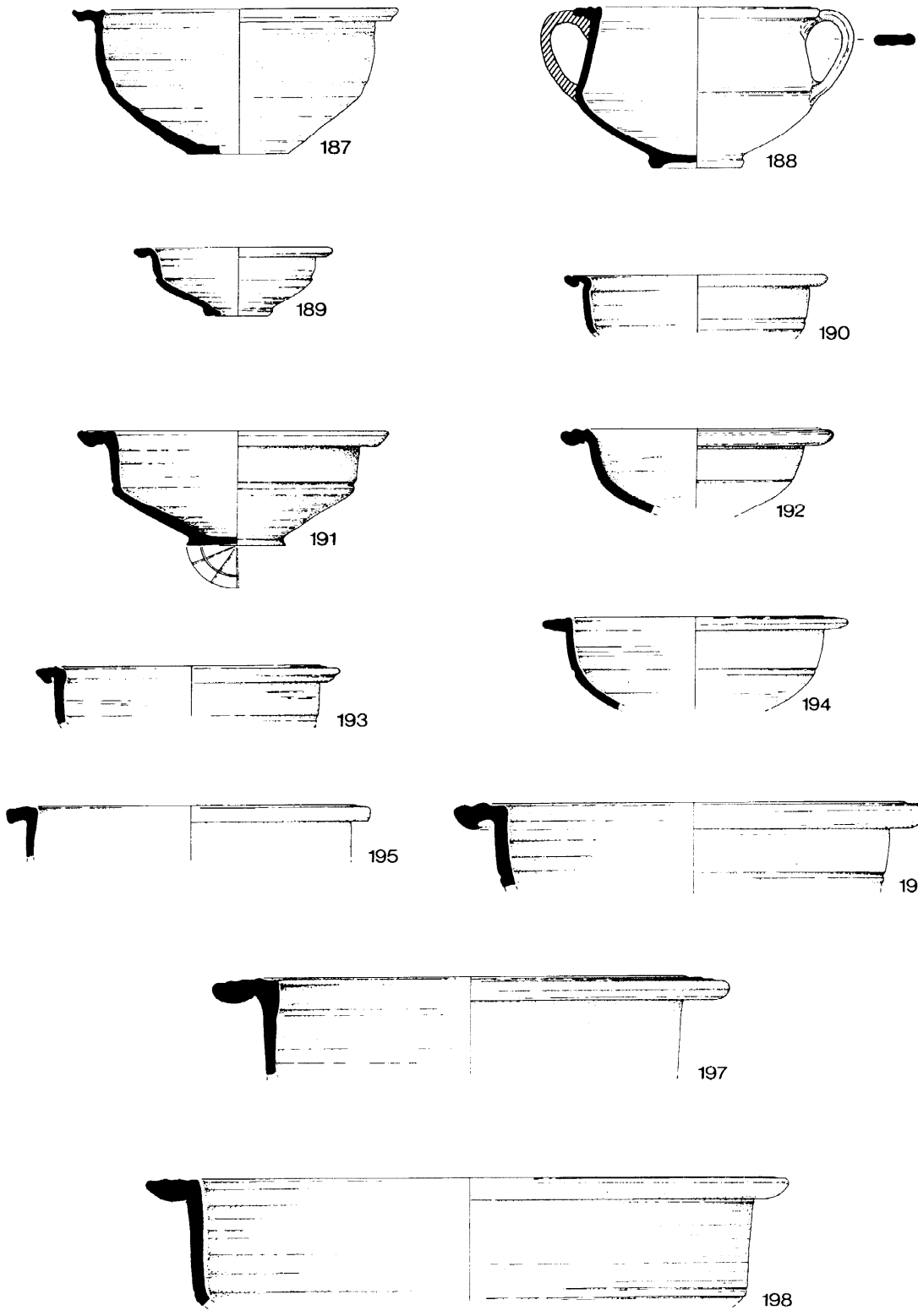


Fig 38 Verulumium Region White ware, bowls/dishes, nos 187-98 (Scale 1:4)

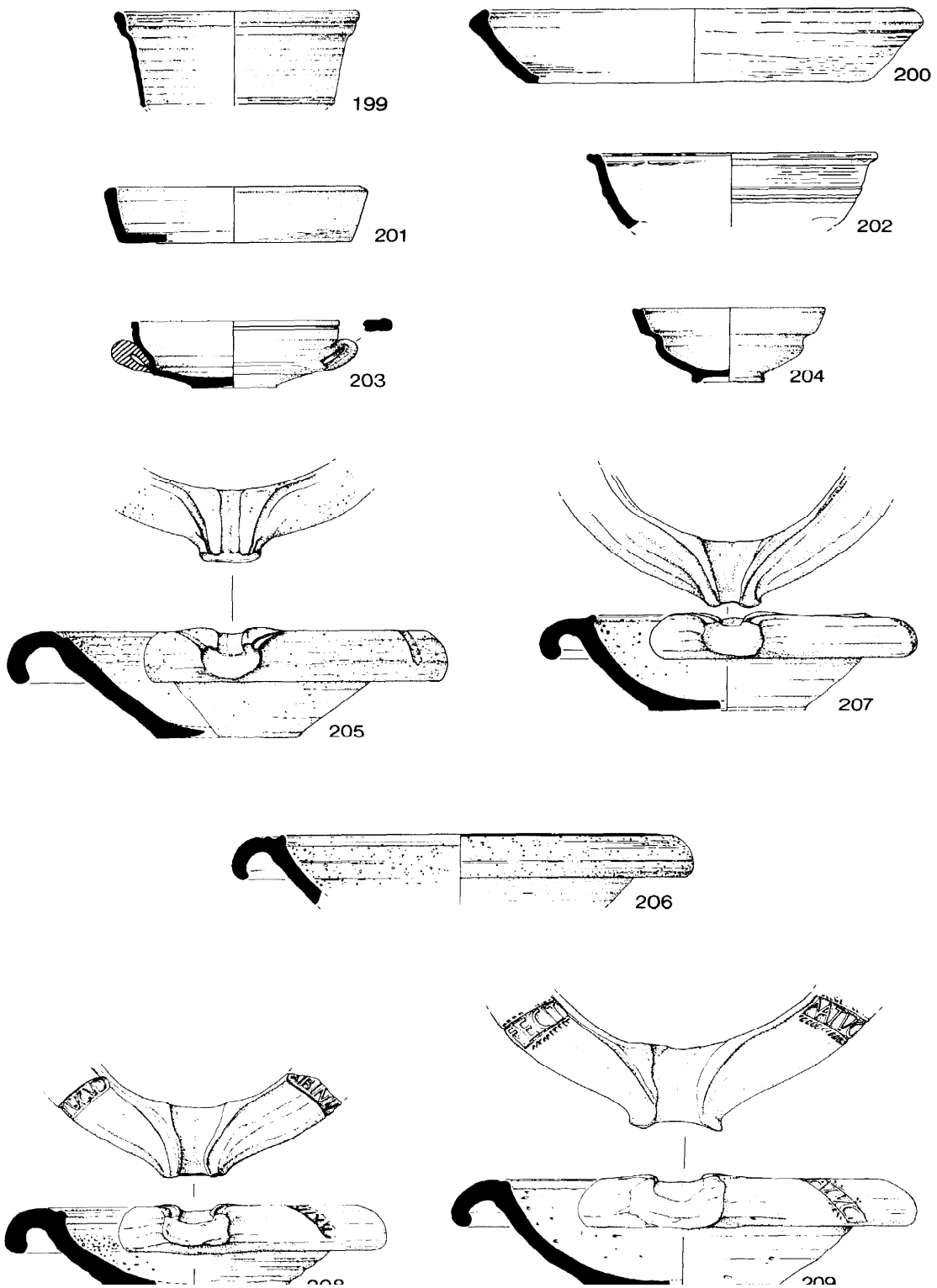


Fig 39 Verulamium Region white ware, bowls/dishes, nos 199-203; cups, no 204; mortaria, nos 205-9 (Scale 1:4)

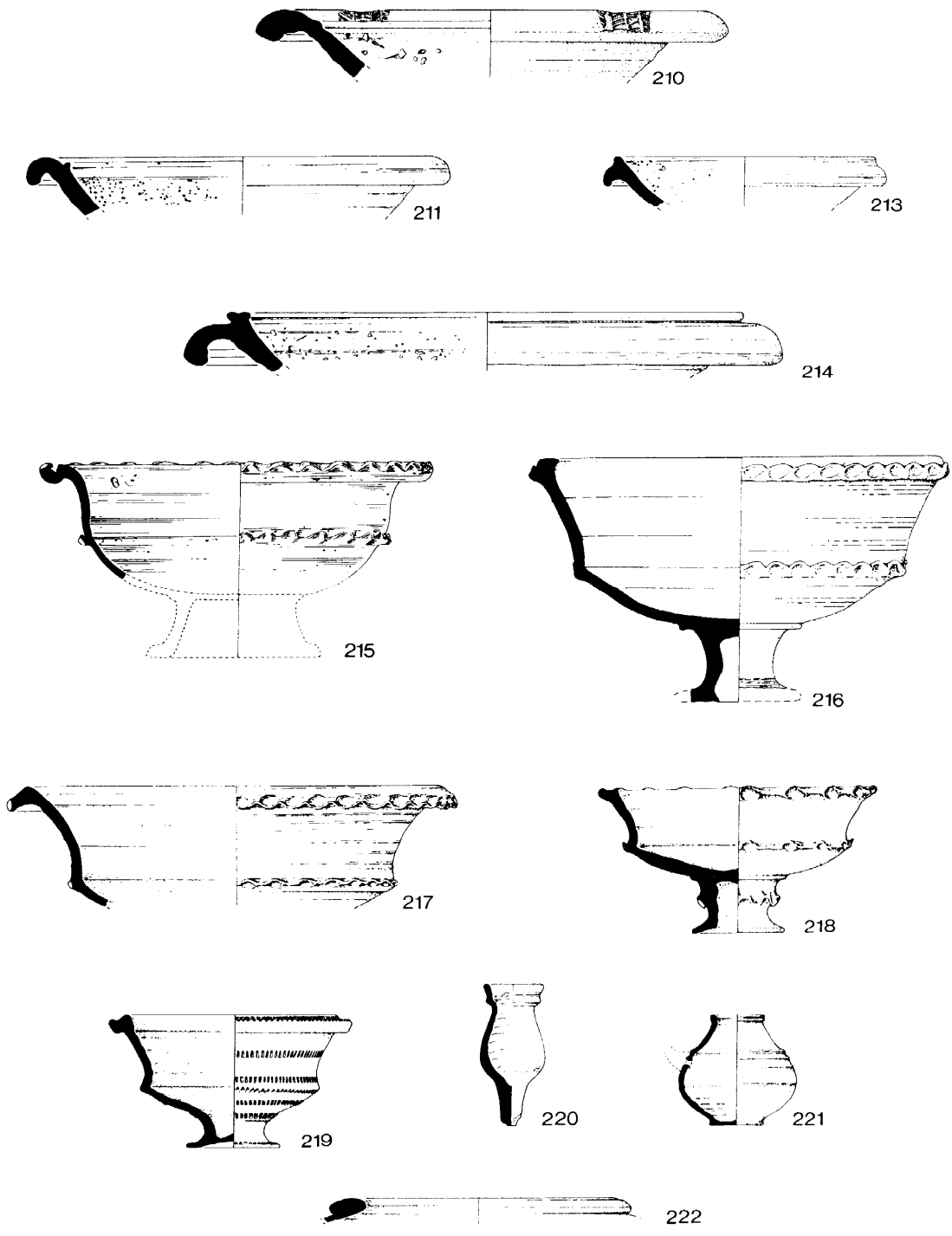


Fig 40 Verulamium Region white ware, mortaria nos 210-14; other form, nos 215-24 (Scale 1:4)

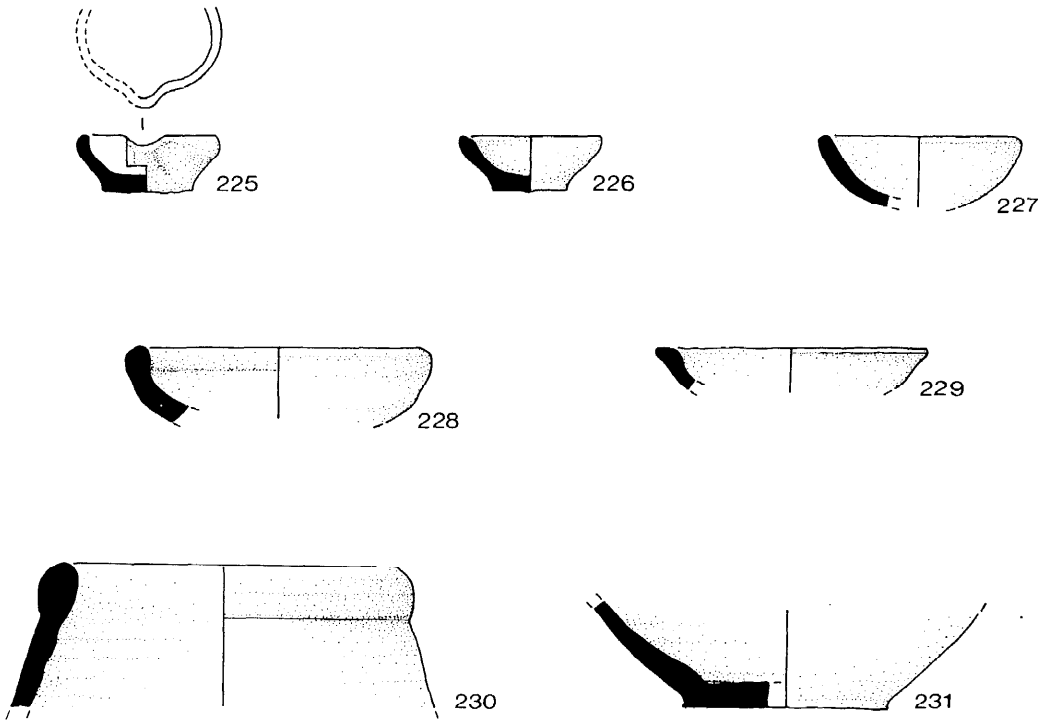


Fig 41 Verulamium Region White ware, other forms, nos 225-31 (Scale 1:2)

Other forms Figs 40-1, Nos 21.5-31 A variety of other types regularly occur in VRW. Tazze form a small but distinctive part of the assemblage. Varieties in size and rim form apparently have no chronological significance, although their numbers are too small to be certain. The type first appeared in the pre-Boudiccan period and then sporadically, with a number of small decorative differences, throughout the 1st and more commonly in the 2nd century. On the whole those with square-toothed, rouletted decoration (2 19) appeared during the early Antonine period, like the face pots, whereas those with finger impressions (215- 18) are typical of the main period of production. The tazza's function is unknown, but several show evidence of scorching on the internal surface and may have been used as lampholders or incense burners. Their high base cavities suggest that they may have been placed on poles.

Triple vases are rare on City sires but well represented in the Reserve Collection. Excavated examples are from 2nd century contexts and include two recent ones from the bath complex at Dominant House, which are not illustrated here (cf VCWS, Fig 48, 277). Function is again unknown, but similar vessels are used today in South America for mixing different drinking liquids (N Crowley, pers comm).

The class of vessels illustrated by 220 are frequently referred to as amphora stoppers, although they could equally have been used as unguent jars (UJ). The form is small and standardized with a spike base and grooved rim.

Tettina, or small globular vessels with spouts joined towards the girth (221), commonly described as feeding bottles, are represented in the Reserve Collection but have yet to be found in a well-stratified sequence.

Vessels with wide mouths and flattened, thick bead rims (222) were probably used for storage. They are a distinctive but rare occurrence, and are first found in deposits of the Flavian period.

Lids (223-4) are undoubtedly intended for bowls and perhaps tazze. Those illustrated here have square or undercut rims, and one (224) has a high domed handle. They are not common, but appeared from the beginning of the sequence. Lids in LOX1 (Section 4.2) are much more common and, as their floruit corresponds with the VRW bowls, they may have been used together.

Like Verulamium (Wilson 1972, 365-6, fig 141), the City has produced several examples of crucibles (225-31) in VRW. Their forms vary, although most are small shallow cup-shaped vessels with flat slightly flaring bases. The rims are either plain, slightly beaded or flattened. Number 230 is a large example of the IIJ unguent jar, and it seems that in the later sequence this form was used, or possibly reused, as a crucible.

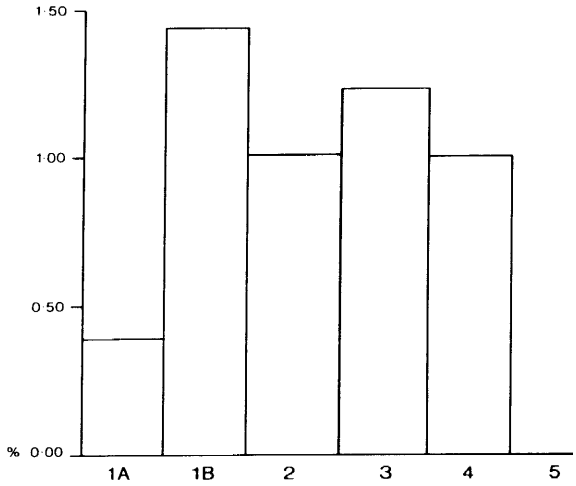


Fig 42 Bar graph of Verulamium Region Grey ware as a percentage of all reduced wares by weight

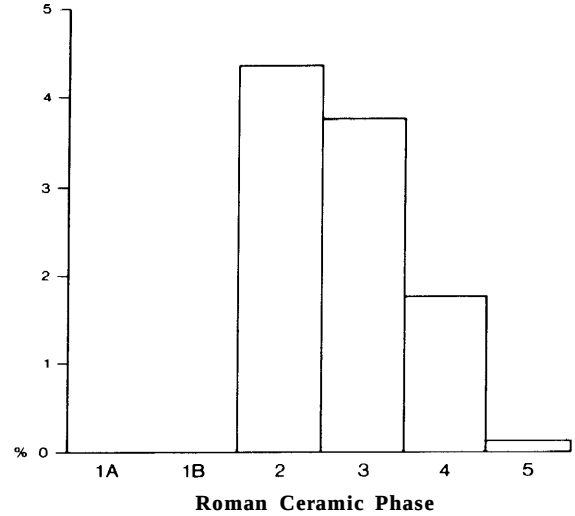


Fig 43 Verulamium Region Mica-dusted ware as a percentage of all non-samian fine wares by weight

All the vessels illustrated here have been used for melting or assaying precious metals (Groves 1990).

Verulamium Region Grey ware (VRG)

Reduced products are a minor component of the Verulamium region industry.

Dating

Fig 42

VRG is common and is present from the inception of the industry as a whole. Sherds have been identified from a number of pre-Boudiccan levels in the City (eg Davies & Tyers 1983b, 31) and it continued until at least the Hadrianic period. Forms represented follow this same chronological trend.

***Fabric and technology**

The fabric is identical to VRW but is reduced pale grey (2.5Y 8/0) with darker grey (2.5Y 7/0) or black (2.5Y 3/0) surfaces.

Forms

The range of forms is much more limited than those represented in VRW; the most common ones, which include jars, bowls and lids, are presented below.

Jars ***Fig*** *44, Nos 232-4 Jars may be slightly more* common in VRG than in VRW, although they are still rare and only one general fox-m is represented. This is a necked jar (NJ) with a squared-off bead rim, frequently with an internal bevel and normally with a cordon directly beneath the rim or on the shoulder. It is first found in pre-Boudiccan deposits. Sometimes the shoulder is carinated, and thus similar to the IIC.

Bowls Fig 44, No 235 As in VRW, the typical bowl form is the moulded-rim IVA. A similar form, with a flat rim, is represented here in a fabric variant. Such bowls occur from the beginning of the sequence and are therefore slightly earlier than their oxidized (VRW) counterparts.

Other forms Fig 44, Nos 236-7 Lids illustrated here are distinct from the VRW example, with a pronounced bead rim, and were present from the late Neronian-early Flavian period.

Verulamium Region Mica-dusted ware (VRMI)

One of the more distinctive of the 2nd century, mica-dusted fabrics in London was probably a product of the Venilamium region. In common with VRMA, the fabric seems identical to the white ware, although there is no evidence from the known kilns to support its production. Mica-dusted wares have been published from a number of Verulamium kilns, principally Brockley Hill (Castle & Warbis 1973, 10), and they have been interpreted as local products; however, they seem to be in a finer fabric than VRMI. Our VRMI fabric is similar to MICA-l242, thought to be imported, and rare examples may be misclassified. Other mica-dusted wares are discussed in Section 6.3.

Dating

Fig 43

The ware is sparse to moderate in the City, with production apparently on a relatively small scale at the height of the Verulamium region industry, *c* 70-120.

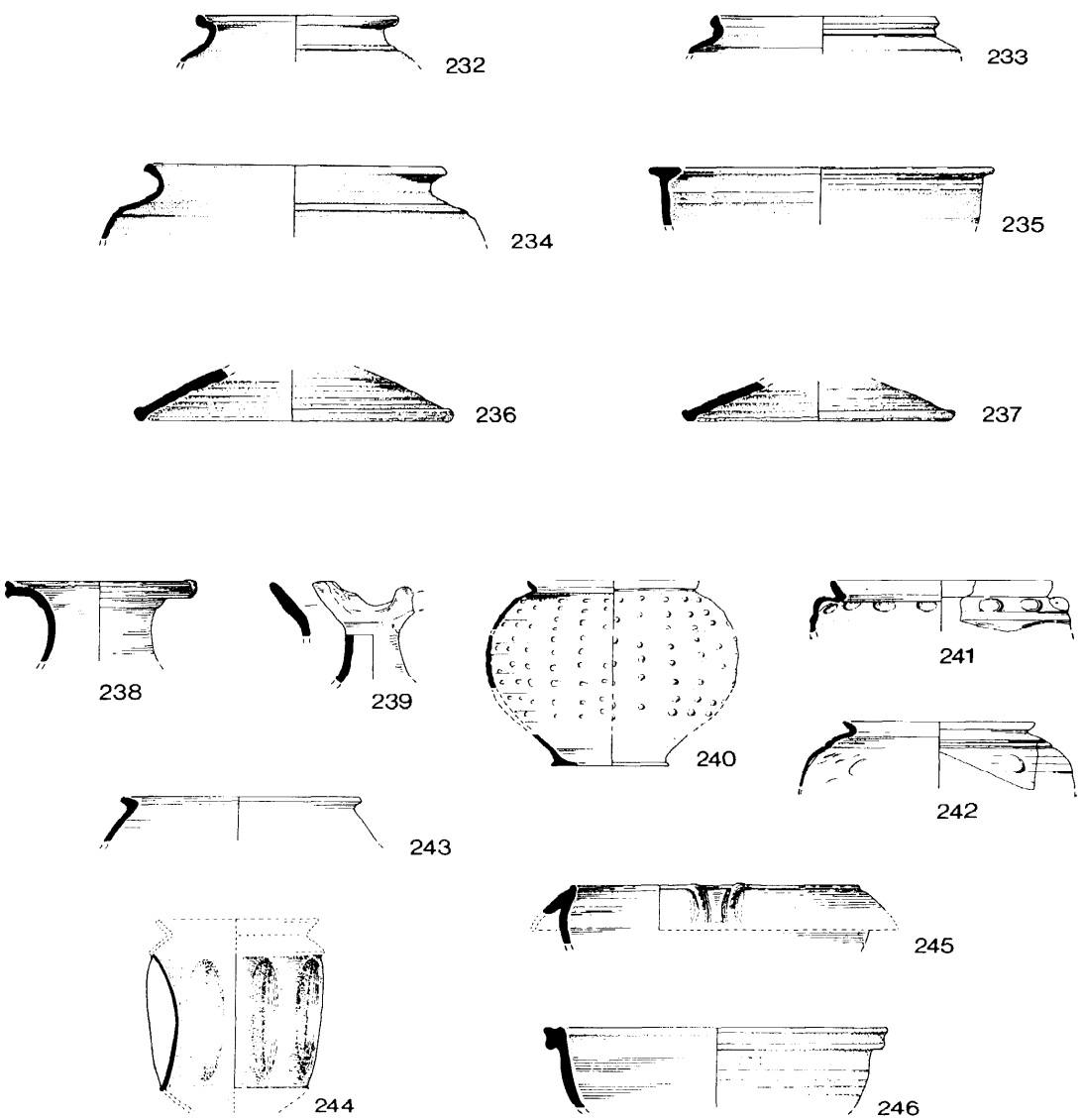


Fig 44 Verulamium Region Grey ware, jars, nos 232-4; bowls/dishes, no 235; other forms, nos 236-7. Verulamium Region Mica-dusted ware, flagons, nos 238-9; beakers, nos 240-4; bowls/dishes, nos 245-6 (Scale 1:4)

***Fabric and technology**

The fabric of this type is identical to VRW, with an additional golden-brown micaceous slip.

VRMI occurs in the full range of VRW colours, including almost pure white, although it is more generally brown (5YR 5/4) or reddish-brown (2.5Y 6/8). The surfaces, which are usually smoothed and/or burnished, feature a golden-brown (7.5YR 7/4) micaceous slip.

Forms

The VRMI repertoire incorporates a variety of forms including flagons, beakers and bowls. Many of the forms (IF, IVB, IVJ) are paralleled in the contemporary Local Mica-dusted ware industry (LOMI, Section 6.3). Lamps in this fabric are present in the City but are not included here.

Flagons Fig 44, Nos 238-9 This includes a variant of

the lid-seat rim IF (MT3, 238) and an unusual spouted flagon (MT2, 239).

Beakers Fig 44, Nos 240-4 Ovoid beakers with everted rims (IIIB, MT20, 240-2; IIIC, MT22, 243) are represented. These typically have embossed decoration and are from Flavian contexts. Number 240 may belong to MICA-1242. Folded beakers (MT21, 244) also occur, although usually represented only by body sherds.

Bowls and dishes Fig 44, Nos 245-6 Bowls are the commonest type overall, including examples of moulded-rim IVAs, typical of VRW production (not illustrated). Flanged bowls (IVB, MT34, 245) and plain-rim dishes (IVJ, not illustrated) also occur. An unusual bowl with a grooved rim (MT36, 246) is illustrated.

Venrlamium Region Marbled ware (VRMA)

The presence of VRMA is not recorded from any of the known kiln sites and is not part of the mainstream Verulamium region industry; other marbled wares are discussed in Section 6.1.

Dating

Only six examples have been recorded from the City and these are associated with Hadrianic-early Antonine pottery or contexts, when the popularity of VRW had begun to decline. All the quantified sherds are early Antonine in date and account for less than 1% of all non-samian fine ware by weight for that period.

***Fabric and technology**

VRMA has the typical Verulamium white fabric with marbled decoration on all surfaces. Vessels are burnished or smoothed prior to the application of an orange slip which is then brushed or sponged with a darker slip to produce a mottled marble effect of light (2.5YR 6/10) and dark orange (2.5YR 5/6).

Forms

Bowls and dishes Fig 45, *Nos* 247-8 The principal types in VRMA are platters and hemispherical bowls. Illustrated here is a bowl imitating Drag 37 (IVE, 247) which can be paralleled among the Local Marbled ware industry (LOMA, Section 6.l), and another with a bead rim (248).

Verulamium Region Red ware (VRR)

A similar fabric has been identified from occupation material at Verulamium.

Dating

Fig 31

This is a sparse fabric type and apart from residual sherds appears to have been confined to the later 1st and early 2nd century.

Fabric and technology

A red (2.5YR 5/8) or orange (2.5YR 6/0) fabric, similar in texture and inclusions to VRW, with a white (5Y 9/l) or cream (2.5Y 9/2) slip.

Forms

Flagons are the most common form but mortaria are also present.

Flagons Collared flagons (IA) are identified, although ring-necked (IB) examples are more common.

Mortaria Fig 45, No 249; *Fig 142, No 249* Included among the mortaria is an almost complete vessel stamped SEX VAL by the potter Sextus Valerius (HOF). This stamp is identical to those typically found in Brockley Hill White-slipped ware (BHWS, p 61) and supports a related source for the two fabrics. The vessel is associated with Flavian material which corresponds well with the suggested date range for Sextus Valerius, Another example of the stamp, from a different die, can be found on VRW (212), providing a second link between this stamp and the Verulamium region.

Verulamium Region Coarse White-slipped ware (VCWS)

This fabric was discussed by Green (1980b, 60) who suggested a possible source in the Staines or London area. It is now tentatively attributed to the Verulamium region because of its similarity to material from the Venrlam Hills Field kiln site (Anthony 1968), although other sources may also exist. Typologically, the products are virtually identical to those produced in Verulamium and incorporate the entire repertoire, but the possibility of a migrant potter from Verulamium working elsewhere cannot be ruled out. Petrographically, the fabric is distinct from the typical Verulamium product, containing silt-sized quartz and some mica. More investigation of variations in the local clay is needed to determine whether this could fall within the range of raw materials available to the Verulamium potters. As noted above, one vessel (Fig 46,258) is particularly significant in linking VCWS with VRW, for the body is in VCWS and the handle in VRW.

Dating

Fig 31

In absolute quantities, VCWS is abundant, though far exceeded by VRW. Although rare (therefore not visible on Fig 31), sherds occur from the beginning of the

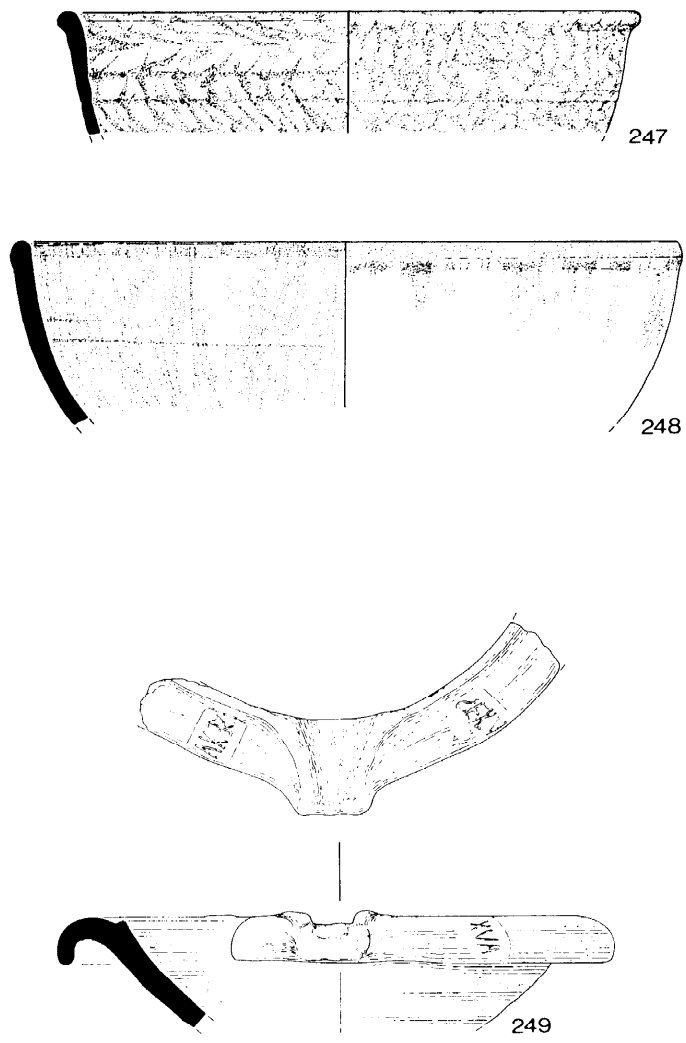


Fig 45 Verulamium Region Marbled ware, bowls/dishes, nos 247-8. Verulamium Region Red ware, mortaria, no 249. (Scale 1:2; no 249 Scale 1:4)

sequence; it became an important source of oxidized wares during the early Antonine period. Verulamium Region White ware appears to have declined in quantity at this time and the relative productivity of the two industries may have been linked.

***Fabric and technology**

Pl Sk

A coarse, red fabric with white slip containing abundant quartz and occasional iron-rich inclusions. It is distinguished from the typical VRW fabric by its colour and slip, as well as containing some silt-sized inclusions and white mica. The photographed sherd contains a particularly high density of inclusions.

Although typologically very similar, the VCWS products are generally less well made than their VRW equivalents. Flagon rims are often distorted, with ill-defined rings, necks are occasionally placed off-centre (Fig 46, 252) and frequently the handles are poorly applied. This may result from the speed of manufacture rather than inferior potting techniques. However, the clays are also often badly mixed so that large inclusions of flint are left behind (eg Fig 46, 253). Number 251 (Fig 46) is another example of this inferior quality, illustrating all the above features

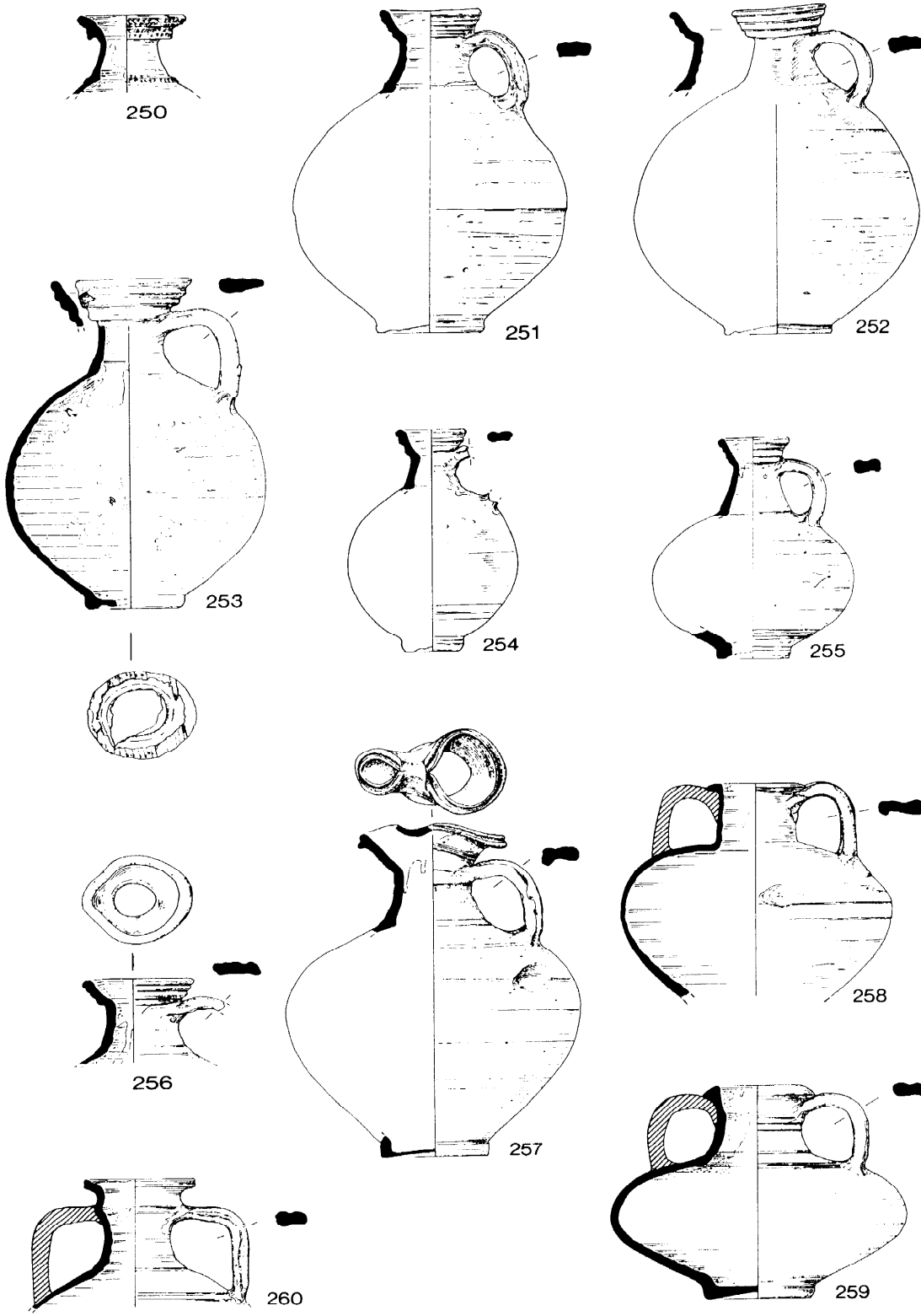


Fig 46 Verulamium Region Coarse White-slipped ware, flagons, nos 250-60 (Scale 1:4)

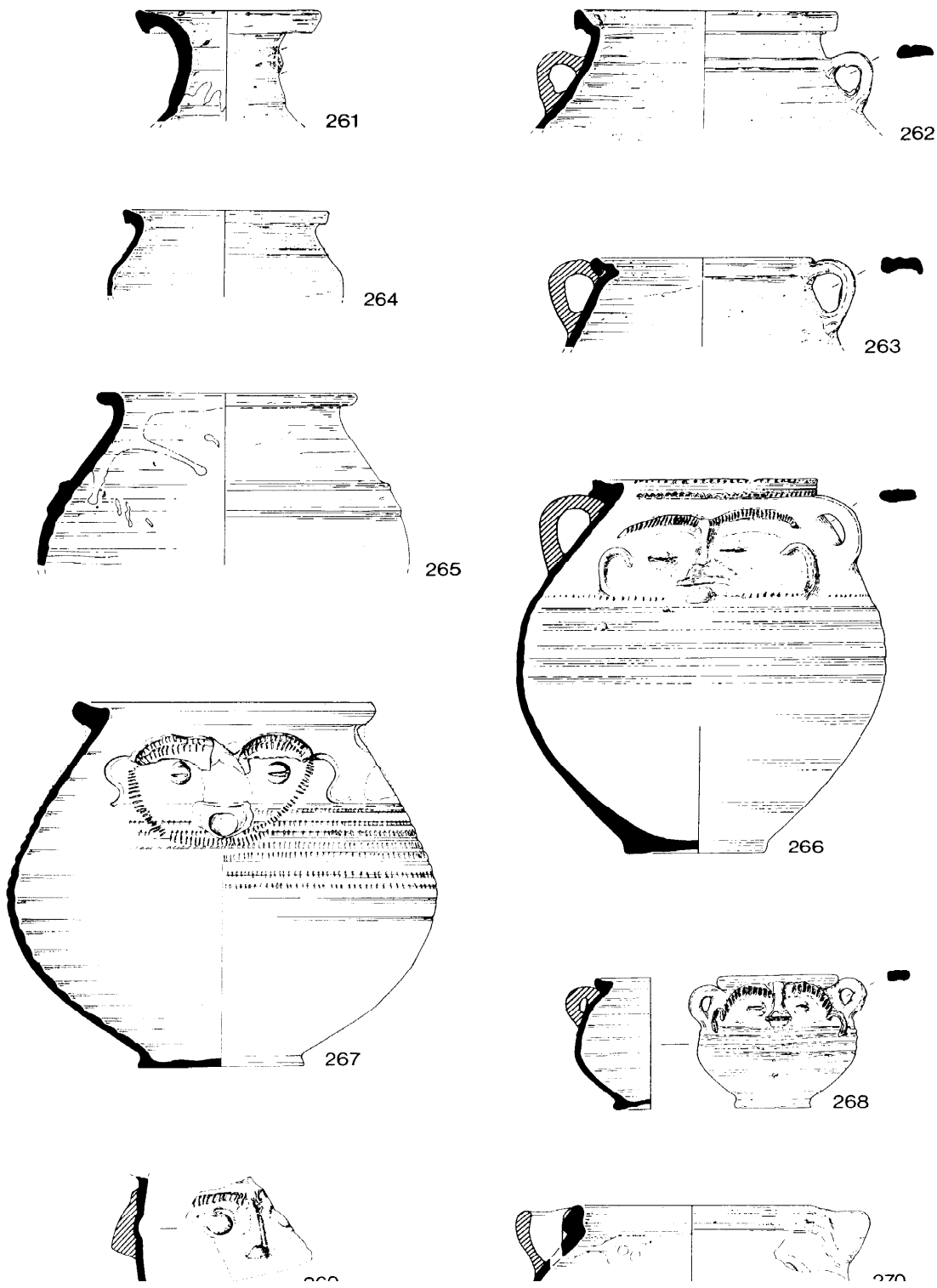


Fig 47 Verulamium Region Coarse White-slipped ware, flagons, no 261; jars, nos 262-70 (Scale 1:4)

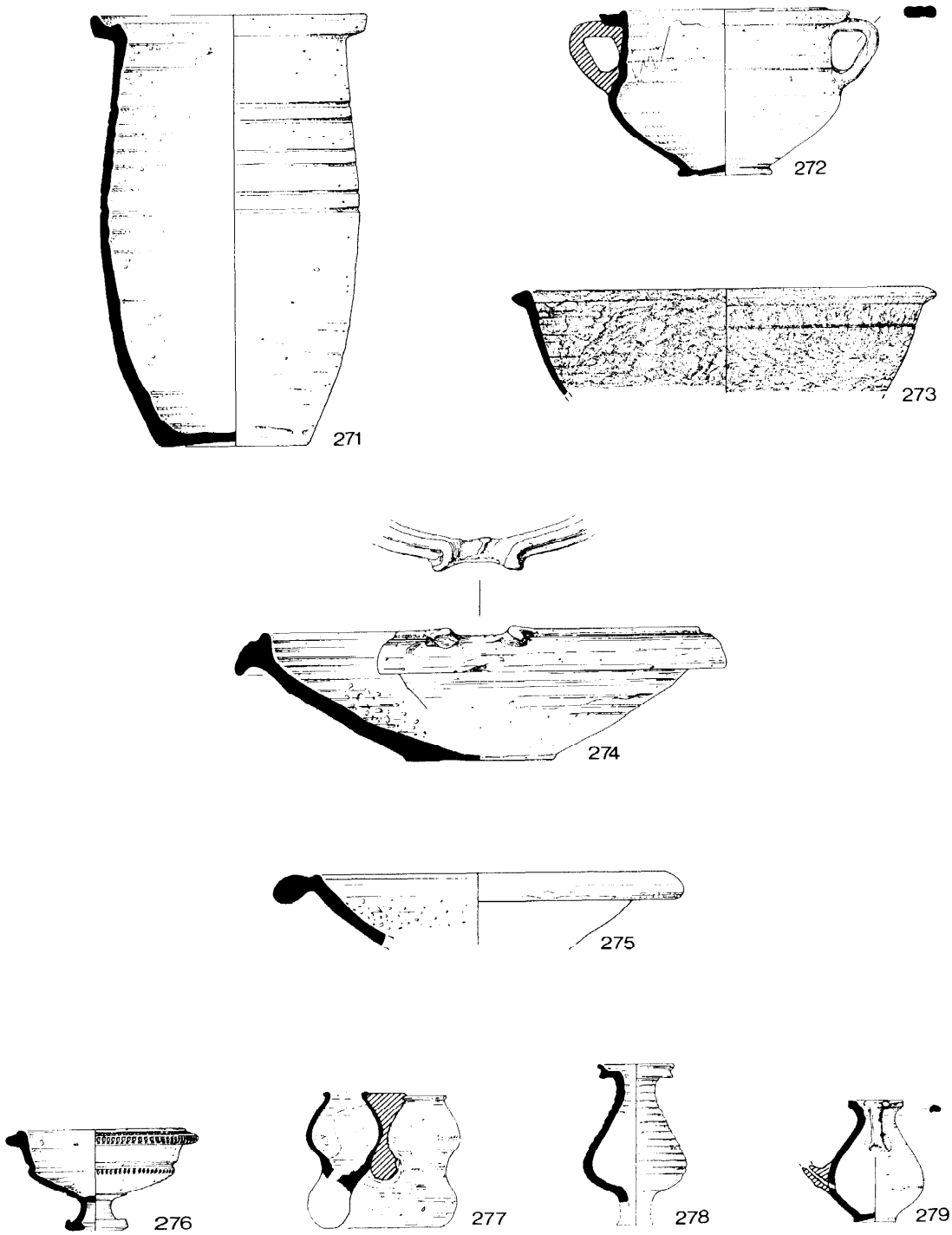


Fig 48 Verulamium Region Coarse White-slipped ware, jars, no 271; bowls/dishes, nos 272-3; mortaria, nos 274-S; other forms, nos 276-9 (Scale 1:4; no 273 1:2)

together with pronounced turning marks at the girth. These were caused by the body being inverted and trimmed on the wheel in order to form the footring base before the neck was applied.

One consistent feature which occurs in all VCWS fabric variants is straw or reed impressions on the bases of many forms, of which 253 (Fig 46) is a typical example. Apparently, as over half the flagons in the Reserve Collection illustrate, the vessels were placed on a stand of straw or reed to absorb the excess slip.

VCWS is a hard, coarse-textured, orange (2.5YR 6/8) or greyish-brown (2.5YR 6/6) fabric with an irregular fracture. It has densely packed, abundant, multi-coloured quartz (SA 0.2-0.5mm, occasionally <1.0mm) in a micaceous, silty clay matrix. Moderate, rounded red and black iron-rich inclusions (0.1-0.5mm), sparse, irregularly shaped limestone (<1.5mm), and large flint inclusions (<l.0mm) can also be identified. The fabric is generally consistent, although both finer (0.1-0.3mm) and coarser (<l.0mm) variants sometimes occur.

Forms

Most of the forms parallel those produced in VRW. Of particular interest are types generally restricted to or diagnostic of the Verulamium region such as mortaria, the unusual IE flagon, honey pots (IIK), moulded-rim bowls (IVA), and the rare types such as tazze, tettina, face pots, triple vases and amphora stoppers.

Flagons Figs 46-7, Nos *250-61* Flagons far exceed the other vessel types. Collared examples (IA) are rare, but first appear in late Neronian-early Flavian contexts. An unusual variant, decorated on the rim and cordon with rouletting, is illustrated here (250). Like many roulerted forms, it is associated with the early Antonine period.

A small number of ring-neck flagons with a trumpet mouth (IB2, not illustrated) first occurred in the Flavian period at Newgate Street. Ring-neck flagons with a prominent upper ring (IB5, not illustrated) in VRW often appear in Hadrianic fire destruction layers; in VCWS these do not occur at Newgate Street before post-fire deposits dated to c 120–60. Short-expanding, ring-neck flagons (IB7, 251–5) are the commonest form in VCWS and were first found in the Hadrianic, but date largely to the Antonine period. An unusual variant of this type, 256, has a vestigial spout produced by pulling the rim slightly at one edge.

Other rare flagon types include those with pinched mouths (IC, 257), double handles (IE, 258–60), simple curved rims (including an example with moulded lip - IH, 261) and pulley rims (not illustrated). These types occur sporadically, but many were present from the Flavian period.

Jars Figs 47-8, Nos 262-71 Most of the jars are Hadrianic or early Antonine in date. These include honey pots with both reeded and concave internal rim surface (IIK, 262-3), necked jars similar to examples in VRW with both grooved and flat rims and shoulder cordons (NJ, 264-5) and face pots used as cremation urns (266-70). All the complete, illustrated face pots (266-8) originally had three handles, with the third directly opposite the nose. Some are similar in rim form to honey pots and, unless diagnostic sherds are present, may be misassigned. An unusual tall jar with a lid-seat rim (271), also used as a cremation urn, was found in association with a well-fitting LOX1 lid (Section 4.2).

Bowls and dishes Fig 48, Nos 272-3 Vessels in this category are less common than other forms, but moulded-rim bowls (IVA) are present, both with (272) and without (not illustrated) handles. These are normally from Trajanic contexts. A single example of a bead-rim bowl with marbled decoration (273) can also be identified, associated with late 1st to early 2nd century pottery.

Mortaria Fig 48, Nos 274-5 The VCWS mortaria belong to the hooked-flanged variety (HOF). Number 274 has a prominent bead rim, while 275 is distinguished by its swollen flange. Neither can be precisely paralleled among the VRW material. Body sherds of mortaria were present in the Flavian period, but no rims occur in the quantified data.

Other forms *Fig* 48, Nos 276-9 Many of the unusual vessel types produced in VRW can be paralleled in VCWS: tazze, both rouletted (276) and thumbed (not illustrated); triple vases (277); amphora stoppers including an example with rilled walls (278); and tettina (279). Most are present only in the Reserve Collection, with few from well-dated excavated groups.

Brockley Hill White-slipped ware (BHWS)

This red fabric with white slip is very similar to examples from Brockley Hill (1972 Site C, Kiln 2, D Devereux, pers comm), but there may well be other sources. Collared and ring-neck flagons can be paralleled within the VRW repertoire, but these forms are common to a number of industries. Mortaria, particularly those stamped by Sexrus Valerius, provide the strongest link between the two fabrics.

Dating

Fig 31

The distribution of this fabric is most similar to Hoo ware. It occurs in moderate quantities and is present from the pre-Boudiccan levels, was most common during the Flavian period, and diminished in the Trajanic period. Rare early Antonine forms are also represented (IB7).

*Fabric and technology

Pl 51

A fine, sandy, somewhat micaceous white fabric, frequently red or with a reduced brownish-grey core. It is also characterized by abundant small black iron-rich inclusions.

A fairly hard, smooth red or yellowish-red (2.5YR 5/8-6/8) fabric

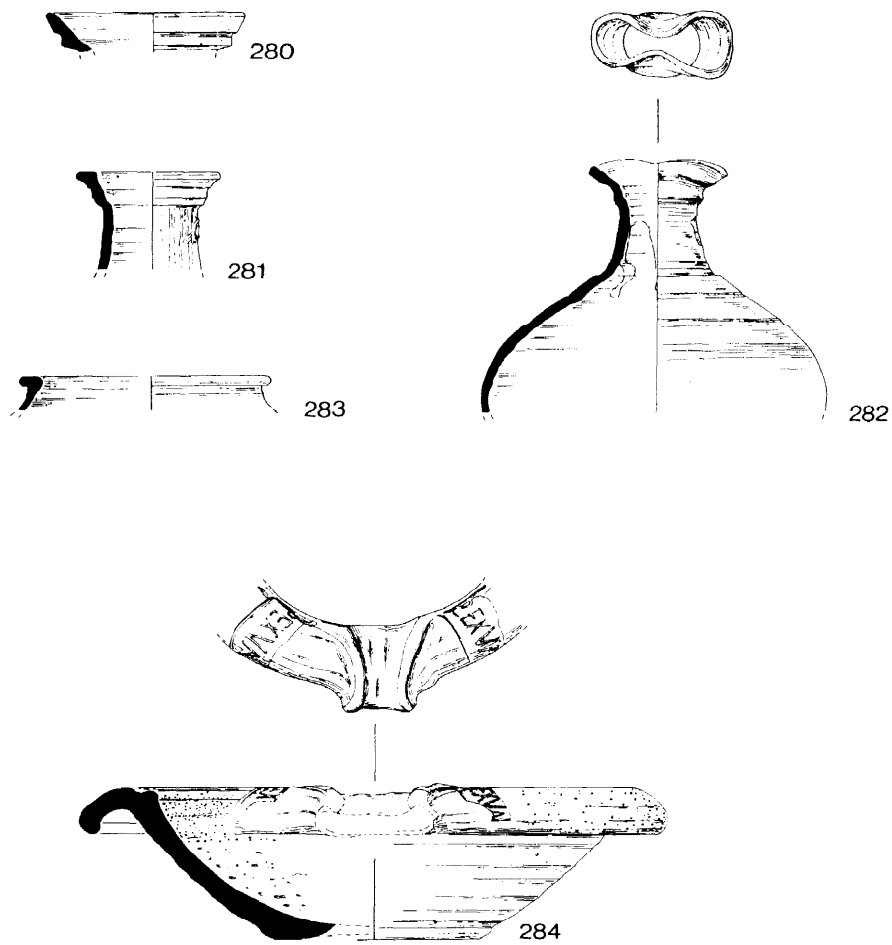


Fig 49 Brockley Hill White-slipped ware, flagons, nos 280-2; jars, no 283; monaria, no 284 (Scale 1:4)

with a finely irregular fracture, although its colour may vary from brown (7.5YR 414) to grey (10YR 5/l) depending on firing conditions. The main inclusions are well-sorted fine, silty quartz (SA CO. lmm, occasionally <0.5mm), some flint and moderate amounts of red or black iron-rich inclusions (R, SA), which are occasionally larger than the quartz and more prominent in some samples. These are mostly opaques, although some iron-rich clay pellets are present. Limestone (SA 0.2-0.3mm) occurs sporadically; whrte and gold mica is moderate to abundant. The thin creamy-white slip, which is sometimes yellowish (10YR g/2-9/4) in tone, tends to abrade easily.

Forms

Flagons and mortaria are most typical of the BHWS industry.

Flagons Fig 49, Nos 280-2 Collared flagons (IA) are the most common type in this fabric, with the majority appearing in Flavian levels. A IA variant (280) is grooved on the outer edge of the collar, giving it a pulley rim appearance.

Trumpet-mouth, ring-neck flagons (IBZ) are also present, but in smaller quantities. Number 281, from a Flavian group, has ill-defined rings and may be a prototype of this form. The expanding neck IB7s (not illustrated) are typical of early Antonine contexts.

Pinched-mouth flagons (IC, 282) are rare, and were most common during the Flavian period. The illustrated vessel is decorated with a series of cordons and grooves extending from the neck to the girth of the vessel, a design similar to metal flagons of this period but notably absent from VRW.

Jars Fig 49, No 283 Jars are generally rare and are represented here by a single example with a flat rim and neck cordon.

Bowls and dishes These are rare and a single example of

a moulded-rim bowl (IVA) has been identified among the quantified material.

Mortaria Fig 49, No 284; Fig 142, No 284 Hooked-flange mortaria (HOF) are found in small quantities in late Neronian and Flavian groups. Many of these are stamped SEX.VAL, and belonged to the Sexti Valerii group of potters who were associated with mortarium production in the Colchester area (Hartley 1977, 11). In the City the stamp occurs on VRW, VRR and BHWS. Three virtually complete vessels in VRR and BHWS share the same die stamp, impressed on both sites of the spout (not illustrated), and are from the Reserve Collection. In addition to these vessels there are excavated examples in VRW and VRR (Fig 45, 249; Fig 142, 212, 249).

Stamps from the same die as the VRR and BHWS vessels have been noted in the *Catalogue of Roman Pottery in the Colchester and Essex Museum* as SEX[TUS] VAL[ERIUS] C. (May 1930, text-fig 7, 31), and the source area of this potter has been a matter of some debate. Rodwell (1983) suggests that he may well have been a peripatetic entrepreneur, as mortaria with his stamp occur in three different fabrics: a typical Colchester fabric, one characteristic of southeast England but more likely Kent, and the Verulamium/Brockley Hill region.

More detailed information on these potters is provided by Hartley and Richards (1965, 35), who have investigated the Sexti Valerii group using spectrographic analysis as part of a larger study of mortarium fabrics from southeast England. It is clear that the VRR mortarium and the associated SEX.VAL.C stamp from the City fall into a Kent or, more broadly, southeast England group. Northern Kent can probably be discounted as a source. Monaghan (1987, 44) noted the lack of potential mortarium production in the area and a survey of regional museums failed to locate the stamp. Several are known from Colchester in a typical local fabric (K Hartley, pers comm). However, a source in the Verulamium/Brockley Hill region is preferred for the City examples, as stamps occur in VRW (a fabric which can be regarded as a true Verulamium product – Fig 142, 212), the similar VRR fabric (Fig 45, 249; Fig 142, 249) and the BHWS examples discussed here. Although a Verulamium or even a Brockley Hill source is suggested, further research into fabric, dies and their distribution may provide a clearer indicator of source.

4.7 Unsourced Oxidized wares

OXID-2486

The source of 2486 is unclear, but the fabric is similar to some Colchester products, particularly the early lamps. The similarity of this fairly undistinctive fine micaceous fabric to Colchester material is strengthened by typological associations.

Dating

This fabric is represented by two featured vessels. Quantified sherds account for rare amounts of oxidized wares by weight during the pre-Boudiccan (2%) and Flavian (< 1%) periods.

Fabric and technology

A soft, fine fabric, pale orange-buff in colour.

OXID-2486 is a rather soft, smooth-fractured ware, pale orange-buff (5YR 7/6) in colour. The fabric contains moderate amounts of fine quartz (SA <O.l-0.2mm), sometimes roseate, and sparser, but still common, red iron-rich inclusions (I <O.l-0.3mm, rarely l.0mm>), fine white mica and rare limestone (R <0.5mm, but occasionally 1.0mm>).

Forms

Flagons Fig SO, No 285 A single flagon is represented, characterized by a long tapering neck and bead rim; cordons are placed halfway down the neck and at the shoulder. It is similar to Cam 171, although 285 is less elaborate, and is considered diagnostic of the pre-Boudiccan period.

Bowls Fig SO, No 286 This category comprises a bowl with a protruding beaded lip and rounded flange.

OXID-1861

The type is similar in fabric and typology to an early Flavian fabric from the Staines area (S Shanks, pers comm).

Dating

This rare type accounts for <1% of all oxidized wares by weight in late Neronian to Trajanic contexts.

Fig 50 Oxidized fabric 2486, flagans, no 285; bowls/dishes, no 286. Oxidized fabric 1861, jars, no 287 (Scale 1:4)

Fabric and technology

A sandy, brick-red fabric.

A hard fabric, with rough surfaces and finely irregular fracture. It is brick-red (10YR 5/10), with moderate to abundant quartz inclusions (SA <0.4mm) and sparser flecks of brown iron-rich inclusions (SA <0.1mm).

Forms

A jar and plain-rim dish (IVJ) are represented; the latter too fragmentary to illustrate.

Jars Fig 50, No 287 The rim of this honey pot (IIK) is flattened with two grooves on the outside. Face pots in a similar fabric and comparable form (cf Green 1980b, fig 30, 206) occur quite frequently in early Flavian deposits in the Staines area (S Shanks, pers comm).

4.8 North French/Southeast English wares (NFSE)

A number of separate common name groups are discussed under this umbrella. Although there is no conclusive evidence to ally the types, similarities in fabric (both macroscopically and in thin section) and form, and corresponding dating sequences, corroborate similar source areas and manufacturing traditions. Furthermore, forms are restricted to flagons and mortaria, which are frequently manufactured together at known production sites. Fabrics discussed below include NFSE-2667, NFSE-1298, Atisii-type or Gillam 236 mortaria (G236), Hartley Group II or Gillam 238 mortaria (G238), NFSE-2838 and NFSE-2844. In aggregate they occur in moderate quantities.

The most common and frequently cited type throughout Britain, and incorporated within this group, are the Hartley Group II mortaria. Hartley (1973b, 1977) has discussed their probable source in detail and concludes that migration of potters from northern Gaul to southeast England (most likely Kent) is a distinct possibility (see *contra,* p ix). This is supported, particularly, by the large number of Group II mortaria identified at Richborough (Hartley 1977, 6). In this context it is significant that mortaria which might be seen as a development of Group II (Bushe-Fox 1913, forms 26–30) are also common at Richborough (Bushe-Fox 1932) and the later group or both may have been produced there. Group II vessels stamped by Q Valerius Veranius are extremely common at Colchester and chemical analysis indicates a Gaulish source (R Symonds, pers comm) which may be supported by kiln evidence from the Continent (NFSE-1298). Whether these fabrics are Romano-British, French or a mixture is still unclear *(contra,* p ix) chemical analysis may be of value in comparing the different groups, but from the London viewpoint pottery from Kent and northern Gaul may have arrived by the same routes.

Although there is a wide range of variability within the fabrics identified, major sub-groups can be readily isolated, with typology and surface appearance important criteria. All the fabrics share a calcareous, slightly micaceous matrix, frequently conchoidal in fracture, with quartz, flint and iron-rich inclusions. In colour they are normally buff or yellow and have a tendency towards mudstaining.

NFSE-2667

This type has only recently been distinguished from other oxidized fabrics. Evidence for its distribution is therefore minimal from quantified deposits, but it is included separately here because of its importance as an indicator of Neronian assemblages and its relationship with fabric NFSE-1298, of which it appears to be a finer and earlier variant (cf Fig 51).

Dating

Fig 51

NFSE-2667 is rare, but is diagnostic of pre-Boudiccan and late Neronian–early Flavian levels (not among the quantified data on Fig 51) rather than late 1st century deposits.

*Fabric and technology

Pl 5m

The fabric is variable in colour, but is generally pale buff (2.5YR 9/2) or pink-buff (7.5YR 9/2), occasionally with a pale orange (7.5YR 8/4) core. It breaks irregularly and is soft and easily scratched, and feels rather powdery to the touch. Moderate quartz (A, SA <0.2mm, rarely <1.5mm), together with smaller amounts of red and black

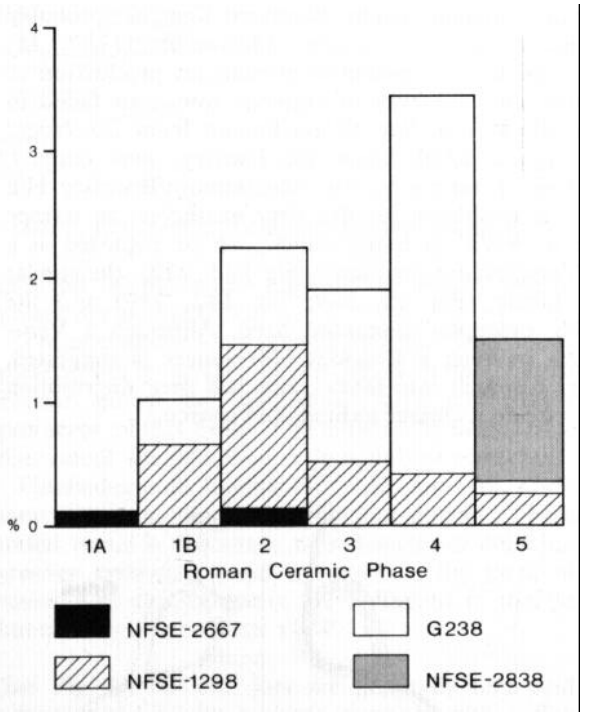


Fig 51 Stacked bar graph of North French/Southeast English fabrics as a percentage of all oxidized wares by weight

iron-rich inclusions (SA 0.l–0.4mm, occasionally <2.0mm), can be identified. Sparse amounts of calcareous material (R 0.5-2.0mm) and white mica are also present. In thin section flint and rare microfossils can also be seen in a calcareous matrix.

All exterior surfaces have been smoothed and the mortaria are gritted with sub-angular quartz, quartzite, occasional flint and some limestone (3.0mm>).

Forms

Flagons Fig 52, Nos 288-95 Collared flagons (IA, 288-93) are the most common and, typically, have a distinctive groove or undercutting on the rim. Few body sherds have survived and it was not possible to reconstruct any complete profiles. The handles generally protrude at a right angle from the neck and usually have either three or four ribs; bases are finished off with a footring (295). Number 293 has a severely distorted rim and may be a kiln second. A single example of a ring-neck flagon (IB2, 294) was present in a residual context. Some of the flagons show evidence of resin on the interior surfaces.

Montaria Fig 53, Nos 296-8 Hartley (1985c, 92-3) has divided wall-sided mortaria in Britain into three broad typological groups. Group III, with a swollen bead, is thought to be post-conquest (45–60/5) and describes all the mortaria in this group (WAL).

NFSE-1298

Green (1980b, fig 21, 41-3; fig 22, 46-7) first noted the similarity between the fabrics of pulley-rim flagons and G238 mortaria. Assuming a source in northern Gaul for the latter, a similar source can be proposed for NFSE-1298. Pulley-mouth flagons were a common form in northern Gaul (from Belgium to the Seine Valley) during the 1st and 2nd centuries and were certainly made at the same production sites as the G238 mortaria. Amongst the pottery from a small kiln site at Bourlon (between Cambrai and Arras) are both pulley-rim flagons in a fabric apparently similar to the City series and a mortarium stamped by a Group II potter (Tuffreau-Libre 1977, figs 3, 6, 7).

Dating

Fig 51

The distribution of this fabric type is broadly similar to that of the G238 mortarium form. It occurs in moderate quantities and is absent from pre-Boudiccan groups, appearing in late Neronian levels, and was most common during the Flavian period. It decreased dramatically from the Trajanic period onwards and thereafter was probably residual.

*Fabric and technology

P1 5n

The fabric varies somewhat in detail, but generally has a fairly smooth or sub-conchoidal fracture with a slightly rough feel. The clay matrix and inclusions are similar to NFSE-2667, but fewer are greater than *c* 0.1mm. Of these, quartz, red and black iron-rich inclusions and limestone can be identified, together with mica. Occasionally flint is seen (0.8mm>). The fabric tends to have a harder surface and be less powdery than 2667.

Green (1980b, 45) described many of the examples from Billingsgate Buildings as 'susceptible to mudstaining', but considered them to have been originally 'greyish-yellow (cf 10YR 7/l or 7/2) or occasionally dull greyish-red' (7.5YR 6/2) in colour. This is partly confirmed by unstained examples from other sites, which range in colour from pale yellowish-buff (2.5Y 9/4; 10YR 9/2-9/4) or occasionally very pale grey (5Y 8/l).

Forms

Flagons Fig 53, Nos 299-305 This fabric is restricted to flagons, and the most common form has a pulley rim (300-3), many with a prominent lower lip. Slight variations occur in both the rims and the handles, which normally have three or occasionally two ribs. Their bases have a rounded lower-body wall with a squared-off footring, of which 305 is a typical example. Other flagon types which occur infrequently include ring-neck vessels (IB, 299), and an example with a flaring beaded lip (304). Like NFSE-2667, some of the flagons are coated with resin on the inside.

Atisii-type or Gillam 236 mortaria (G236)

Atisii-type mortaria refer to a single form type (Hartley 1977, Group 1, rim type 2) which occurs in two fabrics, probably representing two sources. Hartley (1973b, 40; 1977, 8) suggests that two areas were involved: Aoste (Isire) in Gallia Narbonensis and either southeast England or northern Gaul. The latter type is included here, linked to G238 by both fabric and potter's stamps; the Aosre vessels are included with other imported mortaria (AOMO, Section 4.10).

Dating

The only example of this type is an unstratified example from the Reserve Collection. However, it is is stamped Q.VAL.SE on both sides of the spout by Q Valerius Se- who belongs to Hartley's Group I (rim type 2) category and dates to c 55-85. This potter may have originated from Aoste (AOMO) or have been inspired by the Atisii, but produced some mortaria in the Pas de Calais region.

Fabric and technology

This fabric is identical to NFSE-1298. It is mudstained brownish-yellow (10YR 8/4) with darker surfaces (10YR 6/4).

Forms

Fig 54, No 306; Fig 142, No 306

The form is identical to Aoste mortaria, with a small bead rim and deep, splayed flange (HOF).

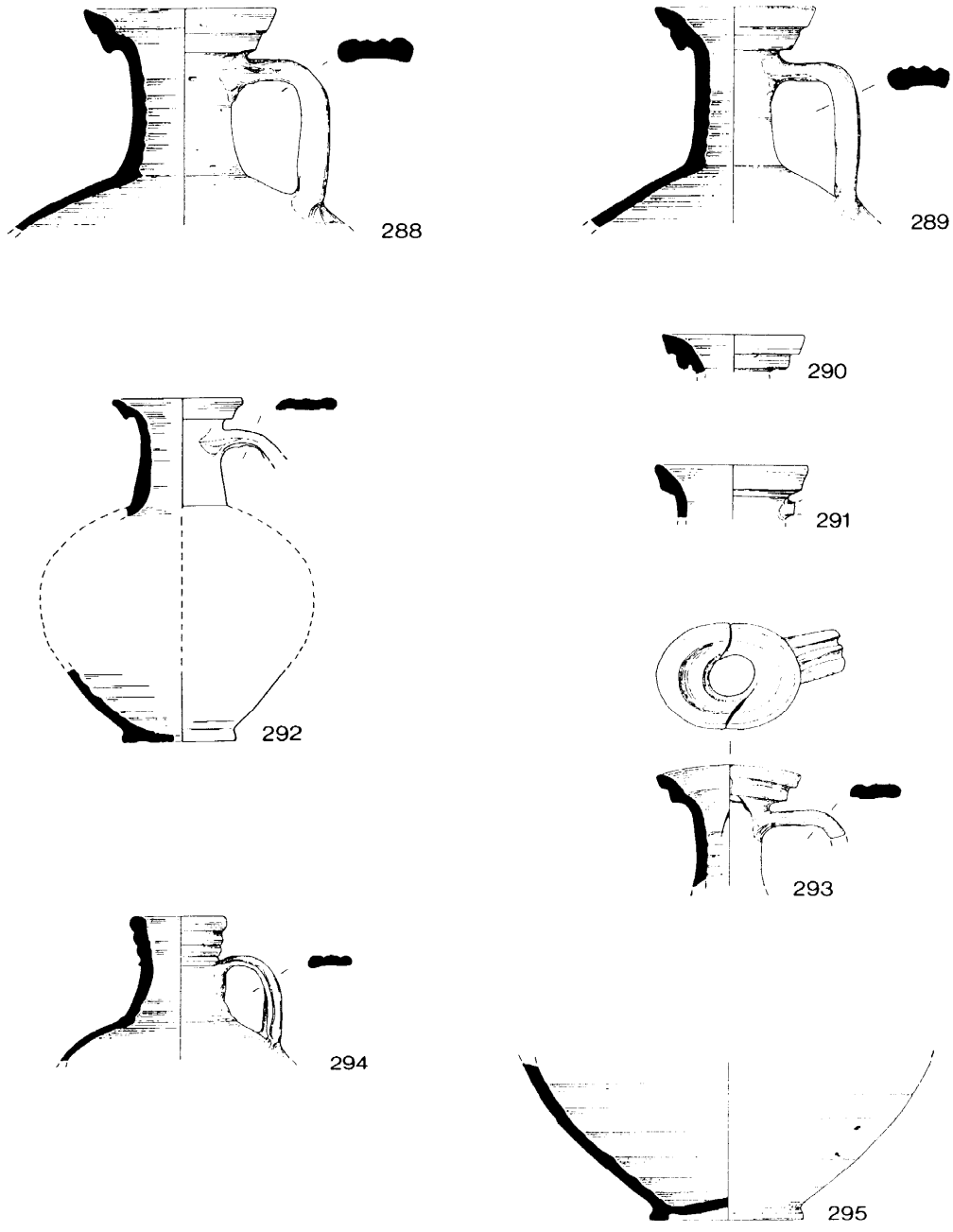


Fig 52 North French/Southeast English fabric 2667, flagons, nos 288-95 (Scale 1:4)

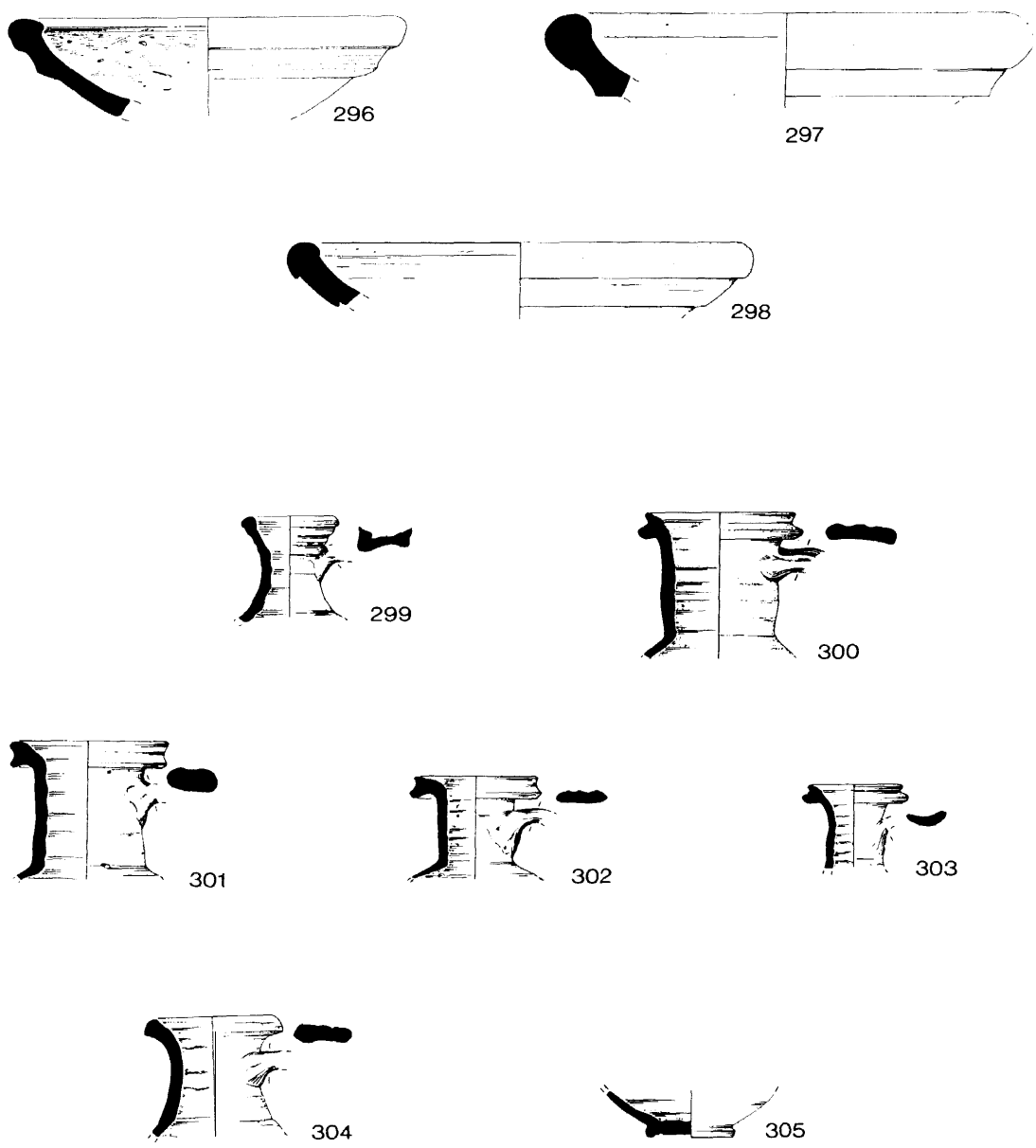


Fig 53 North French/Southeast English fabric 2667, mortaria, nos 296-8. North French/Southeast English fabric 1298, flagons, nos 299-305 (Scale 1:4)

Hartley Group II or Gillam 238 mortaria (G238)

Dating

Fig 51

Hartley (1977, 5) dates most G238 mortaria to the Flavian period. In the City they first appeared in the late Neronian and increased in the Flavian period, becoming more common in the Trajanic and Hadrianic periods. Although it is not possible to separate the different rim variations in the quantified data, these later occurrences most likely reflect the developed rim form (Fig 55, 311-13), which have been dated *c* 80- 150 (Hartley 1985b, 144), together with some residual material. Vessels with developed

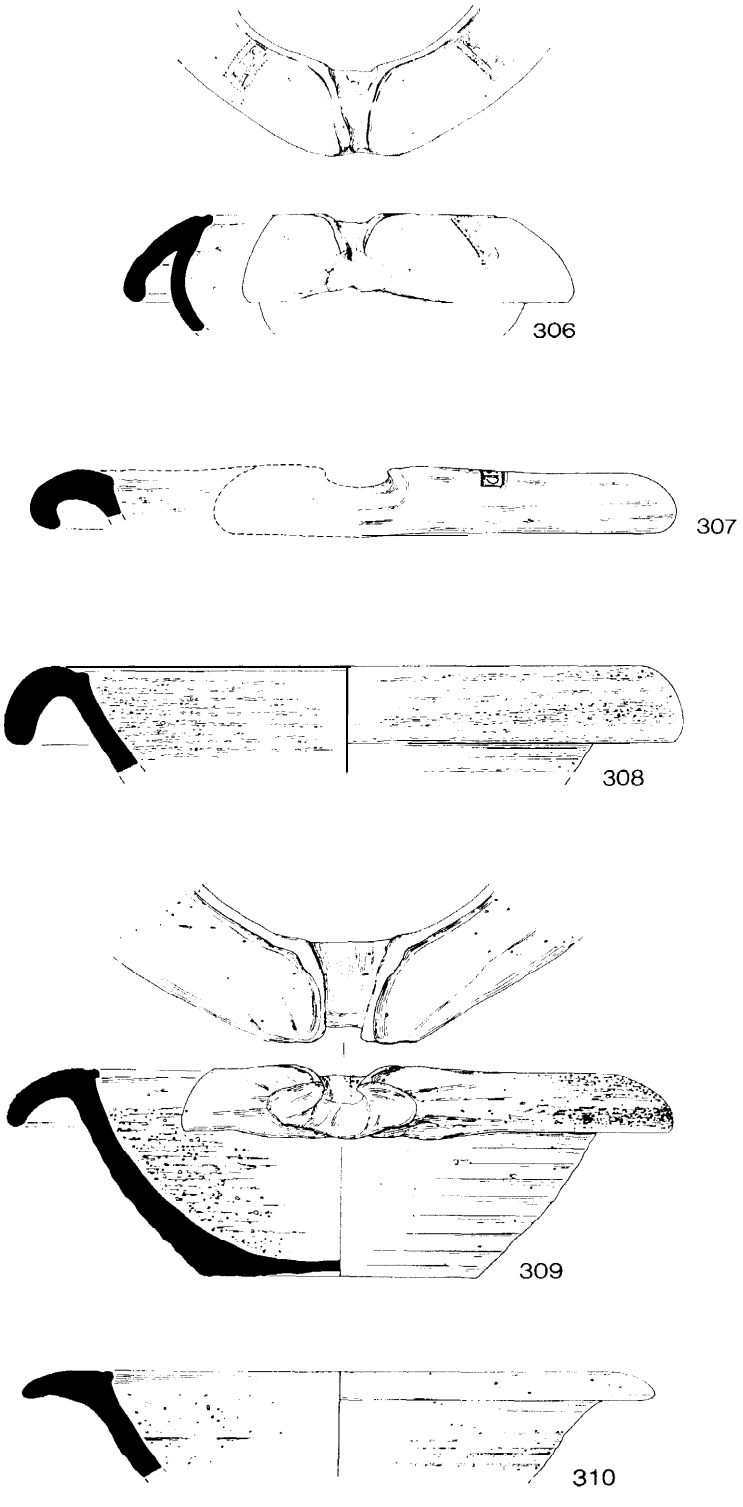


Fig 54 North French/Southeast English Gillam 236 mortaria, no 306. North French/Southeast English Gillam 238 mortaria, nos 307-10 (Scale 1:4)

rims are known from Hadrianic debris at both 5-12 Fenchurch Street and Bucklersbury. A similar chronology, with developed rims dating from the late Flavian to the Trajanic period, was proposed by Green (1980b, 48). As a group they occur in moderate quantities.

Fabric and technology

P1 5o

The fabric is similar to NFSE-1298. It may vary in detail, but generally ranges from light yellow (7.5YR 9/2; 10YR 9/2) to pink or orange-red (10YR 5/2-6/8) in colour. Larger limestone inclusions are occasionally visible (R 0.4-2.0mm) and rare fragments of flint are also present. The trituration grits consist of grey or milky quartz, flint and some limestone, and measure up to 4.0mm.

Forms

Figs 54-5, Nos 307-13; Fig 142, No 307

The classic Group II or G238 is a large deep mortarium with prominent wheelmarks. The rim has a flaring hooked flange with an undercut internal bead (309, Hartley 1977, rim type 3). Small trituration grits are abundant and extend over the flange. Number 310 has an almost horizontal flange (Hartley 1977, fig 2.1, 3c). Examples designated as developed G238 mortaria, or Bushe-Fox 26-30, have a short, squat flange and bead rim which is slighlty squared in section (311-13). The trituration grits on both the G238 and the developed forms appear to have been applied while the vessel was turned, causing plucking and/or scoring to the surface.

In contrast with Colchester, where many G238 stamped mortaria have been excavated, City assemblages have produced only one stamped example. This belongs to the potter Cavarius (307) who is known from the pre-Flavian levels at Usk and Wroxeter (Hartley 1977, 11). The rim, from a Flavian context, is similar to Hartley's type 4. Number 308, with a more pronounced curve, also belongs to this group, which is probably earlier than the more typical G238 rim *(ibid,* 9, fig 2.1, 4).

NFSE-2838

Dating

Fig 51

One example of this type has been noted in the City from an early Antonine level. Typologically, it is very similar to a vessel from Billingsgate Buildings for which Green (1980b, fig 22, 52) proposed a 2nd century date.

*Fabric and technology

This fabric is virtually identical to G238 but is distinguished by sparse amounts of quartz and moderate red iron-rich inclusions (SA 0.1-0.5mm). The interior is rather abraded, but has trituration grits of sparse quartz and occasionally flint and iron-rich inclusions *(c* 3.0mm).

Forms

Fig 55, No 314

The vessel is a poorly executed bead-and-flange mortarium (BEF), with an externally undercut bead and flange that hugs the body wall.

NFSE-2844

Dating

The type is represented by a single vessel from an early Antonine context, whose pottery is otherwise unquantified.

Fabric and technology

The fabric is most similar to G238, but has a vesicular and irregular fracture, as well as being light orange (5Y 7/4-7/6) in colour.

Forms

Fig 55, No 315

The form is very similar to developed G238 mortaria, with the same short, square flange and squared bead rim. Scoring, from the trituration grits, is also present on the interior.

4.9 Gloucester mortaria (GLMO)

The fabric and stamp on this vessel indicates a source in Gloucester.

Dating

The single known vessel, from an unquantified context, is associated with Flavian pottery, which conforms with dates proposed for -the stamp (K Hartley, pers comm).

Fabric and technology

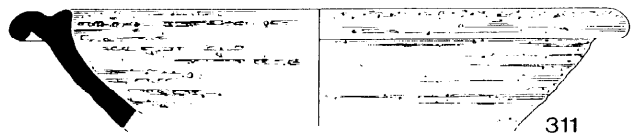
A fine reddish-brown fabric with white slip, very micaceous, with occasional limestone inclusions and some voids resulting from lime leaching or poor wedging.

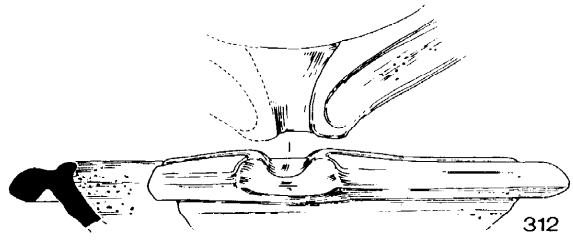
A hard, pale reddish-brown (7.5YR 7/6) fabric with a darker exterior margin (5YR 6/6), which feels slightly rough to the touch and breaks with an irregular fracture. The matrix is very calcareous with moderate quartz (SA 0.2mm, occasionally <0.5mm) and limestone (R 0.03mm-2.0mm), together with more abundant white mica (0.05mm, more rarely <0.2mm). The vessel is decorated on the exterior and over the rim with a white slip which has virtually worn away, as have the trituration grits. Where present they consist of milky quartz (SA 0.4-0.8mm), with some extending over the rim.

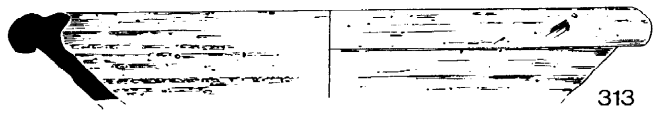
Forms

Fig 56, No 316; Fig 142, No 316

The vessel has a flange with internal bead, slightly undercut (HOF), and is stamped TERE with a counter stamp of RIPAN. It has been identified as







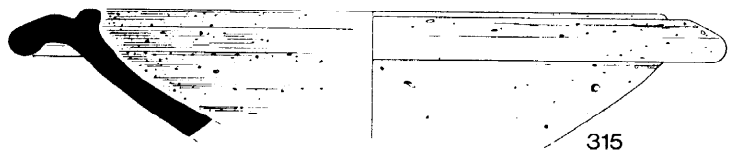


Fig 55 North French/Southeast English Gillam 238 mortaria, nos 311-13. North French/Southeast English fabric 2838, mortaria, no 314. North French/Southeast English fabric 2844, mortaria, no 315 (Scale 1:4)

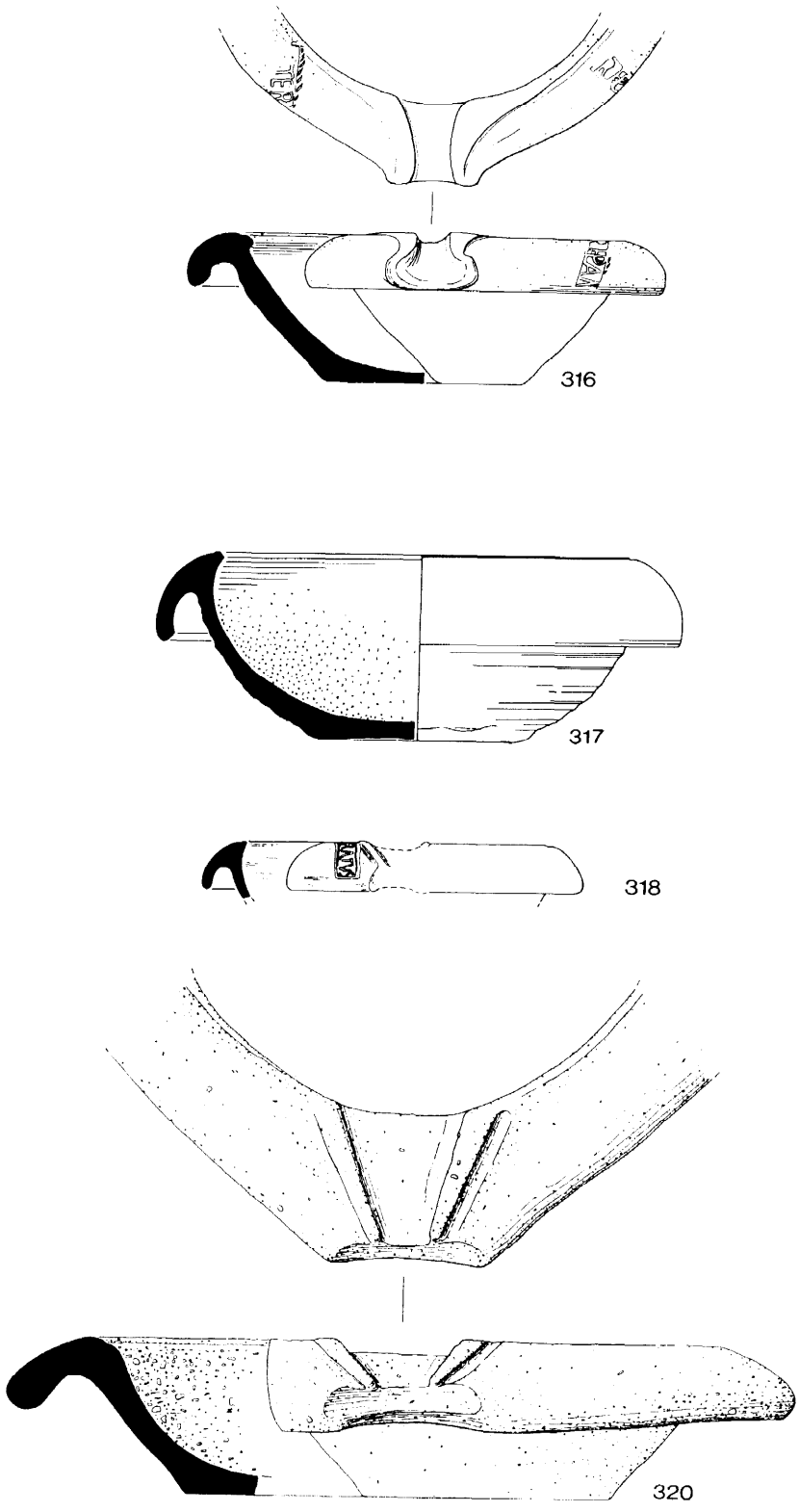


Fig 56 *Gloucester mortaria, no 316. Aoste mortaria, nos 317-18. Italian mortaria, no 320 (Scale 1:4)*

belonging to the potter A Terentius Ripanus, who was operating in Gloucester c 60-90 (K Hartley, pers comm).

4.10 Aoste mortaria (AOMO)

The fabric, trituration grits and surface treatment of this Atisii-type mortarium compares well with samples from Aoste.

Dating

Hartley (1973b, 40) has suggested that Aoste motaria were produced from the mid 1st century, well into the Flavian period. They are rare here, but their presence in Neronian and Flavian contexts accords with this date range. Quantified sherds are all from Flavian contexts and comprise <1% of all oxidized wares by weight.

*Fabric and technology

P15p

A fine, off-white fabric with thick, pink core, distinctive wedging marks and visible limestone and iron-rich inclusions.

The fabric is very hard, smooth and feels slightly silky with a finely irregular fracture in which numerous horizontal voids ate visible. The colour ranges within the off-white (5Y 9/2; 10YR 8/2) spectrum. Occasionally there is a thick, pink (5YR 7/4) core, and all the examples appear to have been finished with a thin self-slip or pale coloured wash. The matrix consists of abundant well-sorted quartz (A <0.lmm, occasionally <0.3mm), moderate amounts of red (occasionally black) iron-rich inclusions (R <0.l-0.3mm, more rarely 4.5mm) - some of which clearly show through the surface wash - and sparse to moderate amounts of limestone (R 0.2-0.3mm). Moderate particles of white and gold mica, more abundant on .the surface, are also present (0.05-0.3mm). The trituration grits are formed of abundant, well-sorted, milky polycrystalline quartz (SA 2.0-3.Omm) and are generally clustered around the lower two-thirds of the vessel. In thin section some trituration grits can be identified as feldspar and granite; the clay matrix is extremely calcareous.

Forms

Fig 56, Nos 317-18; Fig 142, Nos 318-19

The vessels are consistent in form, with a beaded lip and a deep, downward curving flange which is close to the body wall (HOF). Numbers 318 and 319 (profile not illustrated) are stamped GRATUS by the Aoste potter, G. Atisius Gratus (K Hartley, pers comm).

4.11 Italian mortaria (ITMO)

The fabric of these mortaria support a source in Campania (Hartley 1973a, 58).

Dating

Although easily recognisable, this fabric is rare, occurring mainly in pre-Boudiccan deposits or in association with later 1st and early 2nd century pottery. The quantified sherds are all from pre-Boudiccan contexts and make up 3% of all oxidized wares by weight. Hartley *(ibid,* 54) has identified two rim variants, of different dates, within this type. Most of the City examples are body sherds, but the illustrated one belongs to Hartley's type 2, dated 70-127.

*Fabric and technology

This very distinctive fabric is pale brown and micaceous, with abundant volcanic inclusions and trituration grits.

A pale brown (10YR 6/3) fabric, hard and rough to the touch, with an irregular fracture. Inclusions are frequently to *c* l.0mm, but can be larger, and are set in a fine, micaceous and calcareous clay. Most prominent are abundant volcanic rocks, augite and volcanic glass (A <5.0mm) and dark mica (0.2-4.0mm); feldspars are also common (A, SA <5.0mm). More moderate are quartzite and polycrystalline quartz (SA, A 1.5-4.0mm) and reddish-brown iron-rich inclusions (R 1.5-5.0mm). The same inclusions occur as trituration grits, where they typically fall into the larger size range.

Forms

Fig 56, No 320

This hooked-flange mortarium (HOF) is a typical example with its large diameter (480mm), plain flange rim with slight groove on the rim interior, and shallow depth. The illustrated example, probably from the City, is held by the Cuming Museum in Southwark.

4.12 Rhone Valley mortaria (RVMO)

A central Gaulish origin is suggested for this fabric type, as many examples have been noted among the material from the Roman town of St Romain-en-Gal, near Vienne, Rhone, where pottery production is known. The large numbers of finds from the town indicate that it is near the main production area of RVMO (P Tyers, pers comm).

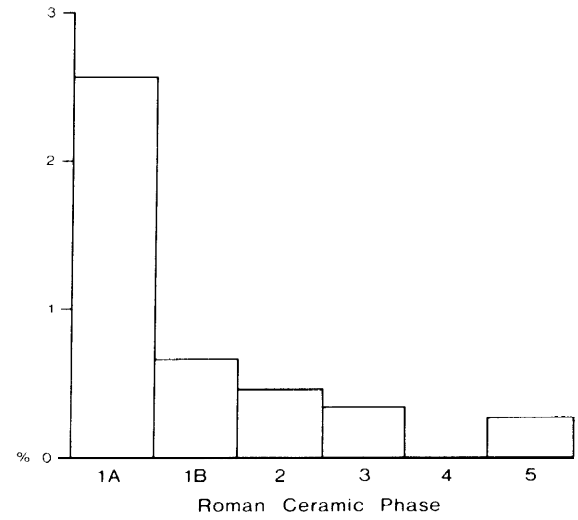


Fig 57 Bar graph of Rhone Valley mortaria as a percentage of all oxidized wares by weight

Dating

Fig 57

The type is dated to c 50-85 by Hartley (1985a, 86). It is sparse in the City, with most examples coming from pre-Boudiccan levels. Approximately five unused vessels were found together in Neronian-early Flavian levels at 37-40 Fish Street Hill.

*Fabric and technology

P1 5q

A very fine, dense buff or pale pink fabric with sparse but large rock inclusions and abundant gold mica.

This fabric ranges in colour from pale orange-pink (7.5YR 8/4) to cream (10YR 9/4). The fracture is smooth or almost conchoidal, and hard in texture, sparsely tempered with poorly sorted quartz and rock fragments (A, SA 0.50-3.0mm) set in a micaceous matrix. The trituration grits consist mainly of well-sorted quartz, feldspar (A 0.30-1.0mm) and mica (<0.5mm). Thin section analysis revealed compound granitic rock fragments. Massive granitic rock fragments in one section were not heavily weathered, suggesting the clay source was near the parent rock (A Vince, pers comm).

Forms

Fig 59, Nos 321-2

The form is uniform, with a prominent bead rim, slightly undercut internally, and a hooked flange which may be flattened at the top (HOF). The spout is formed by pulling the beading forward, and the internal surface is distinctly scored with numerous small trituration grits, suggesting that they were applied while the vessel was being turned. Sparse grits are occasionally present on the flange.

4.13 Rhineland mortaria (RHMO)

This category includes a number of different mortarium types which occurred in the City during the 1st and 2nd centuries. They are considered together because they are likely to have shared a source in the Rhineland. As a group they occur in sparse numbers; individually they are rare.

RHMO-2554

The source of these mortaria was certainly the Rhineland, perhaps near the Eifel region (K Hartley, pers comm).

Dating

Fig 58

The type occurs in pre-Boudiccan and Flavian contexts.

*Fabric and technology

P1 5r

A yellow fabric with abundant red argillaceous inclusions, both mixed throughout the clay and as trituration grits.

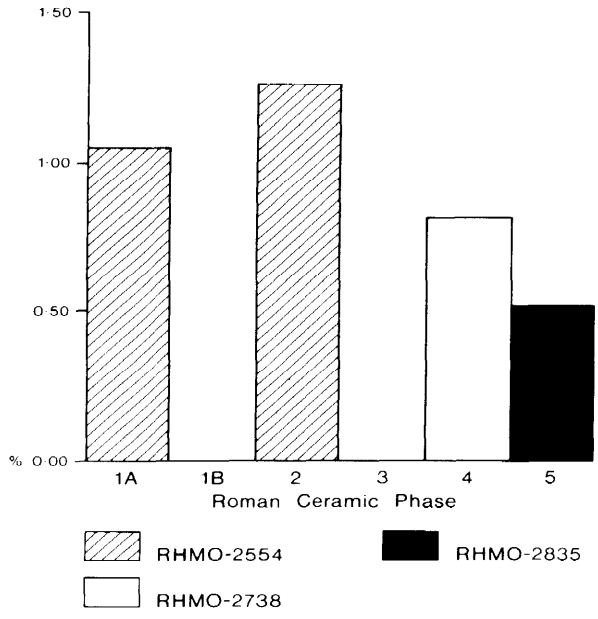


Fig 58 Bar graph of Rhineland mortarium fabrics as a percentage of all oxidized wares by weight

The fabric is typically creamy-yellow (10YR 8/4) with a darker (10YR 7/6) exterior surface. The vessels are hard and rough in texture, containing numerous inclusions of reddish-brown fragments (I, SA 0.1-4.0mm), including siltstones and rare fine-grained sandstone, clay pellets and grog. The calcareous matrix is composed of silt-sized and, rarely, larger quartz (SA, A <0.1mm), with some white mica. Coarse trituration grits (3-0-5.0mm>) are in a similar range as the inclusions. Thin sectioning reveals a white groundmass with few inclusions except for red lenses of clay. The red clay contains more inclusions, including quartz, plagioclase feldspar, siltstones and ferro-magnesian minerals of igneous origin.

Forms

Fig 59, No 323

This distinctive mortarium equates to Cam 194 and has a characteristic short, thick flange and a spout which barely projects (HOF). The rim has an undercut internal bead.

RHMO-2738

Dating

Fig 58

Only one example has been noted to date, from a Hadrianic deposit.

*Fabric and technology

A sandy, buff fabric with an abrasive surface resulting from protruding inclusions.

A cream (5Y 9/2) to buff (2.5Y 9/2) coloured fabric which is hard and rough in texture. The hackly fracture reveals moderate inclusions of well-sorted quartz, feldspar and rock fragments (R, SA 0.3-1.0mm), set in a slightly micaceous, calcareous matrix with occasional large inclusions of limestone. The vessel interior is gritted

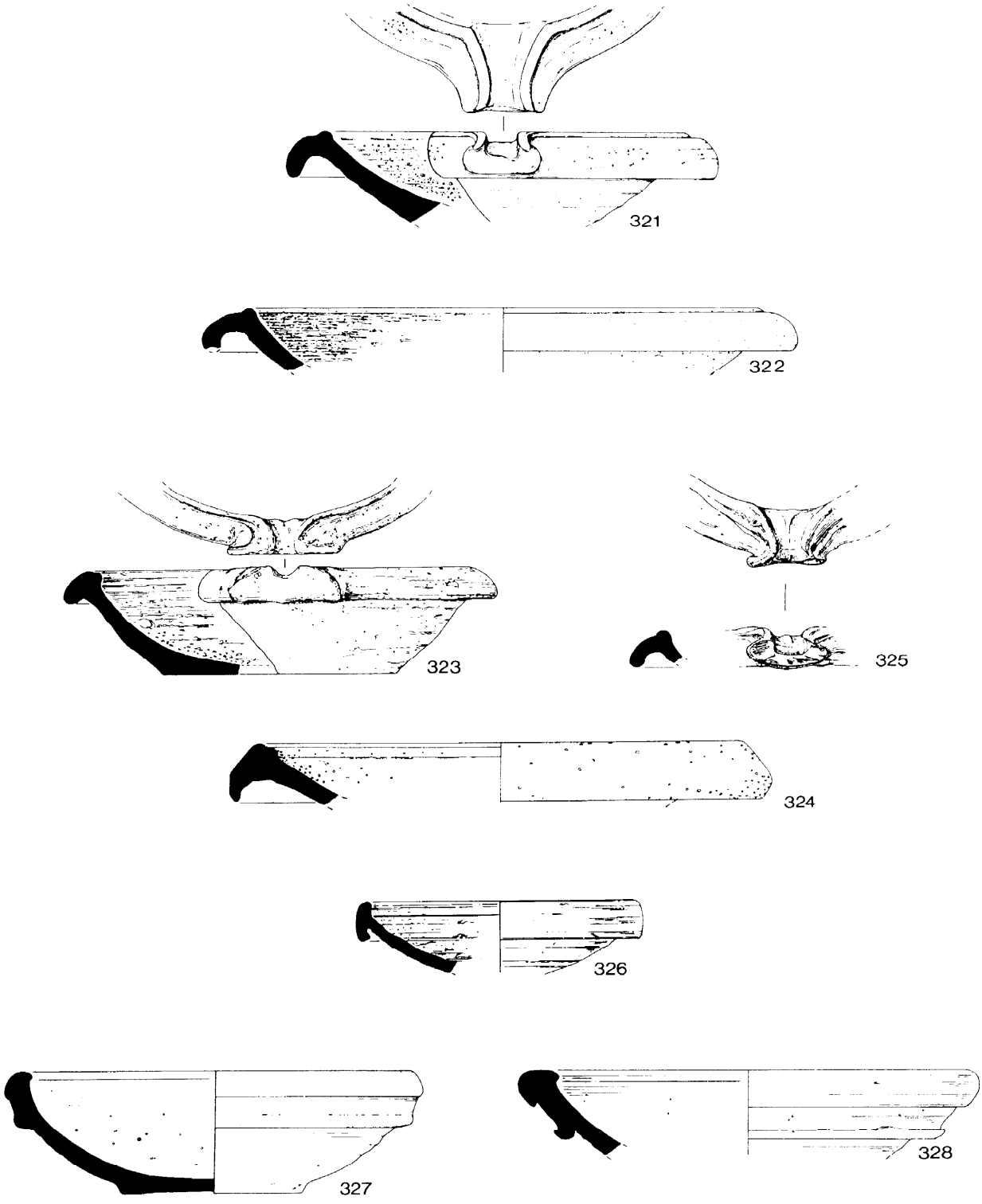


Fig 59 Rhone Valley mortaria, nos 321-2. Rhineland mortarium fabnk 2554, no 323. Rhineland mortarium fabric 2738, no 324. Rhineland mortarium fabric 2835, nos 325-6. Mortarium fabric 2625, no 327. Mortarium fabric 2669, no 328 (Scale 1:4)

with similar inclusions (SA 0.3-2.0mm) and some gold mica (<0.3), which occasionally extends over the flange. In thinsection the rocks can be identified as granite, siltstone and quartzite.

Forms

Fig 59, No 324

The vessel (HOF) has a flattened, undercut internal bead. Its flange is distinctively high and drooping, and may be a precursor of the later hammer-head flange.

RHMO-2835

This group, clearly distinguishable from the 1st century Rhineland mortaria (RHMO-2554), is more comparable in fabric, and in some cases form, to the broad range of late 2nd/early 3rd century Rhineland mortaria present at New Fresh Wharf (Richardson 1986, 112).

Dating

Fig 58

This type is rare and occurred in the early Antonine period.

*Fabric and technology

A pale, hard fabric with abundant multi-coloured quartz inclusions.

A hard, slightly rough-textured fabric with irregular break; off-white (2.5Y 8/2) in colour with very pale brown (10YR S/3) surfaces. The main inclusions are moderate to abundant well-sorted quartz, often roseate in colour (R, SA 0.3-0.4mm, occasionally <0.7mm), with sparser limestone and rocks (R, SA <2.0mm) and rounded reddish-orange or black iron-rich inclusions (0.1-0.4mm). Fine white mica is also noticeable in the surface. Quartzite and iron-rich siltstones can be identified in thin section.

Forms

Fig 59, Nos 325-6

Two types of mortaria have been identified in this fabric, hooked flanged (HOF, 325) and hammer head (HAM, 326). The hooked-flange mortarium has a bead rim which is slightly undercut internally and a shallow hooked flange with a barely protruding spout. The hammer head has a slight beading on the rim, with a nearly upright, undercut flange. There are no apparent trituration grits. The latter form is similar to Rhineland mortaria dated to the late 2nd-early 3rd century from New Fresh Wharf (Richardson 1986, I.69-I.72).

4.14 Unsourced Imported mortaria

MORT-2625

Dating

The type is represented by a single vessel from a pre-Boudiccan level, where it accounts for 1% of all oxidized pottery by weight.

*Fabric and technology

A fine, pink, sandy fabric with abundant flattened red clay pellets on the surface, possibly indicating use. It is somewhat similar to RHMO-2554 and may indicate a shared source.

This smooth fabric is pink (7.5YR 8/4-7/4) throughout. It is fairly hard to the touch and the finely irregular fracture reveals abundant and poorly sorted quartz (SA 0.2-0.5mm), iron-rich inclusions (*c* 1.0mm, but ranging 0.l-2.0mm), sparse limestone (SA <0.5mm) and rare white mica. Thin section reveals a calcareous clay, with numerous opaques and some clay pellets. Large clay pellets, sometimes silty, are more prominent on the interior surface (<4.0mm) and may have served as trituration grits.

Forms

Fig 59, No 327

This wall-sided mortarium has an internally beaded lip and a rounded body wall (WAL).

MORT-2669

Dating

Two vessels are known in this fabric, from Neronian contexts, and quantified sherds account for <1% by weight of all oxidized wares during the late Neronian-early Flavian period.

*Fabric and technology

A fine, slightly sandy fabric with discoloured surfaces. The fabric may be allied with NFSE (Section 4.8).

A soft fabric, which is rough to the touch, varying in colour from light grey (10YR 7/2) to white (10YR 8/2) with darker, more discoloured surfaces ranging from grey (2.5YR 5/0) to white (2.5Y 8/2). The finely irregular fracture reveals a calcareous matrix of abundant discoloured (grey/black) limestone (SA <0.30mm, but occasionally <0.7mm) with inclusions of sparse to moderate grey or milky quartz (R, SA 0.2-0.5mm) and red and black iron-rich fragments (I 0.2-1.0mm, or occasionally <1.5mm). Rare white mica (0.1-0.3mm) is present, but is more noticeable on the surface. There are no obvious trituration grits.

Forms

Fig 59, No 328

A wall-sided mortarium (WAL) with a thick, beaded lip, slightly undercut both inside and out. The lower wall is hooked but, as the vessel is rather crudely made, the detail of this form is likely to vary.

5. Reduced wares

5.1 Highgate Wood wares

These wares are the only locally produced types for which there is kiln evidence. Located at Highgate Wood, approximately 10km from the City, ten kilns and some associated features in two nearby areas were investigated in the late 1960s and early 1970s (Brown & Sheldon 1969a, 1969b, 1970, 1971, 1974). The pottery sequence and types have been extensively discussed by Tyers (1977), Davies (1983), and Davies and Tyers (1983a).

Four pottery phases associated with three major fabric types have been identified at the kiln site, with some overlap in their production. Transitional fabrics have also been identified and are described in detail with HWC below. Within this sequence, the development from handmade native pottery to wheelmade Romanized wares can be seen (Brown & Sheldon 1974, 224). Phase I is represented by a chaff and grog-tempered ware (Highgate Wood A, HWA) and a grog-tempered fabric (Highgate Wood B, HWB), both handmade and in a 'Belgic-derived' tradition and dated *c* 50–60. Recent excavations at Pinner's Hall (GWS89) have revealed the first sherd of HWA from City deposits. Phase II *(c* 70–100) is exemplified by HWB, a predominantly 1st century fabric. Finally, a Romanized, wheelmade sandy grey ware (Highgate Wood C, HWC) was produced from *c* 70–160, although production was not devoted exclusively to HWC until *c* 80–100 onwards. During this phase, firing technology seems to have changed from simple kiln ditches to updraught kilns. HWC spans Phases III *(c* 100–40) and IV *(c* 140–60) at the kiln site, with different forms produced for each phase. HWB was a major supplier to London, and was the precursor of the later 1st and 2nd century grey ware industry (HWC). A range of Highgate Wood wares is illustrated on Plate 2.

The HWB assemblage demonstrates the continuity of essentially pre-Roman traditions of manufacture and style into the post-conquest period. However, it includes increasing numbers of vessels, such as cups and platters, dictated by the requirements of Roman cuisine and taste, including red-slipped vessels (HWBR) imitating finer Continental wares. The ability of the industry to adapt to new tastes and market needs is also apparent by the change in the HWC form repertoire through time, including reeded-rim bowls similar to those produced at Verulamium and copies of samian and black-burnished ware types.

Although a good relative sequence was established from the kiln sites, the City is important in providing external dating evidence, which corroborates some of the general trends apparent from the kiln site. All types which are quantitatively important at the kiln site are represented in London and *vice versa*. The majority of forms can be paralleled at the kilns, but rare divergent ones (eg Fig 69, 406; Fig 70, 412; Fig 72, 448, 450) are also present. They can be included with the Highgate material on the basis of tradition and fabric, although they presumably derive from unknown kilns.

Highgate Wood B ware (HWB)

Dating

Fig 60

HWB, predominantly 1st century, is the most abundant coarse ware in pre-Boudiccan contexts, declining rapidly in importance after *c* 100.

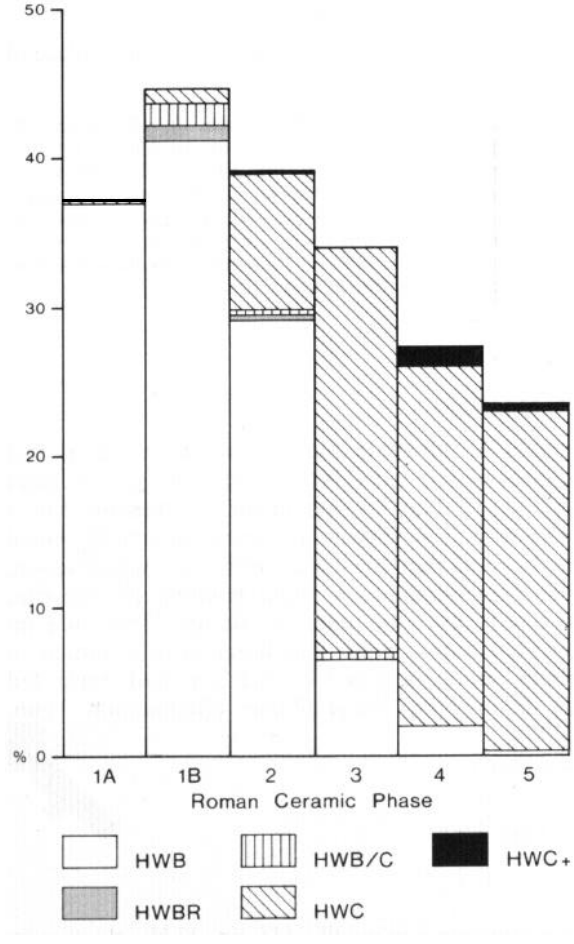


Fig 60 Stacked bar graph of Highgate Wood fabrics as a percentage of all reduced wares by weight

***Fabric and technology**

P1 5s

A reduced, grog-tempered fabric, also containing moderate quantities of organic inclusions. The early HWB products are substantially handmade, often featuring finger marks on the interior, especially towards the base (Fig 61, 329). Many vessels are burnished, smoothed or trimmed near the rim and jars are also finished near the base (see 329), but vessels are otherwise unfinished. Later products, particularly the bowls, appear to be either entirely made or finished on a slow wheel.

The fabric is somewhat lumpy and soapy in texture, hard with an irregular fracture. It is abundantly tempered with buff, orange, grey, red or brown grog (0.2-2.0mm, or occasionally larger) and organic fragments (F <l.0mm). Surface colour varies from light to dark grey or grey-brown (2.5Y 6/0-4/0; 2.5Y 5/2-4/2), and is frequently mottled. The core is often light grey (2.5Y 6/0). Occasional fine silt, larger quartz, limestone and white mica are also present. Mica is most prominent on burnished or wiped surfaces.

The absolute quantities of inclusions and the quality of firing vary considerably from one vessel to another, ranging from hard and brittle to soft and crumbly. Examples from the kiln site are often orange or orange-brown and this may have resulted from inadequate firing since the same colours do not appear on material from the City.

Forms

HWB comprises a fairly restricted range of jars, bowls/dishes and lids, including some Romanized forms.

Jars Figs 61-4, Nos 329-62 Bead-rim jars (IIA, 329-46) were the most common HWB type from the pre-Boudiccan period, and were especially important in the late Neronian and Flavian. Generally, they have an upturned, rounded rim which is burnished externally. Rim variants include more angular ones (336), which may be undercut or thickened internally, but differences do not appear to be chronologically significant. Undecorated vessels are most common, but examples with grooves or cordons (340-2) and complex burnishing (343-6) are also present.

Storage jars with rolled rims (SJ, 352-9) form a consistent part of the HWB assemblage throughout the 1st century, and come in two size ranges (cf 352-6 with 357-9). Some have burnished decoration on the shoulder, often in the form of grouped acute lattice (354-6) or, more rarely, with incised wavy lines on the neck (359). A less common and smaller storage jar (360-2), with a narrow neck and slightly everted rim, occasionally features burnished lattice on the shoulder (360). The grouped lattice is not paralleled at the kiln site and could represent another centre, possibly in Hertfordshire where the style is quite common (P Tyers, pers comm).

The majority of HWB necked jars (NJ, 349-51) have slightly beaded rims and round-bodied walls, sometimes with rather elaborate combinations of cordons and grooves (351). Rare examples of the necked, round-bodied IIB (347-8) are also present. HWB necked jars are rare, in contrast with HWC where they are the dominant vessel form; although they occurred throughout the main period of production, they were most common in the late Neronian and Flavian periods.

Bowls and dishes Figs 64-6, *Nos 363-86* HWB bowls, like those in other fabrics, became more common towards the end of the 1st century, with most occurring during the late Neronian and Flavian periods. The most common type is the round-bodied IVF (363-79), which also occurs in HWC. Rims are either rounded (eg 365), flat (366), upturned (372), or very rarely undercut (367). As yet, there is insufficient data to attach any chronological significance to the variations. The rims can be sub-divided into three broad groups according to the number of grooves on top: those without grooves; single groove; multiple grooves. The single-grooved variety (eg 363) is perhaps most frequent, the plainer types (eg 365) less so. Sherds with burnished decoration are occasionally noted (373-8). A tripod variant of IVF (379) can rarely be identified, as rims and body sherds are identical to examples without feet.

Shallow bowls or dishes form only a small part of the HWB assemblage, but many have a slight lid seating (380-4). These dishes are reminiscent of the plain-rim NJ and the rim is similar to 'orlo bifido' ones, probably imitating Pompeian Red ware. Another, with burnished interior (386), has a bead rim. A final illustrated example is a bowl or dish with a heavy, square rim, decorated with vertical burnishing (385). Finally, some forms represented by body sherds (not illustrated) imitate Gallo-Belgic or samian prototypes, similar to Cam 212-15.

Other forms Fig 66, Nos 387-9 Like bowls, lids were most common in the late Neronian and Flavian periods. Their use together is supported by similar rim diameters for the kiln material (Davies & Tyers 1983a, 13). Lids with flaring (388) and domed (387) profiles appear to be equally common, whereas the flatter 389 is a rare variant.

Highgate Wood Red-slipped ware (HWBR)

This sub-group of the standard HWB fabric, with a burnished red slip, appears at both the kiln site and in the City.

Dating

Fig 60

At the kiln site, red-slipped wares are found in a number of secure Phase II contexts *(c* 70- 100). In the City the sparse fabric was most common in the late Neronian-early Flavian period, and continued to be diagnostic in reduced quantities throughout the Flavian period. One rare example (Fig 66, 395) occurs in the transitional HWB/C fabric.

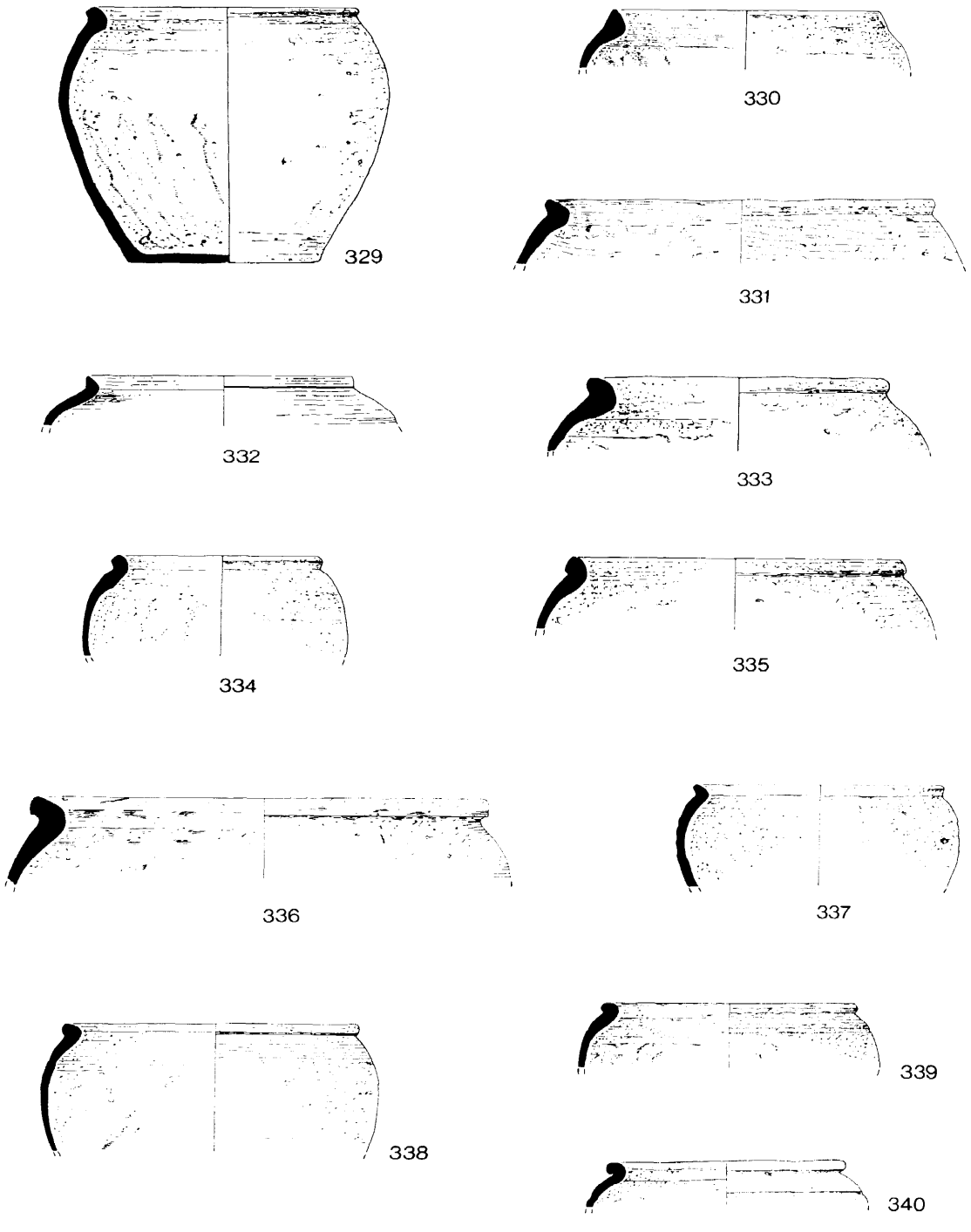


Fig 61 Highgate Wood B ware, jars, nos 329-40 (Scale 1:4)

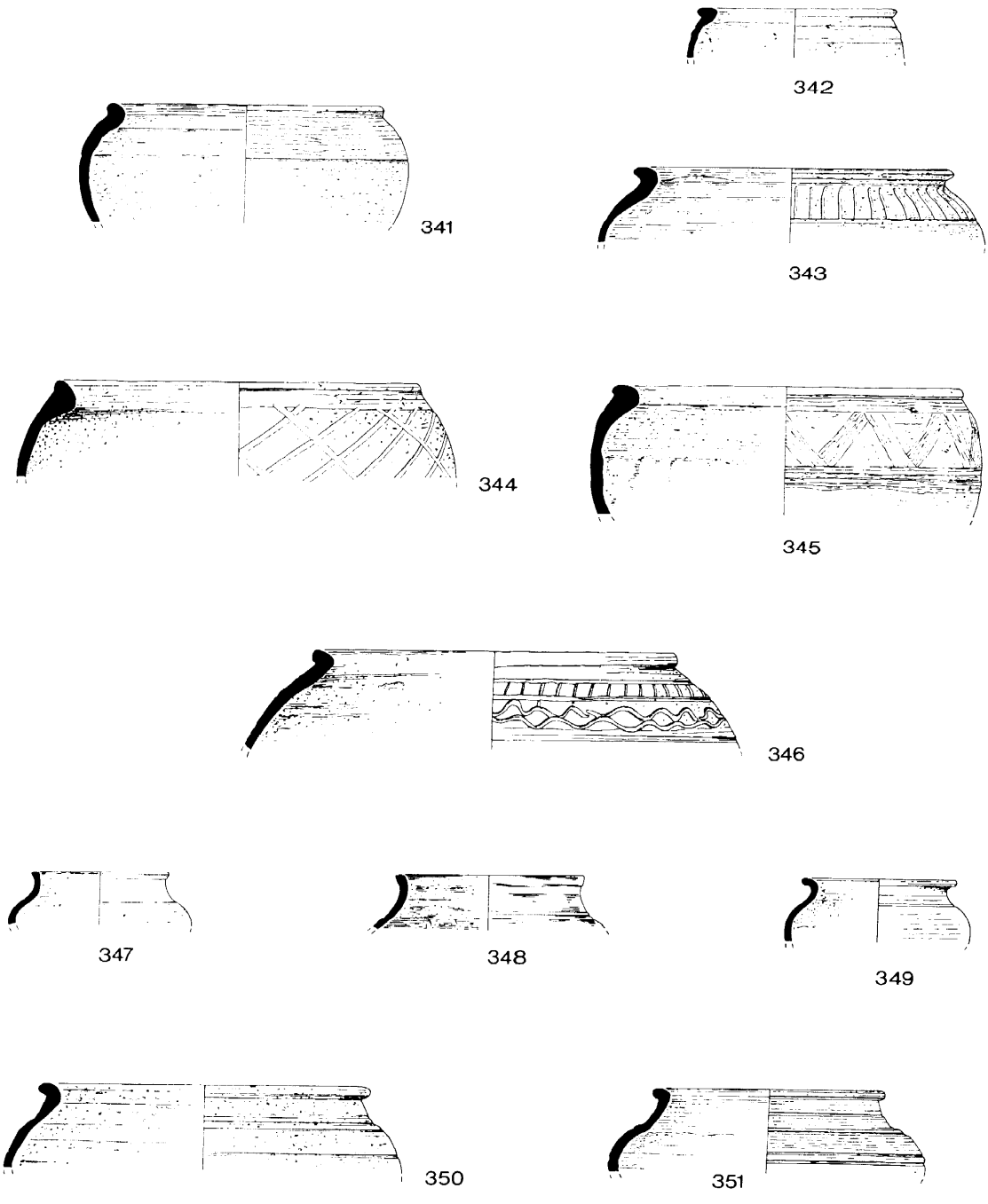


Fig 62 Highgate Wood B ware, jars, nos 341-51 (Scale 1:4)

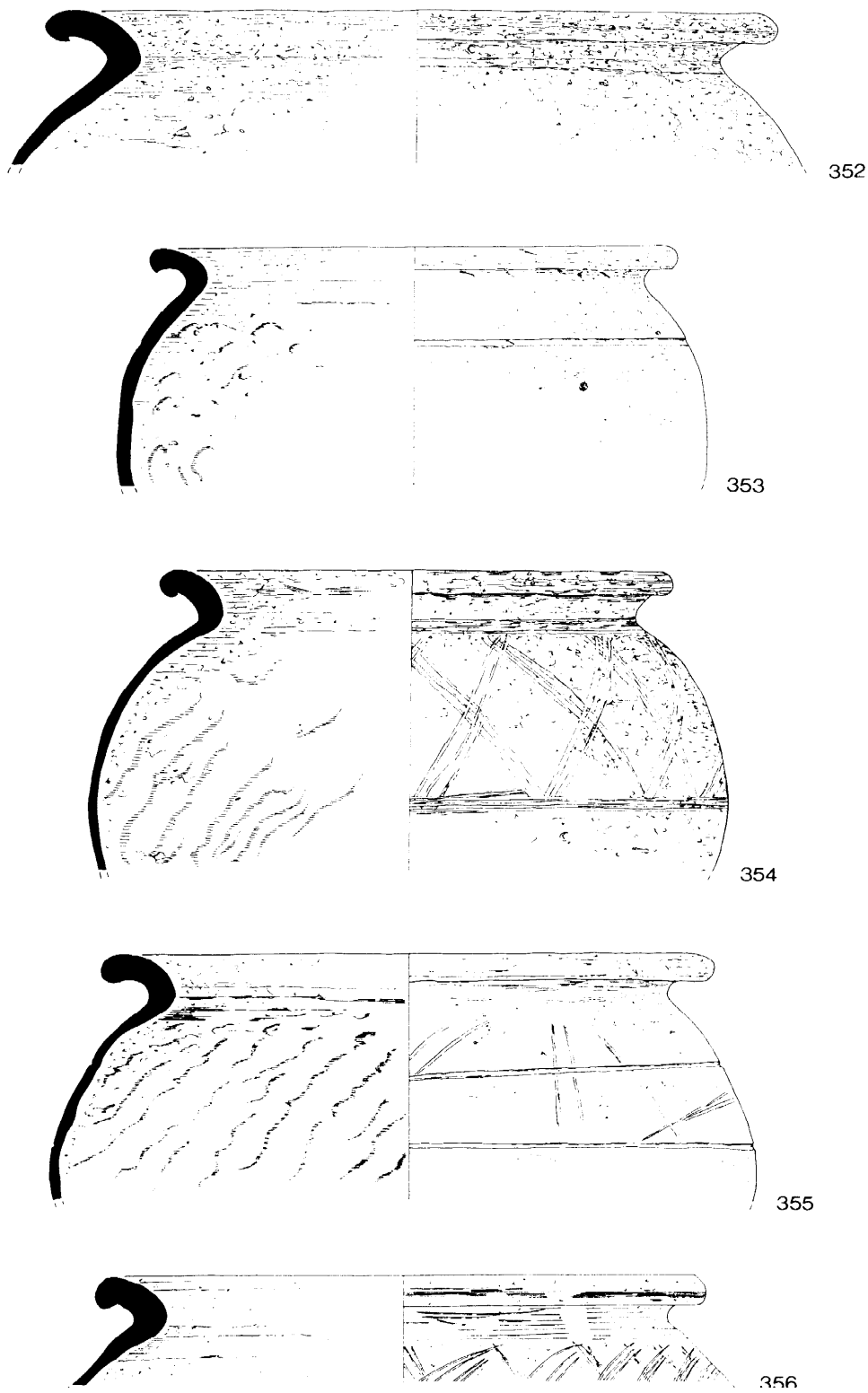


Fig 63 Highgate Wood B ware, jars, nos 352-6 (Scale 1:4)

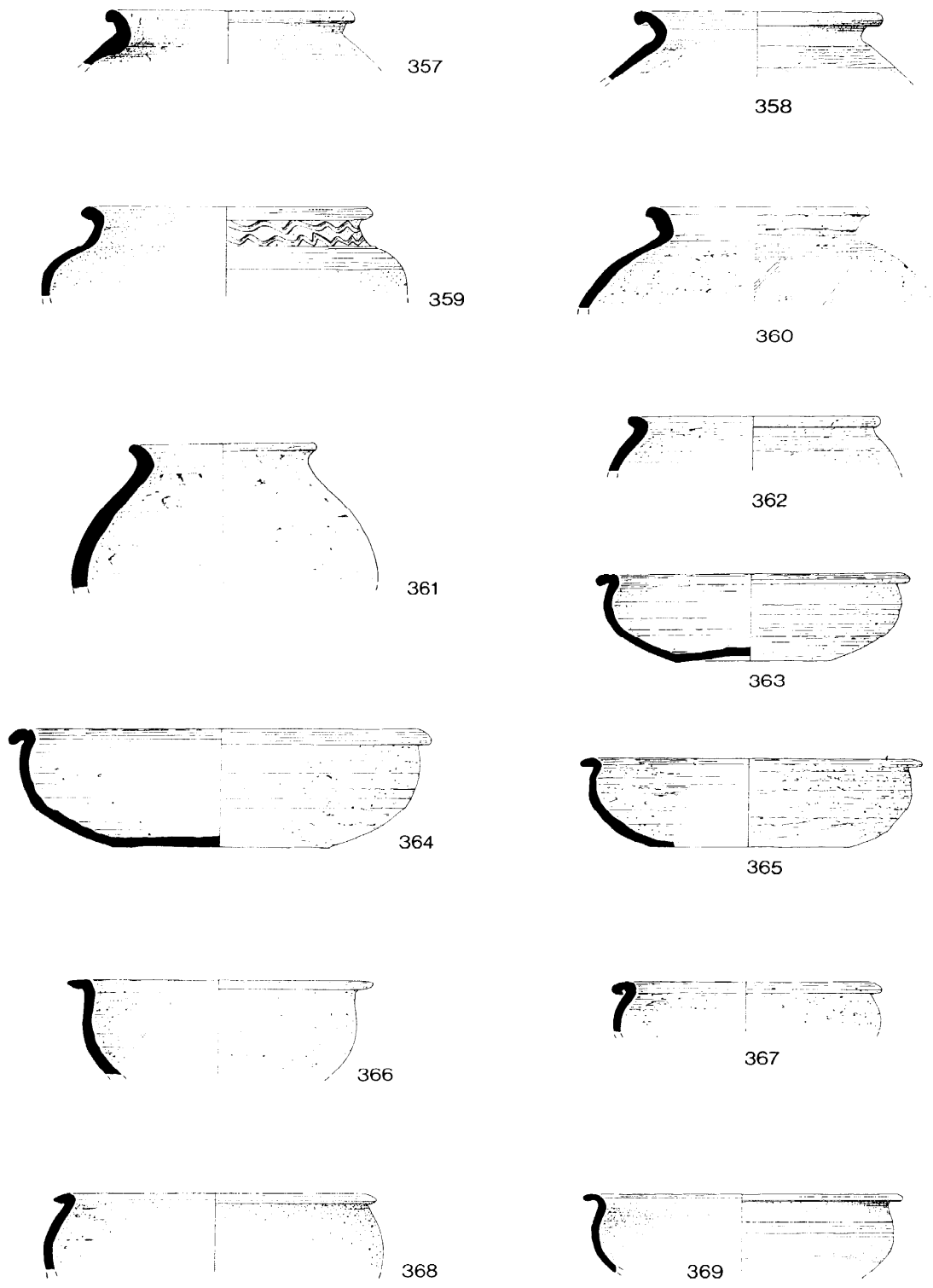


Fig 64 Highgate Wood B ware, jars, nos 357-62; bowls/dishes, nos 363-9 (Scale 1:4)

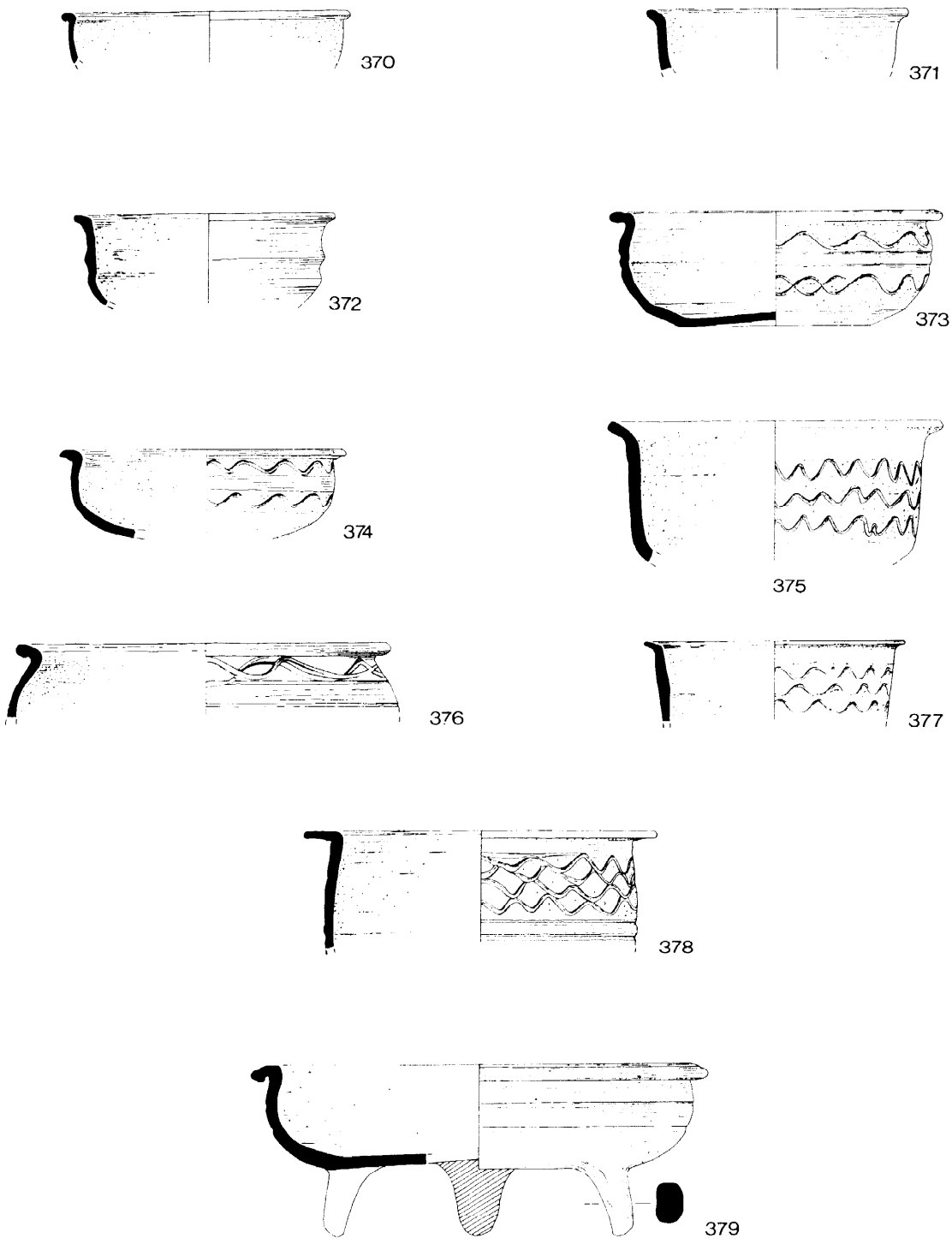


Fig 65 Highgate Wood B ware, bowls/dishes, nos 370-9 (Scale 1:4)

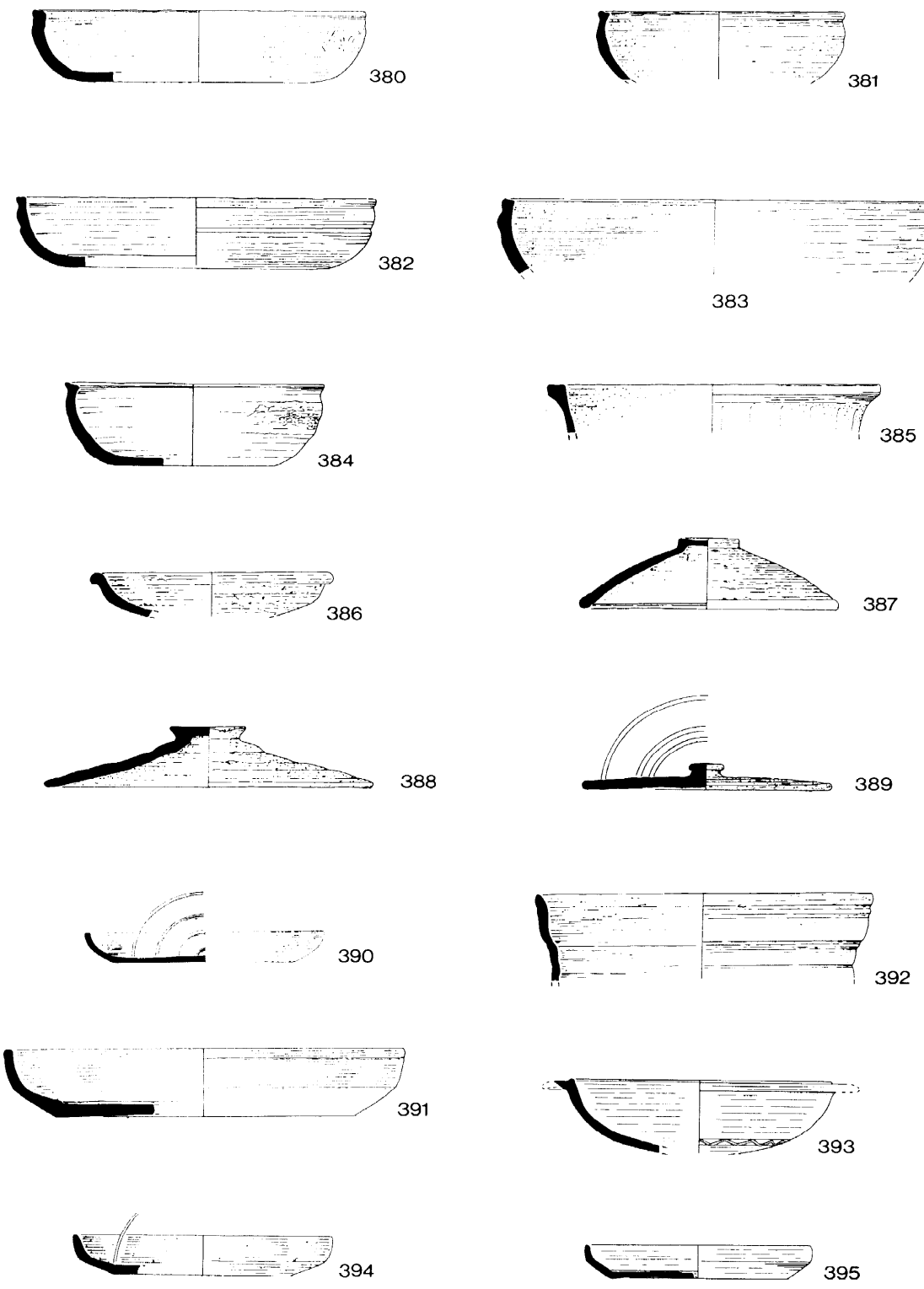


Fig 66 Highgate Wood B ware, bowls/dishes, nos 380-6; other forms, nos 387-9. Highgate Wood Red-slipped ware, bowls/dishes, nos 390-5 (Scale 1:4)

Forms

Bowls and dishes Fig 66, Nos 390-5 Plain-rim dishes are the most common form (IVJ, 390), imitating the classic Pompeian Red ware dish, complete with concentric circles on the inner surface. Other vessels in this group have a bead rim (39 1). Related to these, are dishes with a moulded exterior (VB, 394-5).

A campanulate bowl (392) is particularly distinctive, probably distantly related to the Gallo-Belgic pedestal beakers of Cam 76. No complete profiles have been found, but a few raised footrings may belong to this type. A rare flanged bowl (393) with burnished wavy lines probably imitates the Rt 12 samian form.

Highgate Wood C ware (HWC)

Dating

Fig 60

Evidence from the kiln site suggests that the main production of HWC was between 100 and 140, with some probably continuing to 160 (Brown & Sheldon 1974, 224). These trends are both supported and clarified by evidence from the City. At Newgate Street there are rare sherds in pre-Boudiccan assemblages, but this is not paralleled elsewhere, and they may be intrusive. Instead, this abundant fabric began to appear very sparsely in the late Neronian-early Flavian period, becoming more important during the Flavian and increasing during the early 2nd century. Thereafter it remained important, declining only minimally, and confirming its continued production during the early Antonine period. The date of the demise of the industry as a whole is uncertain, but the fabric is common in the early Antonine pit at 28-32 Bishopsgate, and at Southwark (Bird *et al* 1978, eg Group F28 figs 157-62, 1138-224). A small assemblage from Leadenhall Court, where HWC comprises 15% of all reduced wares by weight, indicates that it was still being used c 160-80 (Symonds & Tomber 1991, 64). Its absence at New Fresh Wharf in the late 2nd-early 3rd century (Richardson 1986) indicates that production had ceased by 180-200.

A number of fabric variants which are chronologically significant are also present. HWB/C is a sparse fabric, transitional between HWB and HWC, which peaked during the late Neronian-early Flavian period. It, too, can be identified at the kiln site. Four vessels in this corpus (Fig 66, 395; Fig 69, 396; Fig 71, 433; Fig 72, 451) occur in HWB/C; some of their forms are also transitional. HWC- 1402/3 (combined with HWC on Fig 60) is moderately common and constituted a significant proportion of the Highgate C assemblage in the late Neronian-early Flavian (28%) and Flavian (10%) periods, declining in the Trajanic (3%). It occurs primarily as beakers (IIIB, IIIE), prevalent during the late Neronian-early Flavian period. Hadrianic production shows a slight change in character, reflected by a final and sparse to moderately common fabric variant, HWC+, which is associated with the manufacture of imitation black-burnished vessels. At the kiln these types, in HWC+, were restricted to Phase IV (c 140-60; Davies 1983, fig 2), but the City evidence indicates an earlier starting date; while Flavian occurrences must be intrusive if associated with black-burnished style, there are also rare Trajanic sherds (not visible on Fig 60).

***Fabric and technology**

P1s 5t-w

A very fine textured grey ware, with abundant, well-sorted quartz. Vessels in HWC are entirely wheelmade and a white or light grey (2.5YR 8/0-7/0) iron-free slip is commonly applied to the upper parts of certain jars (IIE) and beakers. This slip is then burnished, in most cases before firing.

The typical HWC fabric (Pl 5u) is hard with a finely irregular fracture and abundant, densely packed and well-sorted quartz (SA 0.1-0.15mm, but occasionally <0.25mm). This constitutes approximately 30% of the fabric by volume, and lends a slight roughness to the surface of the vessels where they are not smoothed. Sparse black iron-rich inclusions (SA <0.1mm) and fine, white mica are also present. Mica is more prominent on the surface of vessels, especially where they have been burnished or smoothed. In colour it is universally a dull, medium dark grey (7.5YR 6/0-5/0). At the kiln site, examples from the earliest HWC production vary in colour from reddish-brown to light grey, and this is occasionally seen in City vessels. Two of the HWC variants have the same matrix. The transitional HWB/C (Pl 5t) vessels were apparently made on a slow wheel. The fabric is coarse textured and often grey (2.5Y 4/0) in colour, and both sand and grog (to *c* 1.5mm) inclusions are present.

More common is a variant of HWC containing additional sparse to moderate quantities of larger, somewhat rounded, quartz (<0.5mm). In all other respects it is identical to HWC. This fabric, classed as HWC+ (Pl 5v), is associated with forms imitating black-burnished ware, and the coarseness may be an attempt to simulate the texture of the black-burnished fabrics.

A third fabric variant has been identified from sites in the City and is referred to here as HWC-1402/3 (Pl 5w). It is generally high-fired, and includes a sparse to moderate proportion of larger poorly sorted sub-angular quartz (<0.5mm, in contrast to HWC+ which has rounded larger inclusions). HWC-1402 and 1403 differ only in their surface treatment - both are burnished on the exterior, but 1403 has a black or grey slip.

Forms

Forms comprise a limited number of jars, bowls and beakers.

Jars Fig 67; *Figs 69-70, Nos 396-412* In contrast to HWB where bead-rim jars (IIA) are the most common, there are few examples in HWC and these come mainly from the Flavian and Trajanic periods. Instead necked jars (IIB, IIC, IID, IIE, NJ) predominate throughout the sequence, although their importance in the Flavian period is in contrast to evidence from Leadenhall Court (Davies & Groves forthcoming), where jars are virtually absent; at Leadenhall this is compensated for by an increase in beakers, particularly poppy beakers (IIIF). Ever-ted-rim jars (IIF) became increasingly common from the Hadrianic period. The overall incidence of the main jar types in the quantified data is clearly illustrated on Fig 67.

Bead-rim jars occur in HWC (IIA, 397-8) and in HWB/C (396). Most necked jars can be ascribed to a

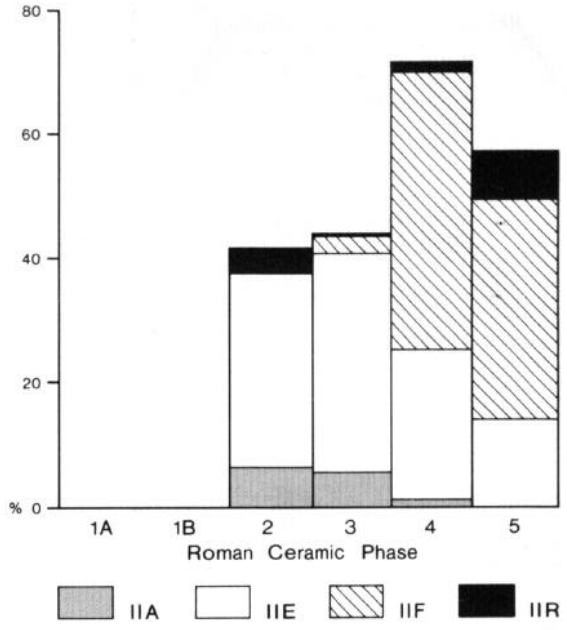


Fig 67 Stacked bar graph of the common Highgate C and C+ ware jar forms as a percentage of all HWC/C+ jars by Eves

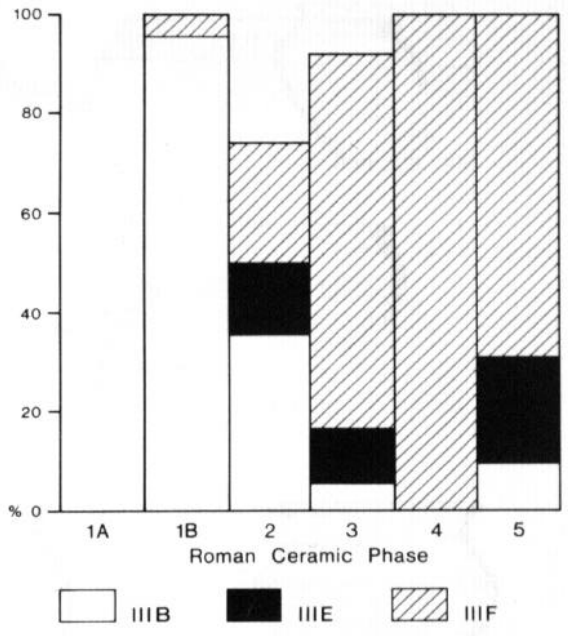


Fig 68 Stacked bar graph of the common Highgate C ware (and variants) beaker forms as a percentage of all HWC (and variants) beakers by Eves

standard type. The most common is the IIE (401-7), almost all of which are slipped and burnished on the exterior and over the usually thickened or beaded rim. They were especially common during the Flavian and Trajanic periods. It is the dating of this necked jar type that is particularly called into question by the evidence from Leadenhall Court, where it is absent. All the examples among the quantified data are from Newgate Street and they may result from slumped stratigraphy. Numbers 402 and 403 are the commonest examples of the IIE, whereas 407, without the zone of decoration, is a rare variant. The jars feature a characteristic footring with a single concentric groove on the underside. Examples with burnished lattice (405-6) reflect the influence of black-burnished wares.

Everted-rim jars (IIF, 408–9) generally feature a rather upright everted rim, occasionally with a slight bead on the lip. The vessels are slipped and burnished over the lip to the shoulder where the body is decorated with an acute burnished lattice, virtually identical to black-burnished ware forms. At the kiln site this type is confined to Phase IV *(c* 140–60) and their fabrics frequently belong to HWC+, as do a large proportion of the examples here (409). Everted-rim jars occur in small quantities in layers sealed by the Hadrianic fire horizon and are found in association with BB1 and BB2, somewhat earlier than the date of Phase IV at the kiln site, although their main importance was during the Hadrianic and early Antonine periods.

Flasks (IIR, 411) featuring a zone of burnished line decoration are rare, In general, they began in the Flavian period but most occurred in the early Antonine and these could be residual. The form is also known in London ware, dated *c* 85-130 (Marsh & Tyers 1976, fig 9, 135–7), and the two are broadly contemporary. Another example of a IIR is a variant with a grooved rim and shoulder cordon and occurs in HWC-1403 (410).

Other necked jars (NJ) are rare: 400 is an example of a carinated IIC, which predate the IIEs and are most common in Flavian and Trajanic levels; 399 is a variant of a IIB round-bodied jar with vertical burnishing in HWC-1403; 412, from a Hadrianic context, has a wide shoulder cordon, and may be residual.

Beakers Fig 68; Fig 70, Nos *413-27* Apart from beakers in HWC-1403, which were present in the late Neronian-early Flavian period, they generally occur for the first time in Flavian contexts, rapidly increased, and then remained important until *c* 150. On the whole, the illustrated vessels compare well with beakers found on the kiln site, including a rare, handled beaker (IIIE2, 422).

Three main groups have been identified and are shown on Fig 68: ovoid beakers with high shoulders (IIIB, 413–18), which are generally late Neronian-early Flavian in HWC-1403 or otherwise Flavian in date; beakers with short, everted rim (IIIE, 419–22) occurring for the first time in Flavian and continuing into early Antonine levels; and poppy beakers (IIIF, 423–7), which were present from the late 1st century, peaking in the Hadrianic and early Antonine periods. The Newgate Street assemblage is too small to provide an independently dated sequence of poppy beaker forms, but they appear to compare well with the chronology proposed for Southwark, where rims become taller through time (Tyers 1978, 64).

Beakers are generally decorated with panels of barbotine dot decoration, and it is apparent that the

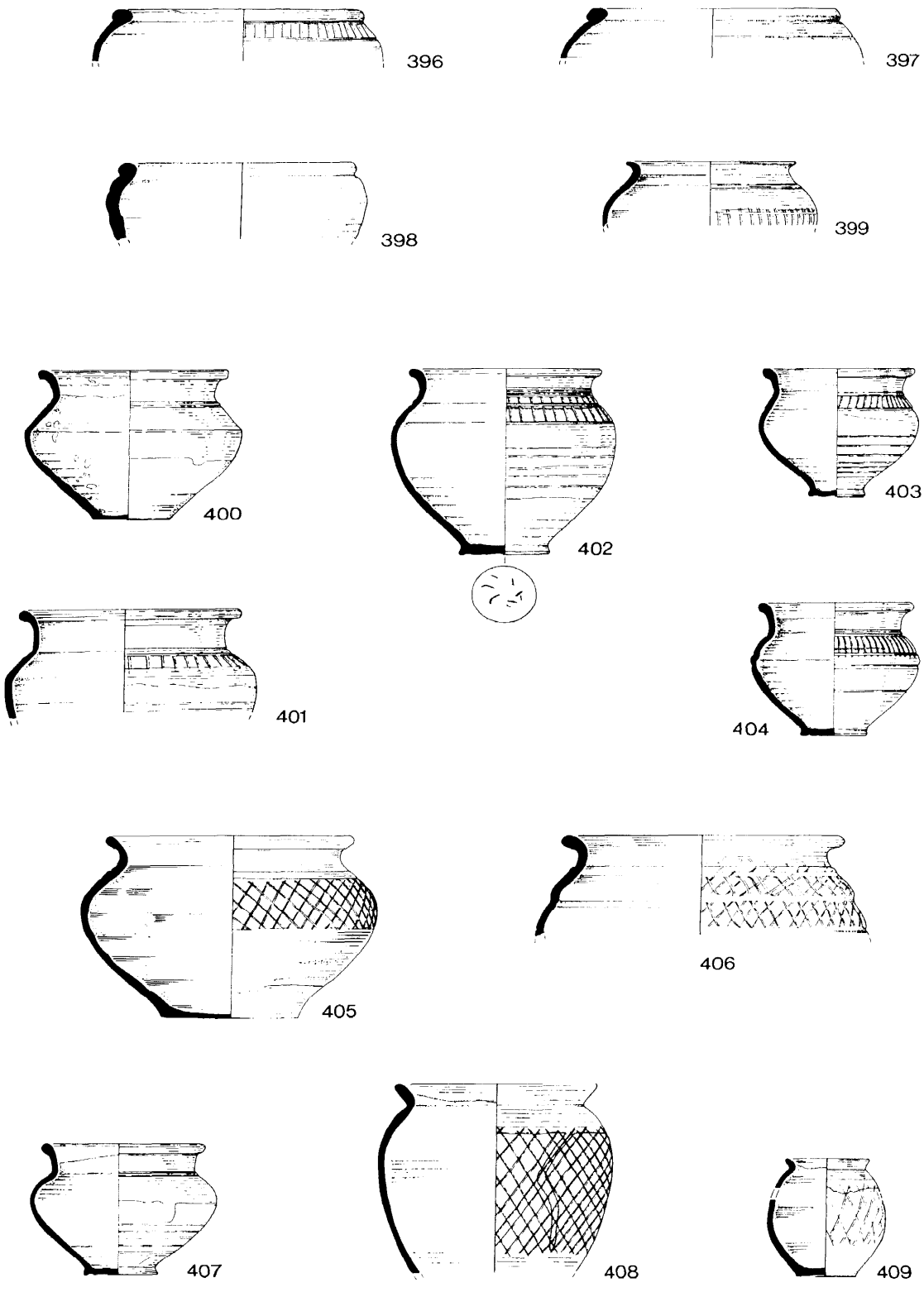


Fig 69 Highgate Wood C ware and variants, jars, nos 396–09 (Scale 1:4)

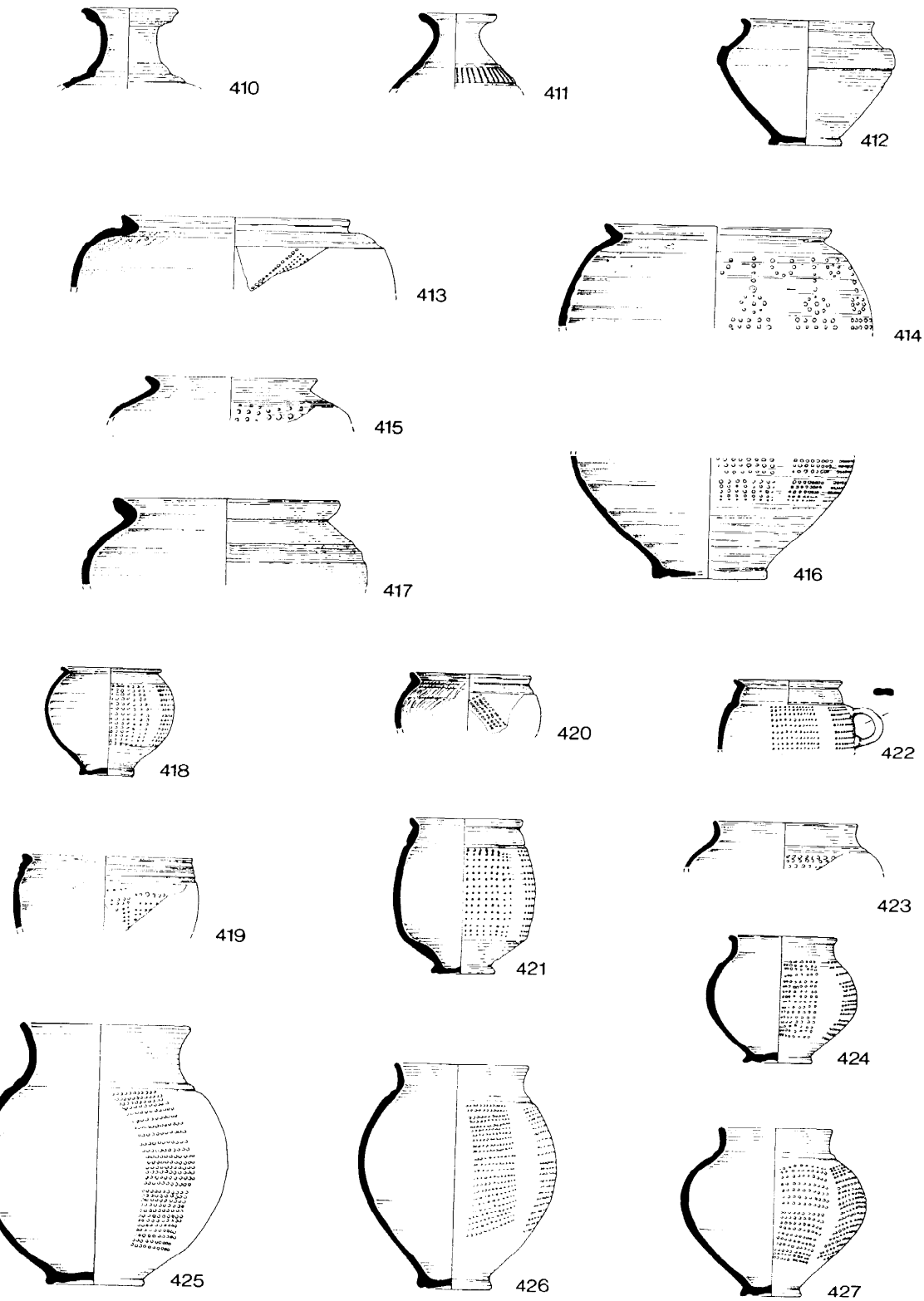


Fig 70 Higkgate Wood C ware and variants, jars, nos 410–12; beakers, nos 413-27 (Scale 1:4)

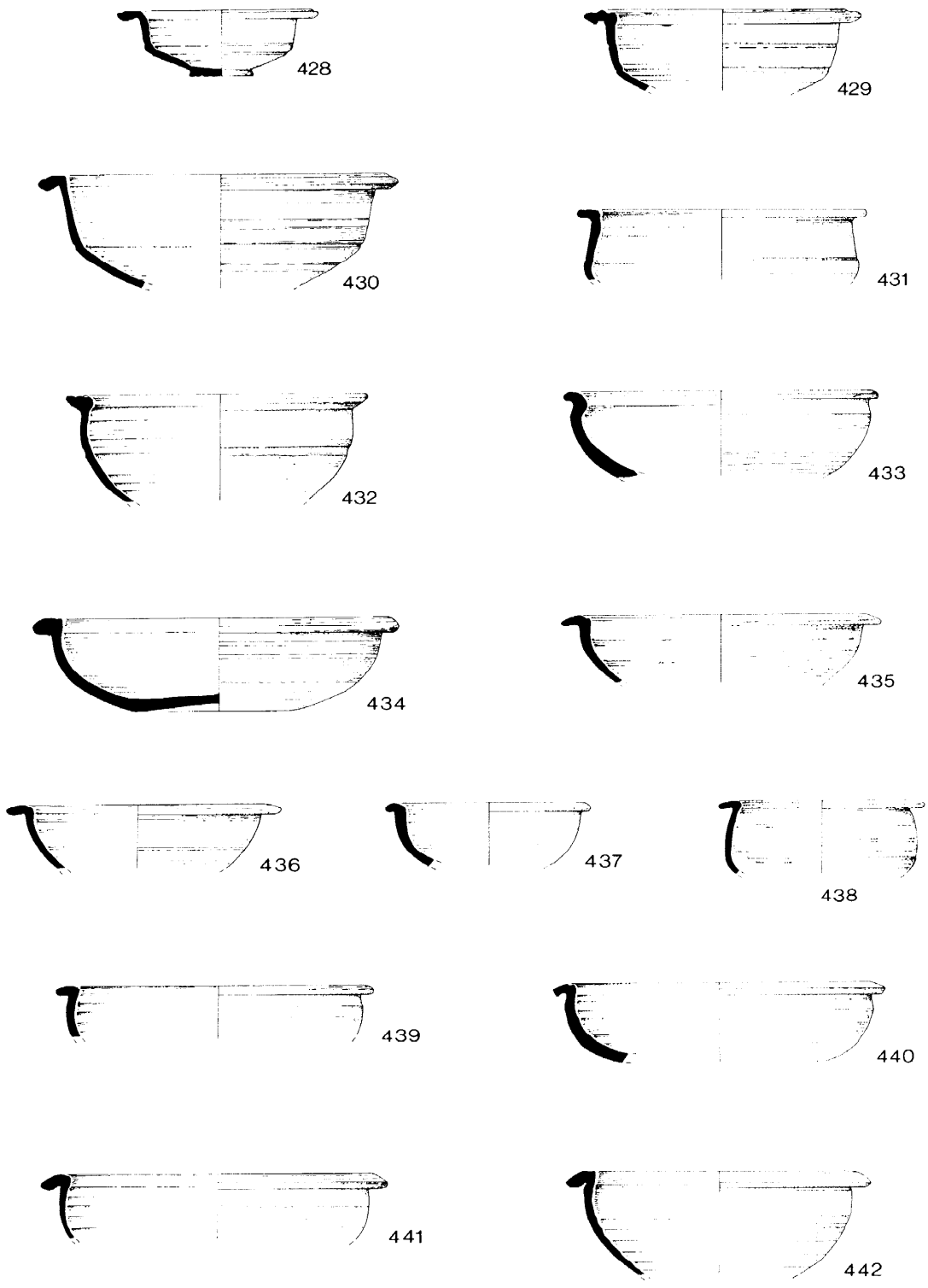


Fig 71 *Highgate Wood C ware and variants, bowls/dishes, nos 428–42 (Scale 1:4)*

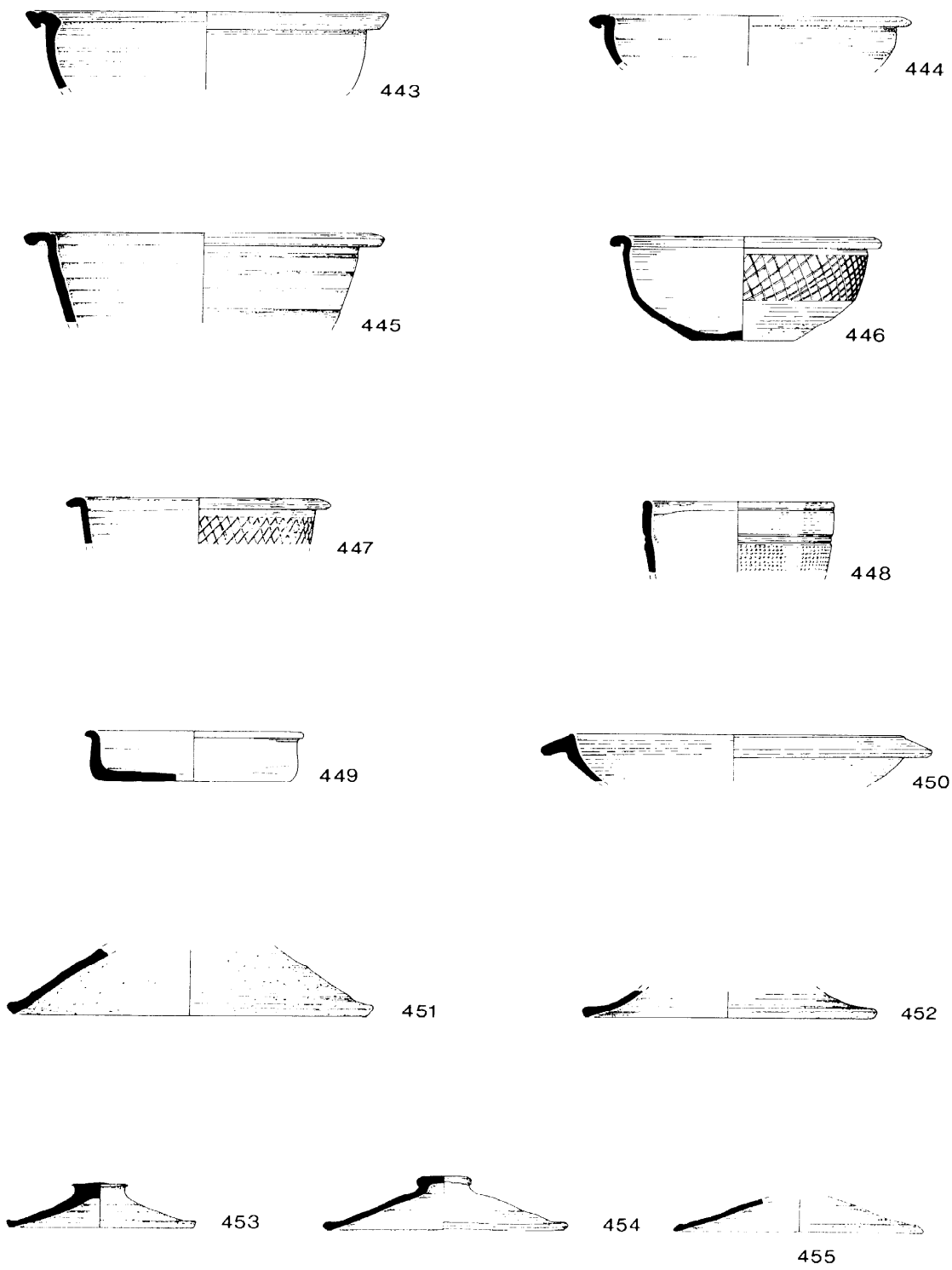


Fig 72 Highgate Wood C ware and variants, bowls/dishes, nos 443-50; other forms, nos 451-5 (Scale 1:4)

diamond shaped and more complex ring-and-dot patterns are restricted to HWC-1403 (413–14, 420). The majority of complete vessels have a characteristic base with a single concentric groove; 416 may well belong to a IIIB.

Bowls and dishes Figs 71-2, Nos 428-50 HWC bowls became common from the Flavian period and were thereafter important, with the greatest number occurring in Trajanic and early Hadrianic levels. There was a gradual decline towards the mid 2nd century when they were superseded by black-burnished wares.

HWC bowls fall into two main groups, the most common being round-bodied IVFs (433-46), which may be either shallow (eg 441) or deep (eg 442). Like their HWB counterparts, the rims are both plain and grooved. Shapes range between flat and rounded, although they are more likely to have down-bent (eg 441), hooked (eg 443) or folded (eg 434) rims. They are generally undecorated, but occasionally the body is grooved (eg 438) like HWB, or burnished, with acute lattice decoration (446). Most are dispersed throughout the main phase of bowl production. As for the HWB IVFs, the data are too small to isolate chronological patterns in most cases: exceptions are 433, an early form in HWB/C fabric from a Flavian context; 447, a variant IVF/G copying black-burnished ware from an early Antonine context; 446, also with lattice decoration, from a Hadrianic context.

The second major group, although substantially smaller than the IVFs, is moulded-rim IVAs (428-32), a type more typical of the Verulamium industry. The HWC vessels occurred from the late Neronian period and peaked in the early Antonine. This corresponds with Verulamium trends, suggesting that the Highgate potters were influenced by, or competing with, the Verulamium products.

Some additional bowl types occur as single examples. These include two imitating samian forms: Rt 12 (450), Drag 30? (IVC?, 448) and a shallow bowl or dish with out-turned rim (449). Rare examples of the plain-rim IVJ also occur, but are not illustrated.

Other forms Fig 72, Nos 451-5 The ratio of lids to bowls is reasonably constant throughout the main phase of production and supports their intended use together. Lids in HWC differ only slightly from those made in HWB. Examples with an undercut rim (453, 455) are perhaps more common than plain or bead rims (452, 454). Number 451 is in HWB/C and has a square rim.

5.2 Copthall Close Grey ware (CCGW)

Although there is no kiln evidence for the manufacture of this ware, the discovery of wasters (248 sherds) at Copthall Close indicates that it was produced in or near the Walbrook Valley. The circumstances of this 1936 find and a full catalogue of the fabrics and types are found in Marsh and Tyers (1976). The type has also been identified from west Kent (Pollard 1988, 200).

Dating

Fig 73

The wasters were found in conjunction with mica-dusted and London wares, suggesting that the group dates from the late 1st to early 2nd century (Marsh & Tyers 1976, 237). Distribution of CCGW from other excavated sites supports this, with the highest concentration during the Trajanic period. The type has not, as yet, been identified from Southwark, although it occurs on numerous City sites in sparse quantities.

*Fabric and technology

Pls 5x–y

Marsh and Tyers *(ibid)* identified fine and coarse fabric variations among the Copthall Close Grey wares. More detailed fabric analysis supports this, but as there appears to be no chronological or form distinction between the two variations, they are treated together here.

It is a light grey sandy ware, frequently burnished, with a wide range of variability.

A hard fabric which is normally light grey (7.5YR 6/0-5/0) in colour with pale grey (7.5YR 8/0) core. The fabric consists of a micaceous silty matrix, with varying quantities of larger quartz and some black iron-rich inclusions (SA, R <0.5mm). In the coarser variant the larger inclusions occur in moderate quantities; flint and quartzite can also be identified. The fine variant is smooth and has a finely irregular fracture; the coarse one is rough with a more irregular break.

Forms

Marsh and Tyers *(ibid*, figs 2-3) have illustrated the forms identified from Copthall Close. Necked jars (NJ) with a distinctive footring and domed base profile are common, as are bowls with moulded rims and rounded bodies (IVA, IVF). Lids and beakers are rare. On recently excavated sites, bowls are the most typical form and therefore the illustrations here concentrate on them. The dating of the individual forms cannot be refined within the distribution of the ware as a whole.

Jars Fig 74, Nos 456-7 This includes a necked jar (NJ) with rounded body and a typical jar base.

Beakers Fig 74, No 458 A single beaker with sharply evened rim and girth groove is illustrated.

Bowls Fig 74, Nos 459-64 The two most common bowl types are moulded-rim IVAs (459-62) and round-bodied IVFs (463-4).

Other forms Fig 74, Nos 465-6 Lids include those with grooved (465) and plain up-turned (466) rims.

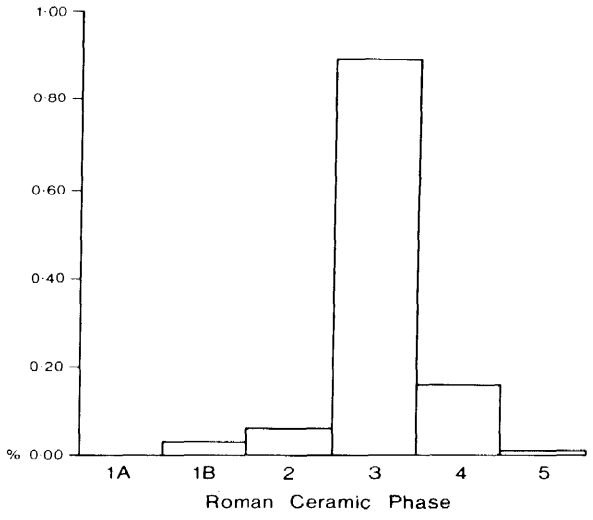


Fig 73 Bar graph of Copthall Close Grey ware as a percentage of all reduced wares by weight

5.3 Early Roman Micaceous Sandy ware (ERMS)

Local production is indicated by the fabric of this ware, as well as its restricted distribution. However, some of the platters are stamped by illiterate potters and Rigby (1978b, 127; 1984) notes that similar examples can be found in Sussex. The typical round-bodied jar form, with its distinctive vertical burnished decoration (IIB), is also closely paralleled by jars from Sussex sites such as Fishbourne (Cunliffe 1971, fig 103, form 181). This may provide evidence of some contact, perhaps the movement of potters, between the London area and Sussex in the mid 1st century. The type may also be present at Verulamium (Wilson 1984, fig 88, 2144).

Dating

Fig 75

The common fabric began in the pre-Boudiccan period and was most frequent in the late Neronian-early Flavian. It decreased in the Flavian, where it is still a chronological indicator, and thereafter declined.

*Fabric and technology

Pl 5z

A reduced fabric, with poorly sorted quartz. It has a distinctive black, micaceous surface and a reduced core. Vessels are frequently burnished and appear to be substantially handmade but finished and smoothed on a turntable.

This fabric is hard, usually feels fairly smooth and has a finely irregular fracture. It has a light grey (7.5YR 7/0-8/0) or reddish-brown (2.5 YR 4/4; 2.5YR 5/6) core, light grey (2.5YR 8/0) or reddish-brown (10R 4/2) margins and black or grey (7.5YR 4/0-5/0) exterior surfaces. The main inclusions are moderate amounts of ill-sorted quartz (R, SA 0.1-0.5mm) in a very silty matrix, and white mica which is most visible on the surfaces. There are also moderate to sparse black/brown iron-rich inclusions (R 0.l-0.5mm) and very sparse burnt organics (<0.1mm), both of which are absent in some sherds.

Forms

A range of functional types occur, but only jars are typical, followed by plates.

Jars Fig 77, No 467 Necked jars are the most common type, particularly the plain-necked, round-bodied IIB decorated with burnished vertical lines, diagnostic throughout the main period of production.

Beakers Fig 77, No 468 A carinated beaker (IIIG) is present.

Bowls and dishes Fig 77, Nos 469-74; Fig 142, Nos 477-9 Most vessels in this category are shallow dishes or plates. Over half come from pre-Flavian deposits; they are still diagnostic in the Flavian but thereafter are not important. A plain-rim dish (IVJ, 469) with flat base and another with base ring and vertical burnished decoration (470) are present. Internally moulded plates (VA, 471-3) are common; 474 has similar characteristics but a flatter profile. These plates, and also cups, are loosely based on Gallo-Belgic prototypes. Some simple dishes have illiterate stamps placed centrally on the internal surface, and three are illustrated here. Numbers 477 and 478 are similar to ones found in Sussex (Rigby 1984). The final stamp (479), in a different style, is burnt and may not belong to the ERMS fabric group.

Cups Fig 77, No 475 This includes a conical cup (VIB) decorated with burnished vertical lines on the lower girth.

Other forms *Fig 77, No 476* Lids are represented, and are generally Flavian in date. The illustrated example has a flat rim and deep convex profile.

5.4 Early Roman Sandy Iron-rich ware (ERSI)

Dating

Fig 76

Although the evidence is sparse, ERSI is most common in pre-Boudiccan levels and to a lesser extent in late Neronian-early Flavian ones, supporting an essentially pre-Flavian date for the fabric.

*Fabric and technology

Pl 5aa

A silty fabric with moderate iron-rich clay pellets and

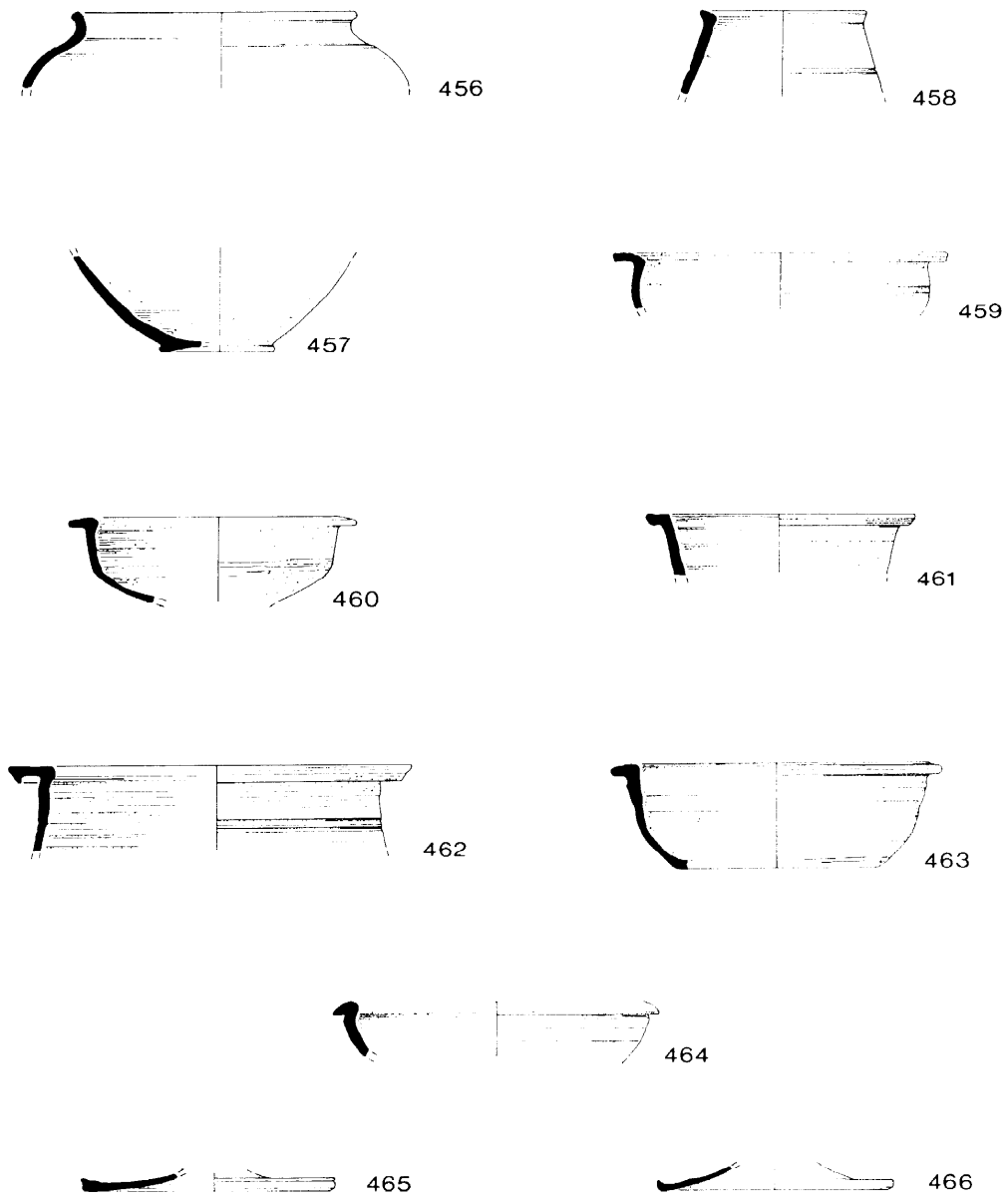


Fig 74 Copthall Close Grey ware, jars, nos 456-7; beakers, no 458; bowls/dishes, nos 459-64; other forms, nos 465-6 (Scale 1:4)

organic temper, characteristically 'heavy'. The vessels are handmade and the upper part of the outside is burnished; the walls are distinctively thick. Elsewhere the fabric has been published as Early Roman Sand and Grog ware (ERGS, Milne 1992).

A dense, heavy fabric which feels fairly rough and has an irregular fracture. It is greyish-brown (10YR 92) with orange-red (2.5YR 6/6) margins, a dark grey (2.5yR 5/0) exterior and a lighter grey (2.5YR 6/0) interior surface. The matrix is silty and the main inclusions are moderate to abundant black and red iron-rich clay pellets (1.0mm, occasionally 2.0mm) and moderate amounts of poorly sorted quartz (SA 0.2-0.5mm) and organic inclusions (I <0.7mm, occasionally <2.0mm).

Forms

The repertoire includes rare lids and bowls, but only the more common jars are illustrated here.

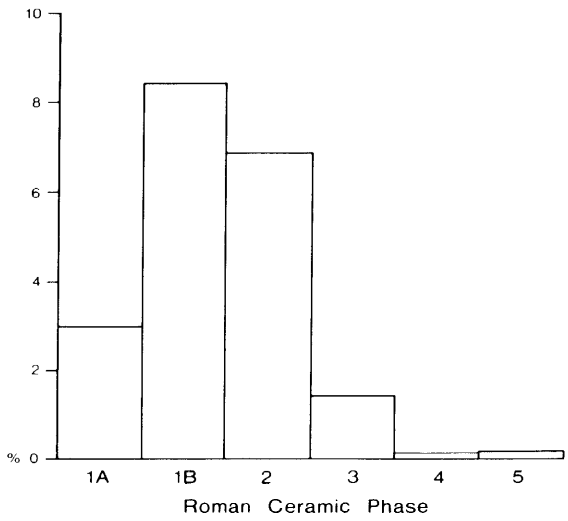


Fig 75 Bar graph of Early Roman Micaceous Sandy ware as a percentage of all reduced wares by weight

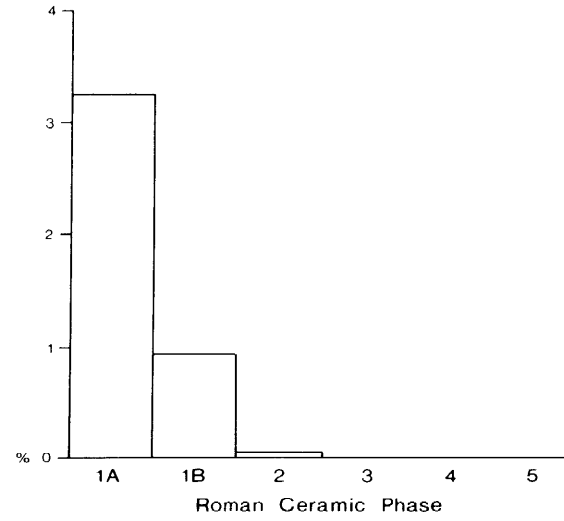


Fig 76 Bar graph of Early Roman Sandy Iron-rich ware as a percentage of all reduced wares by weight

Jars Fig 77, Nos 480-2 These are normally bead-rim types (IIA), frequently with a burnished zone beneath the rim and a shoulder groove. When grooves occur both beneath the rim and on the shoulder, the area between them is burnished. Necked jars (not illustrated) are less frequent and there does not appear to be any chronological development between the two jar forms.

5.5 Early Roman Sandy wares (ERS)

This group is composed of four fabric variants associated with different technological features. A local source is suggested on the basis of its restricted distribution, with the only known parallels from Verulamium (Wilson 1984, fig 88, 2140-2).

Dating

Fig 78

ERS is common but it is difficult to date the subgroups precisely. In general it is pre-Flavian to Trajanic and, as a group, was most common in the late Neronian-early Flavian period. There is some development from ERSA to ERSB; ERSA was more common in the pre-Boudiccan and late Neronian period, with ERSB dominating from the Flavian and continuing through the Trajanic. A sparse intermediate fabric, ERSA/B, was present from the earliest levels and most common during the late Neronian-early Flavian. A final variant, ERSS, is too rare to date.

*Fabric and technology

Pls 5ab-ad

This coarse sandy ware has been sub-divided into two major fabric divisions, based on the size and sorting of quartz and colour (ERSA, ERSB). A third, less common, type (ERSA/B) falls between the two. Finally, a distinctive but rare variant with calcareous (including shell) tempering can be identified (ERSS).

The industry exhibits certain technological changes through the mid-late 1st and early 2nd centuries. In the earliest sequences the clay is less well sorted and the exterior is fired black, perhaps in a bonfire, while the vessels are noticeably handmade and roughly wheel finished (ERSA). By the Flavian period, most vessels were fired to a light or medium dark grey and are almost entirely wheel turned (ERSB). ERSA/B represents a transition between the two techniques where the fabric and finish were evolving.

The fabrics are grey or black, hard (apart from ERSA which is slightly softer) with a harsh texture and an irregular fracture (fine in ERSB). Fine, well-sorted quartz grains (SA, A) are abundant but there is a distinctive scattering of larger, rounded grains (0.3-0.6mm) and sparse flint of various sizes. All other inclusions are sparse or sparse to moderate and include iron-rich clay pellets and opaques (R, SA, I 0.1-0.5mm, but <1.0-3.0mm in ERSA and ERSA/B respectively) and mica (0.1-0.2mm, <4.0mm in ERSA). The exterior surface is burnished.

ERSA (PI 5ab) is the coarsest fabric of the group and the darkest in colour. It has a grey (10YR 5/l) core with a black (7.5YR 3/O) exterior margin and surface. The interior margin is light brown (10YR 7/2) and the surface is grey (7.5YR 5/0). Additional sparse inclusions of organics (F 0.2-2.5mm), clay pellets (0.8-2.5mm) and limestone (I 0.2- 1.5mm) are present.

ERSB (Pl 5ac) is the finest variant, with more densely packed, well-sorted quartz. It is also the lightest in colour: the core is light grey (2.5YR 9/0) with a brownish-grey (5YR 7/1) exterior margin and surface and a grey (10YR 6/1) interior surface.

ERSA/B is transitional between ERSA and ERSB. It lacks the range of inclusions present in ERSA and is darker than ERSB; the quartz is less well sorted than other variants. The core is light grey

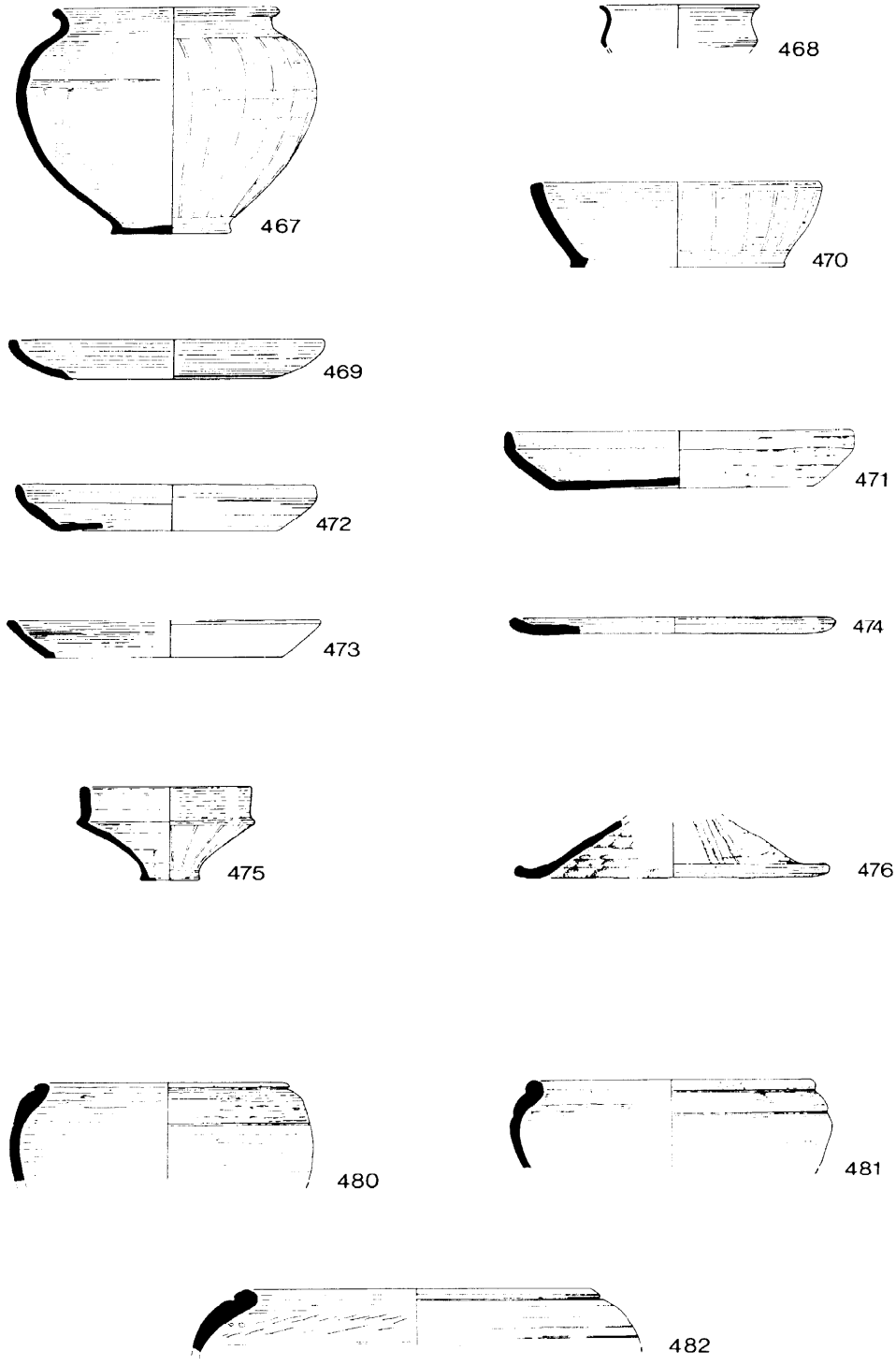


Fig 77 Early Roman Micaceous Sandy ware, jars, no 467; beakers, no 468; bowls/dishes, nos 469-74; cups, no 475; other forms, no 476. Early Roman Sandy Iron-rich ware, jars, nos 480-2 (Scale 1:4)

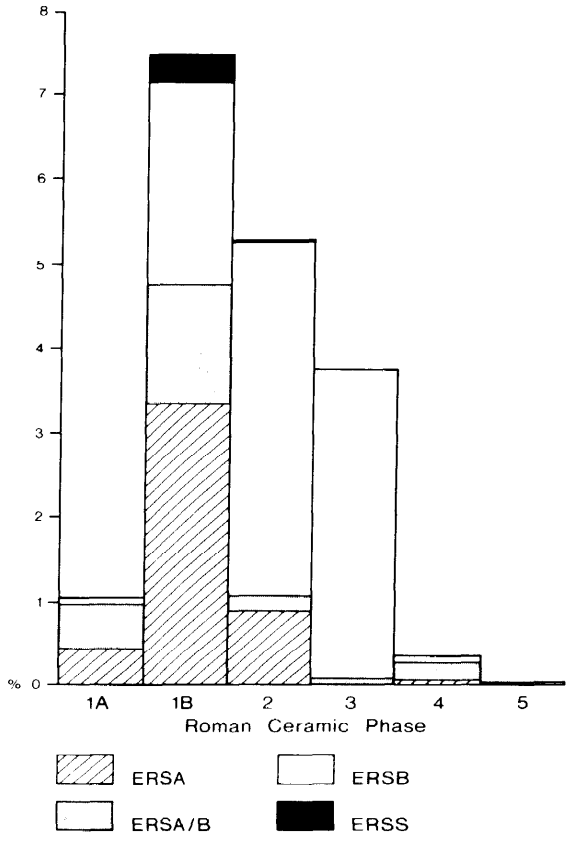


Fig 78 Stacked bar graph of Early Roman Sandy wares as a percentage of all reduced wares by weight

(1 OYR 7/1) to greyish-brown (10YR 5/2) with very dark brown (10YR 3/1) margins and exterior surface and a grey (2.5YR 5/0; 7.5YR 3/0) interior surface.

ERSS (Pl 5ad) is a calcareous variant of the ERS range and in texture most resembles ERSA. The core is greyish-brown (5YR 6/1) with dark brown (10R 4/1) margins and very dark grey (2.5YR 3/0) surfaces. Calcareous inclusions are sparse to moderate (0.2-0.8mm), including fossiliferous limestone, fine-grained limestone and rare shell. As in ERSA there is a sparse quantity of organics (F 0.3-2.0mm).

Forms

Jars are the most common form, followed by bowls and lids. Most of the forms occur in each fabric variant.

Jars Fig 79; *Figs 80-1, Nos 483-523* Necked jars (NJ) occur in all fabric variants, although they are most common in ERSB. They are similar, but not identical, to IIDs and IIEs with thickened and 'figure-7' rims. Found from the late Neronian to the end of the sequence, they were most common during the Flavian-Trajanic period. Most of the necked jars (499-512) are distinguished by having a rounded body with either a cordon or grooves at the join

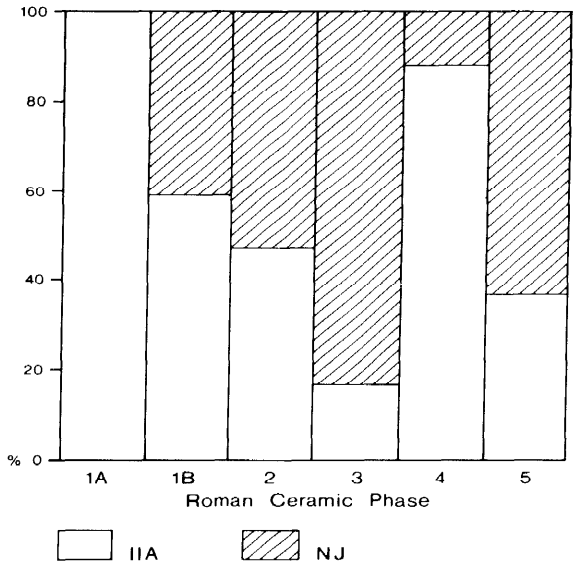


Fig 79 Stacked bar graph of Early Roman Sandy wares jar forms by Eves

between the neck and shoulder, and many also have a groove on the girth (eg 501). Rims vary considerably, but are distinctive and include bead (eg 507), internally grooved (eg 508), 'figure-7' (eg 502) and slightly out-turned (eg 504) examples. Although most are undecorated, rare examples share chevron and diagonal burnishing with the IIAs (501-2). Number 500 in ERSS is similar, although due to its carinated shoulder belongs more precisely to the IIC category. Another necked jar (5 12) in ERSB has straight walls, with a girth cordon, rather than the more usual rounded profile. Finally, an unusual, neckless jar with a sharply evened rim (5 13) also occurs in ERSB.

Bead-rim (IIA, 483-98) jars were first found in the pre-Boudiccan period, but are still diagnostic in ERSB during the Flavian-Trajanic period. Examples are also present in ERSA, ERSA/B and ERSS. The rim is frequently undercut (eg IIA15, 484) and bases are distinctively heavy and thick. Decoration differs somewhat between the various fabrics, but is cohesive for ERS in general. Burnished decoration on the shoulder, sometimes extending down the body and occasionally enclosed between grooves or cordons, is common (eg 486). Burnishing may be diagonal and horizontal lines, chevrons or lattice (eg 492). Although undecorated examples are known in all fabrics, the ERSS ones are consistently undecorated.

The relationship between necked and bead-rim jars is shown on Fig 79; among the unquantified data necked jars tend to predominate. The pattern on Fig 79 is distorted from the Hadrianic period onwards, where the necked jars are residual.

Bowls and dishes Fig 82, Nos 514-24 Bowls occurred from the late Neronian period, continuing throughout

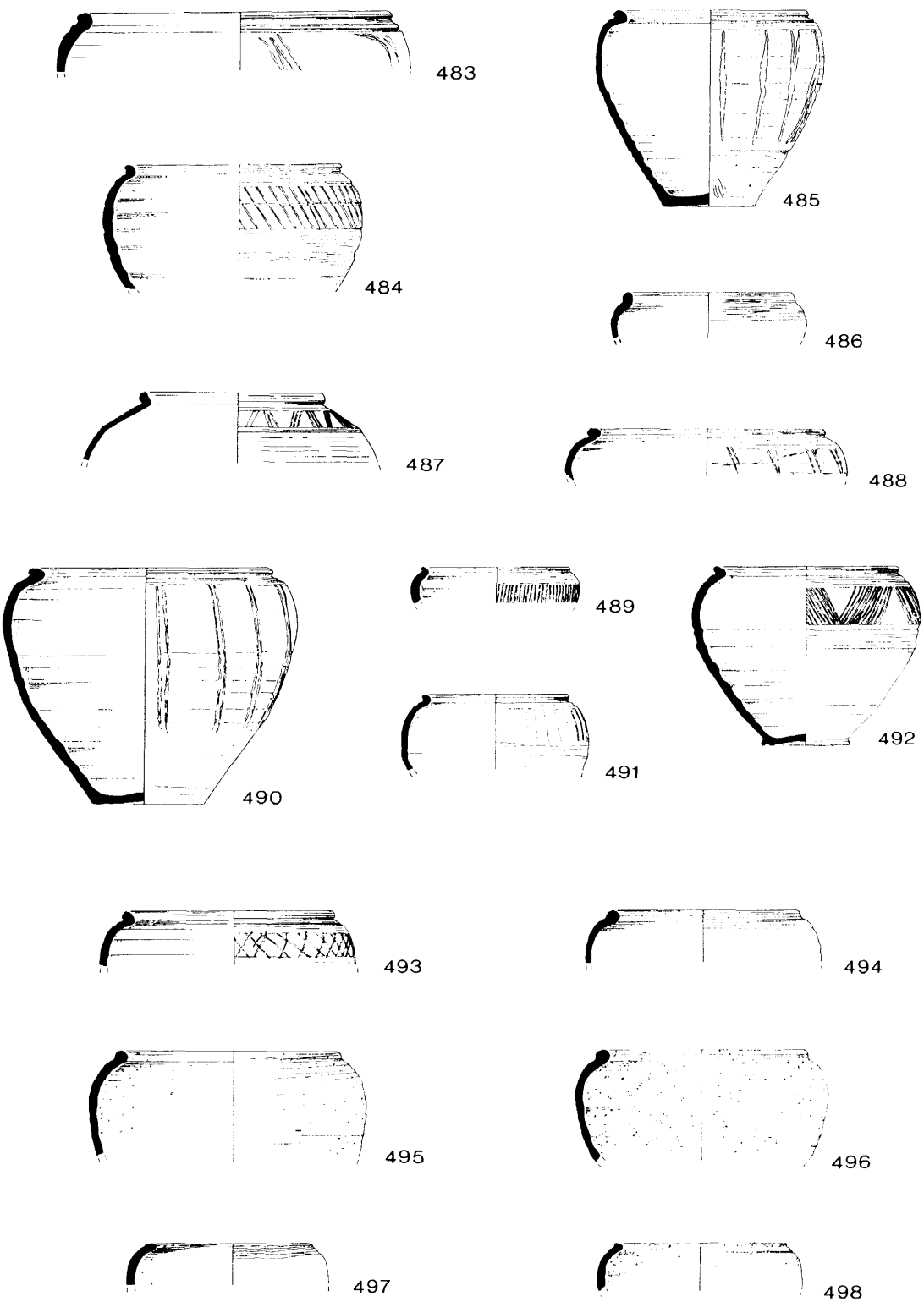


Fig 80 Early Roman Sandy wares, jars, nos 483-98 (Scale 1:4)

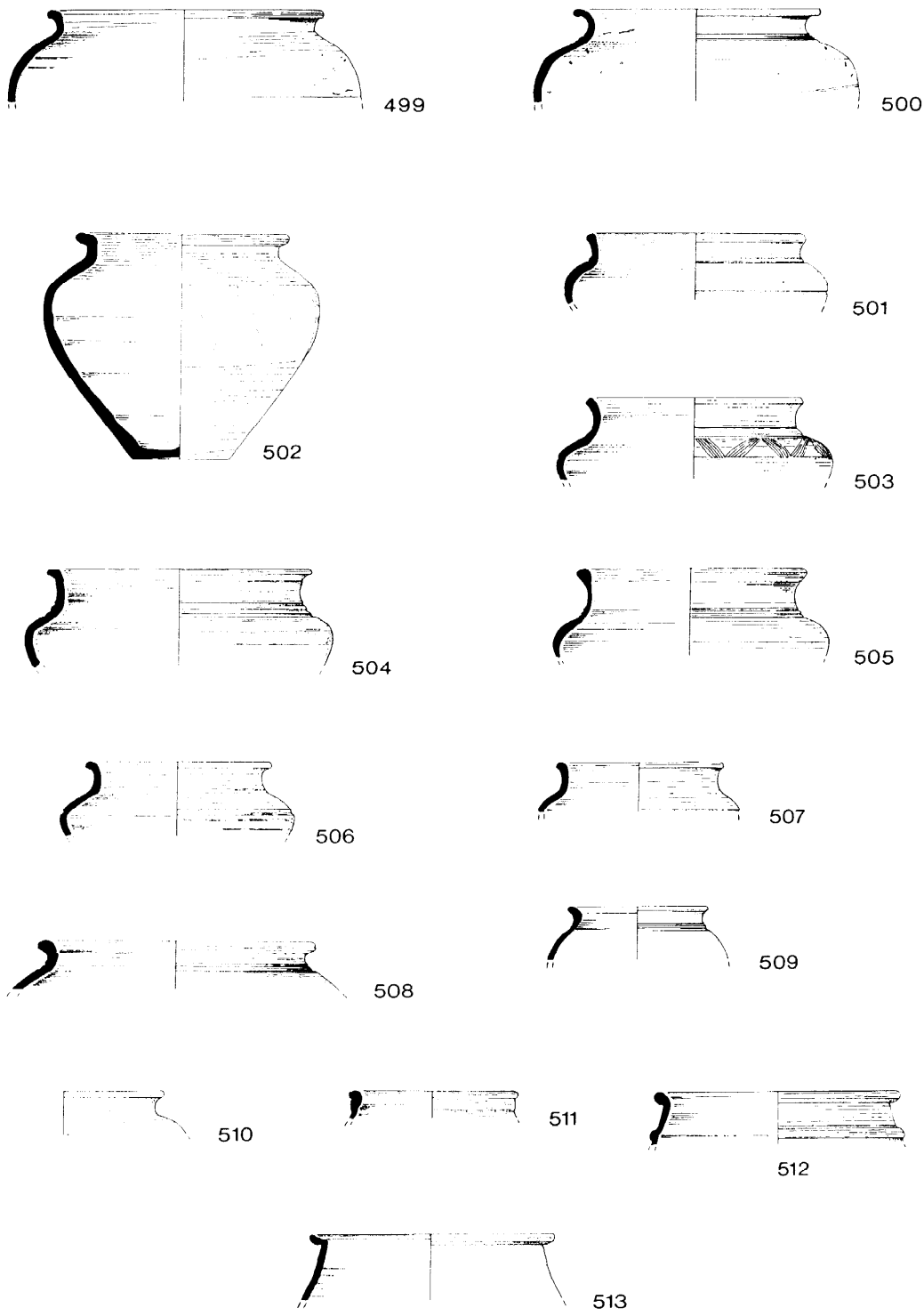


Fig 81 Early Roman Sandy wares, jars, nos 499–513 (Scale 1:4)

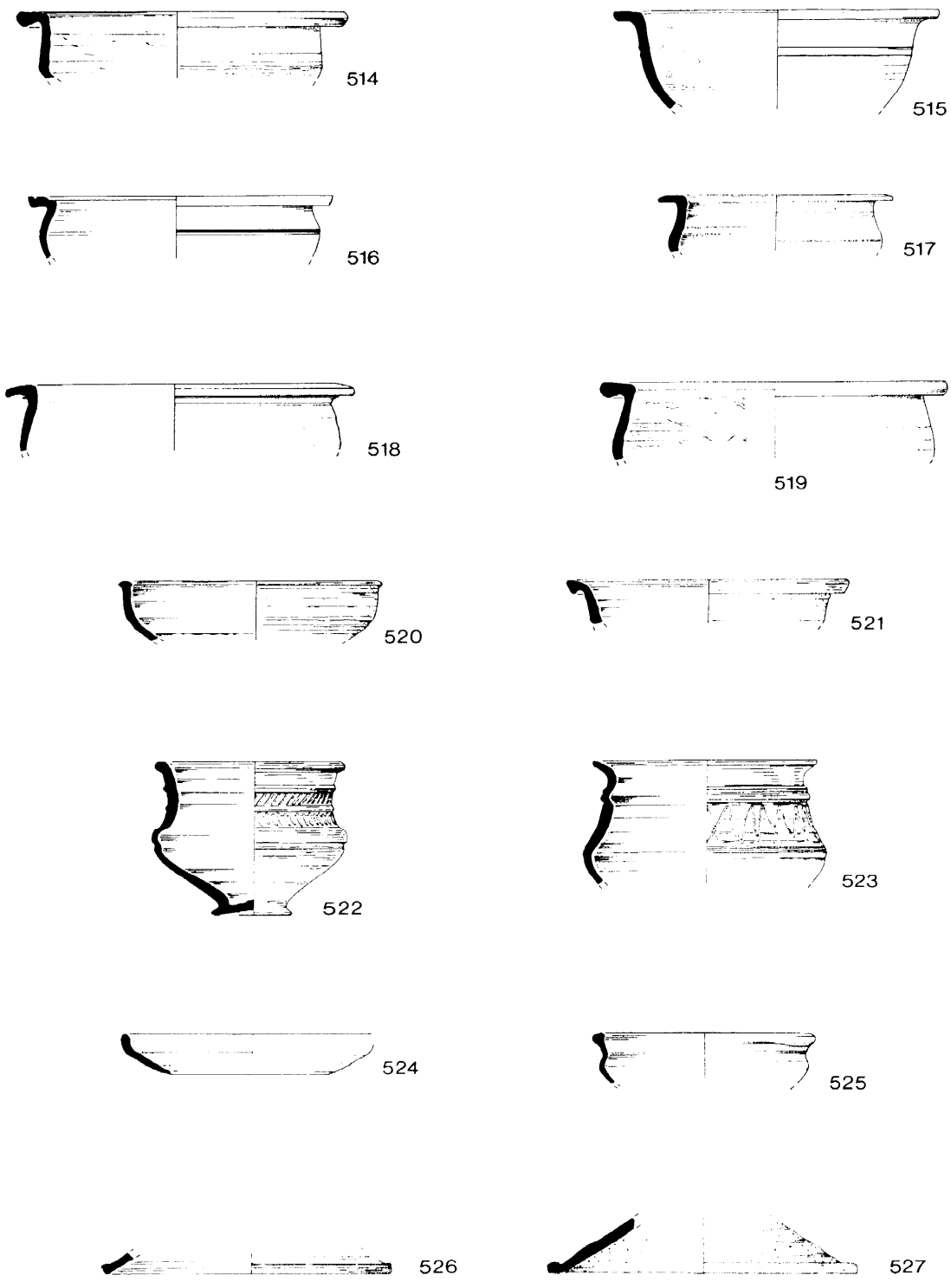


Fig 82 Early Roman Sandy wares, bowls/dishes, nos 514-24; cups, no 525; other forms, nos 526–7 (Scale 1:4)

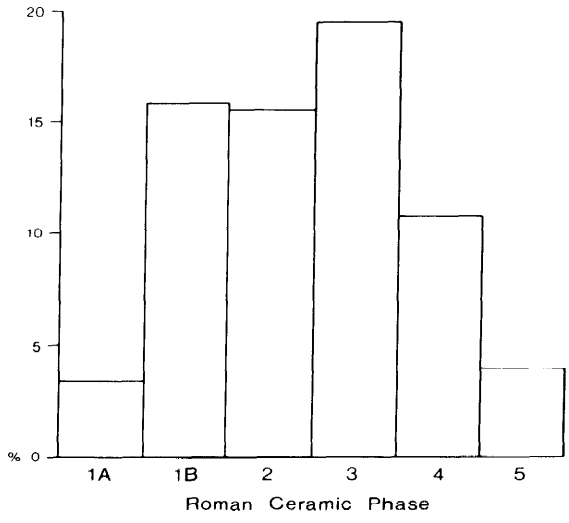


Fig 83 Bar graph of Alice Holt Surrey ware as a percentage of all reduced wares by weight

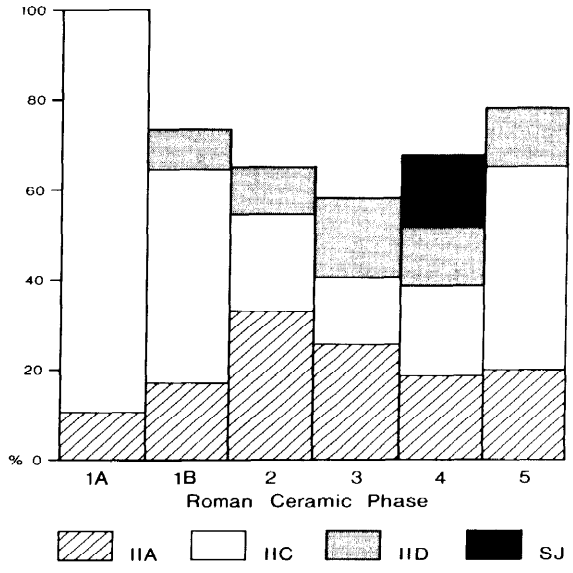


Fig 84 Stacked bar graph of the common Alice Holt Surrey ware jar forms as a percentage of all AHSU jars by Eves

the Trajanic, but are not common enough to be firmly dated. Moulded-rim IVAs (514–16) and round-bodied IVFs (517-19) are both present; 520 is a IVF variant with a rounded rim.

Necked bowls (522-3) with pedestal bases are a very distinctive form in ERSB, and feature burnished decoration (both diagonal and wavy lines) enclosed between neck and shoulder cordons and girth grooves. An unusual necked bowl with over-turned rim (521) occurs in ERSA/B. Plates include VBs with external moulding in ERSB (524).

Cups Fig 82, No 525 A single vessel in ERSB may be an imitation of Drag 27 (VIA variant).

Other forms Fig 82, Nos 526-7 Lids are rare but have been identified. Number 526 in ERSB has a grooved rim; 527 in ERSS has a flat, grooved rim with an extant, high convex profile.

5.6 Alice Holt Surrey ware (AHSU)

The Alice Holt and Farnham potteries produced grey wares from the late 1st to the late 4th or even 5th century (Lyne & Jefferies 1979). They were an important supplier to the City, with the earlier fabric (referred to here as Alice Holt Surrey, AHSU) probably reaching London via the Thames *(ibid, 52).* In London, the later fabric (outside the chronological framework of this corpus), is referred to as Alice Holt Farnham (AHFA).

AHSU is a unified stylistic tradition, produced by a number of separate kiln centres. As part of the peripheral distribution area, the City appears to have received a fairly restricted range of fabric variants in contrast to the Roman villa at Beddington, nearer the production area (H Rees, pers comm). Most of the vessel types found here can be paralleled in Lyne and Jefferies (1979), with 551 (Fig 86) an exception. In other cases, rim variants within standard classes can be noted.

Dating

Fig 83

Although London was situated on the edge of the potential AHSU market, the fabric is abundant in City assemblages. It is present in small quantities from the earliest levels, but its greatest importance was in the late Neronian–Flavian, and particularly the Trajanic period. The storage jars, however, seem to be indicative of the Hadrianic period and later.

*Fabric and Technology

P1 5ae

A sandy grey ware with a light core and abundant well-sorted quartz. External surfaces are usually evenly burnished in zones, often producing a blue, metallic sheen; plain surfaces are distinctly granular. Open vessels such as bowls or plates are almost always burnished both internally and externally over the rim. A number of the jars and bowls are trimmed towards the base and some types are both coil and wheelmade (Fig 86, 545).

AHSU is generally light grey in colour (2.5YR 5/0-6/0) with distinctly darker margins and surfaces (2.5YR 2/0-3/0), although occasionally darker grey throughout. It is characterized by moderate quantities of well-sorted quartz inclusions (SA, SR 0.1-0.5mm),

occasionally brown and probably coated in haematite, set in a clean, slightly silty clay matrix. Although the kilns were located on the greensand, it apparently lacks glauconite. It is hard and rough to the touch, often rather brittle and irregular in fracture. Fine white mica (<0.5mm) is visible in the surfaces, and occasional flint can be identified. A rare, coarse version (1628) with moderate larger quartz measuring to l.0mm, or occasionally 1.5mm, seems to be confined to large bead-rim storage jars (IIA, Fig 85, 538-9).

Forms

Although the complete range of vessel classes is found in the City, forms are generally confined to standard types.

Flagons Fig 85, No 528 Flagons are rare in the City, and the only example illustrated is a variant of a two-handled IE with a grooved, thickened rim.

Jars Fig 84; Figs 85–6, Nos 529-54 Jars are the most common form found and can be divided into bead-rim (IIA), necked types (IIC, IID) and storage jars (SJ. The relationship between them is shown on Fig 84, where small sample size distorts the figures for pre-Boudiccan, Hadrianic and early Antonine deposits.

Many AHSU IIAs (529-39) are distinguished by their high rounded shoulder with some form of shoulder delineation, either a groove (eg 531), carination (eg 536) or burnishing (eg 530). The bead is usually rounded and well formed (eg 534) although some have a flattened outer face (eg 536) and the vessels occur in several sizes. Large bead-rim storage jars in the coarse fabric variant (538-9) are rare. Although relatively common throughout the sequence, bead-rim jars are normally less frequent than necked ones. In contrast to the Highgate industry, there is no chronological development between the two types and their dating corresponds with that for the industry as a whole.

Overall, necked jars are the most common vessel type within the AHSTJ group and they occur in considerable quantities throughout the sequence. They fall into two main groups: the carinated IIC (540-3) and the IID with decorated shoulder (544-6). Both types generally have a footring base, frequently with a single groove on the underside, and are normally distinguished by a 'figure-7 rim, although there are exceptions (eg 542). A notable but rare example is 545 from the Reserve Collection, which features a pronounced groove on the lip. This same vessel has a zone of burnished wavy-line decoration on the lower body wall, which is knife-trimmed – a feature that can be identified on other examples, Five complete IID vessels from the Reserve Collection were examined and clearly their lower half was coil made and then pressed to join a wheelmade upper portion; hence the finger marks on the inside of 545. The two available complete examples of IICs appear to have been made in the same way. IICs were present throughout the period of production, but occurred more frequently in the late Neronian-early Flavian phase. They are generally more common than the IIDs, which peaked in the early 2nd century. Other necked jars which do not conform to the above types occasionally occur: 550 has an out-turned rim and wide shoulder cordon; 552 a beaded lip and rounded body.

Flasks (IIR, 547-9) are not common, but were present from the late Neronian period. One example (547) has burnished decoration on the shoulder similar to that seen on the IIDs, but not illustrated on flasks by Lyne and Jefferies (1979).

Unclassified jars include a necked jar or flask with sharply out-turned rim and wavy-line burnishing (551), and a small jar or beaker with a sharply everted rim (553). Finally, a storage jar from the Reserve Collection (SJ, 554) can be paralleled by excavated material of Hadrianic date.

Beakers Fig 86, No 555 Beakers are rare and only a single example of a butt beaker (IIIA), decorated with panels of burnishing, is illustrated.

Bowls and dishes Fig 87, Nos 556-67 Bowls generally form only a small proportion of AHSU assemblages from the City, and the most distinctive type is the grooved-rim bowl (IVK, 558-62). Number 561 with a grooved rim and 562 with a bead rim are variants of the more typical IVK. They occurred throughout the 1st and early 2nd century, principally in late Neronian-early Flavian contexts. Moulded-rim IVAs (556) and round-bodied IVFs (557) occur sporadically.

Plates occur in similar numbers to bowls and were most common during the late Neronian-early Flavian period. They fall into two main groups, both of which are probably derived from Gallo-Belgic prototypes: VAs with internal (563-5) and VBs with external (566-7) moulding. Lyne and Jefferies (1979, fig 6.8) identify the VBs as lids, but a burnished interior suggests that our vessels are more likely to be plates.

Other forms Fig 87, Nos 568-9 Lyne and Jefferies illustrate early Alice Holt lids, and the domed example with a grooved rim (569) is similar to their class 7.6 *(ibid, fig* 39, 7.6). A concave example with a plain rim (568) is unparalleled. Lids are never common, but most examples were from the Flavian and Trajanic periods.

5.7 Shelly wares

This pottery was examined by Mr J Cooper of the Natural History Museum, and his shell identifications and comments on source are integrated below. The only large, identifiable group is North Kent Shelly ware. Small quantities of other shelly pottery are present in the earliest Roman deposits, persisting generally as isolated single occurrences into the 2nd century; they are described here. The majority of their identifiable forms are bead-rim jars (IIA) and variants with high, rather angular shoulders and/or ledge rims (IIA 16). These vessels are difficult to assign to specific production centres, but examination of the shell suggests that a small but distinct group is made from

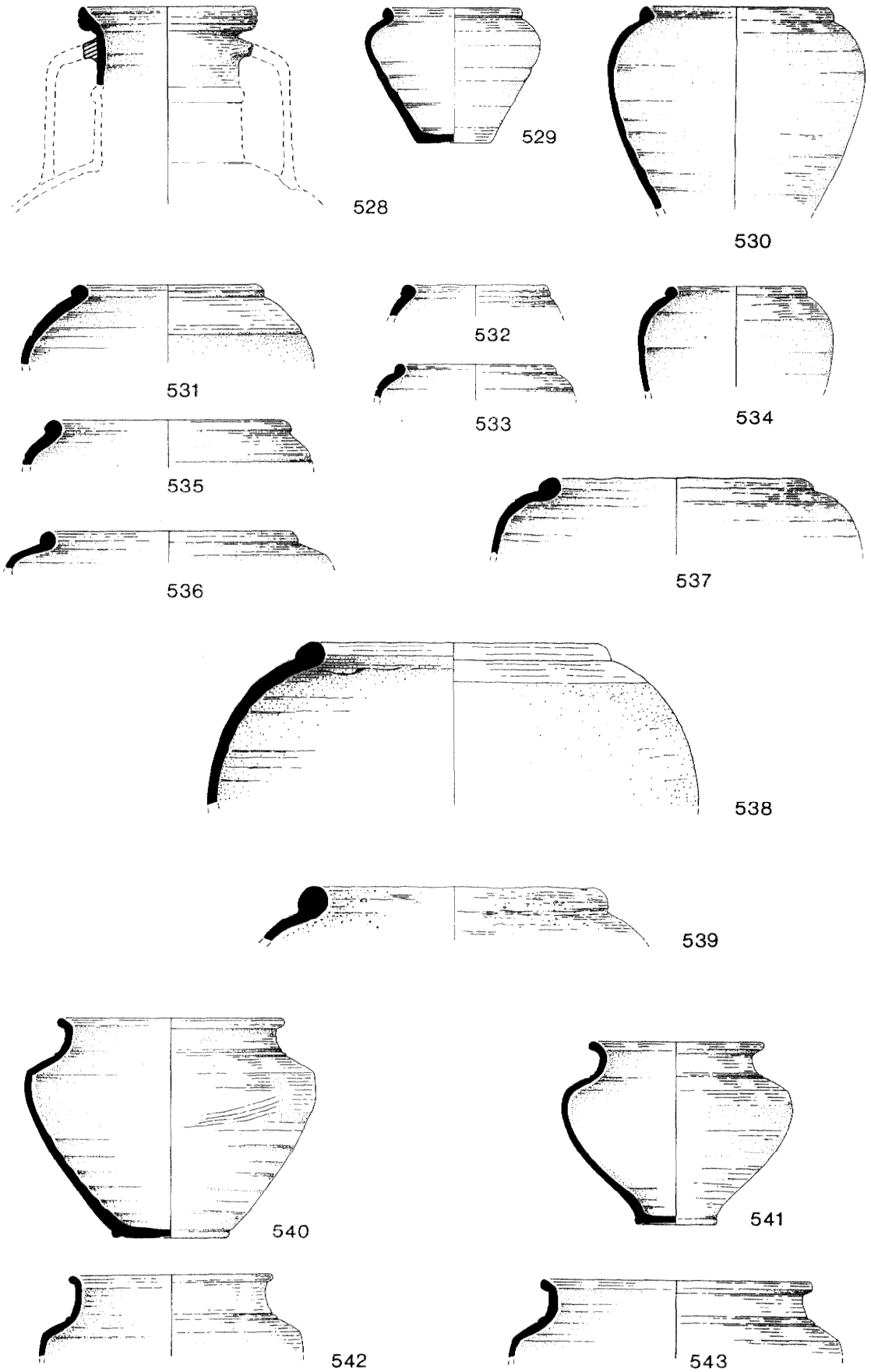


Fig 85 Alice Holt Surrey ware, flagons, no 528; jars, nos 529-43 (Scale 1:4)

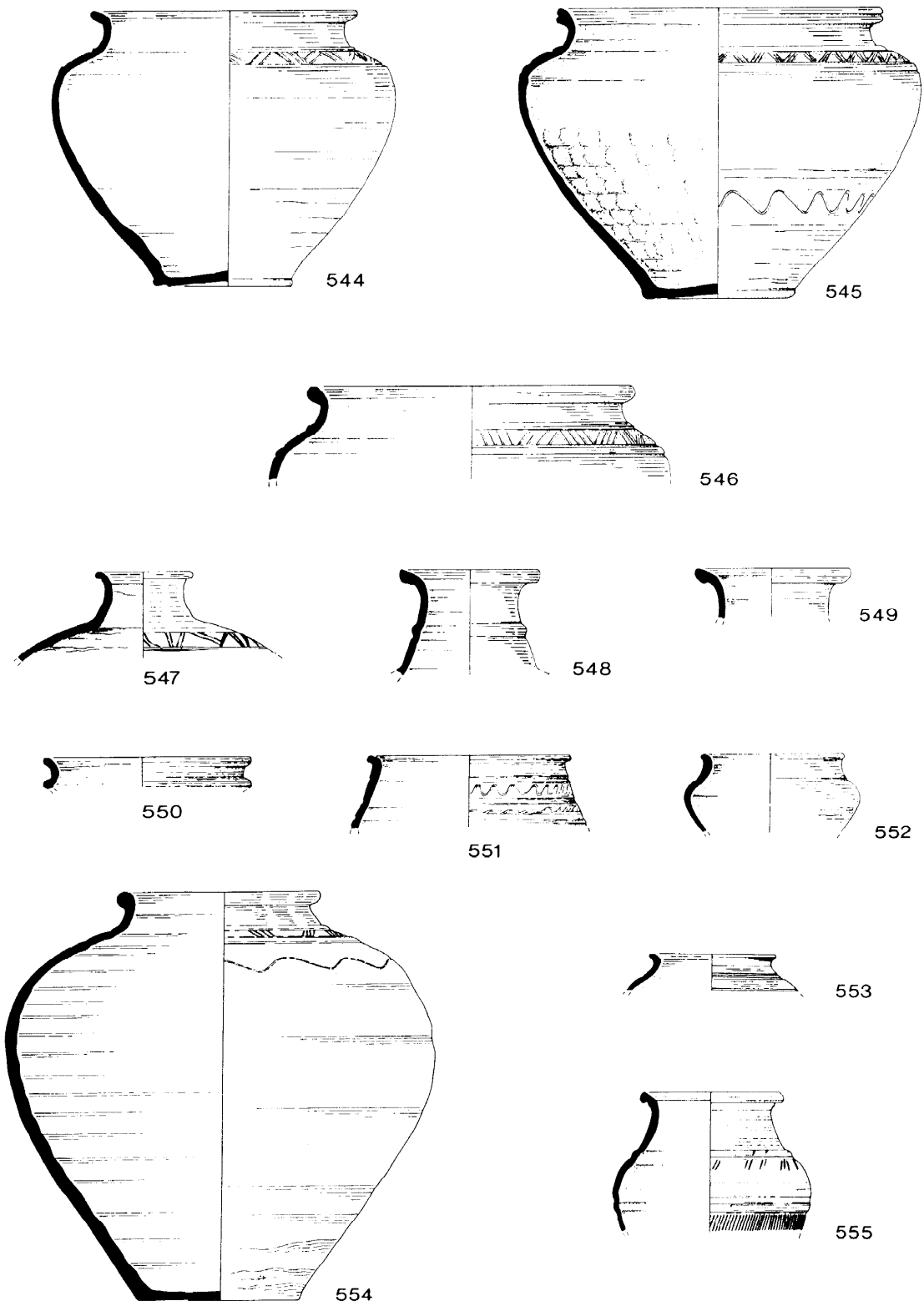


Fig 86 Alice Holt Surrey ware, jars, nos 544-54; beakers, no 555 (Scale 1:4)

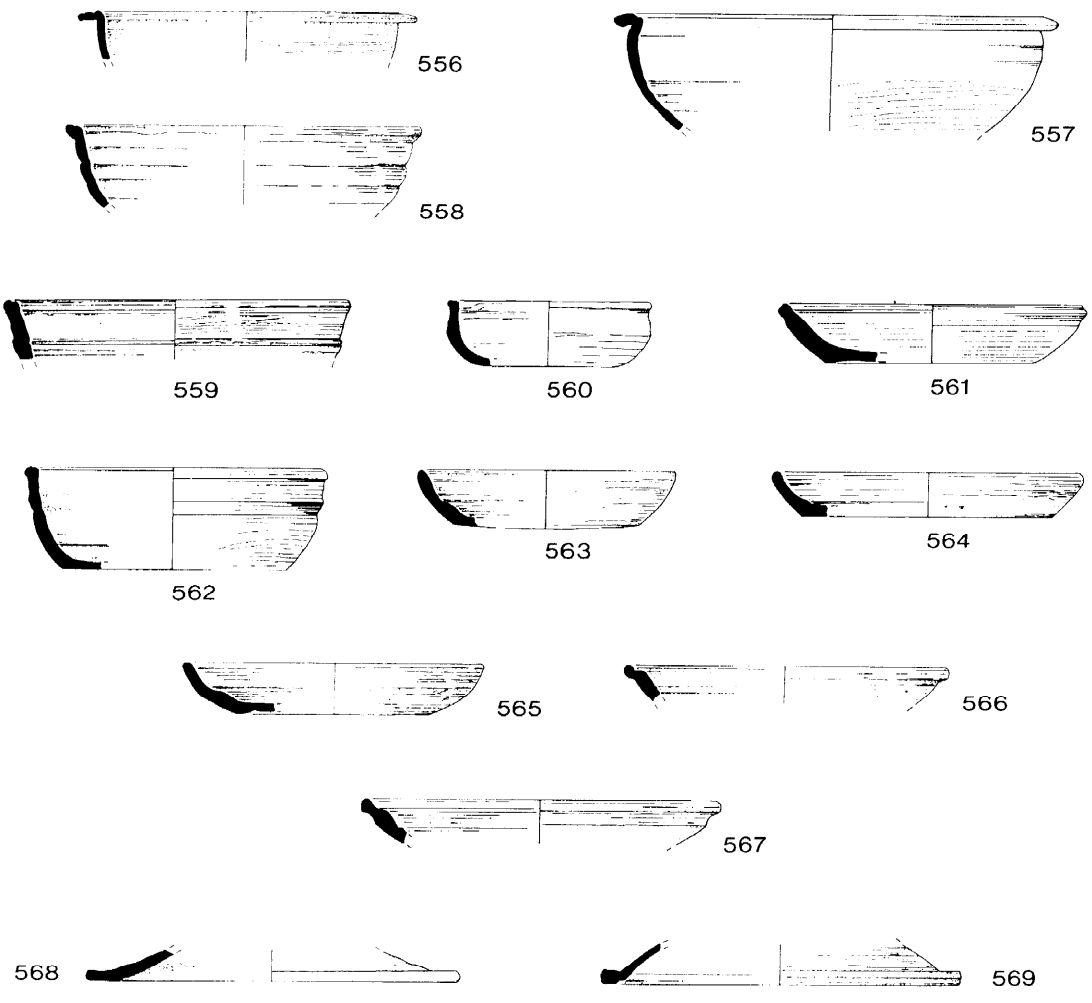


Fig 87 Alice Holt Surrey ware, bowls/dishes, nos 556-67; other forms, nos 568-9 (Scab 1:4)

Oxford Clay, while the majority of other types appear to derive from Essex or Kent and the Thames Estuary.

North Kent

North Kent Shelly ware (NKSH)

NKSH is thought to have originated from a source or sources on or near the coast of northwest Kent. Large quantities of sherds are found along the Thames and Medway estuaries and on the Higham and Upchurch Marshes near Gillingham, Gravesend and Rochester (Green 1980b, 65). Fabric analysis confirms that this is the most likely place of origin. The large jars in this fabric were the commonest large jar type after Highgate B, and virtually the only others to come from a recognized source.

Dating

Fig 88

Although there are rare pre-Flavian examples, NKSH first occurs in quantity in Flavian deposits on virtually every site of this period in the City. It continues to appear in deposits from the Trajanic to early Antonine in varying quantities, but it is difficult to assess residuality (Section 7.7). In west Kent and southeast Essex, the storage jars were in use from the mid 1st to late 2nd century (Pollard 1988, 40). It was clearly absent from City deposits, such as New Fresh Wharf, by the early 3rd century (Richardson 1986) and from the extensive, unpublished 3rd century site at Shadwell, London Docks. Overall, it is found in abundance.

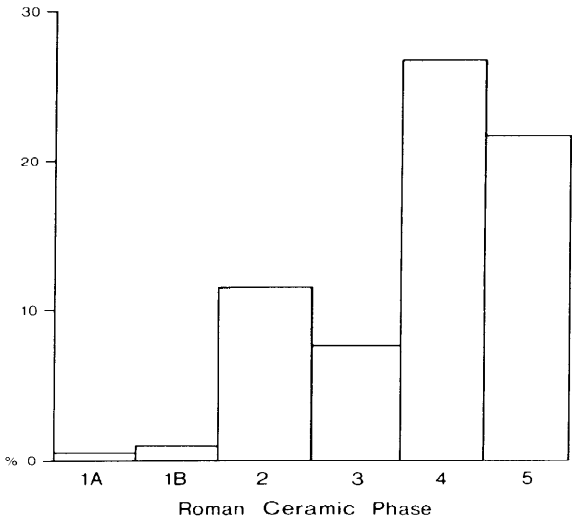


Fig 88 Bar graph of North Kent Shelly ware as a percentage of all reduced wares by weight

*Fabric and technology

Pl 5af

This is a coarse fabric with large fossil shell, distinguished from SESH by having a siltier and therefore less dense matrix. The vessels are handmade and coil-building is often evident in polished section.

Examination of the shell from crushed specimens produced identifiable bivalves and gastropods *(Corbicula,* corbiculid spp., *Brotia)* characteristic of Palaeocene or early Eocene Woolwich Beds which crop out along the Thames Estuary. This confirms that naturally occurring shelly clay was employed in the manufacture of NKSH rather than the shell being added to the clay as temper.

This blue-grey (7.5YR 3/0-5/0), sometimes with reddish-brown (2.5YR 5/4-5/6) surfaces, silty fabric contains very large quantities of fossil shell present as plates up to 4.0mm in size and as fired-out voids. Smaller quantities of quartz (A, SA), rounded clay pellets (0.2–0.7mm) and fine opaques occur; biotite and muscovite micas, flint and feldspars are visible in thin section. The clay is fairly hard and surfaces are slightly rough.

Forms

NKSH is virtually restricted to large storage jars.

Jars Figs 89-90, Nos 570-84 All but a very few of the jars are IIMs (575-83), with an unusual but consistent rolled-rim profile and bands of decorative stabbing and slashes between grooves on the shoulders. Generally, their dating mirrors the overall trends of the fabric. There is no obvious standardization of sizes, although rim diameters of 280-360mm are typical. Some variations on the standard form are shown as 579-83; there is no apparent chronological significance in these sub-types. Numbers 581 and 582 are unusually small. Other forms include generally large bead-rim jars (IIA, 570-3), occasionally with ledge rims (IIA16, 574). Number 584 is an unusual, small necked jar (NJ) from a Flavian context.

In the deep and often waterlogged stratigraphy characteristic of London sites, the large jars are often found with pitch adhering to the rim and shoulder, suggesting some form of waterproof sealing. Analysis by Dr C Heron (Liverpool University) has shown that this is tar made from silver birch bark. It has been suggested (eg Green 1980b, 65) that the jars were containers, perhaps for salt brought from the saltings known to exist on the north Kent shore of the Thames Estuary. Evidence for this theory has yet to emerge; nonetheless, it is likely that these large and somewhat roughly finished jars contained some commodity.

Mortaria Fig 90, No 585 A single mortarium with a bead and hooked flange (HOF) from a Neronian-early Flavian context is present.

Otherforms Fig 90, No 586 A few sherds of vessels large enough to require reinforcement by applied clay bands, perhaps *seria* (Green 1986, 106), are represented.

South Essex

The other main group of shelly wares originates from the Thames Estuary or south Essex, and more than one fabric variant has been identified.

South Essex Shelly ware (SESH)

Both fabric and distribution bear out an Essex source (Green 1980b, 65; C Going, pers comm).

Dating

SESH is generally found in 1st century contexts in Essex (Going 1987, 10). In the City, the sparse fabric normally occurs in early to mid 2nd century deposits, although examples from Billingsgate Buildings may predate 100 (Green 1980b). Among the quantified assemblages presented here, it first occurred in the early Antonine period, where it accounts for <1% by weight of all reduced wares.

Fabric and technology

Pl 5ag

This is a coarse fabric with large fossil shell, distinguished from NKSH (above) by having a denser matrix with less silt. The vessels are handmade with wiped surfaces.

Two examples examined by Mr Cooper contain fragments of brackish salt-water species such as cockle, oyster and *Hydrobia ulvae* (snail) and may well have been made from estuarine clays, which would support the suggested south Essex source.

Macroscopically the fabric, which is dark blue-grey (10BG 4/1)

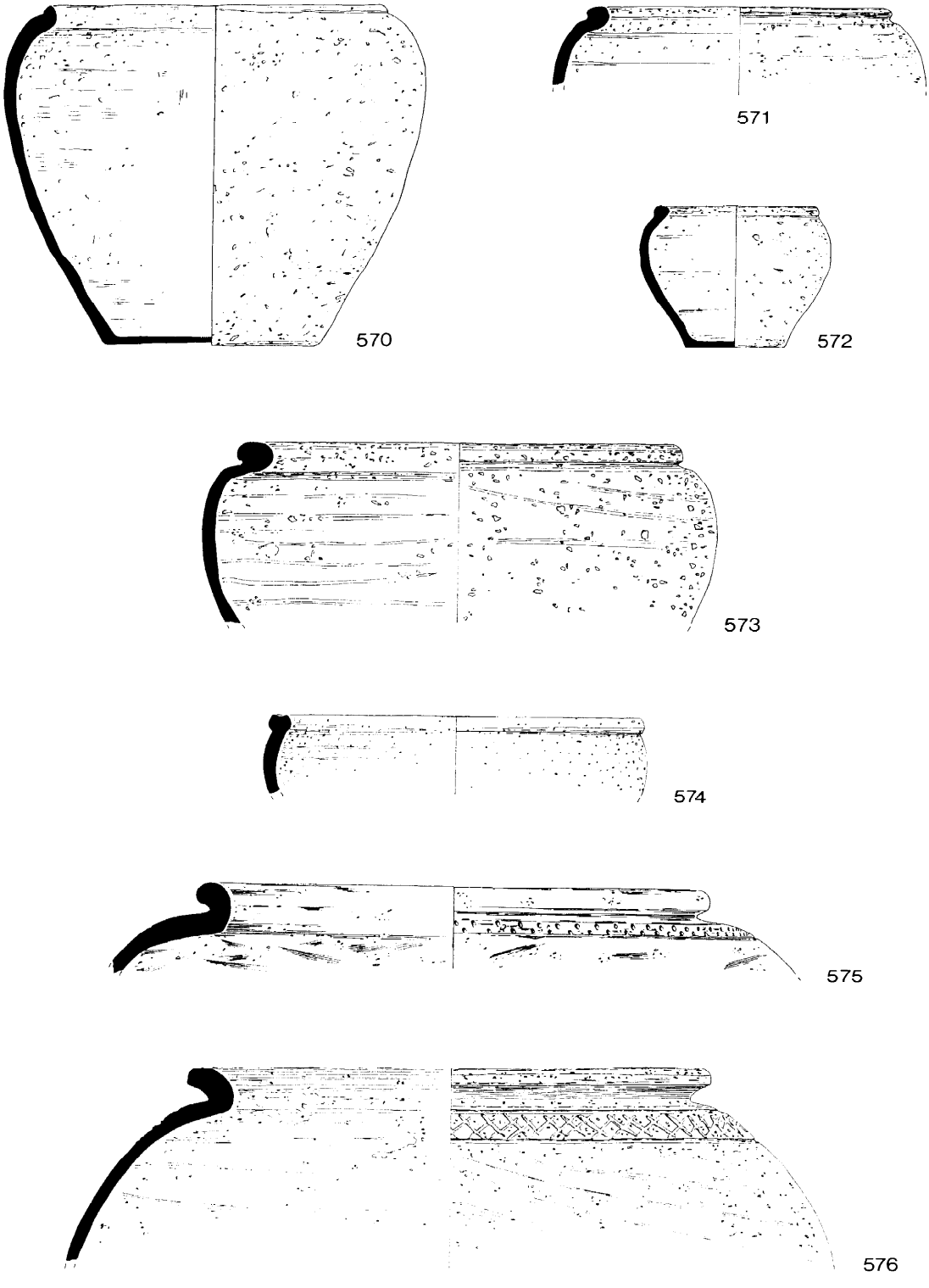


Fig 89 *North Kent Shelly ware, jars, nos 570-6 (Scale 1:4)*

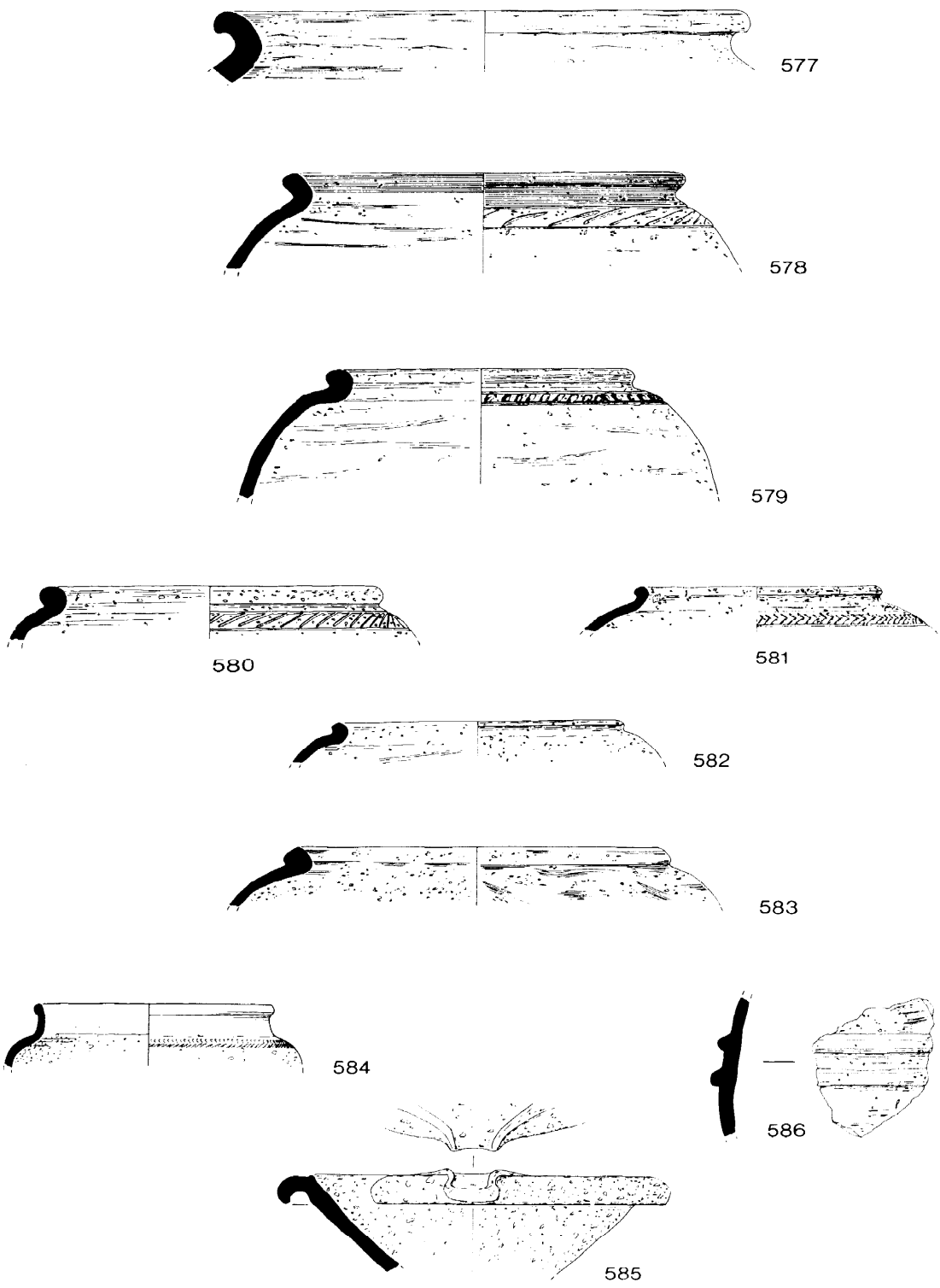


Fig 90 North Kent Shelly ware, jars, nos 577-84; mortaria, no 585; other forms, no 586 (Scale 1:4)

with brownish (7.5YR 6/0) margins and surfaces, is characterized by abundant ?fossil bivalve shell (to *c* 4.0mm), variable amounts of quartz (R 0.3-0.7mm) and sparser iron-rich inclusions (<1.0mm).

Forms

Other forms Fig 91, Nos 587-9 In the City, forms are exclusively large, lug-handled buckets or cauldrons, with both clubbed and overhanging rims.

SHEL-2826

Dating

This group is represented by a single vessel from an unquantified Flavian context, but is extremely common on many 1st century Essex sites such as Chelmsford (Going 1987, 10). The vessel could be part of the SESH group, but is described separately because of differences in fabric and their City date.

Fabric and technology

A coarse, vesicular fabric; the vessels are handmade.

This vessel has a vesicular and badly wedged fabric. It is coarse and abrasive, containing sparse quartz (R 0.3-0.6mm) and large (4.0-5.0mm) plates of shell which could well have originated in south Essex but are unidentifiable as to species. The vessel is light grey (7.5YR 7/0) with darker grey (7.5YR 6/0) interior and brownish-red (2.5YR 6/4) exterior surfaces.

Forms

Jars Fig 91, No 590 The vessel is a roughly made ledge-rim jar (IIA16).

SHEL-2810

This group has been assigned a probable source in south Essex by Mr J Cooper.

Dating

The sparse fabric occurs in 1st and early 2nd century contexts; quantified sherds are from Flavian and Trajanic levels, where they account for <1% of all reduced wares by weight.

Fabric and technology

A sandy fabric with occasional shell inclusions. It is distinguished from the other shelly fabrics by being wheelmade. The fabric is thought to originate from south Essex. Clay was compared with samples of London Clay from Ockenden and contains small quantities of unidentifiable shell.

In the hand specimen, this hard fabric is abrasive, with an u-regular fracture containing abundant well-sorted quartz (SA, R <0.5mm) and moderate shell (<5.0mm). It is normally grey (10YR 4/1), occasionally with areas of the surface light brown or red (7.5YR 6/6) and a light grey (7.5YR 710) core. A variant of the fabric (28 I 1) has slightly finer inclusions.

Forms

Jars Fig 91, Nos 591-3 Bead-rim jars (IIA), including one with a ledge rim (IIA16, 593), are present.

Oxford Clays

SHEL-2809

Dating

This rare group comes from 1st and 2nd century contexts. Quantified sherds account for <1% by weight of all reduced wares in the Flavian and Trajanic periods.

Fabric and technology

A fine textured shelly fabric, with abundant shell inclusions. This hard, handmade fabric contains fossil shell, such as *Gryphaea* and briazoa from the Oxford Clay which extends across England from Lyme Regis to Whitby, cropping out mainly in the Oxford-Peterborough area of the East Midlands. Macroscopically, the fabric is indistinguishable from the East Midlands 'calcite gritted' wares which reached London in the 4th century. The vessels are highly fired and display faint traces of turning marks on their exteriors.

SHEL-2809 contains very abundant fossil shell, including identifiable foraminifera and pieces of brachiopod (0.2-3.0mm, occasionally <5.0mm) and occasional rounded quartz and iron-rich inclusions (0.3-1.0mm) in a silty irregular matrix. The fabric is brown (10YR 5/2) with a pinkish-brown (7.5YR 7/4) margin and grey (7.5YR 6/0) or dark grey (10YR 4/1) core.

Forms

Jars Fig 91, Nos 594-7 All the vessels are jars with bead (IIA, 594), grooved (IIA, 595-6) or ledge (IIA16, 597) rims.

SHEL-2825

Dating

The two vessels identified in this fabric come from a single context associated with unquantified Neronian-mid Flavian pottery.

Fabric and technology

The fabric is similar to SHEL-2809 with smaller, less frequent inclusions, resulting in a dense clay matrix. These handmade vessels have also been identified as Oxford Clay products.

The jars are highly fired with oxidized reddish-orange (5YR 4/4) surfaces and grey (7.5YR 4/0) core. The fabric contains quartz (R 0.5mm) and smaller quantities of fossil shell than SHEL-2809, most 2.0mm or less. Clay pellets occur in moderate quantities and are in the same size range as the shell.

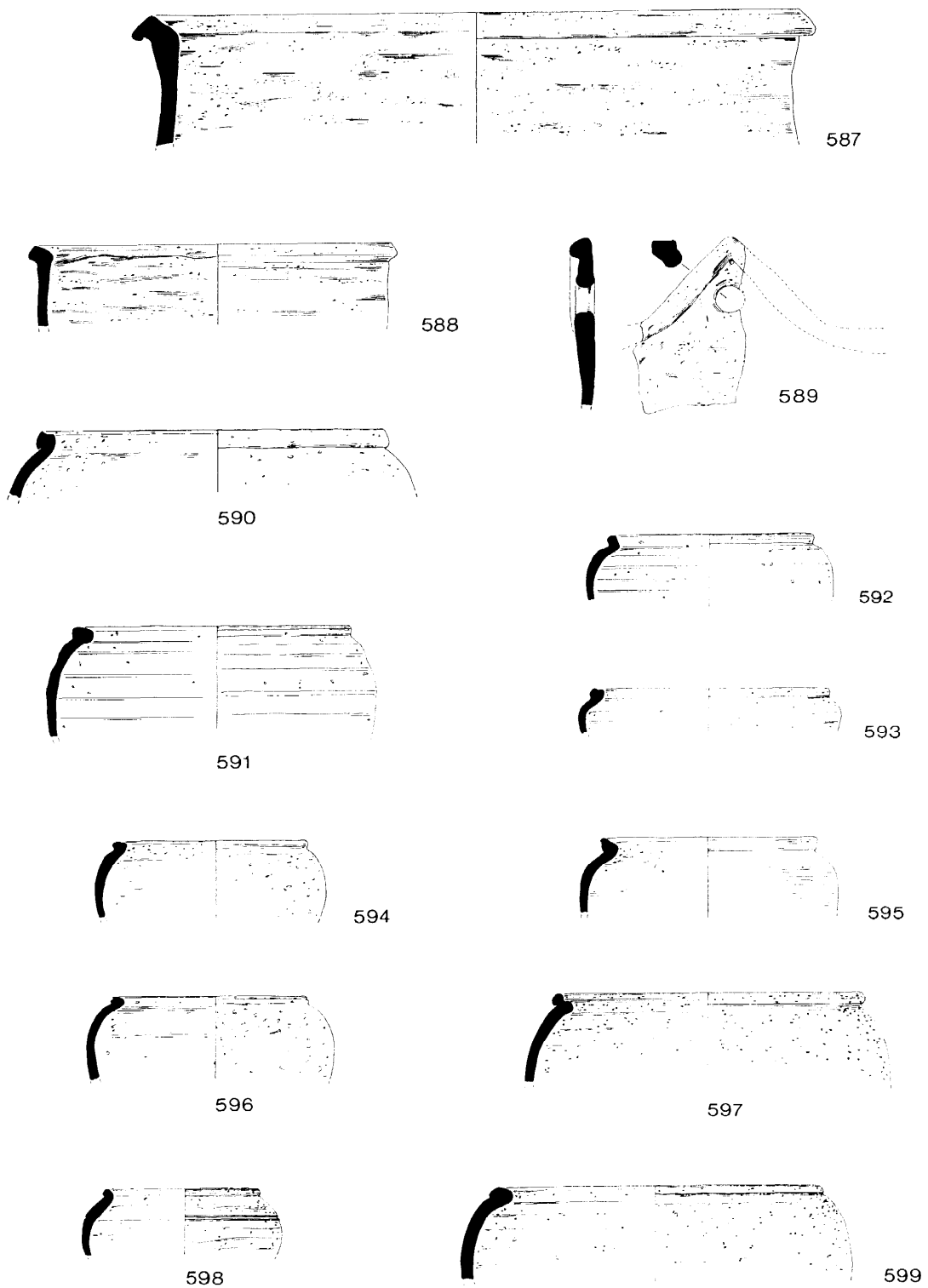


Fig 91 South Essex Shelly ware, other forms, nos 587-9. Shelly fabric 2826, jars, no 590. Shelly fabric 2810, jars, nos 591-3. Shelly fabric 2809, jars, nos 594-7. Shelly fabric 2825, jars, nos 598-9 (Scale 1:4)

Forms

Jars Fig 91, Nos 598-9 Like SHEL-2809, the fabric is restricted to bead-rim jars (IIA); 598 has a groove on the girth.

5.8 Black-burnished ware industries

The origins, typologies and occurrence of black-burnished wares in general (Farrar 1973; Monaghan 1987; Williams 1977) and in London (Marsh & Tyers 1978) have been extensively discussed and, apart from extending the Southwark typology and refining the dating, it is not proposed to comment further on their history. The chronological scope of this corpus allows only a cursory glance at the overall incidence of black-burnished wares in the City but, where relevant, later trends are introduced. These later industries are described in Richardson's (1986, 125-7) account of the Severan assemblages at New Fresh Wharf.

A date of *c* 120/5, largely based on the evidence from the Northern frontiers, is generally accepted for the widespread distribution of black-burnished wares. The stratigraphic evidence confirms an early Hadrianic date for their arrival in the City. Small quantities of BB1 and, to a lesser extent, BB2 and other burnished wares occur for the first time in layers immediately below and sealed by fire horizons associated with the Hadrianic fire, suggesting a date of *c* 120 or slightly earlier (Fig 92). This pattern can be noted at sites to the west and east of the Walbrook, as well as the upper Walbrook. It is also probable that BB1 arrived in the City before BB2, as on some sites it is found in the lowest levels of early 2nd century sequences where BB2 is absent.

Williams' *(ibid,* figs l-2) illustration of the distribution of Dorset BB1 shows that apart from the most easterly areas, East Anglia and the north Yorkshire coast, it reached almost the whole of Roman Britain, with BB2 confined to the east. Quantified data from the City, shown on Fig 92, suggest that although reasonable amounts of BB1 reached as far east as London in the early 2nd century, dominating the black-burnished ware market briefly at this time, it was quickly superseded by more local suppliers from the cast of England, Essex and/or Kent (BB2). During the early 2nd century BB1 accounted for 60% of all the black-burnished wares by weight, but it decreased in relation to BB2 to 25% in the Hadrianic and 10% in the early Antonine period.

Williams *(ibid,* 209) concluded that the majority of BB2 found in northern Britain came from Colchester, with smaller quantities from other areas, such as north Kent. The same pattern is reflected in the City of London by both excavated assemblages and the Reserve Collection. During the Hadrianic period there were a limited number of BB2 fabrics, of which 1462 (comparable to Colchester products) assumed the greatest proportion, and a certain homogeneity of form; by the early to mid Antonine period there was a proliferation of both fabric and form variants. However, it should be noted that there is a wide range of variation within the Colchester material (Monaghan 1987, 171), some of which could be confused with Thameside Kent products. Although Monaghan's work has greatly increased the understanding of black-burnished ware from the Thameside kilns, the lack of large published groups from the kiln sites allows only a tentative allocation of some our groups to the north Kent/south Essex region.

In this report the term BB1 is retained exclusively for the handmade products of the Dorset area and BB2 for wheelmade black-burnished wares that can be assigned to a particular source area. A third category - Black-burnished Style or BBS - encompasses both handmade and wheelmade fabrics which can be grouped together by petrology, typology and decoration but for which a source area cannot be suggested, and grey ware imitations where industries are restricted to black-burnished types.

The handmade wares form a homogeneous group in terms of fabric and typology, but the wheelmade products are more complex. A small number of wheelmade fabric groups are present in the pre-Hadrianic deposits, but by the Hadrianic period, and increasingly in the early Antonine, there was clearly a diversification in the number of both fabrics and forms (Fig 96). This diversity is represented by at least four BB2 fabrics in the City, and is also apparent in the variety of forms which do not readily conform to the BB2 repertoire identified by Gillam for northern Britain.

The analysis of the BB2 fabrics is difficult because they all share similar quartz tempering and encompass a range of variations whose parameters are not always clear. It is possible to separate the most distinctive ones in the hand specimen, but the majority require microscopic identification. For spot dating, therefore, the blanket term BB2 has normally been used, However, all the quantified data presented here have been subdivided into the groups described below. By studying the fabrics in detail, typological nuances (ie body thickness, rim variants and quality of the workmanship) have been recognized and related to fabric and kiln groups, thereby allowing more precise identification in the hand specimen.

Fabrics classified as BBS are often represented by single or several vessels rather than by homogeneous groups. Although they broadly conform to the term black-burnished ware, they do not appear to be paralleled within known kiln groups.

BBl and other handmade fabrics

B B 1

Dating

Fig 92

In general BB1 is abundant in early Roman deposits. It first occurred in the Trajanic period, in levels sealed by Hadrianic fire debris. It doubled in quantity in the Hadrianic and early Antonine periods, but still only accounted for <5% by weight of all reduced wares.

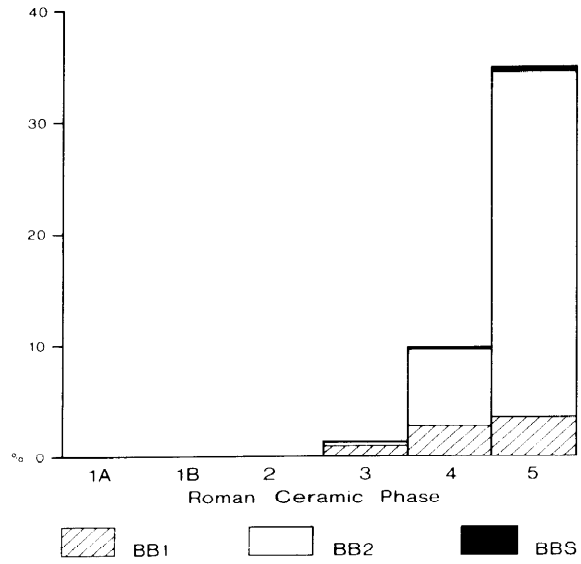


Fig 92 Stacked bar graph of black-burnished wares as a percentage of all reduced wares by weight

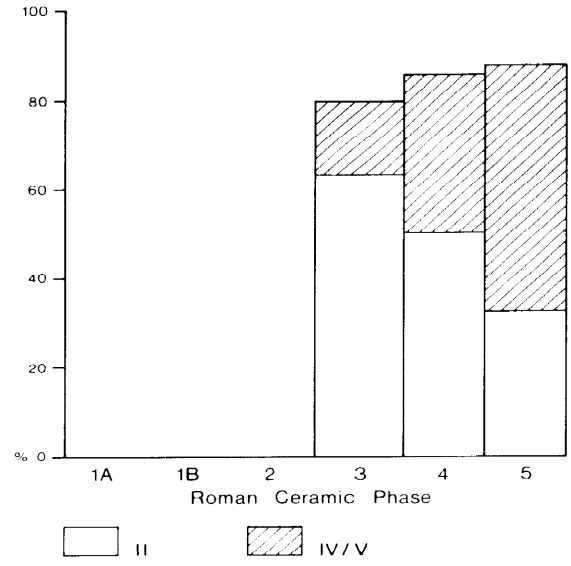


Fig 93 Stacked bar graph of Black-burnished ware I jar and bowl forms as a percentage of all BB1 forms by Eves

Fabric and technology

Pl 7ah

BB1 is a black granular, handmade fabric with abundant well-sorted quartz and a distinct hackly appearance. The burnish is shiny, showing the individual strokes, and the vessels are frequently horizontally wiped and facet-burnished in zones. The interior of closed forms and the background of decorated zones are left rough, with the commonest type of decoration being an acute-angled lattice which tends to be rather irregular. As expected, no examples of the later, obtuse-angled lattice are represented here.

A dark grey or black (2.5YR 3/0-4/0), fairly hard and rather friable fabric, with abundant inclusions of well-sorted quartz (SA 0.2-0.5mm, but occasionally <0.8mm), resulting in a characteristic fracture described as a 'cod's roe' by Williams (1977, 189). Occasional coarse or very coarse fragments of shale, moderate black or red iron-rich inclusions and rare limestone (<1.0mm), together with sparse white mica, are also noted. A variant (2765) consists of the same basic inclusions but the quartz is finer (*c* 0.2-0.3mm). This fabric, which appears quite dense and heavy, sometimes firing to a brownish-black (7.5YR 3/2), occurs very occasionally as handled beakers (not illustrated) and, more rarely, bowls (613, 615).

Forms

Most of the BB1 forms in the City belong to very standardized types which are common throughout the entire area of BB1 distribution and are paralleled in Gillam (1970).

Flagons Fig 94, No 600 Few flagon handles (Gillam 61) come from excavation, but there are at least three examples from the Reserve Collection. Their fabric is slightly coarser than normal and it may have been strengthened with additional quartz.

Jars Fig 93; *Fig 94, Nos 601-5* Everted-rim jars (IIF, 602-5) are the most common jar form and, although the decorative style varies from acute lattice to wavy-line burnishing, many have an upright rim with a slight beading at the lip. A burnished wavy line on the rim exterior is another typical feature (IIF1-2, 602-4). Bead-rim IIAs (601), generally undecorated, also occur and the two forms appear to be contemporary. Technologically, BB1 jars are distinguished from their BB2 counterparts by a greater depth of burnishing inside the vessel. As shown on Fig 93, jars are especially common in relation to bowls in the earliest deposits, possibly before *c* 120/5.

Beakers Fig 94, Nos 606-7 Beakers and handled beakers with short, ever-ted rims (IIIE) rarely occur. Some are undecorated, but others (not illustrated) feature lattice burnishing and are usually very thin walled. Body sherds can be easily confused with thin walled jars, which could account for their rarity.

Bowls and dishes Fig 93; Figs 94-5, Nos 608-20 Bowls occur only sporadically in layers immediately prior to Hadrianic fire levels, but gradually increased after this. Most vessels have either horizontal or slightly upturned flat rims (IVG, 608-17), occurring on both bowls and dishes. Despite standardization in form, they occur in a range of rim diameter sizes (c 160-260mm) and depths (*c* 35-125mm). Many are noticeably rounded at the base, lacking the chamfer commmonly found on wheelmade black-burnished wares. A variety of burnished decorative techniques

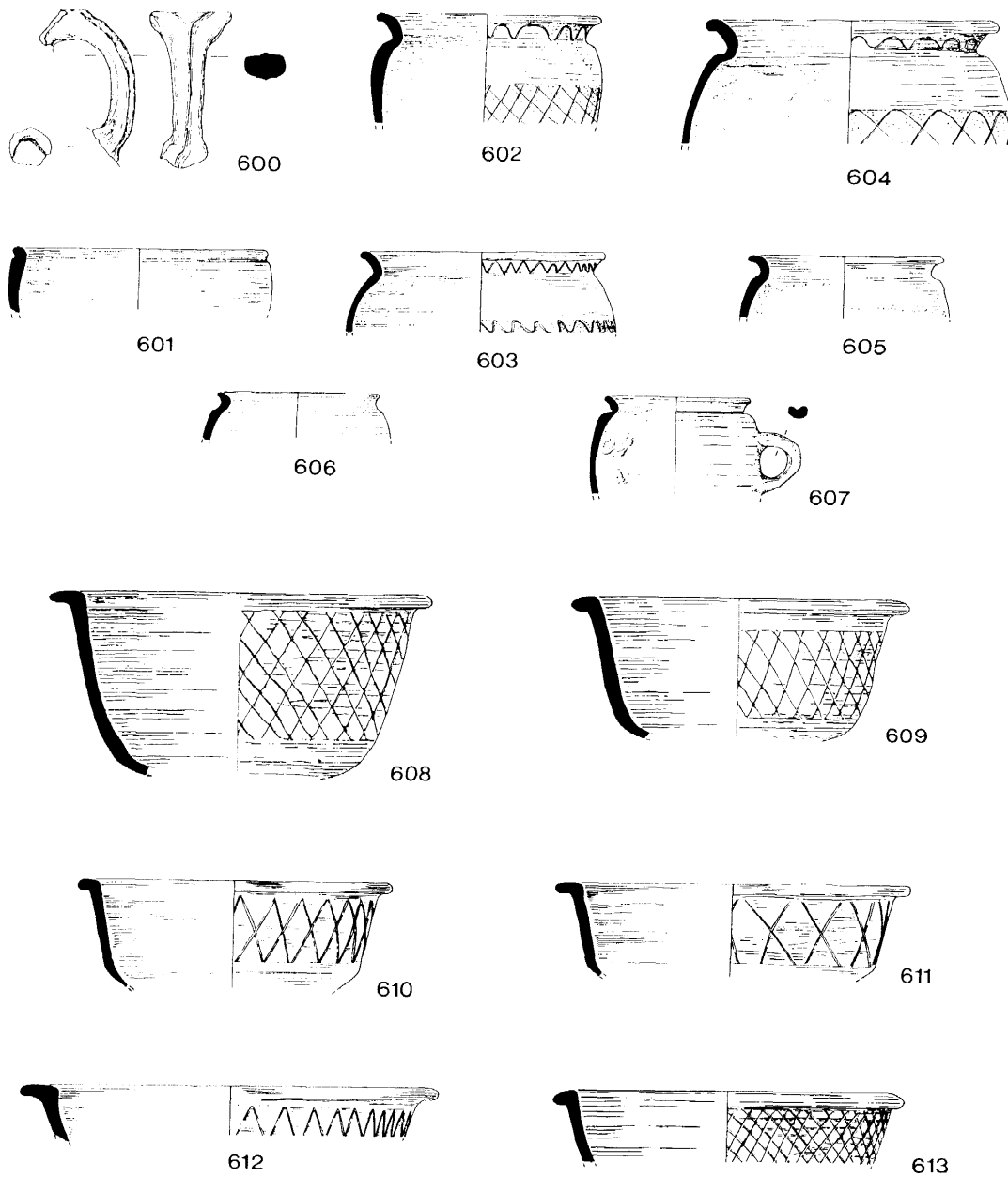


Fig 94 Black-burnished ware I, flagons, no 600; jars, nos 601-S; beakers, nos 606-7; bowls/dishes, nos 608–15 Scale 1:4)

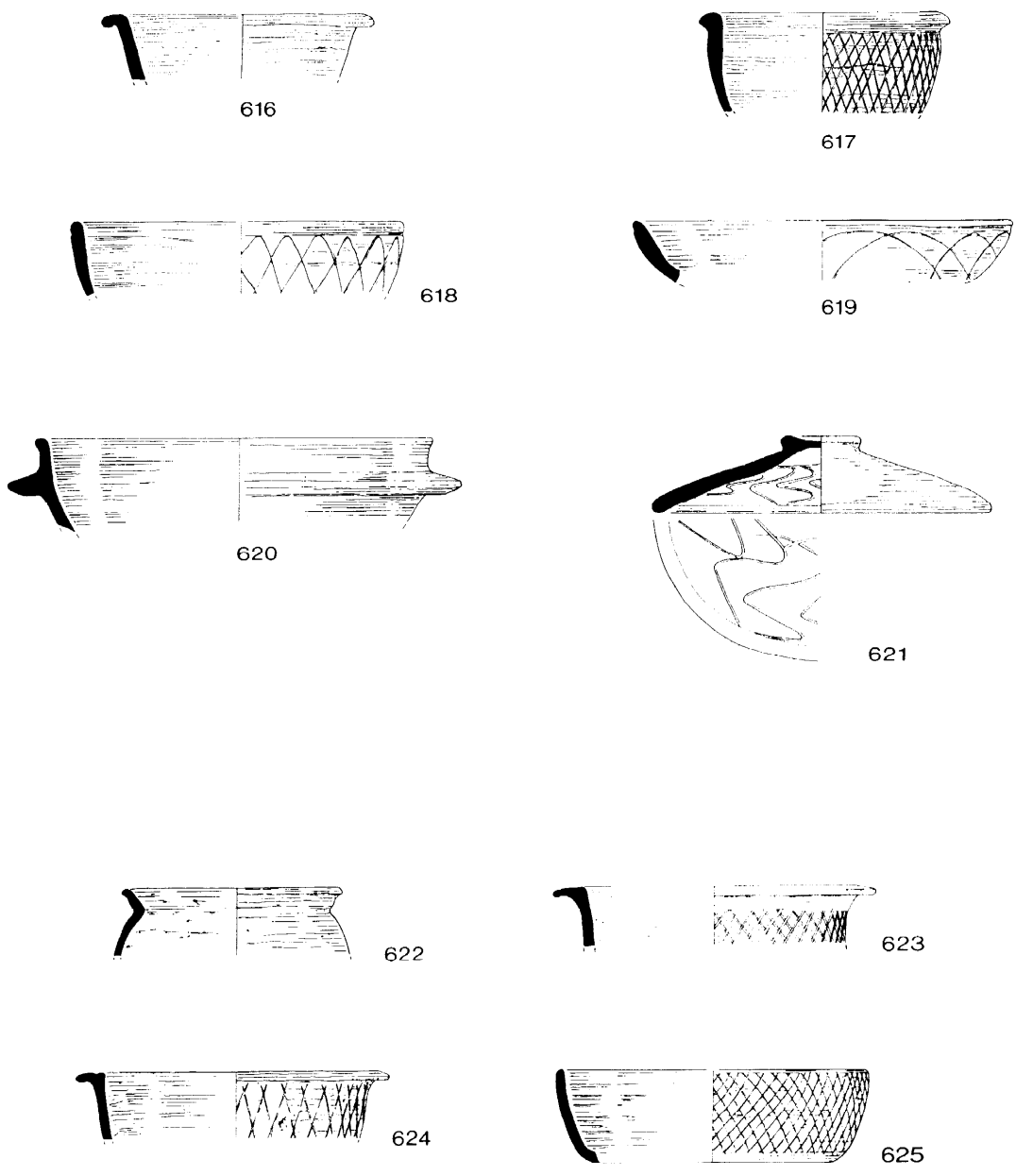


Fig 95 Black-burnished ware 1, bowls/dishes, nos 616–20; other forms, no 621. Black-burnished Style fabric 1547, jars, no 622; bowls/dishes, nos 623-S (Scale 1:4)

occur, ranging from diamond lattice (eg 610), acute lattice (eg 608), wavy burnishing (615), and occasional undecorated vessels (616). More unusual are two vessels with a short and almost triangular rim (IVG3, 613, 617), typically associated with BB2, both of which occur in early Antonine levels.

Flanged bowls (Gillam 228) are absent from quantified sequences of this period, but a small fragment of Gillam 226 (not illustrated) with an incipient flange, occurs in an early Antonine context in association with an almost identical form in an unsourced handmade fabric (BBS-1547, Fig 95, 624). However, as this phase at Newgate Street was disturbed in some areas, it is not certain that the form was present by the mid 2nd century and it is absent from a pit of the same date at 28-32 Bishopsgate.

Plain-rim dishes (IVJ variants, 618-19) decorated with intersecting arcs are much rarer than the IVG

form, but occurred from the Trajanic period onwards. Often, as here, their rims are beaded and their bases feature burnished diablo decoration.

The most unusual example of the BB1 repertoire is a vessel with bead rim and horizontal flange (620), similar to Drag 38, from a layer dating to *c* 120-40. Although the form is absent from Gillam, it is known from kiln sites in Dorset (Type 75, Seager Smith & Davies 1993) and is occasionally found 'elsewhere outside the production area.

Other forms Fig 95, No *621* Lids are scarce, but occur throughout the period, Number 621 with a plain rim is a fine example, showing the burnished diablo decoration inside the vessel.

BBS-1547

The vessels identified in this fabric emulate BB1 forms, but their fabric and finish is clearly different. There are no known external parallels for the fabric and it remains unsourced.

Dating

Although distinctive, the fabric is sparse. It was present at Billingsgate Buildings (Green 1980b, fig 34, 285) in a group dated from the late 1st to 2nd century. Individual occurrences have also been noted in Hadrianic-early Antonine levels. The quantified sherds comprise a single vessel in an early Antonine context (<1% of all reduced wares by weight).

Fabric and technology

Pl 5ai

A very sandy, handmade fabric, differentiated from BB1 in colour and by having less quartz, which is poorly sorted. Surfaces are hand burnished in irregular bands, and the finish is rather dull when compared with the shiny Dorset examples. The principal decoration of acute-angled, burnished lattice is regular and well finished.

A fairly hard, grey (7.5YR 4/0) fabric with brownish-grey (10R 4/2–5/1) margins and surfaces, giving a superficially burnt appearance. The silty matrix, with hackly fracture, contains moderate amounts of ill-sorted clear or occasionally roseate quartz (SA, R 0.l–0.5mm, but occasionally <1.0mm), sparse brown-black/purplish iron-rich inclusions (A <1.0mm) and sparse fine white mica. It lacks the 'cod's roe' appearance and the shale inclusions of Dorset fabrics.

Forms

Vessel types are the same as the common range of BB1 forms already discussed.

Jars Fig 95, No 622 Everted-rim jars (IIF) share the slight beading on the lip and internal burnish to the neck with Dorset products. Examples lack burnished lattice decoration.

Bowls and *dishes Fig 95, Nos 623-5* Flat-rim bowls (IVG, 623) and plain-rim dishes (IVJ, 625) with acute lattice are the main bowl forms in this fabric, although one with incipient flange (624) and acute lattice also occurs. The latter form is generally associated with late 2nd or early 3rd century deposits, and this example is from the disturbed post-Hadrianic fire deposit at Newgate Street discussed above.

BB2 and related fabrics

BB2-1462

The virtually identical fabrics and close parallels between form typologies suggest that both Colchester and the City received the majority of their wheelmade black-burnished products from the same source. Although there is no definite kiln material from Colchester, Williams' (1977, 196) analysis supports a Colchester origin. The only other possible source for this material is the Cliffe parish, north Kent, where a similar but not identical fabric (see BB2-2759, S1/4b, Monaghan 1987, 246) is found, and basically identical forms (eg 5D1–6, 5D1–8, 3E5.1, 3J1–6, 3J2.3, *ibid*, 146) are common from *c* 110–50/90. Heavy mineral analysis on the Cliffe parish material is needed to

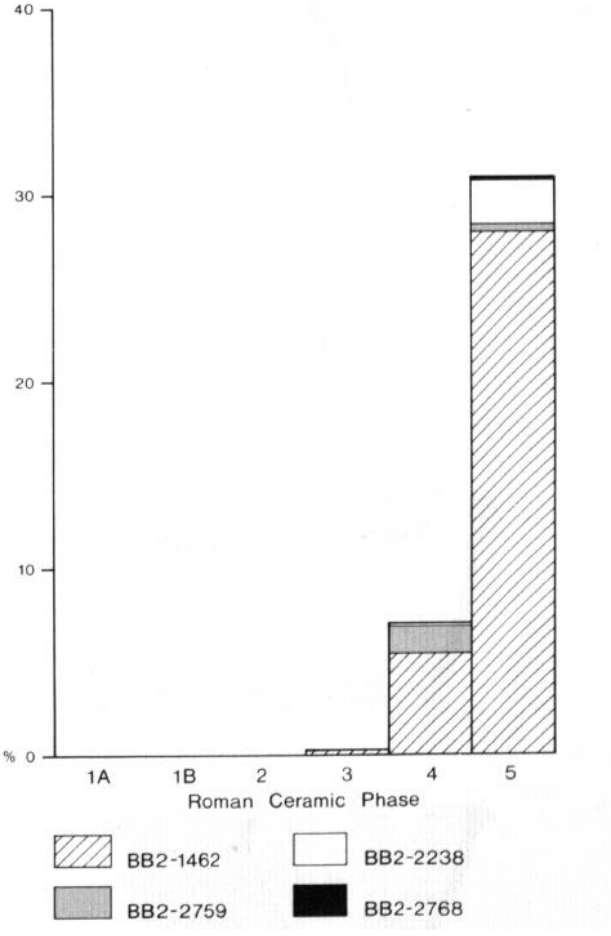


Fig 96 Stacked bar graph of the main Black-burnished ware 2 fabrics as a percentage of all reduced wares by weight

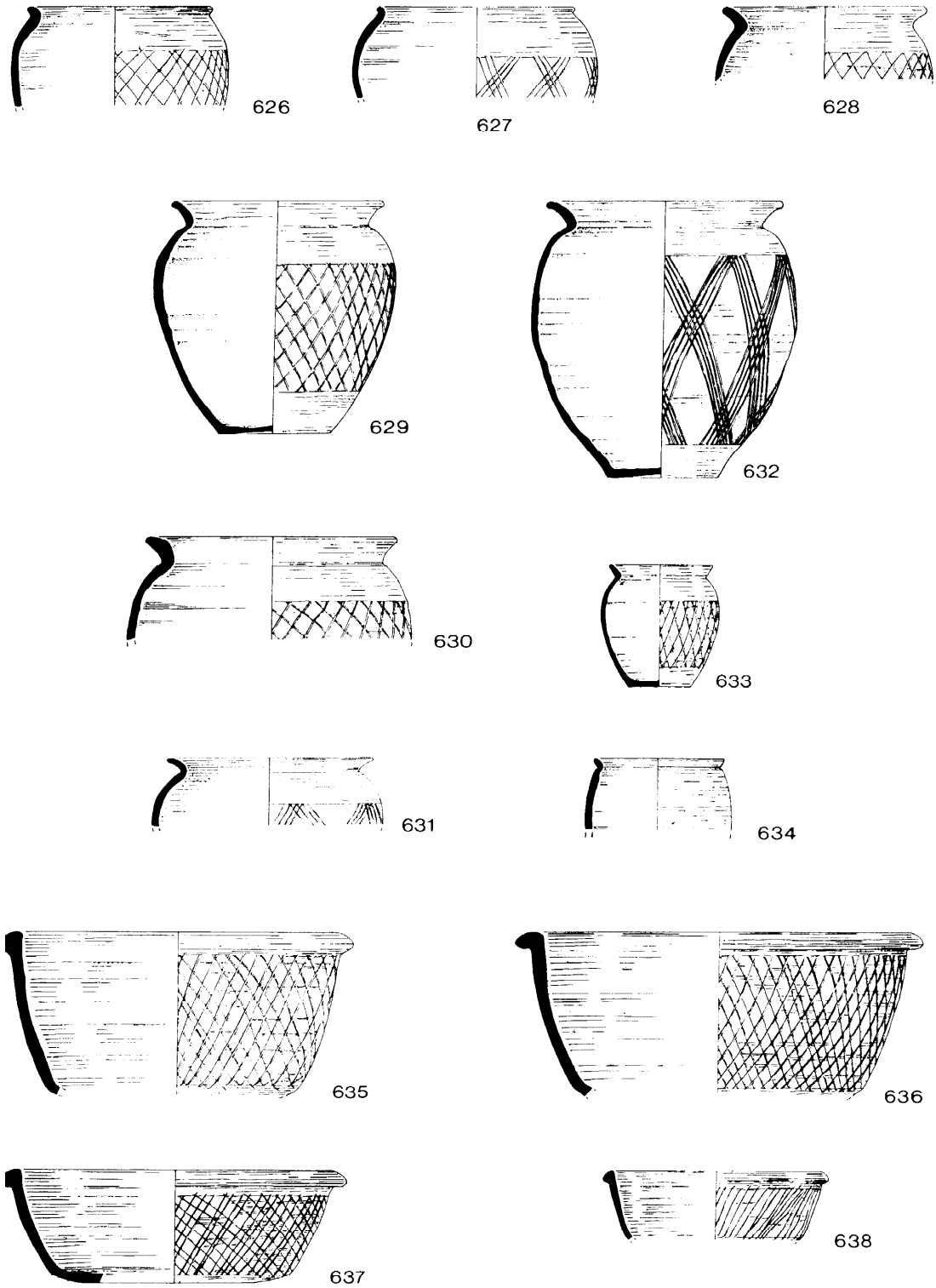


Fig 97 Black-burnished ware 2 fabric 1462, jars, nos 626-33; beakers, no 634; bowls/dishes, nos 635–8 (Scale 1:4)

clarify the differences between the two production centres.

Throughout the period a variety of Kent products reached the City (eg North Kent Shelly and Eccles ware), whereas only rare occurrences of early fine wares indicate imports from Colchester. However, until a clearer picture of these two areas emerges, a Colchester source is preferred for BB2-1462.

Dating

Fig 96

BB2-1462 is abundant, and is the dominant wheelnade fabric in all phases. During the Trajanic period it had little competition, accounting for essentially all of he rare BB2 by weight; it was still important in the Hadrianic and early Antonine periods, representing 76–80% of all BB2.

Fabric and technology

P1 5aj

This is a wheelmade fabric with abundant quartz inclusions and a highly burnished surface. The surfaces are usually jet black or dark bluish-grey, generally with a very shiny finish. There is some evidence that dip was applied before burnishing, particularly on examples from fire deposits where it has burnt noticeably white. Burnished surfaces are often smooth and silky from treatment on the wheel, but the interiors of some bowls are often burnished by hand, particularly the base. The acute burnished lattice decoration is generally well executed and more closely spaced than on BB1 vessels.

The hard fabric is dark grey or black (7.5YR 3/0–4/0), frequently with oxidized layers beneath the surface, varying from brown (5YR 5/4) to reddish-brown (10R 5/8). Fairly abundant inclusions of well-rounded quartz, including occasional roseate or brown grains (c 0.3–0.5mm, but occasionally 0.2-O 7mm), set in a fine, irregular and silty matrix. Moderate amounts of black iron-rich inclusions (R <0.4mm) and, more rarely, white mica are also present.

Two rare variants may also be Colchester products. The first is fine (2770) and is principally confined to jar forms. It has a grey (7.5YR 5/0) core and dark grey (7.5YR 3/0) margins and the quartz is normally 0.l–0.3mm, or occasionally up to 0.5mm. Jars are slipped and burnished over the lip to the exterior shoulder and decorated with both closed and open burnished lattice and sometimes have a slightly rough texture.

The second variant (2597), apparently restricted to the early Antonine period, is distinguished from the main 1462 group by its reddish-brown (5YR 4/4) colour, possibly resulting from high firing. This is supported by the clay matrix which is compacted and slightly vitrified. The vessels are slipped and highly burnished like the typical BB2, but the exterior is not always uniform in colour, firing patchily from black (7.5YR 3/0) to brownish-black (10YR 3/l). The interior, however, is almost always black. It also differs from the usual 1462 fabric in having larger quartz inclusions (SA, frequently *c* 0.8mm) and consequently a more hackly fracture.

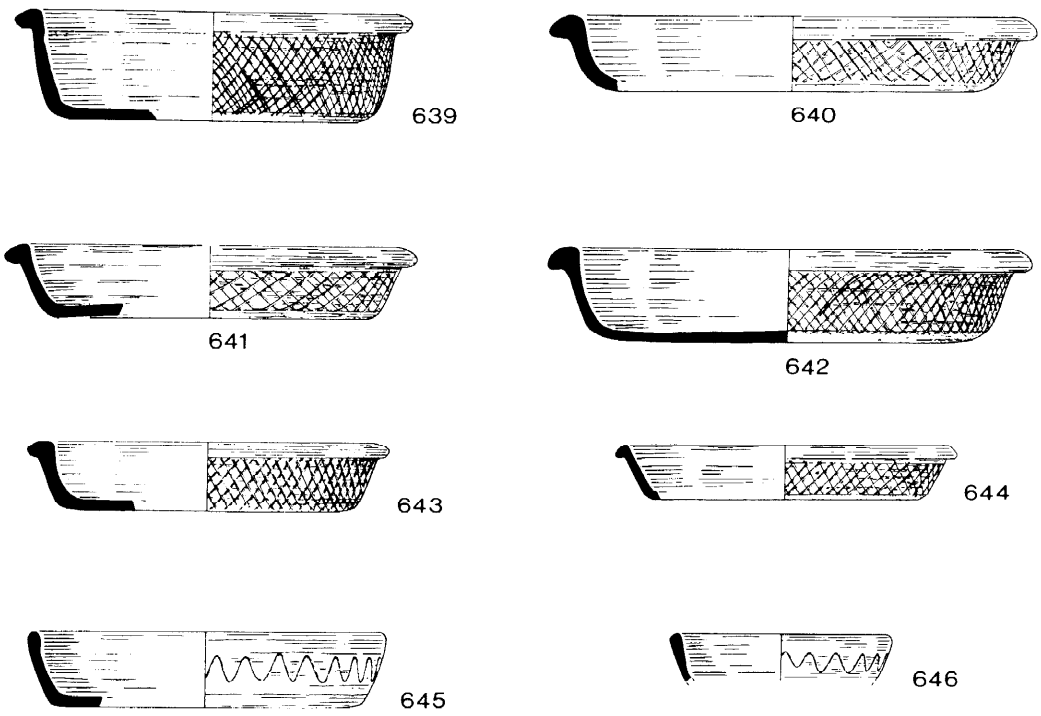


Fig 98 Black-burnished ware 2 fabnic 1462, bowls/dishes, nos 639–46 (Scale 1:4)

Forms

Jars and bowls are the main forms and their ratio varies from deposit to deposit, although there was a tendency for bowls to predominate from the Hadrianic period onwards.

Jars Fig 97, Nos 626-33 Both bead-rim (IIA, 626-7) and everted-rim (IIF, 628-30; IIF6, 631-2) jars are present. Bead-rim examples are never common and, unlike the BB1 equivalent, did not appear until the Hadrianic period, with the majority from early Antonine contexts. They have acute lattice decoration which is most commonly an overall lattice (626) but sometimes a more grouped one (627) characteristic of Gillam 144.

All the everted-rim jars of the early Roman period have slightly curved or almost upright rims with acute lattice (IIF). Their bases appear to be broader (eg 629) than those in other BB2 or BBS fabrics. The most common form (628) has a relatively upright rim, thickened internally, and can be paralleled at Colchester (Type 113, 145, Symonds & Wade forthcoming). Number 629, which has a thinner, slightly curved rim (Colchester Type 113, 148, ibid), is less common and has been noted only in early Antonine layers in the City. A vessel with upright, bevelled rim is an unusual IIF (630) in the BB2-2597 variant. The dated IIF6 (631) with grouped lattice decoration is essentially early Antonine in date, with only rare Hadrianic examples; 631 is in the fine 2770 fabric. A miniature vessel, with an almost upright rim (IIF1 1, 633), is unusual, but because of its size often survives intact.

Beakers Fig 97, No 634 Beakers with short everted rims (IIIE) are rare, and handled examples do not normally survive. The type vessel is paralleled at Colchester (Type 101, 131, ibid).

Bowls and dishes Figs 97-8, Nos 635-46 The most common bowls are triangular-rim, lattice decorated IVH1-4s (635-44). There are no examples of the later, undecorated versions (IVH5-7) common at New Fresh Wharf (Richardson 1986, 127, I.191-2). They range in diameter from *c* 160-280mm, clustering around 240mm; and in depth from c 40-130mms. Unlike the BB1 examples, all have chamfered bases. Generally, the burnished decoration is regular and finely executed and is usually acute lattice, with occasional single diagonal lines (638). A wide variety of bowls and dishes can be distinguished within this category, but no chronological developments can be suggested. Two illustrated examples, 635 and 640, are in the variant BB2-2597. All forms can be paralleled at Colchester, including the example with single diagonal lines, which is rare in the City (Colchester Type 42; Type 46, 103, Symonds & Wade forthcoming).

Plain-rim dishes (IVJ, 645-6) featuring a burnished wavy line are much less common than the lattice decorated IVH1-4s, but appear throughout the period. Both illustrated vessels can be paralleled at Colchester (Type 11, 13; Type 18, 28, ibid).

BB2-2238

A significant development within the BB2 range is the emergence of rare sherds in the Hadrianic groups, but more typically in early Antonine, of BB2-2238. This appears to be a precursor of the later industry, evidenced at New Fresh Wharf (Richardson 1986, 127). The principally Severan pottery from New Fresh Wharf has a finer fabric and a glossier finish than the earlier Antonine material. Equally, the forms at New Fresh Wharf are later types with a large number of rounded-rim, undecorated bowls (IVH5-7).

A similar fabric, distinguished by organic inclusions, and similar forms have been noted from Cliffe (S5/4b, Monaghan 1987, 248). Material from Kiln 2 at Mucking is also similar (R Arscott, pers comm), but the majority of Mucking pottery seems to be undecorated (Jones & Rodwell 1973, fig 4, 7-13), and a Kent source is preferred.

Dating

Fig 96

When considered as a single group, BB2-2238 and related fabrics form a sparse but significant proportion of black-burnished wares. Although it appeared from the Trajanic period onwards, it was rare (4 grammes, not visible on Fig 96) and not until the early Antonine period did it occur in any quantity (8% by weight of all BB2). Understanding of the fabric is hampered by the lack of mid to late 2nd century assemblages; however, evidence from New Fresh Wharf indicates that by the late 2nd/early 3rd century it had become one of the major BB2 fabrics (Richardson 1986, 127).

Fabric and technology

P1 5ak

Four variants within this fabric were initially separated to test for chronological and typological differences. However, the homogeneity of both fabric and form suggests production from a single source or two sources within close proximity, and they are therefore considered together here as BB2-2238. They all share a silky surface with 1462, but differ from it in having more fine quartz and organic inclusions.

B22-2238 is a hard, light grey fabric (7.5YR 6/0), sometimes with light brown (7.5YR 5/0) margins or core which **is** sltghtly laminar in fracture and has abundant quartz (SA, A <0.6mm). Other inclusions in the same size range include sparse black iron-rich fragments (R, SA), organics (F, R) and limestone (SA), with lesser amounts of white mica set in a silty matrix. The vessels are slipped medium dark grey (7.5YR 2.5/0), although some examples vary to light grey (7.5YR 6/0), and are usually well burnished. BB2-2127 IS a variant containing more silt-sized inclusions, while the quartz in 2237 **is** usually to *c* 0.3mm. BB2-2127 tends to be dark grey or black (7.5YR 3/0-4/0), but sometimes has dark brown (2.5YR 3/0; 2.5YR 5/6) margins or core. Finally, BB2-117 is almost identical to 2237 but IS restricted to jar forms and lacks the highly burnished surface seen on other variants.

Forms

The forms are restricted to jars and, more commonly, bowls.

fars Fig 99, Nos 647-8 Jars have pronounced ever-ted or cavetto rims (IIF6), which differ markedly from the more upright rims of the Hadrianic period, and are burnished with grouped lattice. These vessels are restricted to the early Antonine groups from Newgate Street and may therefore be later than 160.

Bowls and dishes Fig 99, Nos 649-57 The majority of the bowls are decorated IVH1-4s (649-55). In this fabric the normal triangular rims of the IVHs deviate quite significantly towards rounded rims (cf 652 with 654). Generally they feature acute lattice, but some have single diagonal lines (655). Similar rim variants are noted at Cliffe (5D4.2, 5D7.2, Monaghan 1987, 146), and the single diagonal line decoration can be parallelled at Upchurch (5D6.1, *ibid).* Number 649, a deep bowl with acute lattice, has a typical rim, but features the thin body wall distinctive to the Kent products. Others are more unusual: 650 has a rolled rim, heavily undercut, which can be paralleled by vessels from Cliffe and Upchurch (5D0.2, 5D0.3 respectively, *ibid);* 651, burnished with intersecting vertical and horizontal lines, is unparalleled.

Rounded-rim undecorated bowls, belonging to IVH5-7 (656-7), and generally thought to be late 2nd century in date, are also present in these fabrics at Newgate Street, but in very small quantities. The poor quality of the burnishing distinguishes the early Antonine examples from the glossier Severan ones. Undecorated bowls with round rims are common among the Kent assemblages, and generally date to mid and late 2nd to early 3rd century *(ibid,* 140).

BB2-2768

The fabric is similar to material from the Chalk area of Kent (J Monaghan, pers comm)

Dating

Fig 96

BB2-2768 is represented by a single vessel from an early Antonine layer.

Fabric and technology

P1 5a1

This fabric with silky burnished surfaces is distinguished from the other BB2 fabrics by a very dense, hard matrix and large limestone inclusions.

This hard, smooth fabric is distinctive with prominent amounts of limestone (R 0.2-0.7mm) and black iron-rich inclusions (R 0.1-0.8mm), together with moderate amounts of quartz (R, SA <0.5mm, but occasionally 1.5mm) in a dense, silty matrix. Sparse white mica is present and is more noticeable on the surface. The irregular fracture is dark grey (7.5YR 3/0) with brown (7.5YR 4/4) margins and a burnished slip varying from black (7.5YR 4/0) to brownish-grey (2.5YR 5/2).

Forms

Bowls and dishes Fig 99, No 658 The vessel is a IVH1-4 dish with a downward curving triangular rim, decorated with single diagonal lines. Its typology conforms well with the Kent series (5D1.4, Monaghan 1987, 145).

BB2-2759

Comparison with material held by the Dartford Museum and the Kent Archaeological Society, and, most importantly, similarities between City and Kent BB2 fabrics drawn by Monaghan (pers comm) indicate a Kent source for this fabric. Close parallels can also be found between south Essex and the Thameside-Kent pottery traditions, and a south Essex source must not be excluded. However, the lack of large published groups makes it difficult to assign our material to this area with confidence.

Dating

Fig 96

The fabric was always sparse, but during the Hadrianic period it was the second most common BB2 fabric after BB2-1462 (22% of all BB2 by weight); by the early Antonine period it was diminishing.

Fabric and technology

P1 5am

A fabric similar to 1462, usually including the silky surface, but distinguished by having sparse but consistent calcareous inclusions. BB2-2759 is virtually identical to a Kent fabric (S1/4b, Monaghan 1987, 246).

A hard, dark grey (2.5YR 4/4) fabric, with brownish-grey (7.5YR 4/2) margins and dark grey (7.5YR 4/0) surfaces, which is smooth to the touch and irregular in fracture. The main inclusions are abundant, fairly well-sorted quartz, sometimes with a brown appearance, possibly coated in haematite (R, SA 0.2-0.5mm, but occasionally <1.0mm). Also present are moderate amounts of black, less frequently red, iron-rich inclusions (R 0.2-0.7mm) which tend to weep into the silty matrix. Prominent fragments of quartz (SA 0.5mm>) are noticeable in the fabric, together with sparse limestone (SR 0.2-0.3mm) and moderate amounts of white mica visible on the surface. Rare flint can also be identified (0.6mm). The surfaces tend to discolour and not all vessels are necessarily slipped.

Forms

Although the decorative features of these vessels conform to the traditonal BB2 style, the forms, consisting almost entirely of bowls, tend to deviate. Jars are rare and are not illustrated here.

Bowls and dishes Fig 100, Nos 659-67 The most common form is the IVH1-4, with triangular rim and acute lattice (662-3). The vessel walls are distinctly thinner than on other BB2 fabrics, a feature also noted in assemblages from Cliffe (5D1.2, SD0.4, *ibid,* 145-6). The same general types decorated with single

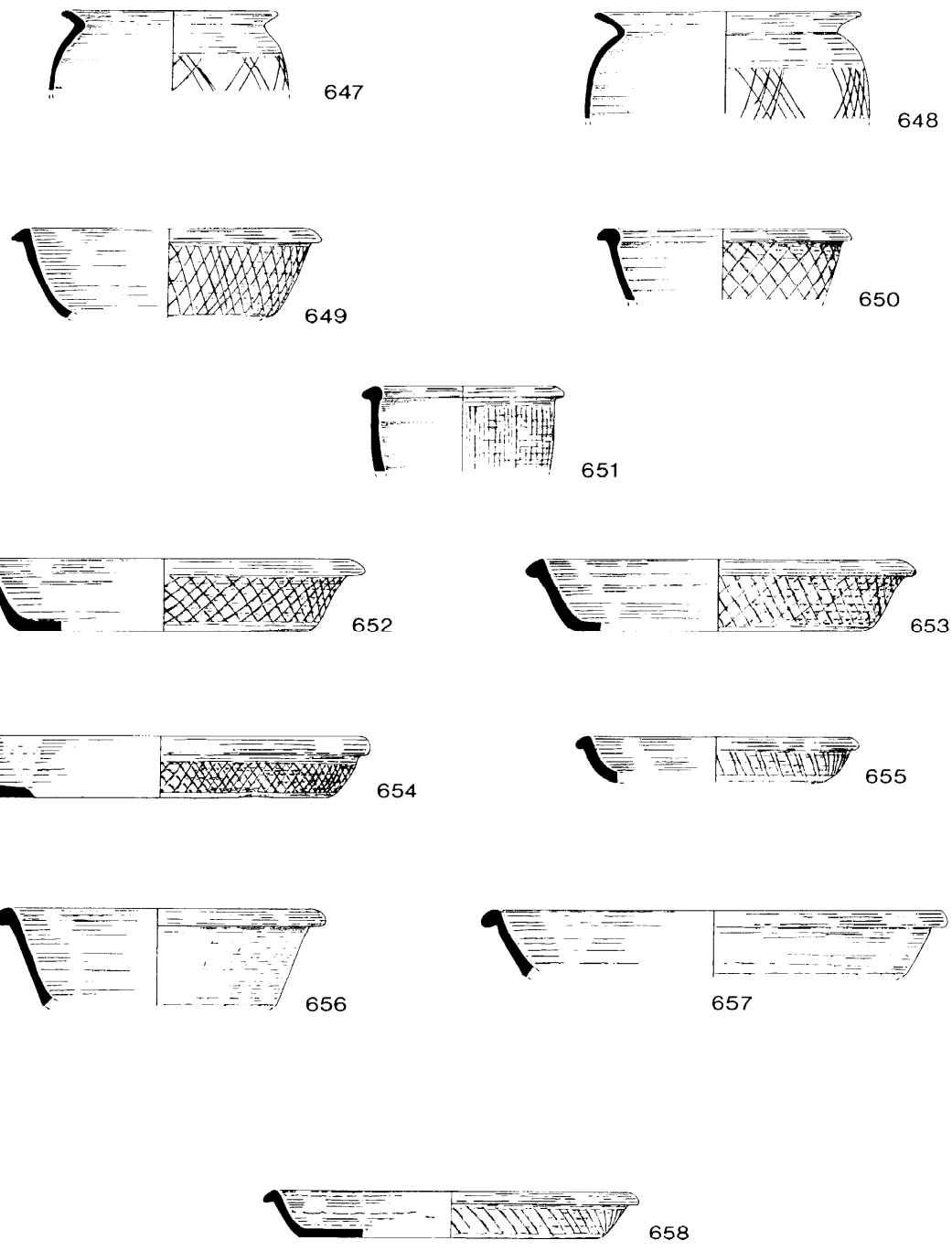


Fig 99 Black-burnished ware 2 fabric 2238, jars, nos 647-8; bowls/dishes, nos 649-57. Black-burnished ware 2 fabric 2768, bowls/dishes, no 658 (Scale 1:4)

diagonal lines (664-5) can also be paralleled at Cliffe (5D1.3, 5D2.2, 5D4.1, 5D5.3, *ibid)* as well as at Upchurch (5D5.1, 5D6.1, *ibid,* 146). A single vessel is undecorated (IVH7, 666). It has a thick, triangular, slightly downward pointing rim, as does 5C4.1 from Cliffe *(ibid,* 141).

A second bowl form with a flatter rim (IVG, 659-61) and acute lattice decoration, is more consistent with those in BB1 . The vessels are clearly wheelmade and although unusual for BB2, similar vessels are noted at Cliffe (5D3.1, *ibid,* 146).

Plain-rim dishes (IVJ variant, 667) are rare in comparison with IVGs and IVHs. They differ from those published by Gillam in that the rim and external body wall are delineated by a groove. Similar vessels are common among the Kent assemblages at Cliffe, Cooling and Upchurch (5F, *ibid,* 150), but they appear to lack the single diagonal lines illustrated here.

BBS-2764

Dating

The fabric is rare, with quantified examples accounting for <1% of all reduced wares from Trajanic-early Antonine contexts.

Fabric and technology

A black-burnished ware with light grey silky surfaces, distinguished by a having only moderate amounts of quartz.

The fabric is loose in texture with sparse to moderate well-sorted quartz (R 0.3-0.5mm, but occasionally 0.7-1.3mm) and sparse black iron-rich inclusions (R 0.l-0.4mm) set in a fine silty matrix. It is dark grey (7.5YR 4/0) with slightly lighter (7.5YR 5/2) margins and an irregular fracture. Surfaces are also light, and are slipped and burnished; where burnt the iron-free slip is white.

Forms

Bowls and dishes Fig 100, Nos 668-9 Vessels in this fabric are the flat-rim IVG, normally associated with handmade BBl products, and are either decorated with acute lattice or plain. Number 668 is an enlarged variant of the more typical flat rim.

BBS-718

The fabric is similar to a grey ware, but the form allies it to black-burnished ware.

Dating

BBS-718 is rare and only occurs in early Antonine levels, where it accounts for <1% of all reduced wares by weight.

Fabric and technology

A fine textured fabric with abundant quartz inclusions and rough surfaces. The vessels are wheelmade; external burnishing is grey with lattice decoration on an unburnished zone.

This light grey (7.5YR 5/0) fabric with dark grey (7.5YR 3/0) margins is hard and rough in texture with abundant well-sorted quartz (SA 0.2-0.3mm) and sparser black iron-rich inclusions (SA 0.2mm>). The clay is highly fired, with a hackly fracture.

Forms

Jars The jars consist of upright everted-rim types (IIF6) and feature grouped lattice decoration. Examples are too fragmentary to illustrate.

Bowls and dishes Fig 100, No 670 The only surviving profile in this fabric type belongs to a plain-rim dish (IVJ); decorated with a burnished wavy line, it is carinated sharply towards the base.

5.9 East Sussex Grog-tempered ware (SUG)

This handmade, grog-tempered ware from East Sussex continues an Iron Age tradition throughout the Roman period (Green 1980a).

Dating

Examples are extremely rare but are represented by at least two vessels from 25-6 Lime Street, where they first occur in Trajanic deposits (<1% of all reduced wares by weight); later sherds are from the same vessels and therefore residual.

Fabric and technology

A grog-tempered fabric with abundant black grog in a light grey matrix. The vessels are handmade and burnished on the exterior.

A coarse, hard fabric with a soapy feel and an irregular fracture. It has a light grey (2.5YR 8/0) core, a brown (10YR 5/4) exterior margin and brownish-black (10YR 4/l) exterior surfaces. The main temper is abundant grey grog (0.4-l.0mm) and a moderate quantity of fine white mica which is only visible on the surfaces. There are very sparse amounts of limestone (SA 0.2-0.4mm), iron-rich inclusions (R 0.3-0.7mm) and quartz (SA *c* 0.5mm).

Forms

Jars Fig 101, Nos 671-2 Two storage jars (SJ) with neck cordons are represented in this category; both can be paralleled by Green (1980a). Number 672 has an everted rim and groove on the girth. Typical 'eyebrow' decoration occurs on the shoulder, together with circles on the cordon and over the rim edges. Black slip, which may be pitch, is denoted by stippling. Number 671, an undecorated example, belongs to a similar type with a slightly out-turned rim. Both occur in early 2nd century deposits, which conforms with Green's (1980a, 73-5) suggested late 1st to early 2nd century date for these forms.

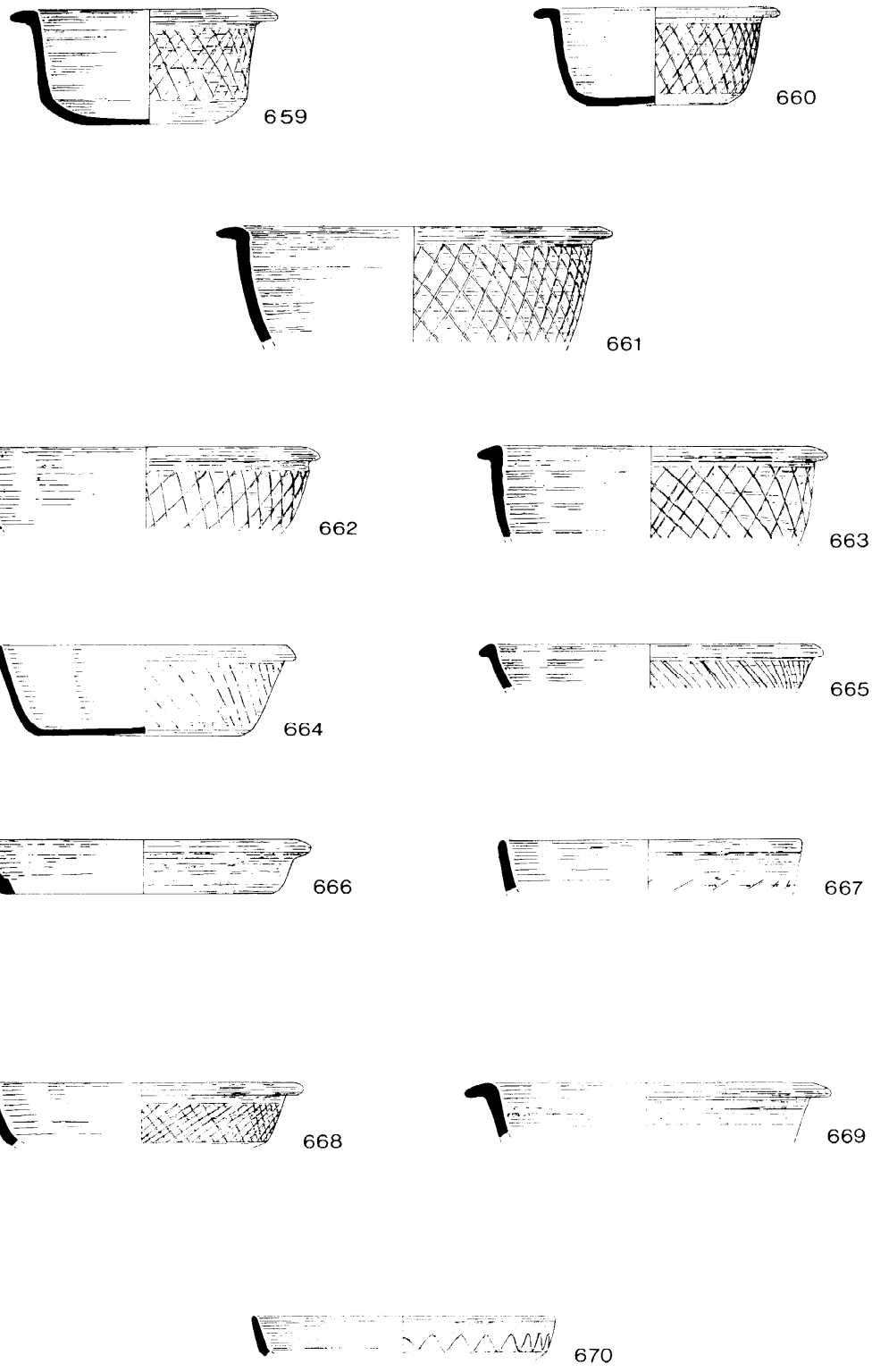


Fig 100 Black-burnished ware 2 fabric 2759, bowls/dishes, nos 6.59-67. Black-burnished Style fabric 2764, bowls/dishes, nos 668-9. Black-burnished Style fabric 718, bowls/dishes, no 670 (Scale 1:4)

5.10 Rusticated ware (RUST)

Dating

Rusticated wares are extremely rare in the City, as throughout the southeast. Most examples are pre-Flavian in date although this is not apparent from the quantified data, where it forms <1% by weight of all reduced wares in pre-Boudiccan and Trajanic contexts.

Fabric and technology

A moderately fine, micaceous fabric with coarser clay used for the rustication.

A hard smooth textured fabric, brown (7.5YR 7/2-5/2) with darker grey (7.5YR 5/0-4/0) surfaces. Sparse quartz, black and brown iron-rich inclusions (R <0.6mm), a scatter of limestone (R) and white mica are set in a fine silty matrix. The external surface has been smoothed and a coarse rustication applied over part of the body. The latter appears to be the same clay matrix as the body, but with additional abundant quartz (R <1.0mm) tempering.

Forms

Beakers Fig 101, No 673 Beakers with sharply ever-ted rims and rusticated decoration occur in the Reserve Collection. Stratified examples are restricted to body sherds.

5.11 Unsourced Sandy Grey wares (SAND)

SAND-2862

Two fabric variants (amalgamated here as SAND-2862) are similar in texture and form to what is commonly referred to as Rhineland Granular Grey ware (RGGW, Anderson 1981), although they form a separate group which is most likely to be Romano-British in origin. There is some debate as to whether the vessels from the Reserve Collection are RGGW or products of Rhenish potters in Britain (Anderson 1981 *contra* Marsh & Tyers 1976, 242). However, the fabric included here is distinct from those described by Marsh and Tyers.

Dating

The rare City examples occurred sporadically between the pre-Boudiccan and Hadrianic periods (always <1% of all reduced wares by weight), whereas Anderson (1981, 95) dates those produced in the Rhineland to the 1st century.

Fabric and technology

A granular, sandy, reduced fabric with very rough surfaces.

Two variants are incorporated in this group. SAND-2862 is a grey (7.5YR 5/l), very hard fabric with a rough texture and hackly Fracture. The matrix is silty and the principal inclusion is abundant well-sorted quartz (R, SA 0.3-0.8mm). There are sparse iron-rich inclusions (R 0.1-0.3mm) and very occasional flint (<1.3mm) and sub-angular calcareous inclusions, in the same size range as the quartz, together with sparse white mica which is visible on the surfaces. SAND-2873 is somewhat coarser, with rounded quartz grains measuring 0.5-1.2mm. It is greenish dark grey (2.5Y 4/2) with very dark grey (2.5YR 3/0) margins and surfaces.

Forms

Three forms are represented, each by one example.

Jars Fig 101, No 674 This includes a bead-rim jar (IIA) with grooved shoulder. Although the form cannot be paralleled to Anderson's (1981) typology, the texture and appearance are similar to Granular Grey ware and the other City examples.

Beakers Fig 101, No 675 This distinctive beaker with grooved shoulder and pinched, moulded girth relates to Anderson's fig 6.2, 7-12.

Bowls and dishes Fig 101, No 676 A bowl, similar to the moulded-rim IVA but with an inclined rim, equates with Anderson's fig 6.3, 26.

5.12 North Gaulish Grey wares (NGGW)

This rare fabric represents the earliest occurrences of North Gaulish Grey wares produced in Picardy/Pas de Calais which became more common at some sites, such as New Fresh Wharf, from the late 2nd century onwards (Richardson 1986, 106-9).

Dating

Grey wares were produced in this region from the Tiberian or Claudian period and continued throughout the Roman era (Richardson & Tyers 1984). Dating of the various jar forms depends on the relationship between the rim and shoulder, and therefore fragmentary examples cannot be precisely dated. The rare quantified examples (<1% by weight of all reduced wares) come from contexts of the Trajanic period or later. Both illustrated examples, but particularly 677 (Fig 101), are decorated with the vertical burnishing or *bandes lustrée* stypical of the ware from the Flavian period onwards (Richardson & Tyers 1984, 136). NGGW-2718, which is virtually identical to the later material found at New Fresh Wharf (Richardson 1986, 106-9), was first present during the early Antonine period.

Fabric and technology

A hard, reduced fabric with dark surfaces and light core, and abundant well-sorted quartz. The City material compares well with a sherd from Arras.

A hard fabric which is rough to the touch with an irregular fracture. The core is light grey (2.5YR 8,0-7/0) with darker grey

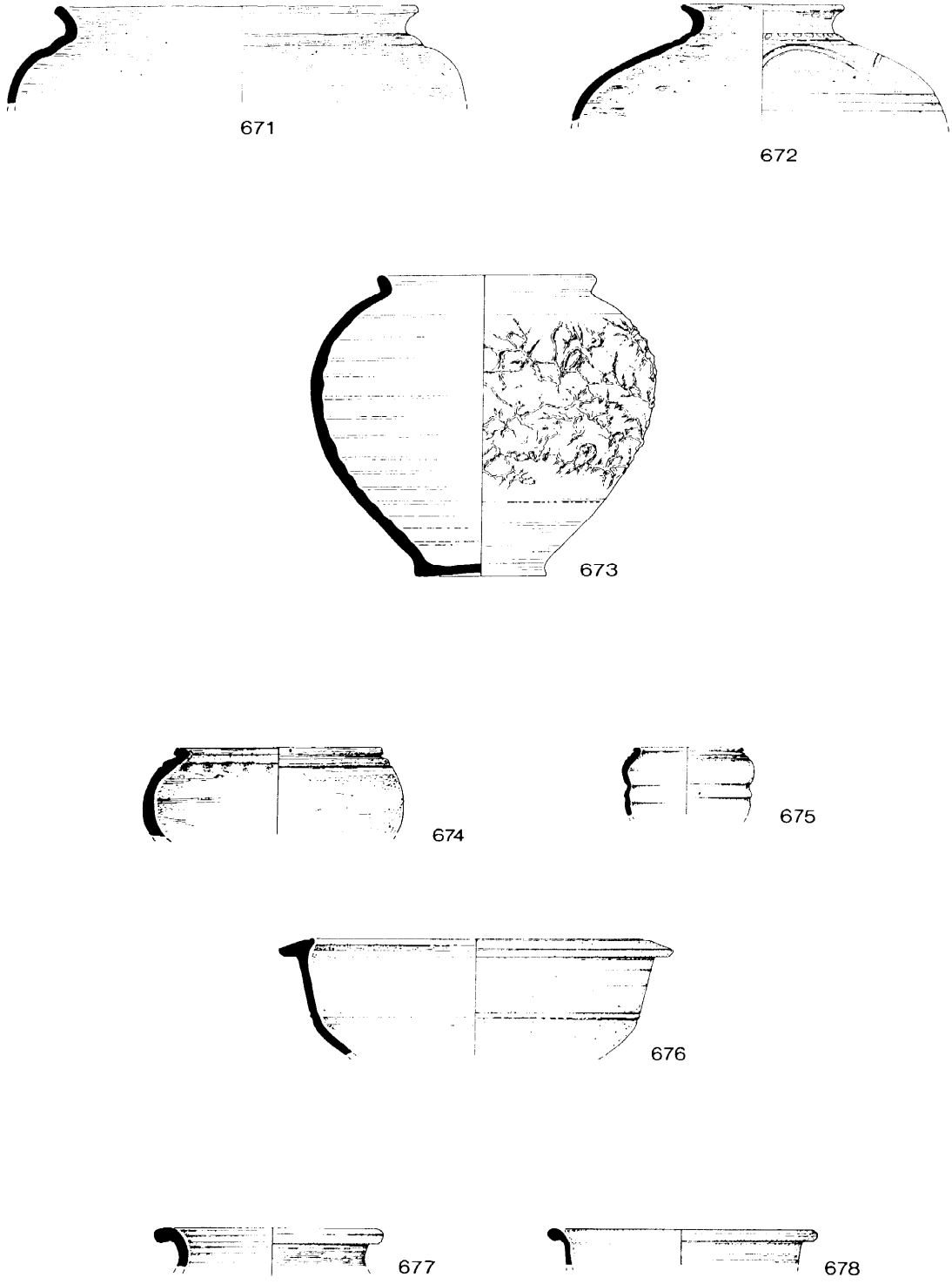


Fig 101 East Sussex Grog-tempered ware, jars, nos 671-2. Rusticated ware, beakers, no 673. Sandy fabric 2862, jars, no 674; beakers, no 675; bowls/dishes, no 676. North Gaulish Grey wares, jars, no 677; bowls, no 678 (Scale 1:4)

(10YR 4/1) surfaces; the main inclusions are abundant well-sorted quartz (SA 0.2-0.4mm) and ill-sorted black iron-rich fragments (SA, R 0.1-1.0mm). Sparse, very fine white mica is also present. Burnt sherds are inverted in colour, with light surfaces and a dark core.

Forms

Jars Fig 101, No 677 A necked jar (NJ) with a hooked rim can be identified.

Bowls Fig 101, No 678 A bowl with bead rim and internal bevel on the inside wall is present in NGGW-2718.

6. Fine wares

Apart from samian ware, the division between 'fine' and 'coarse' wares, as terms of archaeological description, is not well defined (cf Pollard 1988, 20-2). Both fabric and function contribute to the definition of fine wares, for they will usually (but not always) have a fine clay and be intended for use at the table rather than for storage or food preparation. Additionally, fine wares normally have special surface treatment, either slip or other decoration.

In this discussion fine wares are divided into major technological groups (colour-coated, Pompeian Red, mica-dusted, ring-and-dot, Gallo-Belgic white wares, eggshell, terra nigra and reduced wares). Aspects of production, importation and typological origins of non-sigillata fine wares have already been discussed (Arthur & Marsh 1978; in particular Marsh 1978) and are not addressed here.

The fine ware groups presented here constitute only a small percentage of the total pottery but, because of London's location and status, the number of different fabric groups represented is large in comparison with actual quantity. Plate 4 illustrates a range of Romano-British fine wares, most of them probably local.

6.1 Colour-coated wares

Colchester Colour-coated ware (COLC)

Dating

Fig 102

First century colour-coated Colchester products are rare in the City and are mainly confined to lamps, which are not included here. It was not until the late 1st century that colour-coated wares from Colchester began to appear in any number and they only became significant, although still sparse, in early Antonine contexts. In later Roman levels they become moderately common.

*Fabric and technology

Pl 5an

A fine, sandy colour-coated ware. The slip is generally dark grey (2.5Y 4/0) and its thickness varies. Other decoration usually consists of roughcasting composed of crushed clay particles and occasional rounded quartz grains (1.0-2.0mm).

Some products assumed to have been made at Colchester have been shown to be chemically similar to material from Sinzig in east Gaul (Symonds 1990, 12), and some or all of our sherds could be Continental in origin.

A reddish-brown (2.5YR 5/6) fabric, occasionally with a grey (5YR 8/1) core or margin. The fracture is finely irregular and the surface is rough from abundant silt-sized quartz. Larger quartz grains (A c 0.25mm) are sparse, as are reddish-brown iron-rich inclusions, limestone and mica.

Forms

Beakers There are no surviving rims. The single example from Flavian levels is scale decorated, whereas those from early 2nd century and later contexts are from roughcast and folded beakers.

Local Marbled ware (LOMA)

These marbled wares are thought to have been local and are identical in fabric to Local Eggshell ware (LOEG, Section 6.6). The two fabrics are contemporary and share typological features as well as fabric. Other marbled wares are Verulamium Region Marbled ware (4.6 below) and Romano-British Marbled ware (P 123).

Dating

Fig 103

LOMA occurs sparsely and was sometimes found in the Flavian and Trajanic periods, but was primarily Hadrianic.

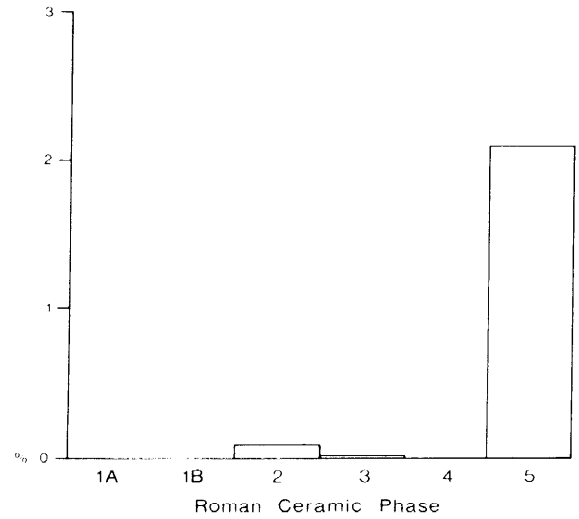


Fig 102 Bar graph of Colchester Colour-coated ware as a percentage of all non-samian fine wares by weight

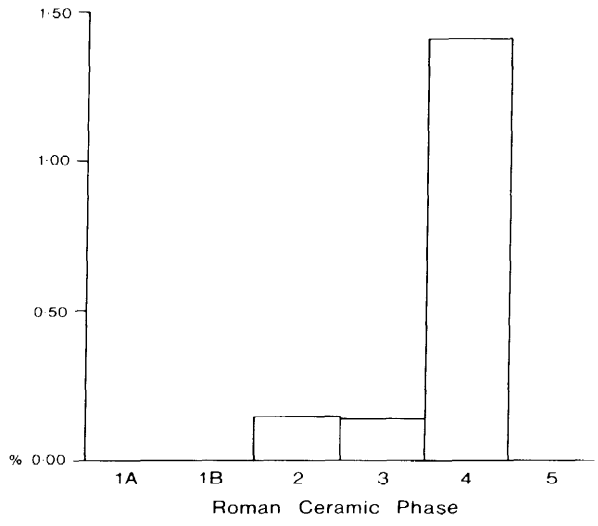


Fig 103 Bar graph of Local Marbled ware as a percentage of all non-samian fine wares by weight

*Fabric and technology

Pl 5ao

A fine, white fabric with marbled slip. The photographed example is unusual in having a light grey core. The marbled effect seen on this and other marbled pottery may well have been created by 'lightly wiping the surface or sharply rotating the pot on a wheel' (Leach 1940, 114).

A hard fabric with a smooth fracture. It is normally pure white in colour, with a dense clay matrix containing moderate well-sorted quartz (SA <0.5mm), with occasional larger grains (*c* 1.0mm) and red iron-rich inclusions (R <0.5mm). The clay matrix is identical to Local Eggshell ware (LOEG) hut the quartz is denser. The marbled slip is either orange-red (2.5YR 6/12) or greyish-brown (10YR 4/4).

Forms

In many cases LOMA is represented only by small sherds, difficult to assign to a particular vessel type. The range of forms is similar to LOEG, as are their dates, but only the more common bowls and cups are discussed below.

Bowls and dishes Fig 104, Nos 679-81 Three of Marsh's bowl types can be identified from the City. These include MT 45 (679), a carinated bowl with strainer and plain, out-turned rim; MT 34 with curving rim (680, also identified in LOEG, Fig 126, 798); MT 28 (681), a shallow dish with a lid seat. Bowls imitating Drag 37 (IVE, MT42) are also known, although not illustrated here.

Cups Fig 104, No 682 Wide-mouthed cups (VIC, MT11), which are common in LOEG (Fig 127, 80 1-2), also occur in LOMA but have yet to be found in stratified groups and are not illustrated here. Cups imitating Drag 27 (VIA, MT12, 682) are also present on City sites.

Romano-British Marbled ware (RBMA)

Other marbled wares are Verulamium Region Marbled ware (Section 4.6) and Local Marbled ware (above).

Dating

Although rare, the two identified sherds fall within the late 1st to early 2nd century date range suggested for Romano-British Glazed ware (RBGW). They comprise <1% of all non-samian fine wares by weight in the Trajanic period.

Fabric and technology

A reduced, fine sandy ware with marbled slip.

This fabric is generally grey (2.5YR 7/0), with margins sometimes oxidized reddish-brown (2.5YR 5/10). It is fairly hard and fine with a silty matrix containing occasional rounded, brown iron-rich inclusions to *c* 0.6mm; some white mica is also present. Both vessels have a white under-slip on all surfaces covered with orange-red (2.5YR 6/10-6/12) marbling.

Forms

Bowls and dishes Examples of this fabric are rare and, as yet, restricted to bowls. Two vessels have been identified: a bead-rim bowl sherd, possibly an imitation of Drag 37 (IVE), from unstratified levels at Billingsgate, and a body sherd of a bowl from a Trajanic group at 25-6 Lime Street.

Romano-British Glazed ware (RBGW)

Romano-British Glazed ware has been discussed by Arthur (1978), who suggests that the types present in London had their origins in southeast England. This group is easily distinguished from its Continental counterpart by its fabric and glaze. It is, however, superficially similar to medieval glazed London ware (Vince *et al* 1985).

Dating

In general, RBGW was produced during the late 1st and early 2nd century (Arthur 1978, 300- 1). The fabric is sparse in the City and most stratified examples occur in unquantified Trajanic-early Antonine contexts, although in the latter it may well be residual.

Fabric and technology

Pl 5ap

This fabric is identical to Romano-British Marbled ware (RBMA), but is glazed rather than slipped. The translucent lead glaze appears as a medium green (5Y 4/2-4/4), dulled by the grey fabric underneath (Arthur 1978, 300). In some cases the glaze has been applied over barbotine decoration made of white inclusionless clay.

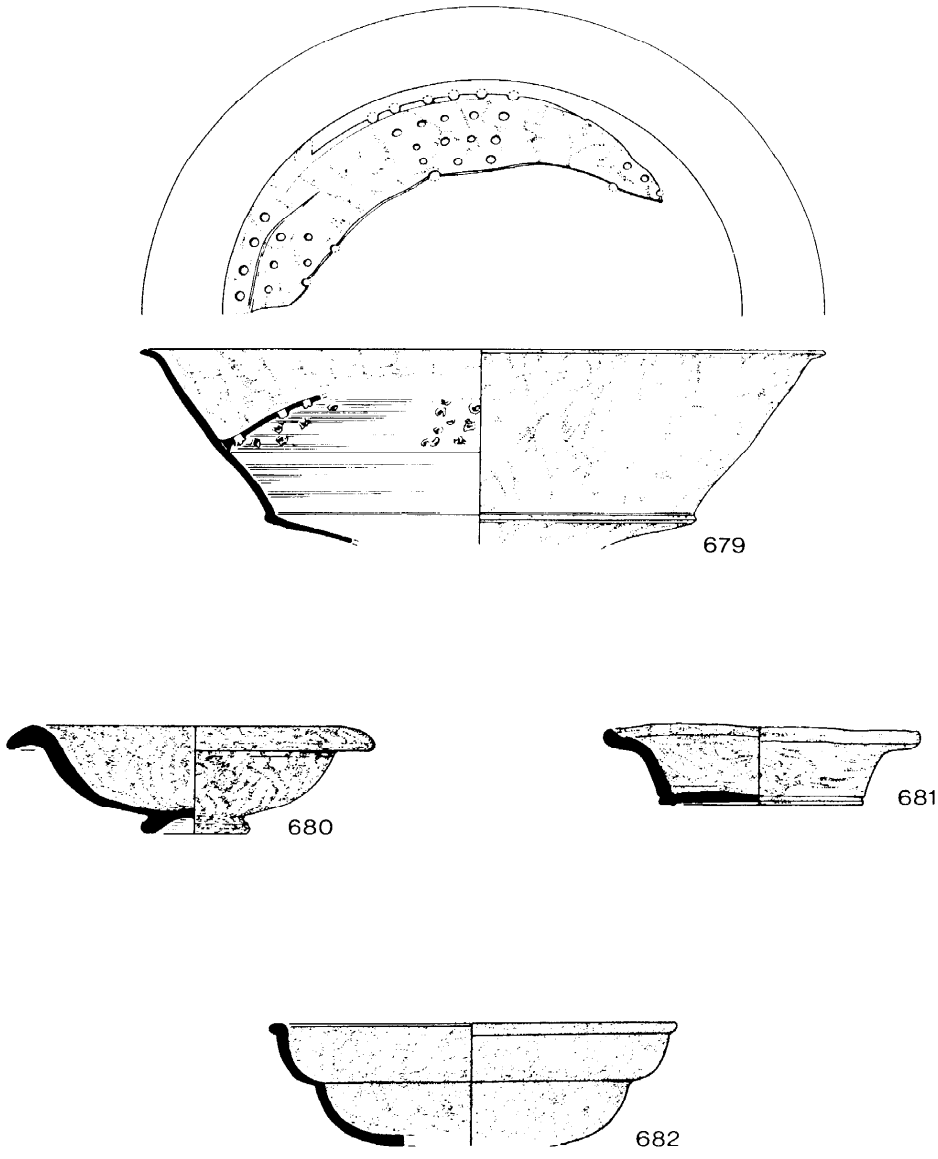


Fig 104 Local Marbled ware, bowls/dishes, nos 679-81; cups, no 682 (Scale 1:2)

Forms

Imitation samian forms, flagons and beakers are represented in this group, many with barbotine decoration.

Flagons Fig 105, No 683 This category is represented by a pear-shaped flagon with cup rim, decorated with barbotine circles (AT1). An unillustrated sherd of an

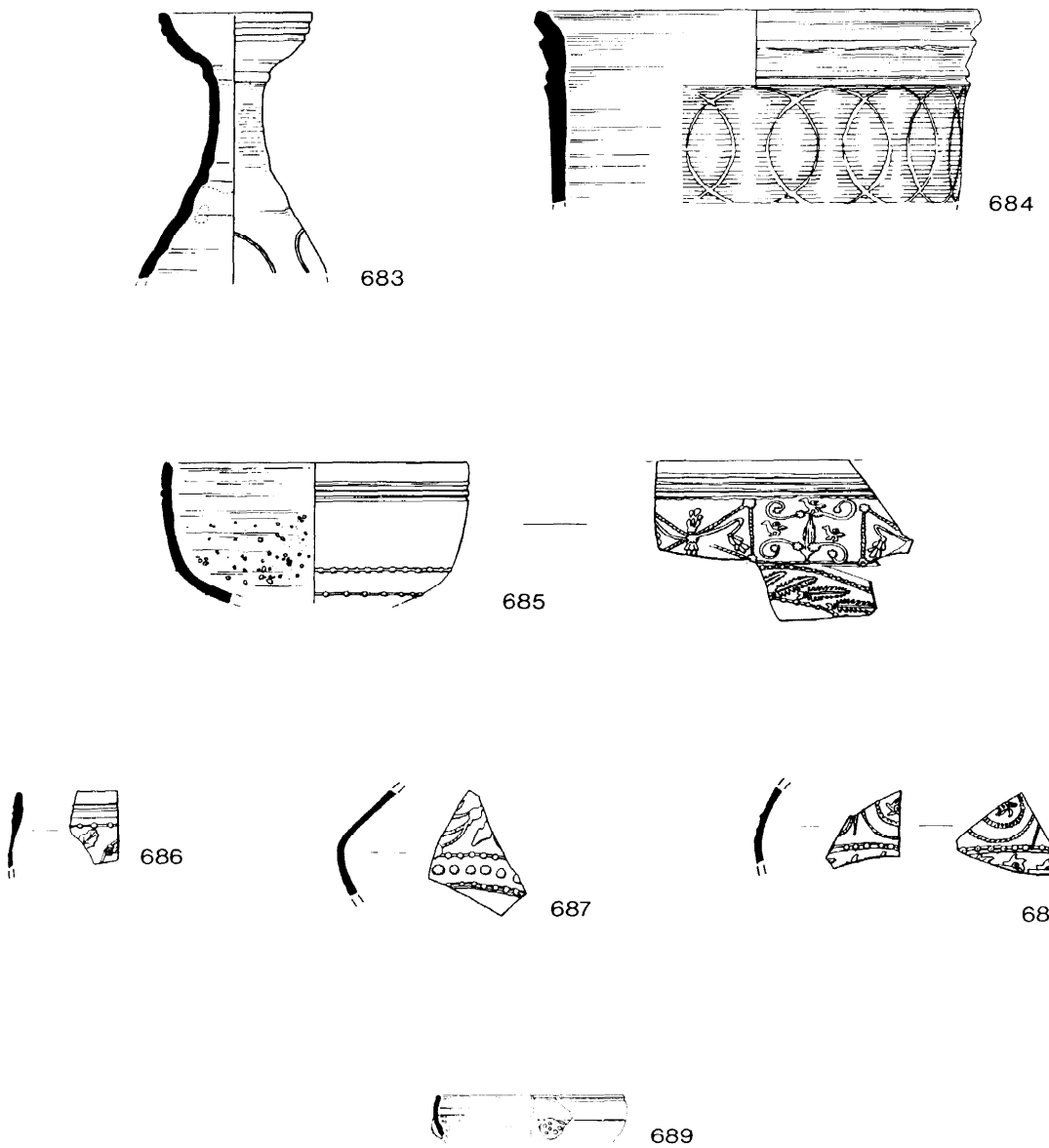


Fig IO5 Romano-British Glazed ware, flagons, no 683; bowls/dishes, no 684. South Gaulish Colour-coated ware, cups, nos 685-8. Spanish Colour-coated ware, cups, no 689 (Scale 1:2)

enclosed vessel from a Trajanic context, possibly a flagon or a beaker, is decorated with small barbotine loops or scales, a style not previously noted in Arthur's typology.

Bowls and dishes Fig 105, No 684 An unstratified example of Drag 30 (IVC, AT5) has a barbotine decorated panel of overlapping circles under the glaze.

South Gaulish Colour-coated ware (SGCC)

In addition to samian, the kilns at La Graufesenque produced small quantities of colour-coated wares for export, which are referred to here as South Gaulish Colour-coated wares.

Dating

The fabric, which is not common in Britain, is a rare and unexpected London type. All the examples come from the pre-Boudiccan deposits at 5-12 Fenchurch Street (Chadburn & Tyers 1984, 21) and fall within Greene's (1979, 54) Claudian-Neronian date for moulded cups. It accounts for 2% of all non-samian fine wares by weight during the pre-Boudiccan period.

Fabric and technology

A fine, inclusionless, light-coloured oxidized fabric, with reddish-brown slipped surfaces.

There is some variation within this high-quality fabric, but the ware is usually pinkish-brown (7.5YR 7/4; 5YR 7/4). The clay is virtually inclusionless, apart from rare visible quartz. The exterior surface, which is slipped a light reddish-brown (2.5YR 6/6), frequently has a metallic sheen, giving the vessels a bronzed appearance.

Forms

Cups Fig 105, Nos 685-8 The City examples can all be classified as moulded cups. Number 685, the most complete vessel, has a fairly thick, coarse rim, in common with most other examples found in Britain (Greene 1979, 52). All of them have internal roughcasting; externally they have moulded decoration in the style of samian ware, including leaves, wreaths, rosettes and bead-rows, although there are no identical published parallels known (Willis 1990, 30). Prior to these City finds, there were seven moulded cups from Britain *(ibid),* so the four new vessels from 5-12 Fenchurch Street almost double the total of recognized examples.

Spanish Colour-coated ware (SPAN)

Dating

The rare examples of this type come from unquantified deposits and cluster in the Neronian-Flavian period, which accords with Greene's (1979, 71) proposed dates.

Fabric and technology

A fine, oxidized fabric with a bronze-orange metallic slip.

A fine fabric, cream-buff (10YR 8/4), soft with a smooth fracture. Visible inclusions consist of rare red iron-rich (I, SA) and limestone (R) inclusions (<0.2mm). The slip is typically bronze-orange (2.5YR 6/8) with a metallic sheen.

Forms

Both beakers and cups are known in SPAN.

Cups Fig 105, No 689 The fabric is illustrated by a cup with an applied roundel, typical of the Spanish repertoire.

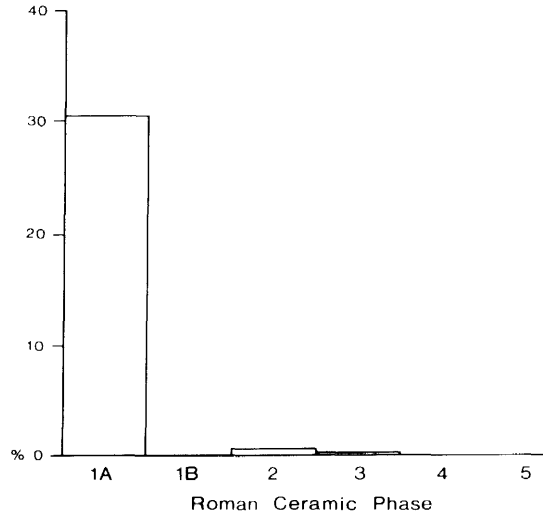


Fig 106 Bar graph of Lyon ware as a percentage of all non-samian fine wares by weight

Lyon ware (LYON)

Lyon ware is perhaps the best known of the Claudio-Neronian non-sigillata fine ware industries of Gaul and is certainly the most widely recognized in Britain.

Dating

Fig 106

Although most common in pre-Boudiccan layers in the City, as elsewhere in Britain it still circulated in small quantities in the Flavian period. Greene (1979, 17- 18) suggests that it may have occurred up to *c* 75, and the sparse evidence from the City does not contradict this. In general it occurs in moderate quantities.

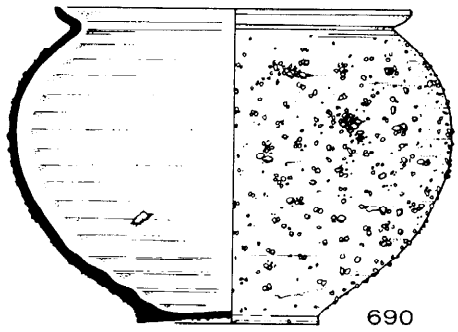
Fabric and technology

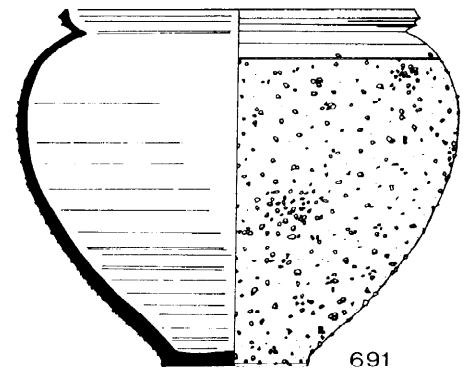
A fine, white fabric with a greenish tinge. Many vessels are decorated with roughcasting composed of quartz in the same size range as the fabric, while the slip is typically greenish-brown (2.5YR 4/4-4/2) and has a metallic sheen.

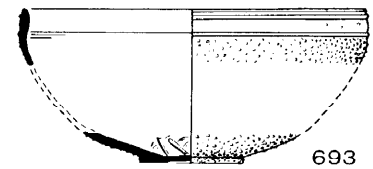
This fabric has a buff-white clay with a greenish or yellowish (5Y 8/2-9/2) tinge, usually soft to medium but sometimes hard, with a fairly clean fracture. Inclusions are rare, consisting of quartz and iron-rich fragments (SA 0.4-0.8mm>).

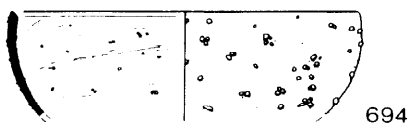
Forms

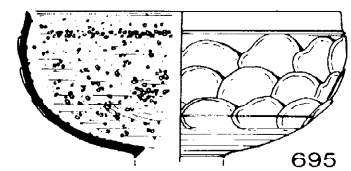
LYON is usually represented only by sherds, but the pre-Boudiccan levels from 5-12 Fenchurch Street were exceptional and produced an unusually rich assemblage of early Roman fine wares (Chadburn & Tyers 1984). This included a range of Lyon types including lamps (not included in this corpus), cups

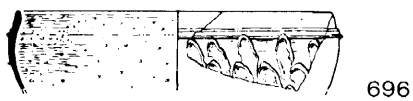












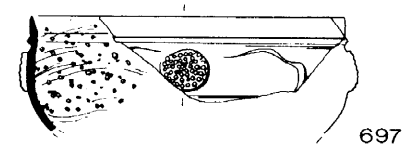


Fig 107 Lyon ware, beakers, nos 690–2; cups, nos 693–7 (Scale 1:2)

and beakers, all of which can be paralleled in Greene.

Beakers Fig 107, Nos 690–2 Beakers are generally the most common type on City sites, although they occur in approximately equal numbers to cups in the quantified data. They have high rounded shoulders with roughcast decoration and everted rims, which are both plain (690) and grooved (691–2). All illustrated examples belong to Greene's Type 20.

Cups Fig 107, Nos 693–7 Cups are usually roughcast on the interior and feature a variety of applied decoration on the exterior. The rims are plain, some with ridges or grooves just below them on the outside. Greene (1979, 18–24) separates them into types, many on the basis of decoration. Illustrated examples include vessels with exterior roughcasting (GT1, 693–4), rounded imbricated scales (GT3, 695), elongated applied scales (GT4, 696), and raspberry roundels with paired leaves or wings (GT5, 697).

Central Gaulish Glazed and Colour-coated wares

The central Gaulish fine ware industry produced vessels, principally roughcast and barbotine decorated beakers, in a range of fabrics. Two main groups have been identified in the City and are discussed separately here: Central Gaulish White wares (CGWH) and a series of other micaceous buff-coloured fabrics (CGOF). As the fabrics of the glazed wares from central Gaul (CGGW) are indistinguishable from the colour-coats and the technique of decoration is allied, they are also included here, as are the black-slipped fabrics (CGBL).

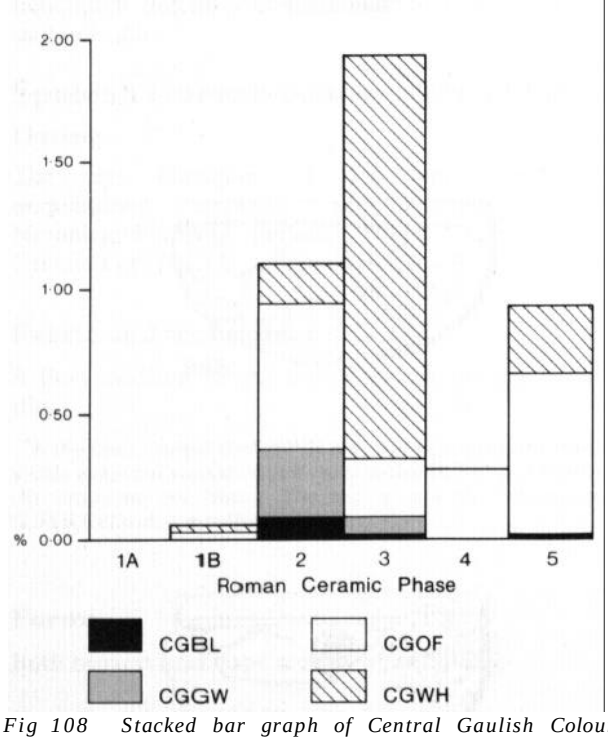


Fig 108 Stacked bar graph of Central Gaulish Colour-coated wares as a percentage of non-samian fine wares by weight

Greene (1979, 44) suggested a source in the Lezoux area for the Central Gaulish Colour-coated wares; while the glazed wares (CGGW) were produced in both the Lezoux area and the Allier Valley (Greene 1978, 39). Many of our colour-coated wares have a fabric identical to the Allier Valley glazed wares and a similar source is therefore proposed for them. The Lezoux colour-coated wares are coded CGOF and CGBL and those from the Allier Valley as CGWH.

Evidence from the City suggests that the combined central Gaulish industries were the main suppliers of colour-coated wares to the City (excluding samian) in the Flavian-Trajanic period. However, when considered individually, it is clear that the wares overlapped, but flourished at different dates. Although they are the principal Continental products at this time, their share of the total fine ware market was small and the City was clearly drawing on other sources for its table wares.

Central Gaulish Glazed wares (CGGW)

Fig 108

Two possible sources of Central Gaulish Glazed wares have been identified: the Allier Valley and Lezoux. During spot dating both are coded as CGGW, but when quantified they are separated. Elsewhere their distribution is similar in date to Lyon ware (Greene 1979, 99-100), but in the City they occur in such small quantities that they add little to our understanding of the industry. As a whole, the type is distinctive but sparse. Quantified sherds are from Flavian and Trajanic deposits, but pre-Flavian examples are known.

CGGW-1039

Dating

The majority are found in contexts associated with pre-Flavian (not among the quantified data on Fig 108) or Flavian pottery.

Fabric and technology

The fabric is identical to that of Central Gaulish White ware (CGWH) and is almost certainly from the Allier Valley area of central Gaul *(ibid,* 86). The green lead glaze is often rather unevenly applied and sometimes is more yellow (5Y 7/6-6/6; 5Y 7/8-6/8) in tone.

Forms

Most of the rare occurrences are of single sherds, but the four recorded vessel types can be paralleled in Greene (1978, 1979) and have been noted at the production sites at St Remy and Vichy.

Flagons Fig 110, No 698 Two flagon types have been identified. This includes GT 1 or Déhelette 61 (not

illustrated, cf Greene 1979, fig 40, 1) from a post-Roman context, which has a sharp carination and is decorated with moulded roundels and rosettes. Number 698 is another mould-decorated flagon, with circles on the shoulder, and it equates to GT 2 or Déchelette 60. The form is the most commonly occurring type in Britain and, when complete, is globular with a pedestal base. The rim is similar to our 703 discussed below.

Beakers Fig 110, Nos 699-700 Examples of beakers have both hairpin decoration and applied circles. Number 699 is similar to GT 13, although the slightly concave rim is more like GT 14; 700 is decorated as GT 14 but is represented only by a body sherd (cf ibid, fig 42, 13–14).

Cups Fig 110, No 701 A hemispherical cup with plain rim decorated with barbotine hairpins is included here. The type is similar to GT 8, but the decoration cannot be paralleled in Greene's typology.

Other forms Fig 110, No 702 An unusual fragment of an unguent jar in the shape of a boar has been identified from a late lst/early 2nd century context. A wide variety of animal types is known from the Allier Valley (cf Rouvier-Jeanlin 1975-9, 103).

CGGW-3967

Glazed wares, in a micaceous fabric typical of the area, are also known from Lezoux, where Drag 29 bowls were produced (Greene 1978, 39). Although micaceous glazed fabrics are also known from Vichy/St Remy, similarities between these samples and Central Gaulish Other fabric (CGOF) may support a Lezoux source for CGGW-3967. In recent atomic absorption spectroscopy analysis, fabrics similar to the City CGGW clustered with unsourced sherds that were stylistically assigned to Vichy/St Remy (Symonds & Hatcher 1989). Additional analysis of kiln material may refine the source of micaceous glazed wares.

Dating

Two vessels of this type have been identified in the City and are Flavian and Trajanic in date.

Fabric and technology

The fabric is virtually identical to CGOF, though containing less prominent red inclusions. A light olive-green or yellow (2.5Y 7/8; 5Y 6/4) glaze is evenly applied and finely crazed on the surface.

Forms

Flagons Fig 110, No 703 The flagon belongs to GT 2 or Déchelette 60 (see description above) and bears similar but not identical decoration to examples known from Vichy and St Remy. It is wheelmade, with rosette-moulded decoration.

Bowls and dishes This vessel has an applied moulded leaf decoration and lacks internal glazing. Only a small proportion of the body wall has survived, but the constriction beneath the decoration, the decoration itself, and the internal diameter of c 1l0mm all make it similar to the handled bowls from Usk (Greene 1979, fig 41, 7). The vessel is burnt and occurs in a Trajanic group.

Central Gaulish White ware (CGWH)

Both the fabric and some decorative motifs are similar to those used on Central Gaulish Glazed ware (CGGW), pointing to a source in the Allier Valley.

Dating

Fig 108

CGWH occurs in moderate quantities and is clearly more common than glazed ware from the same source. It generally occurred in the City from c 60-120 and remained important throughout the Trajanic period.

*Fabric and technology

Pl 5aq

A fine, white fabric with sparse red inclusions. There is some variation in the colour of the slip, ranging from dark brown or black (2.5YR 3/0) to red (2.5YR 6/4), where it is thin. It generally has a metallic sheen which may be due to the formation of ferrous iron, leading to surface vitrification (I Freestone, pers comm). Occasionally the lower body and interior are blood-red (1 OR 4/8) in colour, possibly from stacking in the kiln, which would have shielded the pottery from the reducing atmosphere. Body sherds are superficially similar to Cologne ware (p 131).

A hard fabric made of almost pure white (2.5Y 9/0) or sometimes creamish (2.5Y 9/2) clay, smooth or occasionally laminar in fracture. The extremely fine matrix contains sparse quartz and red inclusions (<0.25mm), with some white mica visible. Fine horizontal cavities, probably wedging marks, are noticeable in the break.

Forms

The majority of vessels are everted-rim beakers. Lamps and lampholders or open lamps also occur in this fabric, although they are not published here.

Beakers Fig 110, Nos 704-7 Beakers have everted or cornice rims. Ever-ted-rim examples illustrated here (704-5) have both rouletted and roughcast decoration. Those with roughcast decoration can be paralleled by Greene (1979, eg fig 17, 3), but rouletted examples are absent from his corpus. The cornice-rim beaker (706) is similar to Greene (ibid) fig 18, 1, and has hairpin and tear-drop decoration. These are all typical decorative motifs for the ware; roughcasting is the most common and there seems to be no apparent chronological development between

the two styles. An unusual medallion from the wall of a beaker depicts a circus charioteer (707, Audin & Vertet 1975-9, 104–5) and is the first of its kind from the City, associated with Flavian-Trajanic pottery.

Bowls *and dishes* Bowls are represented by a tripod vessel from an early 2nd century context. Although not illustrated here, it can be paralleled to 708 (Fig 111) in CGOF.

Central Gaulish Other fabric (CGOF)

CGOF is the most abundant of the Central Gaulish Colour-coated wares represented in the City. Links with the other central Gaulish industries (CGWH, CGGW) are reflected by the barbotine decoration and metallic lustre of the slip; it also shares form types with CGWH.

Dating

Fig 108

CGOF occurs in moderate quantities, beginning in the late Neronian period, and is slightly more common than CGWH. Greene (1979, 44-5) proposed a date into the Hadrianic period for some form types; our material supports this and may extend its use into the early Antonine, although the data are too small to be certain.

Fabric and technology

A buff coloured fabric, fine, but distinguished from CGWH by its silty matrix and more micaceous appearance. The slip is fairly thin, ranging from brownish-black (cf 2.5YR 3/0) where thick, to reddish-yellow (5YR 7/8) where thin, with a lustrous sheen.

Although there is some variation within this group of fabrics, they are generally hard with a smooth fracture. Surfaces are slightly rough, and pale buff (10YR 8/4) or pink (5YR 8/4–7/B) in colour. Occasionally it is highly fired to reddish-yellow (7.5YR 7/6), with numerous fine cavities, presumably from wedging. The principal inclusion is abundant silt-sized quartz, although rare larger quartz (SA) together with red fragments (I, R <0.3mm) and occasional rounded, black inclusions and limestone (<0.lmm) are also identified. White mica is present and is more visible than in CGWH.

Forms

In addition to the beakers, bowls and cups described below, lamps and lampholders or open lamps are present in this fabric, although they are not included here.

Beakers Everted- and cornice-rim beakers are common. Roughcast and barbotine decoration (not paralleled by Greene 1979) occur frequently with no apparent chronological distinction between the two. Other types include sherds of a folded beaker with rouletted decoration and sherds with hairpin decoration.

Bowls and dishes Fig 111, No 708 Bowls are as common as beakers. Tripod bowls with roughcasting (cf *ibid, fig* 17, 5) are rare, but the type is generally Flavian-Hadrianic in date.

Cups Fig 111, No 709 Cups with roughcast decoration are rare, but do occur. The illustrated example, with an externally grooved rim, is similar to Greene *(ibid)* fig 17, 1.

Central Gaulish Black ware (CGBL)

Fig 108

Two types of Central Gaulish Black ware occur in the City and both are classified as CGBL. The first (CGBL-1658) consists of Flavian-Trajanic beakers and cups which may have moulded or rouletted decoration and are of interest here. Technologically, and in some cases typologically, these are close to the standard samian from Lezoux and are probably the products of potters such as Libertus who are known to have made a range of samian forms in a wide variety of fabrics during this period (J Bird, pers comm). The second group (CGBL-2383) occurred from the later 2nd century (Richardson 1986, 115–18); these products, distinguished by both form and decoration, are not discussed here.

CGBL- 1658

Dating

Fig 108

This fabric is rare in early Roman deposits, most of it coming from Flavian levels.

Fabric and technology

A fine fabric, virtually identical to CGOF, but pink (2.5YR 7/8) in colour. The clay and slip are the same as some central Gaulish samian fabrics, but are reduced dark brown (10YR 3/1).

Forms

No rims warranting illustration have been recovered, but forms include a moulded beaker, a rouletted beaker and a cup represented by a handle.

Cologne ware (KOLN)

This ware is termed 'Cologne' although its exact source in the lower Rhineland may lie elsewhere, and a number of kilns may be involved (Greene 1979, 56). The City examples equate with Anderson's (1980, 14-2 1) Lower Rhineland fabric 1.

Although principally a 2nd and early 3rd century product, KOLN first appeared in Britain during the pre-Flavian period as cups (Greene 1979, 60). In the City the industry is represented mainly by roughcast beakers dating to c 120-60. This corpus concentrates

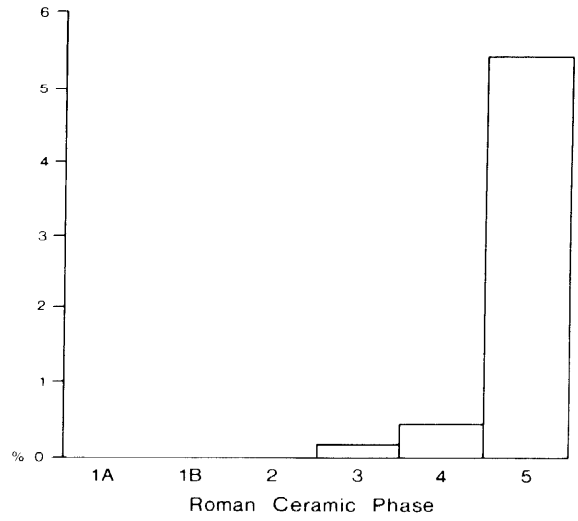


Fig 109 Bar graph of Cologne Colour-coated ware as a percentage of all non-samian$ne wares by weight

on the early forms; the later KOLN types are discussed by Richardson (1986, 112-13).

Dating

Fig 109

This sparse fabric occurred from Trajanic levels, but the majority are early Antonine in date.

*Fabric and technology

Pl 5ar

The distinction between this fabric group and Central Gaulish White ware (p 129) can be quite subtle for body sherds; where rims and profiles surive, the typological differences are obvious. KOLN is a fine, white fabric, distinguished from CGWH by its matt slip and silty matrix. The slip is generally thicker than that seen on CGWH and often lacking the metallic lustre associated with Central Gaulish Colour-coated wares, although it occurs in a similar range varying from dark grey (5YR 3/l) to reddish-grey (5YR 6/8). Green (1980b, 67) noted that the slip contains many minute flakes of red and black ?iron oxides. KOLN also tends to be softer and more powdery than the Gaulish ware, possibly fired at a lower temperature.

The fabric is usually white (2.5YR 9/0) or faintly creamy-white (10YR 8/3) in colour; it is hard, with a fairly smooth (but occasionally irregular) fracture. Inclusions are sparse, but consist of quartz (SA), red iron-rich fragments (R, I) and occasionally visible white mica (all <0.5mm) set in a silty matrix.

Forms

Greene's (1979, 56-64) discussion centres on the earliest products - the cups - which only occur twice in residual Hadrianic-early Antonine contexts in the City; beakers, however, are more common. Lamps in this fabric are not published here.

Beakers Fig 111, Nos 710-14 Most of the vessels are bag-shaped beakers with roughcasting, although body sherds indicate that folded beakers were also present (not illustrated). Cornice-rim beakers are distinctive, and when roughcasting is employed it is usually applied *c* 20mm below the rim (7 10–12). These compare with Anderson's (1980) fig 7, l–3. Roughcasting is sparse to moderate and comprises crushed clay particles in the same fabric as the vessel. Barbotine scale motifs also occur on some beakers (713, cf *ibid*, fig 7, 5). The base (7 14) probably belongs to a cornice-rim beaker, As yet, there are no examples of the globular beakers with high curved necks, dated c 120-30 *(ibid, type 3).*

6.2 Pompeian Red wares (PRW)

Pompeian Red ware is included here as a fine ware although it is perhaps better classed as 'oven-to-table' ware. With its functional but distinctive red slip, the fabric has qualities that are ideal for cooking purposes, including heat resistance and a 'non-stick' surface (Boon 1967, 40). Examples of these vessels used for breadmaking, with several still containing flat loaves, were found at Pompeii (Greene 1979, 130). Sooting on the outside surface of some of our examples suggests use over an open fire. At the same time, the vessels are well made, often with fine rouletted or stylus grooved decoration and carefully finished footrings.

Peacock (1977b) has identified seven PRW fabrics, three of which have been recognized in the City and are described below as Pompeian Red ware fabrics 1, 2 and 3. They appear in a range of shared forms (shallow dishes with plain, sometimes intumed, rims and domed lids with bead rims). Additional PRW fabrics are rare and are housed with the Archive.

P R W 1

This fabric, with a Campanian source, is normally the most common of the PRW fabrics in Britain *(ibid,* 149-53). However, in the City it is far less common than PRW3.

Dating

Fig 112

The fabric is sparse, but nearly all examples of PRWl from the City are confined to 1st century levels, many of which are late Neronian-early Flavian in date. The material may confirm Peacock's *(ibid,* 159) suggestion that production ceased after 79.

Fabric and technology

A reddish-brown fabric with abundant black sand inclusions and dark red slip applied to the inner and lower surfaces of the bowls; lids, also slipped, are often

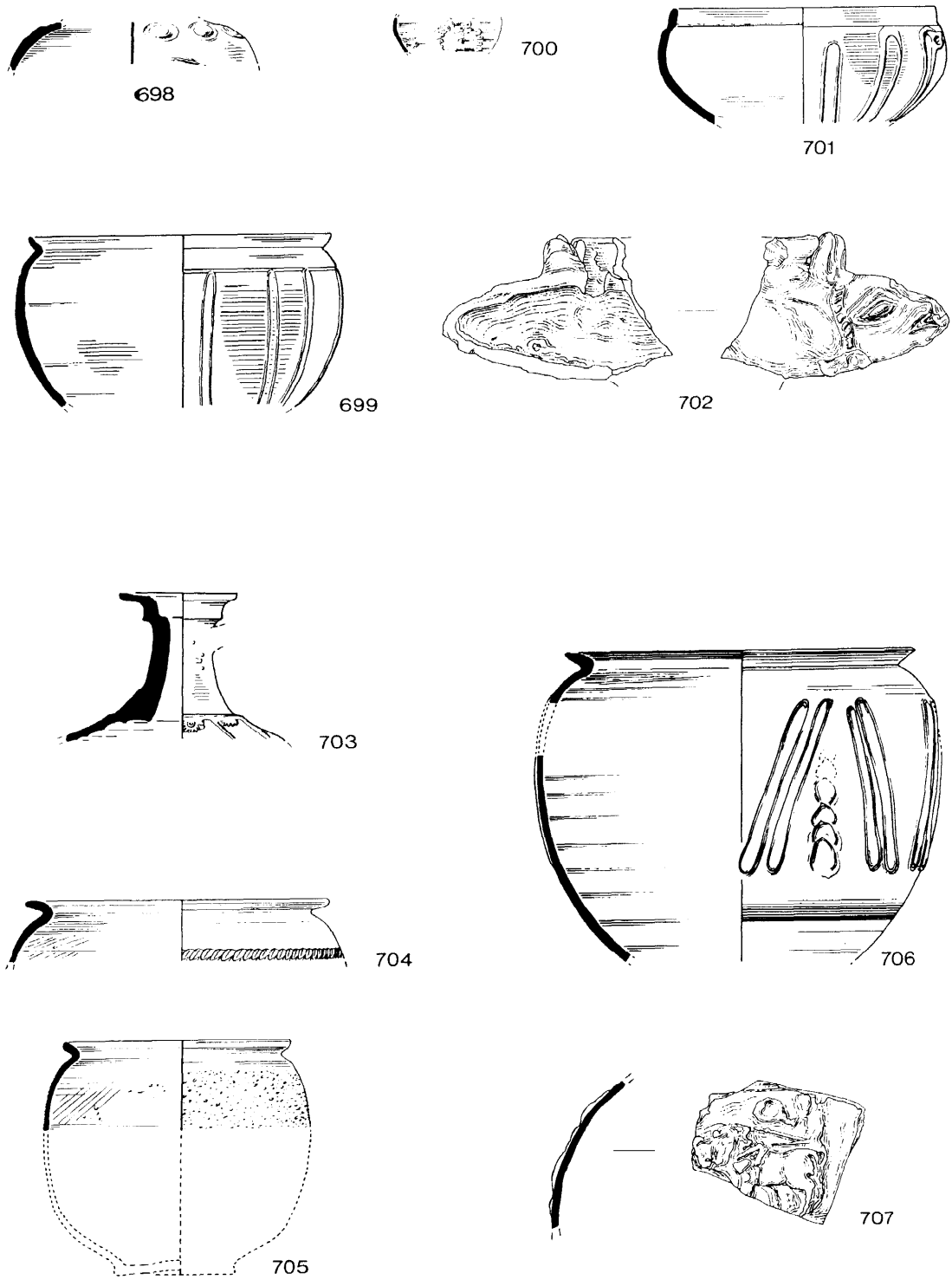


Fig 110 Central Gaulish Glazed ware, Allier Valley, flagons, no 698; beakers, nos 699-700; cups, no 701; other forms, no 702. Central Gaulish Glazed ware, Lezoux, flagons, no 703. Central Gaulish white ware, beakers, nos 704-7 (Scale 1:2)

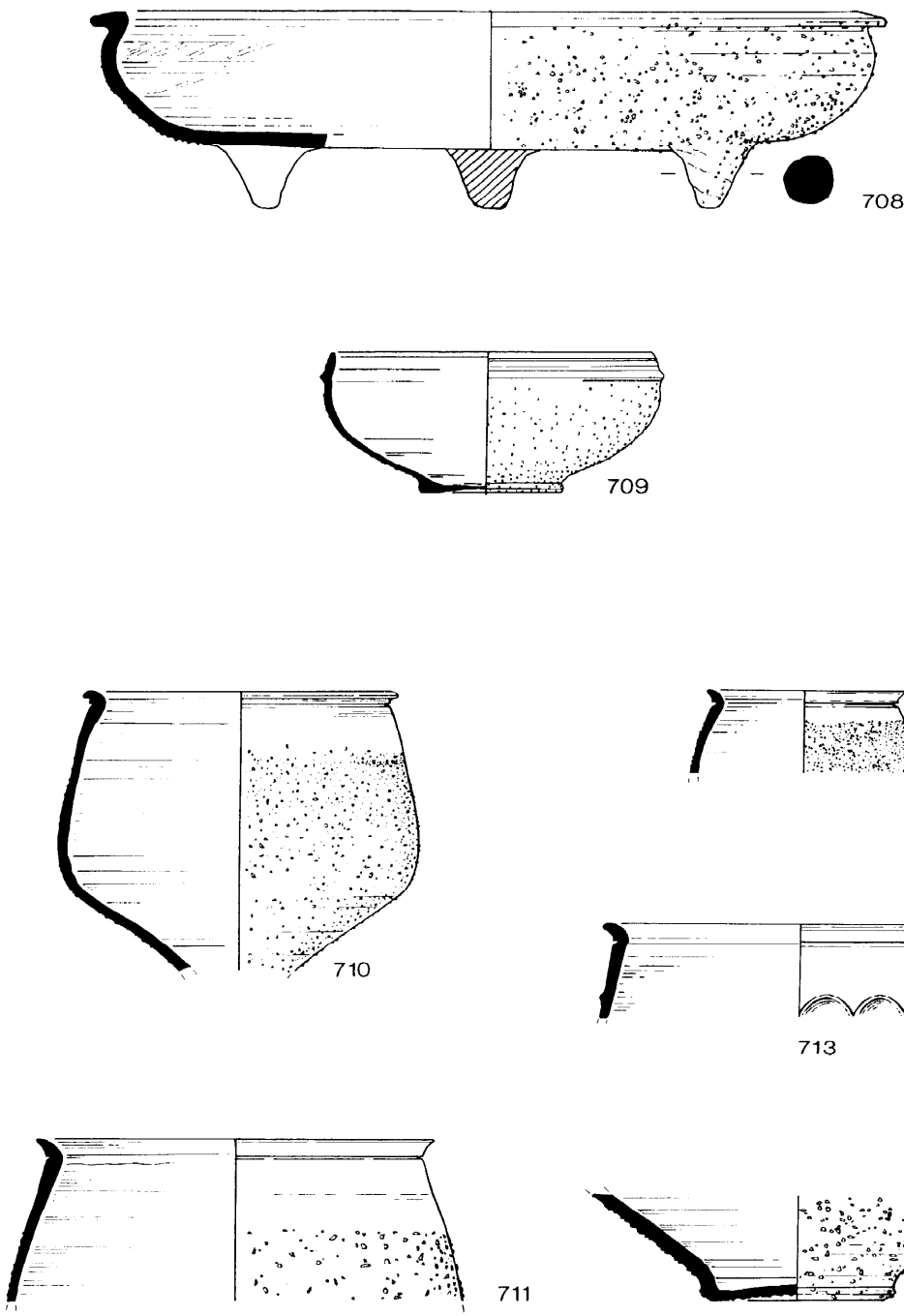


Fig 111 Central Gaulish Other fabric, bowls/dishes, no 708; cups, no 709. Cologne Colour-coated ware, beakers, nos 710-14 (Scale 1:2)

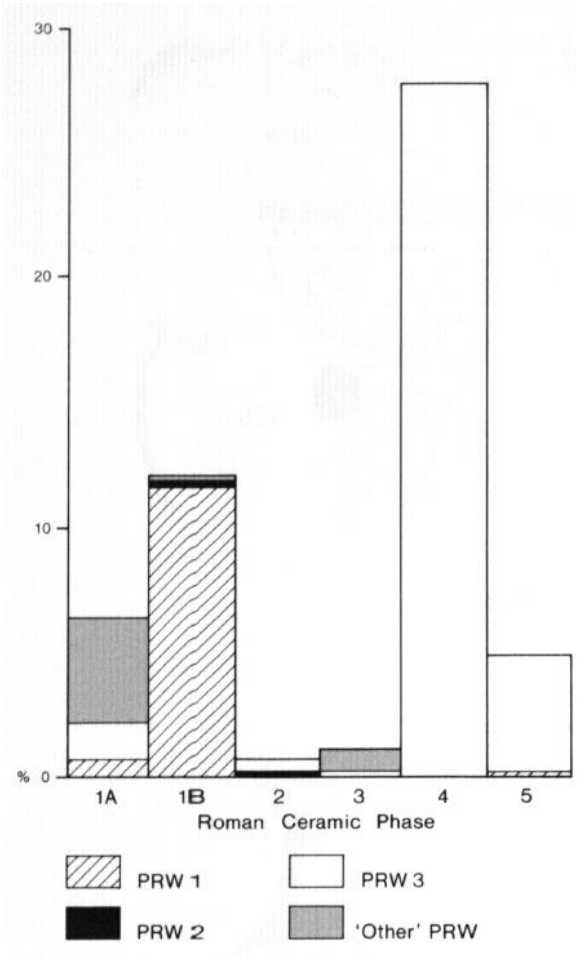


Fig 112 Stacked bar graph of Pompeian Red wares as a percentage of all non-samian fine wares by weight

heavily burnt and sooted.

The fabric is hard, with an irregular fracture. Macroscopically, it is reddish-brown (2.5YR 5/6) in colour, with abundant well-sorted black sand inclusions, which can be identified microscopically as augite, with lesser amounts of quartz and feldspar (SA, A <0.5, occasionally <1.0mm). Peacock (1977b, 149) identified a range of feldspars, as well as augite and volcanic rock, in thin section. The slip is dark red (10Y 4/6).

Forms

Bowls and dishes Fig 142, No 715 Most vessels are plain-rim dishes (IVJ, profile not illustrated) with incised grooves on the base, similar to those illustrated for PRW3 below (cf Fig 113, 717). Occasionally they were signed by the potter on the underside (Wynia 1979), and a sherd from a pre-Boudiccan context at 5–12 Fenchurch Street features a small mark, incised before firing, which may be part of a signature.

Other forms Fig 113, No 716 Number 716 clearly illustrates the diagnostic features of the lid, particularly the single concentric groove on the upper surface.

PRW2

PRW2 is the least common of the Pompeian Red ware fabrics found in the City, although at both Colchester and Fishboume it is almost as abundant as PRW1; in contrast, there is none recorded from Richborough (Peacock 1977b, fig 1). A Mediterranean source has been proposed for this fabric *(ibid,* 153).

Dating

Fig 112

Peacock *(ibid,* 159) suggests a similar date range for this fabric as for PRW1. The sparse City examples are again generally restricted to the 1st century, beginning in the pre-Boudiccan period (not among the quantified data on Fig 112), and continuing into the Flavian period.

Fabric and technology

An orange-red, sandy and micaceous fabric, with dark red slip.

A hard, orange-red (10R 5/10) fabric, rough in texture, with an irregular fracture. The clay is intensely micaceous, particularly on the unslipped surfaces, with both white and gold mica present (0.5mm>). Other inclusions are abundant, and consist of fairly well-sorted quartz (SA <0.5mm) and occasional limestone (SA 0.2mm). Thin section also revealed the presence of quartz-mica-schist and quartzite (Peacock 1977b, 153). The plates (but not the lids) are internally coated with a thick, deep red slip (10R 4/9).

Forms

Bowls and dishes To date, PRW2 is restricted to plain-rim dishes (IVJ). They are too fragmentary to illustrate, but can be compared with Peacock's *(ibid)* fig 3, 5, having two concentric circles of faint double grooving on the basal interior. With a diameter of only *c* 140mm it is smaller than most dishes, but not lids, in other PRW fabrics.

PRW3

This, the most common of the PRW fabrics in the City, may well have a central Gaulish source – possibly Lezoux *(ibid,* 154–5).

Dating

Fig 112

PRW3 occurs in sparse amounts and is present with PRW1 and PRW2 from pre-Boudiccan levels. However, it is equally common in association with pottery of the mid 2nd century, although the latter results from only a single, fairly complete vessel from the early Antonine pit at Bishopsgate. The quantified data suggest that it was particularly common in the Hadrianic period when substantial portions of at least two lids and one dish were found *in situ* in fire deposits at 5–12 Fenchurch Street. This same pattern can be seen from fire deposits elsewhere in the City, which contrasts with evidence compiled by Peacock *(ibid,*

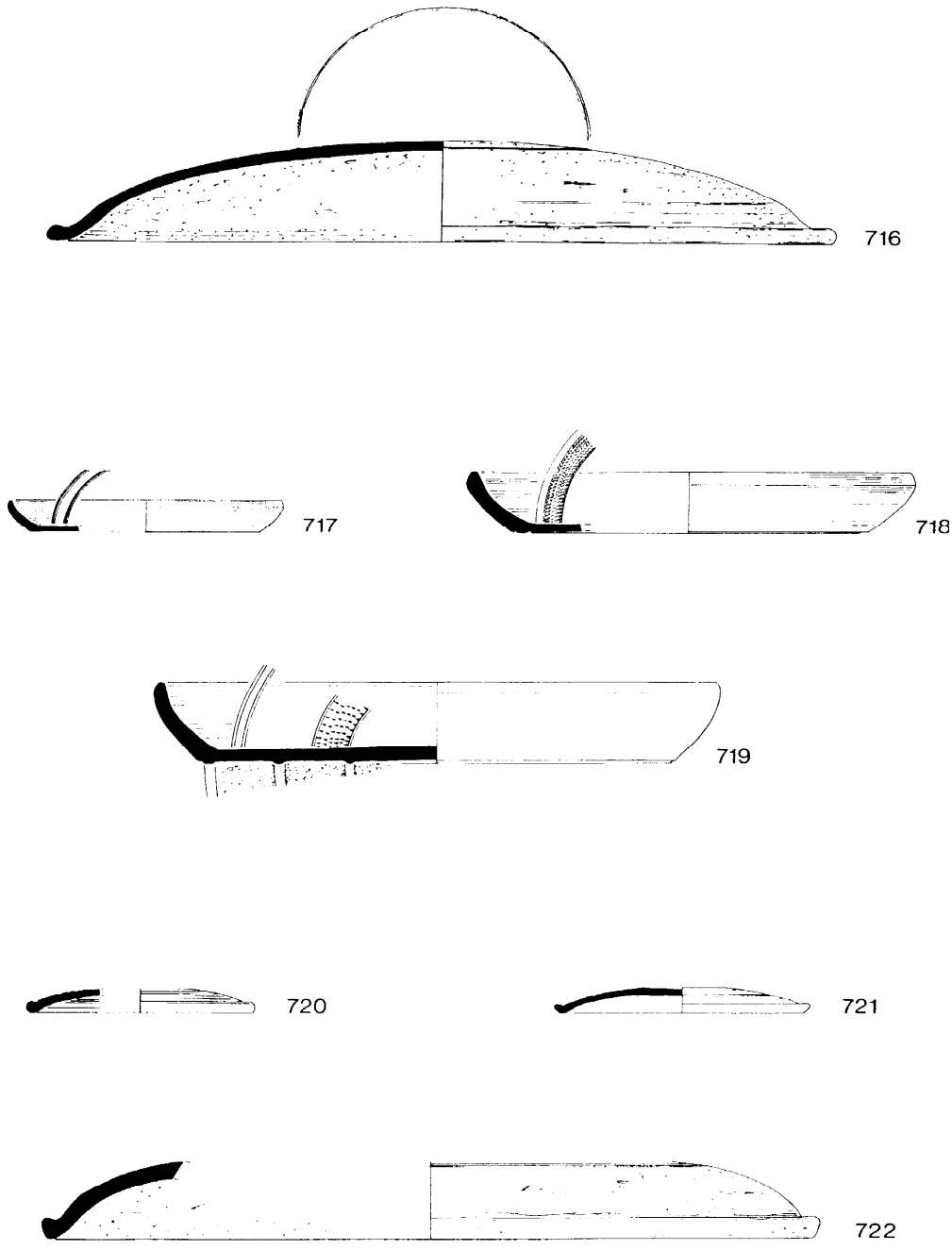


Fig 113 Pompeian Red ware fabric I, other forms, no 716. Pompeian Red ware fabric 3, bowls/dishes, nos 717-l 9; other forms, nos 720-2 (Scale 1:4)

159) and evidence from Colchester (Symonds & Wade forthcoming), where it appears to have been residual after the late 1st century.

Fabric and technology

A fine, beige fabric; intensely micaceous, with a thin, red slip. The interior slip is thinner than that of the other two PRW fabrics and has often been badly or completely abraded. The external surfaces of the dishes and some of the lids have a thin, light brown (10YR 7/4) wash, and sooting is often noticeable on the exterior of both forms.

PRW3 is beige (10YR 7/3-7/7; 5YR 7/4) with a red (10R 8/4) slip on the inside of the dishes. The fabric is hard, with a smooth fracture. Mica, both white and gold, is the principal inclusion (<0.5mm), set in a fine, silty matrix with rare larger quartz inclusions (SA <0.3mm). The bases of some of the dishes are covered with quartz, as well as with smaller amounts of red iron-rich inclusions and mica (0.1-0.5mm)

Forms

Bowls and dishes Fig 113, Nos 717-19 Plain-rim dishes (IVJ) are the most common type and vary considerably in size. Internal decoration differs somewhat from the other PRW dishes, with multiple incised grooves and dense rouletting found on the interior. Footrings are another distinctive feature and 719, with sand roughcasting, is a fine example.

Other forms Fig 123, Nos 720-2 The lids are generally decorated with incised concentric circles on the upper surface (720-1).

6.3 Mica-dusted wares

All fine wares with conventional mica-dusting are discussed here. In the City they were one of the most common types of fine ware from the Trajanic period, occurring very rarely in earlier phases but steadily increasing in the Trajanic until the end of the sequence, by which time they may have been residual (see LOMI).

These wares fall into two main groups: fabrics considered to be local (LOMI), as discussed by Marsh (1978, 195-8); and mica-dusted wares whose provenance is not at present confirmed (MICA), although one fabric may be imported (MICA-1242). A third group, most likely to have been produced within the Verulamium region (VRMI), is discussed with the Verulamium industry as a whole (Section 4.6).

Local Mica-dusted wares (LOMI)

Marsh *(ibid)* has discussed the evidence for local production, and concluded that some mica-dusted wares were produced in the City during the late Flavian/Trajanic period.

Within this group, three main fabric variants can be separated by technological and textural criteria. Two

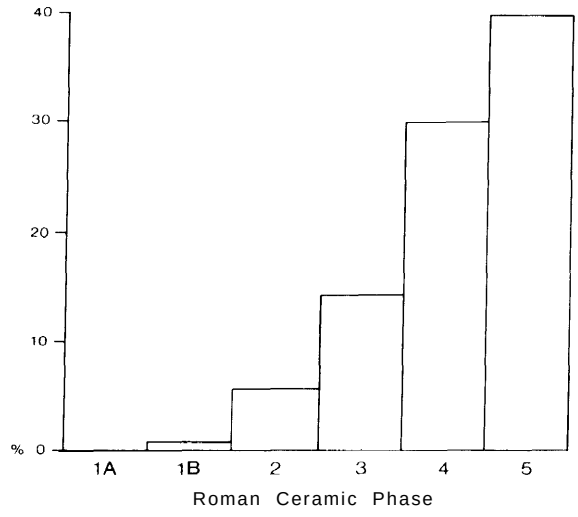


Fig 114 Bar graph of Local Mica-dusted wares as a percentage of all non-samian fine wares by weight

are relatively coarse (LOMI-1244, LOMI-371) and a third is finer (LOMI- 1247). As they form a homogeneous group both typologically and petrologically, they are combined here. A stack of four vessels fired together (including Fig 116, 743) were found at Moorgate Street *(ibid,* 168) and included both LOMI-371 and LOMI-1247, supporting the link between the two fabric variations.

Dating

Fig 114

These locally produced wares are clearly the most abundant of all the mica-dusted fabrics in the City. There are a few from late Neronian-early Flavian levels (somewhat earlier than Marsh's proposed dates), but they were first prominent in the Trajanic period and they continued to increase thereafter. Although Marsh *(ibid,* 122, 199) considered that their production ceased in London *c* 130, they were still present in some quantity during the early Antonine, and mica-dusted wares in general continued until the late 2nd century. It is difficult to determine whether the later occurrences of this type are residual, but there is nothing inherently early in their form types, and some of those same forms continued into the Hadrianic period in other fabrics, such as the moulded-rim IVAs in the Verulamium Region White ware. As a group they are abundant, with LOMI-1244 the most common.

*Fabric and technology

Pls 5as-au

A distinctive, grey fabric with bronze or orange surfaces, containing varying amounts of coarser quartz.

LOMI-1244 (Pl au) has brown (7.5YR 5/4) or reddish-brown (5YR 5/8) surfaces and a grey (2.5YR 6/0) or dark grey (2.5YR 4/0)

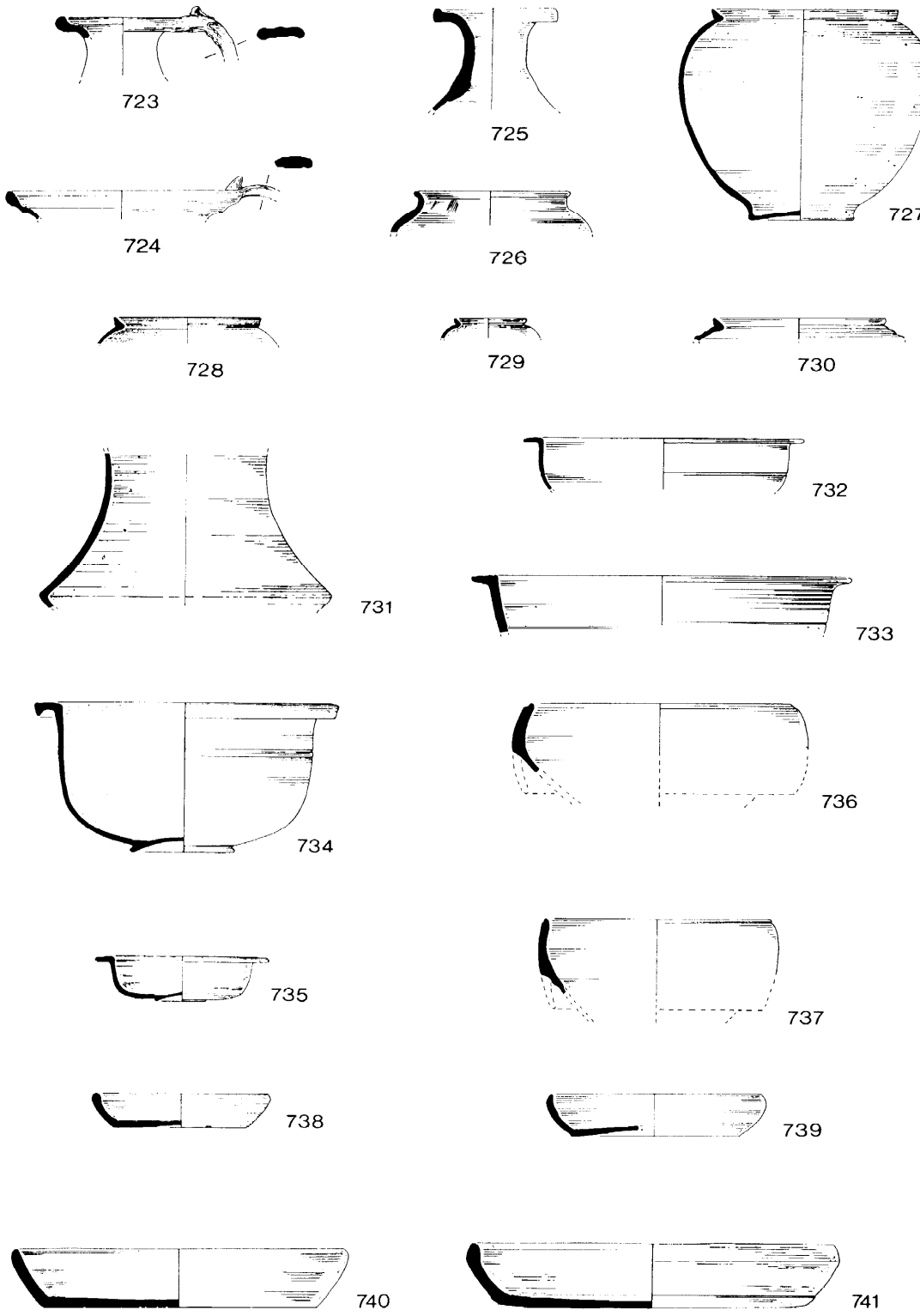


Fig 115 Lucal Mica-dusted wares, flagons, nos 723-5; jars, no 726; beakers, nos 727-31; bowls/dishes, nos 732-41 (Scale 1:4)

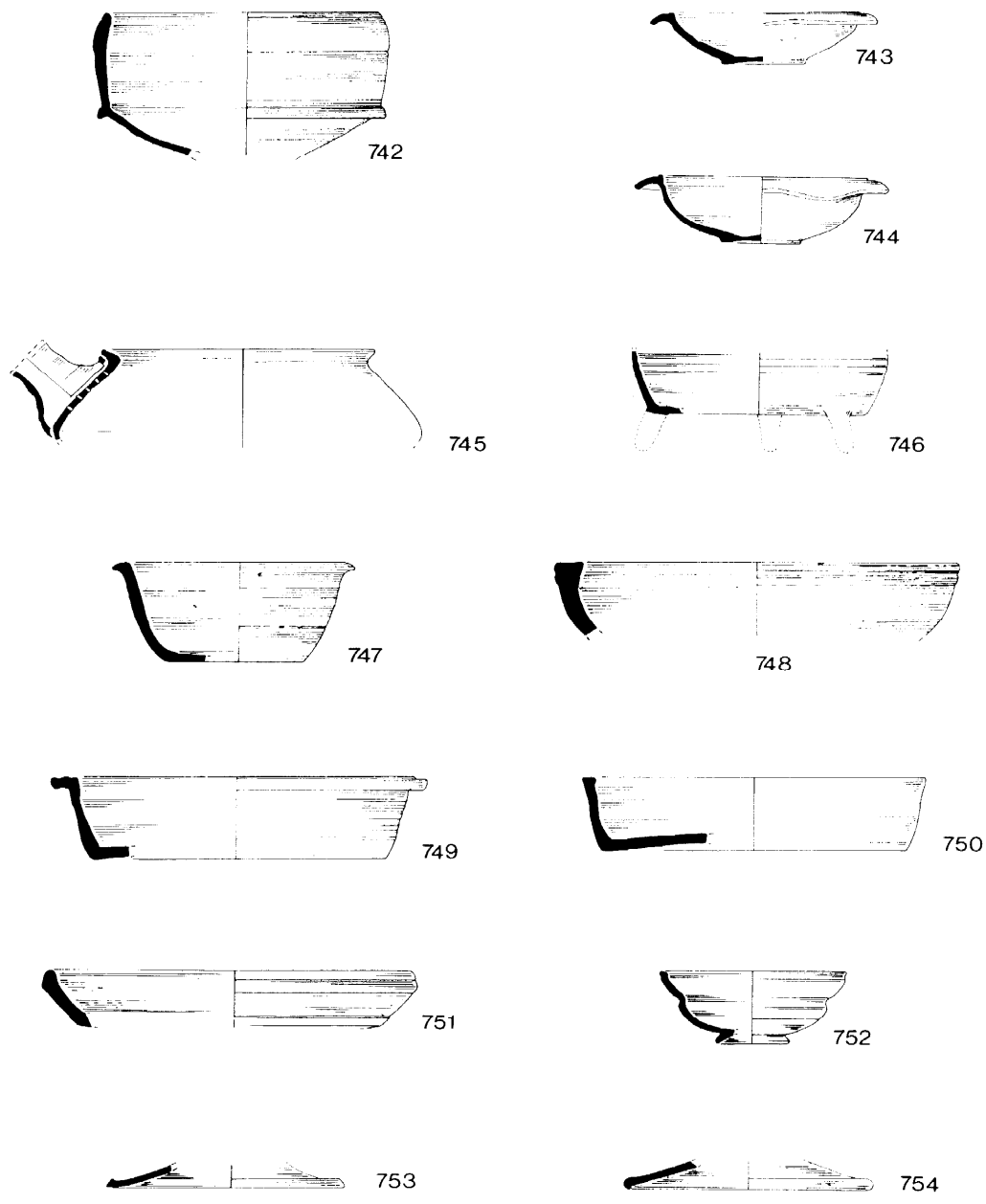


Fig 116 Local Mica-dusted wares, bowls/dishes, nos 742-51; cups, no 752; other forms, nos 753-4 (Scale 1:4)

core. It is a hard fabric, irregular in fracture, with abundant well-sorted quartz (SA 0.3-0.6mm). Other inclusions are sparse black and light red fragments (iron-rich clay pellets and opaques) (SA 0.l-0.4mm, occasionally <0.8mm) with occasional particles of burnt organics (F, R), large flint and sparse white mica. All surfaces of open forms have a bronze-coloured mica slip.

Many of the vessels made in this fabric are roughly turned and rather inferior in quality when compared with other fine wares. This may be due, in part, to the presence of larger inclusions such as flint, which sometimes causes pitting and flaking. Variant 1244 is particularly associated with plain-rim dishes (IVJ).

In contrast, LOMI-371 (P1 as) is harder and probably more highly fired, with a denser appearance. It also contains poorly sorted quartz grains to c l.0mm. Like 1244 it has a grey core, here with a blue tinge (l0PI 6/1), and the surface is more orange (5YR 6/6-6/8). The vessels made in this fabric are generally well finished and of a

higher quality than 1244.

LOMI-1247 (Pl at) is a fine variant with a blue-grey core like LOMI-371, and golden-orange (7.5YR 6/6) surfaces. It is similar in hardness to LOMI-371 but, lacking the larger inclusions, its surface is smoother.

Forms

The dating of forms in LOMI reflects the distribution of the fabric in general, and little can be added about particular vessel types. LOMI lamps (not included here) are one of the most common types found within the City, and occur in both fine and coarse fabric variants.

Flagons Fig 115, Nos 723-5 Rare, ring-neck flagons have been identified (IB, MT7, not illustrated). More common are IFs with lid seatings (IF, MT3, 723-5) imitating metallic forms.

Jars Fig 115, No 726 Jars also are rare, but a single example of a necked jar (NJ, MT23) with bead rim is illustrated.

Beakers Fig 115, *Nos 727-31* Ovoid beakers with rounded shoulders (IIIB, MT22, 727-9) are the most common and occurred from the Flavian period. Included in this group is one with folded decoration (MT21, 730). A single carinated beaker (IIIG, MT17, 731) is also present.

Bowls and dishes Figs 115-16, Nos 732-51 These are the most common forms and, among the quantified data. were present from the late Neronian Period. Moulded-rim IVAs were represented from the Flavian period (MT34-5, 732-5). Flange bowls include IVBs, with deep flange (MT37, 736-7), and MT 34 with curved rims (743-4), as well as a vessel similar to MT 37 (742) with a small flange where the body is carinated. Another deep bowl has a slightly out-turned rim (747). Rare examples of a spouted bowl (MT46, 745) and a tripod bowl (MT27, 746) have also been identified.

Shallow vessels are the most common type in this category, and plain-rim dishes (IVJ, MT24, 738-41), which occasionally have concentric grooves on the underside, predominate. The diameter of these vessels ranges from c 120-270mm, with most clustering towards the larger size. They resemble the shallow platters of Pompeian Red ware and, like those, often feature sooting on the base, suggesting that they were used for cooking as well as at the table. Like the Pompeian Red ware dishes, they continue to the end of the sequence. Other dishes include one with a squared, grooved rim (MT38, 748); a flat, reeded rim (MT26, 749); a flat or grooved rim (MT25, 750); and a grooved rim with a cordon towards the base (751).

Cups Fig 116, No 752 A campanulate cup imitating Drag 27 (VIA, MT1 2) is present.

Other forms Fig 116, Nos 753-4 Lids with concave profiles and undercut (MT56, 753) and bead (MT57, 754) rims are represented.

Other Mica-dusted wares (MICA)

For spot dating, these fabrics are classified together as MICA, and only during quantification are they separated into different fabrics. Although not common in relation to LOMI, in absolute quantity they are common as a group and occur occasionally from pre-Boudiccan deposits, with the majority from 2nd century levels. Some fabrics discussed below have been included with 'other' MICA on Fig 117.

MICA-1245

The fabric shows affinities with Colchester roughcast beakers; both occurred in the early Antonine period.

Dating

Fig 117

The fabric is rare, first found in the Trajanic period, with most sherds from early Antonine phases. Of the MICA group as a whole, it comprises 14% by weight.

*Fabric and technology

A red, sandy, mica-dusted ware, distinguished from MICA-376 by both colour and larger quartz inclusions.

A coarse, brick-red (2.5YR 5/10) fabric, varying to brown (7.5YR 5/4), occasionally with a grey (10YR 8/l) core. It is hard and rough in texture with abundant well-sorted and frequently iron-coated quartz (R, SA 0.2-0.5mm), together with sparse red and brown iron-rich inclusions (R, SA) and white mica. A variant (2693) contains rare limestone (SA <l.0mm). In thin section flint and quartzite are also identified. Open forms are covered on all surfaces with a thin, dark bronze micaceous wash.

Forms

Sherds of flagons, beakers and dishes are found in this fabric. Only the dishes are illustrated below.

Bowls and dishes Fig 118, Nos 755-6 Plain-rim dishes (Ivj, MT24 MT24), represented in other MICA fabrics, occur in early Antonine contexts.

MICA-2577

Dating

This fabric is represented by one vessel from a pre-Boudiccan level and is distinct from the typical MICA fabrics of the later 1st and 2nd centuries. It accounts for 1% by weight of all the MICA fabrics.

Fabric and technology

A coarse, sandy ware with golden micaceous wash.

A hard fabric, rather irregular in fracture and dark brown (5YR 4/

2) in colour, although the type vessel is burnt. It contains quartz (SA, R <0.1-0.2mm, rarely <1.0mm) and rare red iron-rich inclusions (R 0.2-0.3mm). A thin golden wash of fine mica has been applied to the upper and outer surfaces.

Forms

Beakers Fig 118, No 757 The vessel is a beaker or jar with distinct internal lid seating. Despite some typological resemblance to Cam 102, it is unrelated to the fine jars imported from central Gaul during the early 1st century and known at Camulodunum, Skeleton Green and elsewhere in the southeast (Tyers 1981).

MICA-3 76

This homogeneous group is the most distinctive and relatively common of the MICA fabrics (36% by weight), and seems unrelated to the LOMI (p 136) series. The source is unknown, but one vessel (Fig 118, 761) contains a streak of white clay similar to Verulamium Region White ware.

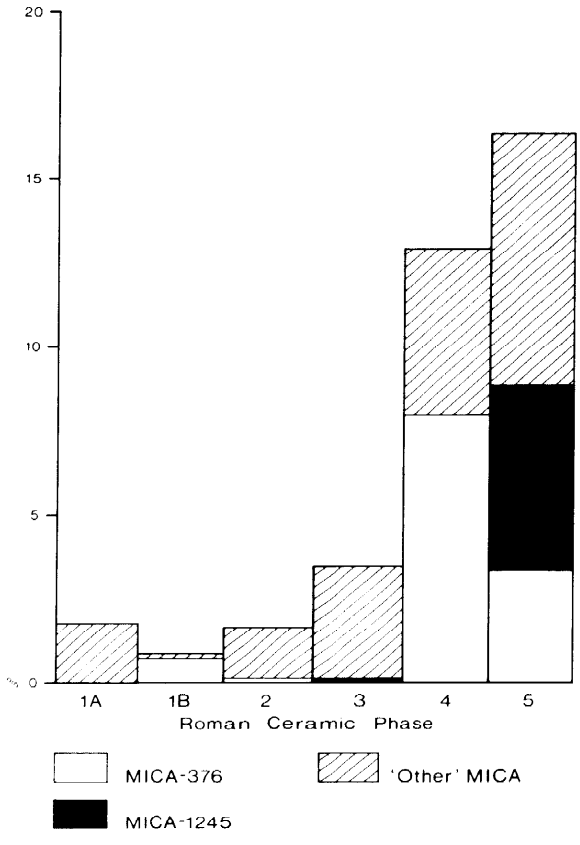


Fig 117 Stacked bar graph of main Other Mica-dusted ware fabrics (MICA) as a percentage of all non-samian fine wares by weight

Dating

Fig 117

MICA-376 occurred sporadically from the late Neronian-early Flavian period to the end of the sequence, peaking in the Hadrianic period.

***Fabric and technology**

P1 5av

A fine, sandy fabric with a generally brown appearance and golden micaceous slip. Vessels are well made and some display more decorative features than most other mica-dusted wares.

A hard pinkish-grey (5YR 6/2) fabric, with light brown (10YR 6/4) margins and finely irregular fracture. It is slightly rough in texture with abundant, densely packed, well-sorted quartz (A, SA *c* 0.1-0.2mm, occasionally <0.4mm), fine black iron-rich inclusions (R <0.25mm) and slightly rarer white mica. The almost black (7.5YR 3/0) exterior surface is covered in a thin wash of dark bronze-coloured mica.

Forms

A variety of forms are present, although bowls are the most common.

Jars Fig 118, No 758 This fragment is from a very finely made face pot, with a pierced ear and part of an eyebrow surviving. It is included in this corpus although it occurs in an early 3rd century context.

Beakers Sherds of folded beakers have been noted in this fabric at Angel Court and at New Fresh Wharf, although they are otherwise rare in the City.

Bowls and dishes Fig 118, Nos 759-62 Bowls include a deep, moulded-rim IVA (MT36, 759); a shallow bowl with internal bead on the flange and finger-impressed decoration on the rim top (MT31, 761); and a dish with a grooved flange and slight internal groove (MT26 variant, 762). Three concentric grooves are incised on the base underside of 762. Plain-rim dishes, common in LOMI, are represented in this fabric by a variant with an internal depression (IVJ, MT24, 760) more similar to a VA.

MICA-383

This fine fabric is similar but not identical to the Local Mica-dusted wares, lacking the grey core typical of LOMI (p 136).

Dating

A sparse fabric present in the Flavian, Trajanic and early Antonine periods, although it never accounts for even 1% by weight of all non-samian fine wares (4% of all MICA by weight). It may well be residual in the later contexts.

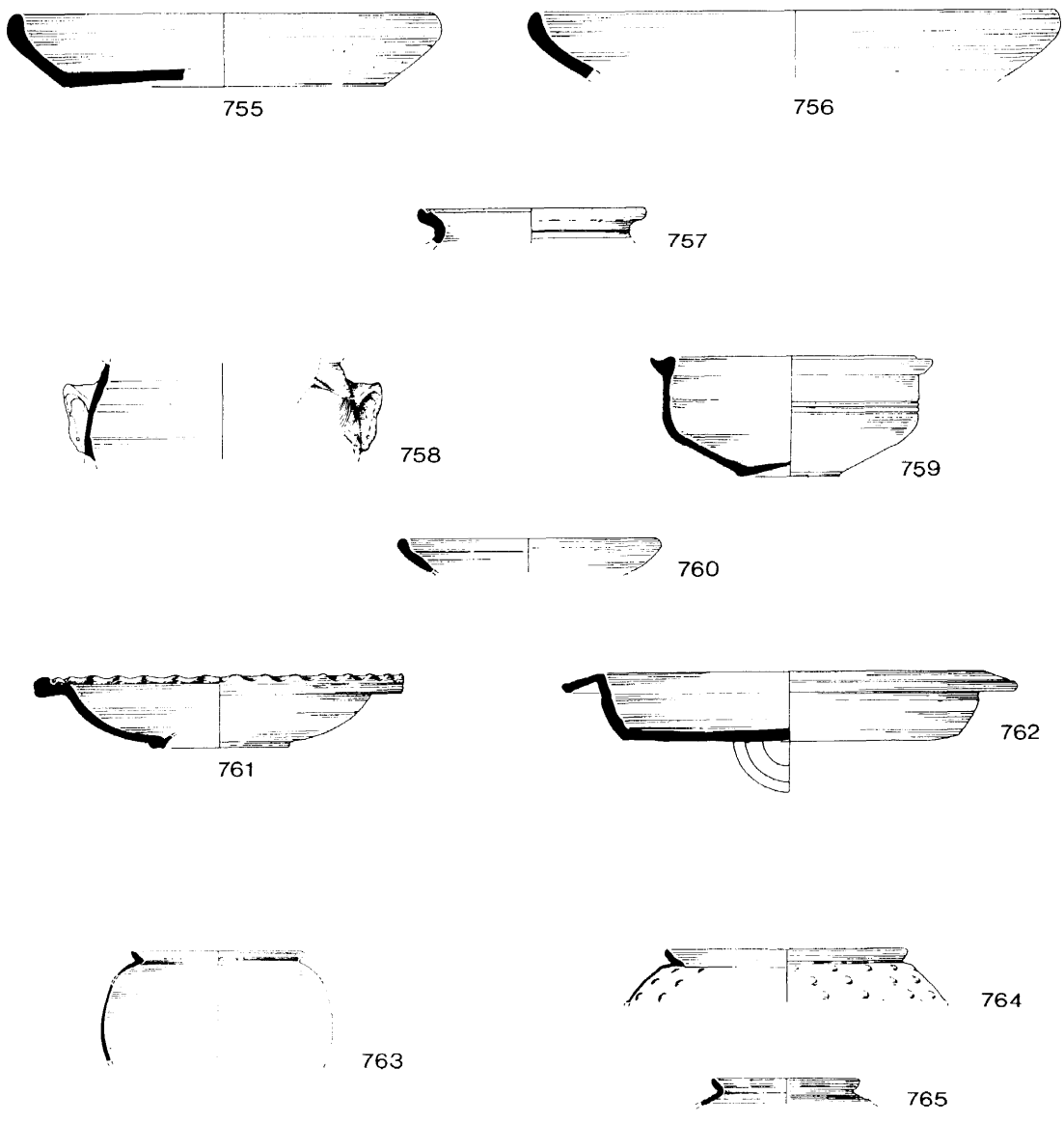


Fig 118 Mica-dusted ware fabric 1245, bowls/dishes, nos 755-6. Mica-dusted ware fabric 2577, beakers, no 757. Mica-dusted ware fabric 376, jars, no 758; bowls/dishes, nos 759-62. Mica-dusted ware fabric 383, beakers, no 763. Mica-dusted ware fabric 1242, beakers, nos 764-5 (Scale 1:4)

***Fabric and technology**

A very fine, oxidized fabric with a thin micaceous slip.

A hard yellowish-red (5YR 7/6) fabric, fine and fairly smooth in fracture with abundant silt-sized quartz and occasional larger grains (A, SA <0.l-0.25mm). Sparse black iron-rich fragments (R, SA) and white mica are also visible. In thin section flint can also be identified with some regularity. The smoothed exterior is covered in a thin wash of very fine gold mica.

Forms

Beakers Fig 118, No 763 Vessel types are restricted, so far, to beakers. Most are ovoid with high, rounded shoulders (IIIB, MT22), although there are rare sherds from folded beakers (MT21, not illustrated).

MICA-1242

Vessels with embossed decoration are known from the Rhineland (Marsh 1978, 15l-2), but recent evidence suggests that they are more likely to have originated in Gallia Belgica, just west of the Rhine (Brulet 1985). An example from the Reserve Collection is stamped by Bacilus (not illustrated), for whom a similar source is proposed (V Rigby, pers comm).

Dating

This rare fabric occurs in Flavian and Trajanic contexts (<l % of all non-samian fine wares; < 1% of all MICA by weight), but is dated by Marsh (1978, 150) to the second half of the 1 st century.

*Fabric and technology

A thin, virtually inclusionless, mica-dusted fabric with light surfaces and black core.

An extremely fine fabric with a black (7.5YR 3/0) core and pinkish, pale grey (7.5YR 8/0) surfaces. It is hard with a finely irregular fracture, and contains abundant densely packed and well-sorted silt-sized quartz with sparse black and brown iron-rich inclusions (SA, A <0.l-0.2mm) and white mica. The exterior surface is covered in a dark bronze micaceous wash. MICA-1241, which is pink (2.5YR 7/6) in colour with similar inclusions and an identical micaceous wash, may be related but lacks the carbon-rich core of 1242.

Forms

Beakers Fig 118, Nos 764-5 The fabric appears to be restricted to beakers. Two types are illustrated here, both loosely belonging to everted-rim IIIBs. A bulbous beaker with short ever-ted rim (MT20, 764) is distinguished by the embossed decoration. Similarly decorated beakers from Usk (Greene 1979, fig 53, 4-7) are thought to be pre-Flavian; our examples are from later contexts. A beaker with everted rim and grooves on the shoulder (MT21, 765) has also been identified.

6.4 Ring-and-dot Beaker fabrics RDBK)

This common name describes a distinctive group of lightly burnished buff-coloured fine wares; the most characteristic and common form is an ovoid beaker with alternating panels of barbotine dots and circles (Green 1978). The type dominates late Neronian and Flavian assemblages, by c 60-70 constituting approximately one-third of all non-sigillata fine wares, before a sharp decline in the early 2nd century.

RDBK-1606

This is by far the most common of the RDBK fabrics. Green *(ibid,* 109) drew attention to the similarity between this and Verulamium Region White ware, and suggested that it might be a finer version of the typical Verulamium product. Although on distributional grounds a source in the St Albans-London area is likely, there is no evidence as yet that they were made or even occur at any of the known kilns. In thin section the fabric differs from the normal Verulamium fabric (although in range and size of inclusions, not significantly from BHWS, Section 4.6).

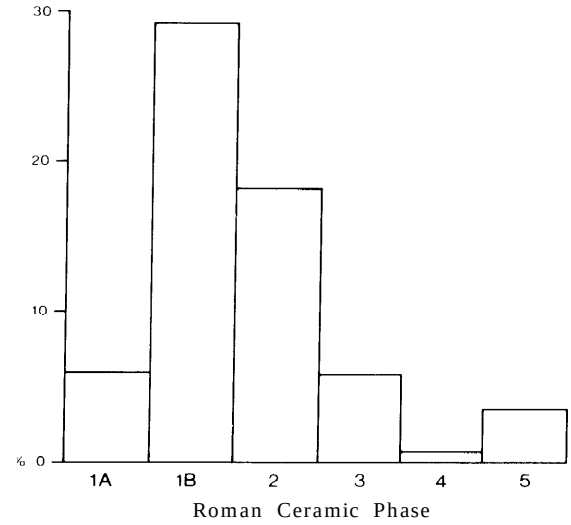


Fig 119 Bar graph of Ring-and-dot Beaker fabric 1606 as a percentage of all non-samian fine wares by weight

Dating

Fig 119

The dating for this common fabric conforms to that outlined for the RDBK group in general. A few sherds of RDBK appear in pre-Boudiccan groups within the City, and at Verulamium (Wilson 1984, fig 84, 2007A-B).

*Fabric and technology

Pls 5aw–ax

A very fine, oxidized fabric with well-finished surface. The vessels are usually coated with a self-slip and lightly burnished, producing very fine horizontal lines.

A moderately hard fabric with a slightly irregular or laminated fracture and a smooth surface. It is usually cream (10YR 8/3) throughout, often grading patchily to very pale pinks and oranges (5YR 8/4; 5YR 6/8), although occasionally the core is reduced light blue-grey (10GY 8/l). The matrix is composed of abundant well-sorted silt-sized quartz inclusions, together with sparse to moderate inclusions of larger quartz and reddish-brown iron-rich fragments (SA 0.5mm>), sometimes exposed on the burnished surfaces, with the iron-rich compounds producing fine red streaks. Frequently the visible quartz is more common and a little larger. White mica (0.l-0.3mm>) is usually rare although it is visible in a number of examples, especially on the exterior where the surface has been burnished.

In some cases the mica is so prominent that a separate fabric number has been allocated (3501), although the principal inclusions remain the same. These more micaceous examples tend to be friable with a thin self-slip that is easily worn, and occur in mid rather than

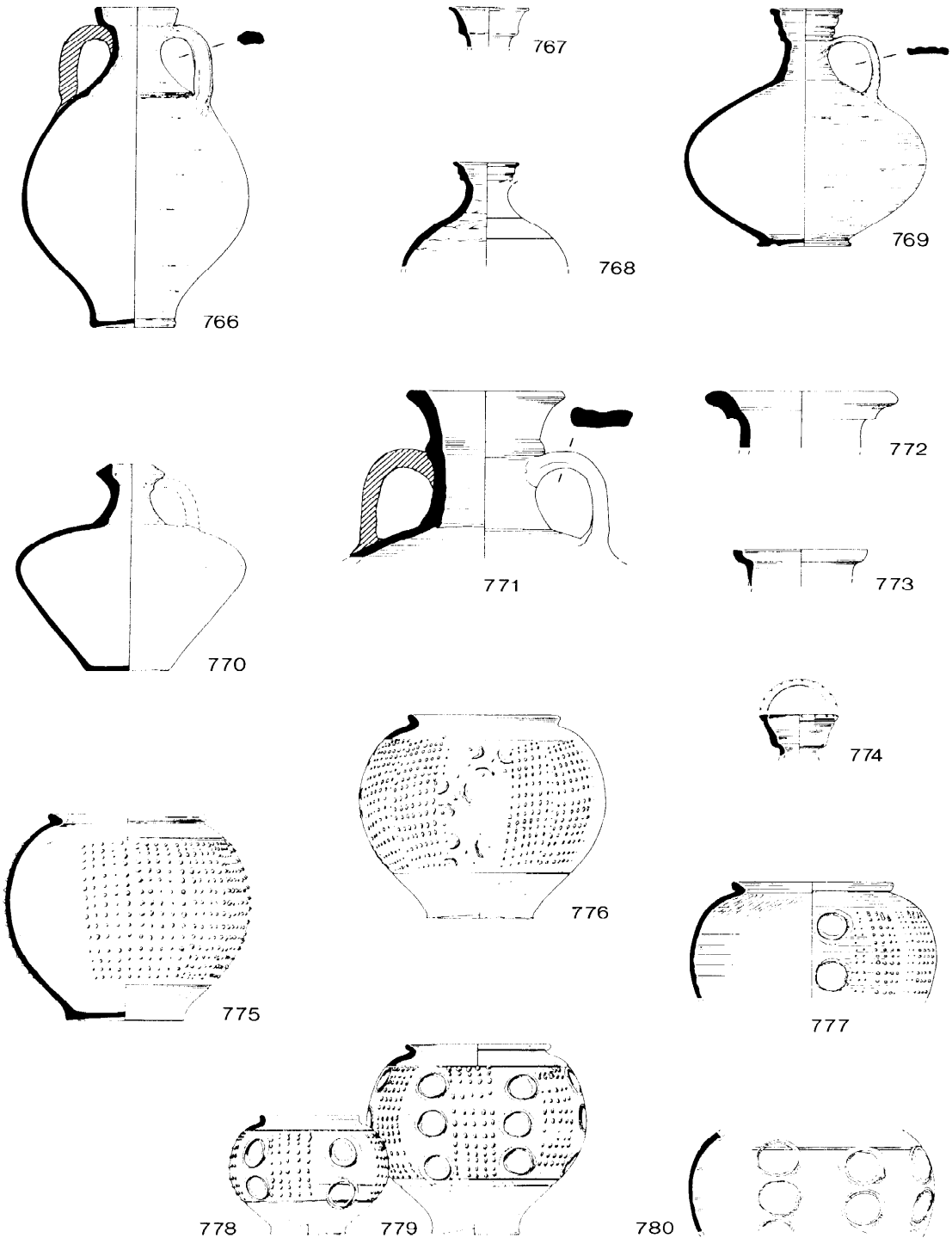


Fig 120 Ring-and-dot Beaker-fabric 1606, flagons, nos 766–74; beakers, nos 775–80 (Scale 1:4)

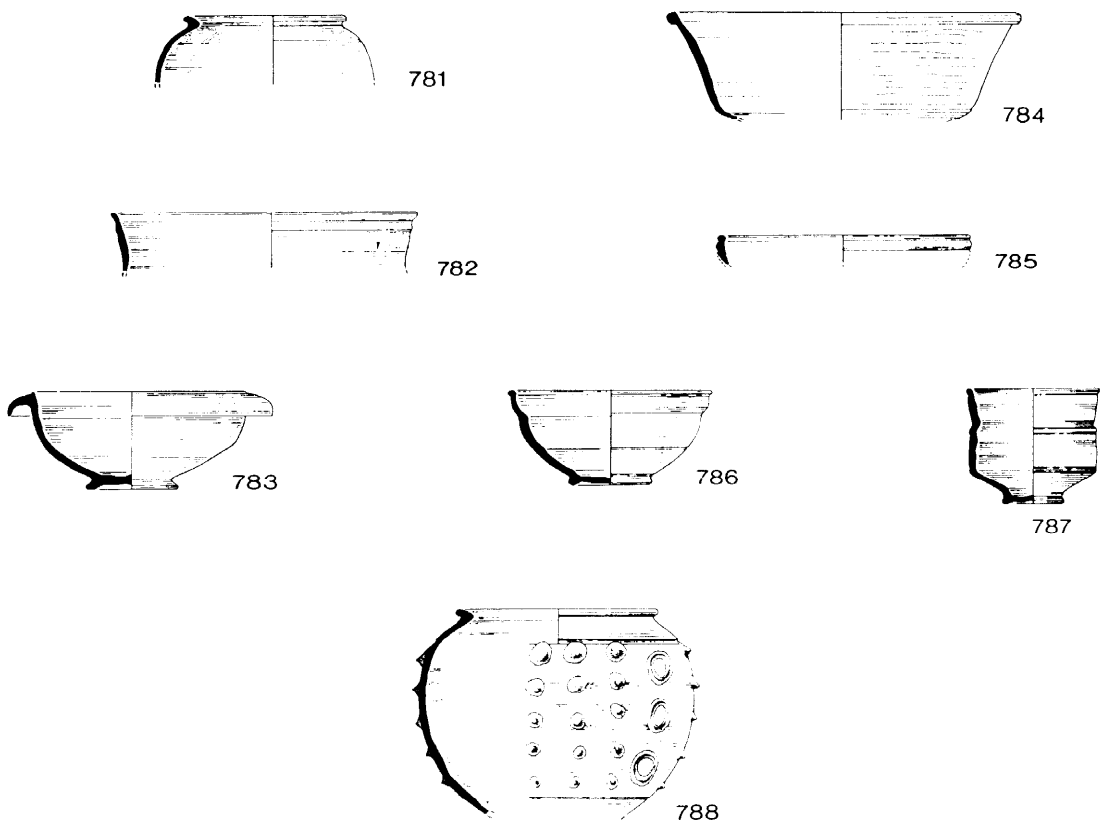


Fig 121 Ring-and-dot Beaker fabric 1606, beakers, no 781; bowls/dishes, nos 782–5; cups, nos 786–7. Ring-and-dot Beaker fabric 2635, beakers, no 788 (Scale 1:4)

late 1st century groups. Another rare sub-group, RDBK-2580, differs only in colour, perhaps from firing, and is light red (2.5YR 6/8) to orange (2.5YR 4/8) on the surface.

In thin section, the silty matrix is verified and a moderate amount of mica is visible in all sections. These two features distinguish the fabric from the mica-free, clean matrix product typical of Verulamium Region White wares.

Forms

A range of forms can be identified in the RDBK fabric, although beakers are the most common and comprise 80% by Eves of the entire group. The dating of the forms reflects the fabric in general, and most were present in the late Neronian-Flavian periods.

Flagons Fig 120, Nos 766–74 A wide variety of flagon types occur in this fabric, including thin walled and larger more robust vessels, although none are particularly common. Numbers 766-7 are variants of collared flagons (IA), while ring-neck (IB, 768-9) and disc-mouth (ID, 770) flagons conform more to standard vessel shapes.

The largest vessels in the series are classified as amphora-flagon IJs. Number 771, with a flaring-collared rim and a cordon at the base of the collar, is virtually identical in form to Cam 170; a second large vessel (772) is similar to collared IA flagons, but is distinguished by virtue of its size.

Two cup-mouthed flagons, which cannot be assigned to a particular form type, include 773-4. The former is short and squat; the latter has a high rim with notches on the top.

Beakers Figs 120-1, Nos 775-82 Nearly all the beakers, and all those illustrated, are ovoid, high-shouldered IIIBs. Most are burnished externally and internally over the rim; the surface is covered with a thin self-slip or wash and decorated with a variety of barbotine decorated zones. This decoration has been discussed in detail by Green (1978) and several of his examples are illustrated here. One vessel is undecorated (781), but a groove at the shoulder delineates the area where decoration usually occurs. RDBK-2580 is restricted to ring-and-dot beakers.

Bowls and dishes Fig 121, Nos 782-5 Bowls are also fine

and relatively thin walled, and many copy samian forms. Number 782 is similar to Drag 29, although it lacks decoration; 783 is similar to Cu 11. Others include a carinated bowl with a bead rim (784) and a small, rounded, bead-rim vessel with grooves beneath the rim and at the girth (785).

Cups Fig 121, Nos 786–7; Fig 142, No 786 Two cup forms have been identified in the RDBK fabric. Number 786 is an imitation of Drag 27 (VIA), featuring an illiterate stamp on the basal interior which is similar to stamps noted on vessels from Southwark, Fishbourne and Chichester (Down & Rule 1971, fig 5.20, 24c; Rigby 1984). Number 787 is a carinated vessel with bead rim and a cordon at the waist.

RDBK-2635

Dating

Green (1978, fig 5.2, 10) noted a single example of this fabric from a Flavian level in London. Rare additional sherds are also Flavian.

*Fabric and technology

A fine, sandy, red fabric with well-finished surface.

A hard fabric, red (2.5YR 5/8) in colour with surfaces varying from light red to reddish-yellow (2.5YR 6/6; 5YR 7/6) on the interior. The fracture is finely irregular and, although the exterior surfaces are smooth, the interior is slightly rough and sandy.

Inclusions consist of well-sorted, abundant quartz (A, SA), generally to *c* 0.2mm, but up to 0.7mm. Moderate black iron-rich fragments (R, SA 0.05–0.15mm), sparse white and rare golden mica (0.l-0.4mm) and even rarer limestone (SA 0.5mm>), are all set in a silty matrix. The inclusions, particularly the mica, are very prominent on the surface.

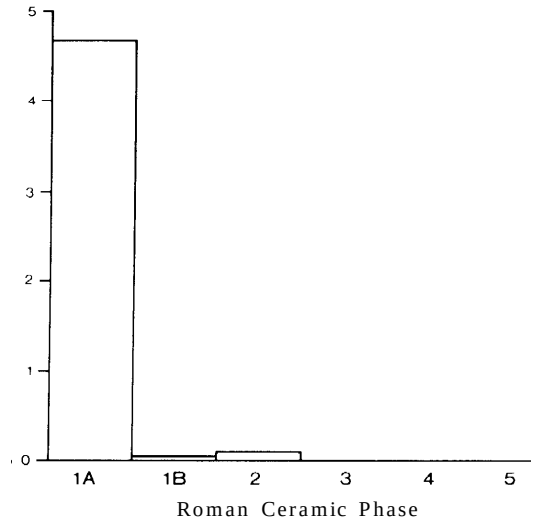


Fig 122 Bar graph of Gallo-Belgic white wares as a percentage of all non-samian fine wares by weight

Forms

Beakers Fig 121, No 788 Beakers are the only vessel type represented so far in the City. Although they are typologically similar to the typical RDBK-1606 beaker, they appear to be more crudely finished. Number 788 is an example of an ovoid IIIB ring-and-dot beaker. The body is decorated with a contrasting cream barbotine which has been very liberally applied with rings and individually placed dots in panels.

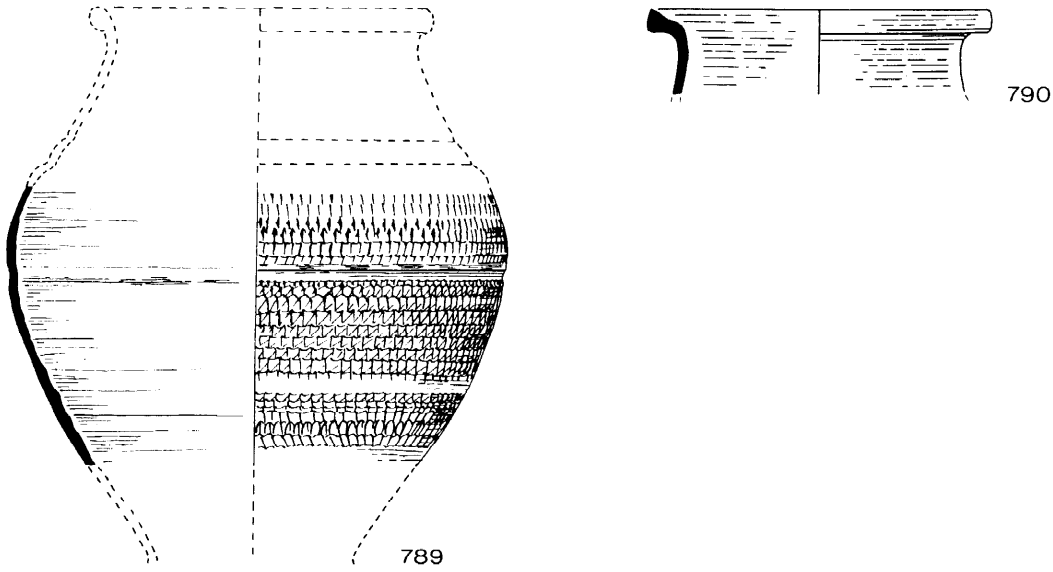


Fig 123 Gallo-Belgic White wares, beakers, nos 789-90 (Scale 1:2)

6.5 Gallo-Belgic White wares (GBWW)

This type includes a series of fine, white fabrics of the 1st century which are loosely grouped together as Gallo-Belgic White wares.

Dating

Fig 122

Most examples of this rare fabric are pre-Boudiccan in date, with smaller amounts from late Neronian and Flavian levels. Among the unquantified data, they are still found in association with Trajanic pottery.

Fabric and technology

A fine, sandy, buff fabric with rough surfaces.

A very hard and brittle fabric with an irregular fracture. It is buff (10YR 7/3) in colour and contains sparse quartz and brown iron-rich inclusions (R, SA 0.l–0.5mm), together with fine white mica.

Forms

Beakers Fig 123, Nos 789–90 The type is rare, and all vessels appear to be butt beakers. Finely rouletted sherds belong to a typical butt beaker (IIIA, 789); while the everted rim with concave interior (790) is somewhat atypical, it occurs in the same fabric and may well belong to this form.

6.6 Eggshell wares

Local Eggshell ware (LOEG)

The concentration of white eggshell wares in and around London may indicate that it was manufactured locally (Marsh 1978, 129). LOEG exhibits a diversity of forms and this, together with the wide distribution within the City, would be consistent with local manufacture.

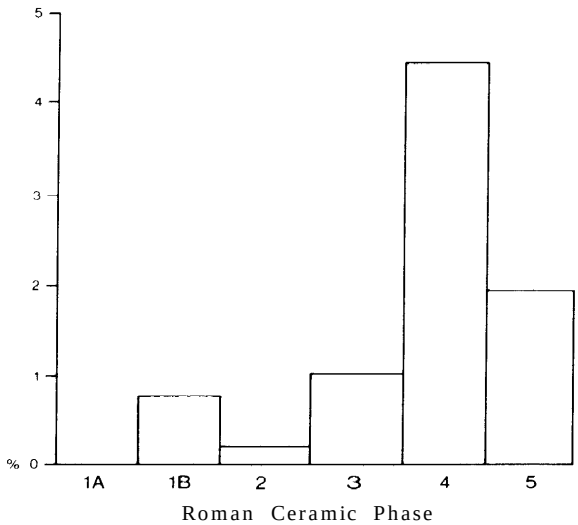


Fig 124 Local Eggshell ware as a percentage of all non-samian fine wares by weight

Dating

Fig 124

LOEG occurs in moderate quantities. It first appeared in small amounts during the late Neronian period, increased in the Trajanic and continued into the Hadrianic, when it was particularly prominent. As most of the quantified Hadrianic contexts are primary in *situ* fire deposits dated c 120-5, this date range accords well with that of 90–l30 proposed by Marsh *(ibid,* 199).

*Fabric and technology

Pl 5ay

A fine white, eggshell ware with silky external surface, perhaps achieved by burnishing over a very thin wash. The vessels are often extremely finely made, sometimes trimmed to a thickness of 2.0mm, and are often decorated with light horizontal grooves or fine rouletting.

This fabric is almost identical to Local Marbled ware (LOMA, Section 6.1). It is pure white, very pale cream (5YR 9/l) or orange-pink (5YR 7/8) in colour, often with a streaky appearance and slightly duller surfaces. It is smooth-fractured and contains generally sparse quartz (SA <0.3mm) and red iron-rich inclusions (I, SA <0.5mm), which occur in variable amounts up to moderately common.

Forms

Although a wide range of forms is present, few are common enough to be closely dated. Rouletted decoration, however, is frequently found in early Antonine deposits, although this is not clear from the quantified data.

Flagons Fig 126, No 791 Flagons are rare, but a ring-neck vessel with pronounced rim is illustrated (IB, MT7).

Beakers Fig 126, Nos 792-3 Beakers are not common but ovoid ones with high shoulders (IIIB, MT22), including a handled example (792), and the slimmer IIICs (MT22, 793) can be identified.

Bowls and dishes Figs 126-7, Nos 794-800, 806 Bowls are well represented and include a variety of types which cluster in the Hadrianic period. Many belong to MT 13 of small hemispherical bowls with bead or plain rims, frequently rouletted (794-6). MT 14 (797) has a bead rim with a flange halfway down the body wall and is rouletted. MT 33-5 (798-800), shallow bowls with a footring and a curved or flat flange, can also be identified. Also rouletted is 806, an unusual example of an omphalos base from a MT 43 bowl.

Cups Fig 127, Nos 801-5 Most cups are wide-mouth VICs (MT11, 801–2), which occurred throughout the period of production. The form is frequently rouletted,

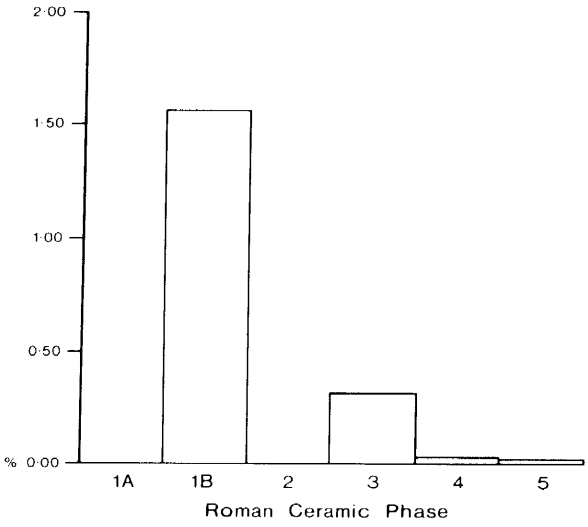


Fig 125 Bar graph of Black Eggshell ware as a percentage of all non-samian fine wares by weight

although not illustrated here; illustrated examples have both plain and externally grooved rims. Number 803 is a shallow variant, lacking the carination seen on complete VICs. Miniature cups also occur in the City: MT 15 (804) with down-turned rim and thick base, and MT 16 (805) with a footring base and sharply everted rim.

Other forms *Fig 127, No 807* Lids are presumably intended for use with the bowls. Included among the lids is an example with a concave profile, up-turned rim and grooved internal and external concentric circles (807). Like the bowls, most are from Hadrianic deposits.

Black Eggshell ware (BLEG)

Most examples, including stamped ones, are in a single fabric, and may well have come from north Gaul, where there is a marked concentration of finds (V Rigby, pers comm); in some cases the stamp evidence concurs (see below).

Dating

Fig 125

Although largely pre-Flavian in date, examples appeared in Britain from *c* 45-75 (Green 1980b, 67). This accords with quantified evidence, with most examples from the late Neronian-early Flavian period,

Fabric and technology

A fine, reduced eggshell ware with black glossy slip. The vessels are finely tooled and extremely thin, with walls approximately 1.0mm thick.

The fabric is fine and dark grey (7.5YR 4/0), sometimes brown (5YR 7/2), with brownish margins and smooth black (2.5YR 3/0) surfaces that are burnished externally. The fracture is smooth and the principal inclusions are moderate to abundant silt-sized quartz (SA, occasionally (0.1mm), and sparse white mica. A variant of this ware is virtually identical but is higher fired, resulting in a brittle, grey (2.5YR 5/0) fabric, with slightly darker (2.5YR 4/0) surfaces.

Forms

BLEG is almost entirely represented by body sherds, and where diagnostic fragments do occur they are normally too small to merit illustration.

Beakers Fig 127, Nos 808-10; Fig 142, Nos 808-10 This is the most common class of vessel type. Beakers with high rounded shoulders (IIIB) and carinated bodies (IIIG) are represented, although not illustrated here. Several stamps have been identified in BLEG. Number 808, the base of a thin vessel with an omphalo footring is stamped with an illegible mark - possibly VIIVI. It is probably from a very small carinated beaker or necked jar, similar to Holwerda's types 26-7 or 74 (1941, pls VII, XIII; V Rigby, pers comm in Green 1980b, 67). Two other stamps in this fabric have been noted in the Reserve Collection: VINDACI (809) from a small carinated beaker, a variant of Cam 120; and a similar vessel stamped by Gemini (8 10).

Other stamps occur on a grey fabric variant. Two small-necked or carinated vessels from the Reserve Collection (not illustrated here) have a moulded base and are marked off-set with the same die of Induccius on the underside. Their distribution suggests that those stamped by Induccius are from north Gaul and are largely Flavian in date (V Rigby, pers comm).

6.7 Terra Nigra (TN)

Here the term terra nigra is confined to the products of certain north French industries, in particular those operating in the vicinity of Rheims.

The fabrics described in this section include one which may be a product of the primary north Gaulish terra nigra industry (TN-1712), and another whose exact origin is unknown and is classified as Terra Nigra Imitation (TNIM).

TN-1712

This fabric has been identified by Dr J Timby as standard terra nigra, with a likely source in the Vesle Valley region of northeast France.

Dating

Fig 128

In Britain, the accepted end date for terra nigra has been 80, based primarily on evidence from military sites (Rigby 1978a, 201). By weight, most examples of this sparse type in the City are from late Neronian-early Flavian deposits, but sherds continue

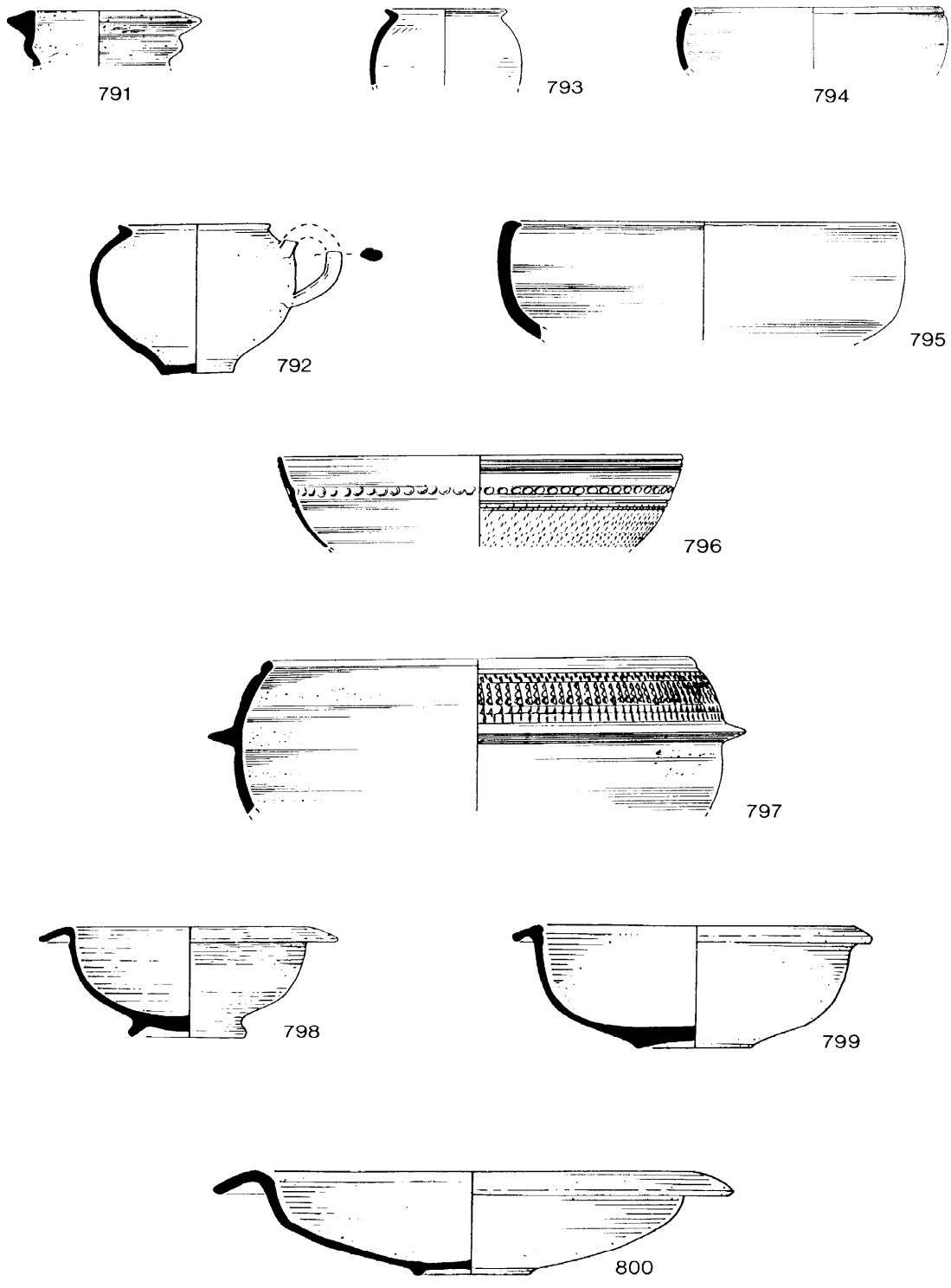


Fig 126 Local Eggshell ware, flagons, no 791; beakers, nos 792-3; bowls/dishes, nos 794-800 (Scale 1:2)

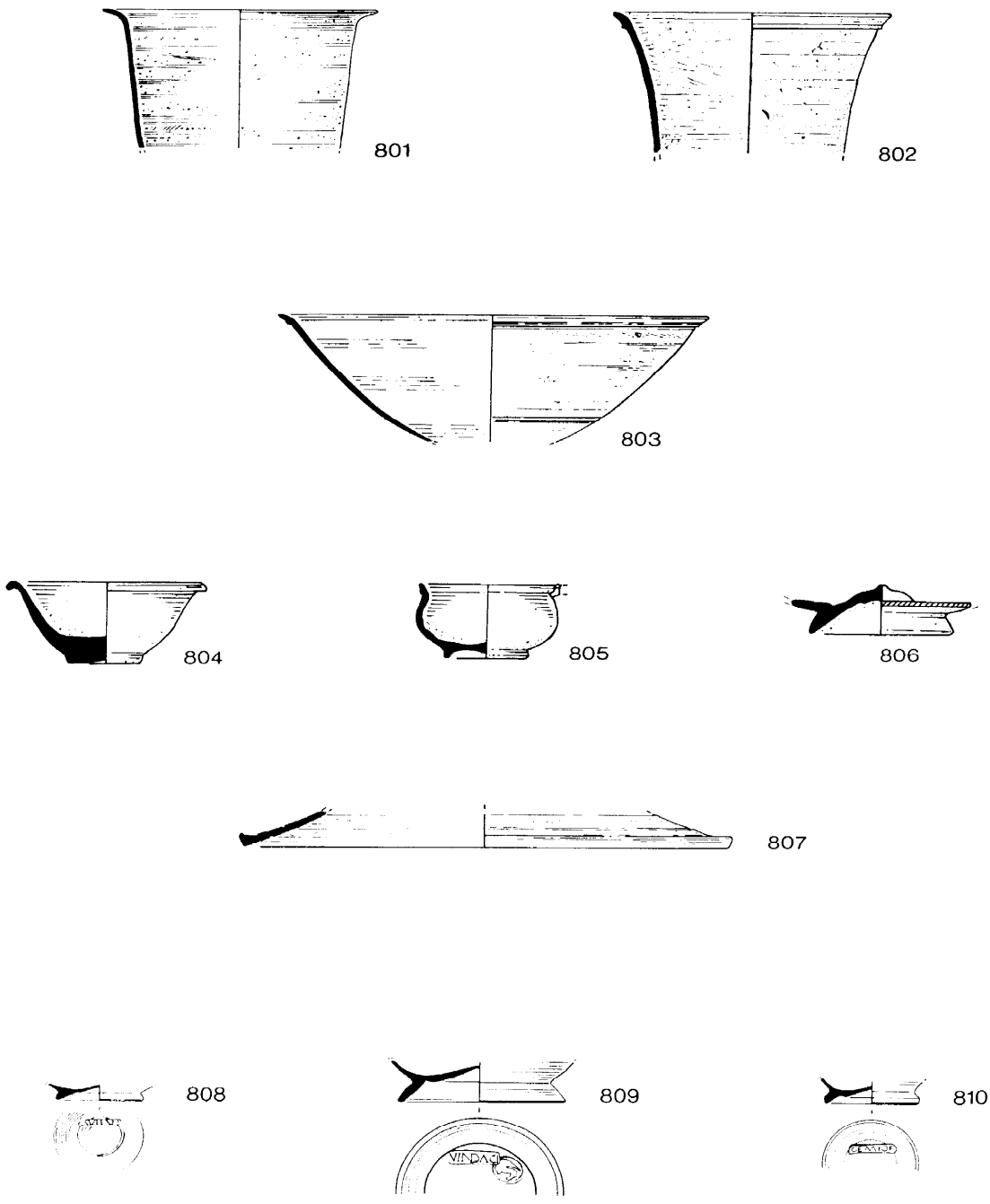


Fig 127 Local Eggshell ware, cups, nos 801-5; other forms, nos 806-7. Black Eggshell ware, beakers, nos 808-10 (Scale 1:2)

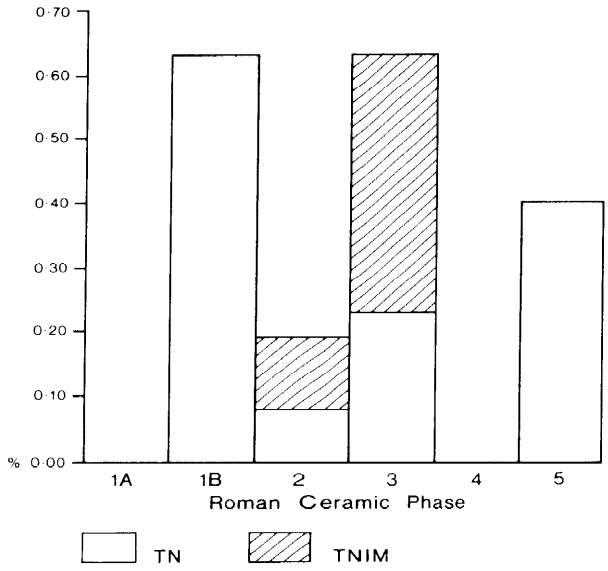


Fig 128 Stacked bar graph of Terra Nigra and imported Imitation Terra Nigra as a percentage of all non-samian fine wares by weight

into the early Antonine. Greene (1979, 115) suggests that the plates illustrated here continued into the 2nd century in Belgium and at Nijmegen.

Fabric and Technology

A fine, light grey fabric with smooth black slip.

A medium or hard fabric, greyish-white (2.5Y 8/0-7/0) in colour with thin, darker (2.5Y 5/0) margins and a finely irregular fracture. It contains rare, fine quartz (A, SA <0.3mm) and brown inclusions (SA <0.5mm) in a silty matrix. The surfaces of the platters are coated with a dark grey (2.5Y 4/0) slip and are highly burnished.

Forms

Bowls and dishes Fig 129, Nos 811-12; Fig 142, No 812
Vessels are either dishes or platters. The dishes normally have a plain rim, like Cam 16 (cf V or IVJ, 811), but a more unusual vessel is a stamped example of Cam 8 (cf VB, 812) with a moulded rim. The stamp of Bentos found here occurs on the production site at Sept-Saulx, Marne, between Rheims and Châlons-sur-Mame, supporting a source in the Vesle Valley. Dating evidence is sparse, but its manufacture should fall between 35-60 (Rigby 1984).

TNIM-2181

TNIM-2181 is similar to the North Gaulish Grey wares found in some quantity in Severan contexts at New Fresh Wharf (Richardson 1986, 106-9; Richardson & Tyers 1984) and is thought to originate in northern France, probably Picardy.

Dating

Fig 128

This rare fabric occurs in quantified Flavian and Trajanic contexts.

*Fabric and technology

A sandy, white fabric with smooth black slip.

A hard fabric with an irregular fracture; it is off-white to light grey (2.5YR 8/0). Inclusions are abundant, densely packed silt-sized quartz, white mica and occasional feldspar with larger rounded quartz (<0.3mm), and black (0.3mm-1.0mm) fragments. The surfaces are slipped dark grey or black (2.5YR 3/0-2/0) and wiped, and some white mica is visible on them.

Forms

Bowls and dishes Fig 129, Nos 813-14; Fig 142, No 814
At least two vessels are present, from shallow, plain-rim dishes of Cam 16 (cf V or IVJ). Number 814 may belong to a different tradition, for it has an illiterate stamp *in plantum pedum* which cannot be paralleled on terra nigra.

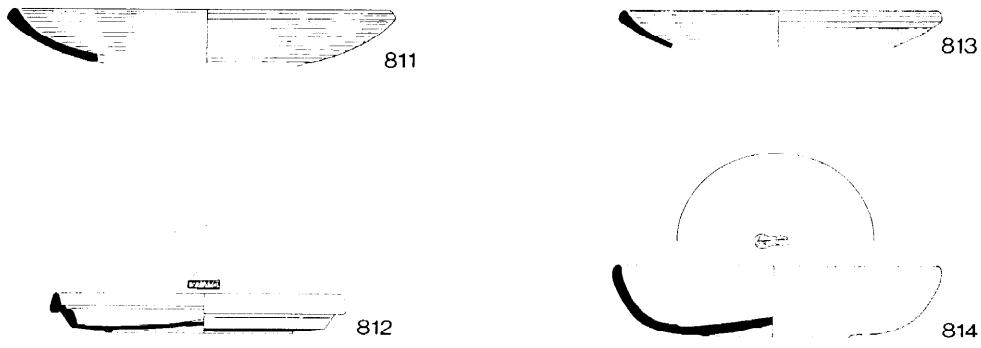


Fig 129 Terra Nigra fabric 1712, bowls/dishes, nos 811-12. Imitation Terra Nigra fabric 2181, bowls/dishes, nos 813-14 (Scale 1:4)

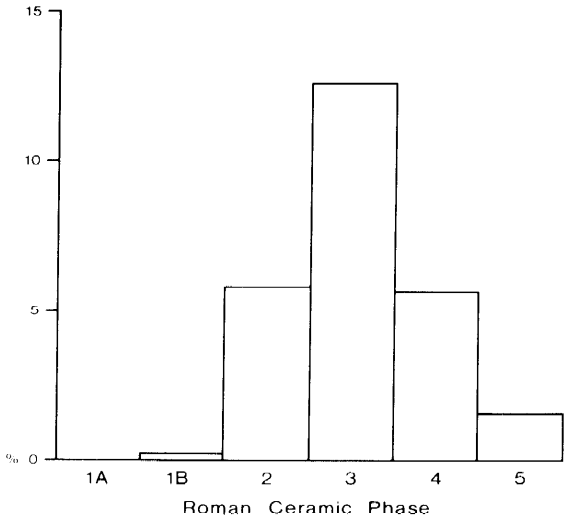


Fig 130 Bar graph of London ware as a percentage of all non-samian fine wares by weight

6.8 Reduced Fine wares

London ware (LONW)

This fine, black or grey fabric described as London ware or London-type ware is characterized by incised lines (including compass-scribed circles), rouletting and stamps. London ware was almost certainly produced in the London area (Marsh 1978, 124) and at a number of different production centres on both the Continent and in Britain. Other British centres include Oxford, West Stow, the Nene Valley and the Upchurch Marshes of Kent (Medway) *(ibid;* Rodwell 1978, 228).

It is occasionally difficult to distinguish between the fabrics of the various production areas, particularly between the London and the Medway products. However, probable London products feature a smoothly finished, black surface and generally lack the pronounced black sandwich effect and clay pellets of the Medway products. Examples from the City are apparently restricted to the London products. Stamped decorated variants (LONW-STD) discussed by Rodwell (1978), and Upchurch products (NKFW) are presented separately below.

Dating

Fig 130

London ware is common and is present in negligible quantities in late Neronian-early Flavian levels. It became more frequent in the Flavian period, but its floruit occurred during the Trajanic; it was absent from Flavian deposits at Leadenhall Court where a similar Fine Micaceous type was instead found and its presence in quantified deposits at Newgate Street may be related to slumped stratigraphy.

*Fabric and technology

Pl 5az

A fine, reduced micaceous ware with smooth black-slipped surfaces, which have a tendency to laminate. Although differing typologically, London ware fabrics bear a marked resemblance to a group of fine micaceous grey or black wares (FMIC-1659, FMIC-1746) noted in City assemblages and discussed below.

A soft and smooth fabric with a finely irregular fracture. There are several variants, but the typical one (2647) has a very fine sandy matrix with a dark greyish-brown (7.5YR 4/2) core varying to dark reddish-brown (5YR 4/4) at the margins. It has sparse quartz (SA 0.05-0.15mm, occasionally <0.4mm). Fine white mica, which is more visible on the surfaces, and slightly rarer black opaques (I, SA <0.4mm) are also present. Other fabric variants may be somewhat finer, and lack the margins seen on 2647. A matt or occasionally lustrous slip, very dark grey grading to black (2.5YR 4/0-3/0), covers both surfaces of open vessels, which are burnished and decorated externally. Oxidized vessels appear in the Reserve Collection and occasionally from sites. Their decoration conforms to the typical black LONW.

Forms

The majority of London ware forms found in the City are copies of samian bowls, where the incised decoration is clearly imitating ovolos of the samian originals. As indicated by its overall distribution, most forms started in the Flavian and peaked during the Trajanic period.

Jars Fig 132, Nos 815-16 Flasks (IIR, MT51) are heavily decorated with incising and rouletting and are probably Gallo-Belgic in origin.

Bowls and dishes Figs 132-3, Nos 817-25 The most common London ware type is the hemispherical bowl, broadly imitating Drag 37, with a variety of compass-scribed and rouletted motifs (IVE, MT42, 820-3). Imitations of Drag 29s are also well represented and decorated with similar patterns (IVD, MT44, 817- 19). Dishes or plates with flat rims are less highly decorated than the normal London ware, but are rouletted on the rim, and sometimes the base (VC, MT31, 824-5).

Stamped London ware (LONW-STD)

This can be distinguished from the usual London ware by decoration and fabric. Comparison of form, fabric and stamp dies suggests that the rare City vessels belong to Rodwell's (1978, 234-45) group 2, which *is* widely distributed in the London-Essex area.

Dating

The rare City examples come from 2nd century contexts, but the group 2 types are thought to have been produced in the mid to late Flavian period *(ibid,* 245). Quantified sherds account for <1% by weight of all non-samian fine wares during the Trajanic period and 1% during the early Antonine, and are therefore likely to be residual.

***Fabric and technology**

A fine fabric, with reduced core and very hard, burnished exterior.

The most common fabric (255 1) is hard and fairly fine, with a distinctive sandwich effect of a dark greyish-brown (5YR 3/1) core and orange (2.5YR 5/6) margins. The external surface, which is burnished and stamped, varies in colour from brown to orange (5YR 5/4-4/2), although the interior is usually orange (2.5YR 6/6), unburnished and slightly rough. Abundant quartz (SA 0.05-0. 1mm, rarely 0.2mm) and moderate red iron-rich clay pellets (SA 0.1-1.0mm) are set in a matrix containing fine white and gold mica (0.1mm>). In thin section the quartz is seen to be angular, densely packed and well-sorted, and readily identifiable from the unstamped London ware.

Forms

Examples of stamped London ware are rare in the City and usually survive only as sherds. Four sherds have been noted from beakers and a bowl; only the bowl is illustrated here.

Bowls and dishes Fig 133, No 826 A copy of the samian form Drag 30/37 is represented.

North Kent Fine ware (NKFW)

Reduced Fine wares from the Medway region of north Kent, particularly vessels in the London or Upchurch ware tradition, are distinguishable from those made in or close to the City (see LONW above), both petrographically and typologically. NKFW has a finer fabric with abundant, naturally occurring clay pellets visible macroscopically, and the forms are primarily beakers (sometimes rouletted) and undecorated bowls.

Dating

Fig 131

NKFW is sparse on City sites, and was first noted in a group of Severan poppy beakers at New Fresh Wharf (B Richardson, pers comm). The ware first occurred in the late Neronian period, but was most typical of the Trajanic, and continued into the early Antonine period; all the examples fall within the Kent range for Upchurch ware, where it was found from the late 1st to 3rd centuries (Monaghan 1984).

***Fabric and technology**

Pl 5ba

A fine, inclusionless, reduced fabric with distinctive black core and argillaceous fragments. Occasional decoration consists of barbotine, burnishing or rouletting. Knife trimming can often be seen near the base. In thin section the fabric compares well with pottery from Upchurch.

This fabric is hard and finely irregular in fracture, with a smooth, silky exterior surface and a slightly rough, soapy texture on the interior. The dark grey or black (7.5YR 3/0) core and the yellowish-brown (5YR 5/6) or grey (5YR 6/1) exterior margins produce a

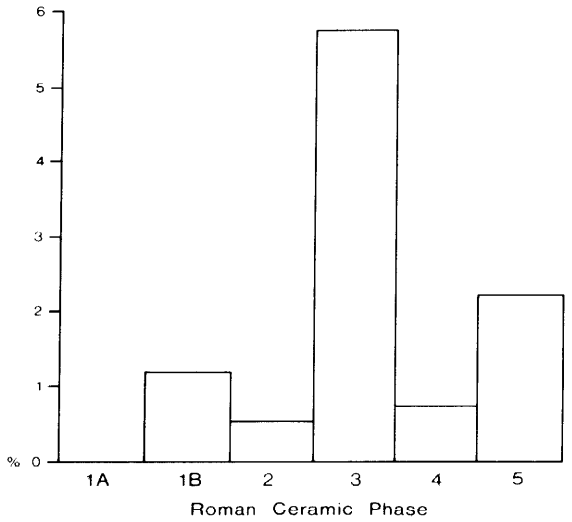


Fig 131 Bar graph of North Kent Fine ware as a percentage of all fine wares by weight

distinctive sandwich effect. The main inclusions are moderate amounts of brownish-grey or rounded red pellets (0.8mm>) set in a fine silty matrix of quartz. Fine white and gold mica is rare, although it is more apparent on the burnished surfaces. In thin section the pellets can be identified as naturally occurring clay pellets. The exterior surfaces are generally slipped and burnished grey (7.5YR 4/0) or black (7.5YR 3/0).

City vessels are identical to samples of Upchurch line ware fabric 1 identified by Monaghan (1984) as being from the Upchurch Marshes of Kent. Comparison in thin section of the City material and samples of the principal fabric from the Upchurch Marsh area shows the fabrics to be identical. Most distinctive are nodules, dark to light grey in colour, which are iron or manganese rich, formed in a soil where organics are present. These, together with the dense black core, suggest a rather organic blue or black clay source which might well be estuarine in nature, but - lacking shell particles - is more likely to be riverine (A Vince, pers comm).

Forms

Forms are principally beakers, but jars and bowls/dishes are also present. Most forms are Trajanic in date.

Jars Fig 133, No 827 Jars are represented by a round-bodied vessel with thickened rim (IIE variant) and burnished decoration - similar to those produced at Highgate - from a Hadrianic deposit. The vessel lacks the neck cordon frequently associated with the type.

Beakers Fig 133, Nos 828-9 An ovoid high-shouldered beaker (IIIB, 829) with rouletted decoration is illustrated, as well as a variant of a butt beaker (IIIA, 828). Other types represented by body sherds and not illustrated include carinated (IIIG) and poppy (IIIF) beakers.

Bowls and dishes Fig 133, Nos 830-2 Included in this category are round-bodied bowls (IVF, 830) and dishes imitating terra nigra Cam 13, with moulded

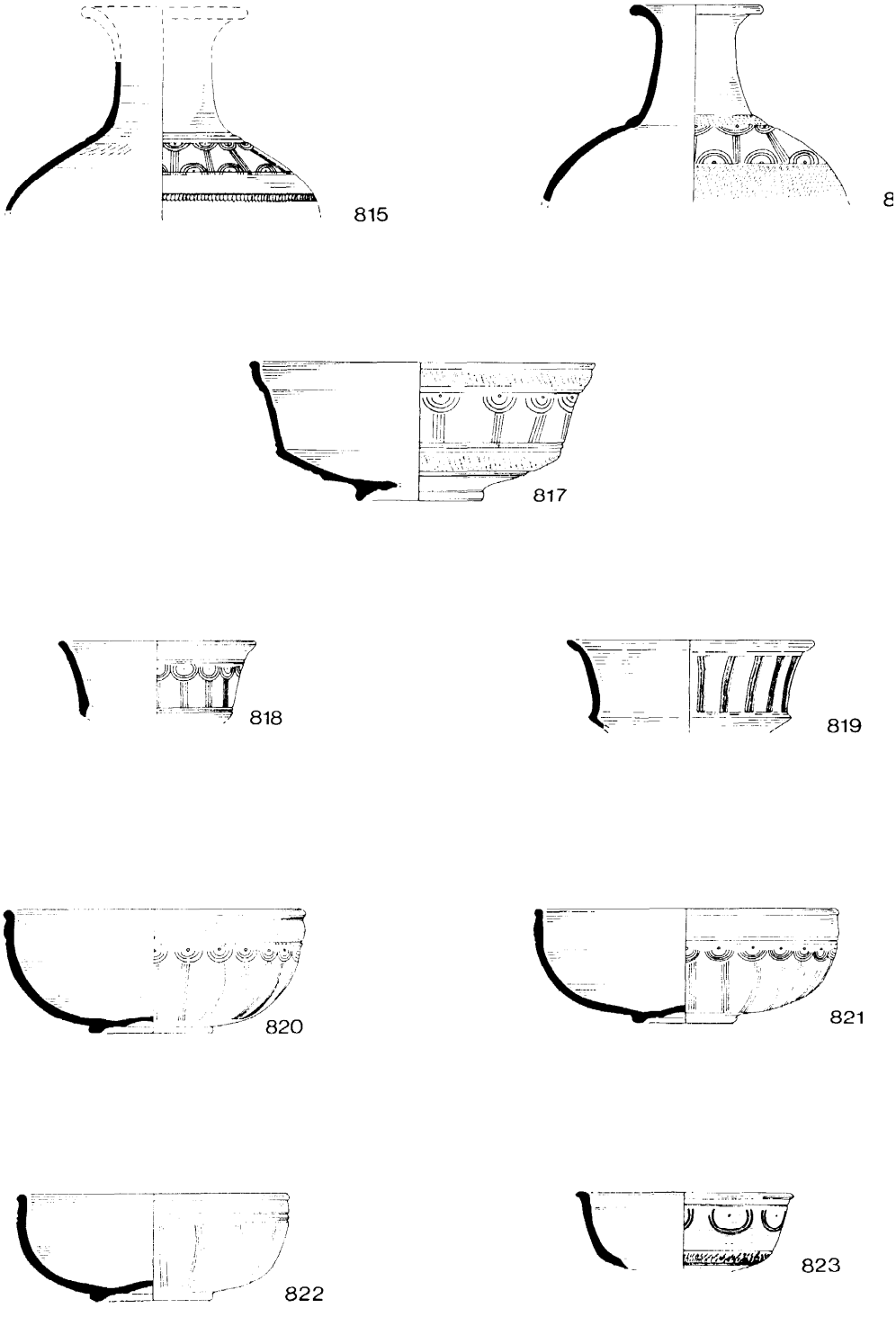


Fig 132 London ware, jars, nos 815-16; bowls/dishes, nos 817-23 (Scale 1:4)

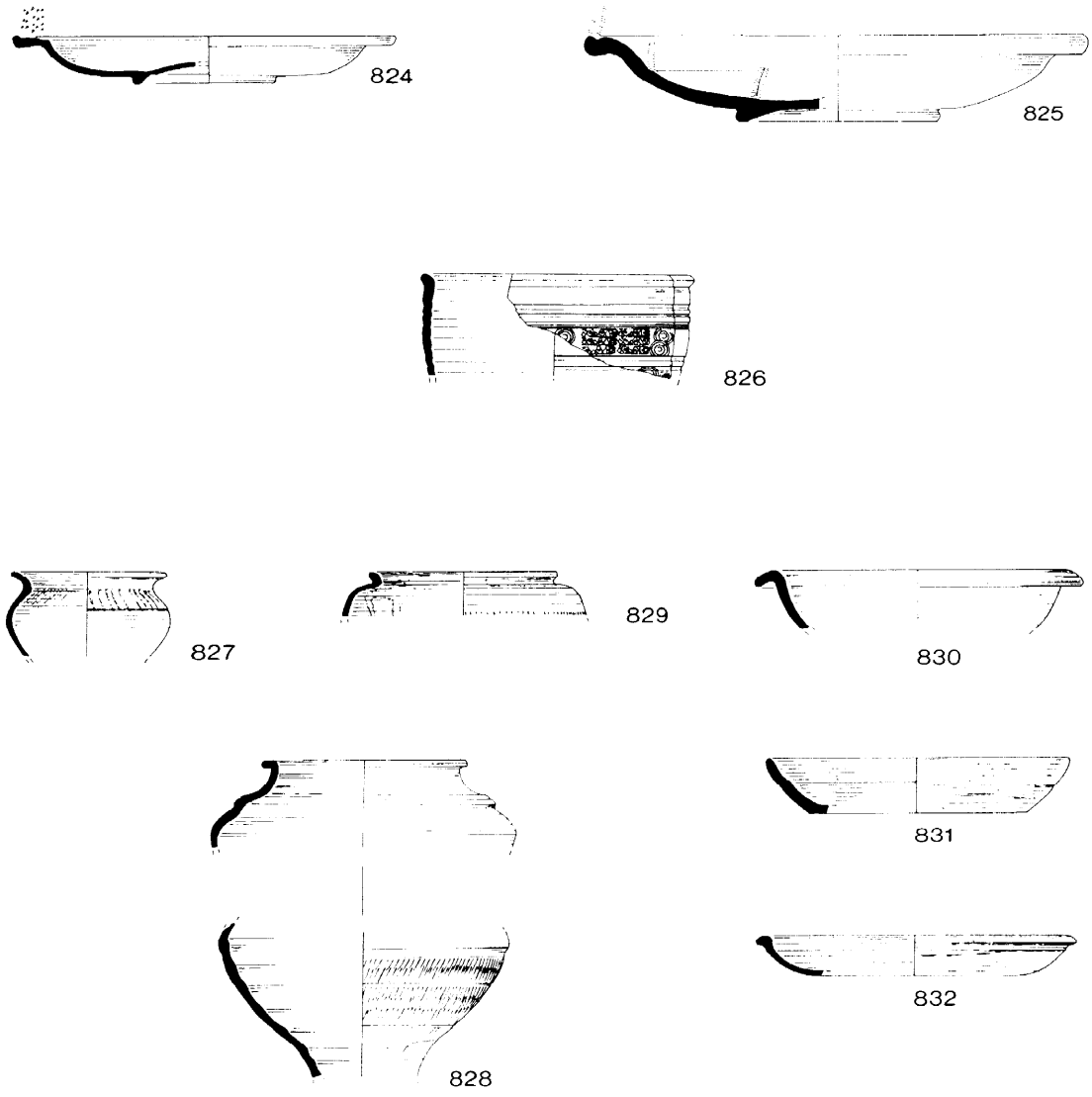


Fig 133 London ware, bowls/dishes, nos 824-5. Stamped London ware, bowls/dishes, no 826. North Kent Fine ware, jars, no 827; *beakers, nos 828-9; bowls/dishes, nos 830-2 (‘Scale 1:4)*

interior (VA, 831); both are from Flavian contexts. Another vessel, with a bead rim slightly grooved beneath the lip (832), is from an early Antonine level.

Fine Micaceous wares (FMIC)

These are the commonest non-sigillata fine ware, frequently comprising almost half of the remaining types by weight. Although no exact sources are known they form a consistent group both technologically and typologically, and some fabrics may be local.

Four main fabric variants can be identified within the FMIC group, but all are distinguished by a micaceous clay which is especially noticeable on the surface and a thin wash or self-slip which is finely burnished on the external surface. Decoration consists of occasional incised, rouletted or, more commonly, barbotine dot circles. A wide range of vessels, includ-

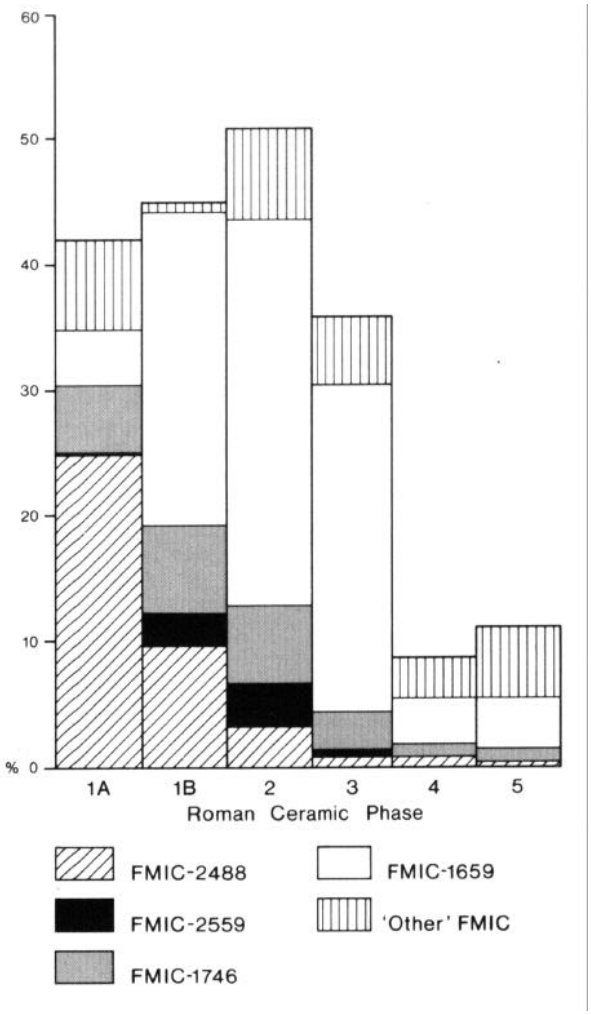


Fig 134 Stacked bar graph of Fine Micaceous ware fabrics as a percentage of all non-samian fine wares by weight

ing flagons, jars, bowls and cups are made in these fabrics, but beakers are by far the most common.

As a group FMIC is abundant. It appears in pre-Boudiccan deposits and was common through the Trajanic period; rapid decline began in the Hadrianic period and it was probably residual from this point onwards (Fig 134). Individual fabric variations are only separated during quantification, but both fabrics and forms provide a good chronological indicator.

FMIC-1659

This is the largest of the FMIC groups, accounting for nearly 60% by weight of all the FMICs. The fabric is identical to London ware, although it lacks the thick black slip; by analogy to LONW it may have a local source (p 151). There is also a marked similarity between LONW and FMIC-1659 in Drag 29 bowls, but the FMIC potters apparently used a scoring tool for the decoration, rather than the more precise compass scribing noted on London ware.

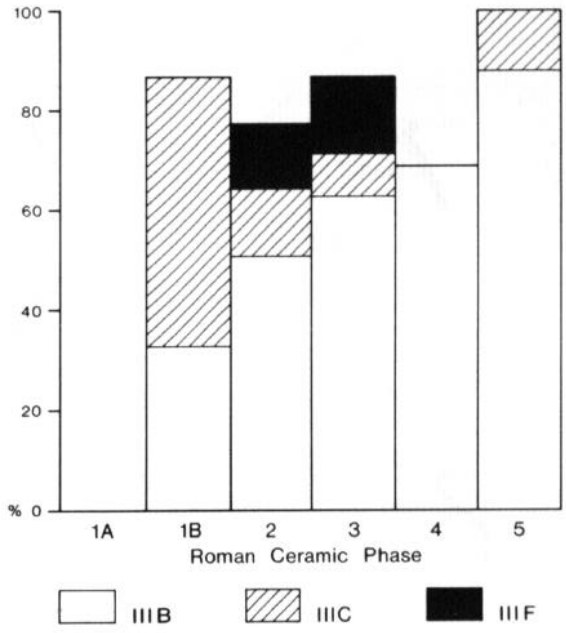


Fig 135 Stacked bar graph of the common Fine Micaceous ware fabric 1659 beaker forms as a percentage of all FMIC-1659 beakers by Eves

Dating

Fig 134

FMIC-1659 is moderately common. It is present in small quantities in pre-Boudiccan contexts and was clearly the most dominant FMIC group from the late Neronian period to the Trajanic, after which quantities declined and it may well have been residual.

*Fabric and technology

Pl 5bb

A fine, silty fabric, with light core and dark reduced surfaces which are noticeably micaceous; occasional large inclusions of limestone, organics and clay pellets can be seen. Although the external finish and decorative forms are dissimilar, the general range of inclusions and sorting of FMIC-1659 resemble the typical London ware fabric (LONW-2647), also thought to be local.

A hard, fine-textured, light grey (10B 7/2) fabric, almost free of larger inclusions, with a black or grey (7.5YR 4/0–3/0) slipped and burnished surface. The fabric is slightly irregular or laminar in fracture, with abundant silt-sized quartz in a slightly micaceous matrix with white mica, together with larger inclusions of clay pellets (SA <0.5mm) and, less frequently, irregularly sorted organics (F 0.2–0.5mm) and limestone (R <0.3mm). A rarer sub-group (1747) lacks the organic inclusions; another, FMIC-760, imitates terra nigra forms and has smooth light grey (7.5YR 6/0) burnished surfaces. It often features groups of barbotine dot decoration and occasional rouletting.

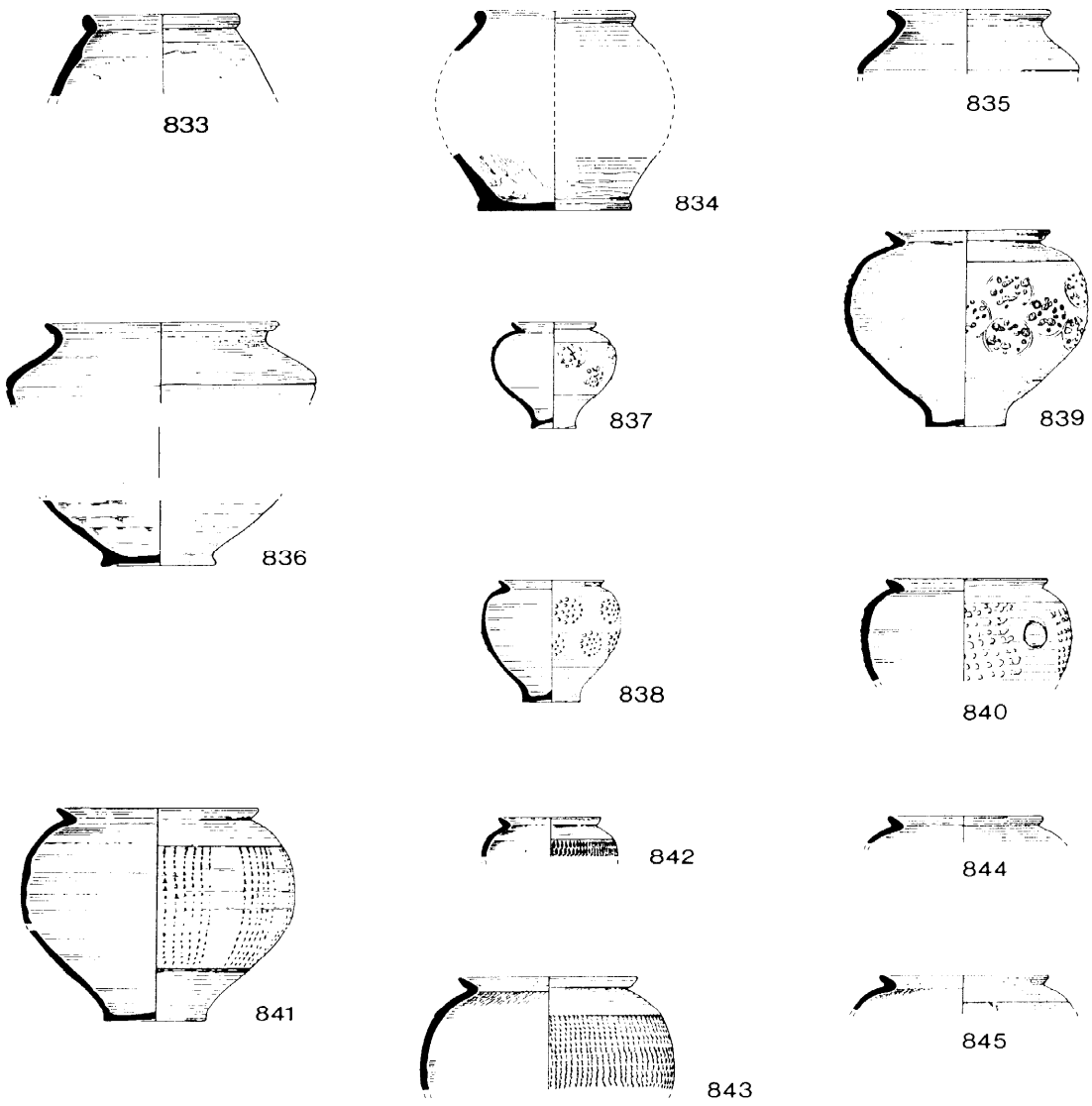


Fig 136 Fine Micaceous ware fabric 1659, jars, nos 833-6; beakers, nos 837-45 (Scale 1:4)

Forms

The 1659 repertoire includes the entire range of fine ware vessel types with a variety of decorative motifs. By far the commonest of these are beakers, which form over 80% (by Eves) of the total, but during the Flavian and Trajanic periods a wider range of types, including jars, bowls, cups and lids, was present.

Jars Fig 136, Nos 833-6 This group includes bead-rim IIAs (833-4) and necked jars (NJ) with both plain-everted (835) and undercut (836) rims. Both are grooved at the girth; 836 has a footring base. Flasks (IIR) are present, but not illustrated.

Beakers Fig 135, Figs 136-7, Nos 837-60 The most common group is the ovoid high-shouldered IIIBs, decorated with lines and circles of barbotine dots (837-41, 845) and rouletting (842-3). Although they vary in size they are remarkably consistent in form and decoration. They were most abundant in Flavian and Trajanic levels although earlier examples are known. One plain vessel is also illustrated (844). Ovoid beakers without high shoulders clustered in the late

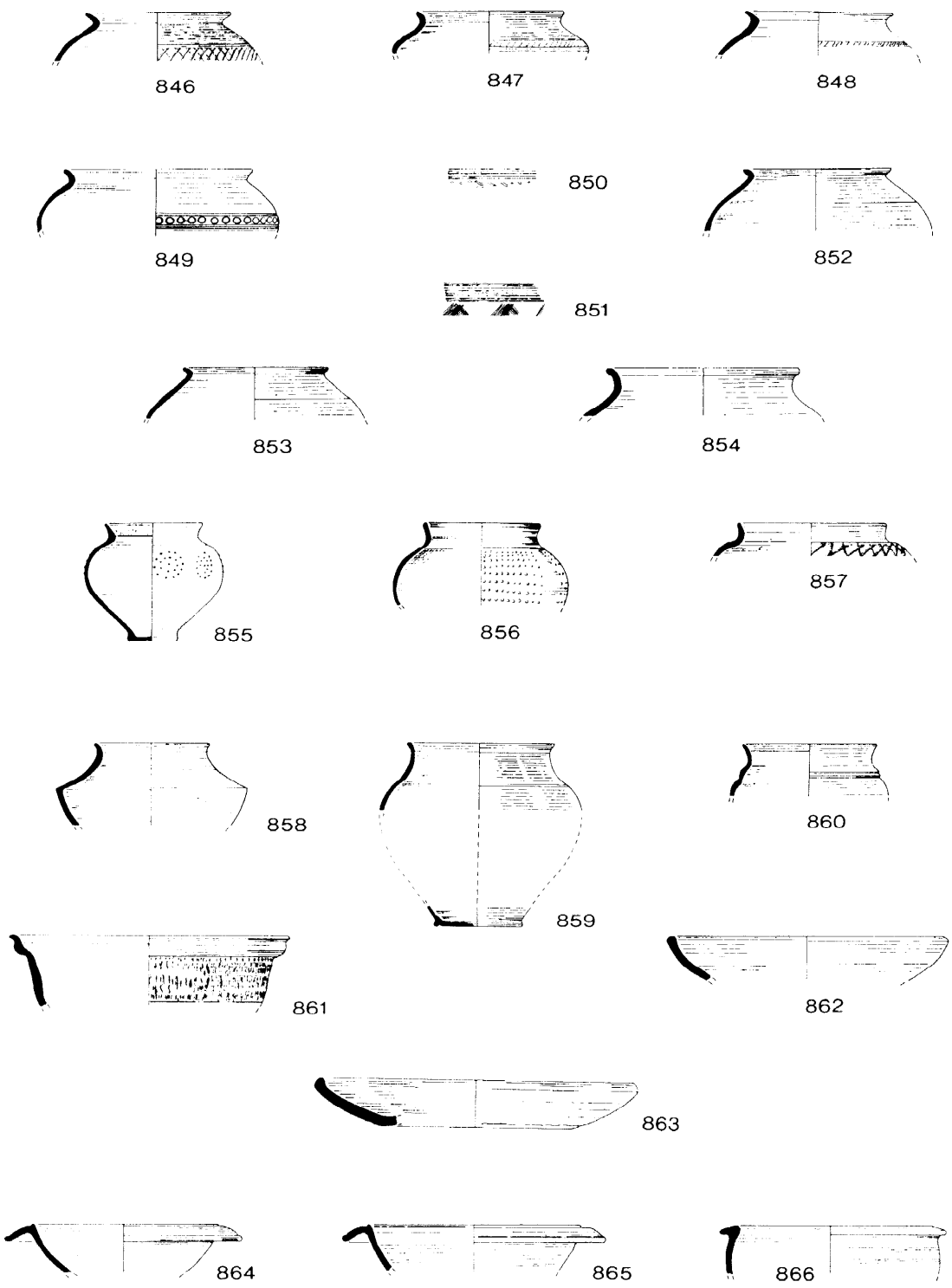


Fig 137 Fine Micaceous ware fabric 1659, beakers, nos 846-60; bowls/dishes, nos 861-6 (Scale 1:4)

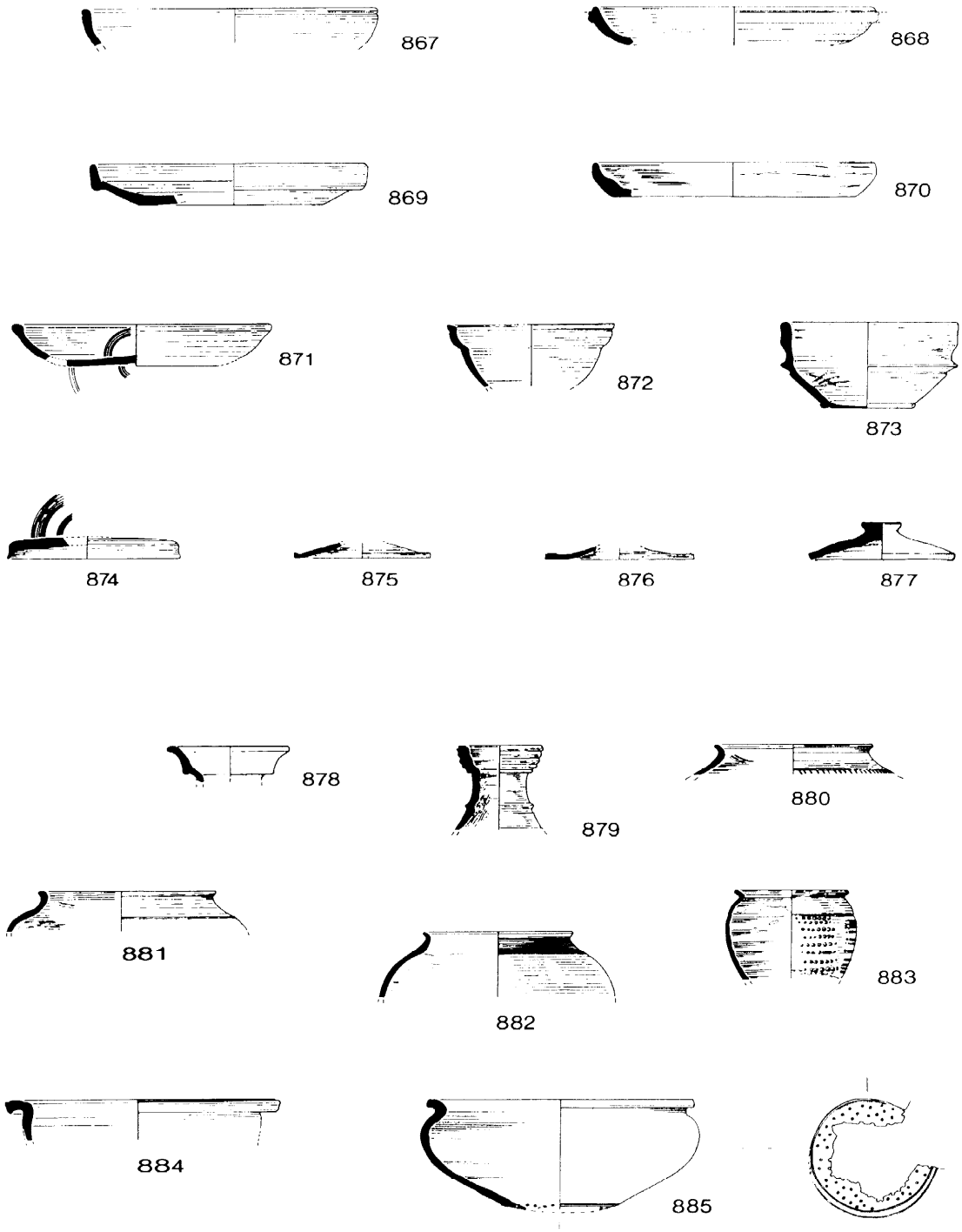


Fig 138 Fine Micaceous ware fabric 1659, bowls/dishes, nos 867-71; cups, nos 872-3; other forms, nos 874-7. Fine Micaceous ware fabric 1746, flagons, nos 878-9; beakers, nos 880-3; bowls/dishes, no 884; other forms, no 885 (Scale 1:4)

Neronian-Flavian period, and are decorated with incising, combing, circles, lines and stabbing (IIIC, 846-51), although some may have been undecorated (852-4). Poppy (IIIF, 855-7) and carinated (BIG, 858) beakers, normally Flavian-Trajanic, and a bulbous one (IIIH, 859) associated with Neronian-mid Flavian pottery, are also represented. In addition to the normal IIIFs is a variant decorated with a barbotine criss-cross motif (857). A small beaker with upright rim and shoulder cordon (860) is also unusual. The trends of the major beaker forms are illustrated clearly through the Trajanic period on Fig 135; residuality distorts their patterns for the Hadrianic and early Antonine periods.

Bowls and dishes Figs 137-8, Nos 861-71 A variety of bowls and dishes are included, although none occurs with regularity. Examples of samian imitations, both Drag 29 (IVD, 861) and Rt 12 (864-5), are represented, as are flat-rim bowls (866). Dishes include plain-rim (IVJ, 862-3) and bead-rim (867-8, 871) items, as well as plates with internal (VA, 870) and external (VB, 869) moulding. The VBs are imitations of terra nigra and are similar to Cam 7/8 and 13.

Cups Fig 138, Nos 872-3 An imitation of a samian Drag 27 (VIA, 872) is represented in this category, as is a terra nigra imitation of a Cam 59 (873).

Other forms Fig 138, Nos 874-7 Two main lid types can be identified, These include small lids with concave profiles and upturned (875), flat and grooved (876), and square (877) rims. An unusual vessel (874, possibly a dish), with a shallow, flat profile and plain rim, is burnished externally as well as being finely decorated on the top with two groups of compass-scribed, concentric circles, similar to London ware.

FMIC-1746

The fabric compares with a London ware variant (LONW-753) and may be local.

Dating

Fig 134

FMIC-1746 is a small group in comparison with 1659 (11% of all FMICs by weight), although still moderately common. It is present throughout the entire sequence, but was most abundant from the pre-Boudiccan through the Flavian period, and is almost certainly residual in Hadrianic and early Antonine contexts.

*Fabric and technology

Pl 5bc

A fine, reduced fabric with moderate large quartz inclusions in a micaceous, silty matrix. It is slightly coarser and less well made than FMIC-1659.

A hard sandy fabric, finely irregular in fracture with a slightly rough feel. Moderate coarse quartz (R, SA 0.l-0.6mm) is set in a grey or greyish-brown (10YR 4/4; 2.5YR 4/0) fine silty matrix, with white and gold mica, and with sparse, soft reddish-brown iron-rich inclusions and poorly mixed clay (I, SA <0.5mm). This fabric is one of the coarser variants of the FMIC category and vessels are not usually as well finished as those in FMIC-1659. However, as with 1659, there does appear to be a parallel within the London ware fabrics (LONW-753, not discussed above), which is a rare variant of the typical fabric.

Forms

The range of types is primarily restricted to beakers and occasional flagons, bowls and lids (not illustrated). Barbotine decoration is found on some vessels but is less common than for FMIC-1659.

Flagons Fig 138, Nos 878-9 These include both collared (IA, 878) and ring-neck (IB, 879) flagons.

Beakers Fig 138, Nos 880-3 Beakers are the most common form and are present throughout the entire period of production. Most frequent are ovoid IIICs (880-2), including an example with diagonal incised lines. A short ever-ted-rim IIIE (883) decorated with barbotine is an early form of poppy beaker from a Flavian deposit; other unillustrated types include butt (IIIA), ovoid (IIIB) and bulbous (IIIH) beakers.

Bowls and dishes Fig 138, No 884 Bowls are not common and occur principally in Flavian or Trajanic deposits; a variant of the moulded-rim IVA can be identified.

Other forms Fig 138, No 885 An unusual strainer with over-turned, grooved rim is present.

FMIC-2488

Dating

Fig 134

This was by far the largest group of FMICs during the pre-Boudiccan period, and was still relatively well represented in the late Neronian-early Flavian. Although present in very small quantities towards the end of the sequence, it was clearly superseded by other fabrics from the Flavian period onwards. Overall, it is moderately common and accounts for 9% of all FMIC fabrics by weight.

*Fabric and technology

Pl 5bd

A reduced, finely granular fabric, with slipped, micaceous surfaces. The granular matrix of 2488 distinguishes it from the other FMICs.

A hard sandy fabric with a harsh, slightly granular surface. It is finely irregular in fracture, with a grey or greyish-brown (7.5YR 3/0; 5YR 312) core. The main inclusion is abundant, well-sorted quartz (SA *c* 0.2mm), sometimes reddish-orange in colour. There are also occasional fine, rounded brown iron-rich inclusions and white mica. Although the exact source is not known, 2488 resembles a fine micaceous grey fabric which occurs at Chichester (V Rigby, pers comm). A variant (FMIC-1661) is restricted to forms imitating terra nigra and has light grey (2.5YR 6/0) surfaces.

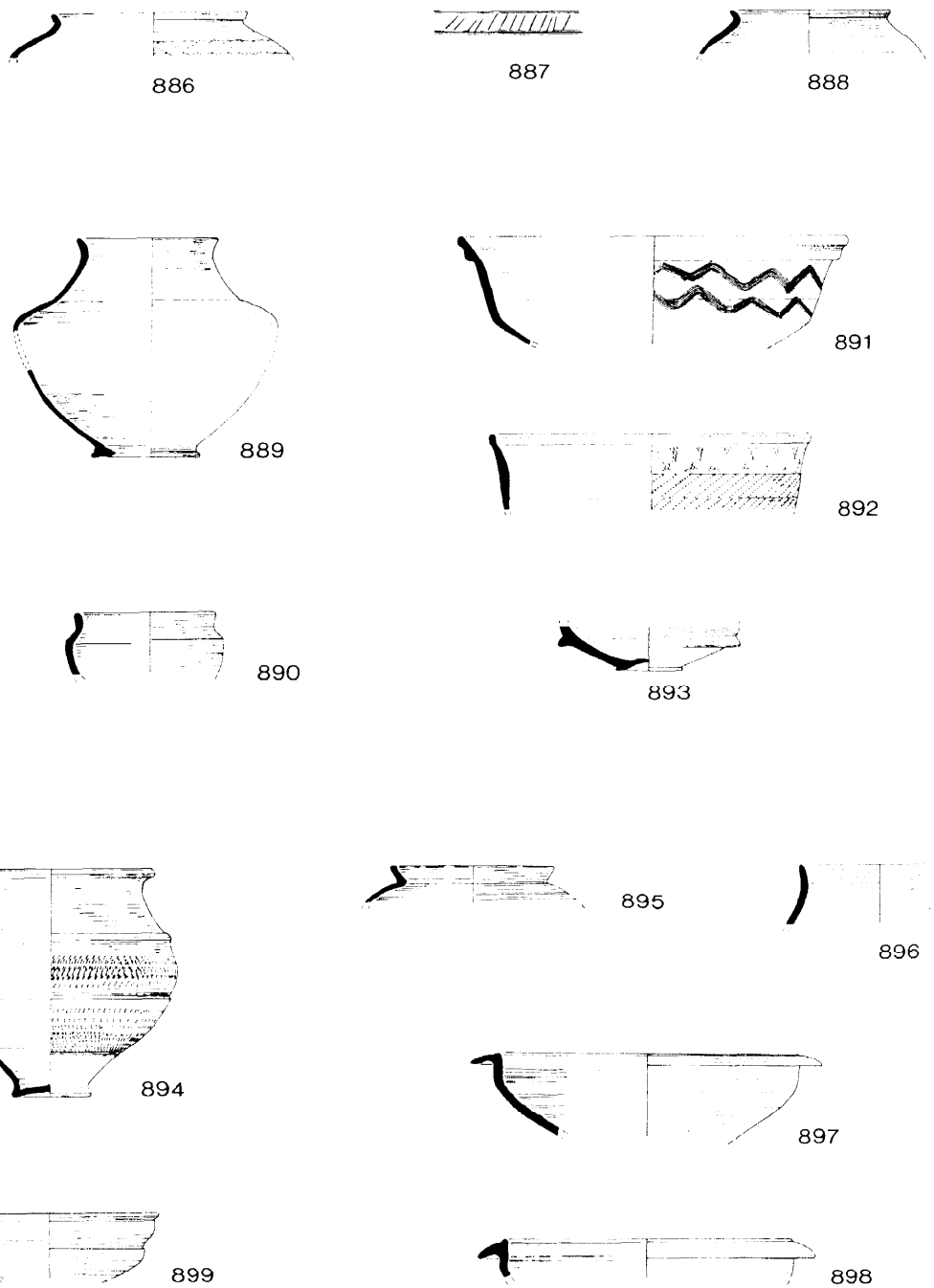


Fig 139 Fine Micaceous ware fabric 2488, beakers, nos 886-90; bowls/dishes, nos 891-2; cups, no 893. Fine Micaceous ware fabric 2559, beakers, nos 894-6; bowls/dishes, nos 897-8; cups, no 899 (Scale 1:4)

Forms

In common with all the fine micaceous grey wares, FMIC-2488 occurs mainly as beakers, although other forms are present.

Beakers Fig 139, Nos 886-90 Beakers are principally ovoid IIICs (886-8), which occur throughout the period of production and have stabbed or incised decoration as seen on FMIC-1659 and FMIC-1746. Carinated (IIIG, not illustrated) and bulbous (IIIH, 889) beakers are also typical; another beaker has a tall neck and carinated shoulders (890). In contrast to FMIC- 1659, IIIBs are rare.

Bowls and dishes Fig 139, Nos 891-2 A small number of bowls imitating samian Drag 29 (IVD), distinguished by combed and incised decoration, appear at Newgate Street in the Trajanic period. Elsewhere in the City they occur with Neronian-mid Flavian pottery.

Cups Fig 139, No 893 Included here is a terra nigra imitation of Cam 59.

FMIC-2559

This fabric may well be from Kent, for the butt beaker (Fig 139, 894) can be paralleled with vessels from Upchurch (2B2.5, Monaghan 1987, 62). The fabric contains numerous ?microfossils which are reminiscent of some Hoo fabrics (Section 4.4); it also has a definite core, although not as distinct as NKFW (p 152).

Dating

Fig 134

FMIC-2559 is a sparse, short-lived industry, mainly represented during the late Neronian-Flavian period, although examples occurred before and after. It accounts for 4% of all FMICS by weight.

*Fabric and technology

Pl 2be

A particularly distinctive reduced fabric with equal amounts of fine quartz and calcareous inclusions, and a matt slip on the outside.

A hard, smooth, grey (2.5Y 5/0) fabric with a dark or light grey (10YR 4/1-6/2) core and a finely irregular fracture. It is composed of equal proportions of abundant well-sorted fine quartz (SA, A) and calcareous inclusions (SA, R <0.15mm) and smaller amounts of white mica. Occasionally the calcareous inclusions have hollow centres and have been identified in thin section as possible microfossils (A Vince, pers comm).

Forms

A restricted range of forms includes beakers and some imitations of samian bowls and cups.

Beakers Fig 139, Nos 894-6 Beakers are the most common vessel type. Two Gallo-Belgic types include butt beakers with rouletted decoration (IIIA, 894) and carinated or bulbous (IIIG/H, 896) varieties; ovoid forms also occur (IIIB, 895).

Bowls and dishes Fig 139, Nos 897-8 Examples of bowls imitating the samian Rt 12 are present.

Cups Fig 139, No 899 An imitation of Drag 27 (VIA) is included in this category.

Other Fine Reduced wares (FINE)

Related to the FMIC fabrics are a group of reduced grey wares which have less mica than the previous ones. Four variants are described here. Although additional ones can be identified, they are not sufficiently represented to contribute to typological or dating studies. In common with FMIC fabrics, beakers are the most typical form. As an overall group, the FINE fabrics occur abundantly and are found from the pre-Boudiccan period, but were most common during the Trajanic. Individual fabric numbers are assigned only during quantification.

FINE-492

Dating

Fig 140

This sparse fabric began in the late Neronian period and continued throughout the sequence; it peaked in the Trajanic, and was probably residual in Hadrianic and early Antonine levels. It is the most common of all FINE fabrics and represents 32% by weight, Forms mirror the dating trends of the fabric in general.

*Fabric and technology

Pl 5bf

A fine, highly fired fabric, distinguished by its reddish-brown core and by having few visible inclusions apart from mica and rare quartz. The exterior surface is slipped and burnished.

A fine fabric, with light grey (7.5YR 5/0) surfaces, darker grey (7.5YR 5/0) margins and a reddish-brown (7.5YR 5/4) core. It is very hard and highly fired, feels fairly smooth and has a finely irregular fracture. Inclusions are sparse and consist of quartz (SA <0.25mm), black iron-rich fragments (R 0.1mm), fine white mica and occasional fine limestone.

Forms

Beakers Fig 141, Nos 900-2 Examples include barbotine-decorated, short ever-ted-rim (IIIE variant, 900) and poppy (IIIF, 901) beakers. An unassigned beaker (902) has a slightly everted rim, long neck and shoulder cordon.

Jars Fig 141, No 903 The single jar is a necked example (NJ) with a cordon on the neck, most similar to IIDs.

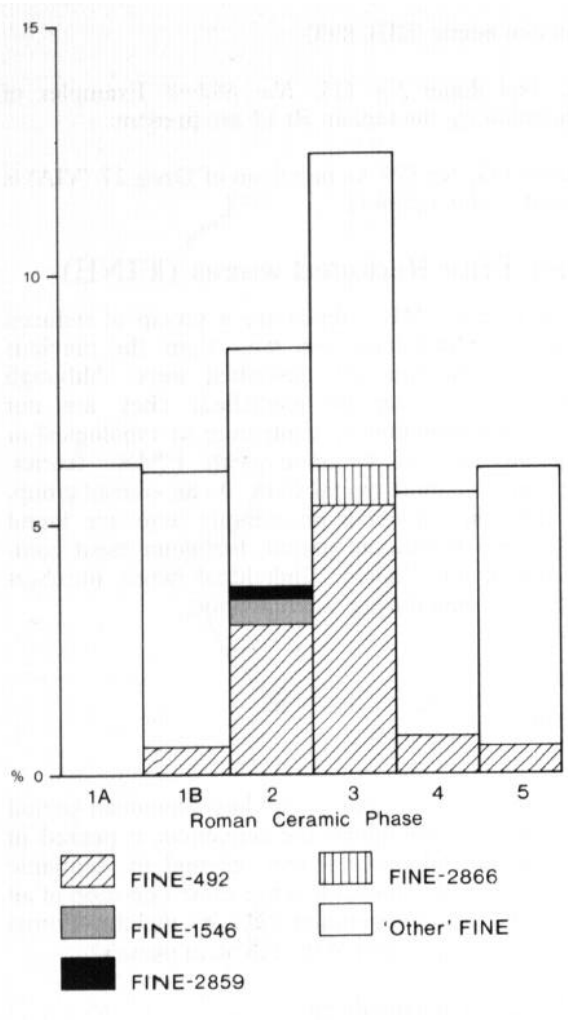


Fig 140 Stacked bar graph of Other Fine Reduced wares as a percentage of all non-samian fine wares by weight

FINE-2859

Dating

Fig 140

This rare type is represented by two vessels in Flavian contexts and comprises 1% by weight of all FINE.

Fabric and technology

A fine, slightly sandy, light grey fabric with occasional larger quartz grains and limestone inclusions.

A very hard, brittle fabric, slightly rough to the touch, with an irregular fracture. It has a light grey (7.5YR 7/0) core, and a brown (7.5YR 7/2) exterior margin with a darker grey (7.5YR 5/0) interior surface. The exterior surface has a black (7.5YR 3/0) slip. The fabric contains abundant, well-sorted quartz (SA 0.1mm) and sparse larger grains (SA 0.2–0.5mm), moderate to abundant black inclusions (SA 0.1mm, occasionally 0.3mm) and sparse limestone (SA <0.1mm) and white mica.

Forms

Beakers Fig 141, Nos 904–5 The fabric is restricted to beakers, decorated with panels of barbotine dots in the same fabric as the rest of the vessel and applied after the slip. Both short everted-rim (IIIE, 904) and poppy (IIIF, 905) beakers are represented.

FINE-2866

This type may be related to FINE-1546 as they share the use of square-toothed rouletting.

Dating

Fig 140

The fabric is rare but occurs in quantified Trajanic deposits; an additional illustrated sherd is from a Flavian context. By weight, it constitutes 3% of all FINE fabrics.

*Fabric and technology

A rough, slightly sandy, light grey fabric with micaceous surfaces.

The fabric is hard, light grey (2.5YR 6/0) in colour with mottled, possibly burnt, surfaces varying from grey to medium-dark grey (2.5YR 6/0–5/0), with a finely irregular fracture. The matrix is largely composed of abundant, well-sorted quartz (SA 0.1m) with very occasional larger quartz (R 0.3–0.5mm), giving the interior a slightly rough texture. Other inclusions are sparse to moderate amounts of fine, rounded black and brown iron-rich fragments, white mica (more abundant on the surface), rare organic (SA <0.6mm) materials and naturally occurring clay pellets (1.0mm>). Although containing similar inclusions of organic material or charcoal, it is coarse in comparison with FINE-1546.

Forms

Flagons Fig 141, No 906 This includes a grooved-rim flagon with rouletting on the neck and rim.

Beakers Fig 141, No 907 An ovoid beaker (IIIB) with rouletting is represented here.

FINE-1546

This fabric was discussed by Green (1980b, 67-9), who suggested a Trier source. However, there is insufficient evidence to support this at present and the origin remains unknown.

Dating

Fig 140

A rare fabric that occurs in quantified Flavian deposits where it accounts for 2% of all FINE fabrics by weight; an additional illustrated sherd is from a Hadrianic–early Antonine context.

*Fabric and technology

A fine, nearly vitrified fabric, with reduced well-

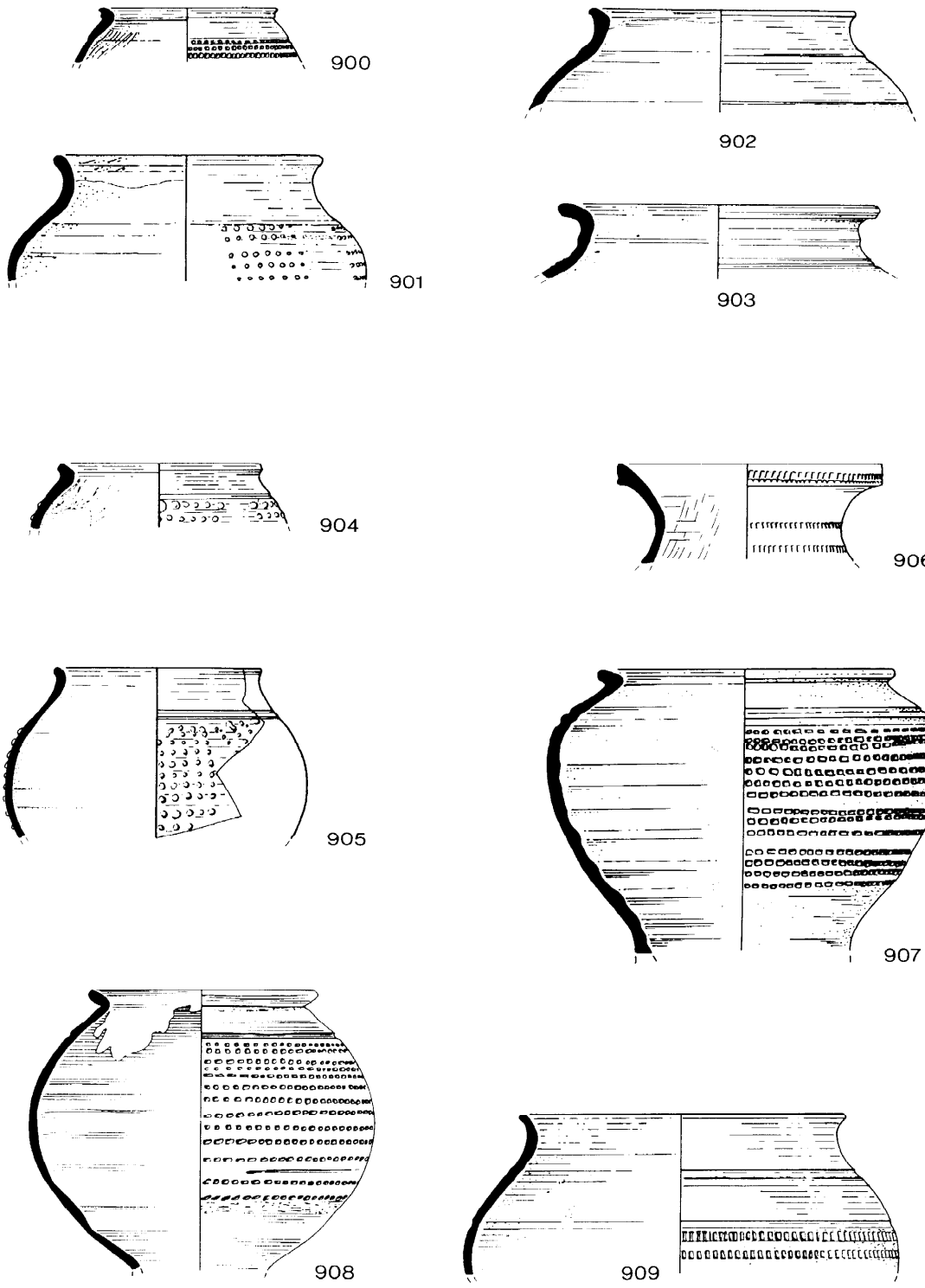


Fig 141 Fine Reduced ware fabric 492, beakers, nos 900-2; jars, no 903. Fine Reduced ware fabric 2859, beakers, nos 904-5. Fine Reduced ware fabric 2866, flagons, no 906; beakers, no 907. Fine Reduced ware fabric 1546, beakers, nos 908-9 (Scale 1:2)

finished, burnished exterior surface and red core.

An orange-brown to red (2.5YR 5/8) fabric with dark grey (2.5YR 3/0) external margins and surfaces. It is very hard and fractures sub-conchoidally, since it is high fired to partial vitrification. With the exception of silt-sized quartz in a micaceous matrix, there are very few inclusions and these are mainly of naturally occurring clay pellets (0.2-0.3mm) and occasional organic particles (F 0.3mm). In thin section mica can be identified. Surfaces are slipped (occasionally firing white internally), burnished and fired to give a high lustrous finish.

Forms

Beakers Fig 141, Nos 908-9 The fabric is restricted to beakers with square-toothed rouletting. It includes an ovoid vessel (IIIC, 908) with rouletting and a form similar to a poppy beaker (IIIF, 909) with a rouletted girth.

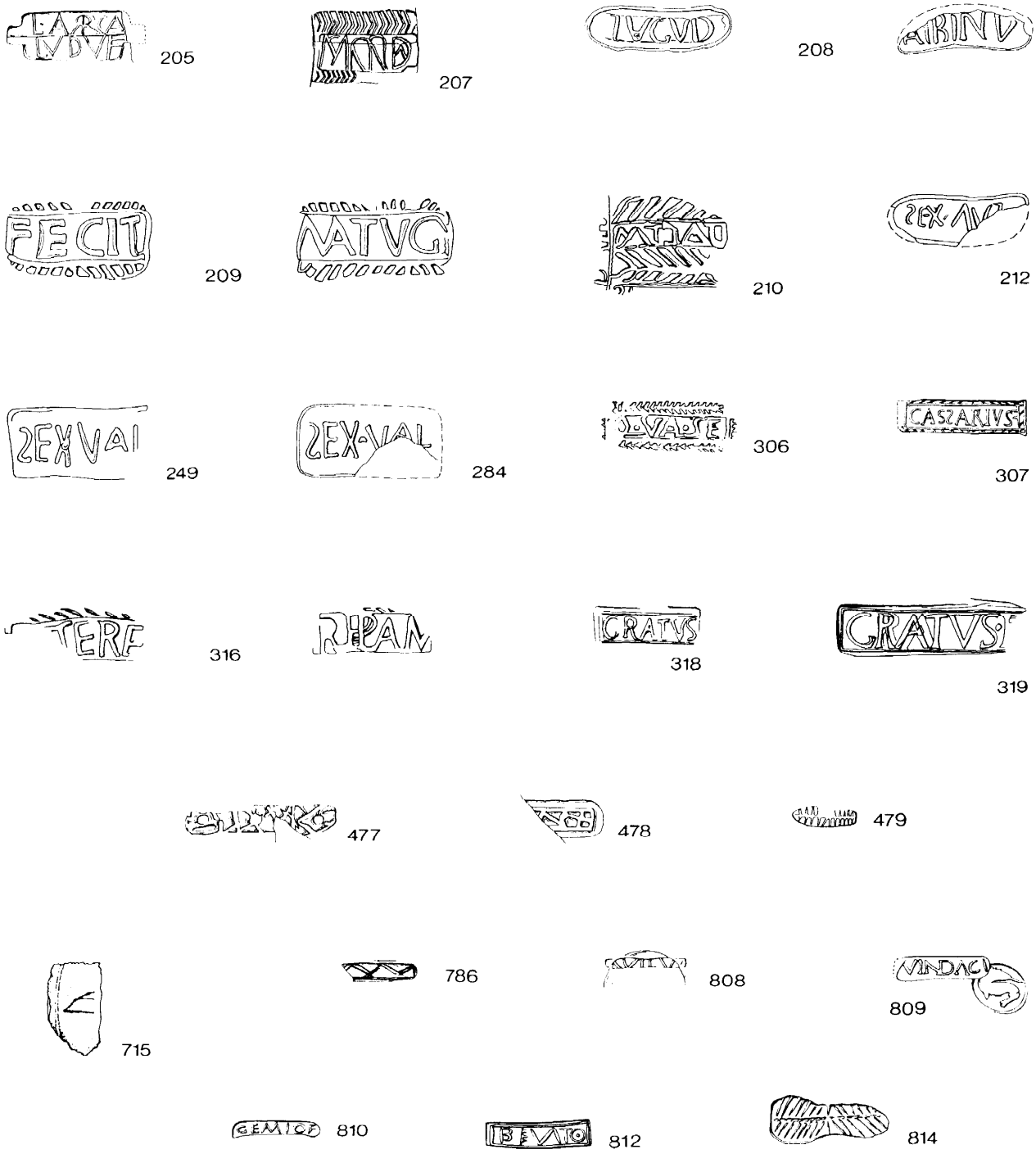


Fig 142 Stamps (Scale 1:2, nos 205-319, 715, 786; Scale 1:1, nos 477-9; 808-14)

7. A chronological overview of early Roman pottery in London

7.1 Presentation

Each of the five main ceramic phases (RCP) is considered in two ways: i) 'Sources and trade', based on broad functional ware groups illustrating general trends and source areas and ii) 'Assemblage composition', which chiefly concerns vessel forms. All relevant major vessel categories are considered. Miscellaneous forms (IX), mainly lids and tazze, are not regularly included since they do not necessarily enhance the conclusions; lids, for example, are generally intended for use with bowls and therefore mirror their pattern. Unless otherwise qualified, relative percentages in section i) are derived from weight, and are expressed as a percentage of the group under discussion (eg all reduced wares, all oxidized wares). In contrast, section ii) relies upon estimated vessel equivalents (Eves), again expressed as a percentage of a particular group (eg all flagons, all jars).

The 'Sources and trade' text is accompanied by a series of graphs illustrating trends for each ware group within RCP (Figs 144-7). These comprise a pie chart of fabric, some of which are grouped together as 'other fabrics' and then expanded on a linked bar graph. The data have been presented in this manner to provide a visible scale for the more uncommon fabrics. A separate bar graph indicates the relative chronological importance of different source areas by Eves (Fig 143).

Interpretative maps illustrate the relative major and minor pottery suppliers, by period, for sourced fabrics (Figs 154, 158, 163, 169, 173, 177). In addition, typical vessel types are illustrated for each phase, as well as some more unusual examples to emphasize diversity. Whenever possible, illustrated sherds derive from contexts belonging to the actual phase groups. However, the method of recording, by comparison with a type vessel, means that illustrated items may belong to earlier or later contexts. This also accounts for the reuse of drawings in more than one ceramic phase. All illustrations used for the phase groups appear in the industry sections, apart from a few Verulamium region vessels.

'Assemblage composition' is illustrated by a bar graph showing the overall distribution of major form types for each period by Eves (Fig 148), as well as linked pie charts and bar graphs like those described above and giving more detail than Fig 148 (Figs 149-52). Finally, the main samian forms are displayed on a series of bar graphs (Fig 153).

Wherever possible the City assemblages are compared with quantified material from Chelmsford (Going 1987) and Kent (Pollard 1988), together with unquantified deposits from Verulamium (Wilson 1972) and Southwark (Bird *et al* 1978). The City, Southwark and Verulamium are most akin to each other in their heavy reliance on Verulamium wares; Chelmsford is clearly linked to Colchester and its locally produced wares, but from the Hadrianic-Antonine period, with the advent of regional wares, the two become truly comparable (Going 1987, 117). Kent provides an interesting contrast with the City because of its well-established pre-Roman tradition; comparisons are most notable between west Kent and London (Pollard 1988, 200).

7.2 Background

The dating of the initial occupation of Roman London has been discussed in detail elsewhere (Davies & Tyers 1983b, 24-5). It is useful to summarize that evidence here, for it provides a framework in which to place the earliest assemblages. The near complete absence of any of the early south Gaulish samian pottery types represented at Camulodunum (Hawkes & Hull 1947), Fishbourne (Cunliffe 1971) and Richborough (Bushe-Fox 1932) indicates that London was not occupied during the initial conquest period. Rather, the first substantial quantities of samian in stratified deposits seem to be broadly Neronian in date. In addition, early Gaulish fine wares which occur in some quantity on other sites in the southeast are lacking. For example, terra rubra is absent from stratified deposits and terra nigra is represented by only a handful of sherds, contrasting with the moderate quantities now known from Chichester (eg Rigby 1978a), Canterbury (eg Rigby 1982) and elsewhere. At the time of writing there is nothing in the early assemblages of pottery from the City that would contradict a foundation date in the 50s, and no suggestion that the earliest phases of London's occupation are marked by a particularly wide range of imported fine wares, This conclusion is supported by the coin evidence from Southwark, which indicates an initial occupation date in the 50s (Hammerson 1978, 592-3), and Sheldon has suggested that evidence, if any, of earlier occupation may be found in the vicinity of Westminster rather than on the City-Southwark axis (Sheldon 1978, 25).

Extensive Neronian fire deposits, present in many areas of the City and usually assigned to the Boudiccan revolt of 60/1, provide an opportunity to separate pre- and post-Boudiccan deposits. For this reason,

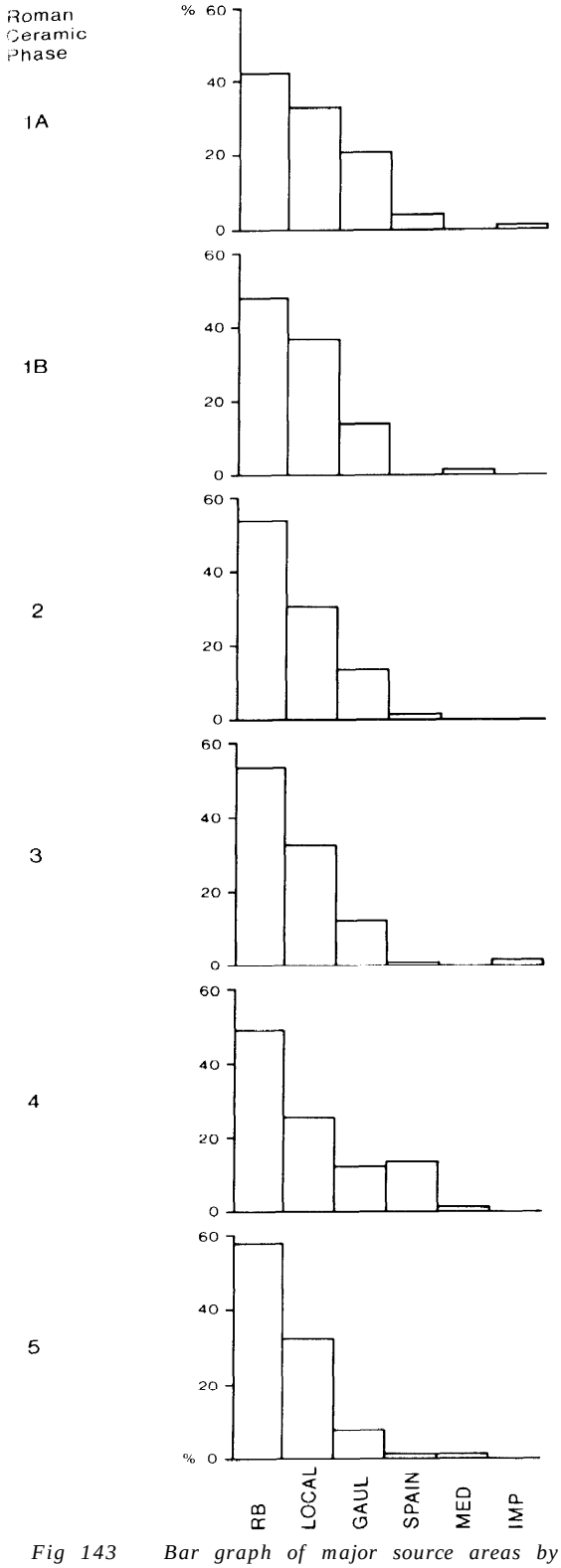


Fig 143 Bar graph of major source areas by ceramic phase (Eves)

RCP 1 is sub-divided in order to distinguish early and later Neronian assemblages.

Before describing the individual ceramic phases it is appropriate to stress some of the general trends. Firstly, there is the gradual decrease in imported wares through time which can be seen on Fig 143. In this, as in other patterns, the most visible change occurs after the pre-Boudiccan period (RCP 1A). Figure 143 also highlights the anomalous nature of quantified data from the Hadrianic period (RCP 4). The increase in Spanish imports here can be easily attributed to the developed Haltem 70 amphora at 5-12 Fenchurch Street; otherwise there is a consistent decline in fabrics during this period (see Chapters 3-6). The reason for this is unclear. While the total sample is small in comparison with some of the other ceramic phases, it is no smaller than that available for RCP 1B; instead the anomaly may result from the short chronological period represented by these fire deposits, which encapsulates a single event concurrent with a dramatic change in ceramic supply.

Secondly, the ratio of jars to bowls can be seen to change through time (Fig 148), with bowls gaining in importance. During the Neronian period jars far exceed bowls, regardless of fabric, but by the early Antonine period they are nearly equal. This shift may well reflect changes in food preparation and is not restricted to London; for example, a similar pattern can be seen at Verulamium Insula XIV (Wilson 1972).

Other general trends are clear from the examination of pottery throughout the City, but are somewhat obscured in the quantified data shown on Table 2. This table reveals an overall tendency for reduced wares to predominate increasingly over oxidized ones; and as throughout Britain, there is a general decrease in amphorae in the Hadrianic and Antonine periods. Again, the Boudiccan destruction is the critical breaking point, though the amphorae are biased by the nearly complete amphorae in the Fenchurch Street Hadrianic fire deposits, which distort the proportions of the remaining wares.

Table 2 does, however, clearly illustrate the changing relationship between samian and other fine wares. Samian is far more common during the pre-Boudiccan period, but by the Flavian period the two occur in fairly equal proportions by both Eves and weight.

7.3 Roman Ceramic Phase 1A: Pre-Boudiccan c 50/-60/l

Imported wares are more common in pre-Boudiccan assemblages (Fig 143, 25% Eves) than in any subsequent period. Although small in absolute terms, they include all the amphorae and fine wares that one would expect in a mid 1st century assemblage in southeast England. A feature of this period is the numerous coarse wares which are often unsourced, contrasting with later ceramic phases where a smaller number of suppliers dominate the market. At the same time this earliest phase sets the foundation for many of the Romano-British types which increase in subsequent periods.

Table 2: Proportions of ware types by ceramic phase (Eves/weight)

Ware Type	RCP 1A	RCP 1B	RCP 2	RCP 3	RCP 4	RCP 5
Amphorae	5%/40%	1%/33%	2%/41%	2%/30%	16%/43%	3%/25%
Oxidized	34%/25%	24%/22%	22%/21%	21%/24%	28%/23%	34%/28%
Reduced	40%/31%	56%/40%	50%/31%	54%/38%	40%/29%	51%/42%
Fine	4%/l%	6%/2%	13%/3%	12%/4%	8%/3%	6%/2%
Samian	17%/3%	13%/3%	13%/4%	11%/4%	8%/2%	6%/3%

Sources and trade

Fig 154

Amphorae

Fig 144

The Dr 20 olive oil container from southern Spain is the most common amphora type, comprising almost three-quarters of the total. The others occur in much lesser quantity, only up to 6% each. Additional Spanish amphorae are the Cam 186 and Baetican Haltem 70. The remainder of the assemblage is primarily wine amphorae, notably Dr 2-4 (KOAN, mainly Campanian) and Gaulish types (PE47). Finally, Rhodian (including vessels from Rhodes itself) and carrot (C189) amphorae are present in very small quantities.

Oxidized wares

Fig 145

A small number of tie mortaria are imported, and come from the Rhone and Rhine (RHMO-2554) Valleys and Italy. In aggregate they account for 6% of the oxidized wares. Gillam 238 mortaria are notably absent in pre-Boudiccan deposits, but the North French/Southeast English source is represented by minimal amounts of NFSE-2667.

The remainder of the oxidized wares are Romano-British in origin. Although its distribution varies considerably throughout the City, the locally produced Sugar Loaf Court ware seems to be the best indicator of pre-Boudiccan assemblages. Probably made by Continental potters, it demonstrates the important role of non-native influences at this period. Here it accounts for almost half of all the oxidized wares, although this figure is somewhat inflated by the data from the Sugar Loaf Court site. Other oxidized wares are supplied by a variety of sources, including the Verulamium region kilns (22%), primarily the white wares, but Brockley Hill White-slipped and rare Verulamium Region Coarse White-slipped (not visible on Fig 145) wares also occur. Evidence from both London and Verulamium indicates that Verulamium region products were common by c 55/60, and substantial groups of pottery from which Verulamium products are absent or rare may well belong to an earlier period. The absence of Verulamium Region wares, together with small amounts of Hoo and Eccles products, is a feature of early assemblages seen in Southwark (Bird *et al* 1978, figs 102-4) and at some sites in the City. While both Hoo and Eccles ware are indicative of RCP 1A, they become more important in Phase 1B. A feature of this period, which subsequently alters, is the large number of unidentified oxidized sources (OXID), accounting for almost one-third of the group.

Reduced wares

Fig 146

There are no imported reduced wares in this period. The largest identifiable group is the locally produced Highgate B Grog-tempered ware which accounts for over one-third of all reduced wares. Other grog-tempered wares which cannot be assigned to source are also common (GROG). Although they are not catalogued in this corpus, their presence draws attention to the importance of the native tradition of grog tempering here, and some of the forms in these fabrics include shallow dishes and pedestal bases reminiscent of late Iron Age tradition.

As in the case of the oxidized wares, nearly one-quarter of the reduced fabrics are unsourced grey wares (SAND), which are generally less common in subsequent phases. Despite the large number allocated to SAND, other fabrics can be assigned to a source or probable source area. Alice Holt ware forms a very small sourced group, as do rare sherds of Verulamium Region Grey ware. However, the greater proportion (7% in aggregate) comprises potential local production. Early Roman Micaceous Sandy ware is found throughout the 1st century, but another local fabric, Early Roman Sandy Iron-rich ware, appears to be particularly diagnostic in pre-Boudiccan groups. The presumed local Early Roman Sandy wares are present at minimal levels, with the earlier variants (ERSA, ERSA/B) more typical than the later ERSB. In parallel with the oxidized wares, Kent sources are evidenced by the rare North Kent Shelly ware.

The reduced ware assemblages compare well with 201-11 Borough High Street from Southwark, particularly the Alice Holt and Highgate B wares, although the latter is not as common in Southwark as in most City assemblages. Early Roman Micaceous Sandy (eg Bird *et al* 1978, fig 38, 125) and Early Roman Sandy Iron-rich (ibid, fig 35, 51) wares are also found in Southwark.

Fine wares

Figs 147a-c

Fine wares are dominated by samian (Fig 147a, 77%),

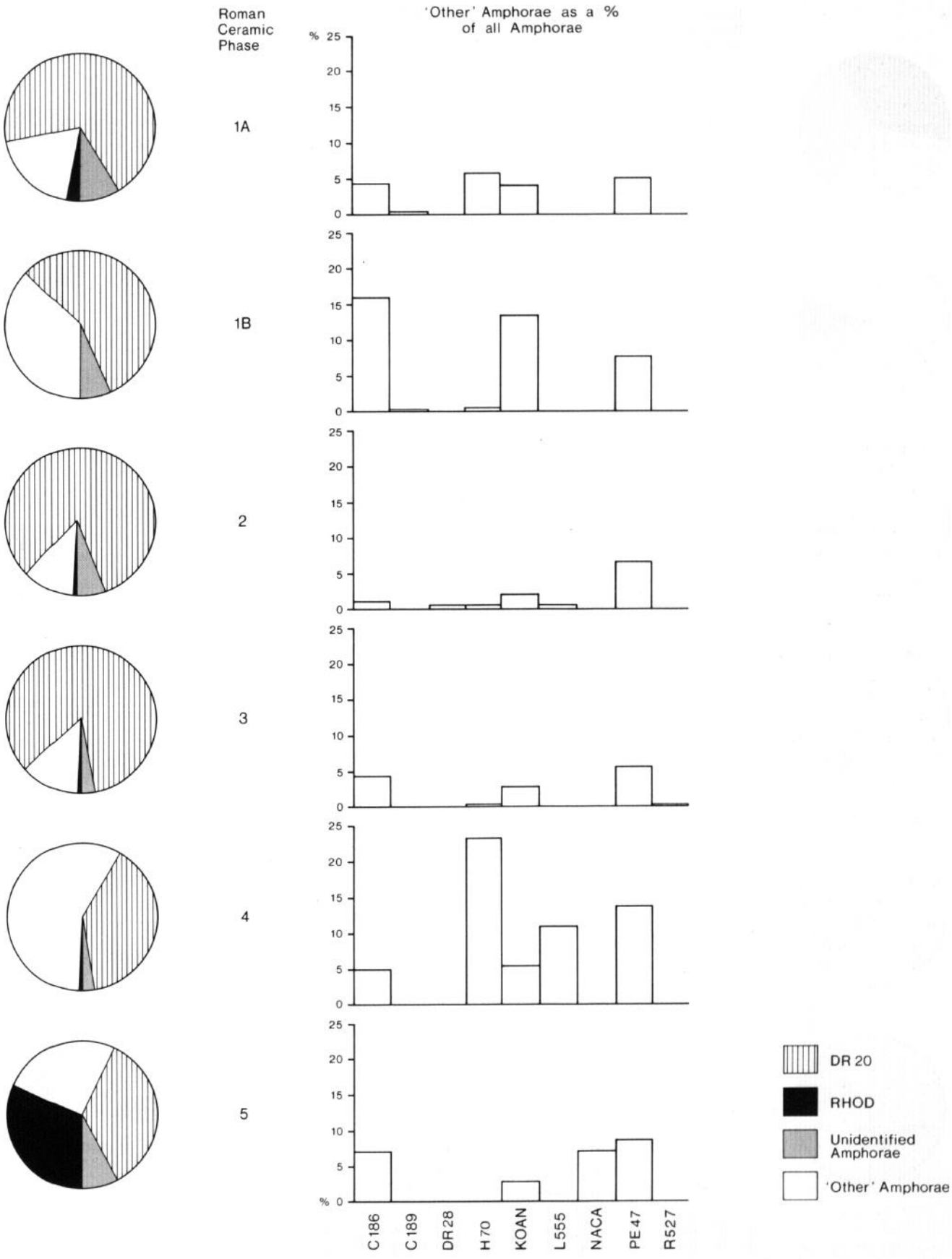


Fig 144 Linked pie charts and bar graphs of amphorae by ceramic phase (weight)

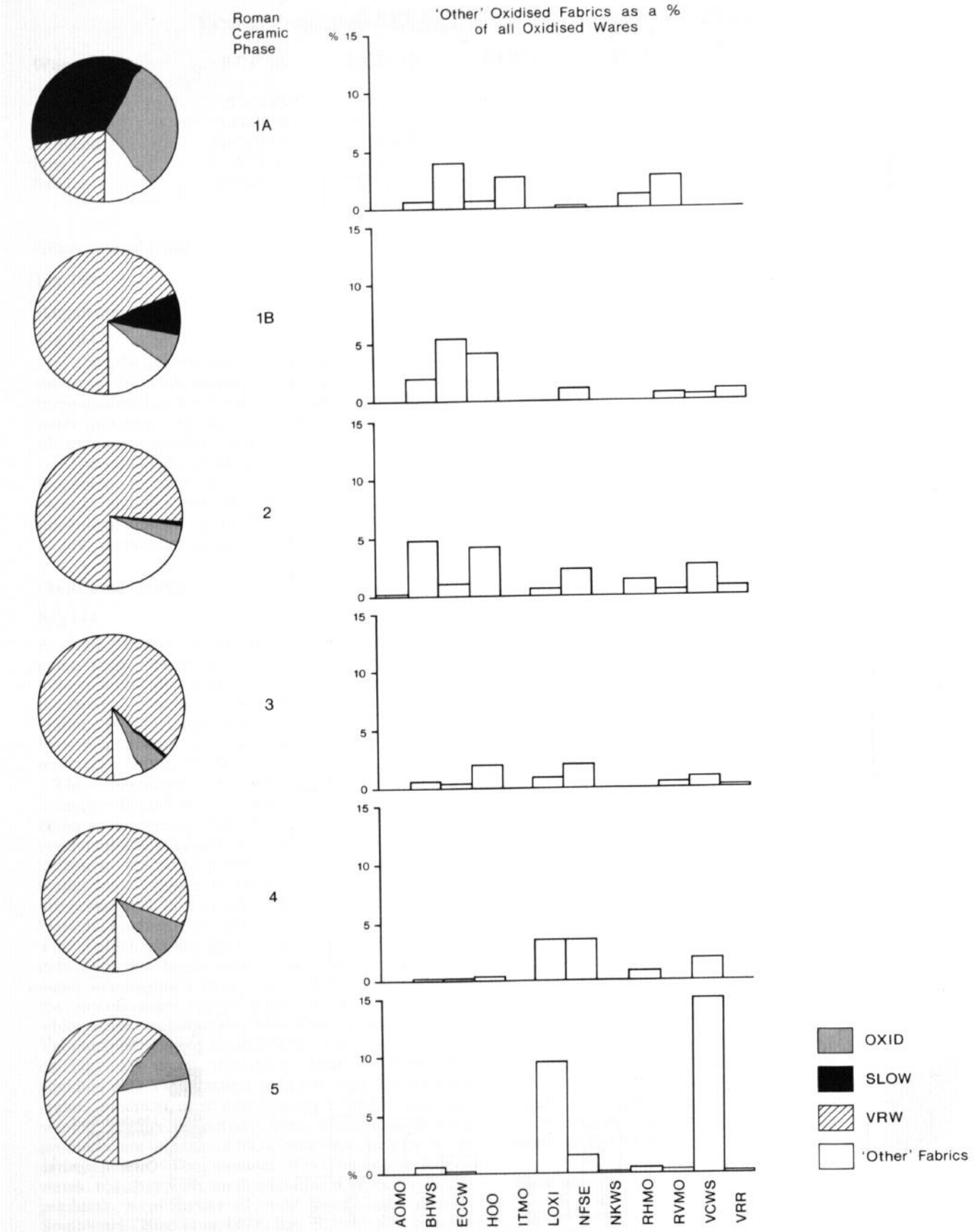


Fig 145 *Linked pie charts and bar graphs of oxidized wares by ceramic phase (weight)*

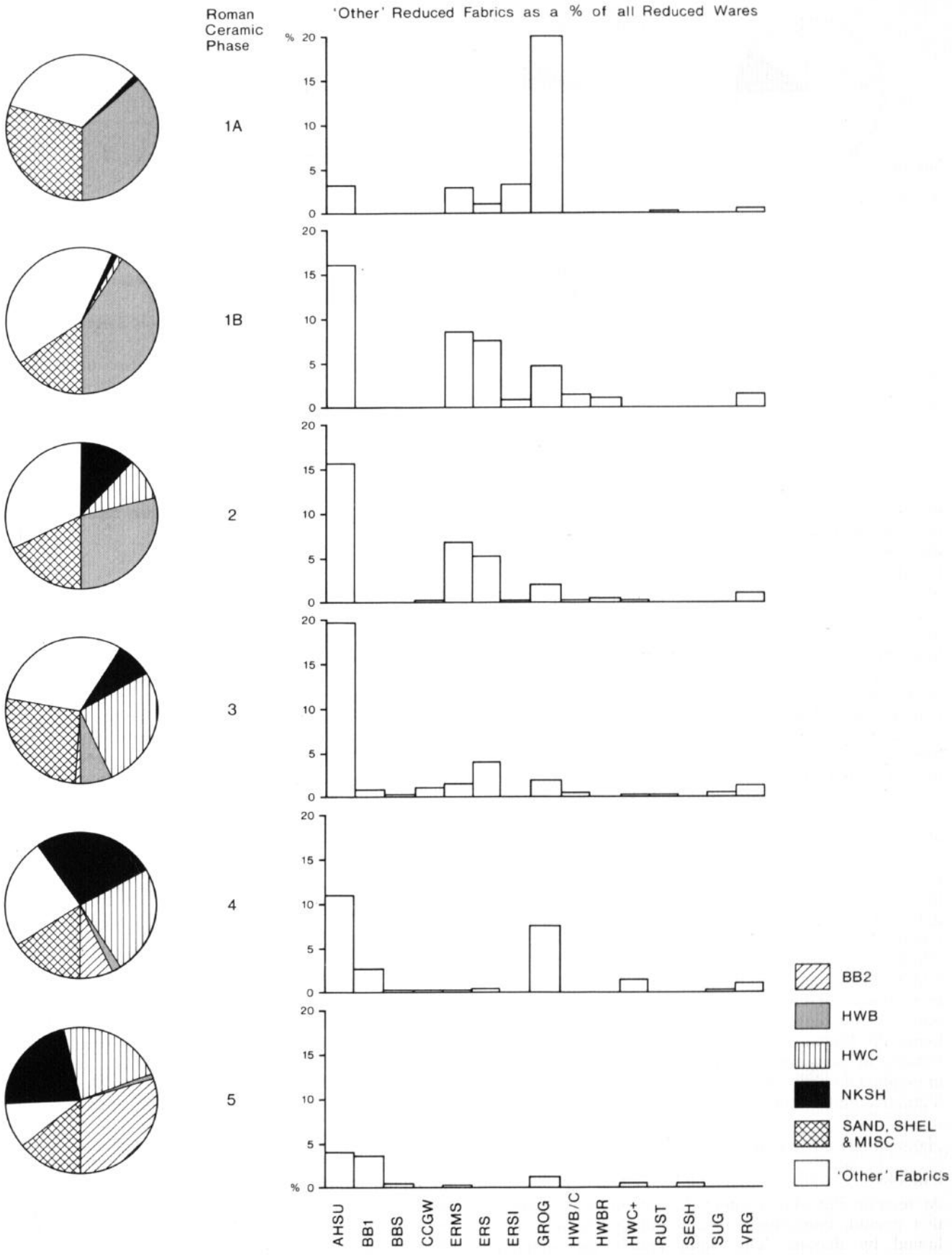


Fig 146 Linked pie charts and bar graphs of reduced wares by ceramic phase (weight)

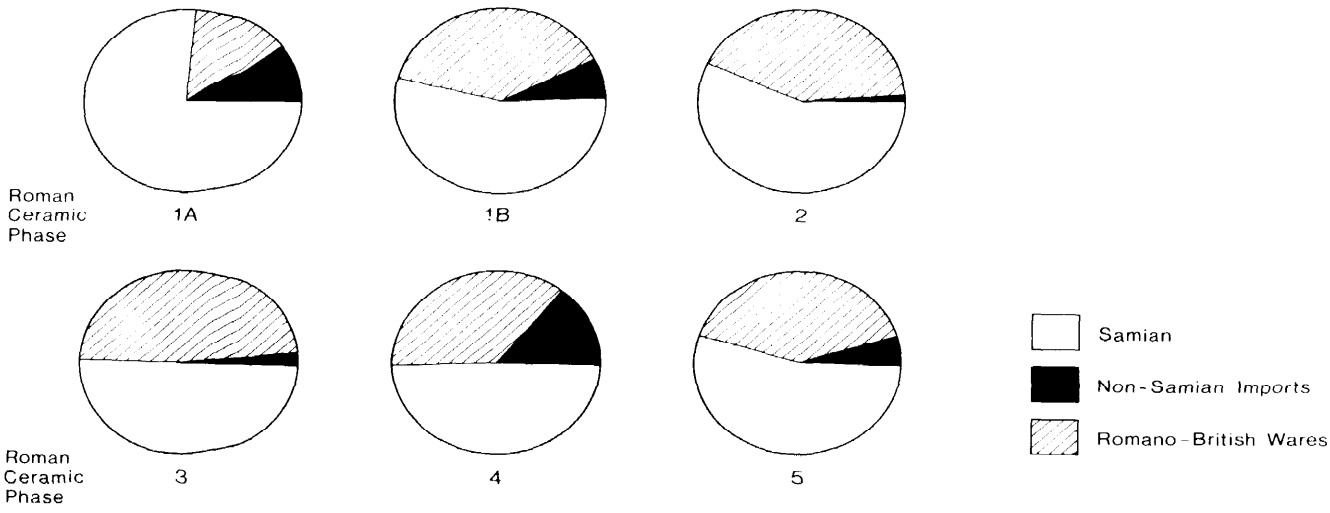


Fig 147a Breakdown of all fine ware categories by ceramic phase (weight)

which is in a standard south Gaulish fabric, presumably from La Graufesenque or one of its satellite kilns; rare samian from Montans and micaceous Lezoux are also found here and in many subsequent periods. A number of marbled sherds, although rare, can be identified, particularly from pre-Flavian contexts. Of the remaining non-samian fine wares, 44% are imported. The majority of wares which can be identified with confidence as imports (Fig 147b) are Lyon ware and, much less commonly, Pompeian Red ware, fabrics 1 and 3. Less typical are non-samian colour-coated wares from La Graufesenque, which are restricted to a single deposit from 5-12 Fenchurch Street. Gallo-Belgic White wares are also probably imported, but of less certain and different origin from those found on early sites such as Usk. Colour-coated wares from Cologne and central Gaul are notably absent.

Romano-British fine wares (Fig 147c) comprise the remainder of the non-samian, and their presence is an important chronological indicator. The most abundant, at almost half the total, are Fine Micaceous wares (FMIC), including numerous fabric variants. FMIC-2488 forms the largest component, with FMIC-1746 and FMIC-1659 present in smaller quantities. FMIC-2559, which probably originates in Kent, is only represented by rare sherds. Ring-and-dot beakers, previously considered as predominantly Flavian in date, appear in pre-Boudiccan assemblages at some City sites in small quantities, as well as at Verulamium (Wilson 1984, fig 84, 2007A-B).

Assemblage composition

Fig 148

As seen on Fig 148, jars are the most common form in this period, comprising almost half the vessels, followed by flagons. The other vessels are sparsely represented. Despite the small quantities, cups and dishes (in samian) peak during this phase. In contrast to later phases, bowls and lids are poorly represented.

Flagons

Fig 149; Fig 155, Nos 910-14

Virtually all flagons are oxidized and occur in a variety of fabrics. Forms are principally collared types (IA, 910-12), which are typically in Eccles (5%), Sugar Loaf Court (3%), and Verulamium Region White (16%) wares; a significant proportion (over 10%) are in unidentified oxidized fabrics (OXID). Ring-neck flagons (IB) are less common and most distinctively occur in Verulamium Region White ware (1 1%). Although these ring-neck flagons are predominantly Flavian-Trajanic in date, they can be paralleled at Verulamium in layers dated from 55/60 (Wilson 1972, fig 101, 59-60; Wilson 1984, 268). Disc-mouth flagons are also present (9 13). An unusual flagon form similar to Cam 171 (9 14) is restricted to this date; the absence of ICs is diagnostic.

Jars

Fig 150; Fig 155, Nos 915-22

Jars are normally reduced. The largest group are the native, bead-rim vessels (IIA, 915- 19) and these are primarily supplied by local kilns at Highgate Wood (HWB, 916, 17%), and the presumed local kilns producing Early Roman Sandy wares with distinctive grooved rim (IIA15, 918, 4%) and Early Roman Sandy Iron-rich ware (917, 5%).

Present in similar quantities, but less diagnostic, are necked jars (NJ). These include Highgate (HWB) and Alice Holt (AHSU) products, but more distinctive are jars in Sugar Loaf Court ware, particularly the angle-shouldered ones (920, 16%) which clearly illustrate Continental influences. Jars which show interim development between native and more Romanized

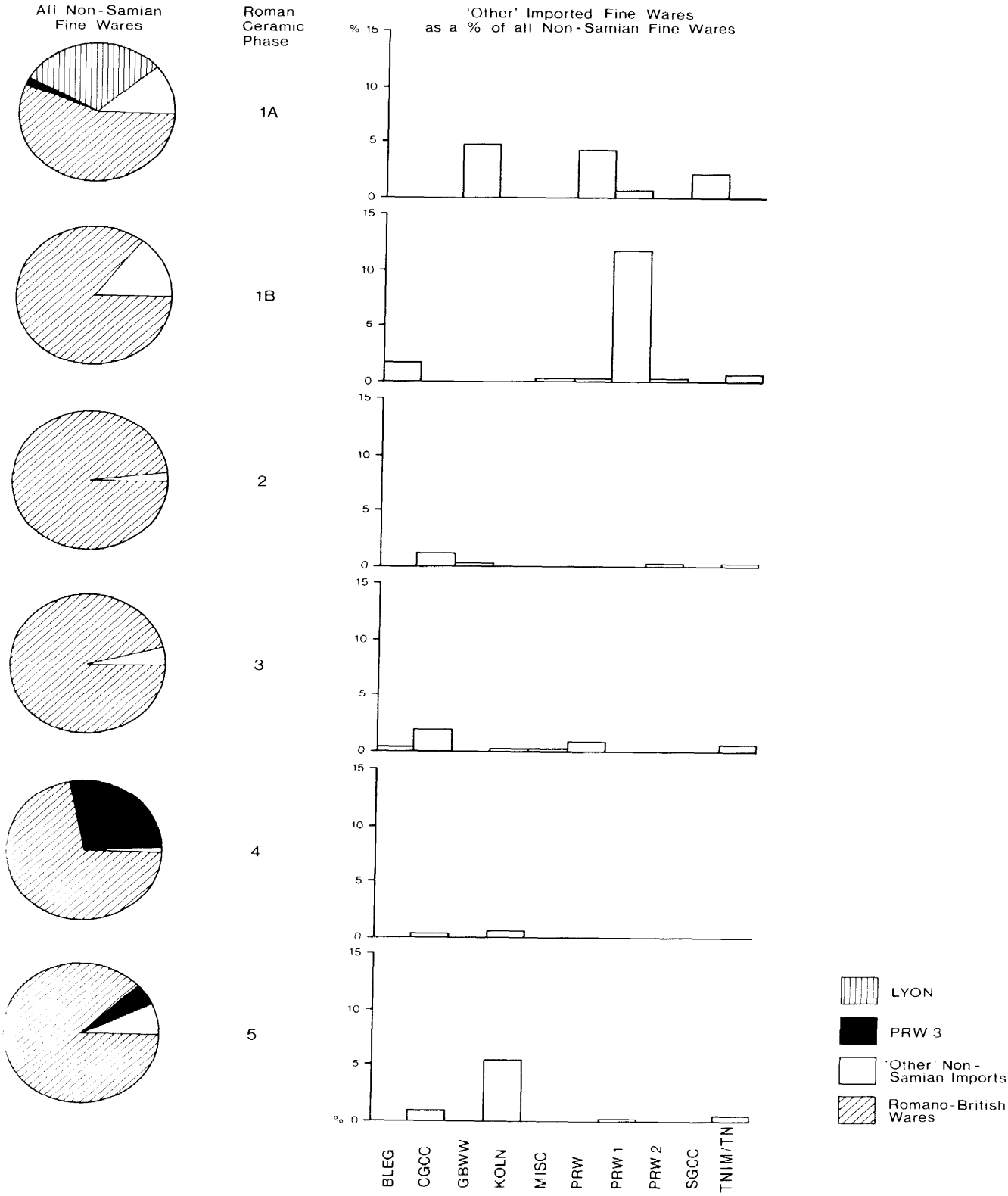


Fig 147b *Linked pie charts and bar graphs of imported fine wares by ceramic phase (weight)*

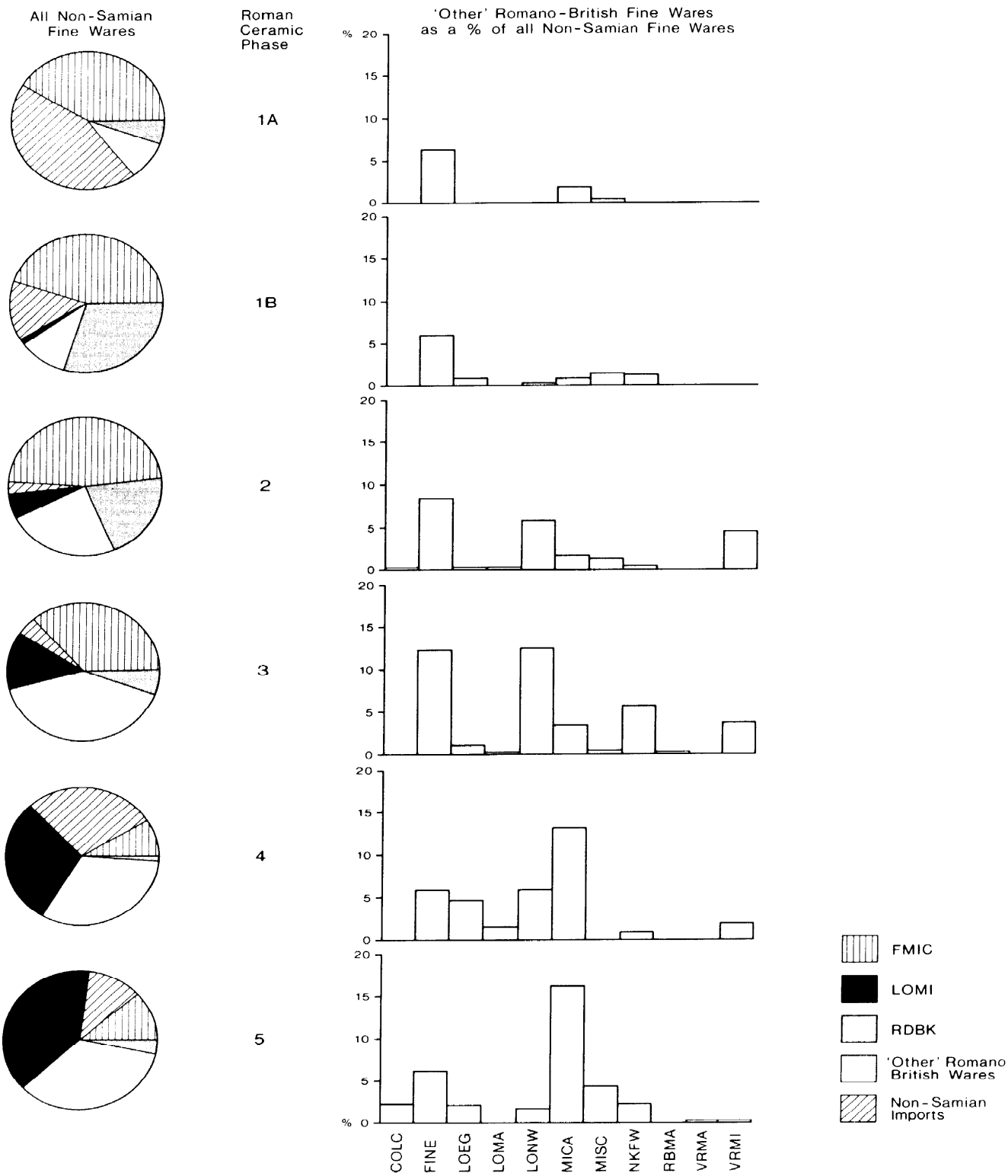


Fig 147c *Linked pie charts and bar graphs* of *Romano-British fine wares by ceramic phase (weight)*

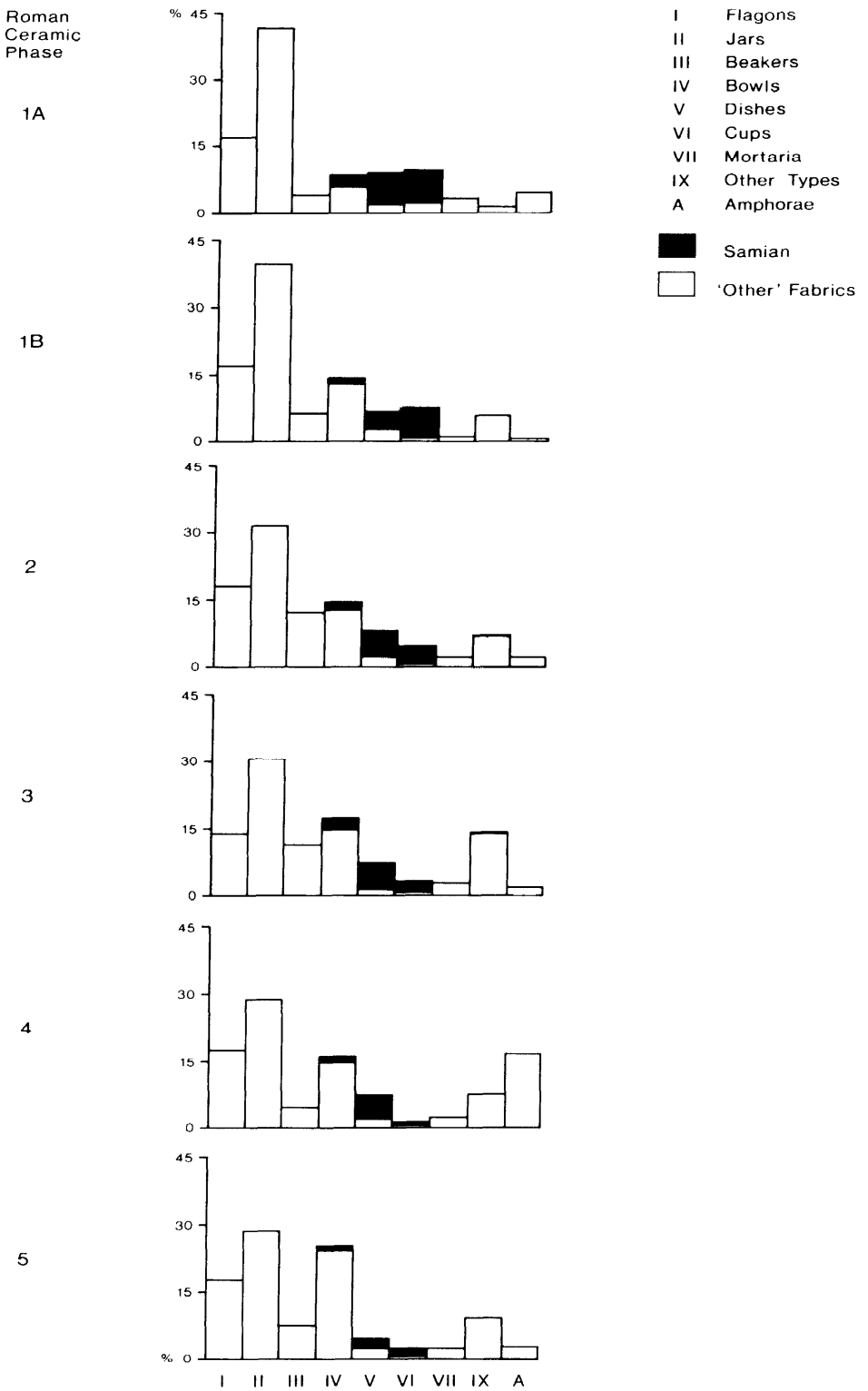


Fig 148 *Stacked bar graphs* of *major forms by ceramic phase (Eves)*

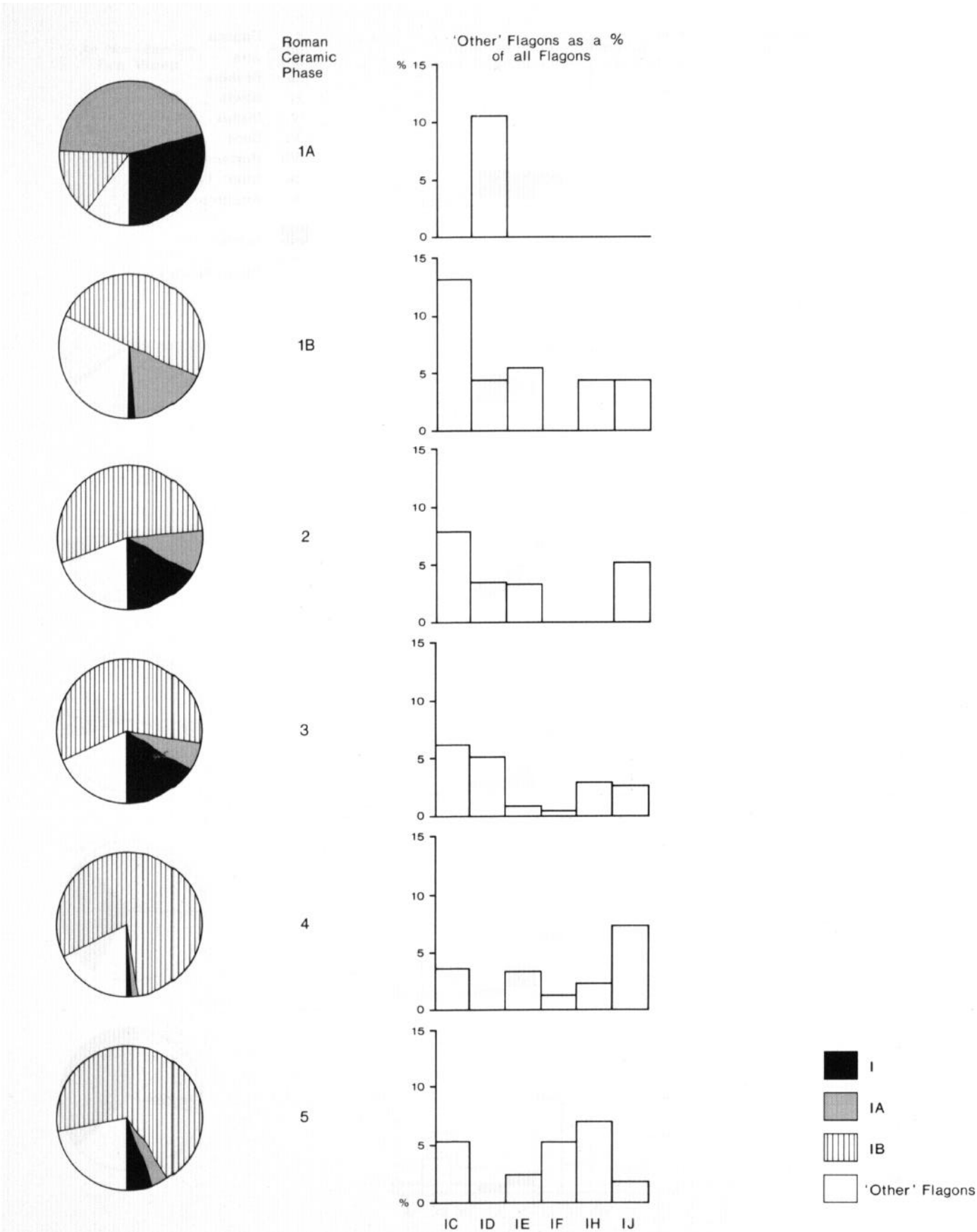


Fig 149 Linked pie charts and bar graphs of main flagon forms by ceramic phase (excluding samian) (Eves)

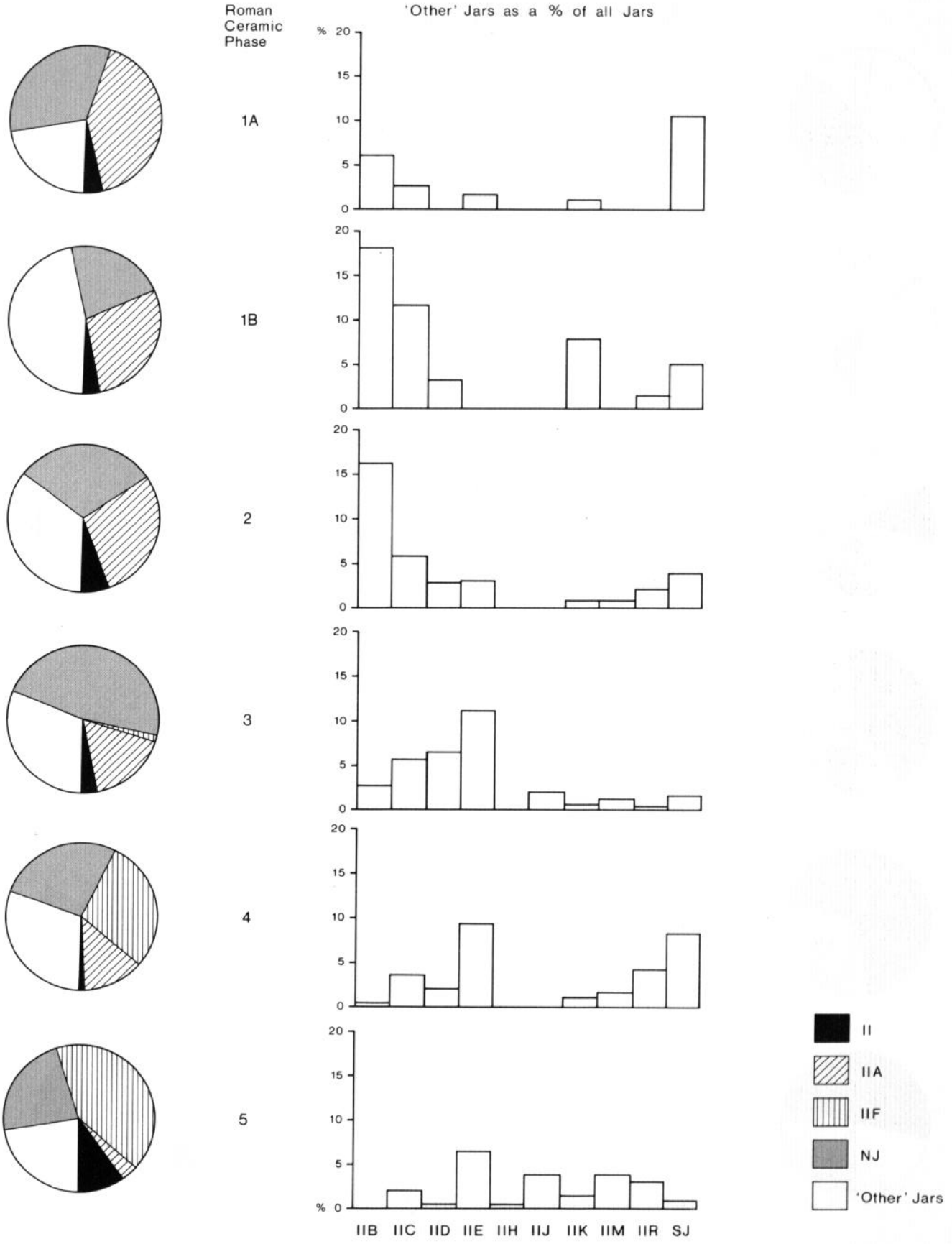


Fig 150 Linked pie charts and bar graphs of main jar forms by ceramic phase (excluding samian) (Eves)

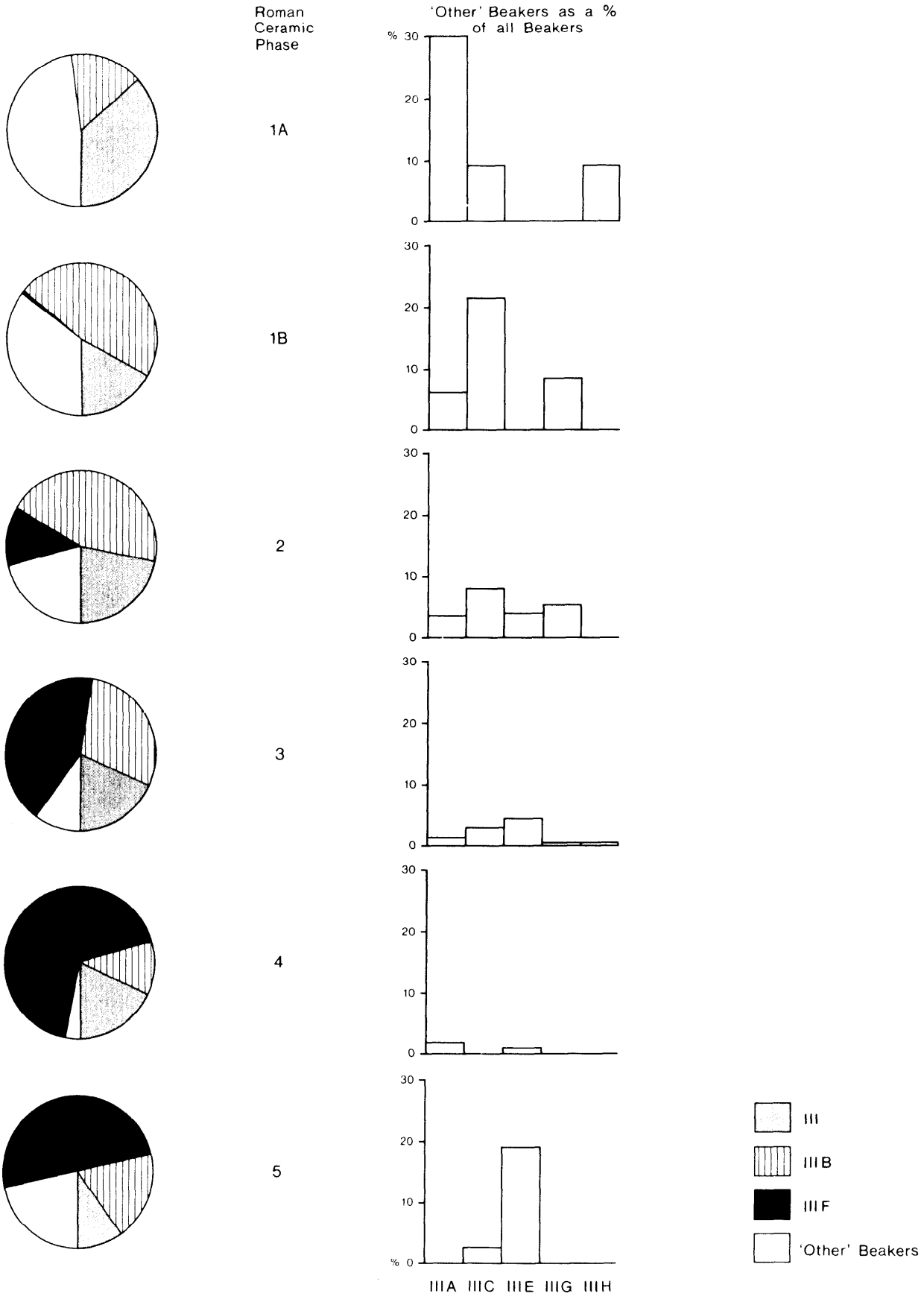


Fig 151 ***Linked pie charts and bar graphs*** *of* ***main beaker forms by ceramic phase (excluding samian) (Eves)***

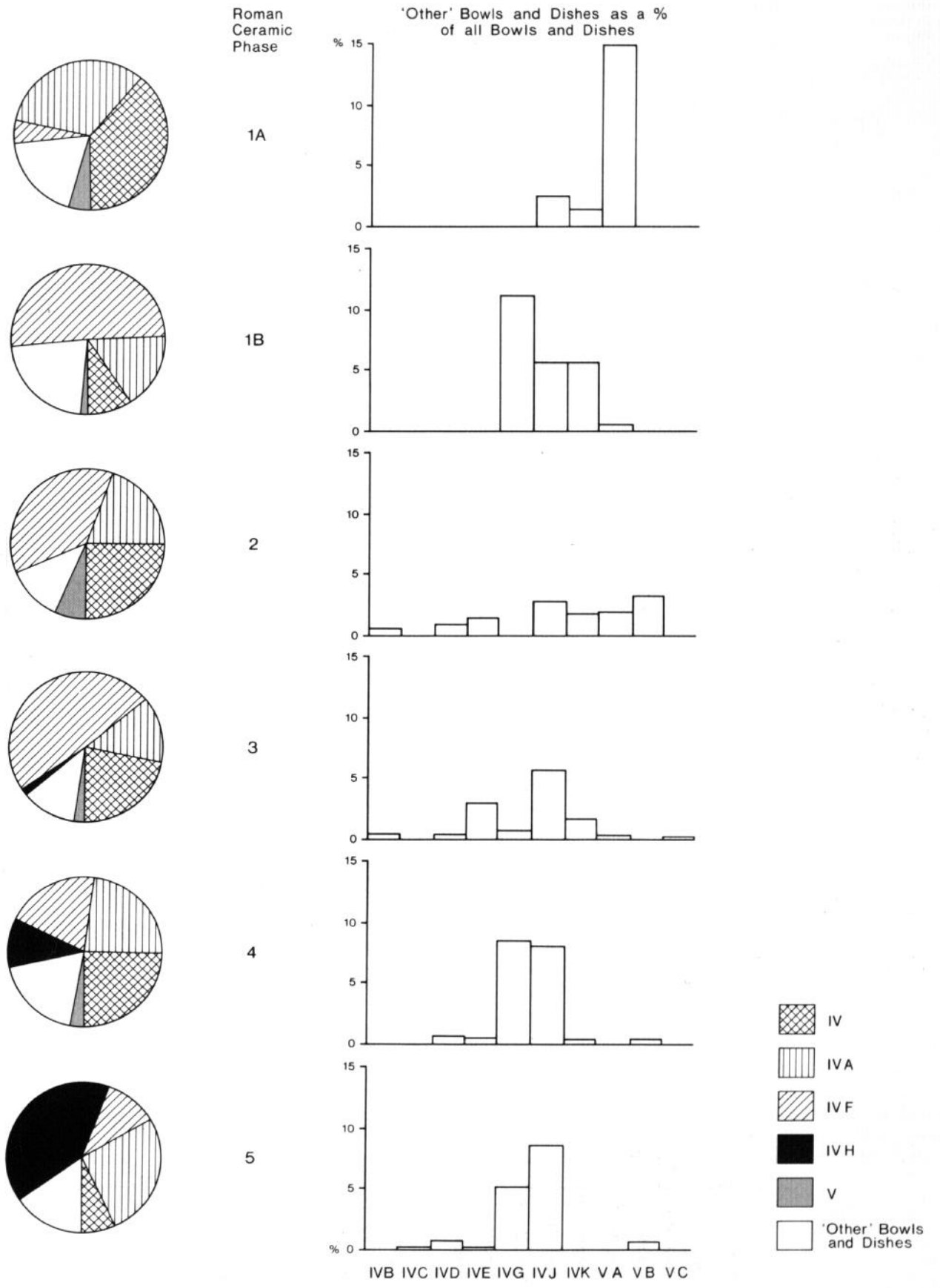


Fig 152 Linked pie charts and bar graphs of main bowl and dish forms by ceramic phase (excluding samian) (Eves)

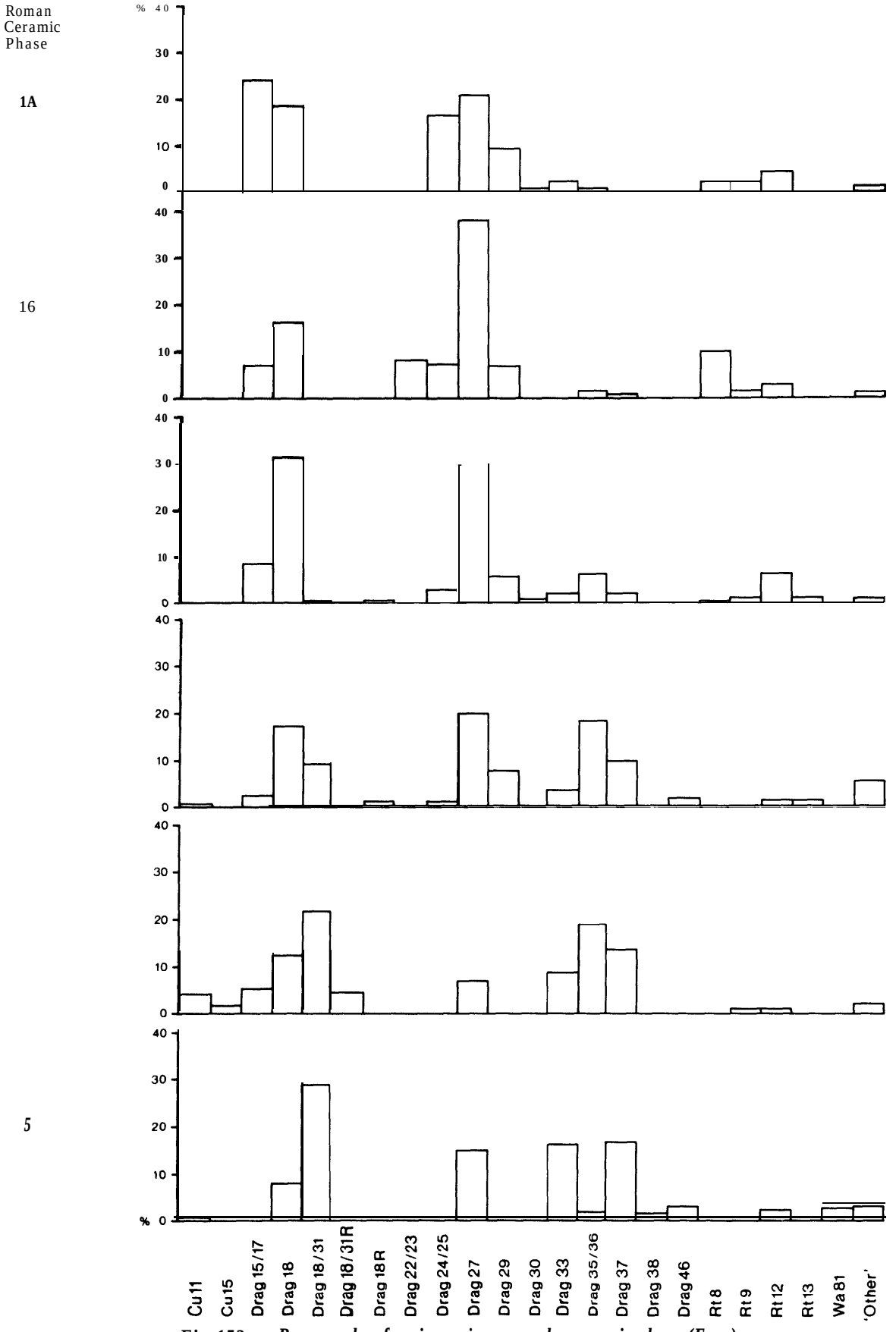


Fig 153 Bar graphs of main samian by ceramic phase (Eves)

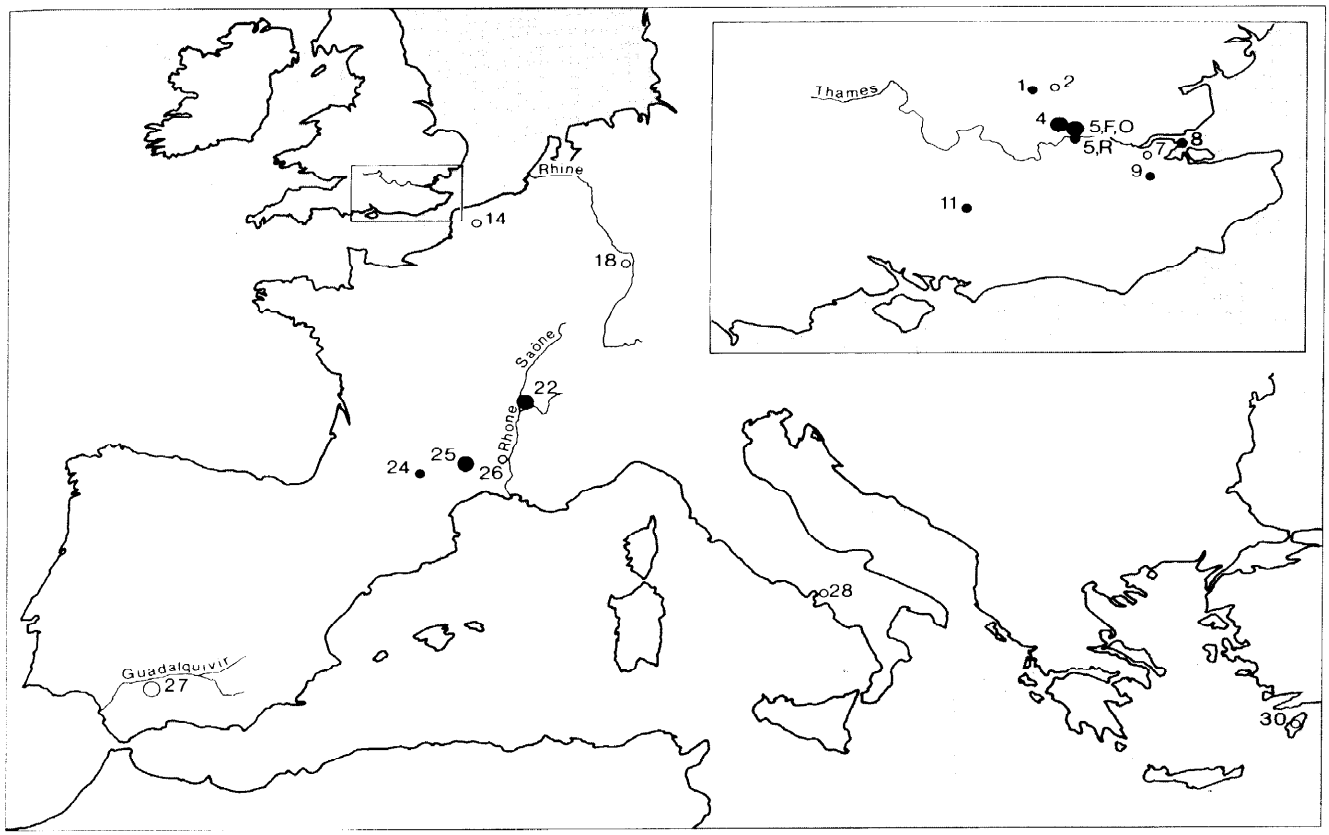


Fig 154 Location map of ceramic source areas for Roman Ceramic Phase IA

Key to Figures 154, 158, 163, 169, 173 and 177

1 Verulamium Region
2 Hertfordshire
3 Colchester
4 Highgate Wood
5 London: F = fine wares; R = reduced wares; O = oxidized wares
6 South Essex
7 North Kent
8 Hoo Peninsula
9 Eccles, Kent
10 Upchurch, Kent
11 Alice Holt, Surrey
12 Wareham, Poole Harbour
13 East Sussex
14 Pas de Calais
15 Cologne
16 Gallia Belgica
17 Vesle Valley
18 Rhineland
19 St Remy, Allier Valley
20 Lezoux
21 Les Martres-de-Veyre
22 Lyon
23 Aoste
24 Montans
25 La Graufesenque
26 Rhone Valley
27 Guadalquivir Valley
28 Campania
29 Central Tunisia
30 Rhodes

● *production areas of major importance;* ⬮ *production areas of minor importance;* O o *denote wide or poorly defined areas of major and minor production respectively*

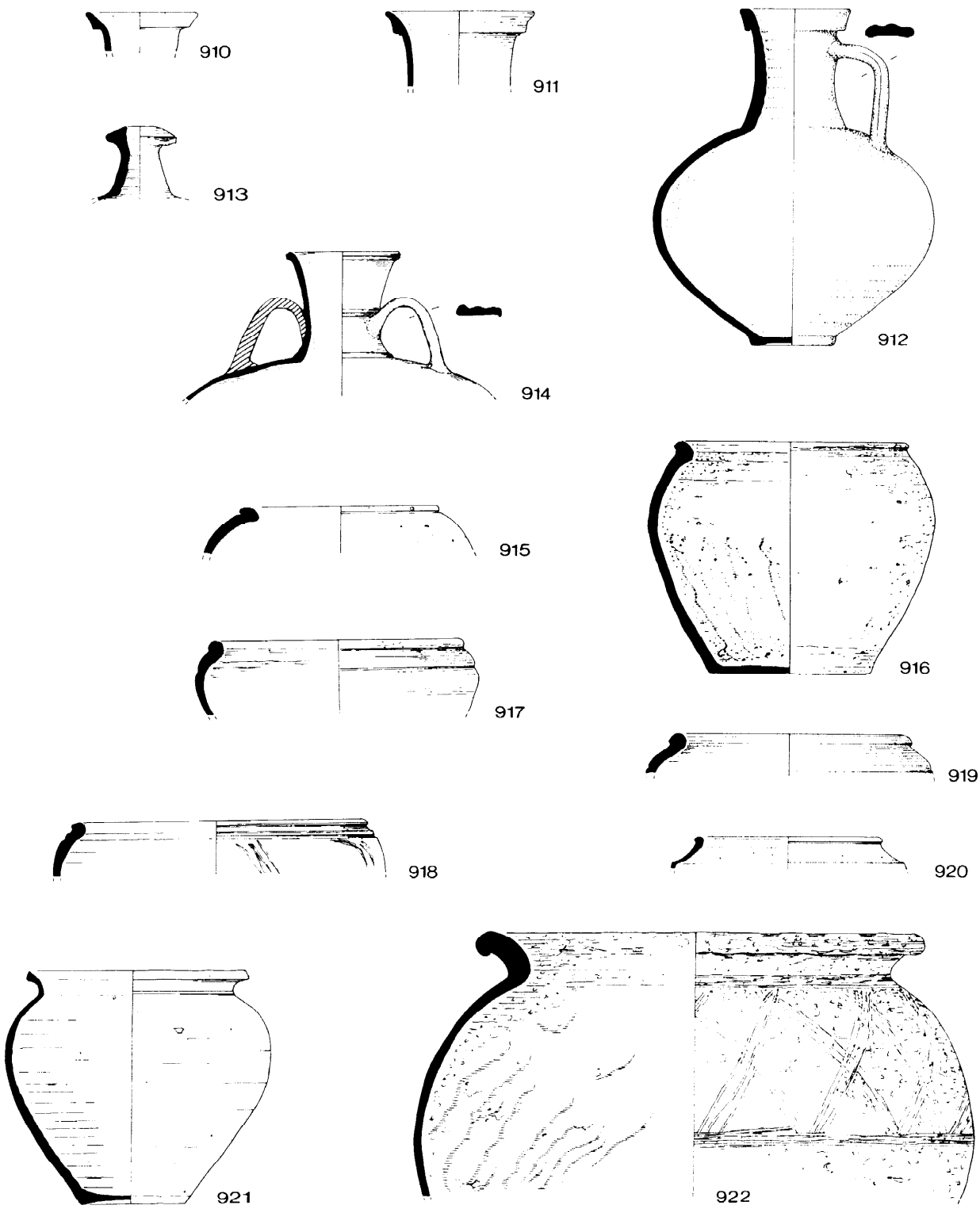


Fig 155 Roman Ceramic Phase IA, flagons, nos 910-14; jars, nos 915-22 (Scale 1:4)

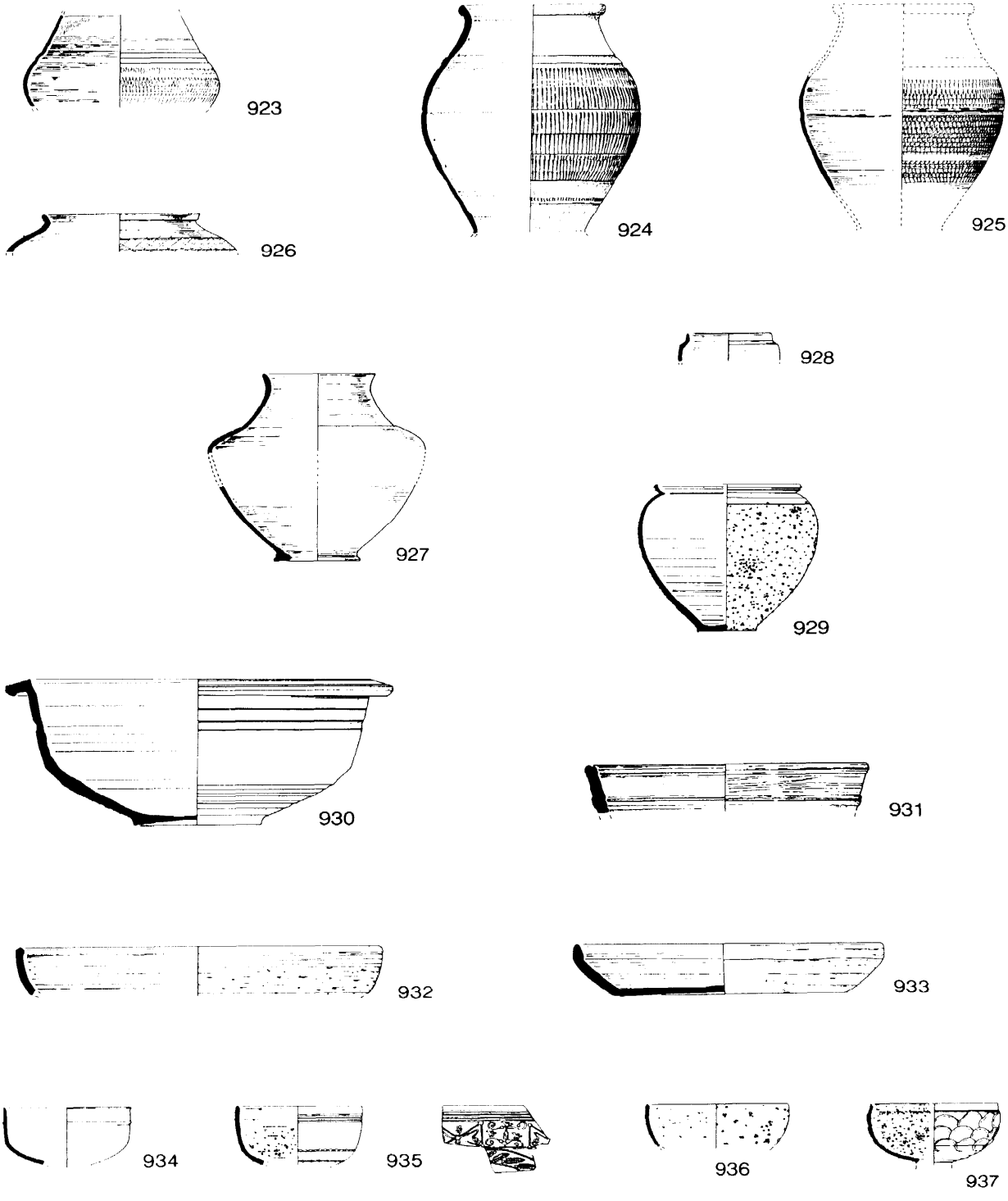


Fig 156 Roman Ceramic Phase IA, beakers, nos 923-9; bowls/dishes, nos 930-3; cups, nos 934-7 (Scale 1:4)

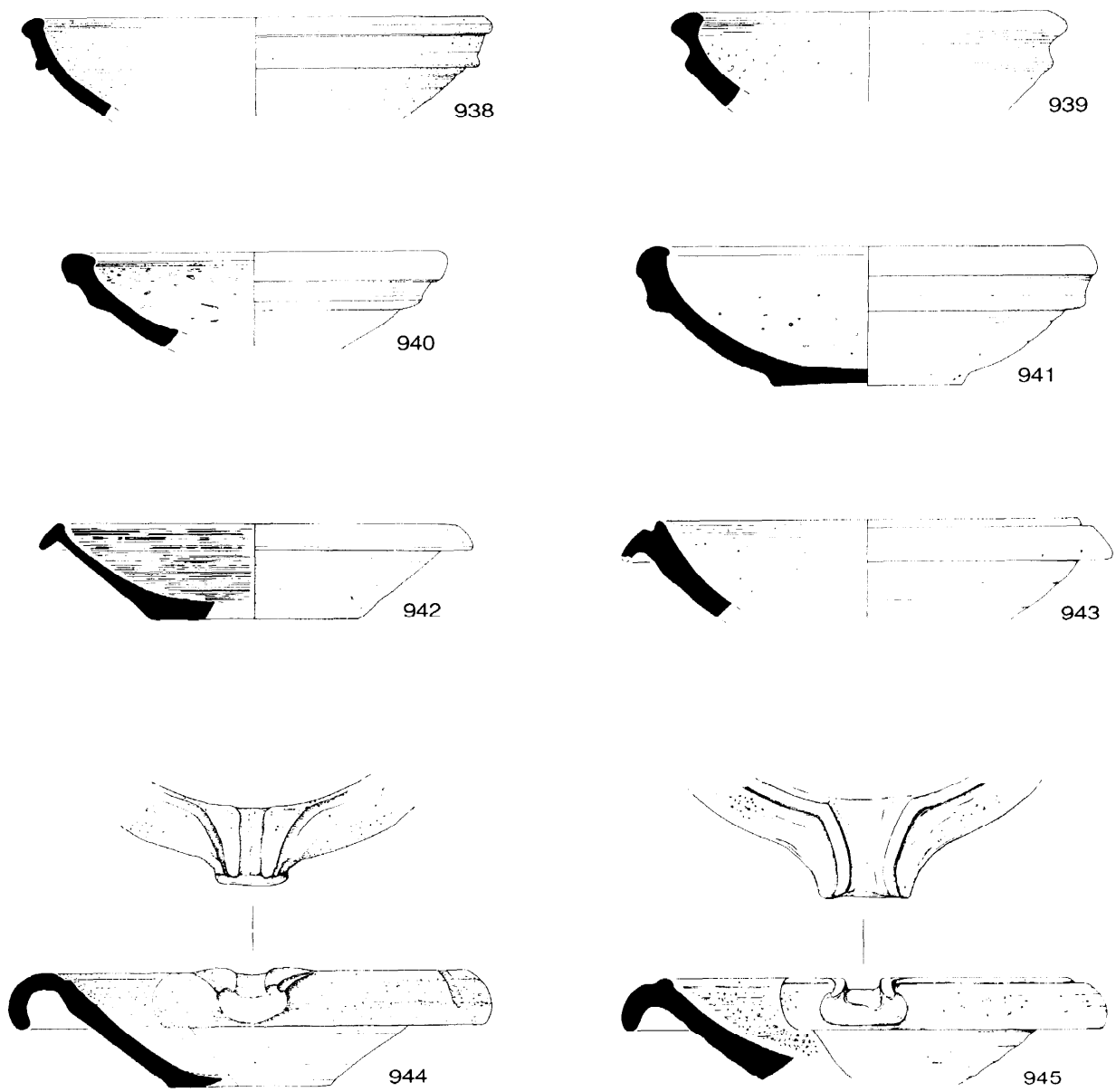


Fig 157 Roman Ceramic Phase 1A, mortaria, nos 938-45

forms are the round-bodied IIBs, primarily occurring in Early Roman Micaceous Sandy ware (6%), which became more common in the late Neronian and Flavian periods. More typically Romano-British forms such as jars with sharply carinated shoulders (IIC), honey pots (IIK) and flasks (IIR) are rare or represented only by body sherds; jars with burnishing (IID) are notably absent. Storage jars (SJ), including examples with grouped lattice decoration, occur in Highgate (HWB, 922, 4%) or other grog-tempered fabrics (GROG, 6%). The burnished IIEs present here (Fig 150) in a SAND fabric are distinct from the typical ones in Highgate C ware, diagnostic of the Trajanic period onwards.

Beakers

Fig 151; Fig 156, Nos 923-9

Beakers occur in a variety of fine and oxidized fabrics; one-third are butt beakers (IIIA, 923-5). Roughcast

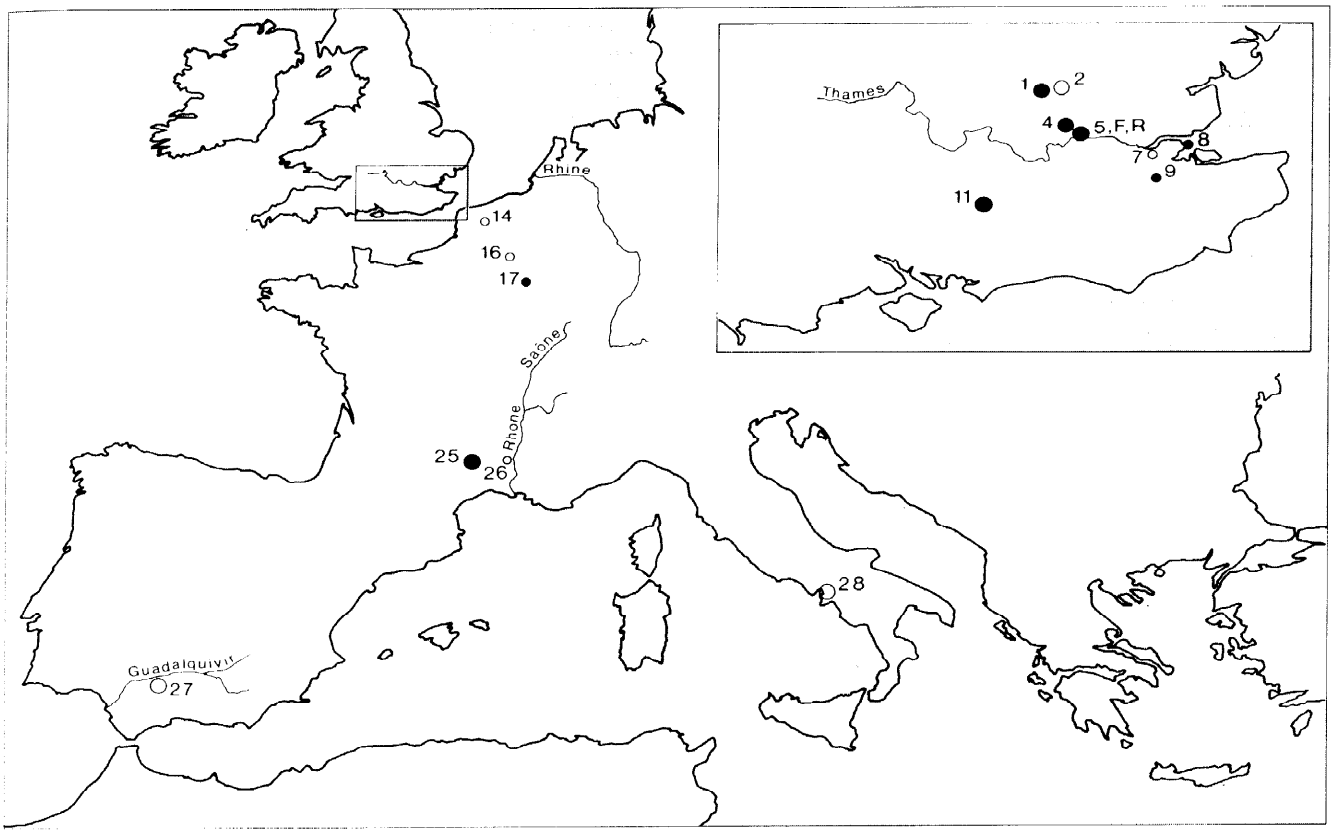


Fig 158 Location map of ceramic source areas for Roman Ceramic Phase 1B

beakers in Lyon ware (929, 17%) are also typical of the period, but frequently only survive as sherds. The remainder of the common forms are in reduced fine ware fabrics and those with everted rims (IIIC, 926) and bulbous 'Gallo-Belgic' types (IIIH, 927) fall into this category. More unusual beakers include small vessels in Sugar Loaf Court ware (928, 21%). All the ovoid IIIBs recorded here are variants in Sugar Loaf Court ware, in contrast to the later examples in Fine Micaceous ware and Ring-and-dot fabric. Poppy beakers (IIIF) are notable by their absence.

Bowls and dishes

Fig 148; Fig 152; Fig 156, Nos 930-3

Despite the small size of the bowl and dish assemblage several forms are present, with just over half firmly assigned to dish categories (Fig 148). The majority of these vessels, particularly dishes, are in samian ware. Of the non-samian fabrics, moulded VAs are well represented in Early Roman Micaceous Sandy ware (933, 10%), unclassified grog-tempered fabrics (GROG) and finer vessels in Sugar Loaf Court ware (932); plain-rim dishes (IVJ) in Pompeian Red ware reflect Continental sources. Bowls include the round-bodied IVFs in Highgate B ware, which are more typical of RCP 1B, grooved-rim bowls in Alice Holt ware (IVK, 931) and moulded-rim IVAs, primarily in Sugar Loaf Court ware (930).

Cups

Fig 148; Fig 156, Nos 934-7

Cups are a diagnostic feature of this period. Approximately 75% are samian (Fig 148) but, of the remainder, imported roughcast examples from Lyon (936-7) and moulded South Gaulish Colour-coated ware (935) are particularly important and are virtually restricted to this phase. Italian-style cups in Sugar Loaf Court ware (934) are also typical.

Mortaria and other forms

Fig 157, Nos 938-45

Flanged (942-5) and wall-sided (938-41) mortaria are contemporary in pre-Boudiccan assemblages. The latter consist entirely of Hartley's (1985c, 92-3) group III, with a swollen bead, confined to Neronian groups. Although small in relative quantity, a variety of fabrics are represented, many from unquantified contexts. Eccles in Kent (939), and local Sugar Loaf

Court ware (938) are the only secure sources; vessels from northern France/southeast England have also been identified (NFSE-2667, 940).

Flanged mortaria are more common than the wall-sided variety and are supplied by a number of industries. Those from the Verulamium region (944, 70%) are the most common and include a vessel stamped by the potter L. Arrius Caludus, dated 55-70. Vessels from the Rhone Valley (945, 12%) are less common but particularly distinctive, as are those from the Rhineland (RHMO-2554). The Sugar Loaf Court (942) and Eccles (943) industries also produced flanged mortaria.

Many of the early flanged mortaria, particularly those from Verulamium, have gritting on the flanges. The Sugar Loaf Court mortaria are distinguished by their lack of trituration grits.

In keeping with bowls, lids are not well represented during this phase, Tazze occur from these earliest levels and continue throughout the remainder of the sequence.

Samian

Fig 148; Fig 153

The earliest forms derived from Arretine are virtually absent from London, but the base of a Drag 11 crater was found at 5-12 Fenchurch Street. The samian is largely composed of generally equal proportions of plates (Drag 15/17, Drag 18) and cups (Drag 24/25, Drag 27, Rt 8, Rt 9). Decorated forms are present in small proportions, with Drag 29 more common than Drag 30. As expected, later 1st century forms such as Drag 18/31 and Drag 37 are absent from pre-Boudiccan groups. The single Drag 33 is from Newgate Street.

7.4 Roman Ceramic Phase 1B: late Neronian–early Flavian *c* 60/l -75

This phase marks a period of reclamation following the Boudiccan fire. Inevitably, assemblages must include some earlier redeposited material and therefore share many traits with RCP 1A. Imports have decreased (Fig 143, 15% Eves) although a range is still present. Within the Romano-British assemblages, Verulamium Region White wares, local reduced wares and Alice Holt all increase, and the variety of fabrics from Kent are notable; the absence of South Gaulish Colour-coated ware, the near absence of Lyon ware and the decline in the local Sugar Loaf Court ware are all diagnostic.

Sources and trade

Fig 158

Amphorae

Fig 144

Dr 20 is the most abundant type, followed by Cam 186, which peaks during this phase. Dr 2–4 (KOAN, over half of which is Campanian) and Gaulish amphorae (PE47) are more common here than in RCP IA. Richborough 527 (not visible on Fig 144) occurs for the first time.

Oxidized wares

Fig 145

Gillam 238 mortaria occur for the first time in this phase. Other imported wares continue in small quantities, mainly as flagons in North French/Southeast English fabrics (both NFSE-1298 and NFSE-2667, not visible on Fig 51) and Rhone Valley products; the early Rhineland fabric does not occur.

The dominance of Verulamium Region wares (72%) over all other oxidized wares is illustrated here. These are primarily white wares, but white-slipped wares from the same region are also present. This is in contrast to Chelmsford (Going 1987, 106) which from its foundation in *c* 60 relies on Colchester oxidized wares with few Vexulamium products. Amounts of the local Sugar Loaf Court ware have declined radically, and Kent sources are represented by small increases in Hoo and Eccles ware, although the latter may be residual after *c* 65. This hypothesis is supported by the absence of Eccles ware from some large late Neronian-early Flavian groups such as Monument Street. The two fabrics are common on Kent sites (Pollard 1988, 38).

Reduced wares

Fig 146

Local wares from the Highgate kilns continue to dominate the reduced ware assemblage (45%). In contrast to the pre-Boudiccan groups that consisted solely of Highgate B, rare sherds of the transition fabric with both grog and sand inclusions, together with small amounts of red-slipped Highgate B, are present here.

Other supposed local fabrics become more important (17% in total), with both the Early Roman Micaceous Sandy and Early Roman Sandy diagnostic of the phase; all variants of the latter increase from RCP 1A. Alice Holt products increase significantly. These trends are matched by the decreasing amounts of miscellaneous SAND and GROG wares, and follow a similar pattern of consolidation seen for the oxidized fabrics, as well as demonstrating a slight shift in emphasis from native to more Romanized techniques. North Kent Shelly ware continues in very small quantities.

Fine wares

Figs 147a-c

The balance between samian and other fine wares, as in the remainder of the sequence, is approximately equal by weight (Fig 147a); by Eves samian is twice as common (Table 2). Going (1987, 106) has already drawn attention to the smaller amounts of samian from Chelmsford's earliest levels. A possible distinction between pre- and post-Boudiccan assemblages is

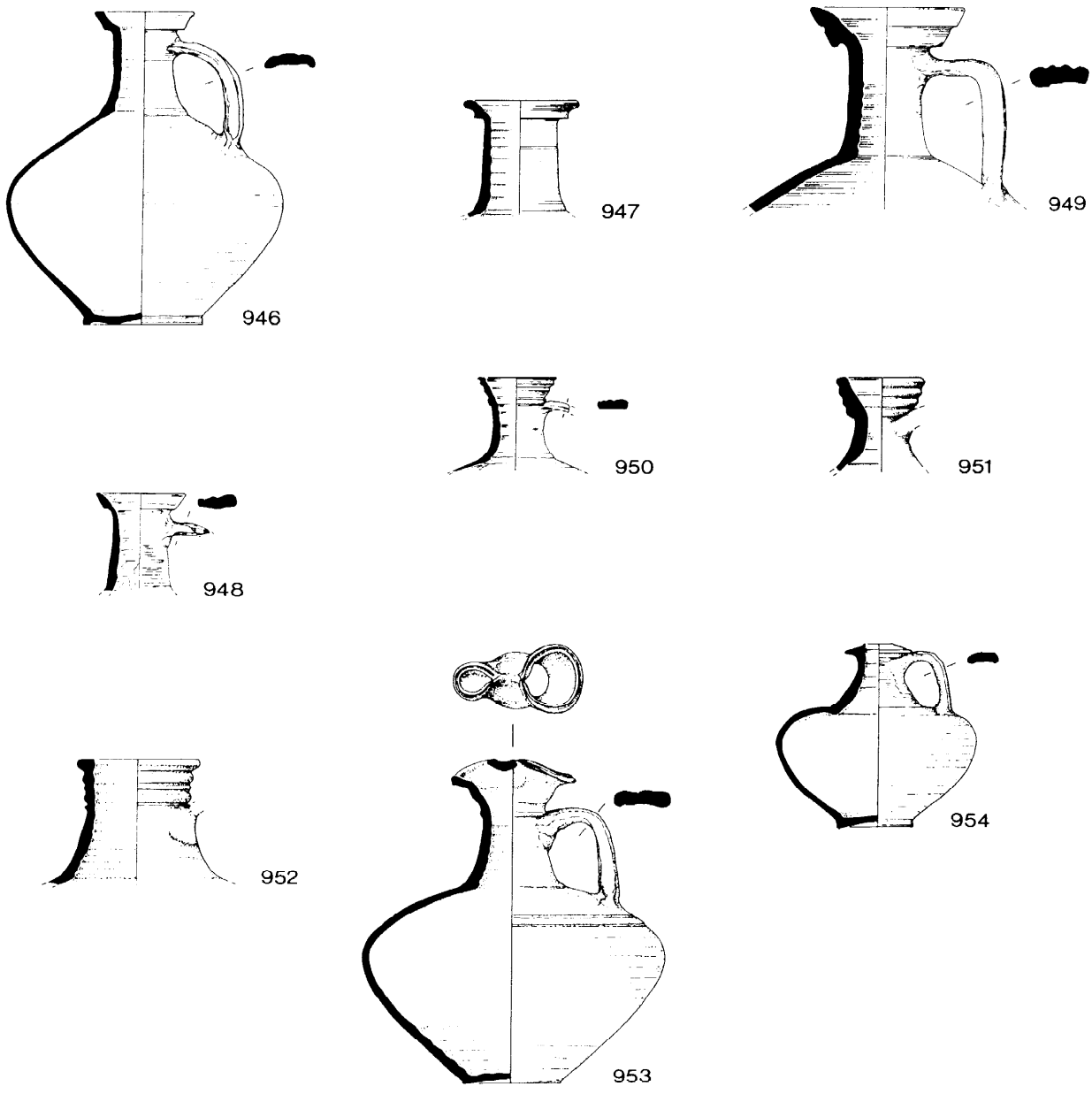


Fig 159 Roman Ceramic Phase lB, flagons, nos 946-54 (Scale 1:4)

the virtual absence of marbled samian and material from Montans in immediate post-fire levels. Non-amian fine wares (Fig 147b) are represented by 15% mports, which is a decrease of over one-quarter from he previous phase. Both Lyon and South Gaulish Colour-coated wares are absent, with Campanian Pompeian Red ware most common here. North Gaulish sources are represented by small amounts of Terra Nigra, Mica-dusted beakers (MICA-l 242; cf Wilson 1972, fig 103, 125, 127) and Black Eggshell ware. Rare Central Gaulish Colour-coated wares (not visible on Fig 147b), more common in the later 1 st

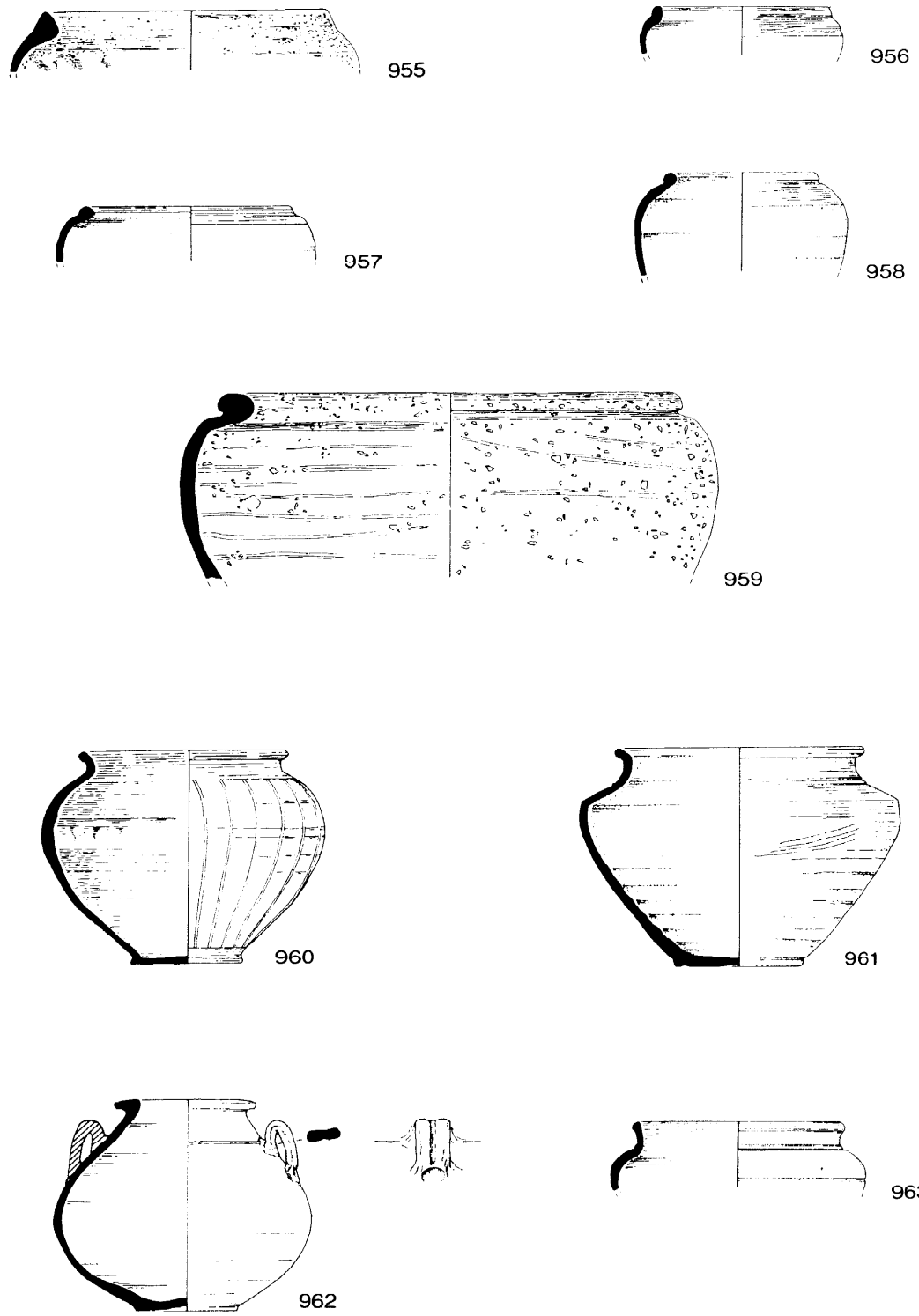


Fig 160 Roman Ceramic Phase lB, jars, nos 955–63 (Scale 1:4)

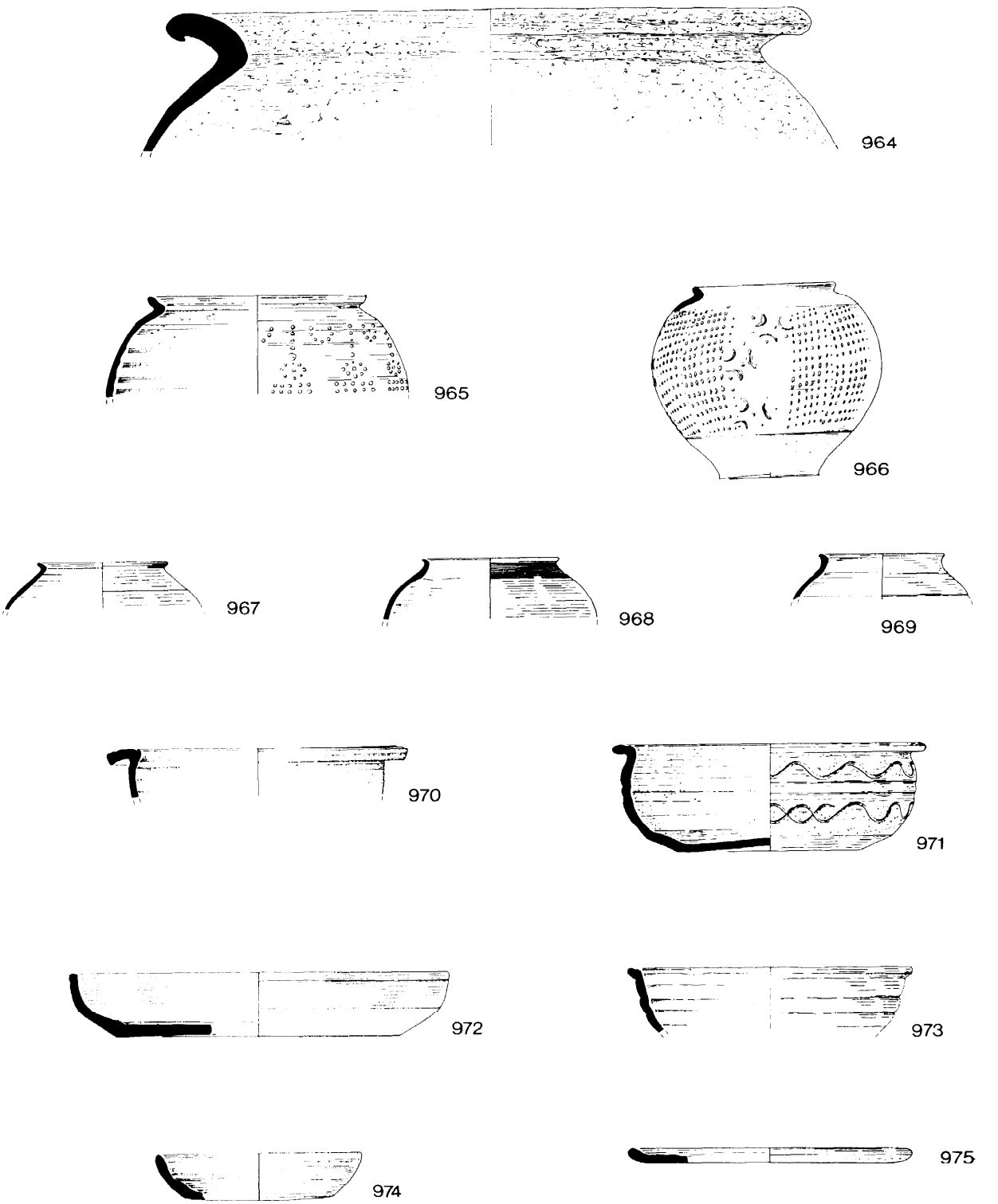


Fig 161 ***Roman*** **Ceramic** ***Phase 1B, jars, no 964; beakers, nos 965–9; bowls/dishes, nos 970–5 (Scale 1:4)***

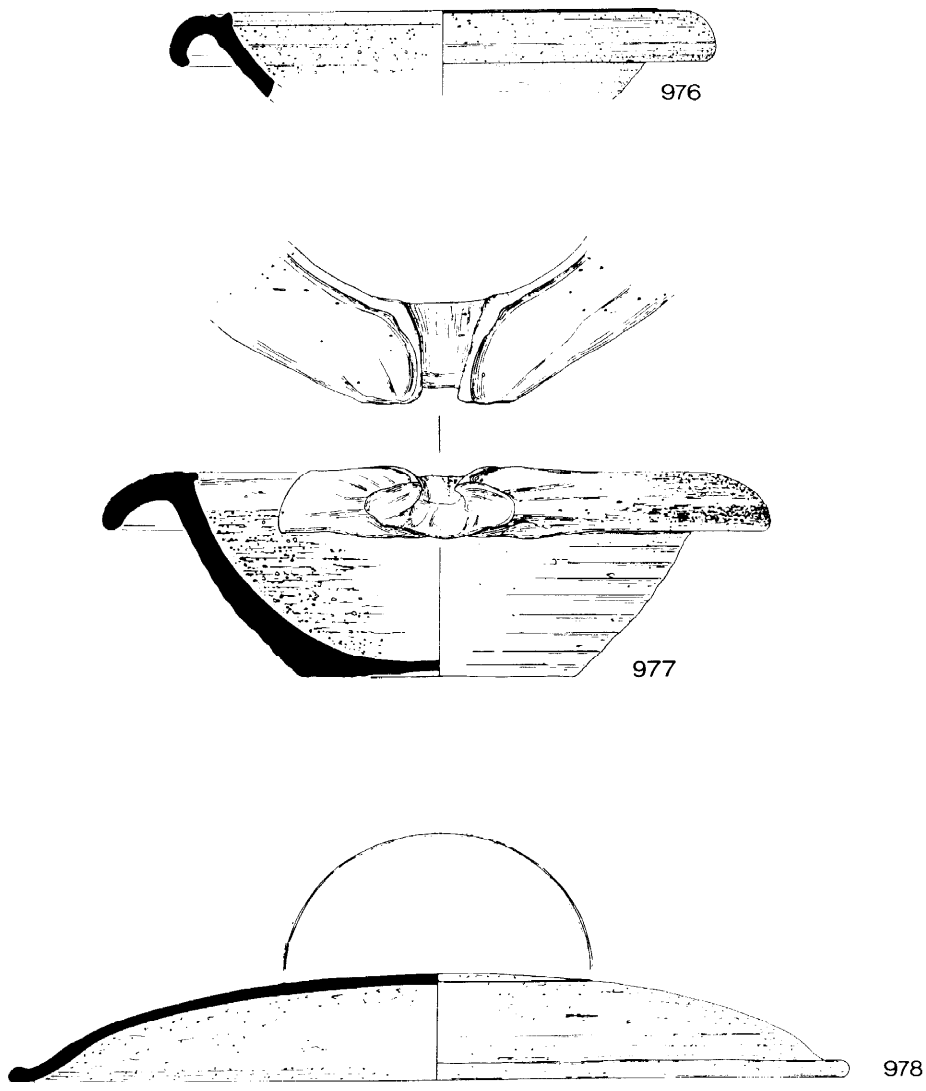


Fig 162 Roman Ceramic Phase 1B, mortaria, nos 976–7; other forms, no 978 (Scale 1:4)

and early 2nd centuries, are also present.

Of the Romano-British assemblage (Fig 147c), rare Local Eggshell, Local Mica-dusted and London wares appear for the first time. Fine Micaceous wares, primarily local, increase and continue to dominate the assemblage, but there are differences in the composition of the fabric variants between RCP 1A and 1B: FMIC-2488 is still present in some quantity, but is overtaken by FMIC-1659; to a lesser extent the Kent fabric (FMIC-2559) also increases. Another Kent product (FINE-492) is also identifiable for the first time. The Ring-and-dot fabric peaks during this phase, following FMIC in importance.

Assemblage composition

Fig 148

Jars are still the most common form type, accounting for 40%, followed by flagons. Bowls nearly double to 14%, as do lids to 6%. Dishes show the most dramatic decrease during this period.

Flagons

Fig 149; Fig 159, Nos 946-54

Flagons are all oxidized and are almost exclusively Verulamium products (84%). Collared flagons (IA,

946-9) decrease dramatically by almost one-third to 17% of the total flagon assemblage, and there is a corresponding increase in ring-neck types (IB, 950-2) which now account for approximately half of the vessels. In many assemblages IAs continue to be most common, and the increase in IBs is primarily due to the Vespasianic well group at Monument Street where they account for 62%, and IAs only 7%. A similar trend can be paralleled in contexts of 60-75 at Verulamium (Wilson 1972, fig 102, 102-9; fig 103, 112).

Other fabrics represented are similar to RCP 1A, including the North French/Southeast English collared flagons (NFSE-2667, 949). Number 948 is an unusual example in Verulamium Region Coarse White-slipped ware. Flagons in Eccles ware tend to be IBs rather than IAs (950). Vessels represented for the first time include pinch-mouth varieties (IC, 953), together with less common types represented by *c* 5% each and shown on Fig 149.

Jars

Fig 150; Figs 160-1, Nos 955-64

Jars are normally reduced, with rare examples of oxidized vessels comprising 10%, and represented mainly by Verulamium region products. Most of the jars are in the Highgate Grog-tempered fabric (HWB, 19%) or other local sources (ERMS, 15%) and Alice Holt ware (2 1%). The importance of RCP 1B as a transition phase to more Romanized forms is indicated by the increase in necked jars. Native bead-rim jars (IIA, 955-9), although still accounting for over one-quarter of the jars, decrease by more than 10% from RCP 1A. Those that do occur are primarily in HWB and other local fabrics, although vessels in North Kent Shelly ware (959) and Alice Holt ware (958) are increasing.

The intermediary round-bodied IIBs (960), first diagnostic of RCP 1A, are doubled here in the Early Roman Micaceous Sandy ware. Other necked jars include more diagnostic forms than in RCP 1A. This is largely due to the presence of carinated jars (IIC, 961) from the Alice Holt kilns, with both bead and 'figure-7' rims, variants that are also noted together at Southwark (Marsh & Tyers 1978, 557-8). Also from Alice Holt are burnished necked jars (IID); locally produced necked (NJ, 963) and storage (SJ, 964) jars arc present as well. The honey pot (IIK, 962) is an example of a rare oxidized jar.

Beakers

Fig 151; Fig 161, Nos 965-9

In contrast to pre-Boudiccan groups, very few beakers are imported: reduced micaceous fabrics (FMIC, FINE), local Highgate C and oxidized Ring-and-dot fabric predominate. Almost half of the beakers belong to the ovoid IIIB group (965-6) decorated with barbotine dots (FMIC, 7%; RDBK, 28%; HWC-1403, 12%). RDBK vessels continue at Verulamium in deposits spanning RCP 1B (Wilson 1972, fig 103, 130-2; Wilson 1984, 268). Everted-rim beakers with low sloping shoulders (IIIC, 967-8) are also common and comprise approximately one-fifth of the assemblage. Butt beakers (IIIA) and bulbous Gallo-Belgic beakers (IIIH) are not diagnostic, as they are in RCP 1A; the carinated IIIG, however, does occur. Rare poppy beakers (IIIF) are present for the first time.

Bowls and dishes

Fig 148; Fig 152; Fig 161, Nos 970-S

In aggregate, bowls and dishes increase but fewer are in samian ware (Fig 148). Of the non-samian vessels, approximately half belong to the round-bodied IVFs (971) predominantly supplied by the local kilns at Highgate in the grog-tempered fabric, with a small number in the later sandy C fabric. Moulded-rim bowls (IVA, 970) form the next most common group, and the majority of these are in reduced fabrics, including Verulamium Region Grey ware (4%). This predominance of reduced bowls from the Verulamium industry may be typical of late Neronian groups and is paralleled at Verulamium (Wilson 1972, fig 106, 211-12). The remainder of the IVAs are in a variety of fabrics. The grooved-rim bowl (IVK, 973), apparently exclusive to the Alice Holt industry, peaks in this phase. Plain-rim dishes (IVJ, 972; V, 975) are well represented both in Early Roman Micaceous Sandy ware (4%) and the Highgate Red-slipped variant (6%); moulded-rim plates (VA, 974; VB) are also present.

cups

Fig 148

Cups occur in approximately similar proportion to RCP 1B, nearly all of them samian. Non-samian vessels are represented by a Local Eggshell ware vessel (VIC), a type which becomes more common in the later 1st century.

Mortaria and other forms

Fig 162, Nos 976-8

Wall-sided mortaria are no longer diagnostic. Instead, most have a hooked-flange rim (HOF), a style firmly adopted by the Verulamium region potters who supplied most of the City's mortaria (VRW, VRR, 976, 75%). Gillam 238 mortaria are present for the first time in small quantities (977) and are the only mortaria during this phase with external gritting on the flange.

Samian

Fig 148; Fig 153

The ratio between cups and plates varies on different sites of the same date and this may reflect functional differences between them. In contrast to RCP 1A assemblages, cups normally predominate. Another important distinction between RCP IA and 1B is the ratio of different cup and plate forms: here the Drag 27 cup is approximately five times as common as the

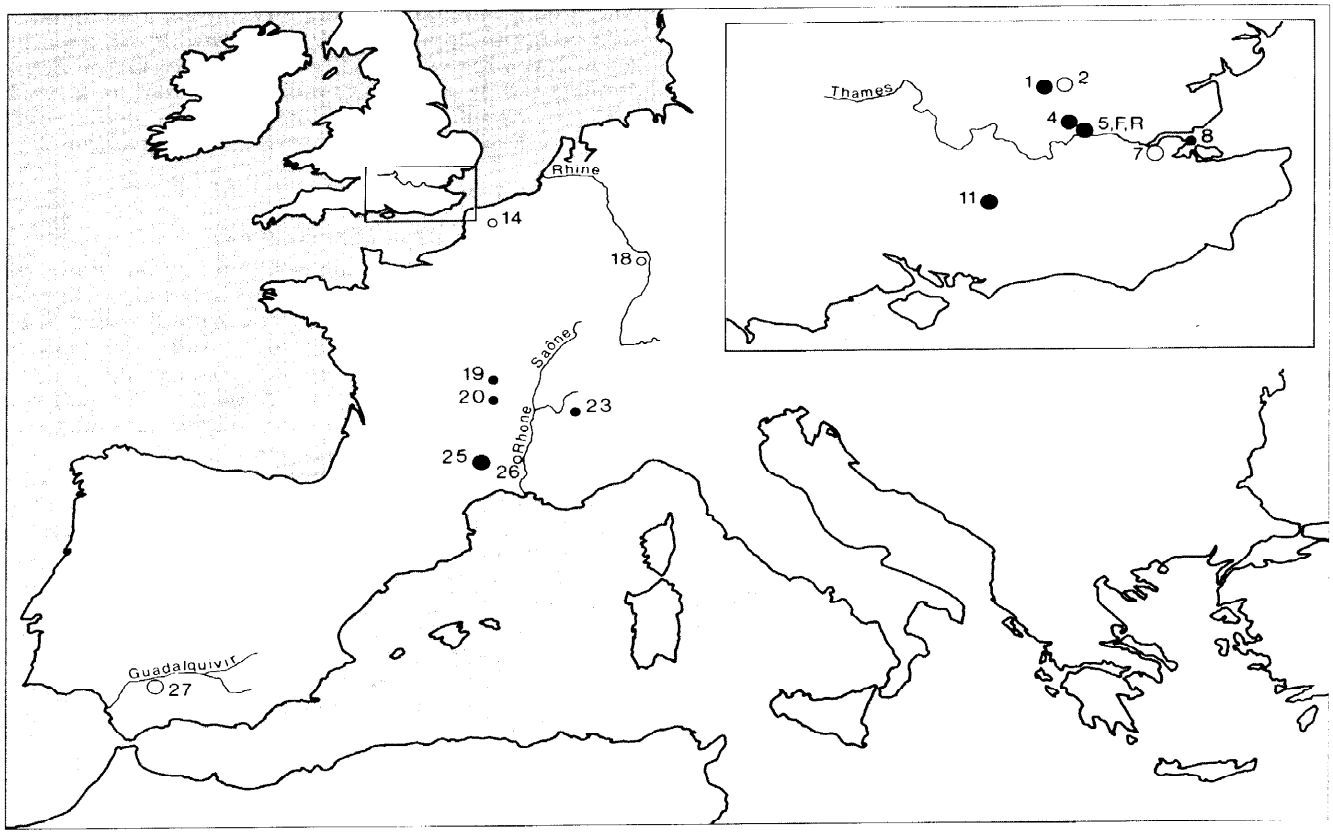


Fig 163 Location map of ceramic source areas for Roman Ceramic Phase 2

Drag 24/25, Unlike pre-Boudiccan groups, Drag 18 assumes the greatest proportion of the plates, followed by Drag 15/17. Although distinctive, decorated vessels form only a small part of the assemblage. Drag 37 appears for the first time in the Vespasianic Monument Street well group, which agrees with the established date in the 70s for the introduction of this form.

7.5 Roman Ceramic Phase 2: Flavian *c* 75-100

The Flavian period is one of consolidation, with most pottery supplied by a few major sources (particularly Verulamium, Alice Holt, north Kent and the local Highgate potteries). Equally, ceramic industries producing native wares (such as Highgate) were now producing more Romanized fabrics and forms. Fewer Continental sources are represented, with only the southern Spanish Dr 20 and Gauloise amphorae from southern France represented in any quantity. However, in overall quantity measured by Eves, there is little change in the number of imports from the late Neronian period (Fig 143). The marked variety of vessel types in Romano-British wares suggests a period of expansion during which manufacturers were able to diversify to meet increased demand.

Sources and trade

Fig 163

Amphorae

Fig 144

The most common amphorae are still the oil-bearing Dr 20 at over 80% of the total assemblage; numbers of south Gaulish wine amphorae remain constant from RCP 1B. The first examples of the possibly Gaulish London 555 amphorae are present from the quantified data in this phase, but elsewhere in the City Neronian examples have been identified.

Oxidized wares

Fig 145

Continental imports are rare, comprising less than 4% of the total and mainly represented by North French/ Southeast English (mostly NFSE-1298) flagons and Gillam 238 mortaria. Rarer imports include Rhineland (RHMO-2554) and Aoste mortaria.

Pottery from the Verulamium region accounts for the majority of the oxidized fabrics, and consists

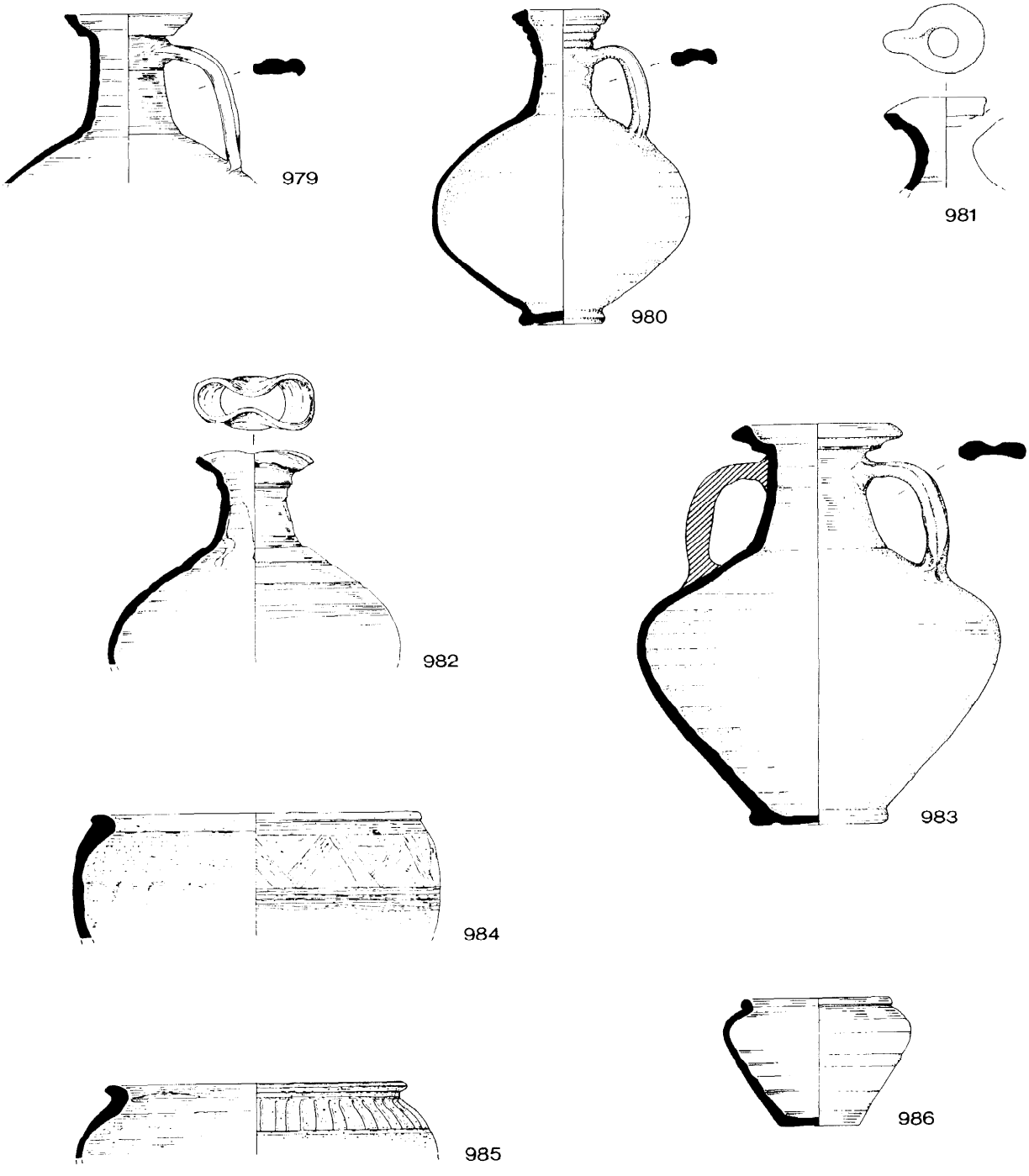
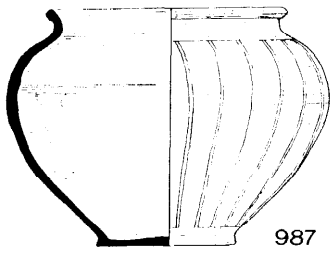
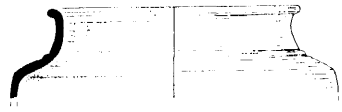
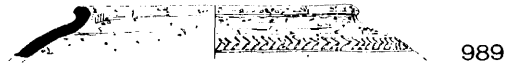
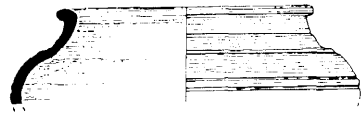


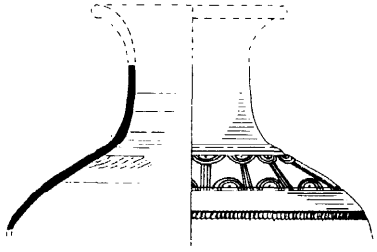
Fig 164 Roman Ceramic Phase 2, flagons, nos 979-83; jars, nos 984-6 (Scale 1:4)

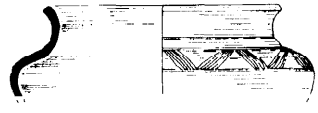


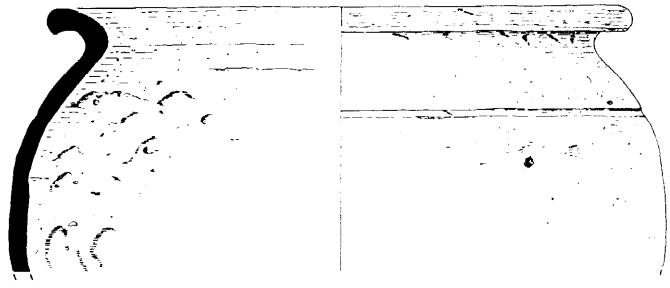


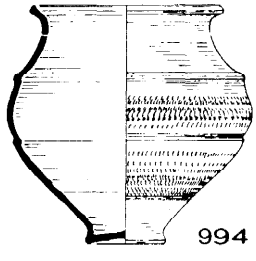


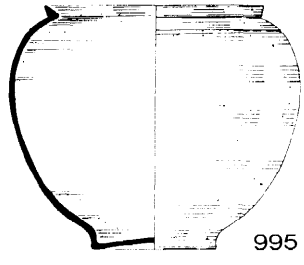












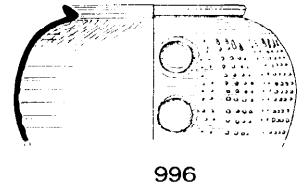


Fig 165 Roman Ceramic Phase 2, jars, nos 987-93; beakers, nos 994-6 (Scale 1:4)

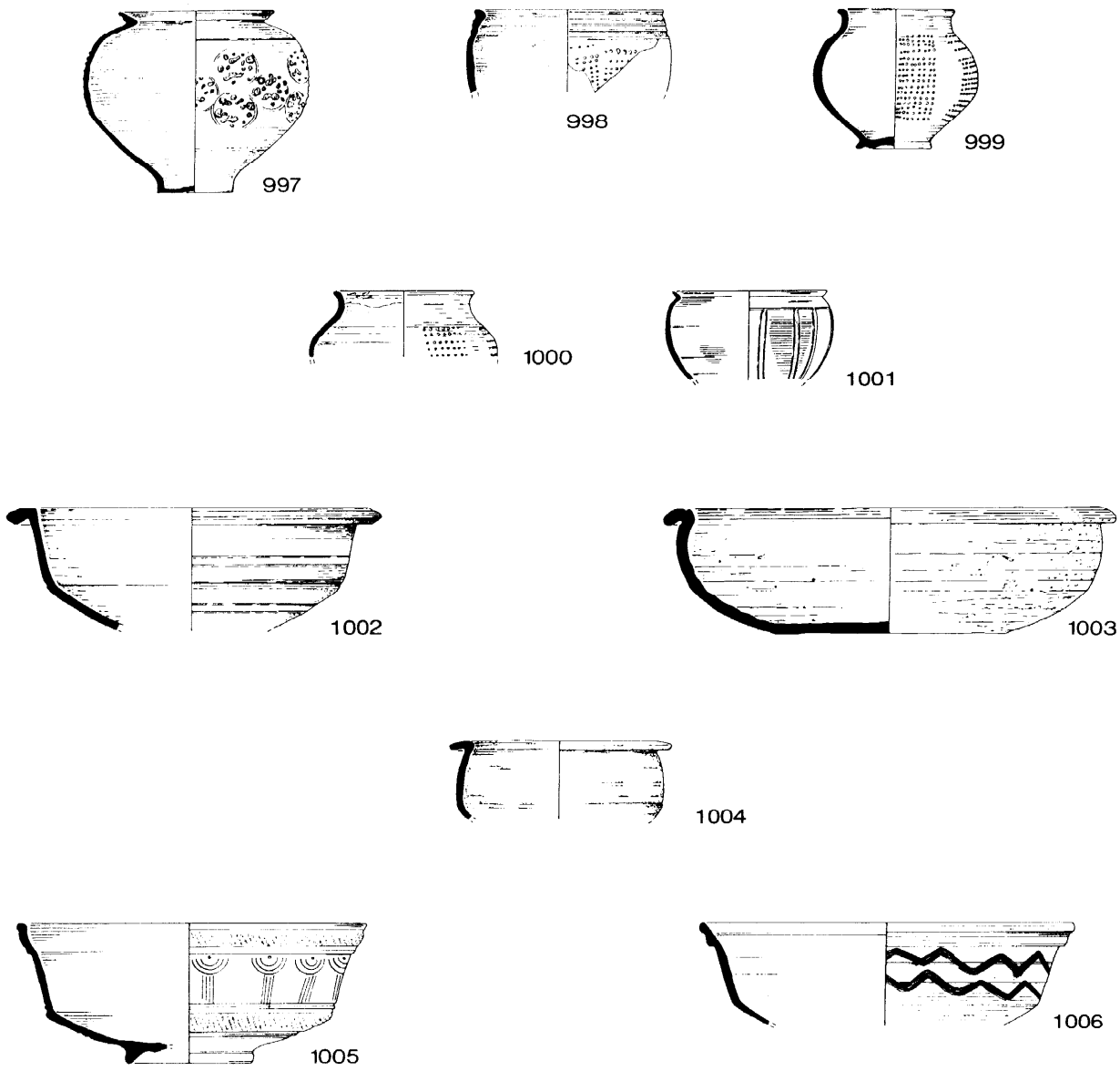


Fig 166 Roman Ceramic Phase 2, beakers, nos 997-1001; bowls/dishes, nos 1002-6 (Scale 1:4)

primarily of white wares, although Brockley Hill White-slipped ware is also diagnostic of the phase. Hoo ware is the only other fabric to be represented in any quantity; Eccles ware has declined considerably and is no longer a chronological indicator.

Reduced wares

Fig 146

In contrast to the oxidized products, dominated by one industry, a variety of sources is represented; most of the reduced wares are local, with only Alice Holt and North Kent Shelly wares occurring in large quantities from outside London.

The early handmade products of the local kilns at Highgate Wood (HWB) are still the most common but, even so, are greatly reduced (from 42% to 30%). This shortfall is made up by the greater proportion of wheelmade Highgate C wares. Although occurring in small quantities, a similar transition from native to more Romanized types can be seen in the local sandy ware ERSA-ERSB, with the latter more Romanized variant dominating in this phase, Other potentially local wares which are typical of RCP 2 include Early Roman Micaceous Sandy ware.

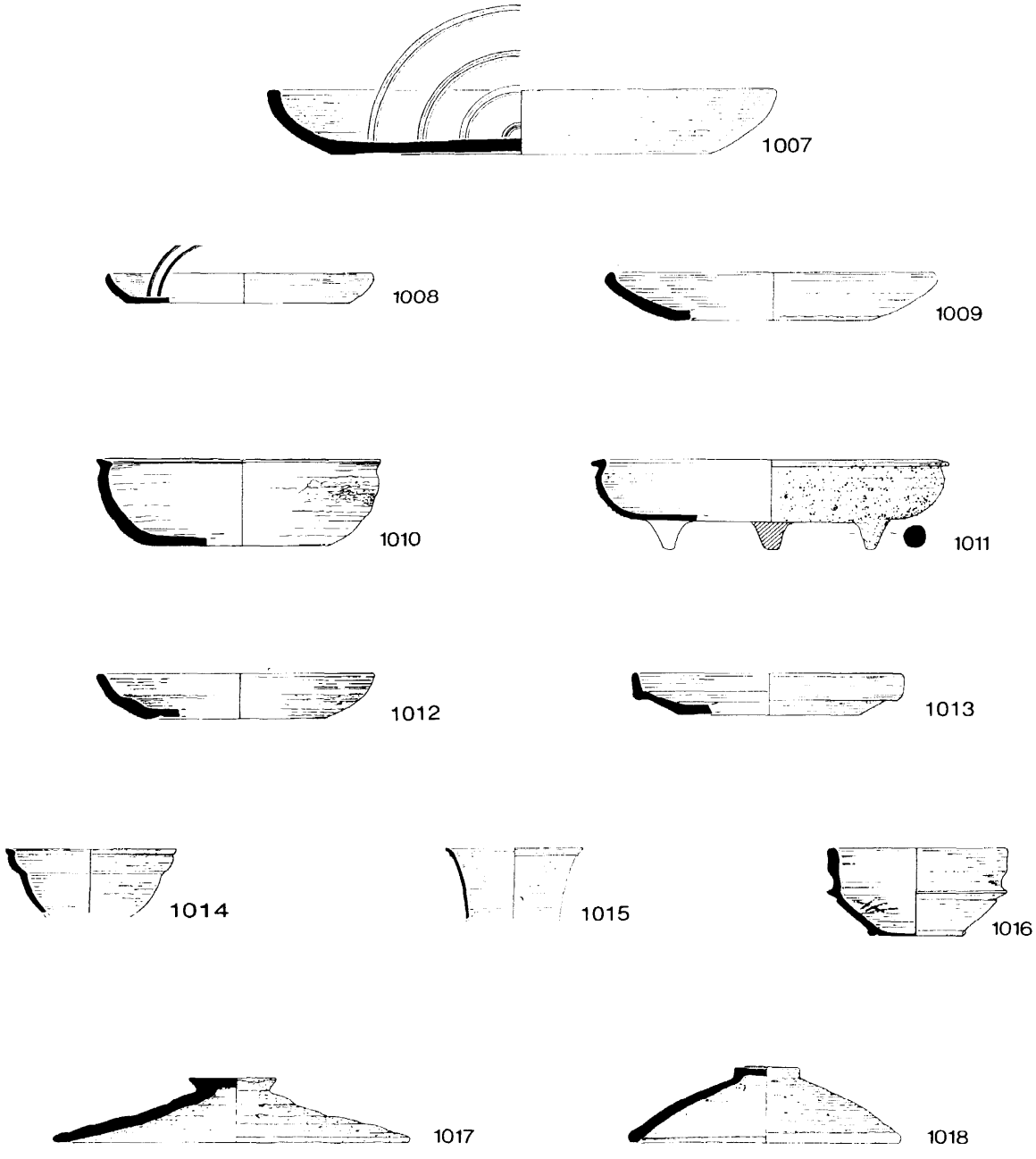


Fig 167 Roman Ceramic Phase 2, bowls/dishes, nos 1007-13; cups, nos 1014-16; other forms, nos 1017-18 (Scale 1:4)

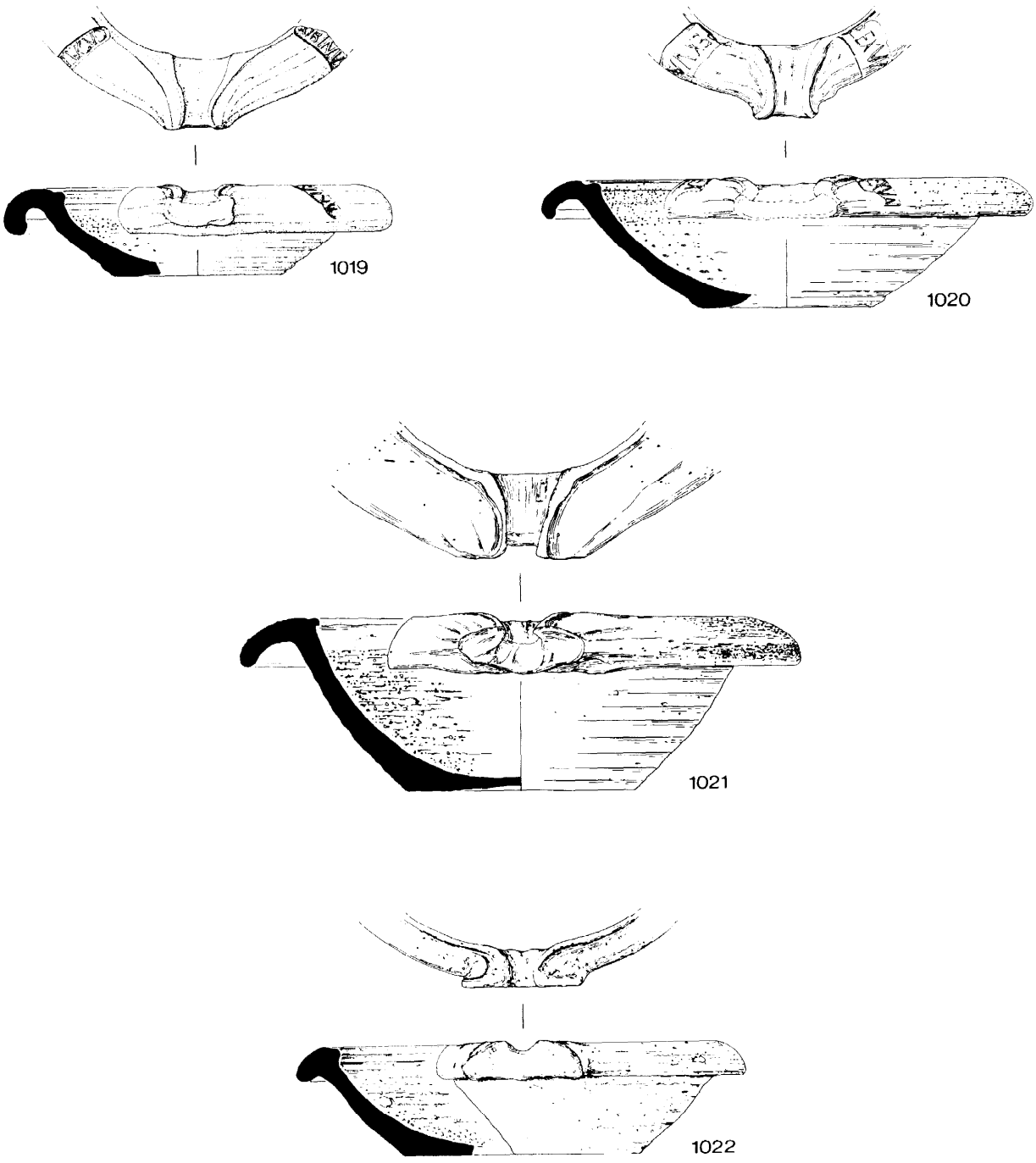


Fig 168 Roman Ceramic Phase 2, mortaria, nos 1019-22 (Scale 1:4)

Fine wares

Figs 147a-c

Samian from La Graufesenque still dominates. Imported non-samian fine wares are rare but include products from central Gaulish industries (included within CGCC on Fig 147b), with an increase in the quantity of fabrics from the Allier Valley (CGWH, CGGW) and in the variety from the Lezoux area (CGOF, CGBL, PRW3).

However, the bulk of the non-samian fine wares are Romano-British (Fig 147c) and probably local (Local Marbled, Local Eggshell and increasing quantities of London and Local Mica-dusted wares). Fine Micaceous wares again account for half of the fine wares but their composition differs from previous phases; the presumably local FMIC-1659 is now the most common.

As with the reduced wares, a number of Kent sources are represented by reduced fine wares: FINE-492, North Kent Fine ware and rare FMIC-2559. Other non-local fine wares include the Ring-and-dot fabric, possibly from Hertfordshire, which is still common in this period. Definite Verulamium products include small amounts of mica-dusted ware which suggests some diversification of the industry to include fine wares as well as the more common coarse ones.

Assemblage composition

Fig 148

Although jars are still the largest group, they continue to decrease and now account for 30% of total vessels, while flagons are still next in importance. Bowls and beakers occur in virtually equal proportions; hereafter beakers decline. During the Flavian period, the relative proportion of bowls and dishes is virtually identical to RCP 1B and it remains similar until the early Antonine period.

Flagons

Fig 149; Fig 164, Nos 979-83

Almost all the vessels are in oxidized fabrics, with small quantities (6%) of reduced coarse and fine wares represented. Most flagons are supplied by the Verulamium region kilns (81%).

Collared flagons (IA, 979) still occur but are greatly out-numbered by trumpet-mouth ring-neck IB2s (980), which comprise just over half the assemblage. Rarer flagon forms, such as pinch- and disc-mouth (IC, 981-2 and ID respectively) and two-handled types (IE; IJ, 983), are present and comprise the remainder of the identifiable flagons.

Jars

Fig 150; Figs 164-5, Nos 984-93

Jars are again primarily reduced, but during the Flavian period this includes some reduced fine ware as well as rare oxidized fabrics, Alice Holt (23%) and local industries (24%) remain the most common producers of jars. The trend towards more Romanized forms is stable, with quantities of bead-rim jars (IIA, 984-6) the same as RCP 1B. Rare examples of Highgate C bead-rim jars appear for the first time.

A variety of necked jars (987-8, 990-2), both local and Alice Holt products, maintain their importance. These include round-bodied IIBs (987, the only single class to be well represented), carinated IICs (988), and burnished IIDs. Significantly, the IIC now appears in Highgate C (<1%). The IIE is now present but is still not considered typical. Flasks (IIR, 990), though still numerically small, are represented by a variety of sources occurring in Highgate C, London ware, Alice Holt, and SAND wares. The remaining jars are storage vessels, primarily in Highgate B ware (SJ, 993), although North Kent Shelly ware is also present (IIM, 989).

The Flavian period sees a slight diversification in oxidized jars from the Verulamium region (VRW, 3%). Honey pots (IIK) are still present, although less common than previously. The first appearance of unguent jars (IIJ, not visible on Fig 150) is chronologically significant and can be paralleled at Verulamium in groups dated c 75-105 (Wilson 1972, fig 108, 298-300).

Beakers

Fig 151; Figs 165-6, Nos 994-1001

Most of the beakers in this phase are in Romano-British fine and coarse reduced wares or Ring-and-dot Beaker fabric. As in RCP 1B, the ovoid IIIB (995-7) is the most common, comprising almost half the total, with most vessels in Ring-and-dot (20%) or Fine Micaceous (17%) fabrics. However, Flavian groups show a decrease in ovoid IIICs and an increase in poppy beakers (IIIF, 999-l 000). Neckless beakers with everted rims (IIIE) occur for the first time in Fine Micaceous wares (FINE, FMIC), Highgate C and a variant of Highgate C ware (HWC-1403, 998). Found in assemblages from the Flavian period, but not represented among quantified assemblages, are a Central Gaulish Glazed beaker (100 1) and folded beakers in mica-dusted fabrics; butt beakers (IIIA) are virtually absent apart from examples in Fine Micaceous wares (994).

Bowls and dishes

Fig 148; Fig 152; Figs 166-7, Nos 1002-13

Bowls and dishes were produced in an unusually wide variety of fabrics and forms in the Flavian period; the proportion of samian to non-samian fabrics is constant from RCP 1B (Fig 148). The round-bodied IVF (1003-4) remains the most common bowl, accounting for over one-third of the non-samian assemblage, almost entirely in Highgate fabrics. Moulded-rim IVAs are still diagnostic (1002), occurring in numerous fabrics, particularly SAND (1 1%). Decorated bowls in London ware and Fine Micaceous fabrics, imitating Drag 29 and Drag 37 (IVD, 1005-6; IVE) appear for

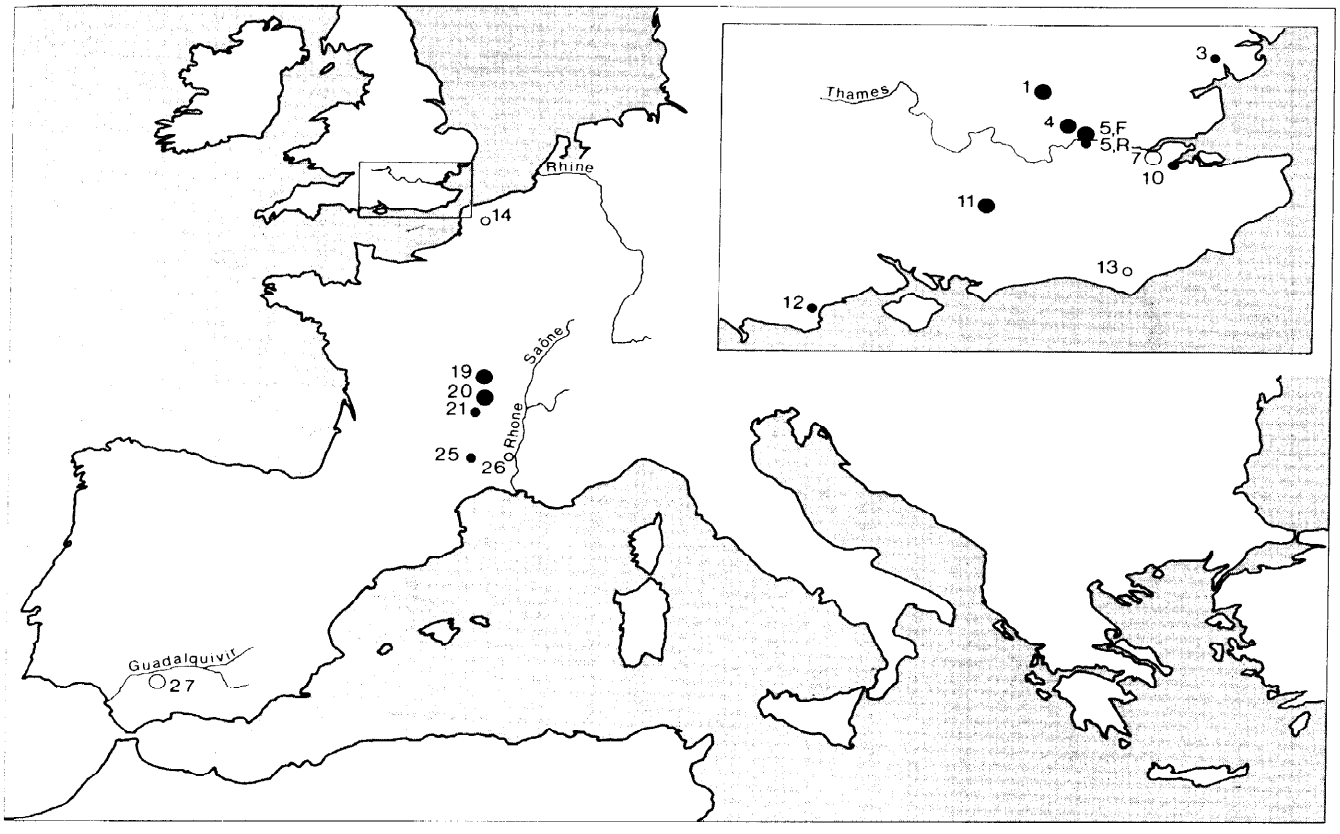


Fig 169 Location map of ceramic source areas for Roman Ceramic Phase 3

the first time, as do bowls in Central Gaulish Colour-coated wares (CGOF, 1011). Plates (IVJ, 1007-9; VA, 10 12; VB, 1013) are similar to the late Neronian period, apart from the proliferation of fine ware fabrics, which include rare examples in Fine Micaceous and Local Mica-dusted wares.

Cups

Fig 148; Fig 167, Nos 1014-16

Cups decrease during the Flavian period and this trend continues throughout the remainder of the sequence. Samian is again the major source, accounting for 93% of the vessels (Fig 148). The remainder comprise a variety of fabrics, most represented as individual vessels. These generally imitate the samian form Drag 27 (VIA, 1014) or, occasionally, terra nigra cups (Cam 59, 1016). Local Eggshell vessels are an exception, and occur in a wide-mouth carinated form which is restricted to that industry (VIC, 1015).

Mortaria and other forms

Figs 167-8, Nos 1017-22

Mortaria from Flavian assemblages have hooked-flange rims (HOF). Approximately 85% of the mortaria are supplied by the Verulamium region and most of these are white wares (10 19-20). Stamped vessels include the potters Albinus and Sollus who worked at Verulamium during the Flavian period.

Imports are represented by a small number of Gillam 238 (1021) from northern France/southeast England and a single vessel from the Rhineland (RHMO-2554, 1022).

Samian

Fig 148; Fig 153

The ratio of plates and cups has again fluctuated and in this ceramic phase plates are more common (47% to 36%). The decrease in cups may be related to the overall increase in beakers seen in other fabrics (Fig 148). Cups are represented mainly by Drag 27, and Drag 24/25 is decreasing. Plates maintain a similar pattern, with Drag 18 assuming the largest share. Mould-decorated types remain scarce and are composed principally of Drag 29, with Drag 37 present.

7.6 Roman Ceramic Phase 3: Trajanic *c* 100-20

The major industries supplying London were firmly

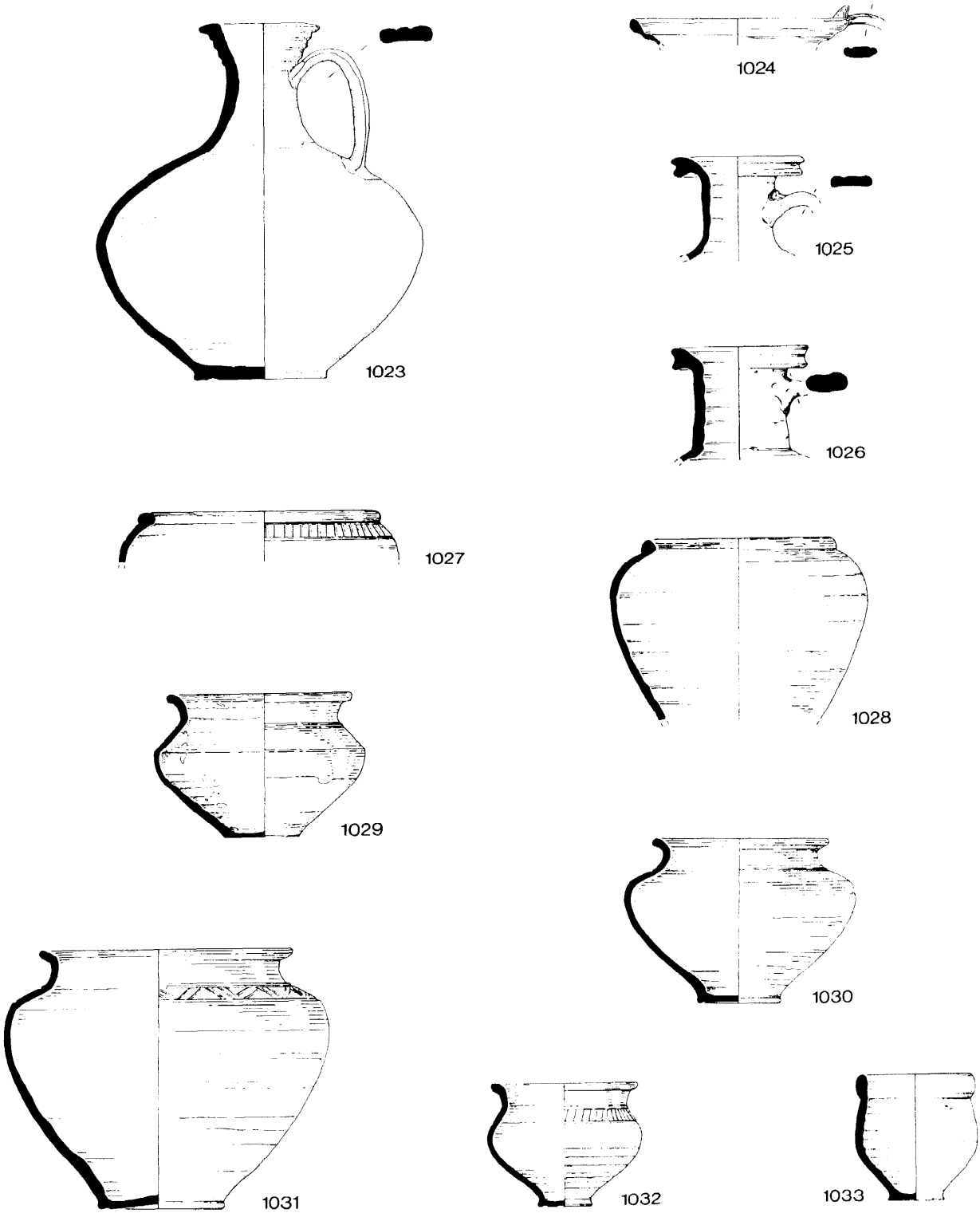


Fig 170 Roman Ceramic Phase 3, flagons, nos 1023-6; jars, nos 1027-33 (Scale 1:4)

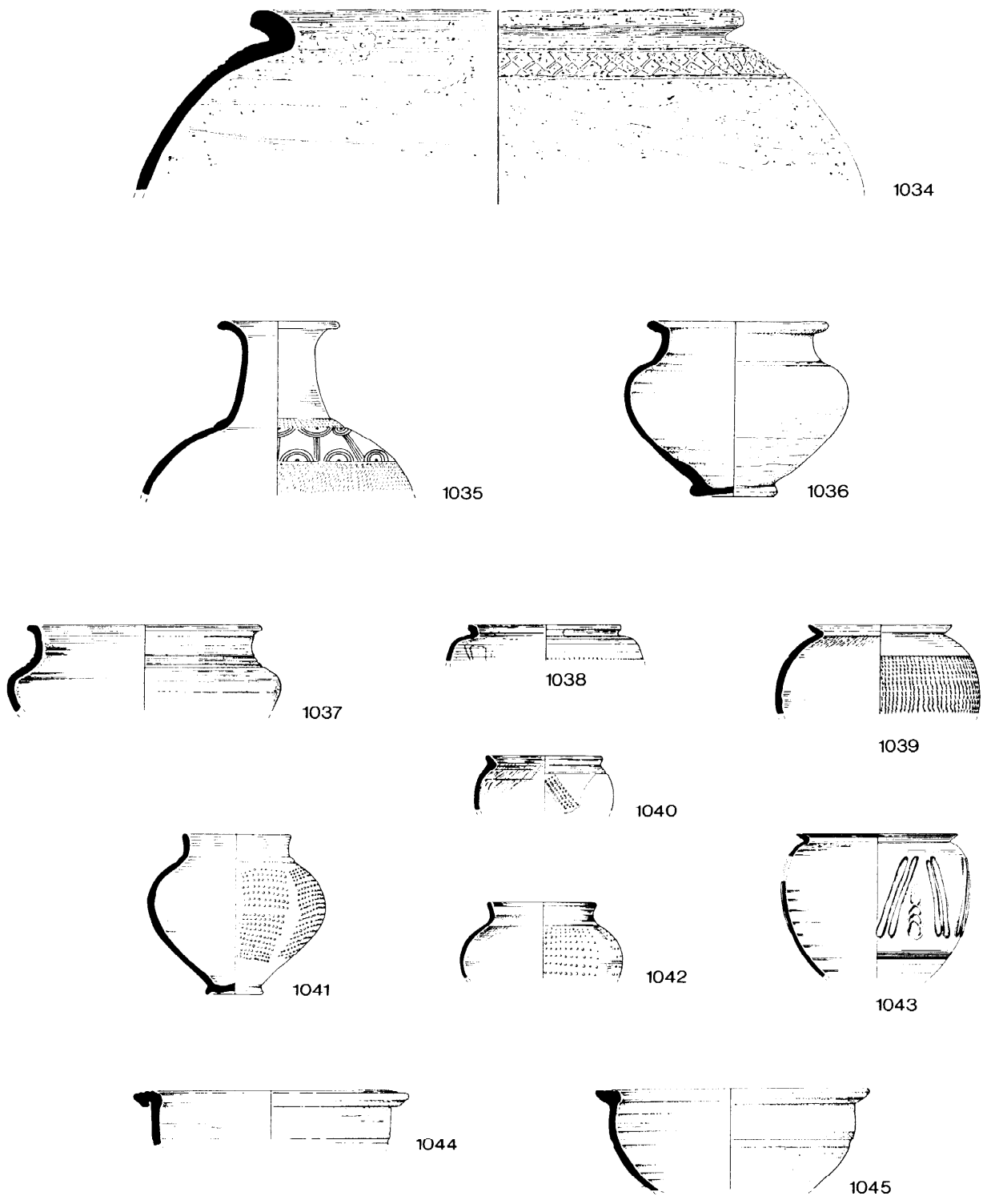


Fig 171 Roman Ceramic Phase 3, jars, nos 1034-7; beakers, nos 1038-43; bowls/dishes, nos 1044-5 (Scale 1:4)

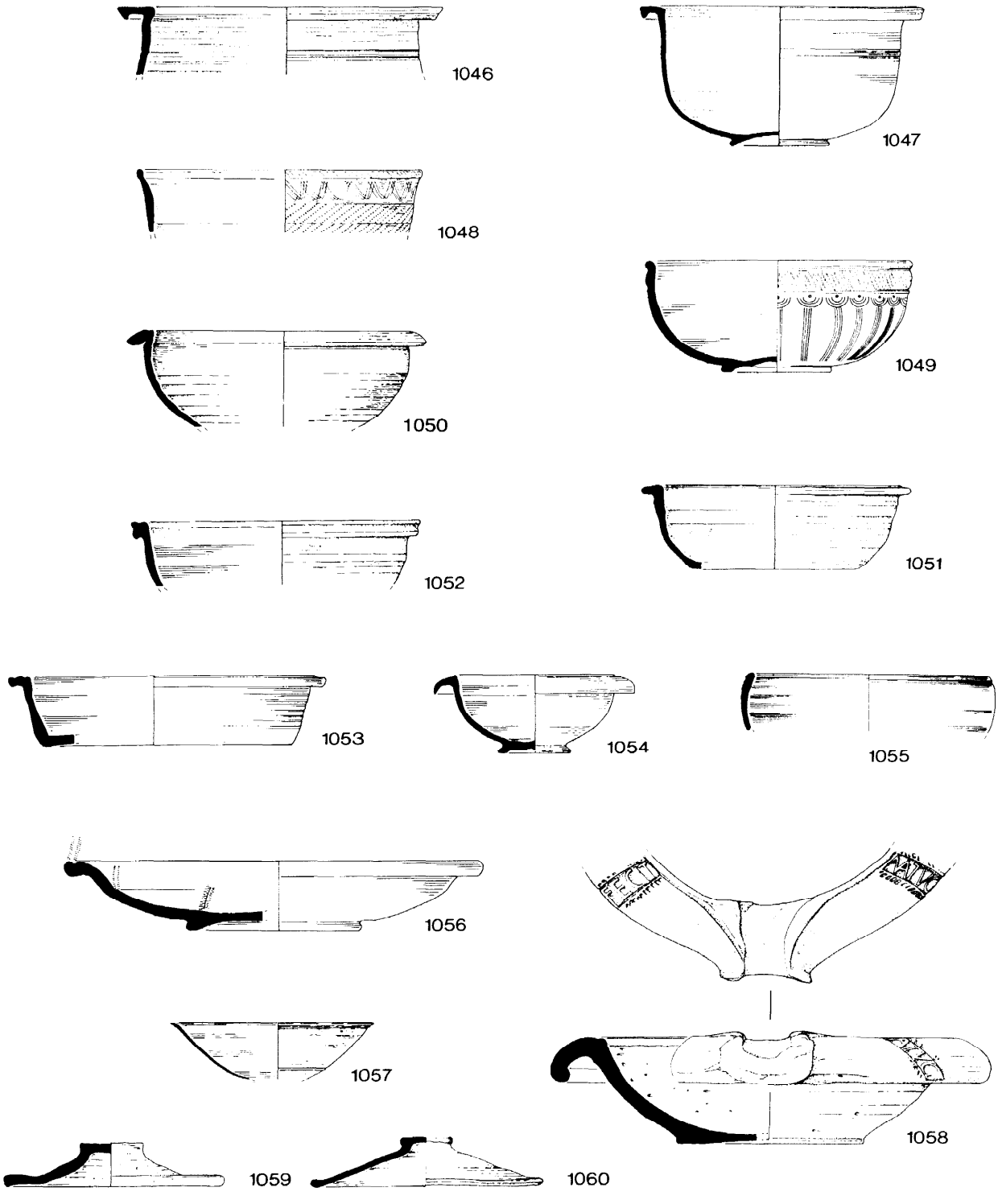


Fig 172 Roman Ceramic Phase 3, bowls/dishes, nos 1046-56; cups, no 1057; mortaria, no 1058; other forms, nos 1059-60 (Scale 1:4)

established by the end of the 1st century. Few new sources (either Romano-British or imports) are represented, and those which are become important later in the sequence. Native pottery traditions have all but disappeared and this is exemplified by the local Highgate Wood industry. In general, established industries appear to be increasing their range of products. Local fabrics predominate in reduced and fine wares, while oxidized ones are primarily from Verulamium.

Sources and trade

Fig 169

Amphorae

Fig 144

Dr 20 remains the most common amphora, while Cam 186 and Gauloise amphorae (PE47) and Dr 2-4 (KOAN) persist in quantities.

Proportions of amphorae tend to fluctuate more dramatically than other pottery types, reflecting the particular site or area. This is demonstrated by the south Gaulish amphorae: during the Trajanic period the amphora assemblage from Newgate Street is heavily dominated by Dr 20, while at other sites, for example at 66-73 Cornhill and 25-6 Lime Street, the PE47 competes more successfully with Dr 20.

Oxidized wares

Fig 145

Pottery from northern France/southeast England, represented by flagons (NFSE-1298) and Gillam 238 mortaria, is again the main import, but is rare. Verulamium is the major source for oxidized wares (88%), including white slipped wares (VCWS, VRR) together with the more common white fabric (VRW). Products from Brockley Hill are no longer considered diagnostic and quantities of pottery from Hoo in Kent have also declined.

Reduced wares

Fig 146

Imported reduced wares are represented for the first time, although negligible in quantity. North Gaulish Grey wares occur throughout the remainder of the sequence (not always visible on Fig 146) but never account for a greater share of the reduced ware total.

The local kiln at Highgate Wood continues to be the argest source of grey ware (34%), but the quantities of the Romanized HWC and the handmade HWB are now reversed with HWC dominating. Other local industries, including Early Roman Sandy B and Copthall Close wares, cumulatively account for 5%, and although CCGW never comprises more than 1% of the reduced wares, it is most diagnostic of this period.

Alice Holt ware continues to be represented in large cluantities, increasing slightly from the previous phase; north Kent Shelly ware is still present. Rare sherds of black-burnished pottery (BB1 from Dorset and BB2, primarily from Colchester) come from layers sealed immediately below Hadrianic fire deposits and become quantitatively significant in later phases. Even rarer sherds of East Sussex Grog-tempered ware - never quantitively important - also occur.

Fine wares

Figs 147a-c

Marsh (1981, fig 11.7) recognized a slight increase in decorated samian for the period c 120/5, but this peak cannot be identified from the data collected here. Vessels from southern Gaul are diminishing and there is little evidence from Newgate Street to suggest that products from the Les Martres-de-Veyre kiln, which began operation at this time, are present in the City; elsewhere, at Leadenhall Court, they do occur at this date.

As a group, non-samian imported pottery occurs in slightly greater quantity than during the Flavian period (Figs 147a-b). Central Gaulish sources increase from RCP 2 and are represented by the entire range of colour-coated wares (CGBL, not visible on Fig 147b), together with Pompeian Red ware fabric 3 (not visible on Fig 147b). Although there is little overall change in the major source areas for imports, colour-coated pottery from the Cologne region of eastern Gaul is present for the first time.

The most distinctive feature of the Romano-British assemblage (Fig 147c) is the continuing decrease in Ring-and-dot Beakers. As in the Flavian period, Fine Micaceous wares are the largest single type (36%, cf Kent, Pollard 1988, 59), with the local FMIC-1659 still most common. Other local wares are again important and both London and Local Mica-dusted wares have at least doubled from the previous phase, to 13-14%. Other local types include rare Local Eggshell and Marbled wares. North Kent Fine ware peaks during this phase, although in absolute quantities it is uncommon.

Assemblage composition

Fig 148

Jars maintain their prominent position at a similar level to RCP 2, and the same pattern is maintained throughout the rest of the sequence. Flagons decrease and for the first time are exceeded by bowls, while lids increase in tandem with bowls. Specific flagon, jar and bowl forms which are more common in later ceramic phases first appear in contexts immediately below *in situ* deposits, sealed by the debris of a large-scale fire thought to have occurred c 120/5, and they are itemized below.

Flagons

Fig 149; Fig 170, Nos 1023-6

Some new fabrics are identified among the flagons, but the majority continue to be supplied by the

Verulamium region (86%). Over half the flagon assemblage consists of ring-neck vessels and most belong to the trumpet-mouth IB2s present in earlier phases (1023). However, ring-neck flagons with a prominent upper ring (IB5) appear in the sealed fire deposits discussed above. Many other types which were current in the 1st century persist. The lid-seat IF (1024) flagon, derived from metal prototypes, occurs for the first time in Local Mica-dusted ware. Pulley-rim flagons (1026) from northern France/southeast England (NFSE-1298) are also typical of the period and the form is paralleled in a Verulamium fabric (1025); other types are shown on Fig 149.

Jars

Fig 150; Figs 170-1, Nos 1027-37

During the Trajanic period most jars are still reduced coarse wares (94%), but occasionally examples in oxidized and fine wares also occur. The main reduced ware jar suppliers are the local Highgate (B and C) and Alice Holt ware kilns. The assemblage shows a dramatic development from the Flavian phase, with bead-rim jars (IIA, 1027-8) decreasing by 12%. An example in Highgate B/C with diagonal burnishing (1027), typical of IIEs, shows some merging of the two forms. Round-bodied jars (IIB) are virtually absent. In contrast, other necked jars (1029-32, 1036-7) are rapidly increasing, in particular burnished IIEs (1032), primarily in Highgate C ware (cf Verulamium, Wilson 1972, fig 111, 383-5, and possibly fig 112, 432-7; Wilson 1984, fig 86, 2083-97).

Although not numerically important (<2%) and not typical until RCP 4, the most chronologically significant feature is the presence of everted-rim and necked jars with burnished lattice in both black-burnished and Highgate wares (Fig 174, 1065-6, 1068-71). Restricted to layers sealed below the Hadrianic fire, it suggests that production of this form commenced just prior to c 120/5.

Most of the remaining jar forms can be found in 1st century groups (eg IIC, 1029-30; IIJ, 1033; IIK; IIM 1034; IIR, 1035; SJ), although burnished jars with 'figure-7' rims (IID, 1031), principally in Alice Holt ware, have increased slightly and are more typical of the Trajanic period than others.

Beakers

Fig 151; Fig 171, Nos 1038-43

A variety of beaker fabrics are present in this phase, but Fine Micaceous (30%) and Highgate C (36%) wares predominate. By this time the most common form is the poppy beaker (IIIF, 1041-2), of which approximately three-quarters are in Highgate C ware. Ovoid IIIB beakers form the second most common type (1038-9) and most of these are accounted for by fine micaceous fabrics (FMIC, FINE). IIIBs are also represented, for the first time, in North Kent Fine ware (1038); other products from Kent include 'Gallo-Belgic' beakers (IIIA, IIIH). These forms are normally associated with Neronian assemblages, but Marsh (1978, fig 6.9, 19) suggests a late 1st to early 2nd century date for them, corresponding with the overall distribution of the fabric in the City. Neckless IIIEs are also present in small quantities in Highgate C ware and its variant (HWC-1403, 1040).

Imported beakers are rare. Exceptions are central Gaulish beakers, represented here by an example of an everted-rim vessel with hairpin decoration (1043). Roughcast beakers (including vessels from Cologne) are increasing and are represented by body sherds. This same trend is paralleled at Verulamium (Wilson 1972, fig 111, 396-7) and Southwark (Bird *et al* 1978, fig 149, 949).

Bowls and dishes

Fig 148; Fig 152; Figs 171-2, Nos 1044-56

The overall proportion of bowls and dishes is similar to the Flavian period (Fig 148). Among the non-samian ware, round-bodied bowls (IVF, 1050-l) are still the most common form and account for almost half of the non-samian bowls and dishes. In contrast to the previous ceramic phase, most are in Highgate C ware (rather than Highgate B); rare examples are also known in the local Copthall Close Grey ware. Moulded-rim bowls (IVA, 1044-7) are present and comprise the second largest group. These vessels are produced in several fabrics; within the Verulamium industry, white ware bowls (as opposed to the grey fabric found earlier) dominate at 5%. This trend is also noticeable in early 2nd century deposits at Verulamium (Wilson 1972, fig 114, 508-13) and further afield at Chelmsford (Going 1987, 108). IVAs in the local Copthall Close Grey and Highgate C wares are rare, but also increase (<2% each).

The diversification of bowls in fine ware fabrics, first noted in the Flavian period, continues here and is reflected by the illustrated sherds. It is also typical of Chelmsford, particularly in London, Local Mica-dusted and Eggshell wares *(ibid,* 108). Plain-rim dishes and forms copying decorated samian (IVJ; IVD, 1048; IVE, 1049) continue from RCP 2. Other dishes or plates are rare and the suppliers are generally the same as for the 1st century, although the flat-rim plate (VC, 1056) joins the London ware repertoire.

In common with the jars, rare black-burnished bowls and dishes (Fig 180, IVG, IVH, IVJ) occur in contexts immediately below Hadrianic fire deposits.

Cups

Fig 148; Fig 172, No 1057

Local Eggshell ware cups are the most common of the non-samian types (1057), with rare examples in Verulamium White ware, and Fine Reduced wares. However, samian remains the principal source of cups, accounting for 87% of the total.

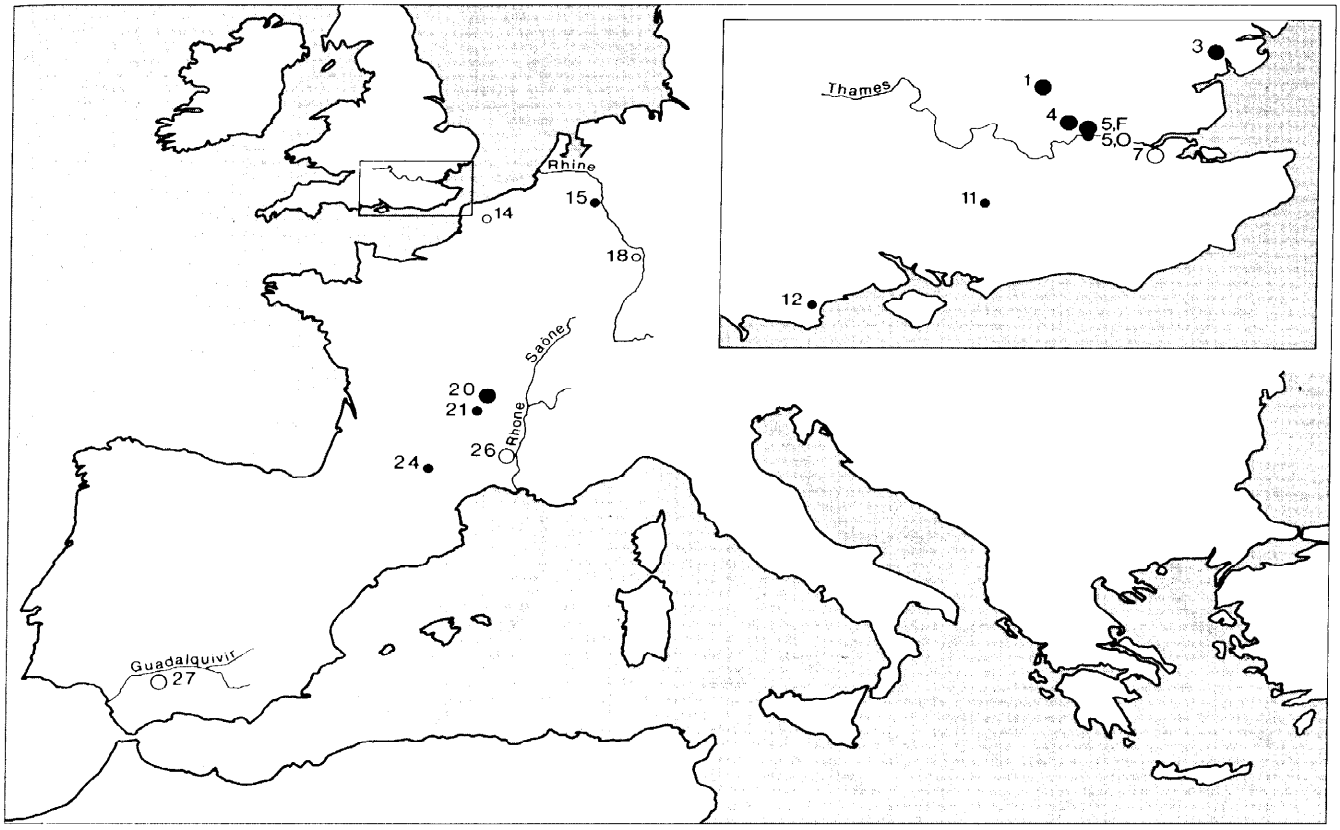


Fig 173 Location map of ceramic source areas for Roman Ceramic Phase 4

Mortaria and other forms

Fig 172, Nos 1058-60

All the mortaria here have hooked flanges (HOF). By the early 2nd century those produced in Verulamium Region White ware, which account for 92% of the mortaria, have a flaring flange (1058). This is particularly noticeable on those stamped by Matugenus and Saturninus, who operated 90-125 and 100-30 respectively. This pattern is similar to west Kent (Pollard 1988, 66), but in direct contrast to Chelsmford, where Colchester is the only supplier of mortaria (Going 1987, 108). Gillam 238 mortaria are still current (6%).

Samian

Fig 148; Fig 153

Plates continue to dominate the samian assemblage. Here, as for the remainder of the sequence, bowls and cups occur in fairly equal proportions (Fig 148). There is, however, an apparent increase in mould-decorated bowls, and Drag 29 is just exceeded by Drag 37 at 10% of the total. Cups continue to be primarily Drag 27s; Drag 33s have marginally increased, while Drag 24/25s are virtually absent. Similarly, plate forms common in the 1st century – such as Drag 15/17– are in the minority. Drag 18 is still the most common dish form, with Drag 18/31 gaining in popularity. In the City, Drag 35/36 appears to increase dramatically at this time.

7.7 Roman Ceramic Phase 4: Hadrianic *c* 120-40

Considerable evidence for pottery in use during the Hadrianic period is gained from *in situ* debris, resulting from a fire throughout the City in *c* 120/5. The dating for this fire is based on evidence from a variety of sites throughout the City.

The Hadrianic period sees the beginning of wider regional trading patterns in southeast England. In the City there is a decline of the local coarse ware industries (Fig 143, particularly reduced types) which played an important role in the 1st and early 2nd century, and pottery now regularly comes from as far afield as Dorset. Conversely, imported fine wares, apart from Cologne ware, are virtually absent and local types become more popular. Imported amphorae can still be identified.

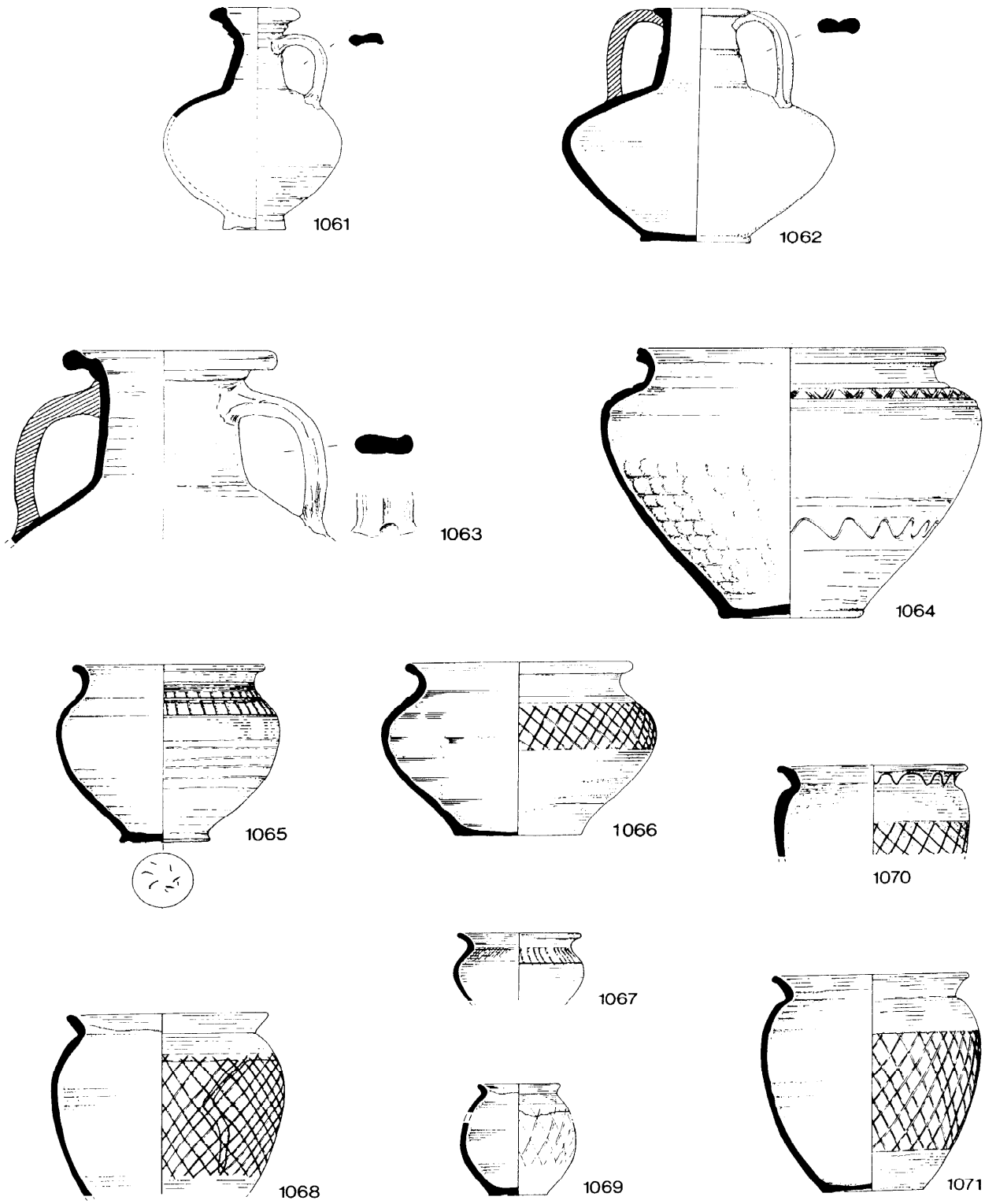


Fig 174 Roman Ceramic Phase 4, flagons, nos 1061-3; jars, nos 1064-71 (Scale 1:4)

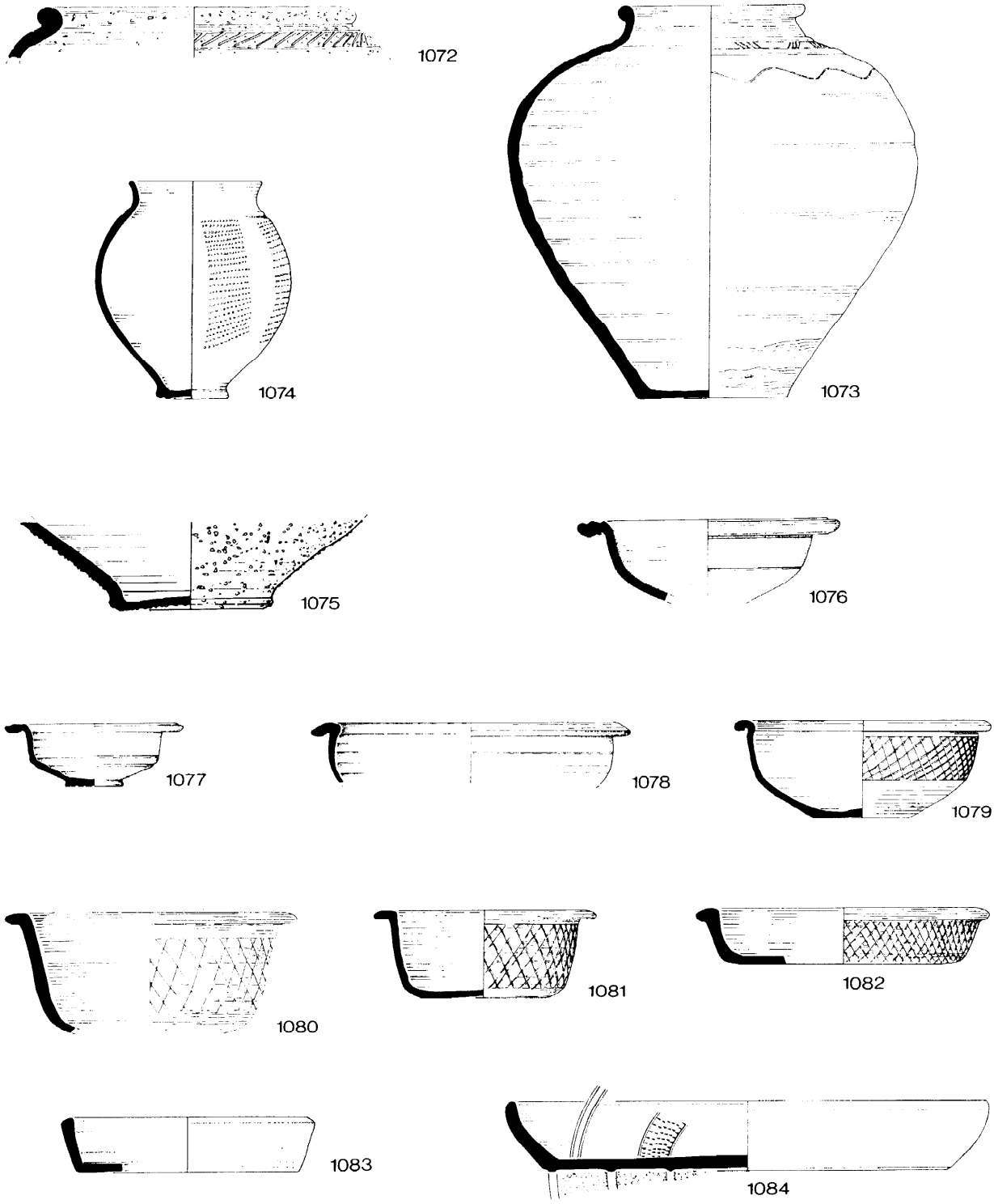


Fig 175 Roman Ceramic Phase 4, jars, nos 1072-3; beakers, nos 1074-5; bowls/dishes, nos 1076-84 (Scale 1:4)

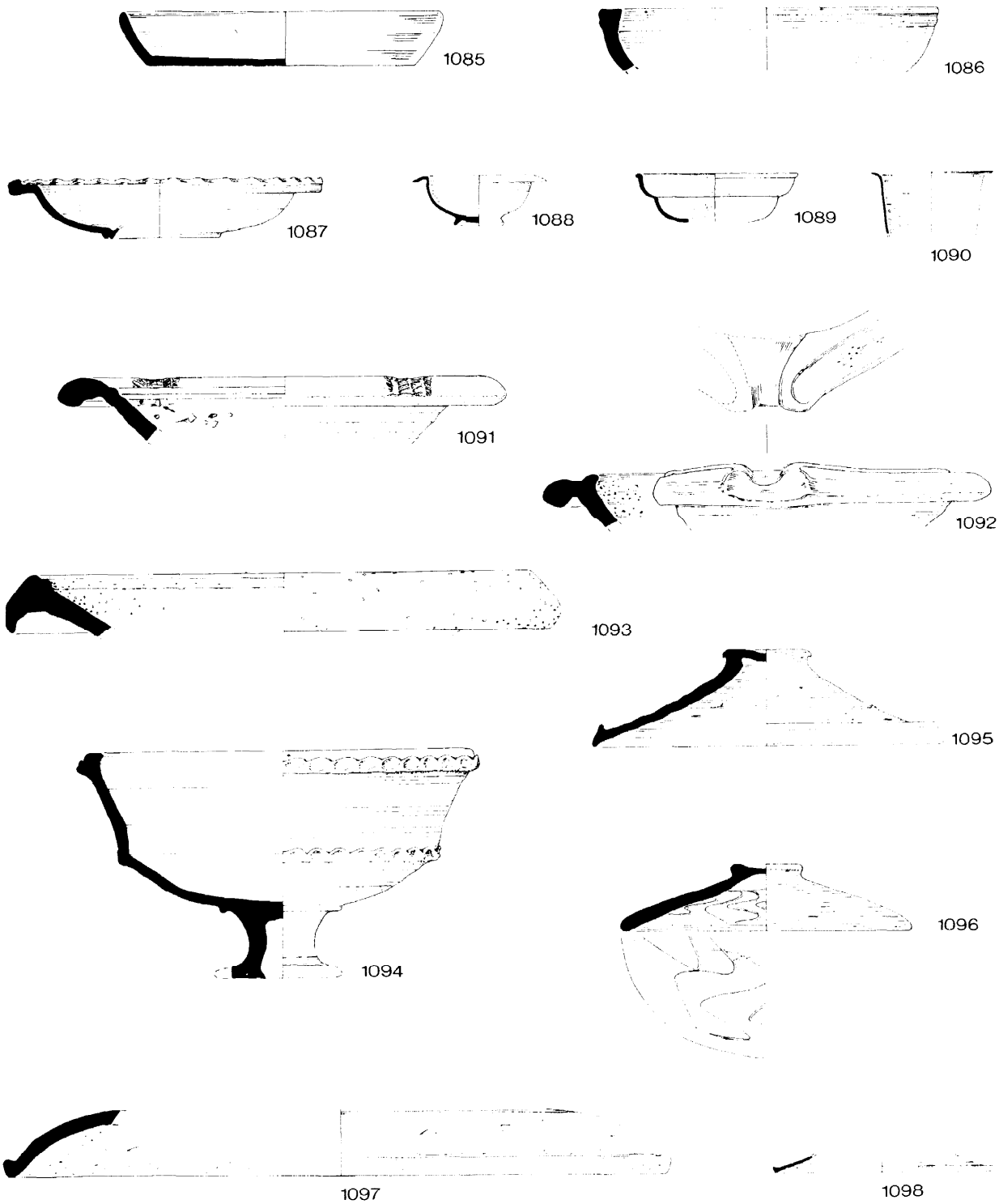


Fig 176 Roman Ceramic Phase 4, bowls/dishes, nos 1085-8; cups, nos 1089-90; mortaria, nos 1091-3; other forms, nos 1094-8 (Scale 1:4)

There is an increase in Black-burnished, Local Mica-dusted and Verulamium White Ware bowls, with some minor fluctuations throughout the southeast. At Southwark (Bird *et al* 1978, 450-3) and Verulamium (Insula XIV, Wilson 1972, figs 118-20) the pattern is essentially mirrored; apart from the mica-dusted wares, similar trends can also be seen in Chelmsford (Going 1987, 110). In contrast, Kent relies almost entirely on local wares (Pollard 1988, 87).

Sources and trade

Fig 173

Amphorae

Fig 144

Amphorae appear to have increased dramatically during this period, though this merely reflects the two nearly complete vessels recovered from the fire destruction level at 5-12 Fenchurch Street: a developed Haltern 70, and a small, narrow variant of London 555. The Dr 20 amphora, though decreased in number from RCP 3, is still the most common type (39%), followed by Haltern 70, Gaulish amphorae (PE47) and London 555.

Oxidized wares

Fig 145

Although still small, North French/Southeast English mortaria and flagons are represented by a greater share of the assemblage than before, and this is almost entirely restricted to the Gillam 238 and developed-rim mortaria rather than the flagons. Other imports are from the Rhineland (RHMO-2738). The remainder of the assemblage comprises Verulamium region products (83%) and small quantities of Local Oxidized wares (LOXI). The most obvious feature of groups of this date is the small but distinct decline in Verulamium Region White ware (VRW 81%, from 87%), together with the increase in Verulamium Region Coarse White-slipped ware (VCWS) which although rare has nearly doubled in proportion to reach 2%. The significance of the growing importance of LOX1 in terms of source is not clear, for while it is a chronological indicator of the Hadrianic period it may represent an unknown kiln within the Verulamium region.

Although Verulamium products are never as common in Chelmsford or Kent as here, they decline in both those areas too. In Chelmsford they are replaced by Colchester vessels (Going 1987, 110), while in west Kent VRW is supplemented by oxidized fabrics with cream slips during the Hadrianic and early Antonine periods (Pollard 1988, 86). At Verulamium itself VCWS appears to be current at this time (Wilson 1972, fig 116, 559-62) alongside the predominant VRW.

Reduced wares

Fig 146

The Hadrianic period sees a major change in the sources represented throughout Britain, and this pattern is reflected in the City. Black-burnished wares (BB1, BB2, BBS) are an important indicator of the period, accompanied by a decrease in local wares, particularly those produced by the small industries.

Highgate Wood kilns continue as the main reduced ware producers in this period, although absolute quantities are slightly down on RCP 3; only HWC is present in any quantity. There is a slight increase in the later Highgate C+ fabric, whose lattice decoration is related to the introduction of black-burnished wares. Pottery from the Alice Holt Surrey area has decreased by almost half, to 11%.

In contrast, black-burnished pottery makes up 10% of the reduced wares. In the previous period nearly all of the very small quantities of black-burnished wares came from Dorset. In RCP 4, however, the majority are BB2 from Colchester (BB2-1462). North Kent Shelly ware accounts for nearly one-quarter of the assemblage, but this reflects the heavy weight of individual storage vessels; by Eves, they represent only a small proportion of the jars. It is difficult to assess residuality, but a similar trend is seen in Southwark (Bird *et al* 1978, figs 198-9, 1539-41), and it continues into the 2nd century in west Kent (Pollard 1988, 40).

Fine wares

Figs 147a-c

Samian and other fine wares generally occur in equal amounts (Fig 147a). Samian stamps from Les Martres-de-Veyre occur for the first time at Newgate Street in *in situ* fire groups. Imports (Fig 147b) account for almost one-third of the non-samian fine wares, but this figure is over-inflated by the exceptional occurrences of several vessels in central Gaulish Pompeian Red ware fabric 3, which normally occurs in small quantities during the Hadrianic period. Generally, imports are rare, although material from east Gaul represented by Cologne Colour-coated ware increases.

Romano-British fine wares (Fig 147c) are dominated by Local Mica-dusted wares which, with other local types (Local Marbled, Local Eggshell and London wares), account for 41% of the non-samian fine wares. Other Mica-dusted wares (MICA) are also common. This is in direct contrast to Chelmsford, where mica-dusted wares appear to be decreasing, although the two sites share a reduction in London-type wares (Going 1987, 10). Fine Micaceous wares are no longer diagnostic.

Assemblage composition

Fig 148

Once again, jars and flagons are the two most common form groups and together with bowls are

basically constant from RCP 3; beakers decrease by over half from the previous period, to 5%.

Flagons

Fig 149; Fig 174, Nos 1061-3

The Verulamium region dominates the flagon assemblage (96%) and is the only identifiable source area. Most vessels are in white ware, with some white-slipped and mica-dusted examples.

Eighty percent of the flagons are ring-neck IBs, with a sudden increase in those with prominent upper rings (IB5, 1061); they range in quantity from approximately 50% at Newgate Street to over 80% at 5-12 Fenchurch Street. As a consequence, the trumpet-mouth IB2, most common during the Flavian and Trajanic periods, has decreased. Similar trends can be seen at Southwark with the IB5 present in Hadrianic deposits (Bird *et al* 1978, fig 200, 1585, 1587); at Verulamium contexts dated *c* 130-40 contain numerous vessels similar to the IB5 (Wilson 1972, fig 116, 562, 564, 568-9, 573), a form Wilson (1984, 271) dates to *c* 130-60, together with IB7s *(ibid,* eg fig 82, 1936), which generally emerge in early Antonine groups in the City and at Verulamium. As seen on Fig 149, other flagon types, apart from the ID, continue.

Jars

Fig 150; Figs 174-5, Nos 1064-73

The majority of jars were supplied by kilns at Highgate (HWC, 37%). The distinguishing feature of these groups is the increase of everted-rim jars (IIF, 1068-71) in Highgate C and C+. (16%), followed by BB2 (7%) and BBl (2%).

The only other necked jar form which is still important from RCP 3 is the burnished IIE (1065-7). These show a tendency toward wider diameters than before, and some variants have a lattice decoration rather than the more typical horizontal burnishing (cf Wilson 1972, fig 117, 610).

First century bead-rim jars (IIA) must certainly be residual now, apart from rare examples in BBl and BB2 (l%), with storage jars occurring in North Kent Shelly ware (IIM, 1072, 2%) increasing and, for the first time, present in Alice Holt ware (SJ, 1073, 3%).

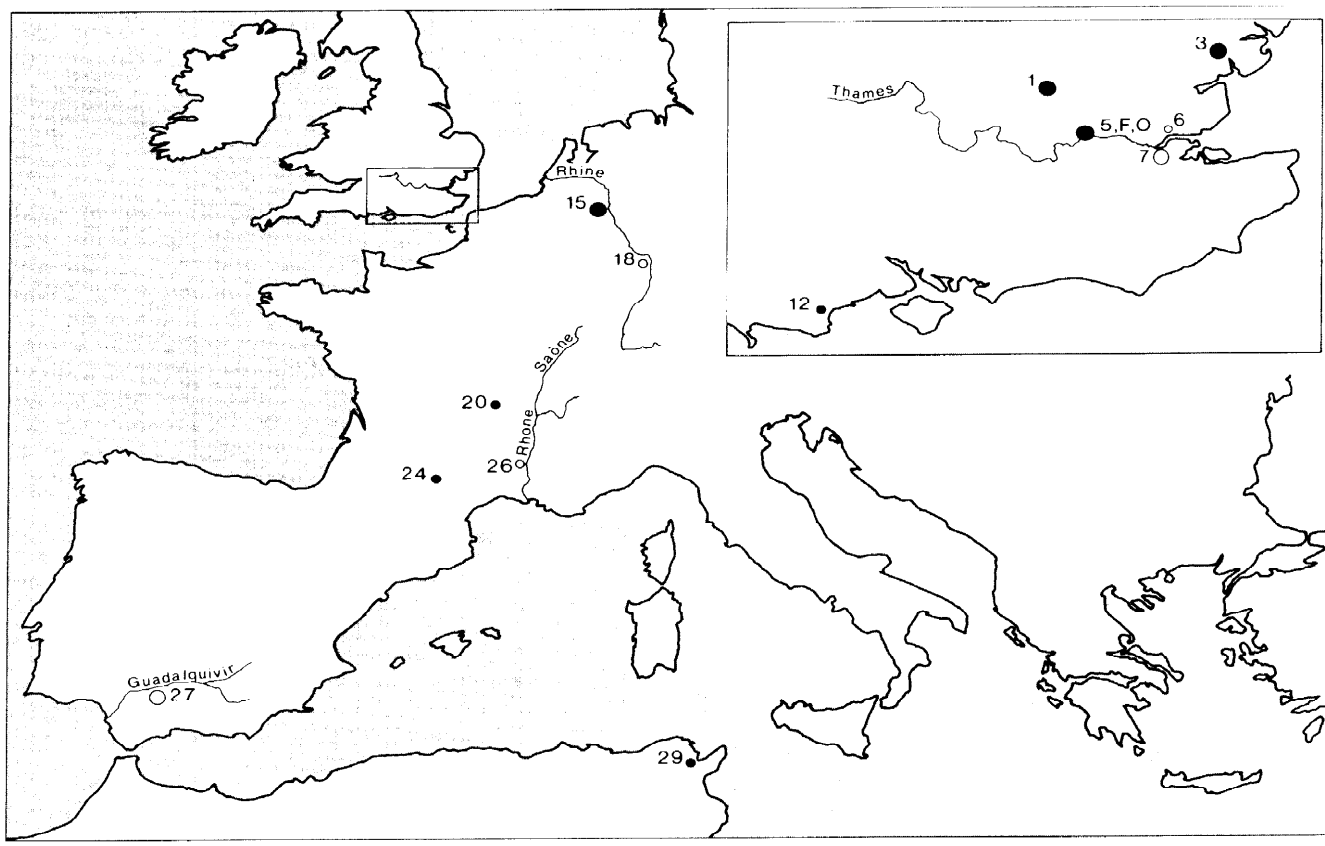


Fig 177 Location map of ceramic source areas for Roman Ceramic Phase 5

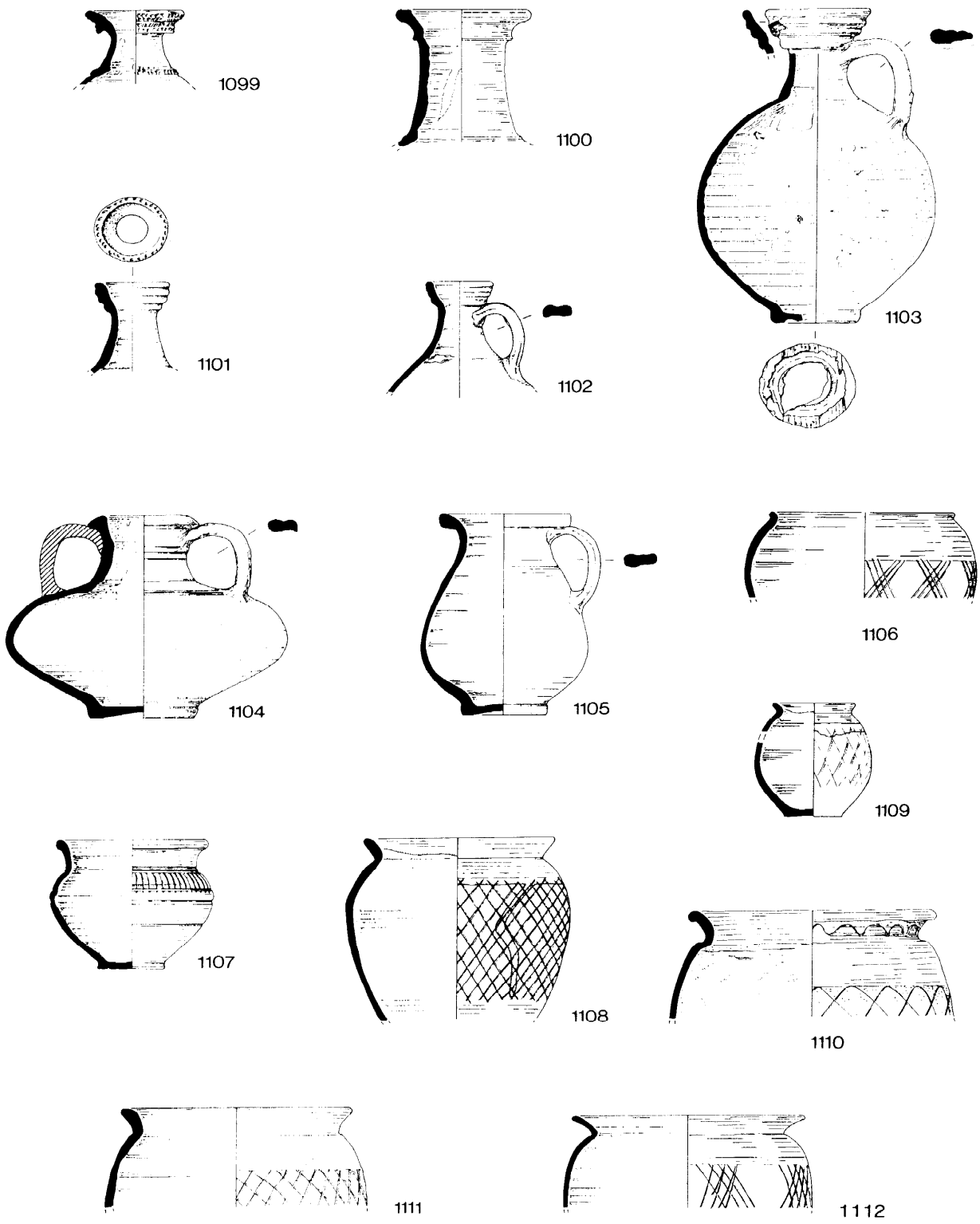


Fig 178 Roman Ceramic Phase 5, flagons, nos 1099–1 05; jars, nos 1106–12 (Scale 1:4)

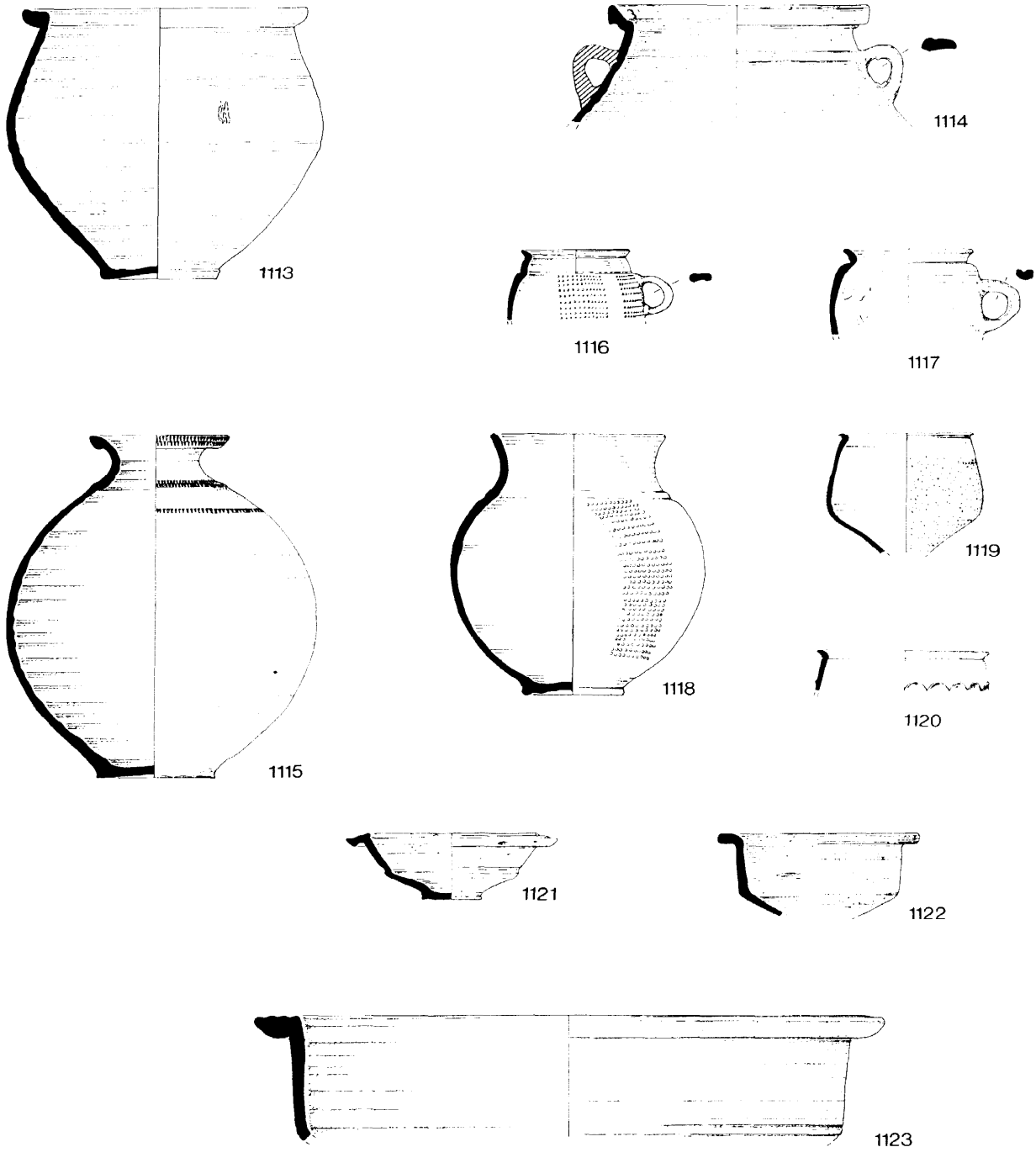


Fig 179 Roman Ceramic Phase 5, jars, nos 1113–15; beakers, nos 1116–20; bowls/dishes, nos 1121–3 (Scale 1:4)

Beakers

Fig 151; Fig 175, Nos 1074–5

Highgate C poppy beakers (IIIF, 1074) dominate the assemblage, accounting for two-thirds of the vessels; this is mirrored at Chelmsford (Going 1987, 110). Ovoid IIIBs have decreased from 30% to 11%, and may well be residual. Cologne roughcast vessels are the only typical imported ware (1075, 3%).

Bowls and dishes

Fig 148; Fig 152; Figs 175–6, Nos 1076–88

The ratio of bowls and dishes, and samian and non-samian vessels, is constant from RCP 3 (Fig 148). The most distinctive feature of groups of this date in the non-samian wares is the large increase in lattice-decorated vessels with triangular rims in BB2 (IVH, 1082) and flat rims in BB1 (IVG, 1080–1). Together they account for 19% of the group. Round-bodied IVFs (1078-9) and moulded-rim IVAs (1076-7) each comprise a similar proportion of the assemblage. For IVFs, this constitutes a decrease from 49% in the Trajanic period to 20% here and mirrors the reduction in local suppliers; for the IVAs it represents a rise, principally reflecting the increase in Verulamium Region White ware products which comprise half of the IVAs. Plain-rim dishes (IVJ, 1083-5) have increased, and this is accounted for by Local Mica-dusted, Pompeian Red ware fabric 3 and, to a lesser extent, black-burnished wares. Other vessels types can be seen on Figs 152 and 176. Decorated imitations of samian forms have declined and are no longer diagnostic.

Cups

Fig 148; Fig 176, Nos 1089–90

The rare cups which are present are almost entirely samian (Fig 148, 80%), with the remainder in Local Eggshell ware (VIC, 1090). Local Marbled vessels imitating Dr 27 (VIA, 1089) are present in unquantified assemblages.

Mortaria and other forms

Fig 176, Nos 1091–8

The Hadrianic period sees a development of the hooked-flange rim (HOF). In the Trajanic period the internal beading was normally high on the flange; it is now set lower and the flange is less hooked and more flared. An example in Verulamium Region White ware, which is still the most common mortarium source (72%), stamped by Lallaius (90–130), is illustrated here (1091). The second most common sourced group comprises mortaria from northern France/southeast England (12%). This includes the now residual Gillam 238, and more importantly the typically Hadrianic developed-rim Gillam 238 (1092); a Rhineland source is also illustrated (RHMO-2738, 1093).

Lids in local oxidized wares are diagnostic of the period (1095). Tazze, restricted to Verulamium Region wares (1094), peak and account for *one*-quarter of the group.

Samian

Fig 148; Fig 153

Bowls, dishes and cups occur in generally similar proportions as in RCP 3 (Fig 148), but the most common plate is Drag 18/31, although Drag 18 is still found in some quantity. Mould-decorated bowls are also increasing, mainly represented by Drag 37 with Drag 29 and Drag 30 unrepresented by Eves. The balance in cups is changing, with slightly more Drag 33s than Drag 27s.

7.8 Roman Ceramic Phase 5: Early Antonine c 140-60

Many of the fabrics and forms present in Hadrianic groups persist into the early Antonine period, but their proportions differ. Regional coarse wares again play a major role, although local fine wares remain significant. Imports in general are uncommon, but amphorae are still represented.

At the time of publication there is an apparent dearth of well-dated mid to late Antonine groups in the City. Nevertheless, the large Severan waterfront deposits at New Fresh Wharf (Richardson 1986) provide comparative material for the early Antonine period. Without sequences definitively dating beyond *c* 160 it is difficult to examine the demise of the major industries, Verulamium and Highgate Wood, supplying London during the early Roman period. However, both industries were declining by the mid 2nd century (Symonds & Tomber 1991).

Sources and trade

Fig 177

Amphorae

Fig 144

By the early Antonine period, amphorae have decreased in quantity and on many sites are less varied. The Dr 20 is still the most common type, although reduced in numbers, and the Gauloise amphorae (PE47) are the second most common *on* most sites. Cam 186 are also present in significant quantities. Relative proportions of amphora types are again distorted by a pit group, in this case at 28-32 Bishopsgate, which contained nearly complete examples of large Rhodian style Cam 184 amphorae and a North African 'Piccolo' amphora (Tyers 1984a, 371). While North African amphorae are uncommon in London at this date, sherds can be identified from other City sites and elsewhere in the Empire.

Oxidized wares

Fig 145

Quantities of North French/Southeast English mor-

taria and flagons have fallen, while rare imports from the Rhineland (RHMO-2835) continue; this corresponds to patterns of importation seen among the fine wares. At just over three-quarters, the Verulamium region still represents the bulk of the oxidized wares. The white wares remain the most common of the Verulamium products, but their dominance is radically reduced by 20% from the Hadrianic period. In contrast, Verulamium Region Coarse White-slipped ware increases by 13% from the preceding period. Similarly, the Local Oxidized wares, which may have a source in the Verulamium region, have increased almost three-fold. North Kent may be represented by a possible continuation of the Hoo tradition, evidenced by the rare North Kent White-slipped ware.

Reduced wares

Fig 146

Rare sherds of North Gaulish Grey wares occur from RCP 3, but a fabric similar to the later material found at New Fresh Wharf (Richardson 1986, 106-9) is present for the first time. This indicates that although predominantly late Antonine or Severan in date, some may have arrived as early as the mid 2nd century. The remainder of the material is Romano-British. For the first time the local kilns at Highgate Wood fall into second place, after black-burnished wares.

The most diagnostic feature of early Antonine, as opposed to Hadrianic, groups is the proliferation of black-burnished fabrics and therefore sources (35%). Dorset supplies only a small proportion, while Colchester (BB2-1462) accounts for over one-quarter of all reduced wares. A number of the remaining black-burnished wares probably originate in northern Kent (BB2-2759, BB2-2768, BB2-2238). Most significant among these is BB2-2238, which is likely to be the precursor of the later industry noted from Severan groups at New Fresh Wharf with a proposed source in the Cliffe peninsula area *(ibid,* 127). North Kent Shelly ware is still present, although slightly reduced from RCP 4, and an Essex source is represented by small quantities of shelly pottery (SESH) which in Essex is basically restricted to the 1st century (Going 1987, 10).

Fine wares

Figs 147a-c

The principal imported fine ware is still samian (Fig 147a), which for the first time includes vessels from 2nd century production at Lezoux. Montans is well represented, due to the nearly complete vessel from 28-32 Bishopsgate. Marsh (1981, fig 11.7) identified a second influx of samian into the City during the early Antonine period; our material may be just marginally too early to reflect this pattern. Non-samian imports are again high (12% of non-samian fabrics), but apart from the Cologne beakers are individually small and probably residual (Fig 147b).

Romano-British fine wares (Fig 147c) are still dominated by mica-dusted wares, both local and non-local, which account for over half of the non-samian fine wares. However, their distribution is uneven from site to site and some may be residual. Rare Colchester products were present in the Flavian phase and they are again represented here. Even rarer sherds of Nene Valley Colour-coated ware are also present. Although fine ware production in the Nene Valley commenced in the mid 2nd century, it rarely reaches London until the late 2nd or early 3rd century. The material here may well be intrusive in contexts at Newgate Street and therefore has not been included in the corpus, nor on Fig 147c.

Assemblage composition

Fig 148

The only significant change in vessel composition between Phases 4 and 5 is the increase in bowls by 10%, which continues a trend evidenced from RCP 1B. Rouletted decoration is diagnostic of the period and occurs on several types of vessel.

Flagons

Fig 149; Fig 178, Nos 1099-105

Verulamium maintains its monopoly of flagons, accounting for 89% of the assemblage, with rare vessels in fine and reduced fabrics. The variety in forms continues from RCP 3 and reflects trends that are found throughout southeastern England, including Verulamium, Southwark, Chelmsford and parts of Kent. The most common form is the ring-neck flagon: the short-expanding IB7s (1101-3) are well represented by at least 30% in both Verulamium Region White and Coarse White-slipped fabrics. This contrasts with Verulamium, where white examples greatly out-number slipped vessels (Insula XIV, Wilson 1972, fig 122). The IB5s, common in RCP 4, are virtually absent. Other types present are shown on Figs 149 and 178.

Jars

Fig 150; Figs 178-9, Nos 1106-15

Most of the jars in this period are supplied by BB2 (26%) and the local Highgate C (44%) industries, although a greater proportion of Verulamium region oxidized jars are present than in previous groups (11%).

By far the most common jar type of this period is the everted-rim jar with lattice decoration (IIF, 1108-12) in BB2 (23%), Highgate C and C+ (15%) and BBl (3%). Vessels with grouped latticing (eg IIF6, 1112) which were scarcely present in Hadrianic groups are increasing in quantity here, Other necked jars (IIC, IID) have noticeably decreased. The burnished IIEs in Highgate C ware have decreased slightly but are still diagnostic (1 107).

Additional jars are not common but include a range in Verulamium region fabrics (IIK, 1114; IIR, 1115). The neckless jar (IIH, 1113) is rare in the City but is paralleled at Verulamium (Wilson 1972, fig 125,

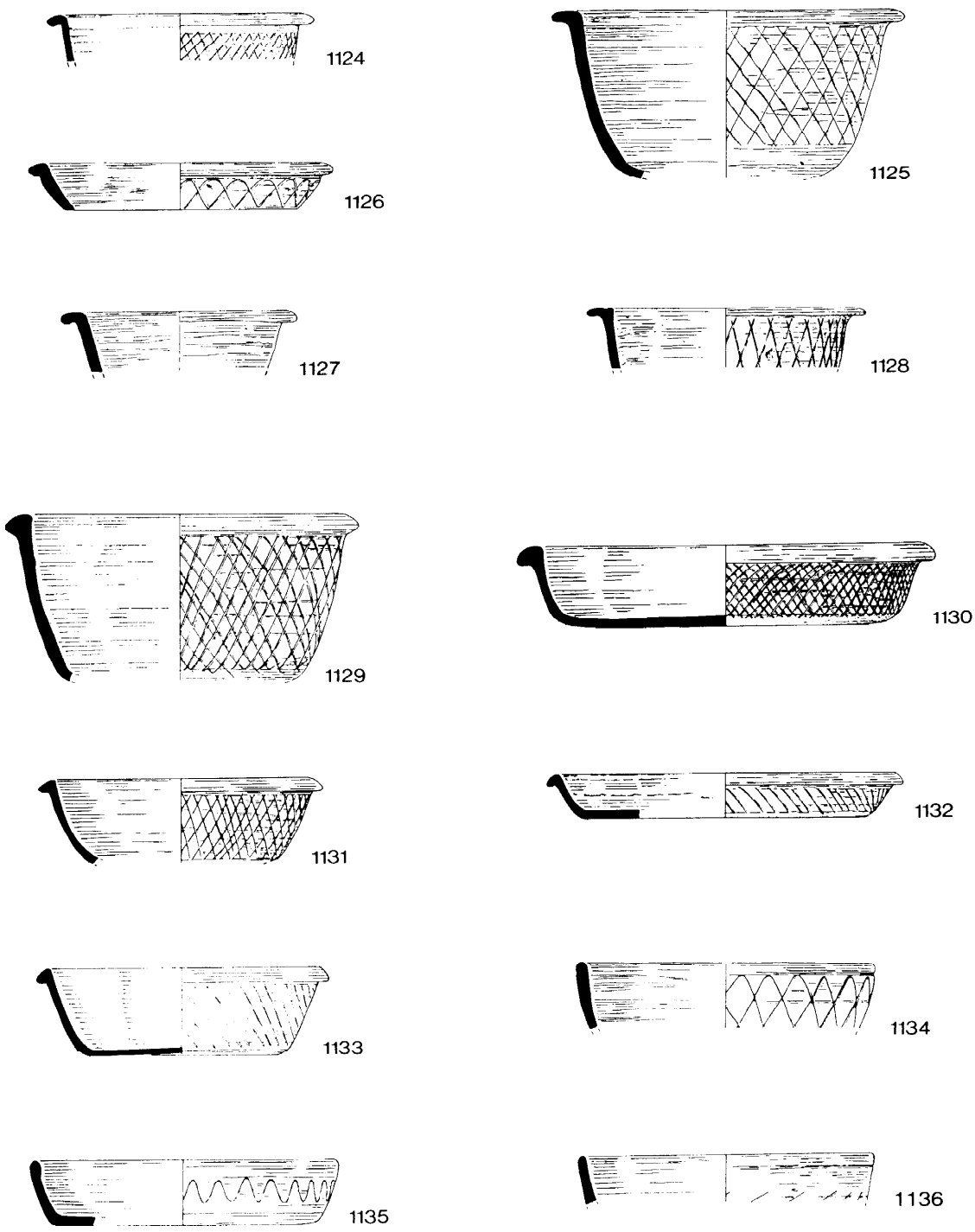


Fig 180 Roman Ceramic Phase 5, bowls/dishes, nos 1124-36 (Scale 1:4)

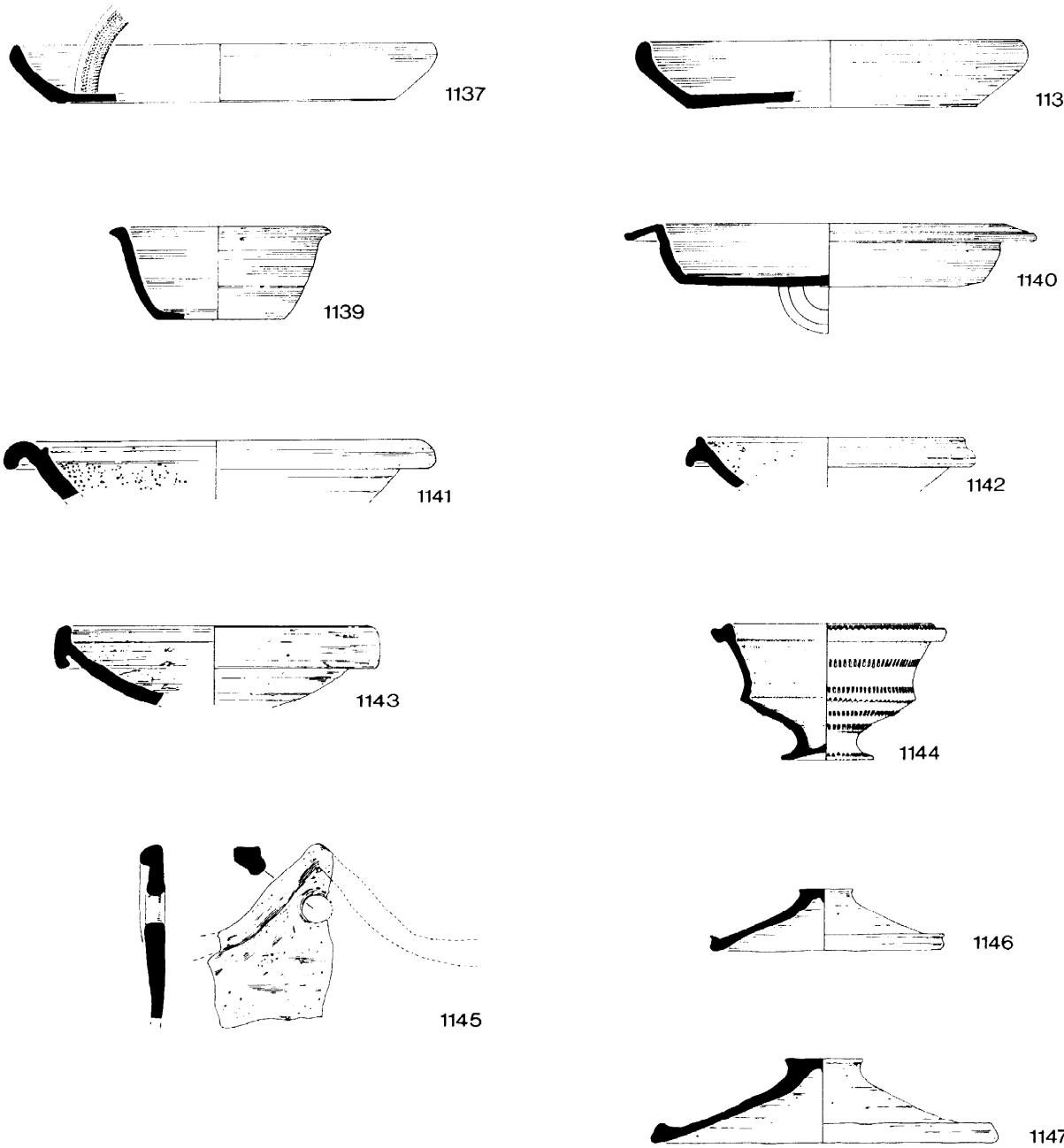


Fig 181 Roman Ceramic Phase 5, bowls/dishes, nos 1137-40; mortaria, nos 1141-3; other forms, nos 1144-7 (Scale 1: 4)

897-905) and Southwark (Marsh & Tyers 1978, 562).

Beakers

Fig 151; Fig 179, Nos 1116-20

Highgate is still the main supplier of beakers and vessel forms are very similar to those of the Hadrianic phase. Highgate C poppy beakers (IIIF, 1118) continue to dominate and comprise half the group. Neckless IIIEs (sometimes with handles) are also typical (1116- 17). The majority of Cologne vessels are roughcast, bag-shaped beakers (1119), occasionally folded, although barbotine decorated vessels are also present in small quantities (1120). Hunt-cups from the same sources are apparently absent from London's early Antonine deposits. However, at Verulamium similar vessels may be present in the mid 2nd century, with at least one stratified example of this date from Insula XIV (Wilson 1972, fig 122, 793). As in Chelmsford (Going 1987, 110), rare body sherds of roughcast beakers from Colchester are also present during this phase.

Bowls and dishes

Fig 148; Fig 152; Figs 179-81, Nos 1121-40

By the early Antonine period most vessels are in non-samian fabrics, continuing the decline in samian ware (Fig 148).

Bowls are dominated by black-burnished products, particularly the triangular-rim IVHs in BB2 (1129-33), which comprise almost half of the non-samian fabrics. Most still have acute lattice decoration (IVH1-4), but rare undecorated vessels (IVH5-7) appear. The majority are from Colchester; north Kent products are present and tend to be typologically distinct with thinner walls and, occasionally, decorated with single diagonal line decoration (eg 1133). Flat-rim bowls (IVG, 1125-7) in BB1 with lattice decoration are also present. The diverse range of decoration on the IVGs and IVHs is illustrated here. A rare example of an incipient-flange bowl (Gillam 226, 1128) is also present, as are imitations of IVG/H in the Highgate C fabric (1124).

Moulded-rim IVAs (112 l-3) are the second most common type and comprise just over one-quarter of the bowls. In contrast to the IVGs and IVHs they are almost entirely in oxidized fabrics, many to cater for serving rather than cooking. Most are in Verulamium Region White ware (17%) and these have distinctively larger diameters than in earlier phases; examples in Local Oxidized wares (5%) are also diagnostic.

Dishes and plates are represented by plain-rim dishes (IVJ, 1134-8), mostly in black-burnished fabrics and mica-dusted wares. A nearly complete Pompeian Red ware fabric 3 dish from the pit at 28-32 Bishopsgate is also illustrated here (1137).

cups

Fig 148

Rare cups are present, most of them in samian (83%).

Mortaria and other forms

Fig 181, Nos 1141-7

Although the Verulamium mortaria are declining in quantity (67%), typological developments provide a valuable chronological indicator. In common with the Antonine fire assemblage from Verulamium (Insula XIV, Wilson 1972, fig 129, 1011-16), the majority of the City's white ware mortaria have a hooked flange with a high rounded rim and low internal beading (HOF, 1141), but bead-and-flange types (BEF, 1142) are also present. Hammer-head mortaria from the Rhineland (RHMO-2835, HAM, 1143, 9%) are present for the first time in early Antonine groups. These can be clearly distinguished from the 1st century Rhineland products, and are more comparable to the range of Rhineland mortaria found in Severan deposits at New Fresh Wharf (Richardson 1986, 112, cf 1.78). Unsourced mortaria are more common than in previous phases. It is worth noting that mortaria from Oxford and the Nene Valley are absent from all the assemblages discussed here.

Lids in the Local Oxidized fabrics are particularly diagnostic of the period (1146-7), as are the buckets or cauldrons in South Essex Shelly ware (1145).

Samian

Fig 148; Fig 153

Plates outnumber cups, but only marginally (38% to 32%). The majority of these plates are Drag 18/31, but a relatively large number of predominantly 1st century Drag 18s still survive. Unlike Chelmsford, where cups are almost exclusively Drag 33, with occasional residual Drag 27s (Going 1987, 110), City assemblages still contain a high proportion of Drag 27s; relative proportions vary from site to site. The dip in Drag 27s during RCP 4, and their increase here, may indicate that a proportion of them are residual, but this cannot be determined with any certainty since their production centre has not been identified. Decorated bowls consist almost entirely of Drag 37s, while undecorated examples include the first occurrences of Drag 38. Other typically Antonine forms, such as Drag 45 mortaria, are absent from all of these early Antonine groups.

7.9 Conclusions

The establishment of *Londinium* in *c* 50, at the centre of a major road system, corresponds with the first evidence for a bridge across the Thames. For most of its history, London has been a flourishing port, and in the Roman period it was an important communication centre. This is reflected in the diversity and richness of pottery types, which encompass native and Romano-British traditions and, particularly, imports from the Continent and the Mediterranean region.

In Roman Britain, Continental and Mediterranean imports (apart from samian) were largely restricted to major ports and/or military settlements, while absent from small ports. A range of imports similar to those

found in the City can be rivalled on sites such as Richborough, Fishbourne, Colchester and Kingsholm; only the latter two may equal London in quantity, although lack of quantified data makes assessment difficult.

A relatively high proportion of samian was found in London during the 1st century, in contrast to small towns like Chelmsford (Going 1987, 106). This is presumably due to the combined effects of the ware's accessibility - which largely mirrors the productivity of the individual production centres (Marsh 1981, 206) - and the greater prosperity or degree of Romanization of much of the population. Other fine wares, such as Lyon products, which were consistently used in London during the pre-Flavian period, were imported in smaller numbers and are rarely found on low status inland sites. Rare exotica, such as *olearia,* may well have entered London as personal possessions (cf Pollard 1988, 37).

Roman London undoubtedly served as a redistribution centre for an unspecified, but presumably defined, hinterland within the southeast. In the City, this is reflected by amphora distribution. During the pre-Flavian period the distribution of amphorae was concentrated in commercial areas, firstly at the waterfront, followed by the forum area and nearby sites (Chadburn & Tyers 1984, 23, fig 12). Outside the town, a rigorous survey of the distribution of London products would clarify the geographical extent of this hinterland, and the recognition of some London products in both Kent and Chelmsford demonstrates this. Although some London products also reached Colchester, the general disparity between London and Colchester assemblages illustrates the separate provisioning of other ports in the south. Further afield, in landlocked areas and the Northern frontier, London would have also played a role in ceramic supply (Fulford 1989, 180), as shown by the identification of Highgate C poppy beakers from Lincoln.

London's location was critical for the supply not only of imports from abroad, but also of non-local Romano-British wares. With the exception of Verulamium region products, the majority of non-local pottery arrived via the port of London. For example, during the pre-Boudiccan period, both Hoo and Eccles ware were probably transported along the Medway and then to London. From a southeasterly direction, the Alice Holt Surrey wares could have come via the River Wey and then the Thames. In the 2nd century, black-burnished wares, from both Dorset and Colchester, probably reached London via a coastal route.

The importance of local industries to London's pottery supply is witnessed by a variety of grey ware producers during the 1st century, and a growing number of fine ware industries during the later 1st and 2nd centuries. Of the grey wares, Early Roman Sandy, Highgate Wood and Copthall Close wares were apparently distributed outside London, while the Local Eggshell, Mica-dusted and London wares also travelled. However, the population of London would have required large numbers of ceramics and these local concerns arose primarily to satisfy their own needs. In contrast, white wares were exclusively supplied by industries outside the immediate vicinity of London- The history of the nearby potteries at Verulamium was largely influenced by London and they probably owed their scale of production to its requirements. The response to London's needs, at least in the case of coarse wares, with a pronounced change in form types during the initial period of Flavian growth, can also be seen in the movement from smaller to larger production centres.

Roman London appears to have been a planned city in which five main phases of development are identifiable between 50 and 160, each related to major changes in ceramic supply. This time span incorporates the period of London's maximum growth and size, for from *c* 150/60 the population appears to have contracted (eg Perring & Roskams 1991, 120; Sheldon 1975).

The pre-Boudiccan (RCP 1A) settlement largely clustered around the area east of the Walbrook, with the Walbrook forming a boundary, and in a ribbon development along the main east-west road (Williams 1990, 600). Although there are few preserved structural remains, the convergence of two Roman roads near the present London Bridge, and a wooden structure interpreted as a bridge pier support on the east side of Fish Street Hill, indicate the location of the first bridge, datable to *c* 50 (Merrifield & Sheldon 1974). This early settlement was destroyed by fire during the Boudiccan destruction of 60/1, and a distinct fire horizon marks its occurrence.

This foundation date of *c* 50 is supported by the lack of early fine wares and Gallo-Belgic forms found at Colchester and Fishbourne. In the City, development took place in the later 50s, as seen by the predominance of Neronian samian. However, slightly earlier occupation within the 50s may be attested by recent finds from Pinners' Hall where the earliest Highgate product (Highgate A) was identified. This was found in conjunction with early shelly wares (P Tyers, pers comm) previously unrecognised from the City but comparable to early deposits from Bow (Sheldon 1971, fig 4).

Most pre-Boudiccan assemblages are small in comparison with those from the later 1st century, indicating a smaller population. Despite this, the pre-Boudiccan period was the time of greatest ceramic importation from outside Britain, Most of these imports came from south and central Gaul (samian and Lyon ware respectively) or southern Spain. This reflects the lack of indigenous potters able to supply Romanized vessel types, particularly table wares, as well as the importation of foodstuffs in amphorae.

The local potteries at Highgate Wood were able to meet the demand for cooking pots through native grog-tempered wares, Flagons and mortaria, mostly Romano-British in origin, were predominantly supplied by producers outside London. During this period flagons were a common vessel type, second only to jars, and indicate a population whose tastes were already highly Romanized. On the basis of early

building techniques, Per-ring and Roskams (1991, 107) have suggested that much of the population of early London may have been from Gaul or Italy; the establishment of a local ceramic industry in London by a continental potter(s), probably from western Switzerland, also argues for an immigrant population.

Following the Boudiccan uprising, the provincial capital was moved from Colchester to London, a status which it maintained until 200. Structural evidence indicates a slow recovery, and it was not until the Flavian period (RCP 2) that intensive activity can be identified, although assemblages of late Neronian pottery (RCP 1B) from, for example, 25-6 Lime Street, indicate some activity in the town between 61 and 70. Pottery differs subtly from that seen in the pre-Boudiccan period, with non-sigillata fine ware imports reduced or absent, changes in beaker forms and an increase in bowls within the coarse wares. Although the same general trends are present, these groups can be seen as intermediary, incorporating trends of both pre-Boudiccan and Flavian assemblages.

Between 70 and 80 London acquired the attributes of a major town. Milne (1985, 143) argues that London's status as a *municipium* is reflected by the scale of its waterfront, which represents official planning rather than development by individual merchants. At the same time, phase one of the first forum was established by *c* 75 (Marsden 1987) and bath houses were built along the waterfront and at the edge of the Walbrook Valley (Hall & Merrifield 1986, 19; Per-ring & Roskams 1991, 118). Occupation also spread west of the Walbrook, and an amphitheatre dating to the late 1st century was constructed (Frere 1988, 461). Plans for future expansion continued during the Flavian period, for between *c* 80/5 and 100 the adjoining site at Leadenhall, south of the forum, was cleared in preparation for the basilica and second forum (Milne 1992) and the waterfront was enlarged (Milne 1985, 27).

This expansion is reflected by the growing number of contexts and the larger size of assemblages which can be ceramically dated to the Flavian period. During this time imports continued, primarily samian ware and amphorae, with the major change being a greater dependence on larger industries such as Alice Holt and the urban potteries at Verulamium. By this time the population would have been composed of second generation inhabitants, and this growing degree of Romanization is seen in the cooking-pot forms.

Expansion and town planning continued throughout the Trajanic period (RCP 3). The basilica and second forum were completed at Leadenhall, and subsequent repairs were made to the structure (Milne 1992); the bath houses were enlarged and occupation was more intensive both east and west of the Walbrook (Hall & Merrifield 1986, 19, 25); the Upper Walbrook was developed for the first time (Maloney 1990, 119) and the waterfront again advanced (Milne 1985, 29). Pottery sources exhibit continuity from the Flavian period, but local products clearly dominate. By this time Britain had achieved a certain degree of economic independence in terms of ceramic production, and this is particularly evident from the diversification in the fine wares. Native traditions of grog tempering, previously dominant within the Highgate Wood industry, were replaced by Romanized sandy wares, and this is mirrored in the rise of bowls and jar forms.

A second wide-scale conflagration in London has been proposed for the beginning of the Hadrianic period (RCP 4), although on many sites fire debris cannot be tied to this event with the same precision as for the Boudiccan destruction. A second fire at the waterfront resulted in major reorganisation of the area in the mid to late 2nd century (Milne 1985, 29). Building activity continued and, with construction of the fort, the northern limits of the city were established (Hall & Merrifield 1986, 25). The pottery of this period shows a marked change that continued into the early Antonine period (RCP 5). In common with the rest of Britain, London was now receiving regional wares, such as BB1 and BB2, which were widely distributed throughout the Province. Britain's self-sufficiency was reflected in the small number of wares imported from abroad. However, the occurrence of pottery from Cologne heralded the importance of east Gaul and patterns of importation seen in the later Roman period.

In the western part of the City, the Hadrianic period was the last main phase of construction, for by the end of the Antonine period buildings had either been dismantled or allowed to decay, and in many areas dumps covered earlier occupation (Merrifield 1965, 46). Nearby bath houses in the middle Walbrook were dismantled in the late 2nd/early 3rd century, but may have been abandoned earlier (Perring & Roskams 1991, 120). Occupation continued into the 3rd century in the Upper Walbrook Valley (Maloney 1990, 122). The cumulative decrease in material from Highgate Wood and, to a lesser extent, Verulamium during the early Antonine era, which became more apparent in the period 160-80, presaged this decline. While the decline in these types may have been due, in part, to the influx of regional wares, the comparative rarity of assemblages dating to the later 2nd century also indicates a contraction in the population. The study of London's late Roman pottery, in relation to subsequent town development (Symonds & Tomber 1991), provides an important continuation to the trends seen here, and complements our understanding of early Roman London.

Appendix 1: Site Summaries

Whenever available, dating from samian and coins is not restricted to the particular features/layers included in the corpus, but includes all material from the phase in general. Site locations are indicated on Fig 182 (p 231). The samian stamps were identified by Brenda Dickinson; the coins by Jenny Hall of the Museum of London.

76-80 Newgate Street, EC1 (GPO75

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Funded by the Department of Environment and British Telecom

The site is situated on the north side of Newgate Street and excavations concentrated on an area *c* 16 x 20m associated with a major Roman street frontage to the south. Ten Roman periods were identified and the corpus draws upon the first eight, dating from *c* 50/55-160. Their summaries here are based on *The Early Development of Roman London West of the Walbrook* (Perring & Roskams 1991, 3-26). The periods follow a chronological sequence from I to VIII, sub-divided into phases which do not necessarily follow a strict progression (eg I.2 need not be later than I. 1).

The eight periods are distinct and two fire horizons provide important stratigraphic landmarks. Dating relies upon evidence from both the coins and stamped samian and this is summarized below. Periods I-III are pre-Boudiccan and most, but not all, of the contexts are sealed by a fire horizon. Periods IV to VII post-date the Boudiccan fire and the Hadrianic fire terminates Period VII; therefore a phase of reclamation, two periods of construction and three of modification span a period of 60 years. As can be seen from the summary of dating evidence below, much of the site suffered from slumping, which resulted in what were interpreted as intrusive finds. The treatment of the intrusive contexts and pottery has already been discussed (p 1). As can be seen from Table 2, the number of intrusive coins is relatively much higher than either coarse wares or samian stamps, the latter obviously relevant only to the earlier ceramic phases.

Building activity commences in *period I* with remains of a circular hut cut into the natural brickearth. No associated floors survived, but there was a contemporary ditch to the north, probably serving as a boundary. The alignment of the hut and ditch suggests that they predated the road. *Period II* (II.1) is marked by the cutting of a gully into the earlier pits. It was aligned at right angles to Roman Newgate Street and marked the first influence of that thoroughfare upon site activity. Building activity may be represented by stake-holes. During *Period III* parts of two rectangular timber buildings were constructed in the extreme south, near the street, Further north were found remains of two near-circular wattle and daub buildings, together with possible foundations of a third. All the buildings were destroyed by the fire and their spacing was such that the fire marking their demise seems unlikely to have been accidental. This, together with its date, suggests a correlation with the Boudiccan destruction of London in 60/l.

Periods I-III, considered here as one group, are terminated by this fire level. There are no identifiable coins from them, but seven potters' stamps support a date between 50 and 60 that is complemented by the dates of the unstamped samian. Three stamps from Period III contexts (those dated 60?-90) are all from dies not otherwise recorded from Boudiccan groups, but this is not sufficient evidence for dating the horizon later than *c* 60. All the contexts, including those not sealed by this fire, are included in RCP 1A.

In *Period IV* there was a hiatus in the structural sequence. Brickearth was laid over many areas of the site, and most activity consisted of stake- and post-holes, gullies and pits. Property boundaries were established that were respected by later developments on the site, and show that formalized planning along the street frontage to the south had reached this area by c 70. The Boudiccan fire horizon provides the *terminus post quem* for Period IV and a coin of 64-6 dates the period after 64. Most of the stamps fall within this date range but one of Peregrinus I suggests a slightly later starting date of *c* 75. Pottery from Period IV is included with RCP 1B.

Period V is one of intense structural activity. Two adjacent buildings with complex histories, possibly united on their southern boundary, were constructed *on* the south of the site, aligned east-west along the street frontage; Building F is to the west, Building H to the east. A possible third structure was found to the north of Building F. A large quarry pit was found to the north of Building H, and was subsequently used for the disposal of organic waste, It is this latter area of the site that was prone to subsidence and slumping throughout the sequence, and responsible for the varying amounts of intrusive pottery. Alterations and repairs were made to the buildings during this period.

The three buildings were demolished and buried at the start of *Period* VI. Building H was replaced and went through numerous alterations before being taken down. The area was then given over to apparently pattemless occupation represented by features and surfaces, although there are some indications that

more coherent activities were still being carried on to the west of the site.

The early phases of Period V produced two residual coins, but no samian stamps. Later contexts contained several coins with dates up to 78 and 79, but a samian vessel stamped by Calvus I dated c 80-90 probably defines the end of the sequence in this area. Three coins of Vespasian and a stamp of Pontus come from the earliest phases of Period VI and point to a broad date of *c* 75/85 for this primary level. A coin of Domitian dated to 87 from latest levels, together with two stamps of Sever-us, demonstate that occupation in this area began after 87 and probably lasted until the end of the 1st century. Periods V and VI are combined as RCP 2.

Period VII marks the construction of two new timber-framed buildings, extending over the whole of the excavation. Though there was an alleyway between them, they may have presented a continuous facade at the street frontage. A lane was set out bounding them in the east and giving access from the street. The plan of these strip structures suggests shops or commerical premises with selling taking place at the frontage. Just behind this were large rooms, some of which contained substantial hearths, which indicate that these rooms had an industrial function. At the rear were smaller rooms, containing well preserved domestic hearths. Both buildings went through several modifications and restructuring during this period, and were destroyed by a fire in the early 2nd century.

The primary layers for Period VII contained few datable finds apart from a stamp of Rufinus and a coin of Domitian. However these, together with a mortarium stamped by Satuminus, suggest a late 1st to early 2nd century date for its inception. A coin of Trajan, from a later phase of construction, places occupation in the period between 98 and 117. Material from Period VII is included in RCP 3. The period was then sealed by fire debris, associated with the Hadrianic fire and separated as VIIF (RCP 4, VII. 49-50). This debris contains three stamps from Les Martres-de-Veyre which support an early Hadrianic date for the fire.

In *Period VIII* the previous fire debris was levelled off and redeposited to prepare for rebuilding. Two new buildings were constructed, reproducing the main previous structures and property boundaries. Before the end of the 2nd century they were dismantled and the site levelled. This truncation marks the end of the Roman structural sequence, after which much of the site is overlain by dark earth. Although some features were identified in Periods IX-X, there was no definite evidence for the construction, occupation or destruction of buildings succeeding those of Period VIII. The Period VIII destruction horizon was widely disturbed by Period IX features and directly sealed by the Period X dark earth.

The dating of Period VIII (RCP 5) is somewhat unclear since the later levels were disturbed by intrusive material. The Hadrianic fire provides a ***terminus*** *post quem* for the start of Period VIII, and a coin of Hadrian from the modification of one of the buildings places the occupation in the north of the trench later than 119. The earliest date of deposition for levels overlying this structure at the end of the sequence (VIII. 14) is provided by a stamp of Ianvarius II (130-60), which is the only Lezoux stamp at Newgate Street. This, in conjunction with the other samian from the end of the sequence, suggests a date *c* 160. The absence of later samian and obviously later coarse ware forms indicates that occupation ceased some time before 180, probably *c* 160, although some of the black-burnished ware jars may indicate a slightly later end date.

Table 3: Newgate Street samian stamps

* =intrusive

RCP	Phase	Stamp	Source	Form	Date
1A	I.2	MARINUS I	La Graufesenque	Drag 29	50-70
1A	I.2	PRIMUS III	La Graufesenque	Drag 24	55-70
1A	I.2	-	La Graufesenque	Drag 24	40-70
1A	II.3	CELER II	La Graufesenque	Drag 18	40-65
1A	III.4	MOMMO	La Graufesenque	Drag 27g	60?-90
1A	III. 13	SECUNDUS II	La Graufesenque	Drag 15/17 or 18	60?-90
1A	III.21	SECUNDUS II	La Graufesenque	Drag 15/17	60?-90
1B	IV.2	MODESTUS I	La Graufesenque	Drag 24	45-60
1B	IV.5	ARDACUS	La Graufesenque	Drag 27g	45-65
1B	IV.12	BASSUS I	La Graufesenque	Drag 27g	50-65
1B	IV.14	LENTU-	La Graufesenque?	Drag 15/17 or 18	55-80
1B	IV.14	MASC(U)LUS I	La Graufesenque	Drag 27g	50-70
1B	IV.15	PEREGRINUS I	La Graufesenque	Drag 18	75-100
1B	IV.15	Illiterate	La Graufesenque?	Drag 24	40-70
1B	IV.15	-	La Graufesenque?	Drag 29	55-80
1B	IV.16	Illiterate	La Graufesenque	Drag 27g	55-80
1B	IV.17	MOMMO	La Graufesenque	Drag 15/17 or 18	60-80
1B	IV.17	-	La Graufesenque?	Drag 15/17 or 18	40-70
1B	IV.19	PATFUCIUS I	La Graufesenque	Drag 27	65-90

RCP	Phase	Stamp	Source	Form	Date
2	V. 1	APER I	La Graufesenque	Drag 15/17 or 18	50-65
2	V.1	Illiterate	La Graufesenque?	Drag 24	40-70
2	V.10		La Graufesenque?	Drag 15/17 or 18	55-80
2	V.24	IULLINUS I	La Graufesenque	Drag 27g	70-100
2	V.24	PASS(I)ENUS	La Graufesenque	Drag 27g	50-65
2	V.24	PATRICIUS I?	La Graufesenque	Drag 27g	65-90
2	V.24	SILVANUS I	La Graufesenque	Drag 15/17R or 18R	50-70
2	V.24	Illiterate	La Graufesenque?	Drag 27	55-80
2	V.25	BACCINUS	La Graufesenque?	Drag 27g	40-100
2	V.27	PONTUS	La Graufesenque	Drag 24	65-90
2	V.30	CALVUS I	La Graufesenque	Drag 18	80-90
2	V.33	Illiterate	La Graufesenque	Drag 27g	55-80
2	V.36	MURRANUS	La Graufesenque	Drag 15/17 or 18	50-75
2	V.36	VIRTHUS	La Graufesenque	Drag 27	50-70
2	V.37	-	La Graufesenque?	Drag 15/17 or 18	40- 100
2	V.38	IANUA	La Graufesenque	Drag 29	50-70
2	V.38	IUSTUS I	La Graufesenque	Drag 30	70-90
2	V.38	MACCARUS	La Graufesenque	Drag 27	40-60
2	V.38	MODESTUS I	La Graufesenque	Drag 15/17 or 18	45-65
2	V.38	MODESTUS I	La Graufesenque	Drag 27	60-75
2	V.38	MOMMO	La Graufesenque	Drag 15/17 or 18	60-80
2	V.38	MOMMO	La Graufesenque	Drag 15/17 or 18	60-80
2	V.38	NEQURES	La Graufesenque	Drag 27g	55-65
2	V.38	SECUNDUS II	La Graufesenque	Drag 15/17R or 18R	60?-90
2	V.38	VANDERIO	La Graufesenque	Drag 29	65-85
2	V.38	VERECUNDUS II	La Graufesenque	Drag 18	50-80
2	V.38	Illiterate	La Graufesenque?	Drag 27g	55-80
2	V.47	FELIX I	La Graufesenque	Drag 18	50-70
2	V.49	RUTAENUS	La Graufesenque	Drag 27g	50-65
2	VI.1	PASS(I)ENUS	La Graufesenque	Drag 29	60-75
2	VI. 1	Illiterate	La Graufesenque?	Drag 24	40-70
2	VI.2	AQUITANUS	La Graufesenque	Drag 24	50-65
2	VI.5	PONTUS	La Graufesenque	Drag 27g	65-80
2	VI.9	MODESTUS I	La Graufesenque	Drag 27g	60-75
2	VI.12		La Graufesenque	Drag 27g	40-70?
2	VI.15	FELIX I	La Graufesenque	Drag 27g	55-70
2	VI.15	GERMANUS I	La Graufesenque	Drag 29	70-85
2	VI.15	-	La Graufesenque?	Drag 27	40-70
2	VI.18	CALVUS I	La Graufesenque	Drag 15/17 or 18	70-95
2	VI.18	Illiterate?	La Graufesenque	Drag 27	55-80
2	VI.20	PATERCLUS II	Les Martres	Drag 18/31	110-25*
2	VI.20	PATRICIUS I	La Graufesenque	Drag 33a	70-90
2	VI.20	T.RA MASCUUS	La Graufesenque	Drag 15/17 or 18	80-110
2	VI.21	FELICIO I	La Graufesenque?	Drag 15/17 or 18	55-80
2	VI.21	Illiterate	La Graufesenque?	Drag 27g	55-80
2	VI.2 1	Illiterate?	La Graufesenque?	Drag 27	55-80
2	VI.21	Illiterate?	La Graufesenque?	Drag 27g	70-100
2	VI.21	Illiterate?	La Graufesenque?	Drag 27g	70-100
2	VI.21	-	La Graufesenque?	Drag 15/17 or 18	70-100
2	VI.21		La Graufesenque	Drag 27g	55-80
2	VI.23	SEVERUS I	La Graufesenque	Drag 15/17 or 18	65-95
2	VI.24	CALVUS I	La Graufesenque	Drag 15/17 or 18	65-85
2	VI.24	QUINTI0 I	La Graufesenque	Drag 15/17R or 18R	65-80
2	VI.25	PASS(I)ENUS	La Graufesenque	Drag 15/17 or 18	60-5
2	VI.26	CREST10	La Graufesenque	Drag 15/17 or 18	50-70
2	VI.26	IUSTUS I	La Graufesenque	Drag 18	70-95
2	VI.27	IOVIS	La Graufesenque?	Drag 27	55-80
2	VI.28	-	La Graufesenque?	Drag 27g	55-80
2	VI.28	-	La Graufesenque?	Drag 27g	55-80
2	VI.32	MARTIALIS I	La Graufesenque	Drag 15/17 or 18	50-65
2	VI.38	Illiterate	La Graufesenque?	Drag 27g	40-70

RCP	Phase	Stamp	Source	Form	Date
2	VI.39	PRIMULUS I	La Graufesenque	Drag 15/17	65-90
2	VI.39	SEVERUS I	La Graufesenque	Drag 18	75-95
2	VI.40	BIO	La Graufesenque	Drag 24	40-65
2	VI.40	MODESTUS I	La Graufesenque	Drag 18	45-70
2	VI.40	SEVERUS I	La Graufesenque	Drag 18	75-95
3	VII.4	RUFINUS II	La Graufesenque	Drag 15/17 or 18	70-90
3	VII. 10	CRESTUS	La Graufesenque	Drag 15/17 or 18	70-95
3	VII. 10	FRONTINUS	La Graufesenque	Drag 15/17 or 18	70-90
3	VII. 10	PATRICIUS I	La Graufesenque	Drag 15/17 or 18	65-90
3	VII. 10	Illiterate	La Graufesenque?	Drag 33	55-80
3	VII. 16	CALVUS I	La Graufesenque	Drag 15/17 or 18	65-85
3	VII. 17	-	—	Drag 15/l7R or 18R	
3	VII.20	CENSOR I	La Graufesenque	Drag 27g	75-100
3	VII.20	LOGIRNUS	La Graufesenque	Drag 18	70-85
3	VII.20		La Graufesenque	Drag 15/17 or 18	55-80
3	VII.23	CALVUS I	La Graufesenque	Drag 27g	70-95
3	VII.24	PRIMUS III	La Graufesenque	Drag 15/17 or 18	60-75
3	VII.24	-	-	Drag 18	
3	VII.27	VERECUNDUS II	La Graufesenque	Drag 27g	70-85
3	VII.29	Illiterate	La Graufesenque?	Drag 27g	55-80
3	VII.32	RUFINUS II	La Graufesenque	Drag 27g	65-90
3	VII.32	SABINUS III	La Graufesenque	Drag 18	50-90
3	VII.41	SECUNDUS II	La Graufesenque	Drag 15/17 or 18	70-90
3	VII.41		La Graufesenque?	Drag 27g	55-80
3	VII.43	VIRILIS I	La Graufesenque	Drag 18R	75-95
3	VII.44	PASS(I)ENUS	La Graufesenque	Drag 15/17 or 18	60-75
3	VII.46		La Graufesenque	Drag 27g	40-70
4	VII.49	ROPPUS II-RUTUS	Les Martres	Drag 18/31 R	100-20
4	VII.49	SILVINUS III	Les Martres	Drag 27	100-20
4	VII.49	VITALIS III	Les Martres	Drag 18/31	110-30
4	VII.49	Illiterate	La Graufesenque?	Drag 27	70-100
4	VII. 50	CREST10	La Graufesenque	Drag 15/17R or 18R	55-70
4	VII. 50	MASC(U)LUS I	La Graufesenque	Drag 15/17 or 18	60-70
5	VIII.2	BALBINUS	Les Martres	Drag 18/31	100-20
5	VIII. 13	SECUNDINUS II	Les Martres	Drag 27g	100-25
5	VIII. 13	TUTTABILLUS?	La Graufesenque?	Drag 27	60-80
5	VIII. 14	IANVARIUS II	Lezoux	Drag 18/31	130-60
5	VIII. 14	Q.V-C-	Montans?	Drag 46	110-45
5	VIII. 14			Drag 15/17R or 18R	

Table 4: Newgate Street coins

*=intrusive

RCP	Phase	Denomination	Emperor	Date
1A	III. 24	—	—	El?-L3RD
1B	Iv.7	*as* or *dupondius*	—	E1-L2ND
1B	IV.10	*as*	Claudius 1 (copy)	44-64
1B	IV.16	*as*	Claudius 1 (copy)	44-64
1B	IV.19	*as*	Domitian RIG 351	87*
1B	Iv.19	*as*	Nero RIC 329	64-6
2	V.1	*as*	Claudius 1 (copy)	41-54
2	V.8	*as*	Claudius 1? (copy)	41-54
2	V.17	radiate		L3RD *
2	V.21	*as* or *dupondius*		E1-L2ND
2	V.25	*dupondius*	Nero RIG 304	64-6
2	V.25	*as*	Titus	77-8
2	V.38	*as*	Claudius 1 (copy)	41-54
2	V.38	*as*	Vespasian RIC 486	71

RCP	Phase	Denomination	Emperor	Date
2	V.38	*as*	Vespasian	69-79
2	V.38	*dupondius*	Vespasian RIC 479 or 744	71-2
2	VI. 1	*as*	Nero RIC 329	64-6
2	VI.2	*as*	Vespasian	69-79
2	VI.5	*as*	Vespasian	69-79
2	VI.5	*as*	Vespasian	69-79
2	VI.5	—	—	Ll -E3RD
2	VI.7	—	—	L3-L4TH*
2	VI.9	*as*	Vespasian RIC 550 (temp Vespasiani)	71
2	VI.15	*as*	Claudius 1 (copy?) RIC 66	41-54
2	VI.15	*as*	Domitian	73-81
2	VI.18	*dupondius*	Vespasian RIC 479	71
2	VI.18	*dupondius*	Vespasian RIC 473 or 739	71-3
2	VI.19	*as*	Nero?	54?-68?
2	VI.21	*as*	Domitian RIC 724 or 791A	77-8
2	VI.21	*as*	Hadrian	117-38*
2	VI.21	*as*	M Aurelius	161-92*
2	VI.21	radiate	-	L3RD*
2	VI.27	*as*	Titus RIC Vesp 785	77-8
2	VI.28	*as*	-	El-E2ND
2	VI.37	*as*	Domitian	87
2	VI.38	*as*	Claudius 1 (copy?)	44-64
3	VII.4		-	E3-L4TH?*
3	VII.6	*sestertius*	Domitian	86-9
3	VII.6	*as*	-	Ll-E2ND
3	VII.6		-	Ll-E3RD
3	VII.8	*semis*	Nero RIC 396	64-6
3	VII.10	*as*	Nero?	LlST?
3	VII.11	*denarius*	Nero RIC 55	63-8
3	VII.14	*as or dupondius*	Vespasian	69-79
3	VII.14	-	—	E3-L4TH?*
3	VII.15	*as*	Claudius 1 (copy) RIC 66	41-54
3	VII.15	*as*	Vespasian?	69?-79?
3	VII.20	*as*	Claudius 1 (copy?)	MlST
3	VII.20	*as*	Domitian RIC 351	87
3	VII.20	*as*	Domitian	84-96
3	VII.20	*as*	Domitian	84-96
3	VII.20	*as*	Vespasian BMC 820	72
3	VII.29	*as*	Trajan	98-117
3	VII.29	*as*	Vespasian RIC 399	70-1
3	VII.33	*as*	Domitian	84-96
3	VII.37	*as or dupondius*	Vespasian RIC 470 or 500	71
4	VII.49	*dupondius*	Domitian	81-96
4	VII.49	*quadrans*	Domitian RIC 434	81-96
4	VII.49	*as*		E1-L2ND
5	VIII.2	*as*	Vespasian RIC 764B	77-8
5	VIII.3	*antoninianus*	Carausius	286-93*
5	VIII.3	*dupondius*	Domitian RIC 404 or 406	88-9
5	VIII.4	*as*	Claudius 1?	MlST?
5	VIII.7	*as*	Vespasian RIC 497	71-3
5	VIII.7	*as*	Vespasian/Titus	71-3
5	VIII.9	*antoninianus*	Carausius	286-93*
5	VIII.11	*as*	Hadrian RIC 577B	119
5	VIII.13	*sestertius*	M Aurelius RIC 922	170-1*
5	VIII.13	*denarius*	Plautilla RIC Caracalla 367	202-5*
5	VIII.13	*as?*	Vespasian?	69?-79?
5	VIII.13	radiate		L3RD*
5	VIII.14	*antoninianus*	Claudius 2 (copy?) FUC 30	268-70*

18 Birchin Lane, EC3 (BIR83)

Supervisor: L Miller
Funded by Speyhawk and Scottish Equitable

A watching brief and small-scale excavation resulted in much of the site being recorded in section, although a large area was disturbed. Initial occupation was covered with dumping on which five buildings of clay and timber construction were noted; most were subsequently burnt down by a fire attributed to the Boudiccan destruction. At this point the site was truncated by modern activity, although Saxon, medieval and post-medieval pits could be identified. The Roman sequence will be published by Williams (forthcoming). The material studied here comes from the construction and use of Building 2 and its associated open area. The building was constructed on brickearth slabs which overlaid the previous dumping; it was destroyed by fire.

A single corroded and worn coin was associated with the construction of Building 2. It was difficult to identify and date, but fell between the 1st to early 3rd centuries. The pottery associated with these features was exclusively pre-Boudiccan and is included with RCP 1A. Two samian stamps came from the pre-Boudiccan levels, although not associated with Building 2.

Table 5: Birchin Lane samian stamps

** unquantified feature

Stamp	Source	Form	Date
**BASSUS I	La Graufesenque	Drag 18	45-65
**MURRANUS	La Graufesenque	Drag 29	50-65

Table 6: Birchin Lane coins

Denomination	Emperor	Date
sestertius	Claudius 1 (copy)	1-E3RD

28-32 Bishopsgate, EC3 (BOP82)

Supervisor: C Evans
Funded by the Standard Charter Bank

The area was subjected to an open plan excavation, which revealed a sequence of buildings (timber and brickearth), earthen banks and a street dating from the Neronian or earlier to the early Antonine period. Rare late Roman features were identified, as well as others up to the post-medieval period. The Roman sequence will be published by Williams (forthcoming).

The material included here with RCP 5 derives from a large pit (Pit 345) which may have been initially dug as a gravel quarry and was subsequently backfilled with substanial amounts of diverse rubbish (glass, animal bone, mortar, wall plaster, *opus signinum*, dressed marble, bone objects, metal objects), as well as large amounts of pottery. Many of the sherds were from near-complete vessels, with a particularly large proportion of amphorae, suggesting that much of the assemblage was dumped in one operation. Tyers (1984a, 374) has suggested that due to the size and functional composition of the assemblage 'it is not the debris of a small household; rather it could be from the kitchens of a more substanial private dwelling or perhaps even a "cookshop" of some type'.

The assemblage contained only a single coin, a worn *(as* of Trajan (98?-102). The dating, therefore, is largely dependent on the samian, which includes seven legible stamps including early Antonine ones from Les Martres-de-Veyre and Lezoux. Unstamped samian includes an almost complete example of an early Walters type 81 bowl, a form little known before the Antonine period which points towards a date c 140-50, and a complete decorated Drag 37 bowl from Montans dated to the Hadrianic and very early Antonine period, not later than 150 (Simpson 1984, 368). The samian clearly points to a date of c 125-50 for deposition of the group and this is not contradicted by the coarse wares.

Table 7: Bishopsgate samian stamps

Stamp	Source	Form	Date
ARCANUS	Lezoux	Drag 18/31	125-40
CARANTUS I	La Graufesenque	Drag 27g	70-100

Stamp	Source	Form	Date
DONNAUCUS	Les Martres	Drag 27	100-20
L COSIUS VIRILIS	La Graufesenque	Drag 18R or 18/31R	80-110
MATERNUS II	La Graufesenque	Drag 18	75-100
MODESTUS I	La Graufesenque	Drag 15/17 or 18	50-70
REGINUS II	Les Martres	Drag 18/31	115-35
Illiterate	Lezoux?	-	120-40 or 140-60
	La Graufesenque?	Drag 27g	40-70
	Lezoux?	Drag 27	120-40 or 140-60

Table 8: Bishopsgate coins

Denomination	Emperor	Date
as	Trajan	98?-102

66-73 Cornhill, EC3 (CNL81)

Supervisor: P A James
Funded by J.L.W. Project Services on behalf of the owners, The Worshipful Company of Grocers

The site was adjacent to the north side of the second Hadrianic basilica. Archaeological investigation along the northern frontage of Cornhill was divided into six trenches; one trench was excavated in plan and watching briefs were carried out on the others. Earliest activity was represented by a sequence comprising a pit, redeposited brickearth and a ditch. This was followed by a structural sequence of four buildings (timber and brickearth) and a road, with associated drainage ditches. Final late Roman deposits were truncated by Victorian basements and several other undated features. The Roman sequence will be published by Williams (forthcoming).

Included among the quantified data was Trajanic (RCP 3) material from the construction of Road 1 and an associated pit, south of and most likely contemporary with Building 1, and the disuse of a drainage ditch (117) filled with Hadrianic pottery (RCP 4). Coins and samian stamps were absent from the road, although a stamp dated 65-95 is associated with the same phase as Road 1. The Hadrianic ditch contained two 1st century residual samian stamps from La Graufesenque, although only one is legible.

Table 9: Cornhill samian stamps

** unquantified feature

RCP	Stamp	Source	Form	Date
**3	PRIMULUS I	La Graufesenque	Drag 15/17 or 18	65-95
4	CALVUS I	La Graufesenque	Drag 18	70-85
4	-	La Graufesenque	Drag 36	1ST

5-12 Fenchurch Street, EC3 (FEN83)

Supervisor: F Hammer
Funded by Land Securities Ltd

Excavation took place in seven areas and numerous sections were recorded across unexcavated areas. A complex Roman building sequence, including both timber- and masonry-founded buildings, dated from the pre-Boudiccan period through the Hadrianic fire. After this Roman occupation continued to *c* 350, represented by three additional buildings and several late Roman wells and pits. The site was then covered in dark earth, above which seven successive road surfaces were recorded. The Roman sequence will be published by Williams (forthcoming). Material incorporated here is from the pre-Boudiccan sequence (RCP 1A) and Hadrianic fire debris (RCP 4).

The pre-Boudiccan period was one of intense building activity, and the quantified pottery is from selected buildings (6, 11, 12, 37, 41) and open areas (3, 5, 7, 8, 10, 11), none of which represent the very earliest activity on site. Building 6 was a post-built one-room structure, with an entrance on the east leading into Open Area 3, which contained several hearths. This building, together with three other contemporary ones, respected property divisions which stayed in use for much of the sequence. Following this, Building 37, with brickearth sills, was constructed over Building 6. This was a multi-phase structure, involving alterations in internal divisions. The building was probably open-sided on the east, to Open Area 5 (OA5), which was shared with two other buildings. Bronze fragments deposited in a pit may indicate an industrial use of the

area. Building 37 was then abandoned and Building 12 (phase l), with masonry foundations, was subsequently constructed in OA5 and over Building 37. Dumping covered much of the remaining surfaces of OA5, and these later deposits are referred to as OA7. East of Building 12, brickearth slabs were laid for the construction of Building 11, also over OA5. Later it was extended almost as far as Building 12, although a small external area (OA8) of dumping and at least one hearth existed between the two buildings. Building 12 (phase 2) was then extended to the north, over much of OA7. A small, temporary lean-to, perhaps associated with the expansion of Building 12, and designated Building 41, was soon abandoned. Building 11 was then completely sealed by dumping, and two additional open areas (10 and 11) were associated with Building 12. After further building activity, some of the site was destroyed by a fire, interpreted as the Boudiccan destruction. Because of subsequent clearing for Flavian activity there was little overall evidence of its debris on site.

Eight coins came from quantified deposits: six were Claudian, the other two were poorly identified, one from OA7 dated 40-270, and an intrusive *antoninianus* (270) from OA11. Two additional intrusive 3rd century coins came from unquantified deposits. Nine samian stamps, seven from quantified deposits, are summarized below. These conform to the pre-Boudiccan date, apart from an intrusive one dated 120-60 from unquantified Building 40. The pre-Flavian pottery from Fenchurch Street is exceptional in its quality, containing a high proportion of imported fine wares; it has been discussed separately elsewhere (Chadburn & Tyers 1984).

Intense building activity continued in the Flavian and Trajanic periods, including the continuation of Building 12, although pottery from those groups is not included here. However, the destruction of three of these buildings (22, 24, 49), associated with the Hadrianic fire, are presented with RCP 4. Of these, Building 22 is exceptional, having some masonry walls and a thick *opus signinum* floor in one room. It is from this building, possibly the kitchen, that the unusually complete amphorae and the Pompeian Red ware fabric 3 vessels derive. Two samian stamps from Les Martres-de-Veyre, with an end date of 120/30, provide good evidence for the Hadrianic fire; the only coin cannot be precisely identified.

Table 10: Fenchurch Street samian stamps

** unquantified feature
* intrusive

RCP	Stamp	Source	Form	Date
1A	BASSUS I	La Graufesenque	Drag 24	45-65
1A	DAMONUS	La Graufesenque	Drag 24	35-65
**lA	GALLICANUS	La Graufesenque	Drag 24/25	45-65
1A	PASS(I)ENUS	La Graufesenque	Drag 27	50-65
1A	PASS(I)ENUS	La Graufesenque	Drag 29	50-65
1A	SENICIO	La Graufesenque	Drag 29	45-65
1A	-	La Graufesenque?	Drag 15/17 or 18	55-70
1A	-	La Graufesenque?	Drag 24	55-70
**lA	-	Lezoux?	Drag 18/31R	120-60
4	DAGOMARUS	Les Martres	Drag 18/31?	100-30
**4	SACER VASIL-	Les Martres	Drag 18/31	100-20

Table 11: Fenchurch Street coins

RCP	Denomination	Emperor	Date
1A	*sestertius*	Claudius 1	41-3
1A	*as*	Claudius 1 (copy)	50
1A	*as*	Claudius l? (copy)	50
1A	*as*	Claudius 1 (copy)	50
1A	*as*	Claudius 1 (copy)	50
1A		Claudius 1 (copy)	50
1A	*antoninianus*		270*
**lA	*denarius*	Caracalla/Elagabalus	211-22”
**lA	*antoninianus*		*c* 250*
1A			40-270
4			El -L3RD

25-6 Lime Street, EC3 (LIM83)

Supervisor: T Williams
Funded by Hunting Gate Developments Ltd for the Worshipful Company of Clothworkers

An excavation and watching brief provided a stratified sequence. The site included a series of clay and timber domestic/commercial buildings and their associated open areas. In the late Roman period these were replaced by more substantial buildings with stone foundations. Various Saxon, medieval and later features were also recorded. The Roman sequence will be published by Williams (forthcoming).

The earliest activity, represented by Open Area 1 (OAl), consisted of redeposited brickearth with a north-south linear cut, possibly a drainage ditch or boundary. Other features included stake- or post-holes, a pit, a possible quarry pit and a cremation urn. These features were backfilled and make-up dumps of gravel and brickearth were laid in preparation for the construction (most likely with wattle and daub walls) of the east-west aligned brickearth Building 1. A small portion of a second building, Building 2, was present in the excavated area and may have been part of the same structure as Building 1. An open area (OA2) may have served as a yard to Building 1 or provided access to both buildings, which were subsequently destroyed by a fire. This has been interpreted as the Boudiccan fire and its debris extended over OA2. The entire sequence is pre-Boudiccan (RCP lA), and includes a samian stamp dated 45-65.

Material assigned to RCP 1B and 2 is associated with OA3 (phases l-5, 7-9), an area which had a long life with successive phases of pits. In its first phases, it served as a yard for rubbish disposal, although during the Flavian period (phase 7) it seems to have been a courtyard, featuring a pillar base composed of bonded tiles. Still within the Flavian period the feature was sealed by dumping, and a further sequence of cuts and dumps followed (phases 8-9). Features from RCP 1B include a mid 1st century as of Claudius 1, and four samian stamps of which the latest dates from 55-80. The other stamps support the earlier range within this period.

During the Trajanic period the building sequence resumed, represented by a brickearth-silled strip building and an alleyway. Material included in RCP 3 belongs to the construction and use of Building 3, together with associated open areas. Its layout was similar to that of Building 1, suggesting that the same thoroughfare was used, although the actual placement of the building had moved. This was probably due to the protracted use of OA3. The open areas associated with RCP 3 are a pit (phase 4, Pit 674), and external dumping (phase 9) from OA3, together with Pit 892 and the use of Ditch 895 from OA4. Five coins, generally corroded, were recovered from these features, of which three could be positively identified. These include a *denarius* of Vespasian (77-8), a *sestertius* of Trajan (104-111), a mid 1st century *as* of Claudius 1; an as? (early lst-late 3rd century) was tentatively identified. A total of twelve samian stamps came from these features, and apart from Roppus II-Rutus (11 O-30) are Flavian or earlier.

The Hadrianic period (RCP 4) saw the destruction of the buildings by fire, including Buildings 3 and 5, the latter a masonry-founded structure located across the alleyway from Building 3 and associated with external surfaces and dumps and the disuse of Ditch 895 from OA4. A single *dupondius* (98-l 17) was associated with these features, together with two residual samian stamps.

The destruction of the buildings was followed by varied activity, including robbing and cutting, which was sealed by extensive dumps of redeposited fire debris included with RCP 5. A single residual samian stamp was identified from these features.

During the Antonine period there was continued structural activity, involving substantial masonry buildings which may have continued in use until the mid-late 4th century.

Table 12: Lime Street samian stamps

RCP	Stamp	Source	Form	Date
IA	BASSUS I	La Graufesenque	Drag 24	45-65
1B	ARDACUS	La Graufesenque	Drag 15/17 or 18	40-60
1B	MODESTUS I	La Graufesenque	Rt 9	45-65
1B	NIGER II	La Graufesenque	Drag 15/17 or 18	Neronian-early Flavian
1B	-	La Graufesenque?	Drag 27g	55-80
	CENSOR I	La Graufesenque	Drag 18	65-90
3	CENSOR I	La Graufesenque	Drag 18	65-90
3	CESTIO	La Graufesenque	Drag 15/17 or 18	55-70
3	C. SILVIUS PATRICIUS	La Graufesenque	Drag 29	70-85
3	LOGIRNUS	La Graufesenque	Drag 18	70-90
3	MOMMO	La Graufesenque	Drag 27g	60-80
3	ROPPUS II-RUTUS	Les Martres	Drag 18/31R	110-30
3	VITALIS II	La Graufesenque	Drag 29	70-85

RCP	Stamp	Source	Form	Date
3	-	La Graufesenque?	Drag 15/17 or 18	pre-Flavian
3	-	La Graufesenque?	Drag 18	pre-Flavian
3	-	La Graufesenque?	Drag 27	Neronian-early Flavian
3	-	La Graufesenque?	Drag 27g	pre-Flavian
4	PONTUS? (cursive from mould)	La Graufesenque	Drag 37	75-90
4	SABINUS III	La Graufesenque	Drag 33	70-90
5	SECUNDUS II	La Graufesenque	Drag 15/17 or 18	70-90

Table 13: Lime Street coins

RCP	Denomination	Emperor	Date
1B	*as*	Claudius 1	M1ST
3	*denarius*	Vespasian	77-8
3	*sestertius*	Trajan	104-11
3	*as*	Claudius 1	M1ST
3	*as?*	-	El-L3RD
3		-	
4	*dupondius*	Trajan Dec	98-117

4-12 Monument Street, 17 Fish Street Hill, EC4 (MFI87)

Supervisors: P Rowsome and M Burch
Funded by Olympia and York

Excavation of a small open area took place on this site, and revealed a 1st century Roman structural sequence, followed by isolated medieval and post-medieval features, all of which were truncated by 19th century activity. Evidence for initial activity on the site was provided by a large quarry pit which was then filled with a brickearth platform. This was followed by the structural sequence, represented by two Roman buldings, both reflecting the alignment of the main Roman street to the east, which ran from the bridge to the forum. A timber- lined well, and two features of similar dimension which may have been intended as wells, were associated with this occupation-

The material included here with RCP 1B derives from use of the well, associated with the later building, Building 2. After the collapse of the well lining the feature was reused as a domestic refuse pit, and contained large amounts of glass, bones and organic material, as well as a homogeneous pottery assemblage suggestive of a single deposition. The lowest fill of the well contained a *sestertius* dated to 71. Eleven samian stamps were recovered, and, taking evidence of wear into consideration, date between 71 and 75; this is additionally supported by the decorated bowl stamped by Peregrinus I suggesting a date range of 65-75/80 (Dickinson 1992).

Table **14: Monument Street samian stamps**

Stamp	Source	Form	Date
BIO	La Graufesenque	Drag 27g	45-65
COTTO II	La Graufesenque	Rt 8	60-5
LAB10	La Graufesenque	Rt 8	55-65
PEREGRINUS I	La Graufesenque	Drag 29	65-80
PONTUS	La Graufesenque	Drag 15/17R or 18R	70-95
PONTUS	La Graufesenque	Drag 27g	65-90
RUFINUS III	La Graufesenque	Drag 27g	70-90
	La Graufesenque	Rt 8	pre-Flavian
	La Graufesenque	Drag 27	Flavian
	La Graufesenque	Drag 27g	Flavian
	La Graufesenque	Drag 27g	Flavian

Table 15: Monument Street coins

Denomination	Emperor	Date
sestertius	Vespasian RIC 427	71

Pudding Lane, 118-27 Lower Thames Street, EC3 (PDN81)

Supervisor: G Milne
Funded by the English Property Corporation, National Provident Institution, Land Securities (Management) Ltd; Verronworth and Vitiglade Ltd; Department of the Environment

A large-scale excavation in six areas and a subsequent watching brief took place on this waterfront site (Bateman & Milne 1983). The Roman piled embankment, timber landing stage and late 1st century timber quay were identified, in association with two warehouse buildings. Remnants of a possible timber bridge pier was also recorded on the foreshore. In addition, a large mid to late Roman masonry building and mud-brick buildings were present on site. Post-Roman occupation included Saxon pits and wells and some structural evidence, as well as stone foundations of later medieval buildings.

The material included in the corpus all derives from dumps behind Quay 3 (amalgamated with E Quay in Milne 1985, 35) and contains exceptionally high proportions of amphorae, presumably due to its waterfront location. It is grouped here with RCP 2. A single, unidentifiable copper coin was retrieved, dated to the ?2nd-?3rd century, and fourteen samian stamps, the latest of which dated 75-100. The dendrochronology places this quay after 96 and before 106 *(ibid).*

Table 16: Pudding Lane samian stamps

Stamp	Source	Form	Date
CREST10	La Graufesenque	Drag 18	50-70
MURRANUS	La Graufesenque	Drag 24	50-65
NEQURES	La Graufesenque	Drag 27g	70-85
PEREGRINUS I	I-a Graufesenque	Drag 18	75-100
VIRTUS I	La Graufesenque	Drag 15/17 or 18	70-90
VITALIS I	La Graufesenque	Drag 24	50-65
Illiterate	La Graufesenque?	Drag 27g	55-80
	La Graufesenque	Drag 29	55-80
	La Graufesenque	Drag 27g	55-70
	La Graufesenque?	Drag 15/17R or 18R	55-80
	La Graufesenque?	Drag 18	55-80
	La Graufesenque?	Drag 27	55-80
	La Graufesenque?	Drag 29	55-70
-	La Graufesenque?	Drag 29	55-80

Table 17: Pudding Lane coins

Denomination	Emperor	Date
-	-	2-3RD?

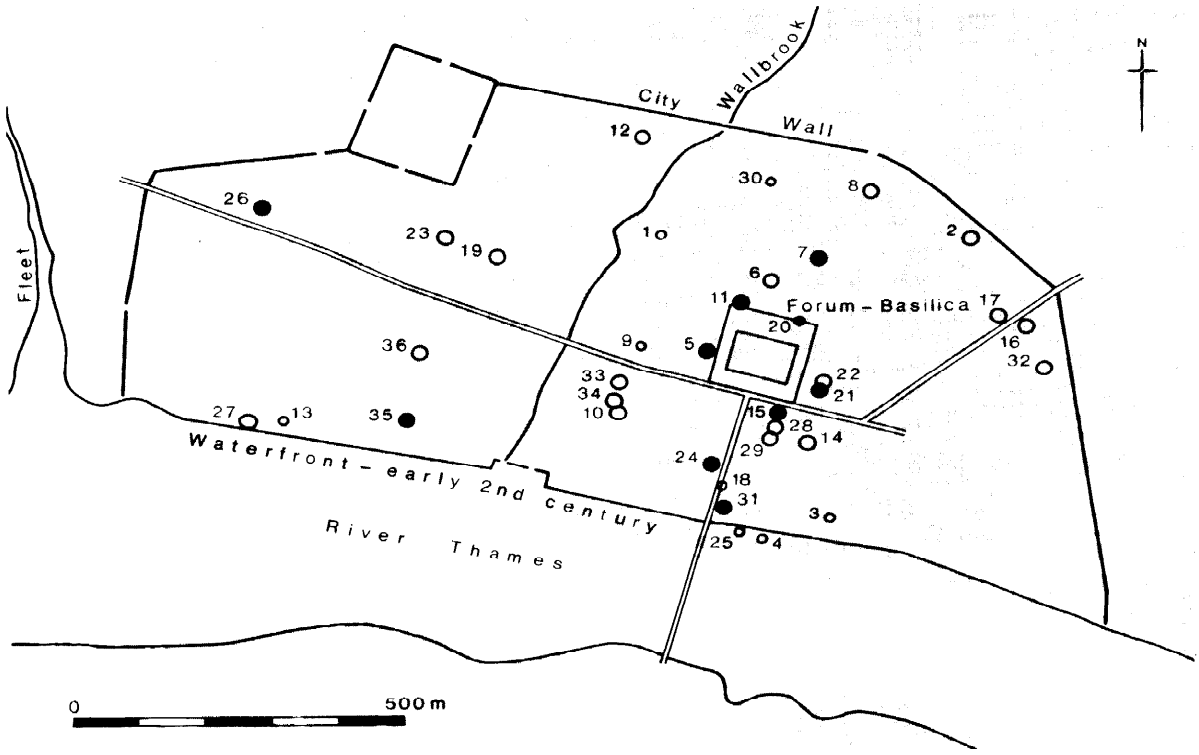

Fig 182 Location map of London sites in text. Key: • *quantified sites* O *sites systematically searched* O *other sites mentioned in text (p 2)*

1 **Angel Court,** 30-5 Throgmorton Street EC2 (ACW74)
2 5-9 and 13-16 **Bevis Marks** EC3 (BEV80)
3 **Billingsgate Buildings** 'Triangle', 101–10 Lower Thames Street EC3 (TR74)
4 **Billingsgate** Market Lorry Park, Lower Thames Street EC3 (BIG82)
5 **18 Birchin Lane** EC3 (BIR83)
6 **3-5 Bishopsgate** EC2 (HOP83)
7 **28-32 Bishopsgate** EC2 (BOP82)
8 **76-86 Bishopsgate** EC3 (BIS82)
9 **Bucklersbury** (Docklands Light Railway Shaft) EC4 (BUC87)
10 **119-21 Cannon Street,** 1-3 Abchurch Yard, 1 Sherbourne Lane EC4 (LIB82)
11 **66-73 Cornhill** EC3 (CNL81)
12 **2-3 Cross Keys Court,** Copthall Avenue EC2 (OPT81)
13 **Dominant House,** 85 Queen Victoria Street EC4 (DMT88)
14 **27-9 Eastcheap** EC3 (EST83)
15 **5-12 Fenchurch Street** EC3 (FEN83)
16 **86 Fenchurch Street** (George Public House) EC3 (PUB80)
17 **94-7 Fenchurch Street** EC3 (FST85)
18 **37-40 Fish Street Hill,** 16-20 Monument Street EC3 (FM085)
19 **24-5 Ironmonger Lane** EC2 (IR080)
20 **Leadenhall Court,** 91- 100 Gracechurch Street, 1-6 Leadenhall Street, 2-12 Whitting Avenue EC3 (LCT84)
21 **25-6 Lime Street** EC3 (LIM83)
22 **27-30 Lime Street** EC3 (IME83)
23 **1-6 Milk Street** EC2 (MLK76)
24 **4-12 Monument Street,** 17 Fish Street Hill EC4 (MF187)
25 **New Fresh Wharf,** Lower Thames Street EC3 (NFW74)
26 **76-80 Newgate Street,** now British Telecom Headquarters, 81 Newgate Street EC1 (GP075)
27 **Peter's Hill,** 223-5 Upper Thames Street EC4 (PET81)
28 **7-8 Philpot Lane** EC3 (HIL84)
29 **9-10 Philpot Lane** EC3 (POT82)
30 **Pinner's Hall,** Great Winchester Street, 8 Austin Friars Square, 105 Old Broad Street EC2 (GWS89)
31 **Pudding Lane,** 118-27 Lower Thames Street EC3 (PDN8 1)
32 **1-12 Rangoon Street,** 61-5 Cruched Friars EC3 (RAG82)
33 **19 St Swithin's Lane** EC4 (SSL84)
34 **18-23 St Swithin's Lane,** 113-14 Cannon Street EC4 (WIT83)
35 **Sugar Loaf Court,** 14 Garlick Hill EC4 (SL082)
36 **Watling Court,** 41-53 Cannon Street EC4 (WAT78)

Sugar Loaf Court, 14 Garlick Hill, EC4 (SL082)

Supervisor: M Baker
Funded by the Royal Bank of Canada

A two-stage excavation revealed pre-Boudiccan through post-medieval features. Much of the site was taken up by a medieval undercroft; also notable were some Saxon/early medieval features. The site was excavated in five areas and ten chronological phases were identified; the pottery here relates to the first three phases in areas A-D. The majority of Roman occupation was 1st century, but in some areas the structural sequence appears to have continued into the 2nd century.

The material here comes from early timber building sequences in Phases I and II and associated features of pre-Boudiccan date (RCP 1 A), overlain by late Neronian demolition and dumps (Phase III, RCP 1B). No coins were associated with the groups, but four stamps, none later than 65, were from quantified deposits or their associated phases.

Table 18: Sugar Loaf Court samian stamps

** unquantified feature

RCP	Stamp	Source	Form	Date
**lA	ALBUS I	La Graufesenque	Drag 27g	50-65
**lA	MACCARUS	La Graufesenque	Drag 15/17 or 18	40-65
**lA	PRIMUS III	La Graufesenque	Drag 15/17 or 18	45-60
1B	MASC(U)LUS I	La Graufesenque	Drag 15/17 or 18	45-65

Appendix 2: Concordance of common name codes

Code	Expansion
AHSU	Alice Holt Surrey ware
AMVPH	Unclassified amphorae
AOMO	Aoste mortaria
BB1	Dorset Black-burnished ware
BB2	(Wheelmade) Black-burnished wares
BBS	Black-burnished Style wares
BHWS	Brockley Hill White-slipped ware
BLEG	Black Eggshell ware
Cl86	Camulodunum 186 amphorae
Cl89	Camulodunum 189 amphorae
CCGW	Copthall Close Grey ware
CGBL	Central Gaulish Black ware
CGCC	Central Gaulish Colour-coated wares
CGGW	Central Gaulish Glazed wares
CGOF	Central Gaulish Other fabric
CGWH	Central Gaulish White ware
COLC	Colchester Colour-coated ware
DR20	Dressel 20 amphorae
DR28	Dressel 28 amphorae
ECCW	Eccles ware
ERMS	Early Roman Micaceous Sandy ware
ERS	Early Roman Sandy wares
ERSA	Early Roman Sandy ware A
ERSA/B	Early Roman Sandy ware A/B
ERSB	Early Roman Sandy ware B
ERSI	Early Roman Sandy Iron-rich ware
ERSS	Early Roman Sand and Shell ware
FINE	Other Fine Reduced wares
FMIC	Fine Micaceous wares
G236	Atisii-type or Gillam 236 mortaria
G238	Hartley Group II or Gillam 238 mortaria
GBWW	Gallo-Belgic White wares
GLMO	Gloucester mortaria
GROG	Grog-tempered wares
H70	Haltern 70 amphorae
HOO	Hoo ware
HWA	Highgate Wood A ware
HWB	Highgate Wood B ware
HWB/C	Highgate Wood B/C ware
HWBR	Highgate Wood Red-slipped ware
HWC	Highgate Wood C ware
HWC+	Highgate Wood C+ ware
ITMO	Italian mortaria
K117	Kingsholm 117 amphorae
KOAN	Dressel 2-4 amphorae
KOLN	Cologne ware
Is55	'London 555' amphorae

Code	Expansion
LOEG	Local Eggshell ware
LOMA	Local Marbled ware
LOMI	Local Mica-dusted wares
LONW	London ware
LONW-STD	Stamped London ware
LOX1	Local Oxidized wares
LYON	Lyon ware
MICA	Other Mica-dusted wares
MISC	Miscellaneous wares
MLEZ	Micaceous Lezoux samian ware
MONT	Montans samian ware
MORT	Mortaria
NACA	North African Cylindrical amphorae
NFSE	North French/Southeast English wares
NGGW	North Gaulish Grey wares
NKFW	North Kent Fine ware
NKSH	North Kent Shelly ware
NKWS	North Kent White-slipped ware
OXID	Oxidized wares
PE47	Gauloise amphorae
PRW 1	Pompeian Red ware, fabric 1
PRW2	Pompeian Red ware, fabric 2
PRW3	Pompeian Red ware, fabric 3
R527	Richborough 527 amphorae
RBGW	Romano-British Glazed ware
RBMA	Romano-British Marbled ware
RDBK	Ring-and-dot Beaker fabrics
RHMO	Rhineland mortaria
RHOD	Rhodian and Rbodian-type amphorae
RUST	Rusticated ware
RVMO	Rhone Valley mortaria
SAM	Samian ware
SAND	Unsourced Sandy Grey wares
SESH	South Essex Shelly ware
SGCC	South Gaulish Colour-coated ware
SHEL	Shelly wares
SLOW	Sugar Loaf Court ware
SPAN	Spanish Colour-coated ware
SUG	East Sussex Grog-tempered ware
TN	Terra Nigra
TNIM	Imitation Terra Nigra
VCWS	Verulamium Region Coarse White-slipped ware
VRG	Verulamium Region Grey ware
VRMA	Verulamium Region Marbled ware
VRMI	Verulamium Region Mica-dusted ware
VRR	Verulamium Region Red ware
VRW	Verulamium Region White ware

Appendix 3: Summary of illustrated sherds

The following concordance provides dating evidence for the illustrated sherds (numbers 1-909, 948, 970); dating of the type, where it can be provided, is in the text. The phase date incorporates available information from other classes of finds and site stratigraphy, and wherever available supersedes the date derived from pottery alone, Entries with an accession number (acc), but no site or context, are from the Museum of London Reserve Collection; those denoted by an ER number under context are from pre-DUA excavations. Numbers 1-909 refer to illustrations used in the corpora presented in Chapters 2-6; numbers 910-1147 refer to the phase groups in Chapter 7 and in most cases are the same drawings as 1-909. Phase dates rely either on broad date ranges or the following codes:

PREB	Pre-Boudiccan
PREF	Pre-Flavian
NERO	Neronian
NEEF	Neronian-Early Flavian
LNEF	Late Neronian - Early FIavian
FLAV	Flavian
FLTR	Flavian-Trajanic
TRAJ	Trajanic
TRHA	Trajanic-Hadrianic
HADR	Hadrianic
HEAN	Hadrianic - Early Antonine
EANT	Early Antonine
ANTO	Antonine
PR	Post-Roman
*	Intrusive
+	Unstratified

No	Fabric	Form	Site	Context	Acc	Pottery Date	Phase Date	Previous Publication
1	DR20	–	FMO85	514	–	–	NEEF	
2	DR20	–	FMO85	307	–	–	NEEF	
3	DR20	–	—	—	11293/ 13200	–	—	
4	H70	–	LCT84	9819	–	–	FLAV	
5	H70	–	—	ER173	–		—	
6	H70	–	FEN83	1951	–	–	NEEF	
7	H70	–	FEN83	2482	–	–	FLAV	
8	H70	–	FEN83	2288	–	–	HADR	
9	H70	–	PDN81	1869, 1984, 2350	–	–	FLAV/FLAV/ NERO	
10	DR28	–	FMO85	406	–	–	NEEF	
11	DR28	–	FMO85	406	–	–	NEEF	
12	DR28	–	FMO85	406	–	–	NEEF	
13	C186-1176	—	—		A23584	–	—	
14	C186-1176	—	PDN81	1812?	–	–	M/L4TH	
15	C186-1176	—	PDN81	1869	–	–	FLAV	
16	C186-2848	—	BIR83	111	–	–	NERO	
17	C186-2848	–	KNG86	586	–	50-70	—	
18	L555	–	—		A14699	–	—	Sealey & Tyers 1989, fig 2, 2
19	L555	–	FEN83	2288	–	–	HADR	
20	L555	–	PDN81	2350	–	–	NERO	
21	L555	–	FMO85	406	–	–	NEEF	
22	L555	–	PDN81	2305	–	–	NERO	
23	PE47	G4	—		83,461/85	–	—	
24	PE47	G4	LCT84	9915	–	–	FLAV	
25	PE47	G5	—	–	86.36/27	–	—	
26	PE47	G5	PDN81	1338	–	–	FLAV	
27	PE47	G1	TR74	430	–	–	FLAV	Green 1980b, fig 21, 38
28	PE47	GE	TR74	—			—	

No	Fabric	Form	Site	Context	Acc	Pottery Date	Phase Date	Previous Publication
29	PE47	G1	PDN81	+	—	–	–	
30	PE47	G1VAR	–	–	A23548	–	–	
31	PE47	G3	–	–	25/094	–	–	Green 1980b, fig 20
32	PE47	G3	–	–	42.55/3	–	–	
33	PE47	G3	PDN81	1894	–	–	FLAV	
34	PE47	G3	FM085	538	–	–	NERO	
35	KOAN-2385	–	–	—	21110	–	–	
36	KOAN-2385	–	–	–	93.185	–	–	
37	KOAN-3786	–	WIV88	2157	–	70-85	–	
38	KOAN-3488	–	PDN81	+	–	–	+	
39	KOAN-3786	–	WIV88	2157	–	70-85	—	
40	KOAN-4127	–	LCT84	9944	–	–	FLAV	
41	R527	–	–	–	17416	–	—	Green 1980b, fig 21
42	RHOD- 1522	DR43	–	–	35.134	–	–	
43	RHOD- 1894	C184	TR74	430	–	–	FLAV	Green 1980b, fig 20, 32
44	RHOD-1894	C184	—	ER639	–	50-70	–	
45	RHOD-3745	C184	—	—	A14700	–	—	Peacock 1977e, fig 3, 8
46	RHOD-2592	C184	BOP82	140	–	–	EANT	Tyers 1984a, fig 2, 2
47	RHOD-2592	C184	BOP82	1091	–	–	EANT	
48	C189	–			P129	–	—	
49	C189	–	FEN83	2325	–	–	PREF	
50	K117	–	—	ER639	–	50-70	—	
51	NACA	–	BOP82	1091	–	–	EANT	Tyers 1984a, fig 2, 3
52	SLOW-2563	IA	SLO82	81	–	–	NEEF	
53	SLOW-2565	IA	SLO82	86, 92, 115	–	–	NEEF/PREB/PREB	
54	SLOW-2565	IA	SLO82	92	–	–	NEEF	
55	SLOW-2565	IA	FEN83	3388	–	–	PREB	
56	SLOW-2626	IA	GPO75	10858	–	–	FLAV	
57	SLOW-2565	IEVAR	ORG86	1086	–	50-80	—	
58	SLOW-2566	IJ	QNV86	50	–	50-80	—	
59	SLOW-2563	I	SLO82	305	–	–	PREB	
60	SLOW-2565	IIA	SLO82	205	–	50-80	—	
61	SLOW-2565	IIK	FEN83	3380	–	–	PREB	
62	SLOW-2566	IINJ	FEN83	3468	–	–	PREB	
63	SLOW-2566/ 2626	IINJ	FEN83	3145	–	–	PREB	
64	SLOW-2566	IINJ	FEN83	3356	–	–	PREB	
65	SLOW-2626	IINJ	ORG86	933	–	50-80	—	
66	SLOW-2626	IINJ	SLO82	81, 98	–	–	NEEF	
67	SLOW-2565	II	FEN83	3145	–	–	PREB	
68	SLOW-2565	IT	FEN83	3380, 3356	–	–	PREB	
69	SLOW-2563	II	CS75	265	–	–	FLTR	Green 1979, fig 10, 44
70	SLOW-2565	IIIB	ORG86	1034	–	50-80	—	
71	SLOW-2565	IIIB	FEN83	3357, 3388	–	–	PREB	
72	SLOW-2563	IIIB	FEN83	3388	–	–	PREB	
73	SLOW-2563	III	FEN83	3388	–	–	PREB	
74	SLOW-2563	IIIB	—	–	94.91	–	–	
75	SLOW-2565	III	SLO82	243	–	–	PREB	
76	SLOW-2565	III	ORG86	1046	–	50-80	–	
77	SLOW-2563	III	GPO75	5883	–	–	FLAV	
78	SLOW-2566	IVA	FEN83	3388	–	–	PREB	
79	SLOW-2566	IVA	FEN83	3388	–	–	PREB	
80	SLOW-2565	IV	SLO82	111	–	–	PREB	
81	SLOW-2566	IV	SLO82	92	–	–	PREB	
82	SLOW-2566	IVK	FEN83	1951	–	–	NEEF	
83	SLOW-2566	IV	SLO82	305	–	–	PREB	
84	SLOW-2626	VA	BIR83	115	–	–	PREB	
85	SLOW-2565	VI	FEN83	3325	–	–	PREB	
86	SLOW-2565	VI	FEN83	3353	–	–	PREB	
87	SLOW-2565	VI	FEN83	3353	–	–	PREB	
88	SLOW-2565	VI	FEN83	3356	–	–	PREB	
89	SLOW-2566	VIIWAL	FSE76	11	–	–	NERO	
90	SLOW-2566	VIIHOF	SLO82	98, 100, 132, 166	–	–	NEEF/NEEF/ NEEF/PREB	
91	SLOW-2566	VIIHOF	FS68	2061	–	–	–	
92	SLOW-2566	VIIHOF	SLO82	169	–	–	PREB	

No	Fabric	Form	Site	Context	Acc	Pottery Date	Phase	Previous Publication
93	SLOW-2566	VIIHOF	FMO85	574	–	–	NERO	
94	SLOW-2566	VIIHOF	FMO85	574	–	–	NERO	
95	SLOW-2566	VII	SLO82	152	–	–	PREB	
96	SLOW-2565	IXLID	FEN83	3356	–	–	PREB	
97	SLOW-2565	IXLID	FEN83	3156	–	–	LNEF	
98	SLOW-2565	IXLID	FEN83	3152	–	–	PREB	
99	SLOW-2565	IXLID	SLO82	81	–	–	NEEF	
100	SLOW-2566	IXLID	SLO82	305	–	–	PREB	
101	LOXI-2600	IF	GPO75	7382	–	–	EANT	
102	LOXI-2603	IF/G	BOP82	140	–	–	EANT	
103	LOXI-2599	IJ	GPO75	6925	–	–	EANT	
104	LOXI-2599	IVA	BOP82	140	–	–	EANT	
105	LOXI-2600	IVA	GPO75	7382	–	–	EANT	
106	LOXI-2599	IVA	GPO75	4934	–	–	HADR	
107	LOXI-2599	IVJ	GPO75	7382	–	–	EANT	
108	LOXI-2599	IXLID	GPO75	7382	–	–	EANT	
109	LOXI-2599	IXLID	BOP82	140	–	–	EANT	
110	LOXI-2603	IXLID	GPO75	7403	–	–	EANT	
111	LOXI-2603	IXLID	GPO75	4890, 4934	–	–	HADR	
112	LOXI-2599	IXLID	GPO75	5694, 7473	–	–	TRAJ	
113	LOXI-2600	IXLID	BOP82	140	–	–	EANT	
114	LOXI-2600	IXLID	BOP82	140, 1091	–	–	EANT	
115	LOXI-2604	IXLID	GPO75	5694	–	–	TRAJ	
116	LOXI-2600	IXLID	GPO75	7326	–	–	EANT	
117	ECCW	IA	GP075	10415	–	–	PREB	
118	ECCW-2560	IA	GPO75	9859	–	–	FLAV	
119	ECCW	IB	GPO75	10817	–	–	LNEF	
120	ECCW	ID	GPO75	10866	–	–	PREB	
121	ECCW	I	FMO85	406	–	–	NEEF	
122	ECCW	IIAVAR	–	–	10640	–	—	
123	ECCW	IIK	FSE76	56	–	–	NERO	
124	ECCW	III	ORG86	807	–	50-80	—	
125	ECCW	VIIWAL	ORG86	812	–	70-100	—	
126	ECCW	VIIWAL	PDN81	1897	–	–	FLAV	
127	ECCW	VIIWAL	GPO75	10817	–	–	LNEF	
128	ECCW	VIIHOF	GPO75	7600	–	–	TRAJ	
129	ECCW	VIIHOF	FEN83	2832	–	–	PREB	
130	HOO	IA	–	–	18510	–	–	
131	HOO	IA	–	–	89.20	–	–	
132	HOO	IAVAR	ORG86	997	–	50-80	–	
133	HOO	IA	GPO75	10858	–	–	FLAV	
134	HOO	IBVAR	–	–	17661	–	—	
135	HOO	IBVAR	GPO75	10592	–	–	PREB	
136	HOO	I	GPO75	10106	–	–	FLAV	
137	HOO	IIIA	GPO75	11721	–	–	PREB	
138	HOO	IIIC	ORG86	829	–	50-80	—	
139	HOO	III	KNG85	587	–	50-70	—	
140	HOO	VIA	LSO88	308	–	70-100	—	
141	NKWS	IAVAR	BOP82	140	–	—	EANT	
142	NKWS	I	BEV80	442	–	160-200	–	
143	VRW	IA	–	–	2744	–	–	
144	VRW	IA	–	–	20529	–	–	
145	VRW	IA	GPO75	11670	–	–	PREB	
146	VRW	IA	ORG86	953	–	50-80	—	
147	VRW	IB1	TR74	412	–	–	L1/2ND	Green 1980b, fig 24, 67
148	VRW	IB2	–	–	A27744	–	–	
149	VRW	IB2	—	–	81.3504/24	–	–	
150	VRW	IB3	GPO75	9880	–	–	FLAV	
151	VRW	IB5	GPO75	4934	–	–	HADR	
152	VRW	IB5	FEN83	2267	–	–	HADR	
153	VRW	IB5	ILA79	1141	–	–	EANT	
154	VRW	IB5	FEN83	2288	–	–	HADR	
155	VRW	IB5	FEN83	2288	–	–	HADR	
156	VRW	IB7	BOP82	140	–	–	EANT	
157	VRW	IB7	BOP82	140	–	–	EANT	
158	VRW	IB7	BOP82	1091	–	–	EANT	

No	Fabric	Form	Site	Context	Acc	Pottery Date	Phase Date	Previous Publication
159	VRW	IB	ILA79	362	—	–	EANT	
160	VRW	IC	—	—	2774	–	–	
161	VRW	IC	ORG86	997	—		–	
162	VRW	ID	—	—	A1130	–	–	
163	VRW	ID	LCT84	9640	—		–	
164	VRW	IE	–	–	12107	–	–	
165	VRW	IE	GPO75	11220	–	–	LNEF	
166	VRW	IH	GPO75	5421	–	–	HADR	
167	VRW	IH	–	–	81.350/3	–	–	
168	VRW	IJ	COA86	16	–		–	
169	VRW	IJ	GPO75	7067	–		HADR	
170	VRW	IJ	TR74	423	–	–	FLAV	Green 1980b, fig 24, 56
171	VRW	I	PDN81	1897	–	–	FLAV	
172	VRW	I	ILA79	687	–	–	EANT	
173	VRW	IIH	–	–	A11699	–	–	
174	VRW	IIJ	ILA79	513	–	–	EANT	
175	VRW	IIJ	KEY83	+	–	–	+	
176	VRW	IIK	–	–	A20936	–	–	
177	VRW	IIK	–	–	A11202	–	–	
178	VRW	IIR	RIV87	215	–	50-160	–	
179	VRW	IINJ	–	–	15.472	–	–	
180	VRW	IINJ	LIM83	971	–	–	LNEF	
181	VRW	IINJ	BOP82	1091	–	–	EANT	
182	VRW	IIFACE	ILA79	1120	–	–	EANT	
183	VRW	IIFACE	–	–	18302	–	–	
184	VRW	IIIA	GPO75	11678	–	–	PREB	
185	VRW	IIIB	ML73	P1	–	70-100	–	
186	VRW	III	ORG86	970	–	50-80	–	
187	VRW	IVA	GPO75	7176	–	–	EANT	
188	VRW	IVA	–	–	18623	–	–	
189	VRW	IVA	GPO75	7527	–	–	TRAJ	
190	VRW	IVA	BOP82	140	–	–	EANT	
191	VRW	IVA	BOP82	1091	–	–	EANT	
192	VRW	IVA	FEN83	2432	–	120-40	–	
193	VRW	IVA	BOP82	140	–	–	EANT	
194	VRW	IVA	BOP82	140	–	–	EANT	
195	VRW	IVA	GPO75	11256	–	–	FLAV	
196	VRW	IVA	BOP82	140	–	–	EANT	
197	VRW	IVA	BOP82	140	–	–	EANT	
198	VRW	IVA	BOP82	140	–	–	EANT	
199	VRW	IVD	GPO75	6925	–	–	EANT	
200	VRW	IVJ	ILA79	283, 307, 356	–	–	EANT	
201	VRW	IVJ	LIM83	771	–	–	HADR	
202	VRW	IVK	ORG86	1031	–	50-80	–	
203	VRW	IV	LCT84	4495	–	–	FLAV	
204	VRW	VIA	–	–	11599	–	–	
205	VRW	VIIHOF	GPO75	12163	4775	–	PREB	
206	VRW	VIIHOF	GPO75	10300	—	–	LNEF	
207	VRW	VIIHOF	GPO75	9360	3750	–	FLAV	
208	VRW	VIIHOF	–	–	14576	–	–	
209	VRW	VIIHOF	GPO75	7922	2939	–	TRAJ	
210	VRW	VIIHOF	GPO75	7067	2452	–	HADR	
211	VRW	VIIHOFVAR	GPO75	7326	–	–	EANT	
212	VRW	VIIHOF	GPO75	3925	3206	–	PR	
213	VRW	VIIBEF	GPO75	7400	–	–	EANT	
214	VRW	VIIBEF	GPO75	4830	–	–	EANT	
215	VRW	IXTAZZA	TR74	408	–	–	HEAN	Green 1980b, fig 25, 89
216	VRW	IXTAZZA	FEN83	1942	–	–	HADR	
217	VRW	IXTAZZA	GPO75	7766	–	–	TRAJ	
218	VRW	IXTAZZA	GPO75	10880	–	–	LNEF	
219	VRW	IXTAZZA	–	–	2900	–	–	
220	VRW	IXUJ	GPO75	5648	–	–	TRAJ	
221	VRW	IXTETTINA	–	–	A27352	–	–	
222	VRW	IXSJ	GPO75	9595	–	–	3RD	
223	VRW	IXLID	IIA79	1500	–	–	TRAJ	
224	VRW	IXLID	GPO75	9817	–	–	FLAV	

No	Fabric	Form	Site	Context	Acc	Pottery Date	Phase Date	Previous Publication
225	VRW	IXCRUC	OPT81	229	1315	–	HADR	
226	VRW	IXCRUC	OPT81	440	1312	–	HADR	
227	VRW	IXCRUC	OPT81	42	1481	–	+	
228	VRW	IXCRUC	OPT81	193	1314	–	3RD	
229	VRW	IXCRUC	OPT81	183	1500	–	M/L4TH	
230	VRW	IXCRUC/ IIR	OPT81	155	1504	–	M/L4TH	
231	VRW	IXCRUC	OPT81	180	1496	–	3RD	
232	VRG	IINJ	LIM83	663	–	–	TRAJ	
233	VRG	IINJ	ORG86	1350	–	50-80	–	
234	VRG	IINJ	LCT84	9941	–	–	FLAV	
235	VRG	IVA	GPO75	12193	–	–	LNEF	
236	VRG	IXLID	GPO75	8445	–	–	TRAJ	
237	VRG	IXLID	GPO75	7673	–	–	TRAJ	
238	VRMI	IF/MT3	GPO75	7461	–	–	HADR	
239	VRMI	I/MT2	–	–	2862	–	–	Marsh 1978, fig 6.6, 2.4
240	VRMI	IIIB/MT20	LCT84	9641	–	–	FLAV	
241	VRMI	IIIB/MT20	LCT84	9577	–	70-100	–	
242	VRMI	IIIB/MT20	LCT84	4385	–	–	FLAV	
243	VRMI	IIIC/MT22	LCT84	3236	–	–	PR	
244	VRMI	III/MT21	–	–	15004H	–	–	
245	VRMI	IVB/MT34	GPO75	9381, 9493	–	–	TRAJ/FLAV	
246	VRMI	IV/MT36	GPO75	5941	–	–	TRAJ	
247	VRMA	IVE	KEY83	1304	–	120-60	–	
248	VRMA	IV	ABS86	737	–	–	HEAN	
249	VRR	VIIHOF	ORM88	1.58	46	70-100	–	
250	VCWS	IAVAR	GPO75	7282	–	–	EANT	
251	vcws	IB7	–	–	2882	–	–	
252	VCWS	IB7	–	–	A20667	–	–	
253	VCWS	IB7	BOP82	1091	–	–	EANT	
254	VCWS	IB7	–	–	25281	–	–	
255	VCWS	IB7	–	–	A11534	–	–	
256	VCWS	IB7VAR	–	–	25065	–	–	
257	VCWS	IC	–	–	A1218	–	–	
258	VCWS	IE	–	ER947	–	70-120	–	
259	VCWS	IE	–	–	2776	–	–	
260	VCWS	IE	ML73	P1	–	70-100	–	
261	VCWS	IH	–	ER546	–	70-140	–	
262	VCWS	IIK	GPO75	7166	–	–	EANT	
263	VCWS	IIK	–	ER477	–	120-200	–	
264	VCWS	IINJ	BOP82	140	–	–	EANT	
265	VCWS	IINJ	LEA84	1080	–	120-40	–	
266	VCWS	IIFACE	–	–	73.68	–	–	
267	VCWS	IIFACE	BAA87	187	–	100-200	–	
268	VCWS	IIFACE	–	–	A1739	–	–	
269	VCWS	IIFACE	BWB83	107	–	–	PR	
270	VCWS	IIFACE	BWB83	189	–	–	3/4TH	
271	VCWS	II	BAA87	221	–	100-200	–	
272	VCWS	IVA	–	–	94.88	–	–	
273	VCWS	IV	–	ER908	–	80-120	–	
274	VCWS	VIIHOF	–	ER477	–	120-200	–	
275	VCWS	VIIHOF	OPT81	180	–	–	3RD	
276	VCWS	IXTAZZA	–	–	A2331	–	–	
277	VCWS	IXTRIPLE VASE		—	2972	–	–	
278	VCWS	IXUJ	–	—	2728	–	–	
279	VCWS	IXTETTINA	—	—	2860	–	–	
280	BHWS	IAVAR	GPO75	10002	–	–	FLAV	
281	BHWS	IB	GPO75	10150	–	–	FLAV	
282	BHWS	IC	GPO75	9796	–	–	FLAV	
283	BHWS	IINJ	GPO75	10855	–	–	LNEF	
284	BHWS	VIIHOF	–	–	25057, A22354	–	–	
285	OXID-2486	I	GPO75	11719	–	–	PREB	
286	OXID-2486	IV	GPO75	9880	–	–	FLAV	
287	OXID-2486	IIK	GPO75	10432	–	–	LNEF	
288	NFSE-2667	IA	–	ER632	–	50-70	–	

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289	NFSE-2667	IA	–	ER648	–	50-70	–	
290	NFSE-2667	IA	GPO75	10153	–	–	FLAV	
291	NFSE-2667	IA	GPO75	10415	–	–	PREB	
292	NFSE-2667	IA	ORG86	829	–	50-80	–	
293	NFSE-2667	IA	OLC85	1116	–	50-80	–	
294	NFSE-2667	IB2	GDH85	697	–	1150 -1350	–	
295	NFSE-2667	LA	–	ER648	–	50-70	–	
296	NFSE-2667	VIIWAL.	–	ER648	–	50-70	–	
297	NFSE-2667	VIIWAL	FEN83	2802	–	–	FLAV	
298	NFSE-2667	VIIWAL	FEN83	3276	–	–	PREB	
299	NFSE-1298	IB	TR74	430	–	–	FLAV	
300	NFSE- 1298	I	TR74	430	–	–	FLAV	Green 1980b, fig 21, 40
301	NFSE-1298	I	TR74	412	–	–	L1/2ND	Green 1980b, fig 21, 42
302	NFSE- 1298	I	TR74	412A	–	–	L1/2ND	Green 1980b, fig 21, 43
303	NFSE- 1298	I	TR74	430	–	–	FLAV	Green 1980b, fig 21, 41
304	NFSE- 1298	I	TR74	412	–	–	L1/2ND	Green 1980b, fig 21, 44
305	NFSE-1298	I	TR74	–	–	–	–	Green 1980b, fig 21, 45
306	NFSE-G236	VIIHOF	–	–	A28124	–	–	
307	NFSE-G238	VII	GPO75	10027	1727	–	FLAV	
308	NFSE-G238	VII	SXE88	105	–	70-100	–	
309	NFSE-G238	VII	–	–	3839?	–	–	
310	NFSE-G238	VII	TR74	–	–	–	–	Green 1980b, fig 22, 46
311	NFSE-G238	VIIDEV	TR74	–	–	–	–	Green 1980b, fig 22, 49
312	NFSE-G238	VIIDEV	TR74	–	–	–	–	Green 1980b, fig 22, 50
313	NFSE-G238	VIIDEV	TR74	–	–	–	–	Green 1980b, fig 22, 51
314	NFSE-2838	VIIBEF	GPO75	6925, 7400	–	–	EANT	
315	NFSE-2844	VII	BOP82	140	–	–	EANT	
316	GLMO	VIIHOF	PIC87	2218	581	70-100	–	
317	AOMO	VIIHOF	NIC80	35	–	–	LNEF	
318	AOMO	VIIHOF	–	–	14384	–	–	
319	AOMO	VIIHOF	–	–	A19530	–	–	
320	ITMO	VIIHOF	Cuming Museum	–	–	–	–	
321	RVMO	VIIHOF	IRO80	836	–	50-100	–	
322	RVMO	VIIHOF	GPO75	11128	–	–	LNEF	
323	RHMO-2554	VIIHOF	GPO75	10858	–	–	FLAV	
324	RHMO-2738	VIIHOF	FEN83	2288	–	–	HADR	
325	RHMO-2835	VIIHOF	GPO75	6925	–	–	EANT	
326	RHMO-2835	VIIHAM	GPO75	7162	–	–	EANT	
327	MORT-2625	VIIWAL	FEN83	3114, 3274	–	–	NERO/PREB	
328	MORT-2669	VIIWAL	PEN79	2130	–	50-70	—	
329	HWB	IIA	GPO75	10866	–	–	PREB	
330	HWB	IIA	GPO75	11117	–	–	LNEF	
331	HWB	IIA	GPO75	9950	–	–	FLAV	
332	HWB	IIA	ORG86	969	–	50-80	—	
333	HWB	IIA	GPO75	11395	–	–	PREB	
334	HWB	IIA	GPO75	10140	–	–	FLAV	
335	HWB	IIA	GPO75	11472	–	–	PREB	
336	HWB	IIA	GPO75	10415	–	–	PREB	
337	HWB	IIA	GPO75	9880	–	–	FLAV	
338	HWB	IIA	GPO75	9880	–	–	FLAV	
339	HWB	IIA	GPO75	9880	–	–	FLAV	
340	HWB	IIA	GPO75	9410	–	–	FLAV	
341	HWB	IIA	GPO75	9410	–	–	FLAV	
342	HWB	IIA	GPO75	10642	–	–	FIAV	
343	HWB	IIA	GPO75	9284	–	–	FLAV	
344	HWB	IIA	LCT84	6150	–	50-80	-	
345	HWB	IIA	GPO75	9880	–	–	FLAV	
346	HWB	IIA	LCT84	4458	–	–	FLAV	
347	HWB	IIB	GPO75	10526	–	–	FLAV	
348	HWB	IIB	TR74	430	–	–	FLAV	Green 1980b, fig 34, 290
349	HWB	IINJ	ORG86	822	–	50-80	—	
350	HWB	IINJ	GPO75	10106	–	–	FLAV	
351	HWB	IINJ	GPO75	9880	–	–	FLAV	
352	HWB	IISJ	GPO75	10483	–	–	LNEF	

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353	HWB	IISJ	GPO75	10106	–		FLAV	
354	HWB	IISJ	GPO75	12163	–	–	PREB	
355	HWB	IISJ	GPO75	10822, 10828 10829, 11042	–	–	PREB	
356	HWB	IISJ	GPO75	11662	–		PREB	
357	HWB	IISJ	ORG86	829	–	50-80	–	
358	HWB	IISJ	ORG86	389	–	50-80	–	
359	HWB	IISJ	LCT84	9786	–	80-100	–	
360	HWB	IISJ	GPO75	9092	–		FLAV	
361	HWB	IISJ	GPO75	9880	–	–	FLAV	
362	HWB	IISJ	GPO75	9880	–	–	FLAV	
363	HWB	IVF	-	–	18357	–	–	
364	HWB	IVF	–	-	12033	–	–	
365	HWB	IVF	GPO75	9092	–	–	FLAV	
366	HWB	IVF	GPO75	11351	–	–	FLAV	
367	HWB	IVF	GPO75	9825	–	–	FLAV	
368	HWB	IVF	ORG86	812	–	70-100	–	
369	HWB	IVF	ORG86	815	–	50-80	–	
370	HWB	IVF	LCT84	9640	–	70-120	–	
371	HWB	IVF	ORG86	969	–	50-80	–	
372	HWB	IVF	LCT84	6586	–	–	FLAV	
373	HWB	IVF	GPO75	11631	–	–	LNEF	
374	HWB	IVF	HOP83	165,169	–	50 - 120	LNEF	
375	HWB	IVF	ORG86	969	–	70 - 100	–	
376	HWB	IVF	ORG86	756	–		–	
377	HWB	IVF	BOP82	1091	–	–	EANT	
378	HWB	IVF	ORG86	969	–	50-80	–	
379	HWB (reconstructed	IVFVAR with)	GP075	9958 ER2013	– –	– -	FLAV –	
380	HWB	IV	ORG86	977	–	50-80	–	
381	HWB	IV	GPO75	11351	–	–	FLAV	
382	HWB	IV	MFI87	47	–	70-100	–	
383	HWB	IV	LCT84		–	-	–	
384	HWB	IV	LCT84	4494	–	–	FLAV	
385	HWB	Iv	ORG86	1045	–	50-80		
386	HWB	V	GPO75	9092	–	-	FLAV	
387	HWB	IXLID	GPO75	10642	–	–	FLAV	
388	HWB	IXLID	--		3019	–	–	
389	HWB	IXLID	--	ER2013	–	–	–	
390	HWBR	IVJ	GP075	9880	–	–	FLAV	
391	HWBR	IVJVAR	HOP83	403	–	–	LNEF	
392	HWBR	IV	GPO75	9092	–	–	FLAV	
393	HWBR	Iv	LCT84	9941	–	–	FLAV	
394	HWBR	VB	ML73	P1	–	70 - 100	–	
395	HWB/C	VB	LCT84	9647	–	70 - 100	–	
396	HWB/C	IIA	GPO75	8201	–	–	TRAJ	
397	HWC	IIA	LIM83	533	–	–	TRAJ	
398	HWC	IIA	LIM83	689	–	–	TRAJ	
399	HWC- 1403	IIBVAR	GPO75	10642	–	–	FLAV	
400	HWC	IIC	GPO75	8780	–	–	TRAJ	
401	HWC	IIE	GPO75	8219	–	–	TRAJ	
402	HWC	IIE	–	–	A28199	–	–	
403	HWC	IIE	–	–	C557	–	–	
404	HWC	IIE	–	-	A16807	–	–	
405	HWC	IIE	'TR74	208	–	–	HEAN	Green 1980b, fig 27, 125
406	HWC	IIE	LIM83	689	–	–	TRAJ	
407	HWC	IIEVAR			23230	–	–	
408	HWC	IIF	GI075	4934	–	–	HADR	
409	HWC+	IIF	GPO75	5421	–	–	HADR	
410	HWC-1403	IIR	GPO75	9466	–	–	FLAV	
411	HWC	IIR	BOP82	140	–	–	EANT	
412	HWC	IJNJ	GPO75	7067	–	–	HADR	
413	HWC-1403	IIIR	GPO75	5879	–	–	TRAJ	
414	HWC- 1403	IIIB	GPO75	10642	–	–	FLAV	
415	HWC- 1403	IIIB	GPO75	10642	–	–	FLAV	
416	HWC- 1403	III	GPO75	9508	–	–	FLAV	

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417	HWC	IIIB	BOP82	1 4 0	–	–	EANT	
418	HWC	IIIB	–	–	A20932	–	–	
419	HWC-1403	IIIE	GPO75	10064	–	–	FLAV	
420	HWC- 1403	IIIE	GPO75	6970	–	–	TRAJ	
421	HWC	IIIE	ILA79	534	–	–	EANT	
422	HWC	IIIE2	BOP82	1091	–	–	EANT	
423	HWC- 1403	IIIF	GPO75	8998	–	–	FLAV	
424	HWC	IIIF	–	–	Al 6809	–	–	Tyers 1978, fig 4.2, 6
425	HWC	IIIF	–	–	3097	–	–	Tyers 1978, fig 4.3, 14
426	HWC	IIIF	–	–	94.90	–	–	Tyers 1978, fig 4.2, 10
427	HWC	IIIF	–	-	A28321	–	–	Tyers 1978, fig 4.2, 12
428	HWC	IVA	GPO75	4934	–	–	HADR	
429	HWC	IVA	BOP82	140	–	–	EANT	
430	HWC	IVA	GPO75	11017	–	–	LNEF	
431	HWC-1402	IVA	GPO75	9325	–	–	FLAV	
432	HWC	IVA	GPO75	8332	–	–	TRAJ	
433	HWB/C	IVF	GPO75	9092	–	–	FLAV	
434	HWC	IVF	-	–	18549	–		
435	HWC	IVF	TR74	423	–	–	FLAV	Green 1980b, fig 28, 149
436	HWC	IVF	BOP82	140	–	–	EANT	
437	HWC	LVF	BOP82	140	–	–	EANT	
438	HWC	LVF	TR74	430	–	–	FLAV	Green 1980b, fig 28, 146
439	HWC	IVF	GPO75	11256	–	–	FLAV	
440	HWC	LVF	GPO75	9410	–	–	FLAV	
441	HWC	LVF	BOP82	140	–	–	EANT	
442	HWC	IVF	GPO75	7524	–	–	TRAJ	
443	HWC	LVF	BOP82	140	–	–	EANT	
444	HWC	IVF	TR74	412	–	–	Ll/2ND	Green 1980b, fig 28, 151
445	HWC	IVF	BOP82	1091	–	–	EANT	
446	HWC	IVF	PUB80	319	–	–	HADR	
447	HWC	IVF/G	BOP82	1091	–	–	EANT	
448	HWC	IVC?	GPO75	7382	–	–	EANT	
449	HWC	IV	LCT84	9765	–	70-100	-	
450	HWC	IV	GPO75	10140	–	–	FLAV	
451	HWB/C	IXLID	LIM83	533	–	–	TRAJ	
452	HWC-1402	IXL.ID	GPO75	10582	–	–	FLAV	
453	HWC-1402	IXLID	GPO75	9410	–	–	FLAV	
454	HWC	IXLID	GPO75	7524	–	–	TRAJ	
455	HWC	IXLID	TR74	–	–	–	–	Green 1980b, fig 28, 157
456	CCGW	IINJ	–	ER1674	–	90-130	-	Marsh & Tyers 1976, fig 2, 1
457	CCGW	II	–	ER1674	–	90-130	-	Marsh & Tyers 1976, fig 3, 43
458	CCGW	III	–	ER1674	–	90-130	-	Marsh & Tyers 1976, fig 3, 52
459	CCGW	IVA	GPO75	8916	–	-	FLAV	
460	CCGW	IVA	LIM83	610	–	–	TRAJ	
461	CCGW	IVA	ORG86	987	–	50-80	-	
462	CCGW	IVA	GPO75	9314	–	–	TRAJ	
463	CCGW	IVF	GPO75	5846	–	-	TRAJ	
464	CCGW	IVF	GPO75	8694	–	–	TRAJ	
465	CCGW	IXLID	–	ER1674	–	90-130	-	Marsh & Tyers 1976, fig 3, 64
466	CCGW	IXLID	–	ER1674	–	90–130	–	Marsh & Tyers 1976, fig 3, 62
467	ERMS	IIB	–	–	18527	–	–	
468	ERMS	IIIG	LCT84	4495	–	–	FLAV	
469	ERMS	IVJ	LCT84	4261	–	–	FLAV	
470	ERMS	Iv	GPO75	12041	–	–	LNEF	
471	ERMS	VA	–	–	Al1284	–	–	
472	ERMS	VA	LCT84	4516	–	60-100	-	
473	ERMS	VA	ORG86	1031	–	50-80	-	
474	ERMS	V	GPO75	11510	–	–	PREB	
475	ERMS	VIB	-	–	22990	–	–	
476	ERMS	IXLID	GPO75	9880,10858	-		FLAV	
477	ERMS	V	GPO75	8152	3607		FLAV	
478	ERMS	V	GPO75	10592	5659		PREB	
479	ERMS?	V	GPO75	10684	5113	-	LNEF	
480	ERSI	IIA	GPO75	11794		-	PREB	
481	ERSI	IIA	GPO75	11394			PREB	
482	ERSI	IIA	GPO75	11794			PRBB	

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483	ERSA	IIA15	GPO75	11649	-	–	PREB	
484	ERSA	IIA15	GPO75	10140, 10226 11183	-	-	FLAV	
485	ERSA	IIA15	-	–	P376	-	–	
486	ERSA/B	IIA	ORG86	1031	–	50-80	-	
487	ERSB	IIA	ORG86	808	–	50-80	-	
488	ERSB	IIA	GPO75	9279	-	–	FLAV	
489	ERSB	IIA	GPO75	10107	–	–	FLAV	
490	ERSB	ILA15	–	–	23665	-	–	
491	ERSB	IIA15	LCT84	9651	–	65-80	-	
492	ERSB	IIA15	-	–	A22718	–	–	
493	ERSB	IIA15	ML73	P1	–	70-100	-	
494	ERSB	IIA15	ORG86	902	–	50-80	-	
495	ERSS	IIA	SLO82	557	-	–	LNEF	
496	ERSS	IIA	SLO82	557	–	–	LNEF	
497	ERSS	IIA	GPO75	9092	–	–	FLAV	
498	ERSS	IIA15	GPO75	9092, 9796	–	–	FLAV	
499	ERSB	IINJ	LCT84	6767	–	–	FLAV	
500	ERSS	IINJ	LCT84	4495	–	–	FLAV	
501	ERSA/B	IINJ	GPO75	11330	–	–	LNEF	
502	ERSB	IINJ	–	-	27.30/22	-	–	
503	ERSB	IINJ	GPO75	9860, 9958	–	–	FLAV	
504	ERSB	IINJ	GPO75	8237	–	–	TRAJ	
505	ERSB	IINJ	GPO75	5716	–	–	TRAJ	
506	ERSB	IINJ	GPO75	9466	–	–	FLAV	
507	ERSB	IINJ	GPO75	8998	–	–	FLAV	
508	ERSB	IINJ	GPO75	11351	–	–	FLAV	
509	ERSB	IINJ	LCT84	4459	–	–	FLAV	
510	ERSB	IINJ	GPO75	8998	-	–	FLAV	
511	ERSB	IINJ	GPO75	10220	–	–	FLAV	
512	ERSB	IINJ	GPO75	9860, 9915	–	–	FLAV	
513	ERSB	II	NIC80	35	–	–	LNEF	
514	ERSB	IVA	LIM83	654	–	–	FLAV	
515	ERSB	IVA	LCT84	9911	–	–	FLAV	
516	ERSB	IVA	LCT84	9878	–	–	FLAV	
517	ERSB	IVF	GPO75	8112	–	–	TRAJ	
518	ERSB	IVF	MLK76	645	–	–	FLAV	
519	ERSB	IVF	LIM83	671	–	–	FLAV	
520	ERSB	IVFVAR	GPO75	9092	–	–	FLAV	
521	ERSA/B	IV	GPO75	8412	–	–	TRAJ	
522	ERSB	IV	CAS72	88	–	–	NERO	Bird 1973, fig 12, 120
523	ERSB	IV	GPO75	9493	–	–	FLAV	
524	ERSB	VB	LCT84	9577	–	70-100	-	
525	ERSB	VIAVAR	LCT84	4459	–	–	FLAV	
526	ERSB	IXLID	GPO75	7699	–	–	TRAJ	
527	ERSS	IXLID	LCT84	6507	–	–	FLAV	
528	AHSU	IEVAR	IRO80	839	–	50-70	-	
529	AHSU	IIA	ML73	P1	–	70-100	-	
530	AHSU	IIA	GPO75	9370	-	–	FLAV	
531	AHSU	IIA	GPO75	10245	–	–	FLAV	
532	AHSU	IIA	GPO75	9298	–	–	FLAV	
533	AHSU	IIA	GPO75	10294	–	–	FLAV	
534	AHSU	IIA	GPO75	11793	–	–	LNEF	
535	AHSU	IIA	GPO75	11403	–	–	PREB	
536	AHSU	IIA	GPO75	11186	–	–	LNEF	
537	AHSU	IIA	GPO75	11172	–	–	FLAV	
538	AHSU-1628	IIA	LCT84	9803, 9804	–	–	FLAV	
539	AHSU-1628	IIA	GPO75	12187	–	–	LNEF	
540	AHSU	IIC	–	–	A207	–	–	
541	AHSU	IIC	–	–	21755	–	–	
542	AHSU	IIC	GPO75	11377	–	–	LNEF	
543	AHSU	IIC	GPO75	8247	–	–	HADR	
544	AHSU	IID	–	–	A1730	–	–	
545	AHSU	IID	–	–	29.47/1	–	–	
546	AHSU	IID	GPO75	8998	–	–	FLAV	
547	AHSU	IIR	ORG86	1031	–	50-80	-	

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548	AHSU	IIR	GPO75	10241, 10242	–	–	FLAV	
549	AHSU	IIR	GPO75	7192	–	–	HADR	
550	AHSU	IINJ	GPO75	9360	–	–	FLAV	
551	AHSU	II	GPO75	10878	–	–	LNEF	
552	AHSU	IINJ	GPO75	9880	–	–	FLAV	
553	AHSU	II	LCT84	9987	–	–	FLAV	
554	AHSU	IISJ	-		L146/26	–	-	
555	AHSU	IIIA	LCT84	9915	–	–	FLAV	
556	AHSU	IVA	GPO75	9410	–	–	FLAV	
557	AHSU	IVF	MF187	120	–	70-100	-	
558	AHSU	IVK	GPO75	11178	–	–	LNEF	
559	AHSU	IVK	GPO75	11678	–	–	PREB	
560	AHSU	IVK	LCT84	9577	–	70-100	-	
561	AHSU	IVKVAR	MF187	120	–	70-100	-	
562	AHSU	IVKVAR	LCT84	9146	–	60-80	-	
563	AHSU	VA	GPO75	10550	–	–	LNEF	
564	AHSU	VA	GPO75	9330	–	–	FLAV	
565	AHSU	VA	GPO75	10394	–	–	FLAV	
566	AHSU	VB	GPO75	11391	–	–	LNEF	
567	AHSU	VB	GPO75	9860	–	–	FLAV	
568	AHSU	IXLID	ORG86	330	–	50-100	-	
569	AHSU	IXLID	GPO75	10143	–	–	FLAV	
570	NKSH	IIA	BHS88	314	–	–		
571	NKSH	IIA	FEN83	3056	–	–	PREB	
572	NKSH	IIA	-		10476	–		
573	NKSH	IIA	GPO75	10853	–	–	LNEF	
574	NKSH	IIA16	LCT84	9722	–	–	FLAV	
575	NKSH	IIM	TR74	412	–	–	L1/2ND	Green 1980b, fig 35, 295
576	NKSH	IIM	GPO75	5648, 5534	–	–	TRAJ	
577	NKSH	IIM	TR74		–	–		Green 1980b, fig 35, 293
578	NKSH	IIM	GPO75	5424	–	–	TRAJ	
579	NKSH	IIM			94.89	–	-	
580	NKSH	IIMVAR	GPO75	8862	–	–	TRAJ	
581	NKSH	IIMVAR	GPO75	10852	–	–	FLAV	
582	NKSH	IIM	TR74		–	–		
583	NKSH	IIM	TR74		–	–		Green 1980b, fig 35, 296
584	NKSH	IINJ	LCT84	9890	–	–	FLAV	
585	NKSH	VIIHOF	BRL87	770	–	–	NEEF	
586	NKSH	IXDOLIUM	KNG85	193	–	–	FLAV	
587	SESH	IX	TR74	408, 412	–	–	HEAN/ Ll/2ND	Green 1980b, fig 35, 299
588	SESH	IX	TR74	-	–	–	-	Green 1980b, fig 35, 301
589	SESH	IX	TR74	412	–	–	L1/2ND	Green 1980b, fig 35, 300
590	SHEL-2826	IIA16	RAG87	1593	–	–	FLAV	
591	SHEL-2811	IIA	GPO75	9092, 9261 10580	–	–	FLAV	
592	SHEL-2810	IIA	GPO75	10642	–	–	FLAV	
593	SHEL-2810	IIA16	GPO75	8024	–	–	TRAJ	
594	SHEL-2809	IIA	FEN83	3287	–	–	PREB	
595	SHEL-2809	IIA	RAG87	1514	–	–	HEAN	
596	SHEL-2809	IIA	FEN83	1197	–	–	FLAV	
597	SHEL-2809	IIA16	GPO75	10580	–	–	FLAV	
598	SHEL-2825	IIA	KNG85	2447	–	50-80	-	
599	SHEL-2825	IIA	KNG85	2447	–	50-80	-	
600	BBl	I	BOP82	140	–	–	EANT	
601	BBl	IIA	GPO75	8210	–	–	HADR	
602	BBl	IIFl-2	GPO75	7280	–	–	EANT	
603	BBl	IIFl-2	TR74	412	–	–	L1/2ND	Green 1980b, fig 34, 279
604	BBl	IIFl-2	GPO75	7280	–	–	EANT	
605	BBl	IIF	TR74		–	–	-	Green 1980b, fig 34, 280
606	BBl	IIIE	GPO75	7217	–	–	HADR	
607	BBI	IIIE2	ALG84	179	–	140-200	-	
608	BBl	IVG	BOP82	140	–		EANT	
609	BBl	IVG	GPO75	5434	–		HADR	
610	BB1	IVG	TR74	408	–		HEAN	Green 1980b, fig 34, 282
611	BBl	IVG	TR74	208	–		WEAN	Green 1980b, fig 34, 284

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612	BBl	IVG	TR74	412	–	–	L1/2ND	Green 1980b, fig 34, 283
613	BBl-2765	IVG3	GPO75	6925	–	–	EANT	
614	BBI	IVG	GPO75	6925	–	–	EANT	
615	BBl-2765	IVG	GPO75	6925	–	–	EANT	
616	BBl	IVG	TR74	408	–	–	HEAN	
617	BBl	IVG3	BOP82	1091	–	–	EANT	
618	BBl	IVJVAR	GPO75	6925	–	–	EANT	
619	BBl	IVJVAR	GPO75	1452	–	–	EANT	
620	BBl	IV	TRM86	146	–	120-40	-	
621	BBl	IXLID	GPO75	7067	–	–	HADR	
622	BBS-1547	IIF	GPO75	9904, 11162	–	–	FLAV*	
623	BBS-1547	IVG	TR74	412	–	–	L1/2ND	Green 1980b, fig 34, 285
624	BBS-1547	IV	GPO75	6925	–	–	EANT	
625	BBS-1547	IVJ	BOP82	140	–	–	EANT	
626	BB2-1462	IIA	GPO75	6925	–	–	EANT	
627	BB2-1462	IIA	GPO75	6925	–	–	EANT	
628	BB2-1462	IIF	GPO75	7166	–	–	EANT	
629	BB2-1462	IIF	-		23677	–		
630	BB2-2597	IIF	BOP82	1091	–	–	EANT	
631	BB2-2770	IIF6	GPO75	7280	–	–	EANT	
632	BB2-1462	IIF6	-		A20902	–		
633	BB2-1462	IIFll	BOP82	140	–	–	EANT	
634	BB2-1462	IIIE	GPO75	6925	–	–	EANT	
635	BB2-2597	IVHl-4	BOP82	140	–	–	EANT	
636	BB2-1462	IVHl-4	BOP82	140	–	–	EANT	
637	BB2-1462	IVHl-4	BOP82	140	–	–	EANT	
638	BB2-1462	IVHl-4	GPO75	6925	–	–	EANT	
639	BB2-1462	IVHl-4	GPO75	7176	–	–	EAN-I	
640	BB2-2597	IVHl-4	BOP82	140	–	–	EANT	
641	BB2-1462	IVHl-4	BOP82	140	–	–	EANT	
642	BB2-1462	IVHl-4	BOP82	1091	–	–	EANT	
643	BB2-1462	IVHl-4	GPO75	4890	–	–	HADR	
644	BB2-1462	IVHl-4	GPO75	6925	–	–	EANT	
645	BB2-1462	IVJ	BOP82	140	–	–	EANT	
646	BB2-1462	IVJ	GPO75	6925	–	–	EANT	
647	BB2-117	IIF6	GPO75	6922	–	–	EANT	
648	BB2-117	IIF6	GPO75	6925	–	–	EANT	
649	BB2-2238	IVHl-4	GPO75	6925	–	–	EANT	
650	BB2-2238	IVHl-4	GPO75	9904	–	–	FLAV*	
651	BB2-2237	IVHl-4	GPO75	6925, 728O	–	–	EANT	
652	BB2-2238	IVHl-4	GPO75	7280	–	–	EANT	
653	BB2-2127	IVHl-4	GPO75	1522	–	–	EANT	
654	BB2-2238	IVHl-4	BOP82	140	–	–	EANT	
655	BB2-2127	IVHl-4	GPO75	6925	–	–	EANT	
656	BB2-2238	IVH5-7	GPO75	7162	–	–	EANT	
657	BB2-2238	IVH5-7	GPO75	7162	–	–	EANT	
658	BB2-2768	IVHI-4	GPO75	7280	–	–	EANT	
659	BB2-2759	IVG	GPO75	4890	–	–	HADR	
660	BB2-2759	IVG	GPO75	4934	–	–	HADR	
661	BB2-2759	IVG	BOP82	1091	–	–	EANT	
662	BB2-2759	IVHl-4	GPO75	1522	–	–	EANT	
663	BB2-2759	IVHl-4	BOP82	1091	–	–	EANT	
664	BB2-2759	IVHl-4	LIM83	768	–	–	ANT0	
665	BB2-2759	IVHI-4	GPO75	6925	–	–	EANT	
666	BB2-2759	IVH5-7	GPO75	6922	–	–	EANT	
667	BB2-2759	IVJVAR	GPO75	7162	–	–	EANT	
668	BBS-2764	IVGVAR	GPO75	5434	–	–	HADR	
669	BBS-2764	IVG	GPO75	5434	–	–	HADR	
670	BBS-718	IVJ	GPO75	6925	–	–	EANT	
671	SUG	IISJ	LIM83	663	–	–	TRAJ	
672	SUG	IISJ	LIM83	663	–	–	TRAJ	
673	RUST	III	-		Al705	–	-	
674	SAND-2873	IIA	GPO75	7374	–	–	HADR	
675	SAND-2862	III	GPO75	9213	–	–	FLAV	
676	SAND-2862	IVA	GPO75	10525	–	–	FLAV	
677	NGGW	IINJ	GPO75	8167	–	–	TRAJ	

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678	NGGW-2718	IV	GPO75	7326	-	-	EANT	
679	LOMA	IV/MT45	CS75/6	1074	-	-	HADR	Green 1979, fig 11, 48
680	LOMA	IV/MT34	GPO75	4890, 5421	-	-	HADR	
681	LOMA	IV/MT28	MGT87	796	-	100-20	-	
682	LOMA	VIA/MT12	CKL88	495, 508	-	=	-	
683	RBGW	I/AT1	LCT84	3127	-	—	L2/3RD	
684	RBGW	IVC/ATS	GPO75		—	-	+	
685	SGCC	VI	FEN83	2901	—	-	PREB	
686	SGCC	VI	FEN83	3423	—	—	PREB	
687	SGCC	VI	FEN83	3356	—	-	PREB	
688	SGCC	VI	FEN83	3402, 3412, 3542	—	=	PREB	
689	SPAN	VI	FST85	972	—	—	NEEF	
690	LYON	III/GT20	EST83	520	—	-	PREF	
691	LYON	III/GT20	FEN83	3293, 3294	—	—	PREB	
692	LYON	III/GT20	PDN81	1899	-	—	FLAV	
693	LYON	VI/GTl	LCT84	9754	=	70-100	-	
694	LYON	VI/GT1	FEN83	3152	—	=	PREB	
695	LYON	VI/GT3	GPO75	9466	—	—	FLAV	
696	LYON	VI/GT4	GPO75	11769	—	—	PREB	
697	LYON	VI/GT5	FEN83	2901	—	—	PREB	
698	CGGW-1039	I/GT2	TR74	430	—	—	FLAV	Green 1980b, fig 36, 309
699	CGGW-1039	III/GT13-14	LCT84	9584	—	—	PR	
700	CGGW-1039	III/GT14	GPO75	10257	—	—	FLAV	
701	CGGW-1039	VI/GTS	LEN89	452	—	=		
702	CGGW-1039	IXUJ	LCT84	4062	2848	—	FLTR	
703	CGGW-3967	I/GT2	LCT84	9577	-	70-100	-	
704	CGWH	III	TR74	394	-	-	HEAN	Green 1980b, fig 36, 308
705	CGWH	III	TR74	423	-	-	FLAV	Green 1980b, fig 36, 305
706	CGWH	III	TR74	394		-	HEAN	Green 1980b, fig 36, 306
707	CGWH	III	LCT84	4100	2856	70-120	-	
708	CGOF	IV	GPO75	8934, 902O	—	=	FLAV	
709	CGOF	VT	LCT84	9722	—	—	FLAV	
710	KOLN	III	GPO75	7280	=	—	EANT	
711	KOLN	III	GPO75	7326	—	=	EANT	
712	KOLN	III	BOP82	140	=	=	EANT	
713	KOLN	III	RAG82	1224	=	—	L2/E3RD	
714	KOLN	III	RAG82	1237	—	=	EANT	
715	PRWl	IVJ	FEN83	3297	1119	=	PREB	
716	PRW1	IXLID	TR74	208	=	—	HEAN	Green 1980b, fig 35, 303
717	PRW3	IVJ	GPO75	9880	=	—	FLAV	
718	PRW3	IVJ	BOP82	1091	=	=	EANT	
719	PRW3	IVJ	FEN83	1942	=	=	HADR	
720	PRW3	IXLID	TR74	208	—	—	HEAN	Green 1980b, fig 38, 3 12
721	PRW3	IXLID	BOP82	467	—	—	FLTR	
722	PRW3	IXLID	TR74	-	=	=	-	Green 1980b, fig 38, 311
723	LOMI-371	IF/MT3	GPO75	1522	=	=	EANT	
724	LOMI-1247	IF/MT3	TR74	412A	—	=	L1/2ND	Green 1980b, fig 39, 351
725	LOMI-1247	IF/MT3	-		1237G	=		Marsh 1978, fig 6.6, 3.2
726	LOMI-1247	IINJ/MT23	TR74	430	—	—	FLAV	Green 1980b, fig 39, 343
727	LOMI-1247	IIIB/MT22	ML73	P1	-	70-100	-	
728	LOMI-371	IIIB/MT22	GPO75	9860	-	=	FLAV	
729	LOMI-1247	IIIB/MT22	GPO75	5879	-	—	TRAJ	
730	LOMI-1247	IIIB/MT21	-	—	18795	—		Marsh 1978, fig 6.9, 21.3
731	LOMI-371	IIIG/MT17	GPO75	8013	—	-	TRAJ	
732	LOMI-1247	IVA/MT35	TR74	402	=	—	HEAN	Green 1980b, fig 39, 349
733	LOMI-1247	IVA/MT35	TR74	412	—	—	L1/2ND	Green 1980b, fig 39, 346
734	LOMI-371	IVA/MT35	CNL81	246, 253, 257	=	—	TRAJ	
735	LOMI-1247	IV/MT34-5	LIM83	960	=	—	TRAJ	
736	LOMI-1244	IVB/MT37	-		14965	—		Marsh 1978, fig 6.17, 37.2
737	LOMI-371	IVB/MT37	-	-	14972	-		Marsh 1978, fig 6.17, 37.18
738	LOMI-1244	IVJ/MT24	GPO75	7067	-	-	HADR	
739	LOMI-1247	IVJ/MT24	-		14986	-		Marsh 1978, fig 6.10, 24.7
740	LOMI-1244	IVJ/MT24	TR74	394	—	-	HEAN	Green 1980b, fig 38, 325
741	LOMI-1244	IVJ/MT24	TR74	408	—	—	HEAN	Green 1980b, fig 38, 326
742	LOMI-1244	IV/MT37	GPO75	7217	-	—	HADR	

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743	LOMI-371	IV/MT34	–	–	A23509	–	–	Marsh 1978, fig 6.15, 34.3
744	LOMI-1247	IV/MT34	–	–	A23510	–	–	Marsh 1978, fig 6.15, 34.4
745	LOMI-1247	IV/MT46	–	–	14240	–	-	Marsh 1978, fig 6.21, 46.8
746	LOMI-1247	IV/MT27	TR74	334	–	-	HEAN	Green 1980b, fig 39, 348
747	LOMI-1244	IV	GPO75	7326	–	-	EANT	
748	LOMI-371	IV/MT38	GPO75	5434	–	-	HADR	
749	LOMI-1244	IV/MT26	-	–	14947		–	Marsh 1978, fig 6.13, 26.20
750	LOMI-1244	IV/MT25	DUK77	84	-	120-200	-	Marsh 1978, fig 6.12, 25.10
751	LOMI-1244	LV	TR74	382	-		HEAN	Green 1980b, fig 38, 327
752	LOMI-1247	VIA/MT12	TR74	423	–	-	FLAV	Green 1980b, fig 39, 347
753	LOMI-1247	IXLID/ MT56	TR74	412	–	-	L1/2ND	Green 1980b, fig 39, 345
754	LOMI-1244	IXLID/ MT57	TR74	208	–	–	HEAN	Green 1980b, fig 39, 344
755	MICA-2693	IVJ/MT24	BOP82	140	–	–	EANT	
756	MICA-1245	IVJ/MT24	BOP82	140	–	–	EANT	
757	MICA-2577	III	GPO75	11247	–	–	PREB	
758	MICA-376	IIFACE	NFW74	166,511,+	–	-	PR/E3/+	
759	MICA-376	IVA/MT36	–		18373	–		Marsh 1978, fig 6.16, 36.1
760	MICA-376	IVJ/VA/ MT24	GPO75	10229	–	-	LNEF	
761	MICA-376	IV/MT31	GPO75	7067	–	–	HADR	
762	MICA-376	IV/MT26 VAR	GPO75	7280	–	–	EANT	
763	MICA-383	IIIB/MT22	TR74	208	–	–	HEAN	Green 1980b, fig 37, 318
764	MICA-1242	IIIB/MT20	BIS82	561	–	–	FLTR	
765	MICA-1241	IIIB/MT21	MLL73	P1	–	70-100	-	
766	RDBK-1606	IAVAR	–		22015	–	-	
767	RDBK-1606	IAVAR	GPO75	9381		-	TRAJ	
768	RDBK-1606	IB	LCT84	6496		–	FLAV	
769	RDBK-1606	IB	-		A21266	–		
770	RDBK-1606	ID	-	-	Al 1264	–	-	
771	RDBK-1606	IJ	ORG86	968	–	50-80	-	
772	RDBK-1606	IJ	ORG86	734	-	50-80	-	
773	RDBK-1606		ORG86	642	–	50-100	-	
774	RDBK-1606		TR74	412	–	–	L1/2ND	Green 1980b, fig 37, 371
775	RDBK-1606	IIIB	–		18506	–		Green 1978, fig 5.2, 7
776	RDBK-1606	IIIB	–		18354	–		Green 1978, fig 5.2, 8
777	RDBK-1606	IIIB	GPO75	9880		–	FLAV	
778	RDBK-1606	IIIB	–		10680	–		Green 1978, fig 5.1, 2
779	RDBK-1606	IIIB	–	A24348	–	–		Green 1978, fig 5.1, 3
780	RDBK-1606	IIIB	–	12395	–	–		Green 1978, fig 5.1, 5
781	RDBK-1606	IIIB	GPO75	9880, 10858	-	–	FLAV	
782	RDBK-1606	IV	GPO75	9493	–	–	FLAV	
783	RDBK-1606	IV	GPO75	7280	–	–	EANT	
784	RDBK-1606	IV	LCT84	6452, 6482	-	–	FLAV	
785	RDBK-1606	IV	GPO75	9261	–	–	FLAV	
786	RDBK-1606	VIA	–	-	25054	–		
787	RDBK-1606	VI	SL082	483, 557	-	–	LNEF	
788	RDBK-2635	IIIB	MC73	64	–	–	FLAV	Green 1978, fig 5.2, 10 Rhodes 1975, fig 11, 61
789	GBWW	IIIA	GPO75	11641	–	–	PREB	
790	GBWW	IIIA	ORG86	993	–	50-80	-	
791	LOEG	IB/MT7	TR74	349	–	–	TRHA	Green 1980b, fig 37, 370
792	LOEG	IIIB/MT22			A27973	–		Marsh 1978, fig 6.10, 22.5
793	LOEG	IIIC/MT22	CS75	6	–	–	HADR	Green 1979, fig 11, 40
794	LOEG	IV/MT13	LIM83	960	–	–	TRAJ	
795	LOEG	IV/MT13	TR74	412	–	–	L1/2ND	Green 1980b, fig 37, 368
796	LOEG	IV/MT13	TR74	412	–	–	L1/2ND	Green 1980b, fig 37, 367
797	LOEG	IV/MT14	TR74	412	–	–	L1/2ND	Green 1980b, fig 37, 369
798	LOEG	IV/MT34	AP081	181	–	–	PR	
799	LOEG	IV/MT35	-		25753	–		Marsh 1978, fig 6.16, 35.5
800	LOEG	IV/MT33	–		12752	–		Marsh 1978, fig 6.15, 33.2
801	LOEG	VIC/MT11	TR74	288	–	–	ANTO	Green 1980b, fig 37, 366
802	LOEG	VIC/MT11	GPO75	9826	–	-	FLAV	

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803	LOEG	VI/MTll VAR	GPO75	8375		—	TRAJ	
804	LOEG	WMT15	—	-	A20842	—	—	Marsh 1978, fig 6.9, 15
805	LOEG	VI/MT16	—	-	8413	—	—	Marsh 1978, fig 6.9, 16
806	LOEG	IV/MT43	—		22946	—	—	Marsh 1978, fig 6.19, 43.16
807	LOEG	IXLID	GPO75	7578	-	—	HADR	
808	BLEG	III	TR74	394	118	—	WEAN	Green 1980b, fig 36, 315
809	BLEG	III	—	ER161	12092	—	—	
810	BLEG	III	—	ER162	3767	—	—	
811		V/IVJ	GPO75	11017	-	—	LNEF	
812		VB	MLK76	684	845	—	PREF	
813	TNIM-2181	V/IVJ	GPO75	9259		—	FLAV	
814	TNIM-2181	IVJ	-	-	2792	—		
815	LONW	IIR/MTS1	GPO75	10219, 10262 10298	-	—	FLAV	
816	LONW	IIR/MT5l	-		14298	—	—	Marsh & Tyers 1976, fig 9, 136
817	LONW	IVD/MT44	-		14870	—	—	Marsh 1978, fig 6.19, 44.1
818	LONW	IVD/MT44	-			—	—	Marsh & Tyers 1976, fig 8, 130
819	LONW	XIVD/MT44	GPO75	8562	-	—	TRAJ	
820	LONW	IVE/MT42	—		14304/15	—	—	Marsh & Tyers 1976, fig 5, 108
821	LONW	IVE/MT42	—		14304/26	—	—	Marsh & Tyers 1976, fig 5, 109
822	LONW	IVE/MT42	—		14304/57	—	—	Marsh & Tyers 1976, fig 5, 111
823	LONW	IVE/MT42	CIL86	509	-	140-200	-	
824	LONW	VC/MT31	—	-	14863H	—	—	Marsh & Tyers 1976, fig 10, 142
825	LONW	VC/MT31	—		14863C	—	—	Marsh & Tyers 1976, fig 10, 148
826	LONW-STD	Iv	GPO75	7382	—	—	EANT	
827	NKFW	IIEVAR	GPO75	6967	—	—	HADR	
828	NKFW	IIIA	LIM83	663	—	—	TMJ	
829	NKFW	IIIB	GPO75	8692	—	—	TMJ	
830	NKFW	IVF	LIM83	666	—	—	FLAV	
831	NIFW	VA	GPO75	9325	—	—	FLAV	
832	NKFW	V	GPO75	7403	—	—	EANT	
833	FMIC-1659	IIA	GPO75	8058	—	—	TRAJ	
834	FMIC-1747	IIA	ORG86	812	—	70-100	-	
835	FMIC-1659	IINJ	GPO75	8303	—	-	TRAJ	
836	FMIC-1747	IINJ	GPO75	9381	—	-	TRAJ	
837	FMIC-1659	IIIB	-		3080	-	-	
838	FMIC-1659	IIIB	GPO75	10208	-	-	FLAV	
839	FMIC-1659	IIIB	—		3075		—	
840	FMIC-1659	IIIB	LCT84	12162	—	65-80	—	
841	FMIC-1659	IIIB	GPO75	9370	—	—	FLAV	
842	FMIC-1659	IIIB	GPO75	9560	—	—	FLAV	
843	FMIC-1659	IIIB	GPO75	8692, 9381 9462	—	—	TRAJ	
844	FMIC-1747	IIIB	ORG86	438	—	70-100	-	
845	FMIC-1747	IIIB	ORG86	812	—	70-100	-	
846	FMIC-1659	IIIC	GPO75	9493	—	-	FLAV	
847	FMIC-1659	IIIC	ORG86	810	—	50-80	-	
848	FMIC-1747	IIIC	GPO75	10106	—		FLAV	
849	FMIC-1659	IIIC	LCT84	9577	—	70-100	-	
850	FMIC-1659	IIIC	GPO75	8998	—	-	FLAV	
851	FMIC-1659	IIIC	GPO75	8998	—		FL.AV	
852	FMIC-1659	IIIC	ORG86	997	—	50-80	-	
853	FMIC-1659	IIIC	ORG86	756	—	70-100	-	
854	FMIC-1747	IIIC	ORG86	438	—	70-100	-	
855	FMIC-1659	IIIF	-	-	A16960	—		
856	FMIC-1659	IIIF	LIM83	689	—	—	TRAJ	
857	FMIC-1747	IIIFVAR	GPO75	10245	—	—	FLAV	
858	FMIC-1659	IIIG	GPO75	10526	—	—	FLAV	
859	FMIC-1747	IIIH	ORG86	977	—	50-80	-	
860	FMIC-1747	III	ORG86	39	—	50-80	-	
861	FMIC-1659	IVJ	LCT84	4246	—	—	FLAV	
862	FMIC-1659	IVJ	GPO75	9092	—	—	FLAV	
863	FMIC-760	IVJ	GPO75	9370	—	—	FLAV	

No	Fabric	Form	Site	Context	Act	Pottery Date	Phase Date	Previous Publication
864	FMIC-1747	IV	GPO75	10767	–	–	LNEF	
865	FMIC-1659	IV	GPO75	10093	–	–	FLAV	
866	FMIC-1747	IV	LCT84	9783	–	70-100	-	
867	FMIC-1659	IV	GPO75	10525	–	–	FLAV	
868	FMIC-760	IV	GPO75	9860	–	–	FLAV	
869	FMIC-760	VB	GPO75	9092, 9325	–	–	FLAV	
870	FMIC-760	VA	TR74	279	–	–		Green 1980b, fig 38, 324
871	FMIC-1659	V	GPO75	8315, 8998	–	–	FLAV	
872	FMIC-1659	VIA	GPO75	8315	–	–	FLAV	
873	FMIC-760	VI	GPO75	10106	–	–	FLAV	
874	FMIC-1659	IXLID	GPO75	10748	–	–	FLAV	
875	FMIC-1659	IXLID	GPO75	8862	–	–	TRAJ	
876	FMIC-1659	IXLID	GPO75	8862	–	–	TRAJ	
877	FMIC-1747	IXLID	LCT84	4246	–	–	FLAV	
878	FMIC-1746	IA	GPO75	11247	–	–	PREB	
879	FMIC-1746	IB	GPO75	9493	–	–	FLAV	
880	FMIC-1746	IIIC	ORG86	822	–	50-80	-	
881	FMIC-1746	IIIC	GPO75	12248	–	–	PREB	
882	FMIC-1746	IIIC	ORG86	39	–	50-80	-	
883	FMIC-1746	IIIE	GPO75	10823	–	–	FLAV	
884	FMIC-1746	IVAVAR	GPO75	10642	–	–	FLAV	
885	FMIC-1746	IX	ORG86	764	–	50-80	-	
886	FMIC-2488	IIIC	GPO75	12299	–	–	PREB	
887	FMIC-2488	IIIC	GPO75	9359, 11075	–	–	FLAV/LNEF	
888	FMIC-2488	IIIC	ORG86	1043	–	50-80	-	
889	FMIC-2488	IIIH	GPO75	11678	–	–	PREB	
890	FMIC-2488	III	GPO75	11182	–	–	FLAV	
891	FMIC-2488	IVD	ORG86	736, 830	–	50-80	-	
892	FMIC-2488	IVD	GPO75	8024	–	–	TRAJ	
893	FMIC-1661	VI	ORG86	994	–	50-80	-	
894	FMIC-2559	IIlA	ML73	P1	–	–	FLAV	
	(reconstructed	with)	GPO75	9466	–	–	FLAV	
895	FMIC-2559	IIIB	GPO75	9880	–	–	FLAV	
896	FMIC-2559	IIIG/H	ORG86	968, 969	–	50-80	-	
897	FMIC-2559	IV	LCT84	10096	–	–	FLAV	
898	FMIC-2559	IV	GPO75	10858	–	–	FLAV	
899	FMIC-2559	VIA	LCT84	6617	–	–	FLAV	
900	FINE-492	IIIEVAR	GPO75	5565	–	–	TRAJ	
901	FINE-492	IIIF	GPO75	9904	–	–	FLAV	
902	FINE-492	III	GPO75	12193	–	–	LNEF	
903	FINE-492	IINJ	GPO75	7764, 8228	–	–	TRAJ	
904	FINE-2859	IIIE	GPO75	10136	–	–	FLAV	
905	FINE-2859	IIIF	GPO75	10525	–	–	FLAV	
906	FINE-2866	I	LCT84	4313	–	–	FLAV	
907	FINE-2866	IIIB	GPO75	8901, 9164	–	–	TRAJ	
908	FINE-1546	IIIC	TR74	208	–	–	HEAN	Green 1980b, fig 37, 317
909	FINE-1546	IIIF	GPO75	9261	–	–	FLAV	
948	VCWS	IA	GPO75	11955	–	–	LNEF	
970	VRG	IVA	GPO75	5709	–	–	TRAJ	

Appendix 4: Concordance of illustrated sherds in phase groups

This provides a concordance between drawings (numbers 910-1147) used to illustrate the phase groups in Chapter 7 and the more detailed information provided in Appendix 3. Apart from Numbers 948 and 970, the drawings in Chapter 7 are duplicates of those used in Chapters 2-6.

Phase illustration number		Equivalent corpus number
910	=	55
911	=	117
912	=	143
913	=	120
914	=	285
915	=	60
916	=	329
917	=	481
918	=	483
919	=	535
920	=	68
921	=	63
922	=	354
923	=	137
924	=	184
925	=	789
926	=	886
927	=	889
928	=	75
929	=	691
930	=	78
931	=	559
932	=	84
933	=	471
934	=	88
935	=	685
936	=	694
937	=	695
938	=	89
939	=	125
940	=	296
941	=	327
942	=	90
943	=	129
944	=	205
945	=	321
946	=	130
947	=	146
948	=	948
949	=	289
950	=	119
951	=	147
952	=	150
953	=	160
954	=	162
955	=	341
956	=	486
957	=	494
958	=	534
959	=	573
960	=	467
961	=	540
962	=	177
963	=	501
964	=	352
965	=	414
966	=	776
967	=	853
968	=	882
969	=	902
970	=	970
971	=	373
972	=	391
973	=	558
974	=	563
975	=	474
976	=	206
977	=	309
978	=	716
979	=	131
980	=	148
981	=	161
982	=	282
983	=	168
984	=	345
985	=	343
986	=	529
987	=	467
988	=	542
989	=	581
990	=	815
991	=	351
992	=	503
993	=	353
994	=	894
995	=	727
996	=	777
997	=	839
998	=	419
999	=	424
1000	=	901

Phase illustration number		Equivalent corpus number
1001	=	699
1002	=	430
1003	=	364
1004	=	438
1005	=	817
1006	=	891
10137	=	390
1008	=	717
1009	=	863
1010	=	384
1011	=	708
1012	=	565
1013	=	869
1014	=	872
1015	=	802
1016	=	873
1017	=	388
1018	=	387
1019	=	208
1020	=	284
1021	=	309
1022	=	323
1023	=	149
1024	=	724
1025	=	172
1026	=	301
1027	=	396
1028	=	530
1029	=	400
1030	=	541
1031	=	544
1032	=	403
1033	=	175
1034	=	576
1035	=	816
1036	=	179
1037	=	504
1038	=	829
1039	=	843
1040	=	420
1041	=	427
1042	=	856
1043	=	706
1044	=	193
1045	=	432
1046	=	462
1047	=	734
1048	=	892
1049	=	820
1050	=	442
1051	=	463
1052	=	246
1053	=	749
1054	=	783
1055	=	794
1056	=	825
1057	=	803
1058	=	209
1059	=	115

Phase illustration number		Equivalent corpus number
1060	=	454
1061	=	151
1062	=	164
1063	=	169
1064	=	545
1065	=	402
1066	=	405
1067	=	827
1068	=	408
1069	=	409
1070	=	602
1071	=	629
1072	=	580
1073	=	554
1074	=	426
1075	=	714
1076	=	192
1077	=	428
1078	=	441
1079	=	446
1080	=	609
1081	=	660
1082	=	643
1083	=	201
1084	=	719
1085	=	740
1086	=	748
1087	=	761
1088	=	798
1089	=	682
1090	=	801
1091	=	275
1092	=	312
1093	=	324
1094	=	216
1095	=	111
1096	=	621
1097	=	722
1098	=	807
1099	=	250
1100	=	141
1101	=	158
1102	=	157
1103	=	253
1104	=	259
1105	=	166
1106	=	627
1107	=	404
1108	=	408
1109	=	409
1110	=	604
1111	=	630
1112	=	648
1113	=	173
1114	=	262
1115	=	178
1116	=	422
1117	=	607
1118	=	425

Phase illustration number		Equivalent corpus number
1119	=	710
1120	=	713
1121	=	104
1122	=	106
1123	=	198
1124	=	447
1125	=	608
1126	=	615
1127	=	616
1128	=	624
1129	=	635
1130	=	642
1131	=	649
1132	=	658
1133	=	664
1134	=	618
1135	=	645
1136	=	667
1137	=	718
1138	=	755
1139	=	747
1140	=	762
1141	=	211
1142	=	213
1143	=	326
1144	=	219
1145	=	589
1146	=	113
1147	=	114

Appendix 5: Raw data by site phase (Eves/ weights)

Fabric	RCP 1A	RCP 1B	RCP 2	RCP 3	RCP 4	RCP 5
AHSU	72/1082	21380/10484	2202/16469	2581/21477	526/4947	155/3288
AMPH	40/3575	9/3680	51/8348	347/2478	0/1650	0/3873
AOMO	–	–	10/46		-	
BBl	–	–	–	106/819	156/1134	551/2943
BBZ-1462	–	–	–	45/294	372/2495	2822/23222
BB2-2238	–	–	–	0/4	0/41	448/2074
BB2-2759	–	–	–		157/721	101/357
BB2-2768	–	–	–		-	12/61
BBS	–	–	–	13/104	11/23	0/68
BBS-1547	–	–	–	-	-	13/36
BBS-2764	–	–	–	8/139	22/70	0/4
BBS-718	–	-	–	-		26/225
BHWS	0/148	34/699	266/3429	20/410	20/37	24/341
BLEG	-	55/60		17/37	0/1	0/1
Cl86	7/1830	13/8811	15/1497	20/3539	40/3324	0/3612
Cl89	0/142	0/115	6/87	0/13	0/23	2/9
CCGW		14/19	12/65	219/979	34/74	0/7
CGBL		-	0/9	0/2	–	3/1
CGGW		-	0/28	0/8	–	–
CGOF		5/1	16/61	10/27	0/11	0/29
CGWH		0/1	0/17	69/187	–	0/12
COLC		–	0/8	0/1	–	0/94
DR20	195/28467	0/31397	341/113448	128/71411	1261/26384	208/17757
DR28		–	0/603	-	-	–
ECCW	145/924	107/1973	74/742	37/258	0/67	0/97
ERMS	229/957	1136/5592	1401/7287	267/1593	10/71	0/161
ERSA	40/141	182/2212	30/949	0/4	9/28	–
ERSA/B	40/168	221/926	17/192	14/113	27/98	–
ERSB	0/30	145/1584	688/4418	836/3990	5/40	22/25
ERSI	147/1040	64/620	5/62	–	-	–
ERSS		68/223	16/28	–	–	–
FINE	27/62	16/211	130/499	321/724	79/194	111/249
FINE-1546	–	–	28/51	–	-	
FINE-2859	–	–	25/28	–	-	–
FINE-2866	–	–	–	32/93	–	-
FINE-492	–	17/21	148/314	163/619	0/30	0/25
FINE, MISC	0/4	15/60	70/123	0/59	-	45/135
FMIC	15/71	14/33	139/765	229/645	5/125	24/258
FMIC-1659	0/45	229/956	1126/3219	1012/3007	35/145	134/173
FMIC-1746	10/54	30/270	261/647	49/356	0/39	17/46
FMIC-2488	30/248	87/366	69/327	12/81	13/33	0/20
FMIC-2559	0/2	15197	176/368	19/66	-	–
GBWW	0/47	0/2	0/9	-	-	-
GROG	348/6730	220/3104	83/2114	105/1958	148/3413	53/877
H70	16/2361	0/323	0/619	0/275	160/15398	–
HOO	14/146	37/1499	128/3030	157/1265	0/97	0/14
HWB	537/11894	2519/27178	2984/30925	583/7121	102/869	21/216
HWB/C	-	110/941	41/246	76/493	0/7	0/21
HWBR	-	55/657	28/348	9/17	–	–
HWC	5/43	208/719	2007/9830	5805/29746	1857/11121	4238/18952
HWC+	-	–	13/132	8169	161/652	158/333
ITMO	0/650	–	-	-		

Fabric	RCP 1A	RCP 1B	RCP 2	RCP 3	RCP 4	RCP 5
KOAN	0/373	12/2575	0/827	0/452	0/438	0/1500
KOAN-2385	0/1209	27/4678	0/740	0/1232	37/2984	-
KOAN-3786	-	-	0/715	-	-	-
KOAN-844	0/56	0/108	0/350	0/643	0/35	-
KOLN	-	-	-	0/18	13/17	94/244
L555	-	-	0/750	-	50/7100	
LOEG	-	20/29	6/19	84/118	101/178	54/87
LOMA	-	-	2/16	0/16	55/56	-
LOMI	-	4/31	121/585	314/1650	264/1184	347/l 777
LONW	-	0/9	79/609	204/1464	89/227	5169
LONW-STD	-	-	-	0/16	-	20/50
LOXI	-	-	51/445	218/625	234/1253	1042/5249
LYON	113/307	0/1	60/47	20/22	-	
MICA	-	0/6	4/110	121/370	33/196	18/328
MICA-1242	-	-	0/2	0/4	-	-
MICA-1245	-	-	-	0/12	-	56/245
MICA-2577	10/18	-	-	-	-	-
MICA-376	-	22/27	7/11	-	68/315	13/149
MICA-383	-	-	50/49	0/17	-	15/7
MLEZ	0/4	-	12/48	2/9	0/8	0/34
MONT	15/64	7/19	-	12/126	8/10	100/807
MORT-2625	0/260	-	-	-	-	-
MORT-2669	-	7/84	-	-	-	-
NACA	-	-	-	-	-	47/3578
NFSE-1298	-	0/244	0/950	24/349	0/145	0/136
NFSE-2667	27/28	-	45/104	-	-	-
NFSE-2838	-	-	-	-	-	25/626
NFSE-G238	-	4/135	16/556	42/920	28/1083	0/59
NGGW	-	-	-	17/35	O/6	20/25
NKFW	-	10/46	21/57	107/668	17/30	16/100
NKSH	3/196	35/615	122/12192	139/8362	85/12373	220/18057
NKWS	-	-	-	-	-	35/85
OXID	283/6832	272/2620	515/3421	340/3610	138/3139	355/6097
OXID-1861	-	17/27	0/47	6/15	-	-
OXID-2486	100/418	-	0/5		-	-
PE47	0/2049	0/4201	134/9048	0/4739	284/9003	125/4287
PRW	11/42	0/6	-	5/103	-	-
PRWl	0/7	65/451	-	0/5	-	0/8
PRW2	-	0/5	7/13	-	-	-
PRW3	0/15	-	20/61	0/16	54/1105	33/209
R527	-	0/24	-	0/107	0/34	-
RBMA	-	-	-	0/15	-	-
RDBK-1606	0/60	50/1123	621/1903	186/672	12/29	70/157
RDBK-2635	-	-	52/46	-	-	-
REDU,MISC	0/220	49/1466	03/279	0/323	32/106	0/194
RHMO-2554	0/262	-	38/909	-	-	-
RHMO-2738	-	-	-	-	7/290	-
RHMO-2835	-	-	-	-	-	37/288
RHOD	0/940	-	0/813	0/55	0/188	-
RHOD-1894	0/52	-	0/170	21/206	15/419	-
RHOD-2592	-	-	-	-	-	116/15845
RUST	0/19	-	-	0/81	-	-
RVMO	23/640	8/247	10/333	0/226	-	5/145
SAM	926/3228	1772/4674	3117/14068	2894/11445	896/3801	1025/4605
SAND	605/7851	886/8195	2311/17509	3213/29751	776/7068	582/10694
SAND-2862	0/5	27/56	44/285	-	19/47	-
SESH	-	-	-	-	-	3/241
SGCC	19/21	-	-	-	-	-
SHEL	163/1567	19/423	25/990	0/441	10/217	47/1011
SHEL-2809	-	-	7/44	11/46	-	-
SHEL-2810	-	-	64/347	22/94	-	-

Fabric	RCP 1A	RCP 1B	RCP 2	RCP 3	RCP 4	RCP 5
SLOW	820/9199	217/3598	133/531	40/289	0/43	0/2
SUG		-		29/502	0/75	-
⊤N		5/24	O/8	15/27	-	5/18
TNIM	-		0/11	31/46		-
VCWS	0/9	42/174	217/1825	81/608	40/660	1595/8270
VRG	19/126	137/952	328/1068	334/l347	27/461	
VRMA		-			-	3/3
VRMI			69/456	76/437	24/70	0/5
VRR	-	32/350	0/550	0/78	O/8	0/88
VRW	485/5399	2452/26007	4046/55246	4528/58718	2752/28890	3125/33572
TOTAL	5539/ 102337	13403/ 168064	24973/ 340555	26453/ 285611	11378/ 156653	18441/ 198567

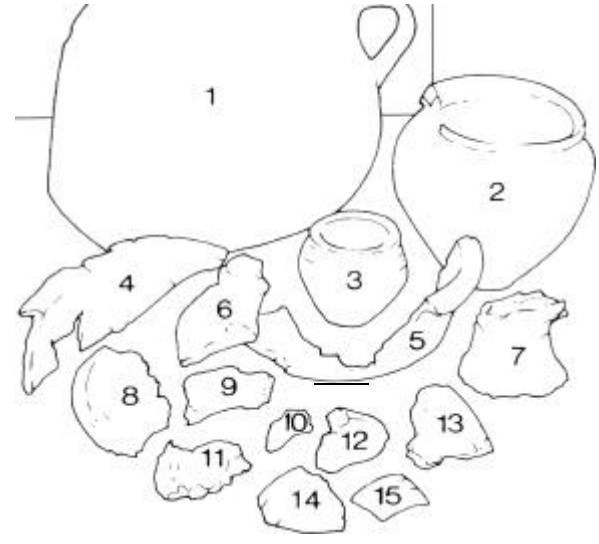
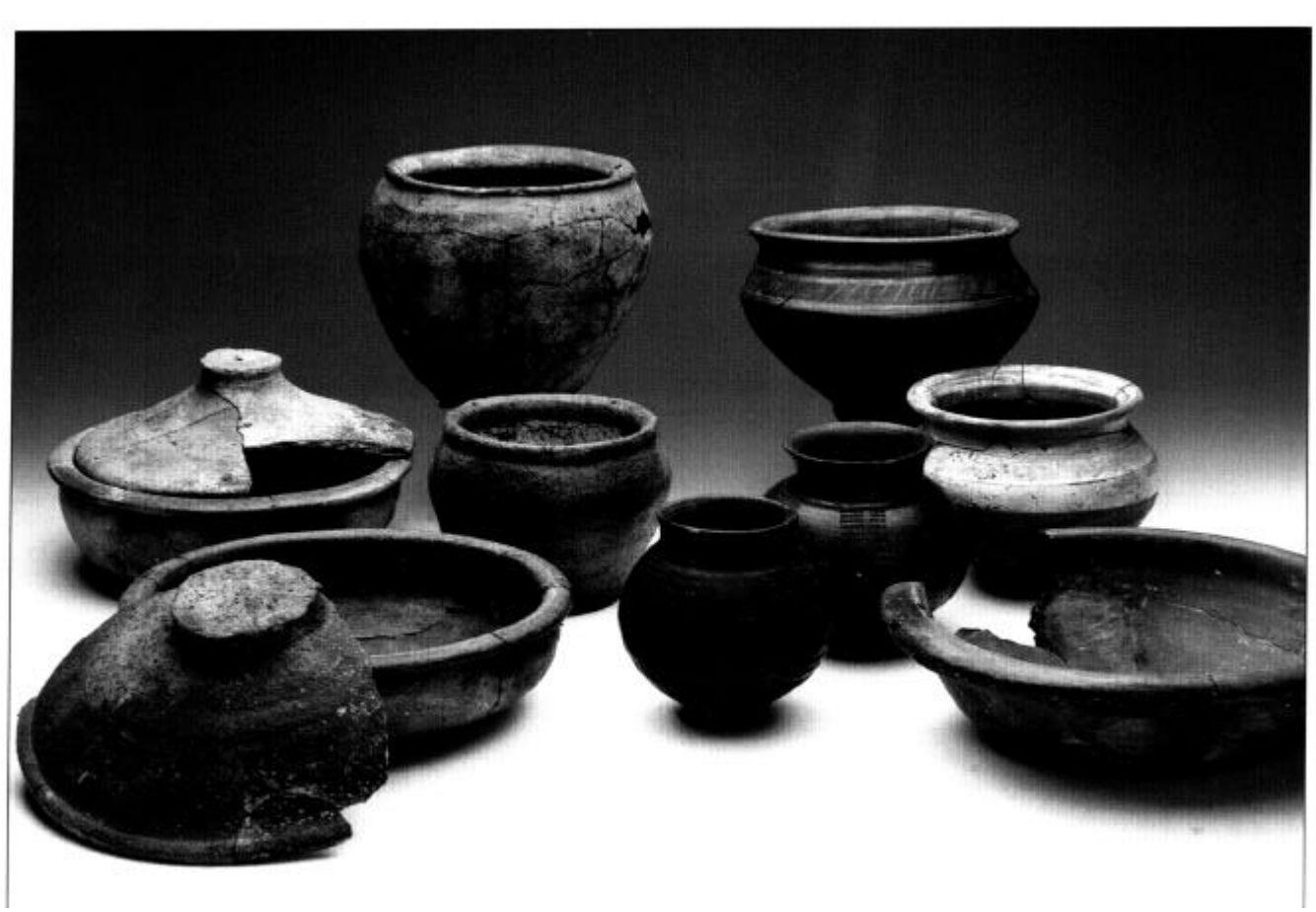


Plate 2 Oxidized and reduced Sugar Loaf Court ware.
1. IJ; 2. IINJ; 3. IIIB; 4-5. IVA; 6. MORT-HOF; 7. IEvar; 8. MORT; 9-11. waster sherds; 12. lampholder: 13. I base waster; 14-15. VI



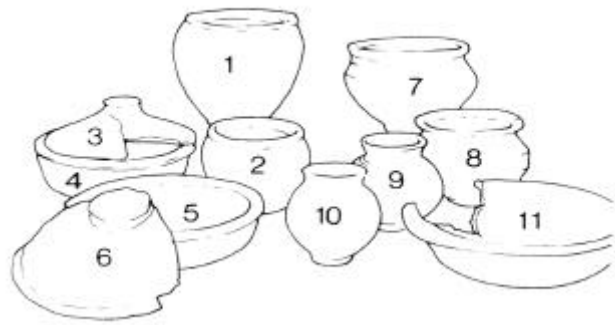
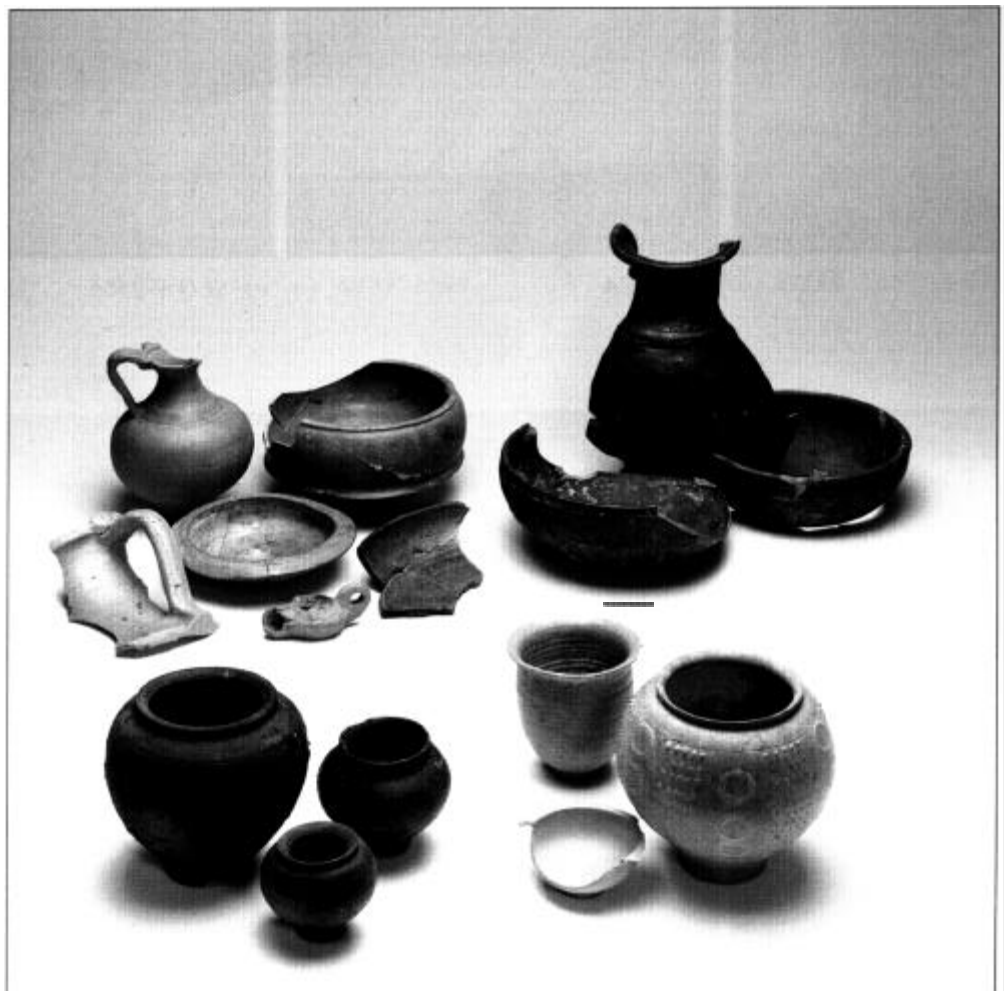


Plate 3 Reduced wares from Highgate Wood. 1-6. Highgate Wood B ware: 1-2. IIA; 3-6. IVF with lid. 7-11. Highgate Wood C ware: 7-8. IIE; 9-10. IIIF; II. IVF



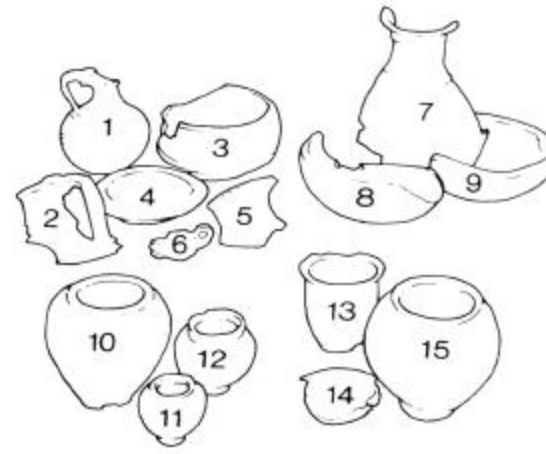
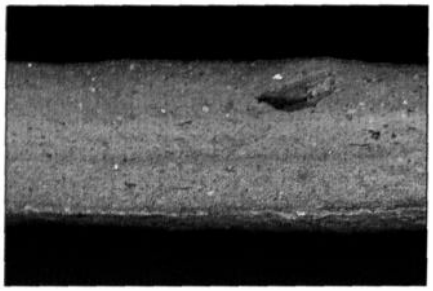
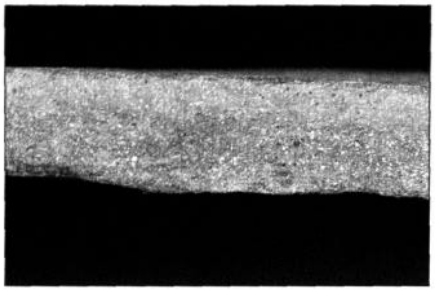


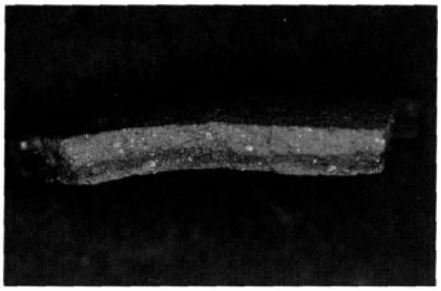
Plate 4 Fine wares. 1-6. Local Mica-dusted war-es: 1-2. IF/MT3; 3. IV/MT-37; 4. IV/MT34: 5. IVJ/MT24; 6. Jamp. 7-9. London ware: 7. IIR/MT51; N-9. JVE/MT42. 10--12. Fine Micaceous wares: 10-11. IIIB; 12. IIIF. 13-14. Local Eggshell ware: 13. VIC/MTII; 14. IV/MT34. 15. ring-und-dot Beaker fabrics IIIB



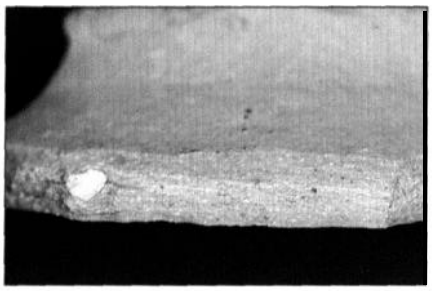
a) L555



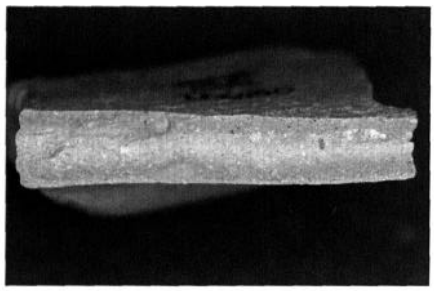
b) NACA



c) SLOW-2566



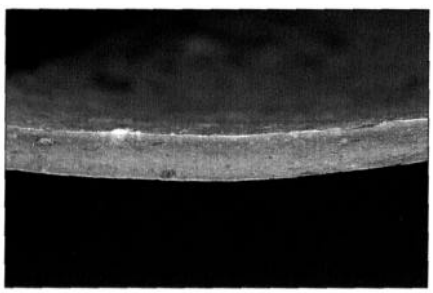
d) SLOW-2565



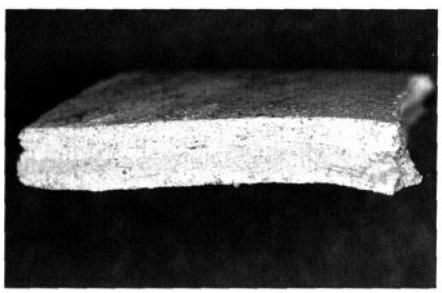
e) LOXI-2599

f) LOXI-2600

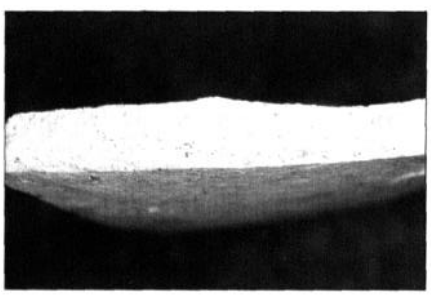
g) ECCW



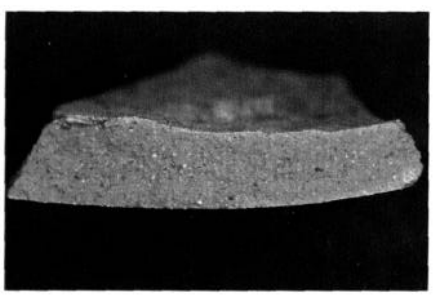
h) HOO



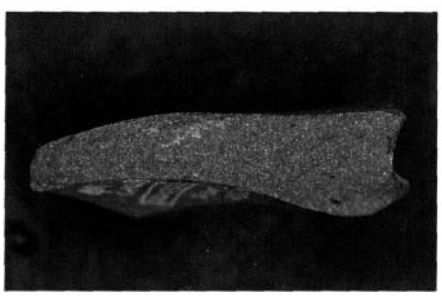
i) VRW



j) VRW

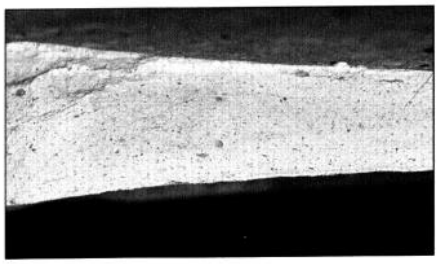


k) VCWS



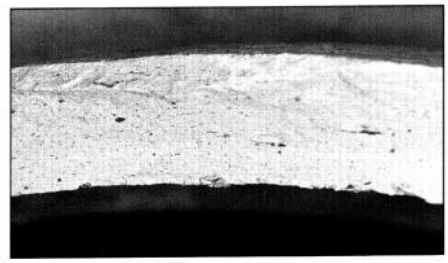
l) BHWS

Plate 5 Fresh sherd breaks Scale 1.6:1

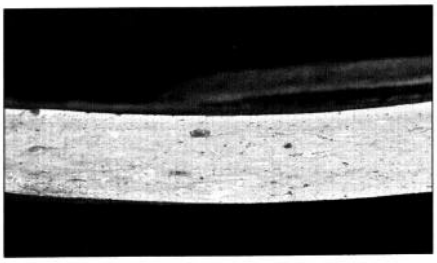


m) NFSE-2667

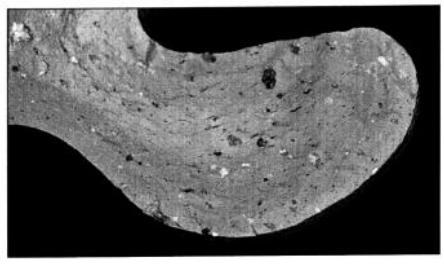
n) NFSE-1298



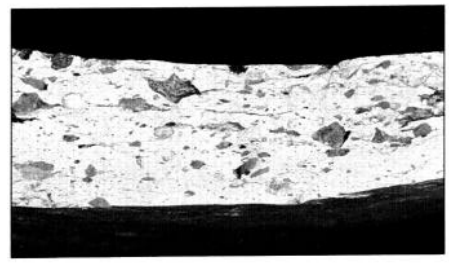
o) G238



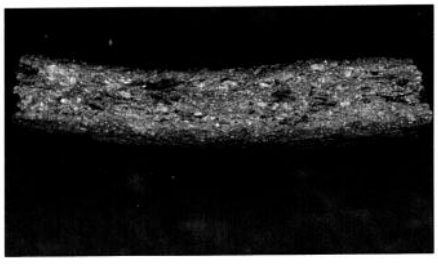
p) AOMO



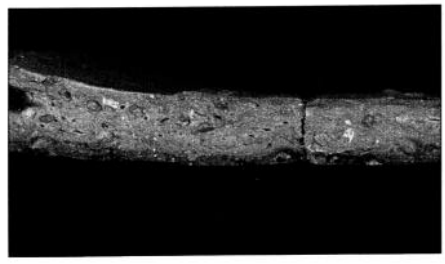
q) RVMO



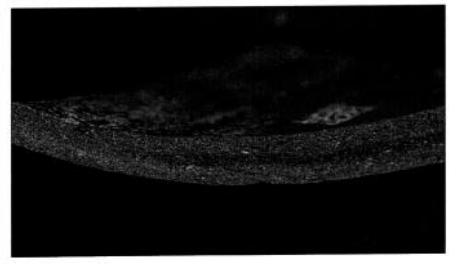
r) RHMO-2554



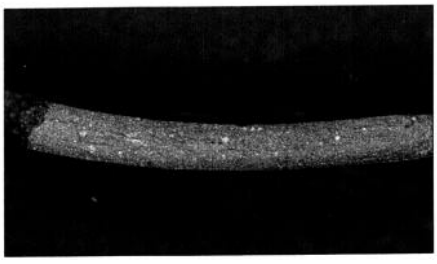
s) HWB



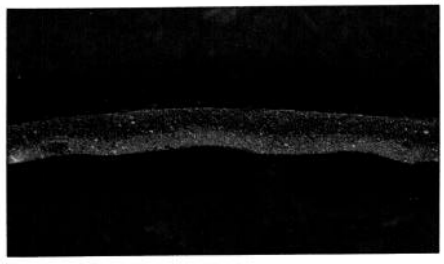
t) HWB/C



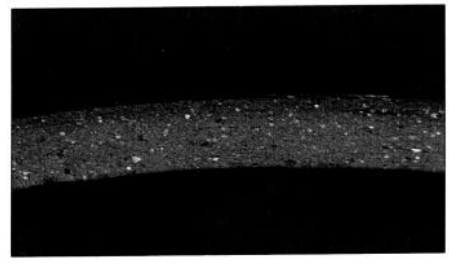
u) HWC



v) HWC+

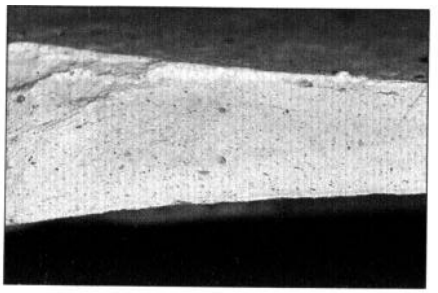


w) HWC-1403

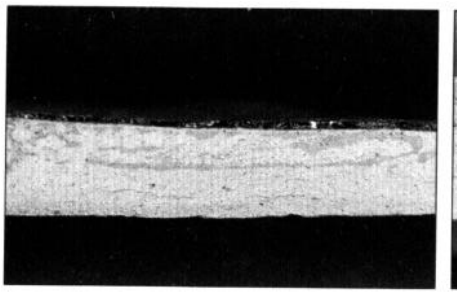


x) CCGW

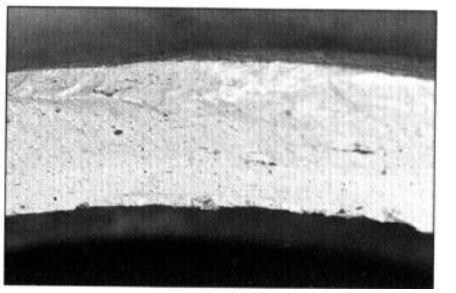
Plate 5 Fresh sherd breaks Scale 1.6:1



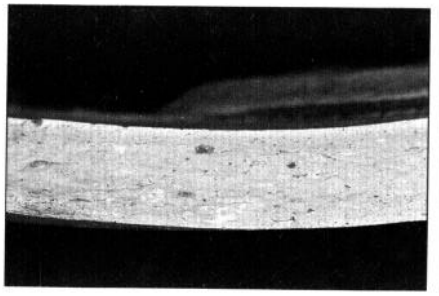
m) NFSE-2667



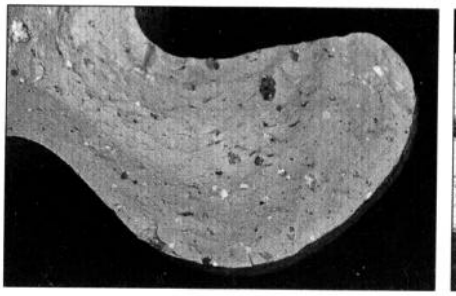
n) NFSE- 1298



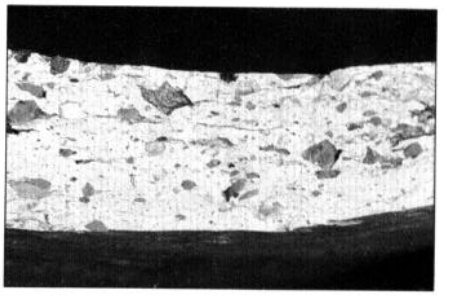
o) G238



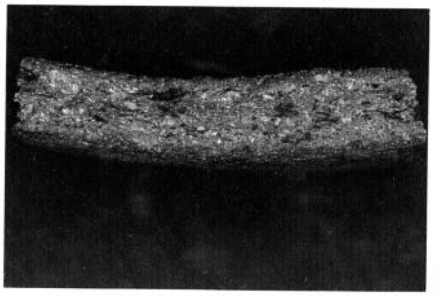
p) AOMO



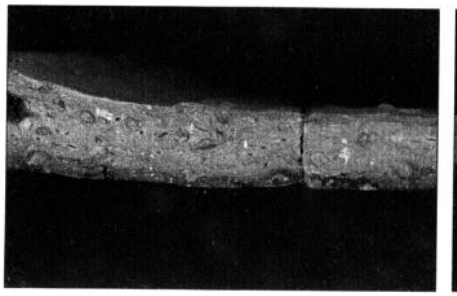
q) RVMO



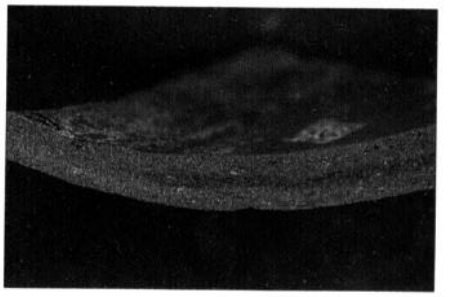
r) RHMO-2554



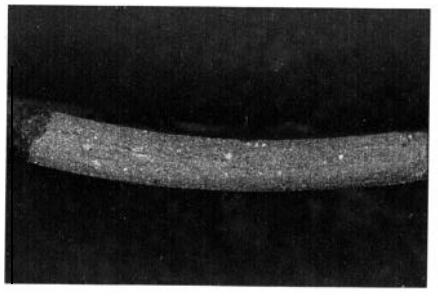
s) HWB



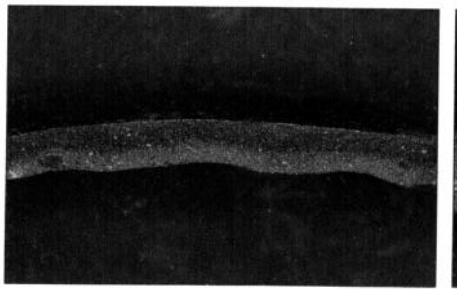
t) HWBK



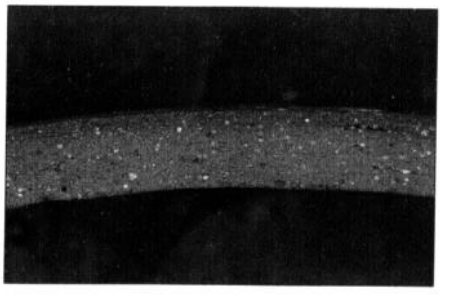
u) HWC



v) HWC+

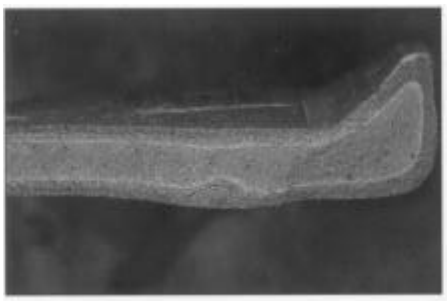


w) HWC-1403



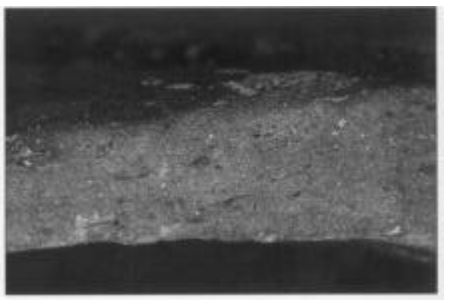
x) CCGW

Plate 5 Fresh sherd breaks Scale 1 . 6 : 1

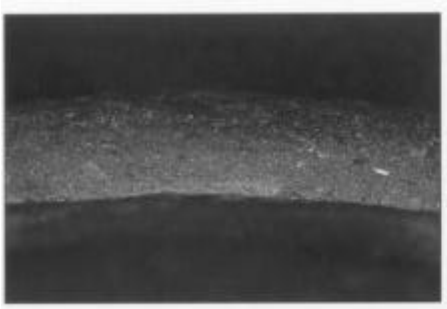


y) CCGW

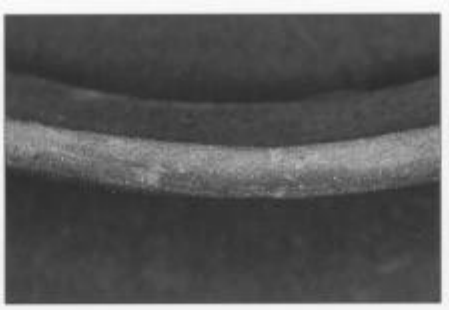
z) ERMS



aa) ERSI

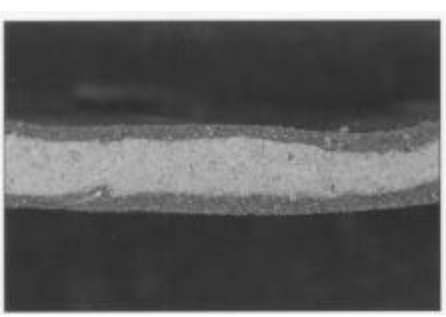


ab) ERSA

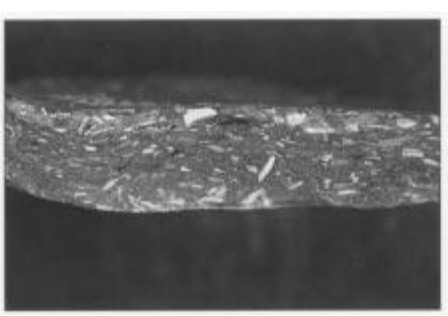


ac) ERSB

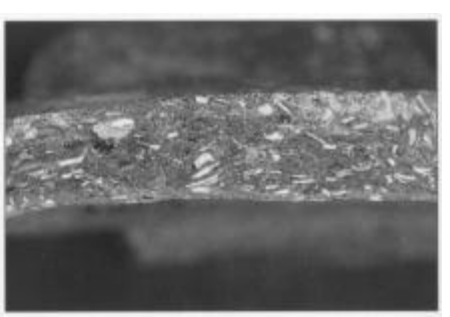
ad) ERSS



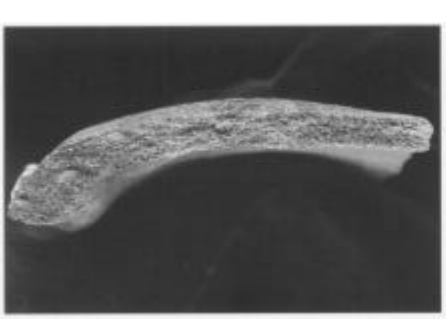
ae) AHSU



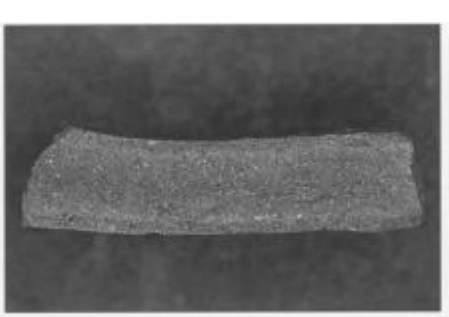
af) NKSH



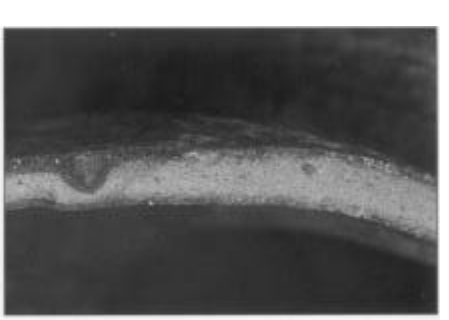
ag) SESH



ah) BBI



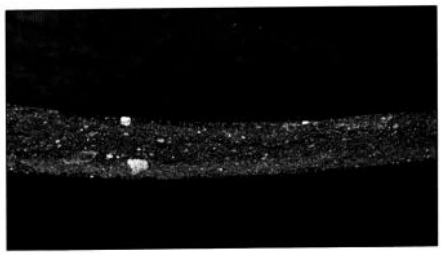
ai) BBS- 1547



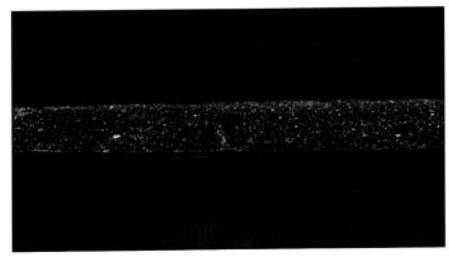
aj) BB2-1462

Plate 5 Fresh sherd breaks Scale 1 . 6 : 1

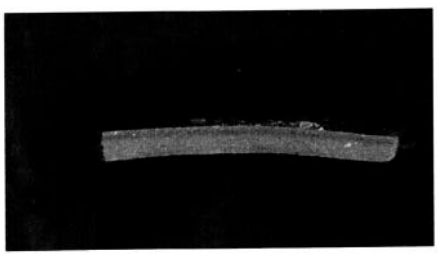
ak) BB2-2238



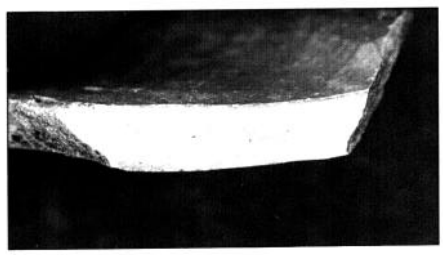
al) BB2-2768



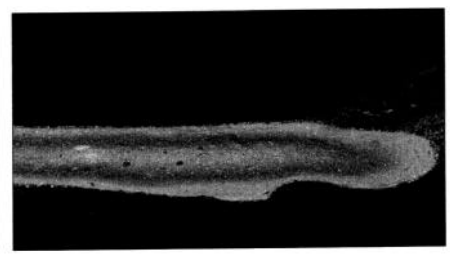
am) BB2-2759



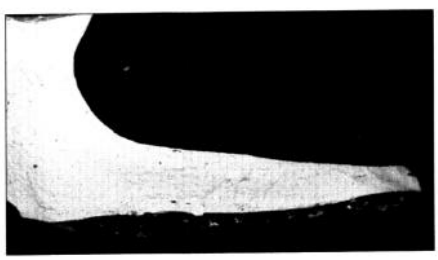
an) COLC



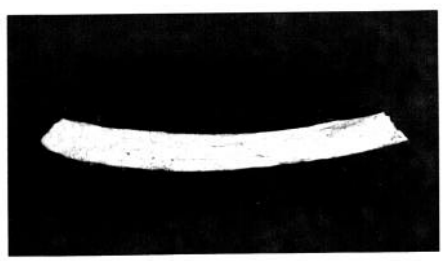
ao) LOMA



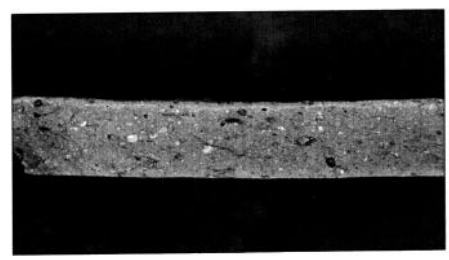
ap) RBGW



aq) CGWH

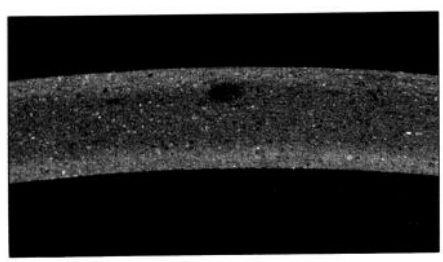


ar) KOLN

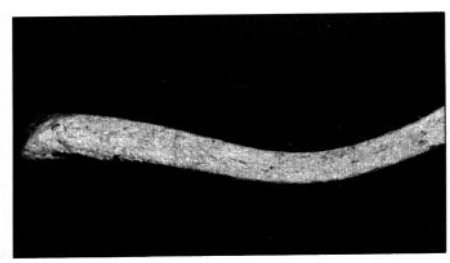


as) LOMI-371

at) LOMI-1247

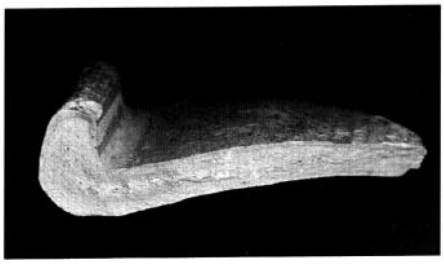


au) LOMI-1244



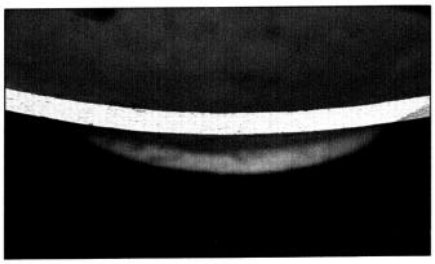
av) MICA-376

Plate 5 Fresh sherd breaks Scale 1. 6:1

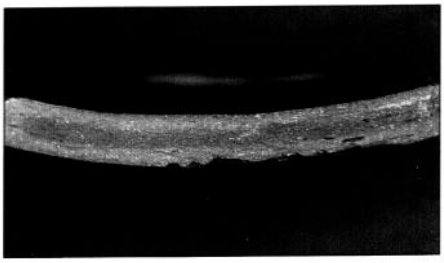


aw) RDBK-1606

ax) RDBK-1606



ay) LOEG



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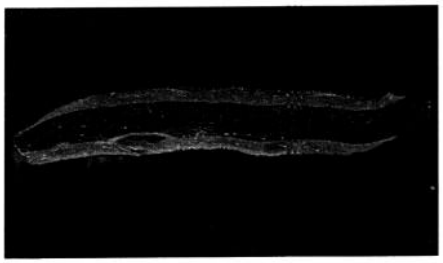

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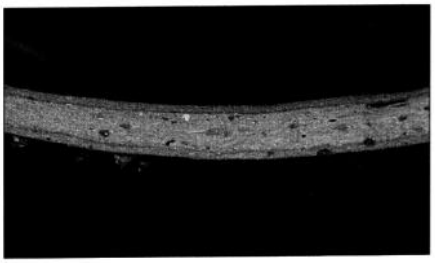

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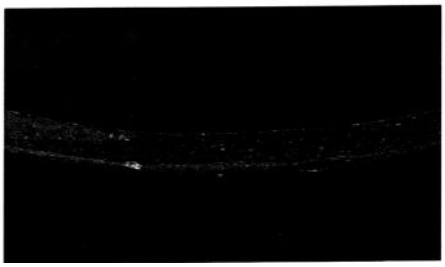

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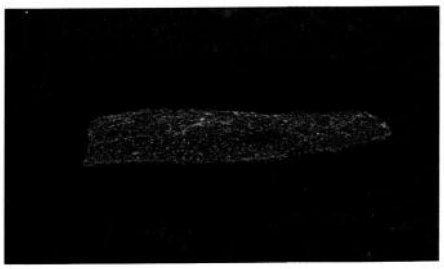

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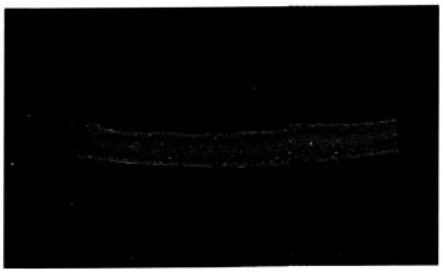

bf) FINE-492

Plate 5 Fresh sherd breaks Scale 1. 6:1

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prepared by Lesley Adkins

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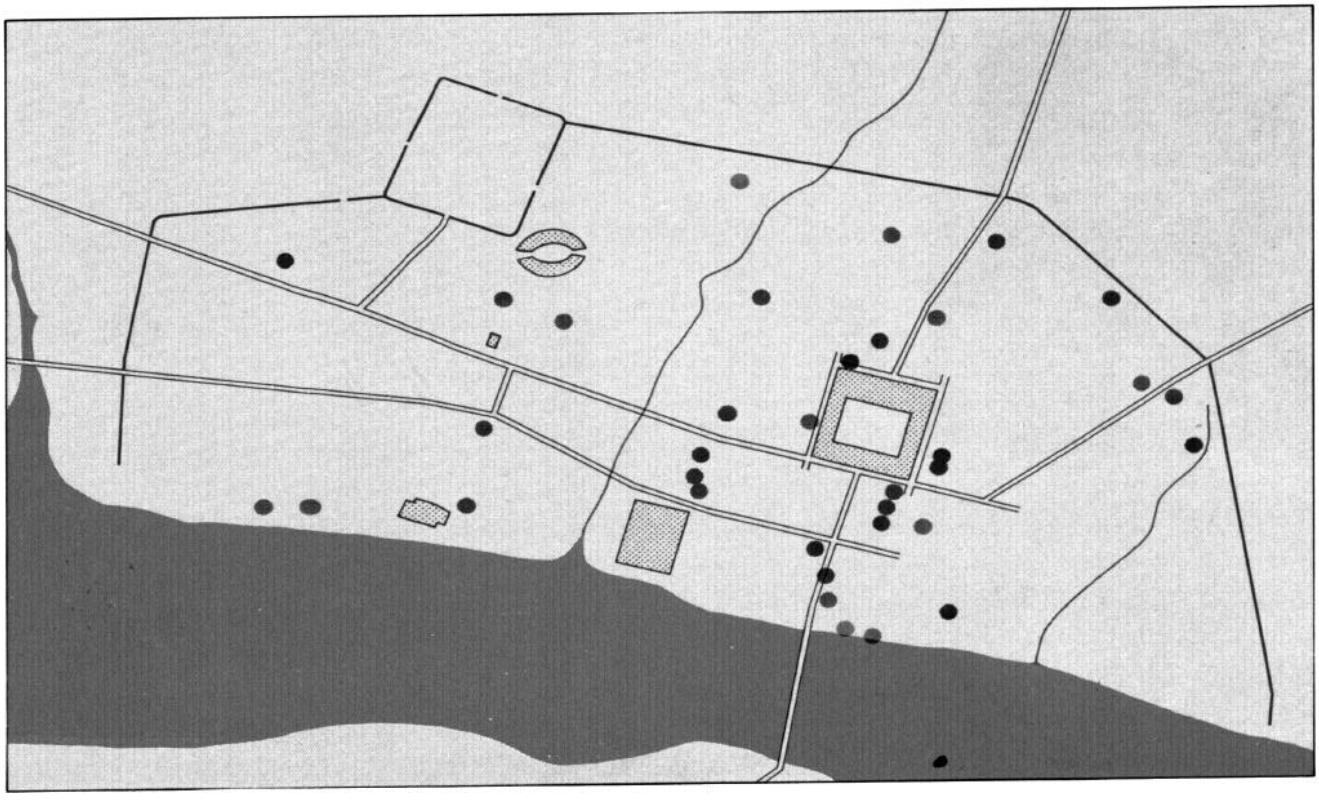

The archaeology of Roman London: map showing the principal excavation sites discussed in this report.

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