

Reports of the Research Committee
of the
Society of Antiquaries of London

No. XIV

Camulodunum

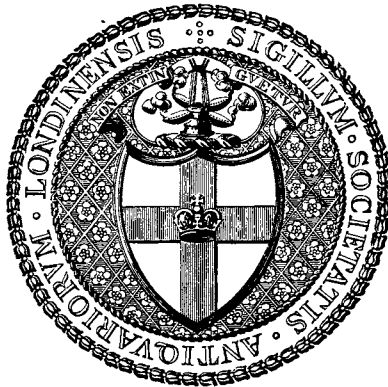
First Report on the Excavations at Colchester

1930—1939

By

C. F. C. Hawkes, M.A., F.S.A., and M. R. Hull, M.A., F.S.A.

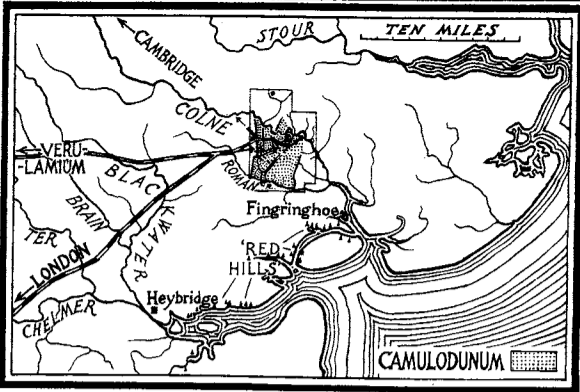
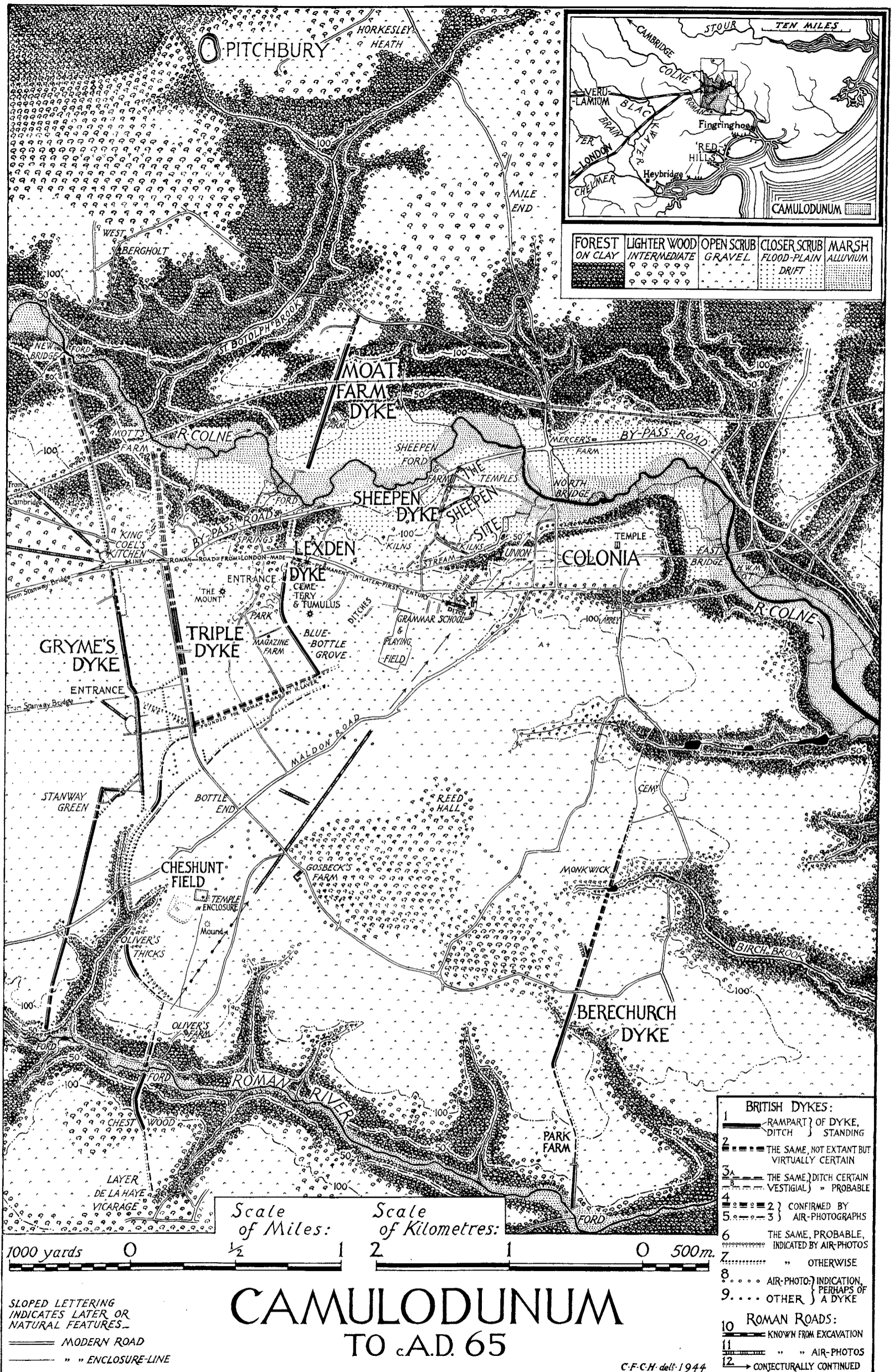
With Sections by C. H. V. Sutherland,
D. B. Harden, J. Wilfrid Jackson and Dorothea M. A. Bate



Oxford

Printed at the University Press by Charles Batey for
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Burlington House, London

1947



FOREST ON CLAY	LIGHTER WOOD INTERMEDIATE	OPEN SCRUB GRAVEL	CLOSER SCRUB FLOOD-PLAIN DRIFT	MARSH ALLUVIUM
-------------------	------------------------------	----------------------	--------------------------------------	-------------------

BRITISH DYKES:

- 1 ——— RAMPART } OF DYKE,
DITCH } STANDING
- 2 - - - - - THE SAME, NOT EXTANT BUT
VIRTUALLY CERTAIN
- 3 - - - - - THE SAME, DITCH CERTAIN
- 3A - - - - - VESTIGIAL } PROBABLE
- 4 - - - - - } CONFIRMED BY
- 5 - - - - - } AIR-PHOTOGRAPHS
- 6 - - - - - THE SAME, PROBABLE,
INDICATED BY AIR-PHOTOS
- 7 - - - - - " OTHERWISE
- 8 - - - - - AIR-PHOTO-INDICATION,
PERHAPS OF
- 9 - - - - - OTHER } A DYKE

ROMAN ROADS:

- 10 ——— KNOWN FROM EXCAVATION
- 11 - - - - - " " AIR-PHOTOS
- 12 - - - - - CONJECTURALLY CONTINUED

Scale of Miles: 0 1/2 1 2
Scale of Kilometres: 0 1 2 500m.

CAMULODUNUM TO c.A.D. 65

C.F.C.H. del. 1944

SLOPED LETTERING
INDICATES LATER OR
NATURAL FEATURES.

——— MODERN ROAD
——— " " ENCLOSURE-LINE

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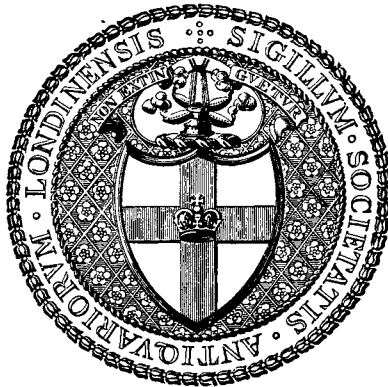
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PREFACE

THE object of these excavations has been to find out everything possible about the ancient British capital at Colchester, and about its replacement by the Romans. This First Report records the exploration of its principal inhabited centre, the area known as Sheepen. The description of the work is introduced by a topographical and historical account of Camulodunum as a whole, an exposition of the chronology of the Sheepen site, and a synopsis of the results in general. It is followed by a systematic presentation of the finds—coins, pottery, glass, metalwork, and animal and vegetable remains. Here we have paid special attention to the pottery, which has given unusual opportunities for combined typological, chronological, and statistical study; and we hope that the results may prove to be of general value.

The section on Decorated Terra Sigillata is based on the work of the late T. Davies Pryce, F.S.A., who examined and commented on the whole of this material. The section on Glass has been kindly contributed by Mr. D. B. Harden of the Ashmolean Museum, and Dr. A. A. Moss of the British Museum Research Laboratories has kindly contributed metallurgical and other reports, of which the chief is that which enables us to suggest with some confidence that we have identified remains from a British mint. In that matter we have also had the assistance of Mr. D. F. Allen of the British Museum, who has moreover contributed much to the important section on the British coins themselves. The section on the Roman coins is by Dr. C. H. V. Sutherland of the Ashmolean Museum, whose special studies of the copied bronze coinage of Claudius have here been of particular value. Animal remains have been studied by Dr. J. Wilfrid Jackson, F.S.A., F.G.S., and Miss Dorothea M. A. Bate, and vegetable remains by Miss Frances Stephens and Dr. J. Ramsbottom of the British Museum (Natural History).

To these contributors and all others who have assisted us on points of detail, and in particular to those colleagues on the Continent of Europe who did so much for us on the tour of museums that we were able to make there in 1933, we offer our sincere thanks. But behind the Report which they have helped us to write lies the long record of our indebtedness to those who assisted us in the actual work of excavation, and the still longer tale of what we owe to the promoters and supporters of the whole undertaking.

The Colchester Excavation Committee was formed early in 1930, when it became known that the Colchester By-Pass Road was to run across the area of ancient habitation at Sheepen. The President was the late Annie Viscountess Cowdray, and Sir Charles Reed Peers, then President of this Society and Chief Inspector of Ancient Monuments, has throughout been the Chairman. The late Mr. P. G. Laver, F.S.A., long acted as Joint Hon. Secretary, and with the late Mr. W. G. Klein, F.S.A., the Hon. Treasurership has been held by Lt.-Col. J. Oxley Parker, J.P. With the above officers and the present writers, the Committee elected as its Executive the Mayor of Colchester for the time being; the late Alderman (afterwards Sir) W. Gurney Benham, J.P., F.S.A., who as

Chairman of the Colchester Corporation Museum Committee and in many other connexions within the borough was always our indefatigable friend; Mr. E. Thurlow Leeds, F.S.A., and Mr. J. N. L. Myres, F.S.A., who as Vice-President and Senior Treasurer of its Archaeological Society have maintained a most happy association between the excavations and the University of Oxford; and Mr. J. P. Bushe-Fox, F.S.A., then Inspector for England and later Chief Inspector of Ancient Monuments, who as Director of Excavations planned and guided the initial stages of the work, and has throughout advised and assisted the conduct of operations in the field.

This in 1930 was shared between ourselves and Mr. Myres, in 1931 and 1932 between the two of us only; in 1933 and the following years we continued to share the responsibility, but the whole of the actual supervision was Mr. Hull's. A very great deal of work was done by voluntary assistants, to whose labours no tribute here can do adequate justice. Their names are indeed far too many for all to be mentioned, but we wish to record our especial gratitude to Miss Joan Blomfield (Mrs. Turville-Petre), Miss Mollie Blomfield, Miss Margaret Collinson, Miss Jacquetta Hopkins (Mrs. C. F. C. Hawkes, F.S.A.), Miss Norah Jolliffe, Miss K. M. E. Murray, Mrs. J. N. L. Myres, Miss Grace Thornton, Miss Kathleen Walker, Miss Anne Welsford, Miss Ursula Wratishaw (Mrs. Richard Walker), Col. A. H. Burn, C.I.E., F.S.A., Mr. J. B. Calkin, Major A. G. C. Fane, Mr. A. F. Hall, Mr. D. B. Harden, F.S.A., Mr. R. W. Hutchinson, F.S.A., Mr. R. T. Lattey, the Rev. K. R. Miller Waugh, Mr. R. S. Simms, and Mr. (now the Rev.) J. D. M. Stuart. From the start a large proportion of the volunteers were undergraduate members of the Oxford University Archaeological Society; a number of others came from the University of Cambridge, and in 1930 the University of London was represented by members of the University College Anthropological Society. Of the many workmen employed a fair number served for long enough to become experienced hands, and we can testify to the value of their work; as charge hands we should make particular mention of Mr. E. Hammond (1930), Mr. H. Smith (1931-2), Mr. J. Snow (1933-4), and Mr. E. Cudmore (1935 and after).

In the field of technical assistance the whole undertaking owes much to the untiring devotion and skill of Mr. H. W. Poulter, Assistant Curator of the Colchester and Essex Museum, who surveyed and contoured the site, took most of the photographs of both the excavations and finds, and did a great amount of laboratory work, most notably in the restoration of not less than 500 vessels of pottery and glass. In a variety of ways we have also to acknowledge the energetic help of Mr. E. J. Rudsdale, till lately Assistant in the same museum. The drawings of the finds are nearly all the work of Mr. Hull, while most of the plans and sections have been drawn for publication from our originals by Mr. L. H. Rawson of the Ministry of Works.

Lastly, it falls to us here to express the Committee's gratitude to all those institutions and individuals who made this long-sustained enterprise possible by their financial support. The Colchester Corporation voted a series of generous donations extending over the whole period of the work. With the annual grants from the Research Fund of this Society, and the subscriptions made through the Society from an anonymous source,

we have to acknowledge grants from the Administrators of the Haverfield Bequest; the Craven and Ireland Funds of the University of Oxford; Christ Church, Magdalen, All Souls, Merton, New College, and a number of other Oxford Colleges; the Laurence Fund of the University of Cambridge; the Royal Archaeological Institute; and the Suffolk Institute of Archaeology, Ipswich Museum Committee, the Beckenham Antiquarian Society, and a number of other societies and funds. The whole balance of the very considerable moneys required for the work was subscribed by the general public.

With the consent of the Inspectorate of Ancient Monuments, permission to excavate on the Sheepen Farm property was accorded first by arrangement with Mr. J. Steward and subsequently by Messrs. Fairhazel Estates, Ltd.; on the By-Pass Road land and the St. Helena's School site by the Colchester Corporation; on what is now the Colchester Technical School playing-field by the School authorities; and on the Kingswode Hoe property by Capt. J. L. Lockhart; to all of whom the Committee's warm thanks are due.

The main series of finds is preserved in the Colchester and Essex Museum, and a representative series in the British Museum. Allocations are also to be made to the Ashmolean Museum, Oxford, to the University Museum of Archaeology and Ethnology, Cambridge, and to Ipswich Museum. In the Colchester and Essex Museum are also lodged fuller catalogues of the material than it has been desirable to publish here, together with the original plans, drawings, and negatives. The main series of animal remains reported on by Dr. Jackson and Miss Bate has been presented to the British Museum (Natural History).

Discoveries at Sheepen falling outside the scope of this volume remain to be published in a Second Report, in which we hope also to render accounts both of future and of previous excavations on other sites, including in particular those of 1927-8 and 1933 adjoining Colchester Castle, and the many other discoveries of recent years within the Roman town. Both British and Roman Camulodunum indeed still present unsolved problems. But we hope that this First Report will serve to shed some clearer light, in the meantime, upon the history and antiquities not of Colchester only, but of all this part of Britain and of the Roman Empire.

June 30th, 1945.

C. F. C. H.
M. R. H.

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ABBREVIATIONS USED IN REFERENCES

- | | |
|--------------------------------------|---|
| <i>Aislingen</i> | R. Knorr, <i>Die Terra-Sigillata-Gefässe von Aislingen</i> (Jahrbuch d. hist. Vereins Dillingen, xxv, 1912). |
| <i>Anz. f. Schw. Alt.</i> | <i>Anzeiger für Schweizerische Altertumskunde</i> (Zürich). |
| <i>Arch.</i> | <i>Archaeologia</i> . |
| <i>Arch. Camb. Reg.</i> | C. Fox, <i>The Archaeology of the Cambridge Region</i> (Cambridge, 1923). |
| <i>Arr.</i> | See Oxé. |
| <i>Belgae</i> | C. Hawkes and G. C. Dunning, 'The Belgae of Gaul and Britain': <i>Arch. Journal</i> , lxxxvii (1930), 150 ff. |
| <i>B.G.</i> | Caesar, <i>De Bello Gallico</i> . |
| <i>B.R.G.K.</i> | <i>Berichte der Römisch-Germanischen Kommission</i> (Frankfurt). |
| <i>Bingen</i> | G. Behrens, <i>Kataloge West- und Süddeutscher Altertumssammlungen, IV: Bingen</i> (Frankfurt, 1920). |
| <i>Birkenfeld</i> | H. Baldes and G. Behrens, same series, III: <i>Birkenfeld</i> (Frankfurt, 1914). |
| <i>B.ȝ.</i> | <i>Bonner Jahrbücher</i> (Bonn). |
| <i>B.M.G.</i> | } British Museum <i>Guide to the Antiquities of the Early Iron Age</i> (1925). |
| <i>B.M. I.A. Guide</i> | |
| <i>B.M. R.B. Guide</i> | |
| <i>Boston</i> | G. H. Chase, <i>Catalogue of Arretine Pottery in the Museum of Fine Arts, Boston</i> (1916). |
| <i>Brecon</i> | R. E. M. Wheeler, <i>The Roman Fort near Brecon</i> (Cymmrodorion Soc., London, 1926). |
| <i>Breuer</i> | See <i>Nimègue</i> . |
| <i>Bull. arch.</i> | <i>Bulletin archéologique</i> (Comité des travaux historiques et archéologiques, Paris). |
| <i>Bulliot</i> | See <i>Mont Beuvray</i> . |
| <i>C.A.S.</i> | <i>Proceedings of the Cambridge Antiquarian Society</i> . |
| (Walters), <i>Cat.</i> | H. B. Walters, <i>Catalogue of the Roman Pottery in the British Museum</i> (1908). |
| <i>Cat. Bronzes</i> | H. B. Walters, <i>Catalogue of the Greek, Etruscan and Roman Bronzes in the British Museum</i> (1891). |
| <i>Charvet Cat.</i> | W. Froehner, <i>La Verrerie Antique: descr. de la collection Charvet</i> (Le Pecq, 1879). |
| <i>C.I.L.</i> | <i>Corpus Inscriptionum Latinarum</i> . |
| <i>C.M., C.M. Report</i> | Colchester and Essex Museum, <i>Annual Report of C.M.</i> |
| <i>Curle</i> | See <i>Newstead</i> . |
| <i>Déchelette, Manuel</i> | J. Déchelette, <i>Manuel d'Archéologie</i> (2nd ed., Paris, 1924-7). |
| <i>Déchelette, Mont Beuvray</i> | J. Déchelette, <i>Les Fouilles du Mont Beuvray de 1897 à 1901</i> (Paris, 1904). |
| <i>Déchelette, Vases</i> | J. Déchelette, <i>Les Vases Céramiques Ornés de la Gaule Romaine</i> (Paris, 1904). |
| <i>Devizes Mus. Cat.²</i> | <i>Catalogue of . . . the Museum . . . at Devizes, Part II</i> (2nd ed., 1934). |
| <i>Dissert. Pannon.</i> | <i>Dissertationes Pannonicae</i> (Budapest). |
| <i>E.A.S.T.</i> | <i>Essex Archaeological Society's Transactions</i> . |
| <i>Eisen</i> | G. Eisen, <i>Glass</i> (New York, 1927). |
| <i>Germ.</i> | <i>Germania</i> |
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A. INTRODUCTION AND SUMMARY

I. GEOGRAPHY AND PREHISTORY

THE map of south-eastern Britain is dominated by the river Thames. Its estuary and gravel-lined valley form a natural avenue inland, and have been so used in ancient as in modern times. But the establishment at its mouth of the capital of the whole country, and one of the great ports of the world, was not possible before civilization had solved the problem presented by the geography of the regions flanking it on either hand,¹ particularly on the north. Here Thames-side immigrants were prevented from spreading out over the hinterland by forest, growing densely on the London Clay tracts of south and east Essex and on the broad plateau of Boulder-clay drift beyond. Behind the sea-side alluvium and the single open patch around Southend, the only corridors through these forest lands were the river valleys, which are cut into the clays and lined with well-drained gravels. Farther north in East Anglia the drift geology is more varied, the Boulder-clay is on the whole lighter, and the valley-heads lead almost directly to the open and desirable belt of inland chalk running south-westward to become the Chiltern ridge. Therefore in earlier prehistoric times human approach and settlement kept largely away to the north, making of East Anglia a region in the main independent of the Thames and its unrealized possibilities. But in the centuries after 1000 B.C. the new agricultural populations of the Late Bronze Age furthered a southward trend of settlement on the inland chalk, and a plateau-crossing thither would seem to have been opened from the valley-heads of Essex. Both then and in the ensuing Early Iron Age further new-comers from the Continent settled along the Essex rivers, and others in East Anglia, on the one hand, and in the Thames valley and Kent beyond it, on the other.² And the Early Iron Age culminated, in the century or so preceding the Roman conquest of A.D. 43, with the invasions of the Belgae.

These immigrants from northern Gaul are documented historically by Julius Caesar, and archaeologically in a series of studies begun over fifty years ago by Arthur Evans. They arrived round about 75 B.C., and brought over a form of the La Tène culture of the Celtic continent in its latest pre-Roman phase, La Tène III (or La Tène D). Its material equipment—wheel-made, cordon-ornamented pottery, and the varied products of a notable school of craftsmen in metals and enamelling—is well known; its agriculture, served by the new development of the heavy plough, could cope with richer soils than had before been exploitable; its commerce and politics alike are reflected in a coinage in gold,

¹ Geography: Wooldridge and Smetham, *Geogr. Journ.* lxxviii, 243 ff.; Wooldridge, *Geography*, xvii, 99 ff.; Wooldridge and Linton, *ibid.* xx, 161 ff. and *Antiquity*, vii, 297 ff.; Fox, *ibid.* 473 ff.; Coles, *Essex Naturalist*, xxiv, pt. 3, 115 ff.; and in general *Historical Geography of England before 1800* (ed. Darby, 1936), passages in ch. i, ii, iii. Geography and

prehistory: Fox, *P.S.E.A.* vii, pt. 2, 149 ff.; *Personality of Britain* (ed. 4, 1943). Geological map of Colchester region: K. P. Oakley, *Proc. Prehist. Soc.* iii (1937), 252 (fig. 10), 257.

² The contemporary climate-change, from Sub-Boreal to Sub-Atlantic, was in these parts apparently a gradual process: Brooks, *Quart. Journ. Roy. Meteorological Soc.* lx, 390-3.

silver, and (later) bronze derived from that current in Gaul; and its military prowess is attested initially by its spread, in less than the twenty years before Caesar's expeditions of 55–54 B.C., from east Kent to north Hertfordshire, and subsequently by the annexation of adjacent regions, one of which was Essex. It will be seen below that the 'Belgicization' of Essex was the work of two distinct historical phases: the first covers and just outlasts the latter part of the first century B.C.; the second opens decisively with the advent of a prince of the royal house of the Hertfordshire Belgae, the renowned Cunobelin. History and his inscribed coinage alike tell us that his seat of power was named Camulodunum, and its location in north-east Essex, within the bounds of medieval and modern Colchester,¹ will be abundantly confirmed as we proceed. Cunobelin was soon master of an expanded Belgic realm which came to dominate all south-eastern Britain, and his capital became in consequence the leading 'city' of the island. Furthermore, this primacy had a direct sequel after the Roman conquest, when Colchester became first a major military base, and next the site of the senior Roman colony on British soil. Why was the place marked out for this rapid rise to eminence?

In the first place, north-east and east-central Essex—broadly speaking, the river-systems of the Stour on the north, of the Blackwater in the south, and of the Colne between them with Colchester upon it—had pre-eminently broad spreads of habitable gravel, and also of loamy 'intermediate' soils, as against its areas of forest. It had thus been emerging as good settlement country well before the Belgae came, and with their coming it proved able to support a probably much increased population, particularly as an improved equipment in iron tools of forestry and tillage could then allow of encroachment upon its forest margins. At the same time, from the heads of these rivers communication was easy, compared with what it was farther south, with the inland chalk belt and the fertile tract of new Belgic occupation in Hertfordshire. And from their mouths, shoal-sheltered estuaries admirably suited to small sailing-craft, traffic could be as easily plied in and out of the many channels of the coast, and in particular up and down the great opening of the Thames, and across it to and from the primary Belgic settling-grounds in Kent. Further, this coast is well placed for traffic with the Continent, so that an equivalent of the trade of medieval and modern Harwich could spring up over the Narrow Seas with Belgic Gaul and the seats of the newly consolidated Roman power upon the Rhine. The exploitation of all these advantages, while as yet there was no competition from an imperial London, came to be concentrated in our city on the Colne, and in the second place then we must examine the natural attractions of its own site and surroundings.

The map pl. 1, with inset marking its position in north-east Essex, shows its drainage, relief, and natural vegetation restored on a geological basis.² The immediate geological foundation of the area is the Tertiary London Clay, into which the Colne and its tributaries have continuously cut. Were it everywhere exposed, this stiff, heavy clay would

¹ D. F. Allen, *Arch.* xc (1944), 20–2, and Sir J. Evans, *Coins of the Ancient Britons* (1864), 284 ff. (with *Supplement* (1890), 555 ff.), quoting the earlier authorities; among Colchester writers, see Morant, *History of Colchester* (1748), ii, 20–8, and Henry Laver, *E.A.S.T.* vi (1896), 19–20.

² See 6-in. O.S. Essex, n.s. xxviii, xxxvii; Geological Survey, quarter-sheet 48 SW., with Memoir: W. H. Dalton, *The Geology of the Neighbourhood of Colchester* (1880). We are much indebted to Dr. K. P. Oakley, F.G.S., for help in the interpretation of the latter on modern lines (cf. p. 1, n. 1).

naturally have maintained unbroken thick forest. But glacial drift and river-drift, as observed above, have between them, and in combination with its contour-modelling, diversified the landscape. The modelling is of course the work of the Colne and its affluents; the main stream itself, where it enters the area of our map just above New Bridge, is closely flanked by the 50-ft. contour-line on both sides, with the 100-ft. line not far beyond, and though the flood-plain widens, the high ground does not really fall away until the estuary marshes are reached some miles beyond our map's eastern border. These high flanking levels are, however, broken by tributary streams, and of these the chief is the Roman River, which a mile above the western edge of the map is flowing as close to the main river as the line of the main road through Stanway, but which then turns southward, to increase the interval to some 3 miles before it takes the east-south-easterly course that brings it to its confluence with the Colne opposite Wivenhoe, a mile beyond the eastern edge. The confluence thus forms the apex of a triangular plateau or peninsula between the two rivers. The inland sheet of glacial Boulder-clay does not reach this peninsula; it peters out above Stanway, and in its stead a broad spread of well-drained gravel appears, and forms, with a small central loamy band, a fairly level surface over the greater part of the plateau. This stands nearly all over 100 feet above sea-level, the gravel having an average thickness of between 30 and 60 ft., and its sharp fall to the river-valleys on either side leaves the apex at their confluence as a bold bastion, which commands the seaward approach and is only separated from the estuary marshes by the protecting slab of Fingringhoe parish, itself a smaller gravel-covered peninsula between the Roman river and the tidal flats.

The Colchester peninsula between its two rivers is thus a site of great natural advantages. For further, the outer escarpments of its enfolding valleys are only crowned by narrow, discontinuous, and irregular spreads of gravel: beyond Layer de la Haye on the south, even these disappear before the unbroken miles of naturally forest-clad London Clay which stretch away towards Maldon; on the west, the Boulder-clay beyond Stanway presents the forested frontage of the inland plateau; north of Stanway there is once more a good deal of London Clay exposure among the gravel patches beside the narrowing Colne, and across the river north of West Bergholt the intervention of loamy 'intermediate' beds does not prevent the stiff Boulder-clay edge by Pitchbury from forming a true forest border.¹ Between here and the Colne at Mott's Farm the double-headed valley of the St. Botolph brook has exposed a broad sweep of London Clay again, and though a wide-based tongue of gravel highland extends to the east of this, it is largely capped by loam, and is separated from the main valley and the Colchester site beyond by a shelving escarpment, cut by damp tributary gullies and exposing the London Clay in a big curve, hemming in the river's flood-plain as it meanders round south-eastwards towards its estuary. The Colchester peninsula itself has a narrow skirt of London Clay exposure along both flanks of its containing valleys and those of the gullies indenting their edges: this naturally wooded skirt is scarcely at all interrupted except for one single stretch on the south side of the Colne opposite Sheepen Farm. This one stretch will be

¹ Dalton, *op. cit.* 4.

seen to have a capital importance in the history of the area. Whereas the narrow Roman river valley—but for the stream's own alluvial streaking—is all London Clay exposure, the Colne is here winding through a broad flood-plain, which bounds its alluvial banks with firm expanses of low-level gravel and fine flood-borne loam. Farther down such habitable levels disappear, and except for the small patch occupied by Wivenhoe the alluvial water-meadows are flanked only by the wooded skirt of London Clay for the rest of the way downstream.

Now it is not probable that much allowance need be made for coastal subsidence here for a period already so long after the well-known marine transgression of the Early Bronze Age.¹ Though on the tidal Thames the sinkage since the first century is apparently some 15 ft.,² and at least 9 ft. at the Iron Age site of Southchurch near Shoeburyness,³ and though observations at Felixstowe⁴ show that the same tendency has been at work hereabouts, yet allowance must be made for erosion, silt-deposit, shrinkage of reclaimed land, and especially the effect upon land- and tide-levels of medieval and modern embanking; thus Sir Cyril Fox has felt able to speak of 'comparative stability' from Iron Age times.⁵ That this is near the truth may be judged from the coastwise distribution of the Essex 'Red Hills', which are the emplacements of the (here) pre-eminently Belgic industry of brine-boiling for salt: they are all still quite near the line of high water.⁶ High-tide mark on the Colne is now just above Colchester East Bridge, opposite the east gate of the Roman colony, and it was probably not far from this in the first century; perhaps a little higher,⁷ which would enable small ancient ships to ascend precisely to this firm and unwooded flood-plain that we have mentioned opposite Sheepen Farm—the first stretch of naturally good river-bank upstream from the sea, where open ground ran straight up southward to the main gravel plateau. Thus land and water conspired together to commend this Sheepen locality to men developing the Colchester peninsula; and, to complete its advantages, there is at just this point a ford—Sheepen Ford, the lowest tide-free ford on the whole river, and the nearest to high-tide mark.

For settlers without the resources of a higher civilization the Sheepen locality is for these reasons the most favoured spot within the Colchester area. And the Colchester area as a whole, for the reasons given above, is the most favoured within its larger region.

2. PREHISTORY AND HISTORY

The archaeological record of Iron Age settlement in the Colchester area actually begins at Sheepen. On the hill due south of the ford our excavations have recovered a wide scatter of the coarse pottery assignable to the Bronze Age–Iron Age transition about the fifth century B.C., together with flints, some remains of bronze implements, and a superb bronze cauldron, in the filling of which was an iron nail.⁸ Below the foot of the hill on

¹ *Proc. Prehist. Soc.* ii, pt. 2, 178–210.

² R. E. M. Wheeler, *R.C.H.M. Roman London* (1928), 12–14; T. E. Longfield, 'The Subsidence of London', *Ordnance Survey Professional Papers*, n.s. xiv (1933), 2–4.

³ A. G. Francis, *Essex Naturalist*, xxiii, 163.

⁴ Longfield, *op. cit.*

⁵ *P.S.E.A.* vii, pt. 2, 152.

⁶ See pp. 346–7 below.

⁷ See pp. 48, 347: 'Red Hills' material from near the river on the Sheepen site itself.

⁸ This material will be published in a separate paper in the *Antiquaries Journal*.

the east three 'bucket' cinerary urns came to light over fifty years ago,¹ and probably betoken a contemporary cemetery; another such urn comes from the Abbey field south of the Roman colony-site.² Nothing of the middle period of the Iron Age has yet been recognized. But the name of the people inhabiting the region in Roman times,³ the Trinovantes, can at all events be taken back to the first century B.C., when Julius Caesar in the year 54 found them harassed by Cassivellaunus, the ruler of the Belgic invaders already established in north Hertfordshire.⁴ Cassivellaunus had slain their king, whose son Mandubracius came to Caesar as a refugee; he took them under his protection, and after carrying his campaign against Cassivellaunus as far as the Hertfordshire stronghold probably now identifiable at Wheathampstead,⁵ exacted from him hostages and tribute, and an undertaking to leave the Trinovantes alone. The next dates in their history are approximately given by British numismatics.⁶ The pacific relations with the island established by Augustus in the twenties led to a growth of Roman influence, which soon becomes discernible in various fields⁷ and most notably in the British coinage. From it we find that the kingdom of Cassivellaunus had descended about 15 B.C. to Tasciovanus, the first of its rulers to inscribe his coins with his name and that of his capital and mint, Verulamium by St. Albans. Two of his neighbours reveal themselves similarly at this date: in Kent, Dubnovellaunus, and among the Trinovantes Addedomarus, whose relationship to Mandubracius is unknown, but whose coin-distribution points to a centre in the Colne valley, probably already in the area of Colchester. And soon afterwards the place's name CAMV(Iodunum) appears for the first time as the mint-mark of a gold coin—not indeed of Addedomarus, but of his Belgic rival Tasciovanus. It would seem that the enmity of a generation before had not died down, and that this coin was struck, about 10 B.C., to celebrate a victory which put Tasciovanus in possession of the Trinovantian capital. This success was apparently short-lived, for Addedomarus' coins continue thereafter side by side with the Verulamium series of Tasciovanus, and seem to exclude them from north-east Essex. In fact, when Addedomarus disappears about A.D. 1 he is replaced there not by Tasciovanus but by Dubnovellaunus, the Belgic ruler of Kent. This king's Essex coins are closely concentrated round Colchester; they appear alongside his predecessor's in the big hoard found long ago at Mark's Tey, and answer in date to the latest coins of Tasciovanus, that is, to the opening decade of the first century A.D.

Now the material culture of Belgic Kent is well known, above all from the cremation-cemeteries at Aylesford and Swarling, published respectively by Sir Arthur Evans⁸ and Mr. J. P. Bushe-Fox.⁹ In his Swarling report¹⁰ Mr. Bushe-Fox pointed out the close

¹ *E.A.S.T.* iv, 18; Abercromby, *Bronze Age Pottery*, ii, no. 468.

² Abercromby, *op. cit.*, no. 469 *tris*. The iron spearhead alleged to have been found in this is best regarded as a modern railing-spike.

³ Ptolemy, *Geogr.* ii, 3, 11.

⁴ Caesar, *B.G.* v, 20-2.

⁵ R. E. M. and T. V. Wheeler, *Verulamium*, 16-24.

⁶ What follows is based on Mr. Derek Allen's paper 'The Belgic Dynasties of Britain and their Coins', *Archaeologia*

xc (1944), 1-46. References to older works, thereby in part superseded, will accordingly be omitted. See below, pp. 133-5.

⁷ For instance, in the adoption by Belgic-British potters of the Continental 'butt-beaker' model: cf. Wheeler, *Verulamium*, 12; and cf. p. 237 below.

⁸ *Archaeologia*, lii, 2, 317-88.

⁹ *Swarling* (Report no. V of this Research Committee, 1925).

¹⁰ *Op. cit.*, 21-3.

similarity between the Kentish funerary pottery, headed by the famous pedestal-urns, and that found at Colchester and other sites in Essex. And the distribution of pottery of Belgic type in Essex, seen in full on the map published by Sir Cyril Fox in 1933,¹ strongly suggests infiltration up the rivers from the coast whereon immigrants would land from Kent. It was thus probably Dubnovellaunus who was responsible for the decisive drenching of the Trinovantes with Belgic culture. We do not indeed know how far that culture had penetrated among them already; but the relatively early Belgic pottery from the Thames-side coast of south-east Essex, e.g. at Shoebury,² probably falls outside Trinovantian territory,³ and it is only about A.D. 1 that we can begin to recognize that territory itself as a province of Belgic civilization.

With the completion of Dubnovellaunus' reign, then, we may end the first phase of the 'Belgicization' of Essex, with its primary impulse coming from Kent. The second phase opens with his expulsion from the kingdom, and a date for this before A.D. 14 is certified by the reference to him on the Monumentum Ancyranum⁴ as a refugee suppliant to Augustus. There can be little doubt of the explanation. The death of Tasciovanus of Verulamium is numismatically dated about A.D. 10, and while his immediate heir is only known to us from the abbreviated coin-name Sego-, a new kingdom begins simultaneously to be attested in the rich coin-series of his other and more illustrious son Cunobelin. For Cunobelin from first to last struck his coins at Camulodunum. Evidently it was he who at his father's death finally settled the fate of the Trinovantes, by expelling Dubnovellaunus and annexing their territory, and very soon also that of the Verulamium succession by superseding Sego- and uniting the two kingdoms. Camulodunum thus became the capital of the whole Belgic country north of the Thames. The Kentish province was annexed about A.D. 25, and Cunobelin became a regular 'high king' in south-eastern Britain—in Suetonius' words, *Britannorum rex*.⁵ Thus the second phase in the 'Belgicization' of Essex made Colchester the headquarters of a great power, and the Trinovantian independence, already laid under subjection to Dubnovellaunus' Kent, was merged under a dynasty which sprang from the rival Belgae of Hertfordshire and bore their tribal name of Catuvellauni as its own.⁶ In truth, under Cunobelin, Camulodunum was no longer a local capital, but something approaching a national centre.

Camulodunum bore a name signifying the stronghold of Camulos the war-god, and the success of Cunobelin's arms won for it some thirty years of political primacy, together, as our excavations will further attest, with commercial wealth. Meanwhile, the masterly inactivity of Augustus' attitude to its ruler passed under Tiberius into a precept. But when Caligula became emperor in A.D. 37 Cunobelin was growing old, and rising discord in the royal family led presently to the exile of one of his sons, Amminius, who went over to urge on Caligula the design, probably already in his mind, of terminating the *status quo* by invasion.⁷ The result, in the year 40, was a fiasco, and in 41 Caligula

¹ *P.S.E.A.* vii, pt. ii, 158, pl. vi.

² Bushe-Fox, *op. cit.* 39.

³ As Mr. Allen has pointed out from the coin-distributions.

⁴ *Res Gestae Divi Aug.* (ed. Mommsen 1883), cap. xxxiii;

cf. Strabo, *Geogr.* iv, 200.

⁵ Suetonius, *Caligula*, 44.

⁶ Dio Cassius, *Hist.* lx, 20, 2.

⁷ Suetonius, *Caligula*, 44.

was assassinated. But then Cunobelin himself died,¹ and his jealous neighbour, the southern Belgic ruler Verica or Bericus,² was soon seeking revenge from Rome³ against the great king's inheriting sons Togodumnus and Caratacus, who, it seems, defiantly retorted by claiming his extradition.⁴ With this to reinforce more general considerations of imperial policy, the new Roman government of Claudius judged that the time was ripe, and in A.D. 43 the invasion under Aulus Plautius was launched. Camulodunum, 'the royal capital of Cunobelin'⁵ and headquarters of his sons' resistance, was the natural objective, and, since they elected to throw their armies forward to Kent and were there successively defeated, Claudius in person was able to arrive and find that its capture, well within the sixteen days of his visit, required only the passage of the Thames and at most a single bloodless engagement.⁶ In other words, its defences were never seriously held against the Romans, for when they reached it its defenders were already beaten. All that Camulodunum demanded of Claudius was a formal entry, and after receiving submissions and acclamations he could order the natives' disarmament, hand back the command to Plautius, and depart home to Rome for his triumph.⁷ Camulos the war-god had forsaken his own.

Plautius must have remained at Colchester with a considerable army, but its name does not reappear in history until, after a large part of lowland Britain had been brought to submission, he was succeeded as governor by Ostorius Scapula. Ostorius arrived late in 47, and, after first putting in hand the frontier-line of the Fosse Way,⁸ spent nearly the whole season of 48 in engaging successively the Icenii of East Anglia, the Deceangli of north-eastern Wales, and the Brigantes of the northern hills. But then he found a more intractable enemy in the Silures of south Wales, now led by Cunobelin's son Caratacus.⁹ He saw he would have to bring up a legion to winter close to the western front, and this meant a redistribution of his forces. In order to liberate units from garrison duty in the south-east, he obtained authority to take land from the subject Trinovantes and establish at Camulodunum a colony of time-expired veterans.¹⁰ This was done in the winter of 48-9.¹¹ The new town was presumably named as a *Colonia Claudia*, after Claudius as its foundation-grantor. Later, indeed, we find it called *Victricensis*, 'Of the Victorious'; but the second-century inscription that records this records also the continued survival of the pre-Roman name Camulodunum.¹² In fact, the Antonine Itinerary calls it in one

¹ Dio, *Hist.* lx, 20, 1.

² The identification of the Bericus of Dio, *Hist.* lx, 19, 1, with the Verica known from inscribed coins in the southern Belgic district between the middle Thames and the Channel, is shown in Mr. Allen's paper above quoted (p. 5, n. 6: op. cit., 6, 9) to be chronologically feasible, and since this removes the only valid objection to it, long-standing though that has been, it is adopted without further argument here.

³ Dio, *Hist.* lx, 19, 1.

⁴ Suetonius, *Claudius*, 17, 1.

⁵ Dio, *Hist.* lx, 21, 4.

⁶ Dio, *ibid.* 19-23; Suetonius, *Claudius*, 17; *C.I.L.* vi, 920.

⁷ Dio, *ibid.* 21, 4-5; 23. For possible mortality among

Claudius's elephants, see below, p. 353.

⁸ Tacitus, *Annals*, xii, 31, 1-2.

⁹ *Ibid.* 31, 3-7; 32, 1-4.

¹⁰ *Ibid.* 32, 4.

¹¹ That this chronology is correct is confirmed by Tacitus' ensuing narrative, the first Silurian campaign following in 49 (*ibid.* 33, 1), the transference of the war to the Ordovices of north Wales leading to Caratacus' defeat in 50 (33, 2-35, 7), and his betrayal to Ostorius by the Brigantian queen Cartimandua being reserved for 51, *nono post anno quam bellum in Britannia coeptum* (36, 1).

¹² *C.I.L.* xiv, 3955 = Dessau 2740, from Nomentum in Latium, commemorating one Munatius Bassus, who had been *Censor civium Romanorum Coloniae Victricensis quae est in*

place Camulodunum¹ and in another Colonia²—*par excellence* as the province's senior foundation. Hence through the OE. *Colneceaster* comes the town's modern English name, the Colonia site being of course that of Saxon and medieval Colchester and the core of the modern borough (pl. 1).

The new-made citizens of the Claudian Colony were hard men. Their idea of enjoying the sweets of conquest was to oppress the subject natives in every imaginable manner, and the rule of force and fraud spread far and wide both within their territory and beyond it. So twelve years passed, and then the whirlwind was reaped. In A.D. 61 Boudicca, queen of the client state that had been made of the neighbouring Iceni, raised the standard of revolt, and after all their sufferings under the veterans of the Colonia, the expropriated Trinovantes were only too ready to join her. What happened that summer is known to everyone³—the absence of the governor Suetonius and his main army in north Wales, the helpless panic in the unfortified city, the flight before the rebels' onslaught into the Temple of the Divine Claudius, its central building and the especial object of British hate, and the massacre and sack that it suffered, shared, after the defeat of the Ninth Legion's base-details from Lincoln, likewise by London and Verulamium, before Suetonius could crush the revolt in battle. His victory must have brought Roman troops once more to Colchester in force for a while. But a period of pacification and reconstruction then began, which went on to culminate under the Flavian emperors. This, then, is as far as we need here to pursue the history of Camulodunum.

3. TOPOGRAPHY AND ARCHAEOLOGY

(a) PRE-ROMAN

The site of Camulodunum has already been defined as a natural peninsula of habitable land, sharply demarcated by river and forest. It only needs defensive lines across its western neck, from the Roman River to the Colne, to become an enormous promontory-fortress of substantial military strength. And these are exactly what it has. The Colchester Dykes—or, as they are often called, the Lexden Dykes, though they stretch well beyond the parish of Lexden—have long attracted popular attention, and parts at least of their westward front, under various recorded names, were already in the thirteenth century serving as legal boundary-marks, most notably for the ancient Liberty of Colchester, which 'Gryme's Dyke' still bounds on this side to-day.⁴ 'Gryme' is of course the Devil,

Britannia Camaloduni, 'Census-officer for the Roman citizens of the Colony of the Victorious that is in Britain at Camulodunum'. (For 'Camulodunum' as the correct form cf. *C.I.L.* iii, 11233, with Hübner, *ibid.* vii, p. 34.) The name *Victricensis* is derived from *Victrix*, 'victorious', but cannot be simply its synonym, as supposed, e.g., by Moore, *The Romans in Britain*, 145. It was perhaps bestowed, to supersede a Claudian title disgraced by the disaster of 61, at a re-foundation of the Colonia then made necessary by Boudicca's extermination of the citizen body (see text, with n. 3 below). Suetonius's victory over her (almost certainly: cf. *C.I.L.* xi, 395, dated 66) earned the title *Victrix* for the two legions,

XIV and XX, who did most to win it. From their veterans the new colonists would most naturally thereupon be drawn; and this would be aptly connoted by the derivative title *Victricensis* for the Colonia thus re-founded.

¹ Iter IX; so also the Peutinger Table, and Ptolemy, *Geogr.* ii, 3, 11.

² Iter V.

³ Tacitus, *Annals*, xiv, 31-9.

⁴ P. H. Reaney, *The Place-Names of Essex* (English Place-Name Soc., 1935), 374-6. Cf. also J. B. P. Karslake, 'The Former Liberties of our Cities and Boroughs', *Journ. Brit. Arch. Assoc.*, n.s. xl, 1 (1935), 62-75.

for folk-memory could declare no human origin for these prodigious earthworks; but presently their objective study began. Its earlier phase opened in 1722, when Lufkin and Smith carried out the first field survey,¹ and continued, with a succession of further surveys,² until 1922, when it was summed up by the Royal Commission on Historical Monuments.³ Its second phase opened ten years later and is by no means yet completed.

In 1932 the extant remains were surveyed afresh for our Committee by Mr. H. W. Poulter and Miss Thalassa Cruso (Mrs. H. O'Neill Hencken, F.S.A.), and in June 1933 the most important modern addition to the study of the subject was made: through the good offices of Mr. O. G. S. Crawford, F.S.A., a set of vertical air-photographs covering the region was taken by the Royal Air Force. In 1932-3 also, test excavations in Lexden Park produced the first concrete evidence for dating the dyke system as a whole to the pre-Roman Iron Age; results obtained elsewhere in 1936 were not conflicting, and more recently Mr. A. F. Hall, by a close study of the ground, the earlier surveys, and the air-photographs, combined with selective trial digging, has brought matters much nearer the point at which further investigation can be methodically undertaken. The plan (pl. 1, Frontispiece), prepared with his collaboration, shows the full extent of the remains at present known or apprehended from the varieties of evidence available, on the background of the natural relief and vegetation. It is not our purpose to expound them here in detail; we hope to do that in our Second Report, when the further work now contemplated has been done. But a brief introduction is necessary in order to place our main theme in just perspective.

We have spoken of the dykes as forming defensive lines from river to river across the western neck of the Colchester peninsula; and this, taken broadly and in the aggregate, they do. But they have clearly not all been planned with that single purpose. The system they display had evidently grown by stages, in which varieties of purpose are more or less plainly apparent. In their principle of design they vary amongst themselves also; but in this regard they appear to fall into no more than two main categories.

In the more extensive, the earthwork is composed of rampart and ditch laid down in straight or virtually straight lengths, making junctions more or less abrupt with each other, and so planned as to make the earthwork effective without need of further adaptation to the contour of the ground. In this category are Gryme's Dyke, the outermost facing west; the seeming complex of single works behind the centre of this, and the Triple Dyke behind its more northerly portion; Lexden Dyke, behind this again, with its southerly leg stretching back along Bluebottle Grove and its northerly one continuing as Moat Farm Dyke beyond the Colne; the line to the south, through Chest Wood, continuing similarly beyond the Roman River; the long work at present incompletely known as Berechurch Dyke, running up from the same river

¹ Published in Morant, *History of Colchester* (1748), ii, 24-5, note Q; and again in *E.A.S.T.* xi (1908), 19-20.

² William Stukeley, 1759: still unpublished. Henry Jenkins, 1841: *Archaeologia*, xxix (1842), 243-56. Henry Laver, as follows: *E.A.S.T.* iii (1885), 123-35; vi (1896),

17-21; viii (1900), 108-11; viii (1902), 369-72; ix (1905), 327-9. R. E. M. Wheeler and P. G. Laver: *J.R.S.* ix (1919, publ. 1921), 139-40.

³ *R.C.H.M. Essex*, iii (*North-East*), xxiii-xxiv, xxv, 73-4.

but facing east; and, towards the Colne again, the vanished Sheepen Dyke, with which we shall be concerned hereafter.

The other category seems to comprise only the works centred upon the site called Cheshunt Field. Their plan can at present be clearly discerned only on the west, but there its difference from the rectilinear design of the others is at once apparent. These lines are curved, and curved because their principle is to follow the contour of the ground: they form in fact a contour-fortification. Beginning perhaps from the edge of the valley-woodland where a tributary flows down to the Roman River east of Oliver's Farm, outer and inner lines are traceable curving north-westward, across the open gravel bluff above it. At Oliver's Thicks the outer alone is visible; but beyond the interruption of a stream-head feeding another tributary valley two lines are soon again traceable, scarped along the flank of this valley itself, in a curve swinging now north-eastward. Soon they diverge, the inner line straightening as it reaches up to continue this course on the level until south of Bluebottle Grove we lose it, and the outer projecting in another and bolder curve across the valley's head, till by the road running north from Bottle End it touches the complex of straight lines intervening between it and the Triple Dyke. It may or may not go on to meet the inner line again and cross it to continue eastward; but already we can see that these works differ from the others not only in their contour-curved design, but in their purpose. For they seem to be intended simply to enclose a space. It is true that their circuit as at present known is open to the east, but the natural woods growing on the stretch of loamy soil from Gosbeck's Farm to Reed Hall and Berechurch would serve in part to close it, and on both sides of this there are air-photograph indications of more earthworks than can yet be fully planned.

Whatever then precisely were its eastern boundaries, the Cheshunt Field area wears the look of a protected enclosure. And that it had importance worth protecting is suggested, not only by its defences, but by the traces of ancient occupation revealed within it by the air-photographs, close by the stream-head above Oliver's Thicks. These look like field or dwelling boundaries, and adjoining them are two remarkable features: a large mound, still unexplained, and a rectangular site, for over a century miscalled a 'Roman villa' on the strength of a superficial excavation by Jenkins in 1842,¹ which is really something more interesting. Trial trenching across this in 1936² showed the rectangle to be formed by a large ditch, at least 30 ft. wide and 11 ft. deep, towards the bottom of which was found Iron Age pottery of pre-Roman, Belgic type, together with a coin of Cunobelin. Above was stratified Roman material, connected evidently with what had stood, eccentrically placed, within the rectangle, namely a Romano-Celtic temple. Cohering with this, the outer margin of the ditch had been bounded by a nearly square walled portico, built in the second century apparently to supersede the ditch's original upcast bank of gravel; but the ditch itself remained open throughout the period of the Roman constructions, and this fact, together perhaps with the eccentric placing of the temple, strongly suggests that the original ditched garth was a pre-Roman sanctuary, which was never obliterated even

¹ *Gentleman's Magazine*, 1842, ii, 526; *Journ. Brit. Arch. Assoc.*, o.s. ii (1846), 45-7; Roach Smith, *Collectanea Antiqua*,

ii, 41-2; thence *R.C.H.M. Essex*, iii, xxvii, 207.

² *J.R.S.* xxvii, 2 (1937), 240.

when converted in Roman times into an otherwise normal temple-enclosure. The phenomenon seems at present without parallel in Britain; and the enduring sanctity which it implies for this spot, so far from Roman and even (as we shall see) from the main focus of Cunobelin's Camulodunum, suggests that Cheshunt Field had been an early centre of importance. And topographically it seems quite clear that the Cheshunt contour-fortification is earlier than the generality of the straight dykes—perhaps, indeed, the earliest member of the whole series, defending what will then be the original Camulodunum. Lying as it does in an out-of-the-way position, satisfactory only in its local command of ground, and remote from the Colne and from the greatest strength of the dyke system as a whole, its distinct existence is not easy to explain at all, unless by positing its priority to the rest of the works.

A second and stronger argument for this priority follows from the behaviour towards it of the westernmost and greatest of them, Gryme's Dyke. This runs slightly east of due south all the way from the Colne at New Bridge to the bulging curve of the north-western Cheshunt Field defences. But whether or no it actually reaches them, its course onwards to the Roman River is not completed this way, but by a switch line laid off south-west to Stanway Green, where an angular forward projection starts it on a fresh line, this time slightly west of due south, to reach the Roman River on the upstream side of the above-mentioned tributary valley. Such a disharmony of plan suggests work of more than one period. But in any case, its explanation seems to require the prior existence of the Cheshunt Field defences, with Gryme's Dyke then thrown out to the west in front of them.

A third argument is stronger still, and lies in the integration of straight dykes with the Cheshunt Field defences themselves, on both their northern and southern flanks. On the south a straight dyke starts off at right angles from them near Oliver's Farm, crosses the Roman River at the ford below, and runs on through Chest Wood to end, at Layer de la Haye vicarage, on the edge of the loam-woodland which there fringes the forest-bearing clay beyond. As for the complex on the north, it displays two straight lines behind and nearly parallel to Gryme's Dyke. The starting-point and status of the western one are still uncertain, as is the significance of the line that slants across its northern end; but the eastern one, at the point where this latter joins it, becomes the Triple Dyke already noticed, which runs north to the Colne at Mott's Farm. This, then, and the southward line to Layer vicarage, have between them the effect of tying the curving Cheshunt dykes in with the river-to-river straight-dyke system. And although the indications of further lines past Bottle End warn us that this picture is still doubtless incomplete, it seems unintelligible from the start, unless the Cheshunt works are earlier than the rest.

The other two features of the complex next the Triple Dyke carry this notion of them farther. Just beyond their final outer curve, the line leading northward to the Triple Dyke is on the one hand met by one slanting in south-eastward from the direction of Gryme's Dyke—along the course which Henry Laver¹ (as we shall shortly see) propounded for a Roman road—and on the other throws off a straight branch running

¹ See p. 16, note 1.

east-north-east, to reach a still unknown destination by way of the southern end of Bluebottle Grove. A trial excavation in 1936 at the point of embranchment showed this to have had two ditches, one on the south side of the rampart and not certainly an original feature of the work, the other on the north and certainly original. Both are filled and invisible on the surface; but in 1940 the northern ditch was exposed again farther along, at the southern end of Bluebottle Grove, in a 'tank-trap' dug along the southerly leg of Lexden Dyke, which, as described above, stretches down the Grove to end at just that point. And in this exposure the filled-in ditch could be clearly seen passing, almost at right angles, underneath the Lexden Dyke rampart just short of its visible termination. This branch work, then, in its original form, is apparently earlier than Lexden Dyke. And if the Cheshunt works, as we have argued, are in turn earlier than the northward line from which the same work branches, we have the beginnings of a chronological sequence of stages, with the Cheshunt works at the outset, followed by at least two stages in the growth of the straight-dyke system. Thus the succession of phases, which we have recognized historically in the rise of Colchester as a British capital, seems to have had something of a counterpart in the development of its defences.

In this sequence Lexden Dyke, on the Bluebottle Grove evidence just cited, will belong to the latest stage so far recognizable. An absolute date for Lexden Dyke will therefore give a *terminus ante quem* for what is so far recognizable of the remainder. And of that absolute date, a reliable indication was obtained in our trial excavations of 1932 in Lexden Park. Here, where the central portion of the dyke stands undisturbed, it is one of the best preserved of the whole series. A seeming interruption, across a steep-sided gully 400 yards from the north fence of the park, was found to be apparent only, the rampart being undisturbed below the surface. Against the north fence of the park itself, indeed, the whole earthwork has been removed by modern gravel-digging; but immediately next to this is its most interesting sector. First, for 150 yards south of the gravel-digging, the work has the appearance of a steep escarpment with no visible rampart; a section, however, revealed that the rampart had originally existed here, but had been thrown down, in a series of shelving tips, on to the scarp of the ditch in front. Secondly, this 'slighted' sector is separated from the fully preserved central portion, to the south again, by a gap. And excavation here proved that the gap represents an original entrance through the rampart, answering to a causeway of undisturbed gravel across the ditch. It was here that evidence was obtained of the dyke's primary date. The 6 ft. of silt now covering the entrance-way produced pottery of early Roman and pre-Roman Belgic type at low levels, while the untouched base of the 'slighted' rampart-end adjoining had similar pottery lying directly over it, two pre-Roman pieces sealed in the clean gravel of which it was composed, and another pre-Roman piece on the old surface underneath it. The earthwork thus dates from the Belgic period; and identical pottery, where found in great abundance in our main excavations recorded below, belongs to the earlier decades of the first century A.D., that is, to the Camulodunum of Cunobelin. As for the adjacent 'slighting', our section found a Roman enamelled plate-brooch of about A.D. 100 embedded in the topmost tip of the thrown-down rampart: the 'slighting' was then probably

carried out by the Romans in the first century, and very possibly, as may be inferred below (pp. 17-19), in the years directly following the conquest of A.D. 43. We thus have a prima-facie case for regarding the later stage of the straight-dyke system, to which Lexden Dyke has been above assigned, as constructed for the defence of Cunobelin's capital. The untouched profile of this dyke was correspondingly imposing. Our section across its central sector¹ showed the ditch to have been dug some 42 ft. wide from lip to lip; and the rampart, still standing some 10 ft. high, may be estimated as about 12 ft. high originally. Its gravel bulk was elaborately reveted in front with turf, and its forward foot here further secured by timbering, while its tail sloped back to give it a basal breadth of no less than 70 ft.

Close to Lexden Dyke, moreover, have been found numerous graves, almost all of them certainly of this same period. The chief of them are two great barrows. That called 'The Mount', lying a quarter of a mile in front of it, was excavated by the Morant Club in 1910² and appears to have been completely robbed, most probably in Roman times. But its fellow, lying within the dyke, is the famous Lexden Tumulus excavated by Mr. Philip Laver in 1924,³ the contents of which are now among the greatest treasures of the Colchester and Essex Museum. It is scarcely necessary to recall them here; but with the metal-work of the funeral carriage,⁴ the well-known sculptured and other bronzes, gold and silver objects, coin-head of Augustus mounted as a portrait-medallion, and the rest, were many amphorae of our forms 181 and 182 (p. 251), as well as other pottery of smaller forms in smashed condition. The character of this pottery suggests that the burial may have taken place not very long before the Roman conquest, and the deceased, who had been cremated with ritual mutilation of his rich grave-goods and other high ceremonial and was clearly a great prince, may well have been Cunobelin himself, or at least one of his family; for whereas the coin-head of Augustus, from a *denarius* of 17 B.C., only gives a *terminus post quem*, the sculptures are comparable in style with some of the most distinctive types of Cunobelin's coinage (pp. 136 ff.), and altogether the interment displays a barbaric luxury imbued with romanizing taste, such as evidently prevailed at his court. On the north of the tumulus, around St. Clare Road and St. Clare Drive, an extensive cemetery is attested by at least fourteen contemporary flat cremation-graves. Another such grave, not far away to the east at Lexden Grange, yielded the well-known group including a bronze mirror, coral-mounted bronze cup, and pair of jugs of our form 131 (pl. LIX), and another has been found to the west, behind the rectory in Lexden village. A collected account of all these grave-finds will be published in due course; none are later than the recently discovered group from St. Clare Drive, which is of very early Roman date, and the area was evidently a British burial-ground of outstanding importance.⁵

¹ Cut 72 yards inside the south fence of Lexden Park and 525 yards south of the modern London road.

² *E.A.S.T.* xii (1912), 186-92; *R.C.H.M. Essex* iii, 74.

³ *Archaeologia*, lxxvi (1927), 241-54. An amphora of our type 181 (pl. LIX), found here already in 1823, is in C.M. (no. P.C. 700).

⁴ Not, as now seems certain, a chariot: further restoration and museum-study suggests rather some kind of state palanquin or litter.

⁵ The chief graves so far published are as follows:

1 (Lexden Grange), *C.M. Report*, 1904 (639-647-04); *Proc. Soc. Antiq.* xx, 211-15, pl. opp. 213; *Swarling*,

All this suggests, when taken together with the indications already given of the relative chronology of the dykes, that in the time of Cunobelin the 'centre of gravity' of the Camulodunum occupation had been drawn away from the Cheshunt Field area to the area behind Lexden Dyke, lying directly south of the Colne. This of course does not mean that the Cheshunt Field neighbourhood was abandoned; the care with which its defences appear to have been tied in with the fully extended dyke system, and the evidence above cited from its temple-enclosure, must indicate the contrary. Indeed, the importance thereby implied for it had perhaps been progressively growing during the intermediate period of the dyke system's development. For what traces we have of its extended northern boundaries run east-north-eastward very little short of the branch straight dyke that we have seen to run, also east-north-eastward, past the southern end of Bluebottle Grove (pp. 11-12). And while the ultimate end of none of these works is known, their direction suggests further bounds on the east that will be well beyond the woodland bordering Cheshunt Field itself. Indeed, the area so extended has an eastern boundary of this kind already in great part extant, namely, Berechurch Dyke.¹ This runs northward from the Roman River, in a series of straight lengths, some 2 miles east of Cheshunt Field, and an occupation-site, of the typical Colchester Belgic culture, has been partly explored just within it at Park Farm.² Farther north, at Monkwick, it crosses the head of the Birch Brook valley: on its way there, a recent long exposure of it in a 'tank-trap' has led also to the discovery of a secondary ditch running in south-eastward to it, from the direction of the air-photograph indications in the Reed Hall quarter (p. 10), while beyond Monkwick it may be followed with some confidence to the western side of the modern cemetery.³ Its course northward of Monkwick has in the past been discussed mainly in confusion with that of a Roman road supposed to issue from the south gate of the Colonia;⁴ and while it could theoretically be continued this way to meet the line from Bluebottle Grove, somewhere near St. John's Abbey (pl. 1) on the edge of the valley that here bounds the Colonia site, this would at present be mere speculation. Two pre-Roman cremation-graves, however, have been found in this quarter,⁵ and though it lies well within the built-up area of the modern town, its possibilities need not be ignored.

One is at any rate thus left with the impression that an original occupation-area in Cheshunt Field may have been extended widely to the east and north-east, with a

22; Leeds, *Celtic Ornament*, 29-30, fig. 10.

2 and 3, *C.M. Report*, 1913, 12, 13, 14 (2606, 2623, 2680, 2719-2727-13), pls. v, vi.

4 (Near St. Clare Road), *C.M. Report*, 1923, 9 (4310-4314-22), pl. iv.

5 (St. Clare Drive), *C.M. Report*, 1932, 26, 32, 35 (2056-2058-31), pl. viii, 1-2.

6 (Behind Lexden Rectory), *C.M. Report*, 1936-7, 14 (904-906-36), pl. iv, 1-3.

7 (Close to 5, found in 1940) is distinguished especially by its fine series of imported Roman bronze brooches, and is of Early Claudian date, just subsequent to the Conquest: *Antiq. Journ.* xxiii (1941), 59-65, figs. 1-3; *J.R.S.* xxxi, 138, pls. xvi-xvii (likewise in

C.M.). The Joslin (C.M.) grave 9 (May, 255 and pl. lxxvi), Claudian likewise, was also found near by (St. Clare Road). See p. 17, with n. 5.

¹ That the ditch of this lies on the east of its rampart was first confirmed by Mr. Hall in a recent trial excavation near Park Farm.

² By Mr. Hall; pottery in C.M.

³ Investigations lately carried out by Mr. Hall.

⁴ *R.C.H.M. Essex*, iii, xxviii, and map, 72; H. Laver, *E.A.S.T.* ix, 327.

⁵ To the west, in Abbey Field: *C.M. Report*, 1905, 16 (851-852-04), pl. 11; *Swarling*, 21; to the east, near Winsley's Almshouses: *C.M. Report*, 1906, 14 (1001-3-05), pl. 111. Both are in general similar to those at Lexden.

southern boundary in the Roman River and an ultimate eastern one in Berechurch Dyke. So large an enclosed space would no doubt have consisted mostly of pasture and arable land, presumably with occupation-sites, like that at Park Farm, here and there within it. But it can then all the more easily be conceived as a sort of rural annexe to the focal area of occupied Camulodunum which the fully developed dyke-system implies to the north of it, behind Lexden Dyke and adjacent to the Colne.

That that stretch of the river came to require especial protection is shown by the northward prolongation of Lexden Dyke beyond it as Moat Farm Dyke, which runs up through the thick clay forest fringing the valley to end (on the modern West Bergholt road) at the edge of the loam woodland beside the tributary valley of the St. Botolph Brook. And still farther north, where the westerly of that valley's two heads issues from the Boulder-clay forest, lies an earthwork of another kind: a hill-fort, of oval shape, known as Pitchbury Ramparts. This is strongly placed, a mile north of West Bergholt village, in a longitude which invites the eye to link it with the dyke-system as a sort of outpost, in line not with Moat Farm Dyke but with one of the more westerly works, for choice Gryme's Dyke. In fact Stukeley, and also Jenkins, suggested that Gryme's Dyke had been continued across the Colne, on the west of the St. Botolph valley, to connect with it; and it was accordingly explored for our Committee in 1933.¹ The connexion was definitely disproved. Apparently, too, the fort was never properly finished and only temporarily occupied. However, the few sherds of coarse but wheel-made pottery that were found—one in the primary silting of the ditch—demand a date for it somewhere in the lifetime of British Colchester.² The occasion remains obscure. But the hill-fort type of fortification, obviously enough, was not to the purpose of the men who built the dykes. The 'general idea' of a hill-fort is intensive defence of a single position against capture. But the 'general idea' of the dykes is extensive defence of a large tract against penetration; and its development in this period in Britain can readily be explained in terms of the British art of war. For, as history and archaeology alike record, the leading weapon of offensive warfare was the chariot; and it must surely have been against penetration by chariotry that these dykes were particularly designed. The parallel with the modern 'tank-trap', in fact, is both evident and just. In such a context, the hill-fort idea would inevitably be outmoded; and the impermanence of Pitchbury, here on the northern outskirts of the Colchester area, is thus easy to understand. Moat Farm Dyke, on the other hand, belongs unmistakably to the permanent defensive system, prolonging as it does the line of Lexden Dyke across the river, to give enhanced protection to our focal area behind.

Of that area the greatest natural strength lies in the secondary 'peninsula' (p. 21) between the biggest of the river's northward bends and the valley of the small stream which flows east and north-east to join it near North Bridge. And that is the site of Sheepen, the scene of the main excavations described in this Report. As will be seen, it has its own dyke, Sheepen Dyke, three-quarters of a mile behind Lexden Dyke, and the

¹ The work was directed by Miss Cruso, assisted by Mr. Ward-Perkins, Miss Jolliffe, and others. The details will be published in our Second Report or separately.

² They belong to the class of coarse ware described on p. 205 below.

innermost of the whole series resting on the Colne. This runs from the small stream delimiting the site on the south to the verge of the main river just below Sheepen Ford. The convenient situation of the ford, and the firm and unforested character of the Colne flood-plain by it, have already been pointed out (pp. 3-4). And topographically it now seems clear that Sheepen Dyke marks the inner base of the completed system of the dykes. We may thus expect the inner focus of British Colchester, whatever the previous history of its location, to have become finally established behind this dyke, upon the Sheepen site. The chronology of the dyke-system's development, and the possible correlation of its stages with the reigns of the rulers before Cunobelin, in the first phase of the 'Belgicization' of Trinovantian Essex—all this remains as yet unknown. But for the completed works, with their majestic design and their immense extent, a lesser ruler than Cunobelin can scarcely be thought responsible; and we believe that at Sheepen we have the focal point of Camulodunum as he made it.

(b) ROMAN

It will be seen below that the Sheepen site remained continuously inhabited into the early lifetime of the Roman Colonia, its occupation dislocated indeed at the Conquest, but not actually interrupted. Yet it remained primarily a native concentration. The Colonia was established on a virgin site, overlooking the tidal Colne half a mile downstream. And the Roman military garrison of the first post-conquest years, which the Colonia was founded to supersede, is to be found neither on that site nor at Sheepen. In fact, the quarters of the army of invasion have yet to be positively identified. But the topography of the earliest phase of Roman Camulodunum must have been determined very largely by their position; and clues to this exist in the traces of the earliest Roman road-system.

We still know comparatively little of it. But the 1932 air photographs have anyhow disclosed parts of at least four palpable Roman roads which were previously not known at all. And selective excavation has shown, in the first place, that these were not of the build commonly expected of permanent Roman highways, but of a simple construction suggesting early—and here therefore military—origin; and in the second place, that the chief permanent Roman highway of the place was not built as such until later, and then not on the course commonly accepted for it, but on a different one. For the Roman period, then, our topographical background is incomplete indeed, but it is very largely new (pl. 1).

The chief permanent highway, naturally, was the main road into Colchester from London. Its commonly accepted course was propounded by Henry Laver, in 1885, with circumstantial details of broad and solid structure.¹ On crossing the Roman River at Stanway Bridge,² this course leaves the modern road from London and continues almost

¹ *E.A.S.T.* iii (1885), 125-6; hence Codrington, *Roman Roads in Britain*³ (1918), 183; *J.R.S.* ix (1919), 151-2, and *R.C.H.M. Essex*, iii, xxviii, with map, 72. His line is,

however, wrongly rendered on the Ordnance Survey map, as comparison with these will show.

² See pl. 1 and inset-map.

due east across country to the certainly ancient entrance in the middle of Gryme's Dyke. But the zigzag whereby it then negotiates the remaining dykes is really that of two components of the dyke-system itself, which have already been described (pp. 11-12). The authenticity of both of these has been shown wherever they have been examined by Mr. Hall or ourselves during the past ten years,¹ and what Laver took for road-metalling, in his trench in one of the fields behind Gryme's Dyke, seems probably to have been the quite modern filling-surface of the dyke-ditch in that sector. An early or temporary Roman road, of some simple construction, may well have followed the line of these two dykes along Laver's course, through the Gryme's Dyke entrance and as far as the south end of Bluebottle Grove—whatever its further destination. Indeed, at the apex of the zigzag between those points, where it crosses the intermediate dyke that runs north into the Triple line, our excavations of 1936 disclosed that the ditch of that dyke had been bridged by something like a solid artificial causeway, on which such a road may have been carried. Outside Gryme's Dyke, again, the air-photographs show a minor road running south-east (pl. 1: truncated now by a large gravel-pit), which may be a branch thrown off by such a road on its way from Stanway Bridge. But all this remains to be proved. And lastly, once past Lexden Dyke at the south end of Bluebottle Grove, Laver represented his road as making a straight line east-north-eastward, which he believed he had fully authenticated, to the famous Balkerne Gate in the west wall of the Colonia.² But Mr. Hall has shown, in a recently published paper,³ that the straightness of this line cannot be reconciled with the location of Laver's own evidence of road-metal exposures. For that evidence, in fact, there is now another explanation.

The key to this is the main discovery which Mr. Hall's paper records. In the grounds of the Colchester Royal Grammar School (pl. 1), to the south of the modern London road and a good quarter of a mile westward from the Colonia, he has discovered a Roman road of monumental construction with three tracks.⁴ And it seems beyond serious doubt that this is the permanent highway to Colchester from London. Its direction differs entirely from the zigzag course propounded by Laver, and takes it a good deal farther north, through the area of the Lexden British cemetery, where, again just south of the modern road, evidence of it has twice already come to light.⁵ A road on this course must have passed Lexden Dyke where the gravel-digging next the modern road has unhappily destroyed it (p. 12); and with that point, a little farther west, the modern road itself lines up, on its way through Gryme's and the Triple Dyke from Stanway Bridge: probably then it approximates to the Roman line here, as it does for most of the way from London. What is remarkable, however, is the deflexion of the Roman line, once within Lexden Dyke, to head not east for the Colonia but south of east for the Grammar School, where

¹ These remain to be published when a fuller account of the whole matter can be given in our Second Report.

² This is nearly opposite the site (pl. 1) of the modern Union (Workhouse and Infirmary), on which see p. 19 below.

³ *Journ. Brit. Arch. Assoc.*, 3rd ser., vii (1942), 53-5.

⁴ 'A Three-Tracked Roman Road at Colchester': loc. cit. 53-70.

⁵ One side-ditch in St. Clare Road, *J.R.S.* ix, 152;

R.C.H.M. Essex, iii, xxviii; metalling and both side-ditches in grounds of 'Ethelstow', St. Clare Drive, 1932, kindly shown us by the late Mr. Philip Laver. The Early Claudian grave 7 of p. 13, n. 5 above was only a few yards from this exposure, and not far east of the other has also been found a pit containing Claudian pottery (in C.M.). For the exposures adjoining the Centurion and Longinus tombstones, nearer the Grammar School, see p. 18.

Mr. Hall has found it. For the date of its structure, from the Decorated Sigillata fragment and coin of Vespasian found by him associated with it,¹ appears to be in the last quarter of the first century, which is also probably the date of the Balkerne Gate, its obvious western entry into the Colonia. To reach that it must have been deflected back again on to a course north of east; and this appears to have happened at a point near the south-east corner of the Grammar School buildings, towards which a second road discovered by Mr. Hall runs in on an otherwise uncharted course from the north-west.² Moreover, yet a third road alined on the Grammar School and not on the Colonia has now been revealed, this time by the air-photographs. Coming apparently from a crossing of the Roman River just above the dyke by Oliver's Farm (p. 10), this runs north-east between Gosbeck's Farm and the Cheshunt Field temple, and between there and the Maldon Road its course has been confirmed by a section cut by us in 1936.³ If all these roads converge upon the Grammar School, the final stretch thence required to reach the Balkerne Gate will then have been a short link-road, on an alinement all its own.⁴ This peculiar arrangement seems to admit of only one explanation: that the original lines of the Roman road-system were laid down before the Colonia was founded, and relate not to it but to the location of the original military garrison. The Colonia will then have been simply linked on, as conveniently as could be managed, to the road-lines thus already existing.

To assume this of course means assuming that the line of the three-tracked road was originally that of an earlier and less elaborate one. Mr. Hall's direct excavation-evidence leaves this an open question;⁵ but it is hard to see why the three-tracked road is not alined on the Colonia unless its course was so predetermined, and that there was such an earlier road on the course is made probable, also, by the early date of the two famous Roman tombstones that have been found beside further exposures of its southern margin near by.⁶ That of the Centurion, M. Favonius Facilis of the XXth Legion, just west of the Grammar School (pl. 1),⁷ is of mid-first century style, and had a pottery cup of about A.D. 50-60 in the grave beneath it:⁸ he may thus have been one of the legionary veterans of the original Colonia. That of the cavalryman Longinus of Sardica, *duplicarius* in the Ist Ala of Thracians, was found just west of this again (pl. 1):⁹ stylistically no later, it is in all probability earlier still, when the regiment in question will have belonged to the pre-Colonia military garrison.¹⁰

¹ Op. cit. 57.

² This is Mr. Hall's road 3: see p. 19, n. 4.

³ *J.R.S.* xxvii, 240, road (a), with pieces of early Roman beaker (form 108: p. 237) from eastern side-ditch. Details to be published in Second Report: site is here marked on pl. 1.

⁴ To which two of Laver's exposures of metalling (p. 17) have been conjectured by Mr. Hall most probably to belong: op. cit. 53.

⁵ Op. cit. 57.

⁶ Op. cit. 55.

⁷ *C.I.L.* vii, 90; *E.A.S.T.* o.s. v, 87; and, e.g., Furneaux and Anderson, ed. Tacitus, *Agricola* (1922), 83, fig. 11.

⁸ May, *Cat.* 264, no. 49: his type 133 (pl. xxxi) = our

form 64, on dating of which see pp. 228-9 below. It accompanied the lead ossuary and glass phial, May's nos. 47-8.

⁹ In 1928: *J.R.S.* xviii, 121-3; *Antiq. Journ.* viii, 527-9; *E.A.S.T.* xix, 117.

¹⁰ Commemorating as it does a serving non-commissioned officer of 15 years' standing and only 40 years of age, it seems to imply the contemporary presence of his regiment in the Colchester garrison. This was withdrawn in winter 48-9 (p. 7); but the slab is of Bath stone, which can hardly have been quarried before the Fosse Way frontier was established past Bath in 47 (cf. Mendip lead-mining, productive by 49: *C.I.L.* vii, 1201). The likeliest date for it is therefore 48.

If then there was an early road along this line, it will no doubt have made junction, somewhere towards Lexden, with a continuation of that on the Sheepen site, to be described below (pp. 24, 88, 96). This would most naturally be at its now obliterated passage through Lexden Dyke. And its passage through Gryme's Dyke, which the great pit known as King Coel's Kitchen has long since obliterated likewise, was certainly—and no less naturally—such a point of junction. For, north of the road from Stanway Bridge, the air-photographs show two more straight road-lines, previously unknown, diverging from this spot (pl. 1). One runs slightly north of west; the other, confirmed in a section cut by us in 1936,² heads almost due north-west, and so suggests the route to Cambridge,³ on which a military road,⁴ continuing to join the Ermine Street at Godmanchester,⁵ must have been required by 47 for Ostorius's advance to Lincoln.⁶ The road similarly revealed on the south-west (p. 18), between the Grammar School and the Roman River, runs also in the direction of an early Roman site, namely Heybridge near Maldon, where various finds⁷ suggest a Claudian port on the Blackwater estuary, established presumably as a military depot (pl. 1, inset). If this road ran on also from the Grammar School north-eastward, it would reach first the site of the modern Colchester Union (pl. 1), which is known to have been occupied before the Colonia and indeed before the Conquest,⁸ and then the Colne about North Bridge, where the exit from the Colonia North Gate⁹ must also have crossed the river. Further destinations for such roads there must have been, both here on the north, towards the border of the Iceni, and also on the east, towards the sea. At Fingringhoe, in particular, on a steep gravel bluff overlooking the mouth and estuary of the Colne,¹⁰ mechanical digging has in recent years disclosed an extensive

¹ It should be added that a third (early?) Roman stone, sculptured with a Sphinx, comes from a spot north-east of the Grammar School beside the presumed line of the link-road thence to the Colonia (*Journ. Brit. Arch. Assoc.* ii, 38; Hall, *op. cit.* 53, 55); and also, that the earliest extant grave-groups of the surrounding Colonia West Cemetery as a whole (*R.C.H.M. Essex*, iii, 32, no. 3) are definitely of Claudian date.

² Details to be published in Second Report: the site, adjoining Iron Latch Lane some 100 yards south of the railway, is marked on pl. 1.

³ The modern Cambridge road slants across it on a not very different course, just avoiding King Coel's Kitchen (pl. 1).

⁴ There is no further sign of a Roman road on the route before Ridgewell, near Haverhill (*E.A.S.T.* xvii, 190), where the so-called 'Via Devana' crossing the Gog Magog Hills begins to be traceable (Fox, *Arch. Camb. Reg.* 168-70, 180-2). But when this was given permanent form it may have been partly re-sited: at the Colchester end, away from the presumed early line (just recorded) to that of Mr. Hall's road 3 at the Grammar School (p. 18, n. 2), which is certainly a permanent road pointing north-west as required; and at the Cambridge end, from a crossing of the Cam at Grantchester, with its doubtless early camp (Fox, *loc. cit.*, and 175-6), to the permanent one below Cambridge Castle Hill, where, from the Roman site formerly believed to be late (*ibid.* 174),

Mr. T. C. Lethbridge now has evidence of a first-century (but not necessarily a military) occupation: pottery kindly shown by him to C.F.C.H.

⁵ For Godmanchester and district, see *V.C.H. Hunts.* i (1926); *Trans. Cambs. & Hunts. Arch. Soc.* v, pt. 7; evidently early camp-site by the Nene crossing near Castor, *Antiquity*, iv, 275; xiii, 178-90, 455-8, with air-photographs showing associated road closely similar to these at Colchester.

⁶ Early military tombstones at Lincoln, *C.I.L.* vii, 183-4; also *Eph. Ep.*, ix, p. 557; early archaeological material, e.g. *B.M. Guide, Roman Britain*, fig. 66, and in Lincoln Mus.

⁷ *C.M. Report*, 1913, 10, 11, pl. 11; 1922, 9, pl. 11, and 10, pl. v, top; much Roman pottery in C.M., chiefly Fitch Colln., found making railway-cutting south of Heybridge station (*Essex Naturalist*, ii, 231).

⁸ This site will then have begun life as an adjunct to the main pre-Conquest site at Sheepen, and have become thereafter a western suburb of the Colonia. The finds are of all dates from Cunobelin to the latest Roman period: they were for long very numerous, but were not separately mentioned in C.M. Reports until recent years; more lately the ground has ceased to be disturbed.

⁹ A fragment of which has recently (1944) been discovered.

¹⁰ See p. 3. Was it from here that men saw the marine portents of the Boudiccan revolt (Tacitus, *Annals*, xiv, 32, 2)?

Claudian site, which must surely have been established, like that at Heybridge, as a military depot-port (pl. 1, inset).¹

Further exploration, in fact, both of roads and sites, should have much throughout the district to reveal, above all in the topography of the Early Roman military occupation. But it is already clear where that occupation had its most probable centre, namely, in the region of the Grammar School. And it has now to be added that, along the southern margin of the three-tracked road there, Mr. Hall has brought to light a large ditch, suggesting Roman military pattern, 18 ft. in width, stratified below second-century material and containing mid-first-century pottery at its bottom.² This ditch is apparently an unfinished work, and may have been intended for a semi-permanent legionary camp, abandoned on the foundation of the Colonia. If so, the pre-Colonia garrison must have occupied other and more temporary camps; and there is level ground suitable for these throughout the area west and south-west from here towards Lexden Dyke and Blue-bottle Grove. Indeed, in 1938, test excavations near the middle of this area came upon certain ditches (pl. 1) of which one,³ containing a little Claudian pottery, may well be the ditch of such a camp, while the pair of lesser ditches found approaching it might then belong to an annexe. Not far away, again, is the Grammar School playing-field (pl. 1), which trial excavations by Mr. Hall have already shown to be a place of promise.⁴ Claudian pottery has also been found farther west near Magazine Farm;⁵ and it is probably in this region of open plateau, south of Sheepen and south-west of the Colonia site, that the main Roman military occupation should be looked for.

The early remains on the Colonia site itself cannot be discussed here. The town-wall enclosing it was built, as is well known, only after Boudicca's revolt—probably, indeed, some time after; but earlier remains, including evidence of the actual Boudiccan destruction, have been found at a number of places within it. The chief early monument is of course the Temple of Claudius (pl. 1), the substructure of which may be seen in the great vaults, now cleared of their earth filling, under the Norman keep of Colchester Castle. It is projected that our Second Report shall include a description of this and the adjoining buildings studied in the excavations of 1927–8 and 1933,⁶ together with a full account of discoveries made elsewhere within the town since the publication of the Royal Commission's volume in 1922. Among the latter particular mention need be made here only of the remarkable pottery-shop, the burnt remains of whose stock were found in 1927 beneath premises in the High Street.⁷ Pieces of over 600 vessels of Terra Sigillata, along with unglazed pottery and much fused glass, make this an exceptionally well-dated

¹ The fine collection of early Roman material comes from orderly alinements of shallow pits in the gravel, and has been kindly shown us by the collector, the Rev. G. M. Benton, F.S.A. A trial excavation here in 1937 also traced a building of the third century (*J.R.S.* xxviii, 189) which had incorporated re-used semicircular bricks of the type noted on p. 348 below.

² Hall, *op. cit.* 54 (fig. 2, a), 56, 57.

³ Along the eastern edge of field (O.S.) 1225; further work here is in contemplation, with a view to the Second

Report.

⁴ Details kindly communicated by him; further work here, too, is hoped for.

⁵ In C.M.

⁶ On the discovery in 1931 of part of a southern entrance into the surrounding forum or precinct, and its relation to certain finds at Sheepen, see pp. 348–9 below.

⁷ Hull, *E.A.S.T.* xix, 277 ff.; xx, 211 ff. Summaries: *Antiq. Journ.* ix, 37; *J.R.S.* xvii, 203; Macdonald, *Roman Britain 1914–28*, 78–9. See below, pp. 39, 56.

deposit, and there can scarcely be any doubt that the shop was sacked and burnt in the Boudiccan destruction. The pottery will then make valuable comparison with that here to be published from the Sheepen site.

To the Sheepen site, then, we must now finally turn. Every known stage in the history of Camulodunum, from the time of Cunobelin to the morrow of the revolt of Boudicca, is there faithfully represented. The site can in fact be studied, in the perspective we have sought to give it in the foregoing pages, as a unique document of the transition from Prehistoric to Roman Britain.

4. THE SHEEPEN SITE: DISCOVERY AND EXCAVATION

(a) SITE AND DISCOVERY

Sheepen has already been described as a peninsula within the Colchester area. The clay-bottomed valley of a small stream, beginning a short distance north-east of the cemetery-site at Lexden, runs eastward, roughly parallel to the Colne, to cut off from the main gravel plateau a bold projecting hill. This is the twin of the more easterly bluff occupied by the Colonia, from which it is separated by the outfall of the little valley as it bends north, below the Union site, to reach the main river. The hill is flat-topped and, except for its broad westerly neck by the head of the stream, steep-sided. It rises to rather over 100 ft. O.D., and consists of well-drained gravel and sand with some clayey loam on the north-west. In a slight hollow in its northern face rise Sheepen Springs, until recently the principal source of Colchester's water-supply. And, as has been pointed out above (pp. 3-4, 15-16), it runs down to the Colne on the north-east in the one place where the habitable loam and gravel flood-plain has no naturally wooded skirt of London Clay, and where a convenient river-crossing lies to hand in Sheepen Ford. Until recently nearly all the area belonged to Sheepen Farm, and the field on the hill-top (O.S. no. 496) used to be known as 'Fort Field', commemorating its fortification, traces of which will be encountered presently, by Colonel Ewer of the Parliamentary army that besieged Colchester in 1648.

Discoveries of earlier date were first recorded in the manuscript journal of William Wire, a Colchester watchmaker who was a keen antiquary and an early friend of Roach Smith.¹ Under January 2, 1843, Wire describes how the farmer, Mr. Ball, showed him what were evidently pits, one with a hard floor and containing Roman pottery and bone, on the south of what is now the diagonal foot-path (then a hedgerow) dividing field 496, and told him of others he had found elsewhere. Clear traces of Mr. Ball's diggings have been met with in our excavations (pp. 81, 85, 91), and he continued to discover and Wire to record ancient remains on the north slope of the hill for the next five or six years. In 1845 specimens were sent for exhibition to the Archaeological Association: they included coins of Cunobelin, Claudius, Domitian, Pius, and M. Aurelius, a so-called 'Celtic key' of iron, and fragments of glass.² Under January 5, 1844, Wire notes that

¹ Preserved, with his Album, in the Library of the Essex Archaeological Society (Holly Trees, Colchester): we are indebted for transcripts to Mr. E. J. Rudsdale.

² According to *Arch. Journ.* i, 156.

sixteen years before about 'half a pint' of coins had been found when a bank was dug near the farm-house, and there are several references to layers of 'very hard made earth, exhibiting the presence of lime'. On one occasion he speaks of the site as 'the villa', but this was doubtless only a theory, inspired by the contemporary discovery by Jenkins of what was thought to be the 'villa' at Cheshunt Field (p. 10). He reports Samian ware as common, including 'two dishes the size of salt-cellars'; also the potter's stamp BELLICI, '2/3 of an amphora', and, more surprisingly, 'fragments of a brass or copper chair'. None of these finds are now identifiable in the Colchester and Essex Museum, but some are probably merged in the Roach Smith, Pollexfen, and other collections in the British Museum.¹ After 1848 the relevant entries in his journal cease.

The next discovery was made in March 1877, when at the south-west corner of the hill-top field five second-century Roman pottery-kilns were brought to light. Their excavation was recorded by Joslin,² with whose collection the surviving finds came to the Colchester and Essex Museum,³ and the best kiln is still preserved under a built cover and has earned the field the nickname of 'the Potter's Field'. For the ancient occupation of the north slope of the hill Wire's records remained the only evidence until 1905, when a water-main was laid along Sheepen Road and past the farm. The finds, collected by Dr. Henry Laver and now in C.M., included several good brooches (pp. 311, 313, 320, nos. 42, 50, 64, 118). Nothing further was noted till 1923, when the attention of Mr. Hull was attracted by Roman potsherds turned up in the two gravel and sand pits (pl. cviii) south of the farm. Occupation was clearly attested in the exposed sections, and the finds included imported pottery which appeared to antedate the Roman Conquest.⁴ During the following years observation on these pits was maintained by Messrs. E. J. Rudsdale and G. W. Farmer, and a quantity of pottery, coins, bronze objects, &c., nearly all of the first two-thirds of the first century, was presented to the museum by the former in 1930, and some additional coins were purchased.⁵

Meanwhile in 1926 a water-main was laid along Sheepen Road and across field 613 at the northern foot of the hill; quantities of pottery, &c., were obtained, in date at least as early as Claudius, and were presented to the museum next year by Mr. Philip Laver. It was in describing these that emphasis was first laid on the early date and obvious importance of the site.⁶ With the few exceptions inevitable on the outskirts of such a town as Roman Colchester, all the remains were earlier than about A.D. 65, and as well as excellent native pottery there was much early imported fine ware, in significant contrast to the notable absence of Arretine and the contemporary wares of Belgic Gaul from the Colonia itself. Mr. Hull concluded: 'Provisionally one may perhaps regard this (the Sheepen site) as pre-Roman Camulodunum, whether burnt on capture or allowed to

¹ e.g. a brooch purchased by the museum at the Whincopp Sale at Sotheby's in June 1856 (our type XVIII B, p. 323) is labelled 'Colchester, W. W.', presumably Wire's initials, and in the Pollexfen collection (1870), as well as other brooches, &c., of the right period for the site, are some Roman iron weapons which now seem likely to have come from this source also (cf. pl. civ).

² *E.A.S.T.* n.s. i (1874), 192 ff.; cf. Grimes, *Y Cymm-*

rodor, xli (1930), 31, 60, 66.

³ May, *Catalogue*, 173-6 and pl. lxx.

⁴ *C.M. Report*, 1924, 13 (4581-6, 23).

⁵ *Ibid.*, 1931, 2, 5, 6, 10 ff., 16 ff., 21 ff., 24 ff., 33-4, 35 ff.; 1932, 40 ff. The principal pieces in this collection have been incorporated in the present report.

⁶ *Ibid.*, 1928, 22-30.

exist until the Colony was built.' He went on to stress the probabilities of a lively trade with the Continent before the Roman Conquest, and of a native pottery industry of remarkable excellence.

Accordingly, when in 1929 the plans for the Colchester By-pass road were produced, it was at once realized that excavation along its line, running as it did past the foot of the hill and right across the occupied area, was a matter of immediate urgency. The formation of the Colchester Excavation Committee followed as recorded in the Preface, and work was begun in June 1930. When the last trenches were finished in September 1939 the excavation had accounted for nearly all the site. The key discovery was that it had been defended by a dyke of its own. As is seen on pl. 1, Sheepen Dyke completes the main dyke-system in its final form by protecting with a last line of defence, approximately half a mile in length, this inner kernel of the British capital.

(b) EXCAVATION, 1930-9

The excavations began at the northern end of the site, along the strip of land now covered by the By-pass road. It was here, in July 1930, that Mr. J. N. L. Myres first discovered Sheepen Dyke. Its rampart had been almost entirely destroyed, but its ditch, our ditch I, was found to run north-north-east to south-south-west across the By-pass line, interrupted by a stake-supported causeway of natural gravel, representing a north-west entrance opening towards Sheepen Ford. The primary silt yielded a great mass of pottery and other finds which could be attributed to the period of Cunobelin, and over it the material of the destroyed rampart had been redeposited, forming a thick sealing layer. The surface of this was covered by two successive layers yielding mainly Claudian remains, which were linked stratigraphically with contemporary occupation-sites on and adjoining the levelled remains of the rampart. Further occupation-sites, pits, and ditches were found east-north-eastward along the By-pass line, sometimes singly, sometimes forming distinct stratified sequences in which native and early Roman features could be distinguished in due succession.

When in 1935 excavation was extended to the field between the By-pass and Sheepen Road, similar results were obtained: native had been followed by early Roman occupations, the latter notable in one region for a considerable metal industry, and the sequence had come to an end, after signs of burning, before late Flavian times, when a temple of Romano-Celtic type was built in the middle of the area, standing in a large walled precinct of irregular plan, with a small two-roomed building added outside its south-west corner, and later, in the third century, a smaller Romano-Celtic temple outside its north-west corner. These later buildings will be published in our Second Report. Further finds, of both later and earlier periods, were made when in 1936-7 St. Helena's School was built where it now stands in this area.

West of the school buildings the site had been traversed by a V-shaped ditch, first located in 1930, running nearly at right angles towards the line of the dyke, which it met and crossed just over the site of the original entrance causeway above mentioned. Cutting

as it did here through the filling of the dyke and the overlying layers, this ditch was apparently post-Claudian, though none the less pre-Flavian; for part of its course its southern, presumably inner, side was followed by a narrow palisade-trench.

In 1931 and 1934 excavation was carried westward along the By-pass and back to pick up the line of the dyke in the field north-east of Sheepen Farm; it disclosed further native occupation outside the dyke line and also early Roman features, in particular an abandoned aqueduct leading apparently from Sheepen Springs, and, between this and the dyke and later than the filling of either, a brick-built tile-kiln. Past the kiln, and later again, ran a V-shaped ditch similar to that just mentioned; this was our ditch II, and it continued almost parallel to the dyke up the hill south-south-west beyond the farm, where the more extensive excavations of 1931-2 revealed a much fuller picture.

The dyke was there found to pursue its same course from the gravel-pit, where it had been found exposed in 1930, up to and on beyond the south-east corner of the Sheepen Springs catchment-enclosure; it had been filled in, mainly by the levelling of its attendant rampart, in a manner exactly analogous to that observed in the By-pass sector, and likewise also the surface of the filling had been occupied in two successive periods for habitation, the dwellings being small clay-floored huts. Further, a little way short of the catchment-enclosure corner were found signs of an original west entrance, which had apparently been similar to the north-west entrance attested on the line of the By-pass. The dyke here made a slight change of direction, and also narrowed to less than half its full width; moreover, this narrow stretch was devoid of primary silting. The facts pointed to the former presence of an entrance-causeway, cut away very shortly before the dyke was finally filled in, and this notion was confirmed by the sequel to the filling. Precisely this point had been chosen for the laying across it of two successive early Roman roads, corresponding to the two periods of hut-habitation just mentioned. The coincidence could scarcely be accidental, and probable traces of an original entrance-revetment were encountered on the line of the otherwise vanished rampart.

Farther east, the later of the two roads had been flanked by important timber structures. That on the south was a stout linear revetment, that on the north a long building with slot-bedded wattle-and-daub walls supported by substantial timber posts. The material here was predominantly of the period Claudius-Nero, a dating confirmed in numerous pits in the vicinity. Similar remains were found near the dyke line farther south, only less well preserved. On the west, the road-crossing over the filled-in dyke was flanked by huts as above noticed, and a little way beyond and north of both roads was a large excavation in the natural sand, the bottom of which held the traces of horizontally laid timber beams, flanking a central hollow and covered by a mixed mass of infilling yielding great quantities of slag and bronze fragments suggesting the work of Roman military metal-workers.

The activity thus attested, and the main Roman occupation of all this part of the site, with its pits, huts, and timber structures, had suffered violent destruction by fire. The mass of burnt wreckage was very great, and there were datable remains in plenty to show that this disaster had occurred about the middle of the reign of Nero. It had been

closely followed by the digging of ditch II, which has already been noticed running up the hill a little outside and almost parallel to the filled-in dyke. Maintaining this alinement, it cut abruptly across both the Roman roads, but had apparently an entrance of its own a short distance north of these, where a branch ditch curved out from it in the manner of the *claviculae* that protect the entrances of many Roman camps. Its existence was, however, brief, and its levelling, covered in one place farther north by a fresh hut-site, was here simply succeeded by the filling up of the metal-working hollow and other part-filled pits and the digging and filling of several fresh pits to dispose of the wreckage of the great fire. Some gravel metalling was put down over the rubbish along the line of the road, and with that, apart from a superficial scatter of second-century remains in one or two places, the occupation ended.

Excavation was continued from here in 1938 eastward and downhill along the Roman road-line, which was found to have been intermittently flanked by intensive occupations of the Claudius-Nero period, mainly industrial. Metal-working was particularly prominent, and when finally the road turned to the north it made towards the similar industrial area already noticed near the later temple enclosure. There were, however, signs that it had superseded an older native track, and a primary objective for the latter was apparent a short distance east of the northward turn: namely a native occupation-site of especial importance, which had been very thoroughly destroyed and succeeded by early Roman occupations. This was discovered in 1930, when also trenching was carried still farther east and south over what is now a playing-field, disclosing again mainly early Roman occupations; in the far south-east corner metal-working had continued to Flavian times, but the important site just mentioned had then been levelled over after abandonment. Both there and normally elsewhere, this seemed to have taken place under Nero, when the road was re-gravelled after the same violent general conflagration along its line as we have already noticed farther west. Just by the turn of the road this destruction had overtaken a pottery-kiln in active use, and near by the unfinished pit-emplacement of another.

Occupation was sparser farther up this eastern side of the hill, and on its top remains had suffered from denudation, but, as was discovered first in 1932 and established fully in 1934, the dyke there continued on its south-south-westerly course. Some 275 yards from the original west entrance already spoken of, it had stopped at a south-west entrance, its end forming the apex of a sharp corner where its alinement was met by that of a dyke of slightly smaller proportions, ditch Ib. This slanted off south-eastward down the southern face of the hill, to end some 300 yards away on the bank of the stream that forms the natural south boundary of the site. However, the original dyke, ditch I, had at some time been extended from the apex of the corner also south-westward, by means of ditch IA, also of slightly smaller proportions, which thus covered the south-west entrance and proceeded under the end portion of what is now Sussex Road, to end 340 yards away, in the grounds of Kingswode Hoe, on the bank of the same stream but 500 yards higher up its course. There was a good deal of destroyed early Roman occupation, and also some native, east and south of this entrance, and all three dykes had been filled

in together, though at first incompletely, in early Roman times, when in addition to sand and gravel digging in various places, clay-pits had been worked on the west of the site, one of them cutting across ditch I and also the later ditch II.

Just south of this pit, ditch II, having so far run along continuously outside ditch I, was found to turn inwards and cut right across its filling, thus clearly demonstrating its own later date in the same way as the similar ditch in the By-pass sector, which it further here resembled in being accompanied by a palisade-trench. It was then itself cut across by pits containing Neronian but no later material, and ran on, together with its palisade-trench, on a south-easterly course nearly parallel to but inside ditch Ib. While on this course, excavated in 1932, it was interrupted by an entrance, with the emplacement of a four-posted gate-structure on the line of the palisade, which had very soon been destroyed and covered by a Roman gravel road. Thereafter it bent round east and north-east, and was traced in 1938 and 1939 to an apparently unfinished end far down the eastern slope of the hill.

There were some substantial but scattered sites of native habitation in this region, excavated in 1938, and among a number of early Roman pits the earliest yielded material notable for the wreckage of an apparently native metal industry, which subsequent research suggests was that of a British mint, producing bronze coins of Cunobelin. Roman occupation still appeared to break off under Nero, and but for a few later burials there was only one subsequent feature of interest.

This was the remarkable group of Roman pottery-kilns discovered on the south-eastern slope of the hill in 1933, belonging to the latter half of the second century. There were eight in all, and the largest proved to have been devoted to the manufacture, not hitherto attested in this country, of Terra Sigillata or Samian ware. The excavation of these kilns¹ and their contemporary surroundings will be published in our Second Report.

The main occupation of the site then seemed to fall wholly in the first two-thirds of the first century A.D. Further, through all its complexity of detail, it seemed to be broadly divisible into six periods. First, that in which the original defences and their adjuncts were standing, and the contemporary occupation within them flourishing. The material from this was all apparently earlier than the Roman Conquest, and most naturally assignable to the reign of Cunobelin. Second, the period when the defences were levelled and a large part of their ditches filled in. Third and fourth, the two successive periods of the ensuing early Roman occupation, one seemingly Claudian, the other extending from Claudius to Nero and associated with timber building, especially along the principal road, and with signs of intensive activity, in particular industrial activity, over great parts of the site. Fifth, directly following the destruction by fire apparent in many places, that represented by ditch II and its palisade. Sixth, a brief and uneven occupation after these were again levelled, in which the site was put in order, not for restoration but for abandonment.

The amount of material recovered was prodigious, but great quantities of it came from

¹ Interim reports: *Illustrated London News*, Jan. 20, 1934; *Germania*, xviii, 27 ff.; *J.R.S.* xxiv, 210-11.

stratified deposits with definite relation to major features of the site-plan, and with the internal evidence especially of coins, and the external evidence of a known historical context, it appeared possible to establish a firm chronological scheme, whereby the significance of the whole could be interpreted.

5. THE SHEEPEN SITE: STRATIFICATION AND CHRONOLOGY

(*General plan, pl. cxii; diagram, fig. 1*)

The conception of six periods to which the foregoing account has led is based primarily on the stratification of the Sheepen Dyke, which, with the essentially consistent sequence of deposits within and over it, binds most of the site's major features together in time no less than in space. Using the dyke deposits and these connected features as a key, each of

DIAGRAMMATIC SECTION

A KEY TO CHRONOLOGY

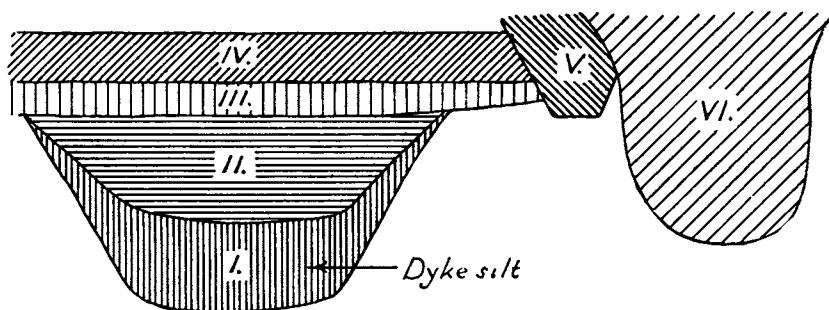


FIG. 1. Diagram of the key-stratification at Sheepen, showing the typical succession of deposits from period I to period VI.

the six periods will now be taken successively, and the evidence for the chronology of each summarized in turn. The periods are numbered in Roman figures from I to VI.

Period I, initial date

On the line of the By-pass road, the dyke rampart accompanying ditch I had not been entirely destroyed, and some of the original ground-surface beneath it could be recognized. That surface yielded a little native pottery, of three common forms belonging to the pre-Roman Belgic repertory.¹ This is no evidence for an effective occupation of the site before the dyke was contemplated. In amount it is scanty enough to be attributable without unreason to the actual builders of the dyke, and in type it falls wholly within the immensely larger series of native pottery found in the primary silting of their ditch I (fig. 1). This silting, and also a number of the pits and occupation-sites elsewhere, yielded such native pottery in quantity, and confirmed its native character by freedom

¹ p. 256: forms 217, 218, 271 (pp. 259, 272: pls. LXXV, LXXXIV).

from any association demonstrably later than the Roman Conquest. But in all such groups of any appreciable size the pottery of purely native fabric was accompanied, and indeed exceeded in quantity, by ware showing that fabric modified in the direction of romanization.¹ In other words, the presence of 'romanizing' native ware must be accepted from the beginning of the occupation. And not only this, but the typology of both the 'romanizing' and purely native wares forbids us to seek the beginning of the occupation (at the earliest) at all far back in the first century B.C. For our site, in contrast to the earlier Belgic stronghold of Wheathampstead, can nowhere show any effective group of pottery acceptable as earlier than the first appearance of Roman influence in British potting, whether in fabric or in forms. And in pointing the analogous contrast between Wheathampstead and Belgic Verulamium (Prae Wood), this first appearance of Roman influence has been dated to approximately the last quarter of the first century B.C.² Taken by itself, our native pottery would thus suggest an initial date for the site somewhere in the years on either side of A.D. 1. But it cannot be taken by itself. For in the dyke from the very bottom of the ditch-silting, and in every stratified deposit of any size elsewhere, it is accompanied by some amount of continental pottery, imported from within the Roman Empire. Nowhere on the site can one distinguish an initial phase of occupation before the appearance of such imported wares, any more than before that of Roman influence in native potting. In the circumstances this is not surprising, since the two are naturally connected. The imported wares can then be used to date the beginning of the occupation. And their continental chronology can date it more closely than could the British pottery evidence alone.

The leading imported ware is Arretine, the red-glazed Terra Sigillata made primarily at Arretium and elsewhere in Italy, but also in unidentified secondary centres in Gaul. Plain forms in this ware were quite plentiful,³ and in the stratified deposits of this first period occurred unmixed with the standard Sigillata of South Gaulish make which supervened later. These deposits also produced a number of Arretine potters' stamps. The forms have no near parallels at the Roman camp-site of Oberaden in Germany, occupied c. 12-8 B.C., but plenty in the late Augustan occupation of that at Haltern, abandoned A.D. 16, which occupation none of the stamps need (and hardly any could) antedate.⁴ Of the few decorated Arretine pieces found,⁵ none are earlier than the earliest plain pieces. The Arretine ware thus points to an initial date late in the reign of Augustus. The other imported pottery comprises the Gallo-Belgic ware, both red and black, which was only just beginning to be made at the time of the abandonment of Oberaden, but became a standard product of Belgic Gaul soon afterwards.⁶ Here again the earliest forms and potters' stamps have their first parallels in plenty at late Augustan Haltern.⁷ The same is true of the rest of the imported pottery, the bulk of it flagons, jugs, and other vessels in pale wares, where it admits of any dating at all equally close.⁸ In short, on the

¹ pp. 205-7.

² Wheeler, *Verulamium*, 12, 44-5, 149 ff.

³ pp. 180 ff., pls. xxix, xl, cf. fig. 43.

⁴ pp. 191 ff., pl. xli.

⁵ pp. 168 ff., pl. xx.

⁶ pp. 202-205.

⁷ Forms, pp. 215 ff., pls. XLIX-LIX: stamps, pp. 207-13, pls. XLV-XLVIII.

⁸ pp. 204, 241 ff., pls. LIX-LXXXIII.

testimony of imported pottery the beginning of the occupation, in round figures, must be placed between A.D. 1 and 20. And the single date to be accepted as best fitting all the evidence under this head is *c.* A.D. 10. Of the other finds recognizable as earlier than the Roman Conquest, the most valuable chronologically are the brooches: these are wholly consistent with the same conclusion, including nothing, whether imported or native, which requires a date as early as the first century B.C.¹ The same applies to all the remaining metal and other objects found.²

The import trade so attested continued until it was overtaken by the much greater volume of importation which followed the Roman Conquest. That is, it lasted throughout the reigns of Tiberius and Caligula to the first years of Claudius. Now the contemporary ruler at Camulodunum was of course Cunobelin, and side by side with the archaeological dating just propounded for the site we may now set the numismatic dating obtainable for his coins. The first coinage of Cunobelin struck at Camulodunum is the only evidence there is for the date of his accession, and Mr. Allen, on wholly numismatic grounds, gives this first coinage an initial date also *c.* A.D. 10.³ Examples of it were found in the excavations, followed by a large series representing his subsequent issues⁴ and covering the whole period of his minting activity, to which may also be ascribed distinctive industrial remains.⁵ In fact, of the total of 130 British coins excavated and identifiable, those of Cunobelin amount to at least 110 and probably 116, that is, to between 85 and 90 per cent. On the other hand, those assignable to his local predecessors Adedomarus and Dubnovellaunus, and to his father Tasciovanus, amount between them to no more than 9 or 10, or less than 8 per cent., a figure so small as to be explained far more readily by their sporadic survival after Cunobelin's accession than by any occupation of the site before him. The coin-evidence therefore gives *c.* A.D. 10 as the date not only of Cunobelin's accession but also probably of the site's initial occupation.

Now topographically it has been shown that Sheepen was the inner focus of the Colchester dyke-system in its final form, which has appeared to be a pre-Roman Belgic achievement, and from its extent and complexity should be the work of Cunobelin rather than his lesser predecessors. For historically we know that unlike them he ruled in Camulodunum as the capital of a great Belgic power and dominion. We know also that this was the period when Britain was a familiar island to the Romans, while not yet ripe for conquest.⁶ The pre-conquest Roman imports and influence which attest that familiarity at Sheepen are associated and coeval with the site's defences, and the topography of the dykes combines with the evidence of coin-finds to point to Cunobelin as its founder. Lastly, the imports give the foundation the same approximate date as the coins give Cunobelin's accession, namely *c.* A.D. 10.⁷ Sheepen is thus the inner focus of the Camulodunum that he made his capital, and his accession and its foundation may be

¹ pp. 308 ff., pls. LXXXIX-XCVIII.

² pp. 329 ff., pls. XCIX-CV. Mention must here be made of three pieces of imported glass vessels: p. 289.

³ p. 133.

⁴ pp. 136 ff., pls. XVII-XVIII.

⁵ pp. 129 ff., pl. XVI.

⁶ Strabo, *Geogr.* iv, 5, 3.

⁷ The Varus disaster in the previous year 9 must have been a severe shock to the industrial and commercial expansion of Gaul and the Rhineland, which had been reckoning on all Germany up to the Elbe as an unhindered market. It would be natural to turn to recouping some of the loss by fresh enterprise in Britain.

accepted as simultaneous and related events. Their date, *c.* A.D. 10, is then the initial date of period I.

Period I, terminal date: Period II

No sign of any break in the period I occupation is given either by its deposits or their datable contents. But next, with period II, the defences of the site were suddenly dismantled and their ditches largely filled in with the material of the ramparts. Before that they had indeed been strengthened, but (as far as could be discovered) by two modifications only. One was the addition of ditch IA, and its now vanished rampart, at the south-west corner; the other was the cutting through of the causeway across ditch I at the west entrance. The latter, from the absence of primary ditch-silting in the cut (contrasting with the abnormally large amount which the causeway had made accumulate on its south or uphill side), must have been carried out immediately before the whole was filled in with rampart-material in period II. Such a cutting through of a principal entrance-causeway implies a state of emergency at the end of period I, and this may likewise account for the addition of ditch IA to the south-west. For this contained little or no primary silting either, and its effect was to augment the defended area by a large annexe, at the same time shutting in the south-west entrance. Directly afterwards, then, the defences were dismantled, and the great area they had protected reduced to an open site. Now the imported pottery in the period I deposits certainly covers the whole reign of Tiberius (to A.D. 37), and it includes examples of the latest Arretine platter-forms known,¹ and a few of Gallo-Belgic forms scarcely earlier than the accession of Claudius (A.D. 41).² About or just after the latter year Cunobelin died, and in 43, after a brief and troubled interval, there followed the Roman invasion and the fall of Camulodunum. If the deposits of period II can on positive grounds of their own be assigned to the moment or immediate morrow of that event, then the terminal date of period I will be A.D. 43, ditch IA and the cutting of the west entrance causeway will be understandable as last-minute measures of defence against the Roman advance, and the dismantling of the defences will receive its most natural explanation in terms of history.

Nearly all the material found in the period II infilling of the dyke ditches is of identical character with that in the period I silting beneath it. It is in fact simply period I rubbish redeposited. But it also includes a small but significant body of entire novelties. To begin with, in the main filling of ditch I were found two Roman bronze coins: no. 189, an *as* perhaps of Claudius, and no. 260, smaller and illegible; and in a possibly slightly later part of the filling of ditch IA was another *as*, no. 137, of Claudius and in very fair condition, suggested to be an orthodox issue of A.D. 41.³

Also, the main filling of ditch IB produced a Republican silver *denarius*, no. 4, of *c.* 87 B.C., condition fair to worn.⁴ Now there is some independent evidence for an occasional and limited penetration of Roman silver here before the conquest, so that this *denarius* may have first arrived on the site during period I, though it is at least equally

¹ Forms s4 and s6, pp. 182-3, pl. xxxix.

² e.g. forms 14, 16, p. 220, pl. XLIX.

³ pp. 147, 162, with 112.

⁴ pp. 144, 153, 161, with 114.

likely to have done so at the conquest. But for Roman *aes* there is no such evidence, either here or elsewhere. Its first arrival on the site cannot be thought earlier than the conquest, and in the circumstances must then have accompanied it. Therefore these bronze coins are good evidence that the ditch-filling followed the conquest. Moreover, their extreme fewness, in so large and productive a total volume of filling excavated, suggests that it followed the conquest very quickly.¹

Next, with one piece of imported glass (p. 289), there is the imported pottery. The Sigillata in the period I deposits was all Arretine. Though this might include plain-ware pieces, especially of late forms, provincial in appearance and even verging towards recognized South Gaulish character, standard South Gaulish Sigillata² only appears with period II. Actually, the lowest stratified South Gaulish piece in the dyke deposits is a decorated fragment of form Dr. 29, typologically pre-Claudian or early Claudian, found in the bottom of ditch I near its original south end where the primary silt and the first filling-deposit, both shallow and of loose sand, were not clearly distinguishable.³ There is, however, no independent evidence for standard South Gaulish Sigillata in Britain before the conquest, and despite the theoretical possibility of a period I date for this piece, it cannot justifiably be dissociated from the three fragments of Dr. 29 found stratified in the filling of ditch I elsewhere, which are indisputably of period II. Typologically one of these is pre-Claudian, the other two early Claudian.⁴ The same filling produced two South Gaulish potters' stamps, respectively of Masclus and Scotius or Scotnus: the latter's earliest known pieces (and this one) are Tiberian, the former's early Claudian.⁵ And of plain South Gaulish Sigillata the filling produced over twenty pieces, of forms Dr. 15/17, 18, 24/25, 27, and Ritt. 5, 8, 9, 12,⁶ all acceptably Claudian specimens. The period's Gallo-Belgic form-list adds little or nothing chronologically to that of period I, and the same is true of the pale wares but for one exception: the Roman flanged-rim mortarium now makes its first appearance on the site, in a gritted form common at the Claudian camp-site of Hofheim in Germany, and here represented in the same filling by just two examples.⁷ Also, a continental-Roman make of carinated coarse-ware bowl now appears, with six examples from this filling:⁸ they mark the first introduction to the site of Roman kitchen pottery, a noticeable contrast to the superior fabrics handled by the regular import trade. The only Roman brooches here certainly handled by that trade before the conquest are of the thistle and Langton Down types,⁹ but the period II filling of ditch IB produced the first stratified specimens of the Aucissa type,¹⁰ well known in Claudian associations elsewhere in Britain. The inferences from this small but well-stratified series are clear. Period II, represented by the destruction and main ditch-filling of the Sheepen Dyke, marks the introduction to the site of wholly new kinds of Roman material from the Continent, which are absent here in period I, and unknown

¹ pp. 154 ff., 161 ff.

² pp. 180, 191.

⁷ p. 254, form 192 (pl. LXXIII): table, p. 280.

³ pp. 170, 177; pl. xxii, 25.

⁸ p. 264, form 242 (pl. LXXX): table, p. 281.

⁴ p. 177; pl. xxxii, 4; pl. xxv, 17, 19.

⁹ pp. 316, 317, types Xc and XII. See also (p. 312) the evidence for type VIA, a continental La Tène III development.

⁵ pp. 195-200, nos. 128, 163 (pl. XLIII).

⁶ Table, p. 188, period II column (where figures exclude small fragments).

¹⁰ p. 321, type XVII, nos. 133, 137 (pls. xcvi-xcvii).

in Britain before the Roman Conquest. Its date, indicated by the coins and pottery in combination, is certainly Claudian, and probably early Claudian—a probability which will be found strongly confirmed by the chronology of the subsequent periods. But contemporary Roman material must have begun to reach the site immediately on its capture by Claudius himself in the year of conquest. The period should then be dated from that year, A.D. 43.

The case for this is clinched by the discovery in the period II filling of ditch IB of a fragment of bronze binding from a Roman soldier's shield, of two other fragments of such binding, and of a Roman military apron-mount; higher in the filling of ditches IB and IA occurred two more bronze fittings from Roman military equipment, respectively an apron-stud and the D-piece of a buckle, while in the filling of the period I pit D14, the equivalent of a period II deposit, occurred another, a small belt- or strap-hinge.¹ Roman troops were then present when these fillings were deposited; and in the circumstances this must mean the troops of the Claudian conquest. It is only to be expected that the Command would put in hand the levelling of these inner defences of Camulodunum very soon after their capture. It must have been supervised by the army, using its own or prisoner labour, and the small amount of military and other contemporary Roman material included in the fillings will have found its way there in the course of the work. But the far greater amount of period I material in them must have come from the clearing of the ground adjacent, and no doubt unwanted period I pits, minor ditches, and occupation-sites were filled and levelled at the same time. The time taken to destroy the defences cannot be precisely estimated, but an ample margin will be given if the filling-deposits of period II proper are dated A.D. 43/44.

Period II–III

However, parts of ditch I, and a good deal of ditches IA and IB, were at first not filled up completely. Sometimes the filling is visibly divided into a lower and an upper portion by a greater or less thickness of black refuse-matter: in these cases the lower only has been assigned to period II, and the interval which may separate the upper from it has been allowed for by classing the latter (with the dividing black matter) as of period II–III. The same precaution has been taken where, as in parts of ditch IA, the filling is not stratified beneath a clear period III sealing-layer. From these period II–III deposits came the coin of Claudius no. 137 and the apron-stud (the buckle-piece is strictly of period III) noticed above, and also seven Tiberian/early Claudian and Claudian pieces of Decorated Sigillata form 29,² the presence of which here effectively supports the chronological scheme.

Period III

This period marks the beginning of the Roman occupation proper. Its relative date is clearly established by the occupation-layer immediately overlying the period II or II–III

¹ pp. 335–40: fig. 63, cf. 2; pl. cii, 25, cf. 30, cf. 9, and 22.

² Noticed accordingly on p. 177 below.

filling of ditch I (fig. 1). From this layer, and deposits in direct stratigraphic connexion with it, was obtained the assemblage of material used as primary evidence for the period's absolute dating. This is headed by four Roman coins from the layer itself:¹ one illegible, two of Augustus, and one an Antonia *dupondius* of Claudius, a grade I copy² in fair condition. These, with two earlier *denarii* and a Tiberius *as* from other deposits,³ show that the period covers at least an initial portion of the currency-life of Claudian *aes* copies, which may be accepted as beginning 'in the very early months of conquest'.⁴

This total of only seven Roman coins, compared with the very much greater numbers from period IV, suggests that period III was relatively short. The South Gaulish Decorated Sigillata (Dr. 29) from the layer over ditch I comprises (with one fragment simply pre-Flavian) one piece typologically dated A.D. 37–50 and another Claudian;⁵ other deposits produced (with a further pre-Flavian fragment) one early Claudian, five Claudian, and one Claudius–Nero.⁶ Thus of nine fairly closely datable pieces, only one has features known to have persisted in manufacture after Claudius's death in A.D. 54, while two must precede that date by some years. There is also the Arretine crater represented in the filling of the contemporary aqueduct-ditch.⁷ While plain Arretine is still fairly plentiful, the period III deposits produced in all over eighty pieces of plain South Gaulish Sigillata, of forms Dr. 17, 15/17, 18, 24/25, 27, and Ritt. 5, 8, 9.⁸ There are also two fragments of Claudian pottery lamps.⁹ Other imported pottery represents virtually all the forms found in the preceding periods, including all those paralleled at Claudian Hofheim, and includes also two Gallo-Belgic bowl forms, the Hofheim types 109 and 104.¹⁰ Moreover, three Claudian flagon forms now appear (with a tall jug-form unparalleled elsewhere):¹¹ one is well known as Richborough type 138, the other two are plentiful here also in the Colonia, and show, with a black copy of another,¹² that Romano-British manufacture of such vessels was in period III already here establishing itself. The same indication is given by early forms of the globular beakers soon to become familiar in Roman Britain;¹³ by a Claudian form of Roman bead-rim bowl, Richborough type 18;¹⁴ and by a purely Roman form of cooking-pot in sandy tile-red ware.¹⁵ In other words, the period attests both the importing of Claudian pottery-types from the Continent, and the Claudian beginnings of a Roman pottery industry in Britain. The output of the latter, however, is still very small in amount compared with the more gradually romanizing native wares. All this speaks for an early Claudian date. The period III brooches, together with continuation of native and earlier imported Roman forms, show small numbers of further imported types—Nauheim, flat thistle, Hod Hill, and a couple of

¹ pp. 144–9, 162, nos. 22, 24, 125, 256.

² pp. 155 ff.

³ pp. 144–5, 163, nos. 12, 18, 35.

⁴ p. 159 (Dr. Sutherland).

⁵ p. 177: pl. xxx, 3; pl. xxxvi, 5.

⁶ *Ibid.*: pl. xxiii, 24, 23; xxv, 15*b*; xxvi, 17; xxxiv, 2/4; xxxv, 8; xxxii, 7.

⁷ pl. xx, 1 (pp. 168, 177) from ditch E3.

⁸ Table, p. 188 (small fragments excluded): for potters' stamps, cf. pp. 195 ff.

⁹ p. 201: pl. XLIV, 2, 9.

¹⁰ pp. 225, 227, forms 50, 58 (pls. LI, LIII): table, pp. 277, 278.

¹¹ pp. 242–5, 249, forms 136c, 144, 154, 168 (pls. LX, LXII, LXIII, LXVII): table, p. 279.

¹² p. 242, form 134 (pl. LXI): table, p. 279.

¹³ pp. 235, 237, forms 96, 108 (pl. LVI): table, p. 278.

¹⁴ p. 225, form 48 (pl. LI): table, p. 277.

¹⁵ p. 271, form 267A (pl. LXXXII): table, p. 281.

plate-brooches¹—but no more; and scarcely any other Roman metal objects are stratified so early. There are no more than seven pieces of imported glass.² Roman brick and tile, in contrast to their enormous abundance in period IV, are virtually absent.³

Though the occupation-layer over ditch I is associated with several new hut-sites, and the abolition of unwanted period I features is balanced by the appearance of a number of new occupation-sites, pits, &c., and some clay, sand, and gravel diggings, period III has no buildings of Roman type, and not much to show of positive Roman planning. A length of Roman road (road I) was indeed laid down across the site of the original west entrance, but it appears to be heading away from the line of the only native track of which signs were detected, and this track seems to have continued in use. At least one timber-lined well was constructed, but most of the well-shafts found are probably later, and the period's outstanding monument of Roman concern for water-supply is the aqueduct found on the line of the By-pass outside the dyke, leading apparently from Sheepen Springs. It was evidently intended as a major work, but was abandoned and filled in no later than this same period. The whole impression given by the Camulodunum of period III is of a native site shorn of its major pre-conquest features but not yet submitted to any thorough Roman initiative. This entirely agrees with the evidence of the finds for a date limited to the few years following the conquest. There is nothing to make the terminal year later than about A.D. 50, and it could well be a little earlier. Now historically we know that the main withdrawal of Roman military garrisons from this region took place no earlier than the winter 48–9,⁴ and we have seen that the military head-quarters at Colchester were not on this site, but probably in and beyond the area of the Royal Grammar School away to the south of it.⁵ It looks as if our period III answers to these years when the Roman hold was purely military, and not much constructive attention could be spared for the old native occupation-centre. We have still to see whether the dating evidence for our ensuing period IV supports this notion. But if so, the date of period III, thus historically explained, will be from A.D. 43/4 to about the end of A.D. 48.

Period IV, initial date

That period IV immediately succeeds period III is clear from the stratification over ditch I, where it is represented by a well-defined stratum, normally an occupation-layer, immediately overlying that of period III (fig. 1). Wherever this ceases to be well defined, the two have been classed together as period III–IV. This period IV stratum has direct stratigraphic connexion with various adjacent features, notably the tile-kiln found north-east of Sheepen Farm, the spread of waste products from which covered the filling of the abandoned aqueduct and other features on the adjoining By-pass line. Moreover, at the west entrance the stratum integrates with a new Roman road (road II), which not only here overlies its period III predecessor (road I) but continues east-north-eastwards for a

¹ pp. 312 ff.: type VII (fig. 59, 11); type XI (pl. xciv, 83); type XVIII (pl. xcvi, 150); and pl. xcvi, 177, 179.

² p. 289 ff
⁴ p. 7.

³ p. 347, with n. 6.
⁵ p. 20.

great distance across the site, apparently on the line of the pre-conquest native track alluded to above. Its passage across the steepest part of the hill-side was secured by a stout timber revetment, and on the frontage opposite this was constructed a building with walls of wattle and daub supported on timber uprights, of rectangular Roman plan, with which were associated a number of pits, spreading over an area continuous with the huts of the occupation-layer over ditch I. The whole of this complex is thus securely tied to period IV, and the same is true of the similar but less well-preserved complex beyond the road to the south-west, and of the whole zone of occupation, including more timber structure of Roman type, farther along the road's east-north-easterly course. This occupation was mainly industrial, including both metal-working and pottery-making, and when the road turns abruptly northward it heads for a further metal-working area in the field adjoining the By-pass. Over much of this field, and often elsewhere too, the ground was now freshly made up with gravel, and in the southerly region of the site occupation extended along and very often over the lines of ditches I, IA, and IB, which had now for the most part been filled up. With this there was more tile-making in one place, and a wide scatter of sand and gravel diggings; the working of clay-pits was intensified (one cutting completely through ditch I), and similar quarrying activities seem to have extended along much of the eastern slope of the hill, though these certainly lasted later. A number of well-shafts, and some timber-lined wells, seem to be contemporary, and the quantity of rubbish-pits and hut occupation-sites everywhere was far greater than in any other period, some continuing from period III, but many altogether new.

The period's stratified material is correspondingly abundant, and a good proportion of it comes from deposits integral to or in direct connexion with the key stratification of the dyke. There is thus plenty of sound evidence for dating. First of all, with as many as 39 British coins—fully enough to prove their continued circulation¹—these key-deposits of period IV produced no less than 51 Roman coins. They range from Republican *denarii* to orthodox and copied *aes* of Claudius, the copies being the more plentiful and covering all the four recognized grades.² These coins form the main pivot of the site's chronology. They show that coins of Claudius, though already current in periods II and III, were still the latest circulating in period IV. The 5 Roman coins classed as period III-IV agree, as do the 16 from other period IV deposits, and the latter bring the stratified total for this period to 67,³ indicating that unlike period III it was of substantial length. It should therefore have begun at latest before the end of Claudius's reign.

To this we have to add the evidence of the typologically datable Decorated Sigillata. Period III-IV deposits produced 5 pieces of Dr. 29 dated Tiberius to Claudius, 9 Claudius, and 3 Claudius-Nero, which confirms their position overlapping the two periods.⁴ The period IV deposits produced pieces of 103 datable bowls. One Arretine and two South Gaulish craters are represented, and 22 examples of Dr. 29, all dated Tiberius to Claudius. The remaining pieces are 26 Claudius, 37 Claudius-Nero, and 7 Nero, with

¹ pp. 133 ff.; list, pp. 163-4.

² pp. 155 ff.; list, p. 164.

³ pp. 155 ff.; lists, 163, 165.

⁴ p. 177.

8 more simply pre-Flavian.¹ Now we have seen that consideration for periods II and III prevents our suggesting an initial date for period IV very long before A.D. 50, and at first sight the proportion of earlier pieces in this total may appear surprising. But it will be shown below that this proportion may be readily explained as a matter of survival.² The series as a whole then indicates a period beginning rather late in Claudius's reign and lasting into Nero's, with its centre of gravity in the years when Sigillata ornament was in transition from Claudian to Neronian styles. Most of period IV should then cover the fifties of the first century, and its beginning should be only a little earlier.

The total of Plain Sigillata is very large: apart from a certain number of Arretine survivals, mostly rubbish-sherds, over 500 pieces were counted from period IV deposits (with between 60 and 70 classed as III-IV), but if all small fragments were reckoned with the numbers would be very much greater. The forms represented are Dr. 16, 17, 15/17, 18, 24/25, 27, and (one) 33, Loeschcke 5 (one), and Ritt. 1, 5, 8, 9, 12, and 13.³ This series, wholly South Gaulish, closely resembles that of Claudian Hofheim, but has also a number of exact parallels in the pottery-shop destroyed in the Colonia under Nero, to which we shall shortly return. The evidence of the Decorated Sigillata is thus confirmed, and of the numerous South Gaulish potters' stamps, the great majority are already known to be Claudian or Neronian.⁴ Period IV has also eight (and period III-IV four) pieces of contemporary pottery lamps.⁵ The period's Gallo-Belgic ware is still plentiful, but its complexion is on the whole not early. It includes potters' stamps with Claudian parallels, and a good few of the senseless stamps which are mainly a late feature of this industry and were abundant at Claudian Hofheim.⁶ As against survivals of pre-Claudian types, late Gallo-Belgic platter-forms are strongly in evidence,⁷ including the Hofheim type 99 and imitations of it in Roman grey ware,⁸ and the later forms of 'Pompeian red' platter, post-Claudian at Hofheim, have already here begun.⁹ Copies of all such platter forms in more or less romanizing native ware are commoner than before, and in addition to imported originals, there now appear local copies of the common Gallo-Belgic cup Hofheim 103¹⁰ and the fine colour-coated bowls Hofheim 22.¹¹ The beaker series develops, whether imported or local: the rusticated globular type, familiar later, makes its first appearance,¹² and there are examples and local copies of the carinated Hofheim type 113.¹³ The whole range of jugs and flagons is strong in forms paralleled at Hofheim and developments therefrom, many of them also attested in the Colonia,¹⁴ and the same is true of amphorae¹⁵ and mortaria. The older 'wall-sided' mortarium family is now degenerate,¹⁶ and the flanged-rim series is augmented by apparently Neronian developments, including recognizable prototypes of the Flavian flat-flanged form.¹⁷ The romanization of

¹ Listed p. 177; descriptions, pp. 169 ff., with pls. xx-xxxviii.

² pp. 174-80.

³ Table, pp. 188-9 (small fragments excluded).

⁴ pp. 195 ff.

⁵ p. 201.

⁶ pp. 207-13.

⁷ e.g. forms 14B-C, p. 220.

⁸ p. 220, forms 16A and B.

⁹ p. 221, forms 17C-D.

¹⁰ p. 226, form 56, copied by form 57.

¹¹ p. 228, forms 62A and B.

¹² p. 236, forms 98, 99.

¹³ p. 241, forms 120A and B.

¹⁴ e.g. forms 140B and C (cf. Hofheim 50), p. 244.

¹⁵ Note especially the 'carrot' form 189 (Hofheim type 75), p. 253.

¹⁶ p. 253, form 191.

¹⁷ p. 256, form 195; also 193B, p. 254.

native wares, both fine and coarse, makes marked progress, and a wide range of forms in regular Romano-British fabric, often paralleled in the Colonia, has begun to be prominent. All this pottery evidence in fact supports the dating Claudius–Nero for the period, and the same is true of the now fairly plentiful imported glass, of which there are 58 stratified pieces.¹

The brooches not only give us a great number of mid-first-century Roman types, but show the start of a new Romano-British development from the old native La Tène III type, which is now made in two pieces and attains the well-known ‘dolphin’ form.² Roman bronze-work now begins to be common,³ and ironwork is plentiful and now shows specifically Roman or Romano-British⁴ types: metal-working was in fact established in strength on the site itself. Altogether, it is clear that this was a Claudian–Neronian period in which Roman initiative effected a radical change in the character of the site and promoted the growth of an increasingly distinctive Romano-British material culture.

Lastly, Roman brick and tile suddenly become enormously abundant. The innumerable fragments of *tegula* and *imbrex* roofing-tiles (kiln wasters apart) exceed the roofing needs of the site itself, and the presence of stacks of bricks and tiles seems indicated, mostly no doubt made here but intended for use elsewhere.⁵ Indeed, a voussoir-brick, an antefix, box flue-tiles, and semicircular-shaped column- or pilaster-bricks imply a regular Roman architecture nowhere in evidence at this period within the area of the site,⁶ where but for the timber structures above mentioned the only buildings remain huts of the old native type. Now roofing-tiles and constructional brickwork are unknown at this time in Roman camps and semi-permanent forts, but they are a distinguishing mark either of the permanent garrison establishments of a secured frontier or else of the civilian centres of settled provincial life. Their abrupt introduction here at this juncture, together, we must add, with that of window-glass (p. 306), requires explanation accordingly. In fact, the symptoms of change and intensified activity displayed by period IV must correspond to some major event in the place’s history—one that required new laying-out of important areas, new road-making and building, and new industrial energy including the manufacture of brick and tile. At the same time, we have to account for an all-round increase of romanization in material culture, carrying forward the beginnings of definitely Romano-British production.

The evidence of stratified material finds already analysed indicates that period IV began in the years about, and most probably just before, A.D. 50. In those years one event alone can provide the needed explanation, namely, the foundation of the Colonia on the adjoining hill. We have seen above that this, the counterpart of the withdrawal of military garrisons, must be dated about the beginning of A.D. 49.⁷ The subject natives of Camulodunum will inevitably have been conscripted to take part in the building and

¹ p. 289.

² pp. 310–12, types IV–V: e.g. pl. xci, 36, 43–4, 46; xcii, 51.

³ pp. 332 ff.: pls. xcix–ci.

⁴ pp. 341 ff.: pl. cv.

⁶ Lumps of chalk sometimes found in pits of this period are best explained as from consignments imported for liming mortar.

⁷ p. 7.

⁵ pp. 347–9.

equipping of the new Roman town,¹ together with a new concentration of artisans. Nothing is more natural than that when the work was started much of the native site should have been adapted as a works centre: its position and communications were convenient; gravel, sand, and clay could be dug on the spot; brick- and tile-making could be immediately established, and metal-working and other probably existing industries greatly expanded; building-material could be readily assembled; and together with new road-making timber buildings could be put in hand for stores, offices, and other temporary quarters; while for *corvées* of conscripted Britons a nucleus already inhabited the site, and drafts from the country-side could easily be packed together in augmented numbers of huts and hovels. All this we find suddenly before us in period IV. The conclusion is really unavoidable. Period IV began with the foundation of the Colonia, about the beginning of A.D. 49.

Period IV, terminal date: Period V

We have already seen that period IV was of substantial length and continued well into the reign of Nero. The evidence for this need not be repeated: it will be recalled that the pottery, especially the Sigillata, included unmistakable Neronian elements. There are indeed no coins of Nero from the period. But no Neronian gold or silver was found on the site at all, and Neronian *aes* was not minted before A.D. 64. Period IV can then have lasted into the sixties. However, there is good reason for confidence that it did not last into the sixties very far. First, there are no Neronian coins from periods V or VI either, so that room for those periods should also be found before about the middle of the decade. Secondly, the period IV pottery includes no Decorated Sigillata of the Nero–Vespasian sort to be expected in the latter years of Nero’s reign, and in general has not yet many forms that could suggest direct continuity with the ensuing Flavian age. Its centre of gravity lies in the years of Claudius–Nero transition, in other words in the fifties. The period therefore ended early, probably indeed very early, in the sixties. And it ended in widespread and violent destruction by fire, from which there was no effective recovery. This destruction in fact put a sudden end to the whole episode of Roman initiative which period IV represents on the site, and which we have connected with the building of the Colonia.

In A.D. 61 the Colonia was sacked by the rebel forces of Boudicca, who destroyed the whole place by fire. We are confident that our site suffered the same fate and that this was the destruction which put an end to period IV. It is hardly likely that the rebels would spare what was now virtually an industrial suburb of the Roman town: indeed, since the Colonia was unwallled and the outlying Union site (p. 19) only just across our boundary stream, there was nothing to prevent the new and the old Camulodunum from sharing a common ruin. In 61 the Colonia had been founded twelve years and was already a flourishing township. When destruction overtook our site, the activities of period IV must have reached an advanced stage: the main road II had even in one place been encroached on by a gravel-pit.² And the pottery found in the nearby kiln and kiln-

¹ Cf. Tacitus, *Agricola*, 15, 3: ‘nunc . . . iniungi dilectus.’

² Pit L7, p. 99.

pit¹ confirms that when these perished the potting industry had attained a fully Neronian phase of development. In fact, the strongest group of links connecting the period IV with the Colonia pottery serves also to connect the two destructions, for it was certainly Boudicca's men who wrecked the Colonia pottery-shop in which so many of the period IV Neronian pottery forms are paralleled.² Another link with the Colonia destruction appears among the period IV brick and tile. Some of the semicircular brick fragments already mentioned were stratified in part of the destruction-deposit within the west entrance,³ together with a piece of moulded terracotta plaque. And in 1931 identically similar semicircular-bricks, together with a closely similar but re-used piece of identical terracotta, were found in the Colonia, in the build of an entrance into the forum or precinct of the temple of Claudius. This was apparently part of the direct replacement of the original destroyed by Boudicca, which these terracotta plaques, provided like the semicircular-bricks and other building-material⁴ from a depot-area on our site, must have served to embellish.⁵

That our period IV destruction was Boudicca's work is argued not only by its intensity and its datable associations but by what had immediately preceded and followed it. The industrial remains of metal-working along the line of the main road II took in the neighbourhood of the west entrance a very peculiar form. Quantities of slag in the general destruction-layer here were accompanied by a multitude of scrap and other bronze fragments, concentrated above all in and around the large excavation in the sand just west and north of the entrance site, which has been already noticed⁶ as retaining in its bottom the traces of laid timber beams, flanking a central hollow, covered by a mixed mass of infilling in which the slag and scrap lay in the greatest profusion.⁷ The coins in this infilling went down to Claudius, the brooches indicate period IV at earliest, and the pottery was mainly of period IV,⁸ though with some elements suggesting a slightly later date.⁹ It is in any case evident that the excavation was filled up only after the general destruction, in which, along with everything round about, the timbered installation occupying it had perished. This installation was then in service when the destruction overtook it, and the nature of the associated scrap and other metal shows beyond doubt that its purpose had been Roman military metal-working. For together with lumps and innumerable clippings of sheet bronze, mixed with pieces of iron and bronze and iron slag, were remains of manufactured bronze-work consisting for the most part of Roman military equipment. More of this was found near by, at various points in the destruction-layer and in five contemporary pits,¹⁰ and it comes from helmets, shields, armour, and a full range of other arms and accoutrements, mainly of legionary pattern.¹¹ How long before the destruction metal was being worked at this spot, within the limits of period IV,

¹ Kiln and pit L19, pp. 105-7, 282-4 : Neronian glass in latter, p. 291.

² p. 20: parallels, Sigillata (Decorated and Plain) and other forms, listed p. 56.

³ On the lip of pit A5, pp. 93, 348.

⁴ For fragments of building-stone see p. 349.

⁵ p. 348: plaque fragments, fig. 66, 1-2.

⁶ p. 24.

⁷ Site A4, pp. 91 ff., with fig. 20 and pl. x.

⁸ The Decorated Sigillata (p. 178) runs to Claudius-Nero.

⁹ e.g. specimens of forms 88, 108 (58 exx.), 109 (2), 120 B (2), 157, 158, 227 (2): pp. 239 ff.

¹⁰ p. 93.

¹¹ Full details, pp. 336 ff., with figs. 62-3 and pls. c-civ.

is not clear, but the period IV occupation as a whole has no military character, and when the destruction took place the military metal-working was evidently at its height. It is a fair conclusion that this intensive activity by Roman armourers belongs to the eve of the destruction and should be connected with it historically.

Now even after regular garrison troops at Colchester had been replaced by the veterans of the Colonia, there were still some serving soldiers in the place—mainly no doubt legionary details concerned with supplies, &c., for the Lincoln command—who were looking forward to their own discharge as veterans. Indeed, as hoping themselves soon to join in a game so attractive to men of their sort, they made a point of encouraging the colonists' oppression of the natives.¹ However, at any rate by the eve of Boudicca's rising there were not very many of them;² and when things began to look ugly the colonists were compelled, in the absence of the governor and his army in north Wales, to ask the procurator Catus Decianus for reinforcements. He sent at most two hundred men; soldiers possibly, but they had no proper arms.³ Consequently, if the rebels were to be resisted at all, there had to be rearmament, and rearmament in a hurry. And this is exactly what our excavations appear to reveal. The manufacture of new and the repair of old armour and weapons, extemporized in feverish haste on the greatest scale possible in a short time, will account as no other explanation can for these phenomenal findings. We know that it was too late—the Romans were caught virtually defenceless, and were surrounded in a city doomed to sack. Just so our armourers' works were abandoned suddenly to destruction, and perished in the wreck of all this site by fire. Both their establishment and their ruin are thus explained by the events of A.D. 61. Away from this site military relics were rarely found,⁴ but among the few iron weapons are four swords⁵ from the bottom of a pit, near the old south-west entrance, which was dug through a period IV layer and filled with sooty black earth containing also Neronian pottery.⁶ So dated, this find is most readily explained by those same events; and the rarity of weapons elsewhere at least agrees with the Romans' failure to withstand the rebel onslaught.

The destruction was immediately followed by period V, in which, across the otherwise untouched wreckage of the preceding occupation, was dug the ditch of a new defensive earthwork. This is ditch II. Its relative date is shown several times over (fig. 4 (p. 55); cf. fig. 1). In its south-western sector it cut across ditch I and through the period IV layer over its filling.⁷ In the west entrance area it cut across road II and through the adjacent period IV metal-working and occupation debris, and this was the first traceable event after the destruction.⁸ Farther north the base of the rampart upcast from it was found bedded over the period IV tile-kiln, which, wrecked in what would seem the same destruction, was then presumably filled up with its own debris for this very purpose.⁹ The analogous ditch found farther to the north-east, slanting over the By-pass line, also cut

¹ Tacitus, *Annals*, xiv, 31, 5: 'foventibus impotentiam veteranorum militibus similitudine vitae et spe eiusdem licentiae.'

² *Ibid.* 32, 3: 'modica militum manus.'

³ *Ibid.*

⁴ p. 336.

⁵ p. 340: pl. civ, 3-6.

⁶ Pit G4, dug through the layer sealing the filling of ditch IA: p. 112 with section 73, fig. 27.

⁷ p. 110 and section 69, fig. 27.

⁸ pp. 85, 94 and section 42, fig. 17.

⁹ p. 73 and section 23, fig. 12.

across ditch I and through its period IV sealing-layer,¹ and farther along remains of its rampart were found bedded over a filled-up period IV pit.² This ditch contained pottery datable down to period IV, and the same is true of ditch II itself, which, though in various places rubbish from the destruction was found in it, had little or no true silting and evidently had not remained open long. This will be confirmed when we come to period VI. But this new defence-work was not only short-lived: it was actually unfinished. Having bent round across the southern part of the site, ditch II turns north-east only to end in the air; the ditch on the By-pass line also stops short on the east, and the plan of the whole (fig. 4) plainly betrays an intention to make a complete circuit that was never achieved. Moreover, both ditches were accompanied in part by a palisade-trench, dug to retain a timber rampart-facing, but this was absent on the west, and on the north, south-east, and south-west its discontinuous lengths started and stopped independently of the earthwork. Nevertheless, in the middle of the south-western sector was an entrance, with the emplacement of a massive four-posted gate-structure, on the line of the palisade and rampart. Lastly, the whole work was planned in disregard of the main period IV features of the site. This is most sharply indicated on the west, where ditch II not only cuts right across road II but seems to have had another entrance of its own a little way farther north, where, though not itself interrupted, it throws out a short curving branch ditch, in the manner of the *clavicula* often used to protect the entrances of Roman camps.

Two explanations can be advanced to fit these facts. The first is that the period V defences are the work of Boudicca. The directly antecedent destruction must beyond doubt be hers, wiping out, together with the hated Colonia itself, the hutments, industries, and depots with which the Romans had defaced the older centre of Camulodunum. For rebuilding within she had no time; but Suetonius' legions would soon be back from Wales, and the place should be put in a state of defence. Works of the strength of Cunobelin's were for the moment beyond her, but a ditch half the size of his or less, with a palisaded rampart, would suffice for the present and could if need arose be strengthened later. The south-west side, facing the enemy's likeliest advance, should be started first, and here the ditch was dug to its largest and the rampart perhaps completed, with palisade and strong timber gateway. East of this the ditch was left less finished and the palisade discontinuous, while on the north the palisade-trench had made more headway than the earthwork when work on both was given over. The north-east and eastern sectors, left to the last as on the safest side, were never even begun, while throughout the long north-west and western line the ditch was continuous but never palisaded. The men in charge will have known something of Roman field-works, and like the Nervii or Vercingetorix in Gaul³ they sought to adapt their knowledge, even attempting, for the entrance which they planned for the middle of their western sector, to copy the *clavicula* which at the time was probably a recent innovation in Roman military engineering.⁴ On the other hand, they meant to do more than imitate a Roman camp. Comparison of fig. 4 with fig. 2 (p. 46), or a glance at the general plan on pl. cxii, shows

¹ p. 59 and sections 1-2, fig. 6: this is ditch F6 or IIA.

² Pit F1: p. 64 and sections 12-13, fig. 9.

³ Caesar, *B.G.* v, 42; vii, 29-30.

⁴ Kahrstedt, *B. J.* cxxxviii (1933), 144-52.

at once how ditch II seems to be trying to reproduce the alinements of ditches I and IB, the main limbs of the Sheepen Dyke with which the site had originally been defended by its founder. That massive work had been nearly eighteen years laid low, but allied with Boudicca's Icenii were the Trinovantes native to the place, and from their memory its lines could be redrawn at least in fair approximation. The significance of ditch II will thus be not only military, but also political. Effacing the old policy of her house, and uniting Icenian and Belgic loyalties in common defiance of the oppressor, Boudicca could proclaim that she had refounded the ancient capital of Cunobelin.

The alternative explanation is that the period V defences are the work of Roman troops after Boudicca's defeat. They were abandoned unfinished; but if their missing portions had been completed symmetrically on the north-east and north-west, they would have given us the plan of a large Roman camp, of about 42 to 45 acres. If this space were all occupied by troops camping under active service conditions, it would give room for upwards of 20,000 men. This would be something like the entire strength of the legionary and auxiliary field-force which Suetonius had available for crushing the revolt (p. 8), and if the whole of it were to be concentrated here, the intended camp would have to be understood as a temporary base for full-scale mopping-up operations in rebel territory. But the site was greatly encumbered with the rubbish of the Boudiccan destruction, and could not well have accommodated nearly all this force without extensive clearance. Moreover, much of the space might have been allocated for supply dumps: indeed, the camp would be more intelligible as something approaching a 'semi-permanent' base, for reserve troops and for a concentration of supplies made necessary by the rebels' destruction of established depots. In any case, its defences would be suitably designed according to army engineering standards; and one can go some way with explaining the features of these defences thereby. Thus the V-shaped profile of ditch II itself will represent the standard *fossa fastigata*. The palisade-trench will have been intended for a standard timber rampart-facing, less elaborate, perhaps, than the late first-century specimen studied by Mr. Richmond in Camp A at Cawthorn in Yorkshire,¹ but similar to it at least in the nature and mean size of the trench as dug; in the provision, perhaps, of wedging-stones for the timbers therein;² and possibly also in the trench's disappearance in places, most notably all along the west side, from the ground beneath the rampart-line: for the Cawthorn trench was only dug in the ground for about 20 feet on either side of each gate of the camp, and elsewhere was carried up, whether slopingly or abruptly, into the body of the rampart itself.³ The gate on the south-west corresponds at least roughly in structure-plan with the gates of the same Camp A at Cawthorn.⁴ The apparent Clavicula-ditch indicating a west entrance, however, is anomalous: the non-interruption of ditch II itself here is paralleled at the Cawthorn A entrances, but seems impossible intelligibly to reconcile with the presence of the Clavicula-ditch (absent at Cawthorn A), unless the latter was dug only to be countermanded in the course of the

¹ *Arch. Journ.* lxxxix (1933), 17 ff., 24-9.

² For the septaria found tumbled in the bottom of ditch II in various places (pp. 110-11, 120) may perhaps best be so explained: cf. *op. cit.*, 25-6. This might hold good even if

the period V works are Boudicca's.

³ *Op. cit.*, 25-7.

⁴ Cf. *op. cit.*, 30-3 and pl. VII, with fig. 32 here (p. 117).

work, or unless (i.e. on the other theory of the defences) it was an attempted native imitation. In any case, since the south-west entrance did have an interruption in ditch II, it is hard to see why a Roman camp-plan should disregard the obvious west entrance site on the line of road II to the extent of cutting the ditch right across this serviceable metalled roadway. The very irregular course of ditch II on the south-east, again, looks more like native work than Roman; and the carrying of the rampart over certain 'bad places' has at least once a distinctly un-Roman air.¹ Lastly, since the accustomed Roman camping-grounds at Colchester were evidently elsewhere (p. 20), the choice of this rubbish-encumbered site for a Roman camp at all appears perverse. However, this might be why it was countermanded before completion.

The archaeological evidence will carry us no farther. But it is seldom the fortune of archaeologists to come so near to a momentous episode in history as period V here brings us to the doings of the year 61. Whichever view be taken of the construction of the defences, the destruction preceding them cannot but be the work of Boudicca's rebels. And in the destruction-rubbish near the west entrance were three bronze terrets and two bronze and iron linchpins which must stylistically be British work of just their period.² Thus, appropriately enough, the only certain relics they have left us are from the chariots and the horses in which they put their trust.

Period VI

The period V defences, whichever explanation of them be adopted, were destroyed and levelled very soon after the Romans resumed possession of the site. So much is clear not only from intrinsic probability but from the nature of their filling. Gravel metalling was then laid along the line of the period IV road II, in various broader expanses elsewhere,³ and across the site of the period V gateway as another road, flanked by a drain on one side. For the most part nothing more was done except to clean up the site, which it was evidently decided not to reoccupy in any effective manner. But this cleaning up entailed the digging of a certain number of pits, mostly of large size, for the burial of surplus rubbish, and fortunately several of these were either dug across the line of the period V defences, encroaching on ditch II,⁴ or else were elongated enlargements of ditch II itself,⁵ whereby their relative date is made clear. The material found in these and similar pits consists mainly of re-deposited period IV rubbish, but the pottery here, and e.g. in the filling of the military metal-working site, includes a few forms not met with in period IV and so presumably not earlier than the clearing-up operations themselves. But these are scarcely more than slightly advanced variants of forms previously

¹ Over pit F1 (p. 64), to avoid which the palisade-trench swings awkwardly out against the lip of the ditch; cf. fig. 5 (p. 57).

² p. 330: pl. xcix, 4-8; see also on fig. 60, 3 and pl. c, 5-6.

³ For possible traces of tents pitched on this in region 1, see p. 70. If the period V defences are Roman, these might belong to camping troops engaged on their construction. The gravel here would then strictly be of period V. But whether

Roman or Boudiccan, the presence of Roman troops will have been required for the *levelling* of the defences; and this marks the beginning of period VI. These traces therefore cannot strengthen the explanation of the defences themselves as Roman work.

⁴ So pits G6 and G7, p. 111.

⁵ So pits Y48 and Y32, p. 116.

current,¹ and the late complexion of these groups is better emphasized by the greater relative frequency of certain forms previously rarer, or at least rarer in the purely Roman ware in which they now appear.² The Decorated Sigillata bears this out by including, with six Claudian survivals and four Claudius–Nero pieces, not only one purely Neronian fragment but four that are typologically Nero–Vespasian³—the first and only stratified occurrences of such on the site. This slightly more advanced pottery-spectrum cannot serve to bring down the date of the site's abandonment as late as the beginning of the Flavian period; nor do the brooches (p. 328), the glass (p. 291), nor any of the other finds upset the strong negative evidence furnished by the absence of coins of Nero. On that we have already laid stress.⁴ Neronian *aes* began to be minted in A.D. 64, and would first reach Colchester in appreciable amount about 65. From the Colonia, where occupation continued unbroken after the Boudiccan revolt, 92 Neronian coins are known. From this site, apart from 4 from the area of the later temples, there are only 3 stray coins of Nero from the excavations and one chance find; all these are more or less worn, and probably were not dropped before the Flavian period—or indeed before the end of it, when the temple-enclosure was built. Clearly the period VI occupation cannot have been prolonged beyond *c.* A.D. 65. Its only prominent habitation site, a hut of native type established over the filling of ditch II on the north slope of the hill,⁵ produced a peculiar assemblage of material, in which the pottery combines late pieces typical of period VI with an unusual number of early survivals, including pre-conquest Sigillata 'heirloom' vessels,⁶ suggesting that the occupants were natives of long-continued Roman allegiance, now temporarily settled here in connexion probably with the work of finally tidying up the site. But for a small survival of metal-working on the eastern fringe⁷ and the probable continuation of quarrying in certain places, subsequent occupation consists only of disconnected features—the temple-enclosure already mentioned, the late second-century potters' kilns, and a few scattered Romano-British graves. About A.D. 65, then, the Sheepen site finally loses its historic entity, after a continuous life of a little over fifty years.

6. SYNOPSIS AND CONCLUSIONS

In this section we shall seek to summarize what has emerged from the foregoing pages, and to pick out the main points from what will follow, so as to present our main conclusions from the whole.

Pre-Roman Colchester, the Belgae, and Cunobelin

Camulodunum, in its broader sense, is the whole peninsula between the Colne and Roman rivers in north-east Essex. It is a peninsula surfaced mainly with habitable

¹ e.g. form 88 (p. 234), form 157 (p. 246).

² e.g. forms 64 (p. 228), 144 (p. 244), 243 (p. 265), 267 (p. 271), and 271 (p. 272).

³ p. 178.

⁵ Site A3, pp. 85, 95.

⁷ p. 107.

⁴ And see p. 160.

⁶ pp. 95, 176, 182–3.

gravel, in contrast to the forested clays which skirt its flanking valleys and extend over a great part of the country round. Its total area of some 12 square miles is delimited across the broad neck between the rivers by the mainly westward-facing earthworks known as the Colchester Dykes. These dykes belong essentially to the century of the British Iron Age preceding the Roman Conquest of A.D. 43. But it seems that their defensive system did not attain finality all at once. An early, perhaps the earliest, stage in its development may be recognized in Cheshunt Dyke, distinguishable as a contour work (whatever its ultimate extent) from the straight dykes which complete the series. The Cheshunt site behind it contains among other things apparently a sacred enclosure, later romanized, but originally of this pre-conquest period, and here may be an early or even the original focal point of the occupation.

How early the original occupation began is not known, but the people inhabiting the region were the Trinovantes, and a distribution centred near Colchester is shown by the first inscribed coin series to be struck by a Trinovantian ruler. This was Addedomarus, who ruled for about the last fifteen years of the first century B.C. The historical situation of his time is not obscure. It was the sequel to that of 54 B.C., when Julius Caesar had been concerned to protect the Trinovantes against their western neighbour Cassivellaunus, his own chief opponent and the leading prince among the Belgae.

Belgic invaders from northern Gaul had begun to settle in Britain about 75 B.C., at first in Kent, but soon pushing across the Thames into Hertfordshire, where Cassivellaunus' stronghold of resistance to Caesar may be recognized at Wheathampstead, a site well placed for his harrying of the Trinovantes. Later, from about 15 B.C., this was carried on by the Catuvellaunian Tasciovanus, whose coins proclaim as his main Hertfordshire capital Verulamium, now identified at Prae Wood near St. Albans, but who also struck a coin at Camulodunum, which he presumably wrested for a time from the Trinovantes under Addedomarus. Meanwhile the southern parts of Essex had been settled by other Belgae coming from Kent, and from about A.D. 1 to 10 the Kentish Dubnovellaunus established dominion also over the Trinovantes and struck coins which are found concentrated in the Colchester area. From about this time most of the Essex region became a province of Belgic material culture closely similar to contemporary Kent, as is shown above all by a large number of typical cremation-graves. But the final absorption of the Trinovantes into the Belgic power was effected from the opposite quarter. For Dubnovellaunus was driven out by Tasciovanus' son Cunobelin, who marked his accession about A.D. 10 by beginning to strike his famous inscribed coins at Camulodunum. Cunobelin in fact made his new capital the centre of a unified Belgic kingdom, which he expanded over a great part of south-eastern Britain. It is then not surprising to find that the Colchester dyke system in its final form attained an unparalleled extent and complexity, only commensurate with this capital's importance. And the inner focus of the system is the area defended by Sheepen Dyke, where our excavations have shown that occupation, widespread and intensive, began just at this same date about A.D. 10. The Sheepen site was then Cunobelin's foundation. Here under him was Camulodunum in its narrower sense, the focal point of the whole capital peninsula.

Sheepen: character of the pre-Roman occupation, A.D. 10-43

The Sheepen site is itself a minor peninsula, between a small tributary and the Colne, the valley of which is here on this south side free of forested clay, and runs up to a flat-topped hill connected by a neck with the main gravel plateau. Sheepen Springs give it its own fresh water, and at Sheepen Ford opposite was the lowest tide-free crossing of the Colne. Laid out from just below the ford south-south-west on to the neck of the peninsula, and then south-east to the tributary stream, Sheepen Dyke was constructed to defend its whole western side: there was a north-west, south-west, and a west entrance, and from at least the last-named a definite track led into the centre of the site on the lower slope of the hill. Here there had been a major occupation-site of some kind,¹ which was destroyed at the Roman Conquest too thoroughly to leave much to be described beyond the rectangular clay-lined pits beneath it; but this very fact, together with its position as the apparent primary objective of the track, suggests an especial importance. This is borne out by the uniquely high proportion of imported continental wares among the pottery found here. It would not be surprising if this had been Cunobelin's own residence—a suggestion which certainly cannot be made on similar grounds for any of the other pre-conquest occupation-sites identified.

It will be found that these other occupation-sites fall into two sizes. Of the smaller, less than 18 or 20 ft. in diameter and round or subrectangular in shape, eight were definitely of period I only,² several of them showing traces of destruction by fire, possibly or almost certainly at the conquest. There were also vaguer patches of period I occupation in various places, especially in the northern part of the site on the low ground near the river. In addition three sites,³ as well as other vaguer patches in the same quarter, seem to have lasted through the conquest from period I to period III.

All these were the sites of huts of simple construction. The floors were either levelled on the surface of the subsoil or hollowed slightly or dug more deeply into it, the excavated material and sods being piled round the circumference as a sort of basal wall. This may originally have been faced with coursed sods, but presented to excavation the appearance of a low bank of loamy, gravelly, or clayey composition.⁴ Traces of structural timber-work were elusive, and no dug post-hole can be proved for a pre-conquest hut of this class.⁵ The actual walling above these wall-banks was of wattle-and-daub, probably arched over as a dome or ridged roof:⁶ fragments of burnt daub-clay were plentiful, and the wattle-work is shown by charcoal samples to have been normally of hazel rods.⁷ Oak charcoal⁷ was, however, also abundant, and the supporting members were no doubt oaken, but they were not such as to leave any reliable traces in the soil-conditions encountered on sites of period I. They will either have been shallow-bedded lean-to poles, or comparatively slender stakes driven in through the wall-banks. The former type of structure was

¹ The area of Site D1 and its surrounding pits, pp. 99 ff.

² Pit F9, low level (p. 65), sites F11 (p. 67), F16, low level (p. 65), H3 (p. 67), pit H25 (p. 67), sites E1 (p. 73), K1, and K2 (p. 124). Site E1 was outside the defended area, and was associated with the drainage ditches E4, E5.

³ Sites F13 (p. 65), H2 (p. 67), and pit H24 (p. 67).

⁴ e.g. pl. iv, 2 (site F15).

⁵ That on site F13 may be either period I or III (p. 65).

⁶ Bersu, *Proc. Prehist. Soc.* vi (1940), 90, n. 3.

⁷ p. 356.

proved, by the discovery of the shallow bedding-sockets, for the first Belgic house at Lockleys, Welwyn,¹ and the second is attested here by a fortunate post-conquest example,² and is probably the structural explanation of the Belgic hut at Sud Moor, Isle of Wight.³ More could probably be said of this sort of hut if a modern analysis were possible of the discoveries recorded some forty years ago by Clinch, Johnson, and Wright on the Kent-Surrey border.⁴ But the proven examples we have make it plain that the smaller and poorer sort of Belgic dwelling was a structurally primitive and squalid hovel.

The larger occupation-sites were less uniform. One, in the north of the area on the By-pass line, was seemingly just a larger version of the sort already described.⁵ This had been gravelled over after demolition not later than the conquest, but near by another, a large oval of the same type, had continued in occupation to period IV after a period I start attested by the quantity of pre-conquest pottery from its lower levels.⁶ On the southern brow of the hill was a peculiar site of elongated shape, with level-bedded sleeper-beams that had presumably supported structural timber-work;⁷ the plan was not definitely rectangular, and was too imperfect for reconstruction, but the occupation seems to have been wholly pre-conquest. This was outside the original defended area. On the eastern slope of the hill were several substantial occupation-sites, but denudation had made them difficult to interpret completely. One may have been a large hut of the sort described above: it produced pre-conquest pottery in abundance, but all that can be said of its structure is that it was destroyed not later than the conquest.⁸ South-west of this was a complex of at least three sites, two being circular huts of the type described, and the third marked by a thick scatter of occupation-debris and traversed by the bedding-trenches of a timber construction, apparently part of a subrectangular enclosure which probably surrounded the whole complex.⁹ Only its eastern portion was traceable, but it measured 110 ft. in width and may have been twice that in length. The bedding-trenches had contained roughly trimmed sleeper-timbers laid end to end, and their line had been broken in one place by a pit, which (like another pit inside the area) contained nothing demonstrably later than the conquest, when (at latest) the whole complex had evidently been destroyed by fire, this pit being then dug and filled with rubbish.

¹ Ward Perkins in *Antiq. Journ.* xviii, 342, pl. LXVII, 1 and pl. LXX.

² Site A5, of period IV (pp. 54, 91, with pl. VIII, 2).

³ Dunning, *Antiq. Journ.* xv, 355-6 and fig. 2. The Saxon hut at Bourton-on-the-Water (same excavator, *ibid.* xii, 284 ff. and pl. LVI) shows the same type enlarged so that the stone-holes did not escape discovery.

George Clinch in *Journ. Anthropol. Inst.* n.s. ii (1899): Johnson and W. Wright, *Neolithic Man in NE. Surrey* (1906); discussed by D. C. Whimster, *Arch. of Surrey* (1931), 0-3, and R. F. Jessup, *Arch. of Kent* (1930), 48-9; also by A. Smith in *Surrey Arch. Colls.* xxi, p. 7 of article on the Cobham site, where, however, the pits are not huts but probably grain-pits. See now also *Arch. Cant.* liv (1942),

28-34. These 'hut-circles' may be of various ages: whether or no any are Neolithic, as formerly believed, our period is not excluded, and if conjectural central posts be disregarded, they seem to have been very similar in construction to the Belgic huts better attested by modern excavation. Cf. the structure of the old type of charcoal-burner's hut traditional in Epping Forest: S. Hazzledine Warren in *Essex Naturalist*, xvi (1909-11). Also *Germania*, ix, 99 (Maden, nr. Fritzlar).

⁵ Site F10 (p. 66).

⁶ Site F15 (p. 66 and pl. IV).

⁷ Site Y1 (p. 118).

⁸ Site L4 (p. 124).

⁹ Sites L2, L6, L7, with pits L40 and L42 (p. 122).

Two of the smaller hut-sites previously mentioned were farther south on the same eastern slope: one was adjoined by two similar pits¹ and both by ditch-like depressions. On the south of the area, one pit outside² and two just inside the defences³ point to pre-conquest occupation close by. In the northern region were seven pre-conquest pits altogether, one of them cylindrical and timber-lined, apparently a water-hole,⁴ and four more pits containing much pre-conquest but also some slightly later material.⁵ These pits were all found filled with material including rubbish, but their primary use may have been more positive. The water-hole remains unique, and the rectangular pits beneath the destroyed central site above noticed were no doubt for special storage or cellarage, being lined with clay to keep dry an inner lining-frame of timber, like those in the contemporary Roman camp at Haltern.⁶ The remaining pits were either roughly cylindrical or irregular in shape, and were not lined. They may have been dug for the storage of perishables, most notably grain, packed in a removable basketry or leather container. The excavations at Little Woodbury have made it clear that this mode of grain-storage was regular in the pre-Belgic Iron Age of Wessex,⁷ and though at Maiden Castle and elsewhere the practice was discarded by the Wessex Belgae,⁸ it may have had a partial survival in the Belgic period here as a native Trinovantian tradition. With it then may have gone the associated practice of scooping out hollows in the subsoil for hand-threshing,⁹ and necessarily also that of parching the grain by roasting, with which numerous calcined hearth-flints¹⁰ may in part at least be connected. However, the pits discovered are far too few to represent the whole storage of foodstuffs for a large community, and since effective storage buildings or barns would certainly have left structural traces such as were nowhere here apparent, it is fair to conclude that operations connected with subsistence agriculture were not carried on inside the defended area of the Sheepen site on a scale proportionate to its population. In other words, the country produce it consumed was largely brought to it from outside.

The bones of domestic and food animals¹¹ comprise small horse (a draught pony, scarcely of ridable size), small ox, sheep, and pig. Red deer was rare: the inhabitants evidently were not many of them concerned with hunting; however, they kept dogs, and rare specimens represent the cat and the fowl, which we may believe were kept only as pets.¹² Oysters were eaten in great quantities;¹³ and the waters of the Colne estuary were also exploited for the extraction of salt by brine-boiling—an industry mainly operated at the many 'Red Hills' along the coast, but represented by finds of its characteristic soft clay briquetage in the riverside quarter of the site itself.¹⁴ Refuse, including not only

¹ Pits K19A and B, by site K1 (p. 124).

² Pit Y26 (p. 119).

³ Pits Z6, Z11 (p. 116).

⁴ Pits F2 (p. 62), F4 (water-hole: p. 65 and pl. v), H3, H4, H5, H6, and H9 (p. 67).

⁵ Pits H10, H11, H15, and H16 (pp. 67, 68), thus classed as period I-III.

⁶ p. 101.

⁷ *Proc. Prehist. Soc.* vi (1940), 60 ff.

⁸ Maiden Castle: Wheeler, *Maiden Castle*, 58, 91, &c.;

Twyford Down: *Proc. Hants F.C.* xiii, 2, 192-4, 196; Choseley Farm: *ibid.* xiv, 3, 367-8.

⁹ p. 75.

¹⁰ p. 349.

¹¹ pp. 350 ff.; so also after the conquest: not till the later second century is there evidence of a larger type of horse, perhaps of Roman introduction (p. 354). For a post-conquest find suggesting the near-by stranding of a whale, see p. 353 (but cf. p. 7, n. 7).

¹² pp. 352, 354-5; Caesar, *B.G.* v, 12, 6.

¹³ p. 350.

¹⁴ pp. 4, 346-7.

broken pottery and fuel rubbish but animal and food remains, accumulated to some extent in occupation-areas, but was in greater bulk shot into pits and into the open ditch of the dyke, especially at its north end near the river, where the carrion attracted numbers of scavenging ravens.¹

The most important industrial remains appear to be those of a mint where coins of Cunobelin were made: this was in the south-eastern quarter of the site and had been wholly destroyed at the Roman Conquest, the remains being found as wreckage mostly shot into a near-by pit; they are described in detail below, and afford highly suggestive evidence of the nature of the processes employed.² The British coins from the site themselves, mainly bronze with some of silver, are mostly of Cunobelin and include a number of types hitherto unknown: a copy of a Roman Republican *denarius* is of particular interest.³ Otherwise evidence for pre-conquest metallurgy is mainly inferential: native bronze objects of the period include a large number of brooches, mainly of the La Tène III type which we have called the 'Colchester' brooch,⁴ and rare other pieces (a few enamelled) such as a tankard-handle, a belt-link, and two terrets.⁵ Ironwork⁶ includes a typically native ox-horned fire-dog head, and a horseshoe and part of another which betoken influence from Roman Gaul. Imported Roman bronze brooches are also notable, mostly of the thistle and Langton Down types,⁷ but by far the most abundant imported material was pottery; there was also a little glass.⁸ The native pottery,⁹ which must have been manufactured in great quantities close by in kilns of which unfortunately none were found, was throughout the pre-conquest period to a large extent influenced by the imported Roman wares.⁹ Moreover, not only were these copied locally,¹⁰ but the Gallo-Belgic¹¹ and pale-ware¹² industries of the Continent seem certainly to have established actual branches here in pre-conquest times. Their imported products came from a wide area mainly in Belgic Gaul and the Rhineland; the choicest imported fabric was Arretine Sigillata,¹³ of which some actually came from Italy. The distribution of all this pre-conquest imported pottery, and most notably of the Arretine ware, was thickest in the north and north-east of the site, on the low ground by the river up which it came. Here also were found some graffiti on Arretine sherds, which show that users of this ware at least could have knowledge of Latin writing.¹⁴ The subject of romanization in general will engage us further below; meanwhile there are two conclusions regarding the nature of the pre-conquest occupation which call for special stress.

First, the basic physical conditions of life remained largely unaffected by Roman influence. Obviously trade with the Roman world, no less than supremacy in Belgic Britain, must have increased the inhabitants' wealth, and therefore the quantity and variety of their material equipment. Obviously, too, consumption of imported goods must have raised their superficial standard of living. The sheer material superiority of the imported pottery must have made for greater refinement, and in addition, there is its

¹ pp. 59, 354.

² pp. 129 ff.

⁹ pp. 205-7, 256 ff.

¹⁰ pp. 202, 221 ff.

³ pp. 135, 140, 153.

¹¹ pp. 202-4, 207-13, 215 ff.

⁴ pp. 308 ff.: penannular brooches, pp. 326-8.

¹² pp. 204-5, 238-9, 241.

⁵ pp. 329-30.

⁶ pp. 341 ff.

¹³ pp. 168-9, 180 ff., 191-5.

⁷ pp. 314-19.

⁸ p. 288.

¹⁴ pp. 284-6.

clear-cut specialization of form. This is of course no mere typological parade: it implies specialization of use, connected mainly with food and drink. The wine imported in the amphorae we have found may have been primarily for the rich who could drink it from the appropriate Arretine cups, but the wider popularity of Gallo-Belgic cups, less costly but still specialized for wine as no doubt were beakers for beer, proves a more general diffusion of civilized manners. Such a diffusion is still better attested by the abundance of platters, off which men had never been accustomed to eat in Britain before. There would doubtless be more of the same kind to be said if our evidence were not confined to imperishable materials. But of a house of civilized build there is no sign. Granted that one abnormal site is not fully understood, the normal dwellings recognized, of whatever size, were the huts of barbarians.¹ There is no properly rectangular house-plan, no forerunner of the large 'barn-dwelling' of Romano-British times: if any such existed, they were too rare to make a showing here, despite the great areas excavated. Instead, it seems that large groups were housed by enclosing two or more ordinary round huts together in a single 'compound'. Even the site we have fancied might be Cunobelin's need have been no more than an aggrandized affair of this same kind. It is fair to draw this conclusion. Camulodunum was no doubt more deeply influenced by Rome than any other British centre of its time. But in the essentials of life the influence was a veneer.

Secondly, the place can only be called a 'city' in a carefully qualified sense. The Romans' word for it was presumably *oppidum*, but *oppidum* was a somewhat elastic term, and their word for 'city' was *urbs*: could they have applied that here? The total area of the site was something like a quarter of a square mile.² Yet only on the low ground near the river have we found any approach to a built-up area. Even there one can only see what modern jargon terms a 'conurbation' by the exercise of great goodwill. Intensive occupation after the conquest may have obliterated more than we have been able to trace. But even so, there are wide areas of the site where occupation after the conquest was not intensive. And there the pre-conquest dwelling-sites are few and unevenly scattered. Denudation may have swept more away, and near the top of the hill probably has. More may remain undiscovered in the areas where we could not excavate. But concentrations of pottery and other rubbish will not wholly vanish even where site-remains are denuded, and our grids of trial trenches were carefully planned to obtain the fullest possible sample of the ground. It is in fact wrong to call Camulodunum a city in the Mediterranean sense that the use of the word inevitably conveys. The mere fact that its defences enclose such an enormous area shows that that sense was wholly absent from its founder's mind. The same is almost equally true of the Gaulish Mont-Beuvray; but here we have the far greater extent enclosed by the Colchester dykes as a whole, to show that Cunobelin's idea of a capital was not even an inflated hill-fort, but simply a fortified tract of desirable land. Over all that tract occupation could be scattered, with particular spots of varying importance here and there. Sheepen was the inner nucleus or focal spot, as lending itself well to individual fortification, and as giving on to the river at the one place where the river was unforested, fordable, and navigable. It may, as we have seen,

¹ As described by Strabo, *Geogr.* iv, 4, 3.

² 160 acres or about 64 hectares.

be reckoned urban in the economic sense that its inhabitants do not seem to have lived primarily off its own soil—though indeed there will have been plenty of room both for gardens and for paddocks. It may be reckoned urban in the commercial sense that merchandise was concentrated here to be bought and sold: in fact, part of its open spaces may well have been used as market- or fair-grounds. Lastly, it may with great probability be reckoned urban in the administrative sense: here we may believe the king's coinage was made, and here he may himself have had a residence, and if a residence, then no doubt a place of judgement and of assembly. Whether it was a particular religious centre is more doubtful: the Roman temple is not certainly on a pre-Roman sacred site, and we have guessed above that a primary sanctuary may rather have lain at Cheshunt. But here if anywhere was the essential Camulodunum, the heart of Cunobelin's capital. Yet, if our excavated number of well-defined pre-conquest dwelling-sites be multiplied by ten—quite a generous allowance for those ill-defined or undiscovered—we shall have only an average of about one dwelling to the acre—160 in a quarter of a square mile.¹ The Glastonbury Lake-Village had about half the number in nearly one-fiftieth of the space. This then was not a city in the organic sense of a concentrated habitation-area, peopled by a compactly dwelling body of citizens. Indeed, nowhere have any Belgic cities of Britain been found which were. The term therefore needs using with due discretion, if used at all.

The Roman Conquest and its aftermath, A.D. 43–8

Cunobelin died about or soon after the date of the accession of Claudius, A.D. 41. Political disturbances followed his death, and the new Imperial Government decided to annex the country. Camulodunum, as the old king's capital, was the natural objective of the Roman army of invasion in A.D. 43, and then (if not in the foregoing months of civil disorder) its defences were strengthened. A supplementary dyke was thrown out on the south-west to enclose a large annexe on the south side of the hill,² shutting in the south-west entrance, and the causeway of the west entrance was cut across. Such precautions were useless: Cunobelin's son Caratacus was defeated on the road from London, and the capital yielded to Claudius in person. The Roman military headquarters were apparently established on the level plateau south of Sheepen, in and beyond the region of the Royal Grammar School, and the Roman road from London was apparently carried thither through the main system of the dykes. The Sheepen Dyke was dismantled, its ramparts levelled, and its ditches largely filled up. In the filling, together with a few droppings of material brought to the site by the invasion, was incorporated much rubbish from the pre-conquest occupation within, the main features of which were destroyed. The central site was thoroughly obliterated, and what we have interpreted as Cunobelin's mint likewise; and, to judge by the excavated examples, perhaps three-quarters of the ordinary dwelling-sites, whether small or large, were burnt or demolished. Of those examples one large hut-site and three smaller ones, with a few more less well defined,

¹ Roughly 5 dwellings in every 2 hectares.

² Ditch 1A: the south margin of the annexe along the

boundary stream may also have been artificially scarped (p. 111).

alone can have been left standing:¹ here presumably dwelt natives willing to make their submission to Rome—hardly more than one in four of the population. However, new dwellings of the same type were put up on two of the destroyed sites² in the northern quarter, and in the same area we have recognized about a dozen new hut-sites³ where occupation began in period III, within the first five years after the conquest. In the centre and south traces of such occupation were much sparser,⁴ but on the west a broken line of habitations was established over the filled-in ditch of the destroyed dyke.⁵ The total number of pits yielding material of this period (III) is between 25 and 30,⁶ excluding those already mentioned as having mainly earlier contents,⁷ and about 20 more with partly later contents (III–IV).⁸ Some of these pits may have been dug for storage as above conjectured for period I, but many seem to have been dug simply to have their sand and gravel extracted and replaced by rubbish (e.g. those in the area of the destroyed ‘mint’).⁹ There were also other sand, gravel, and clay diggings.¹⁰ However, it is to this period that belong the two most probable examples of the scooped-out threshing-hollows referred to above,¹¹ and it is possible that the natives still inhabiting the site, deprived of their former farm-lands farther afield, now had to live partly by tilling the soil close at hand. In general the standard of living remained much as before, with the addition of a much increased consumption of Roman goods. South Gaulish Sigillata now replaced Arretine, and while Gallo-Belgic and other imported wares continued, the romanization of native potting progressed and the first signs of a specifically Romano-British pottery industry appeared. Industrially these years are otherwise not of great interest, but economically they are of course important for the introduction of Roman bronze currency, much of it consisting of copies minted officially or semi-officially on the spot.¹² British coins, however, continued to circulate. Signs of specific Roman initiative on the site are limited to the laying and metalling of road I across the old west entrance, to the digging of at least one timber-lined well,¹³ and to one really ambitious undertaking, the construction of a ditched aqueduct to bring water in an easterly direction from Sheepen Springs.¹⁴ This suggests that towards the end of these years the Roman authorities began to have time to plan the features of a long-term occupation. However, at least as far as the aqueduct was concerned, such plans were abruptly superseded when towards the end of A.D. 48 it was decided to effect a withdrawal of garrison troops from the district, and to replace them by founding the Colonia, on the hill adjoining Sheepen to the east.

¹ p. 47, n. 6; p. 46, n. 3: site F13 will have been strengthened, if the post-hole (p. 46, n. 5) is secondary.

² Pit F9 and site F16 (pp. 46, 65, 67).

³ Sites F1, F2, F3 (pp. 65, 68), F4 (p. 68), F5 (p. 62), F6 (p. 68), F7 (p. 63), F12 (p. 68), F17 (p. 68), H1 (p. 68), E2 (p. 75), L5 (p. 104), ? D8 (p. 104).

⁴ e.g. site C3 (p. 88).

⁵ pp. 59, 80, 86, 88, 110, 114.

⁶ Pits H12, H20 (p. 68), ? A22, ? B4 (p. 88), B6 (p. 81), C1, C2 (p. 88), D16, D1c, D7, D20, D22 (but ? I–III), L5, L11, L16, L39 (p. 104), Z1, Z3, Y33, Y36, Y38

(p. 119), K1, K2, K10, K11, K13, K14 (p. 124).

⁷ p. 48, n. 5.

⁸ Pits F3, H7, H13, ? H19 (p. 68), ? A10 (p. 88), D8, D15, D16, D18, D19, D23 (p. 104), C4, C10, C11, Z17, Y8, Y12, Y14, Y22, Y23 (p. 119).

⁹ Pits K1 and K2 (p. 124).

¹⁰ pp. 110, 114, 121.

¹¹ p. 48: hollows E1 and E2, p. 75. Also e.g. perhaps pit D7 (p. 104).

¹² pp. 155 ff.

¹³ Well I, pp. 61, 126.

¹⁴ Ditch E3, pp. 73 ff.

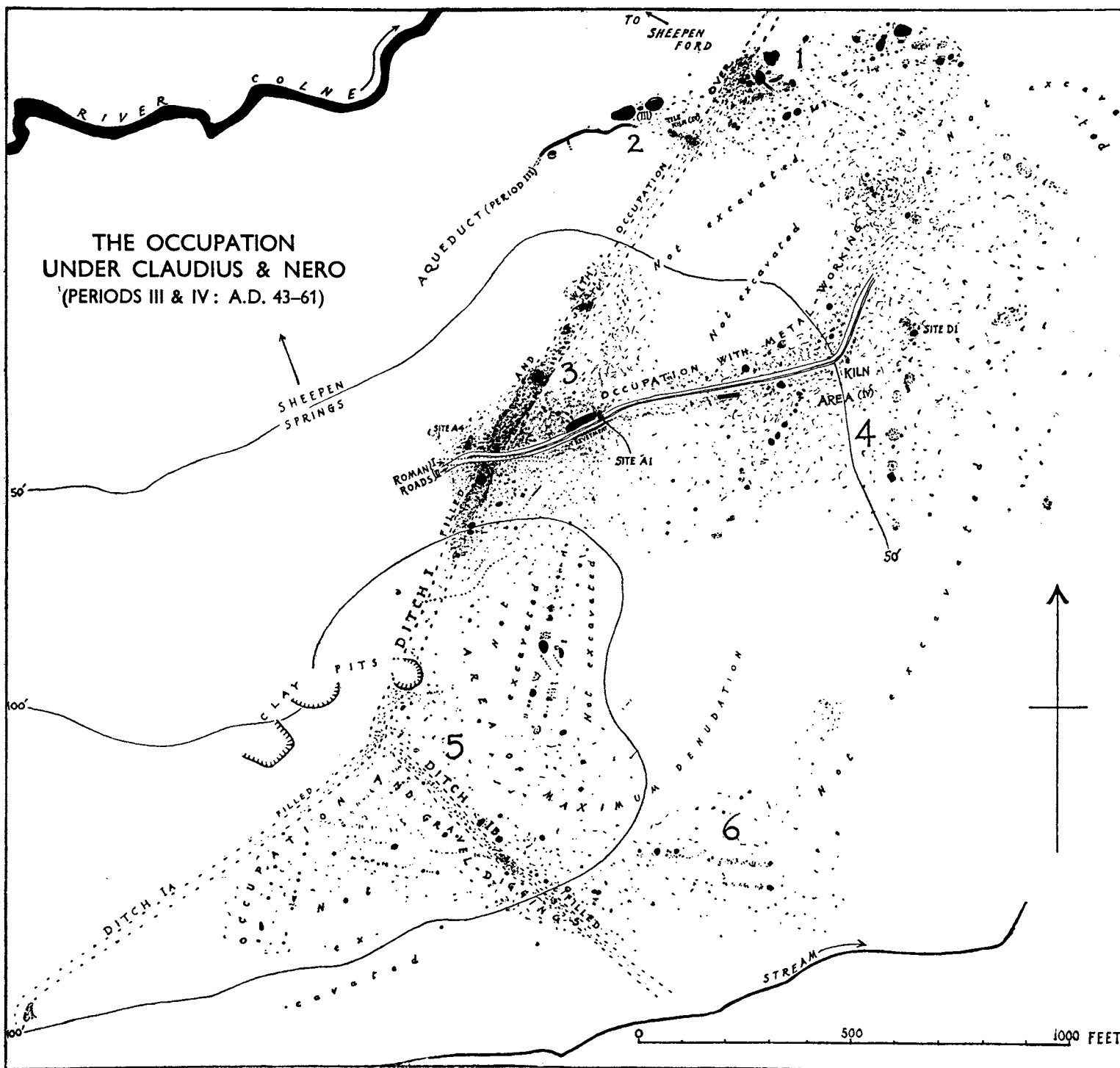


FIG. 3. Plan of the Sheepen site in periods III and IV (Claudius and Nero). Compare figs. 2 and 4, and the general plan pl. cxii. The large numbers 1, 2, 3, 4, 5, 6 mark the positions of the six regions (plans, pls. cvi-cxi). Hand stippling, based on the distribution of scattered material, has been added to the excavated features of the periods to indicate the approximate extent and density of the effective occupation. Contours in feet.

Sheepen and the Colonia, A.D. 49-61

How the Sheepen site was transformed to serve as a works and labour centre for the new foundation has already been seen (pp. 34-8). The new metalled road II, the timber structures flanking it, the metal industries alongside it and elsewhere, the new brick and tile industry, and the numerous new dwellings, attesting an increased population, have been for the most part described, and it only remains here to fill out the picture by certain further observations. The greater part of the material discovered came from the filling of pits, of which about 90 could be assigned exclusively to this period IV,¹ in addition to the 20 mentioned above with contents partly of period III (p. 52, n. 8), and to 14 more not finally filled before period VI.² Also, the great majority of the pits without strictly datable contents may probably be assigned to period IV—these numbered about 60 in all. Six of the period IV pits, all in the same area,³ were or had apparently been intended to be special store- or cellar-pits of the rectangular clay and timber-lined type noted above on the central pre-conquest site (p. 46): otherwise there is little to add to what has already been said on the purpose of the pits in general. The possibility that some at least of these were originally grain-storage pits is sustained by the likelihood that threshing-hollows were still being made and used in this period here and there.⁴ But some of the others were certainly abortive well-shafts, and some of the timber-lined wells found⁵ may be contemporary. No doubt the discovery that wells could be dug successfully had something to do with the abandonment of the aqueduct noticed above: its level would in any case have been too low to be much use if extended as far as the Colonia, which must have relied on wells of its own.

That the Sheepen population still for the most part consisted of natives, now reduced to a subject working-class for the Roman citizens of the Colonia, is made absolutely clear by the dwellings. A new and more numerous series of huts was established over the ditch-filling of the old dyke, of which about a dozen were either cleared or sectioned by excavation,⁶ and over the whole area within twenty more were found occupied in this period: six entirely new,⁷ three rebuilt on period III sites,⁸ ten or eleven continuing from period III,⁹ and one the large hut mentioned above as lasting on from period I.¹⁰ In addition there were the large and intensively occupied industrial quarters along and mainly north of the contemporary road.¹¹ Altogether, the hut-dwelling population was evidently at least double what it had been in period III.¹² And everywhere the huts were of the same old native type, modified only in some rare cases by the addition of dug post-holes for

¹ Pits F1, F6, F7, F8 and 8A, F10, F12, F13, H8, H14, H21, H22 (p. 69), E3 (p. 71), A2, A3, A4, A5, A9, A11, A12, A13, A20, B1, B2, B3, B7, B8, B9, B10, B11 (p. 93), L1, L2, L3, L4, L6, L7 (late), L8, L9, L10, L12, L15, L17, L24, L29, L30, L31, L32, L41, L41a, L41b (p. 105), C5, C6, C7, C8, C9 and 9A, C10, C11, C12, G1, G8, G9, Y3, Y4, Y6, Y10, Y11, Y29, Y30, Y31, Y41, Y42, Y45, Z5, Z15, Z16 (p. 119), K3, K4, K5, K6, K7, K9, K12, K16, K17, K20, K21, K22, L13, L37 (p. 125).

² Pits F11, F14 (pp. 69-70), A1, A6, A7, A8, A21 (p. 93), D1, D1a, D2, D6, D21, D24 (p. 105), Y44 (pp. 120-1).

³ Pits D1, D2, L1, L2, L15, L30: p. 105.

⁴ Sites D1, D3: p. 105.

⁵ p. 126.

⁶ Sites F8, F14 (p. 59), and others on the west (pp. 80, 84, 91), and more sporadically the south-west (pp. 110, 112, 114).

⁷ Sites A5 (p. 91), L1, D4, D5, D7, D9 (p. 104).

⁸ Sites F1, F3, F13 (pp. 61, 65).

⁹ Sites F2, F4, F5, F6, F7, F12, F16, F17, H1 (p. 68), and D8 (p. 104); perhaps also C3 (p. 52).

¹⁰ Site F15 (pp. 47, 66, 68).

¹¹ pp. 69, 91, 99, 104.

¹² See e.g. also p. 119.

sturdier roof-ridge supports.¹ Even that addition had appeared at least as early as period III,² and cannot be called specifically Roman. Otherwise, the greater frequency and thickness of clay flooring and clayey wall-banks is the only sign of improvement. In one case the hardening of this clay in the Boudiccan conflagration enabled us to recognize the six driven stake-holes, 4 in. square and 9 in. deep, that had supported the wattle-and-daub walling: the hut had only been 8 ft. across.³ In such hovels (though this one was exceptionally small) lived the native working-class. On the other hand, the buildings of more civilized type which now appear on the site are much rarer and wholly distinctive, and the two best preserved examples⁴ prove them to have been of oblong-rectangular plan, with uprights set in dug post-holes and vertical wattled walls bedded in gullies between. Iron nails from woodwork⁵ and remains of roof-tiles⁶ were found in quantity on these sites, and the plan of at least one of them⁷ recalls the regular barrack-building of Roman camps or forts. That this was a centre of specifically Roman occupation is shown by the differential distribution of Roman coins,⁸ Decorated⁹ and Plain¹⁰ Terra Sigillata, and other wholly Roman pottery,¹¹ as between it and the crowded native huts along the old ditch-line near by. There was no mistaking conquerors and conquered.

Against this harsh background of Roman and barbarian, which fits Tacitus' account of the times so well,¹² we have to interpret the massed evidence of industrial activity and material culture. And here our finds when studied in abstraction present a much more evenly toned picture, of a steady romanization in which native tradition blended with what Rome imposed. While the workers dug clay and sand and gravel, and stacked and carried brick and tile and stone, to build what seemed to them a citadel of eternal domination over their country,¹³ clay from the same ground¹⁴ was serving a pottery industry in which Roman and native elements had begun to merge into truly Romano-British work.¹⁵ Rather over a century later even the mass of imported Sigillata was to meet competition in its own kind here from these potters' descendants, and the same is probably true of the imported glass.¹⁶ Meanwhile this period's romanization of unglazed potting is only the intensified sequel to more than a generation of pre-conquest influence on the native craft. Similarly in metal-work, native and imported brooch-types now begin to coalesce in new Romano-British models owing features to both.¹⁷ Native enamel-working was not wholly dead, and its practitioners could take ideas from the polychrome work introduced from the Continent.¹⁸ In ironwork, too, new types appear;¹⁹ and if we had the evidence of perishable substances no doubt the tale could be extended. Behind the bitter hatred of subjects for new masters a material matrix was being formed for the cultural amalgam

¹ Presumably: e.g. site F1 (p. 62) and others (e.g. sites F4, 5, 6, fig. 5 and p. 68, and in section 32, fig. 15, pp. 79-80).

² Site F13 (pp. 46, n. 5, and 52, n. 1).

³ Site A5: p. 91, with pl. VIII, 2.

⁴ Sites A1 (pp. 90-1, with pl. IX) and L3 (p. 104).

⁵ p. 341.

⁷ Site A1.

⁹ p. 180.

⁶ p. 347.

⁸ p. 167.

¹⁰ p. 191.

¹¹ Detailed evidence not compactly quotable.

¹² And of which the Longinus tombstone is so effectively symbolic: p. 18, n. 9.

¹³ Tacitus, *Annals*, xiv, 31, 6. See above p. 39 on building-material for the Temple of Claudius in the Colonia.

¹⁴ p. 121.

¹⁶ p. 288.

¹⁸ p. 333, nos. 7-8.

¹⁵ pp. 205-7.

¹⁷ p. 328.

¹⁹ pp. 341 ff.

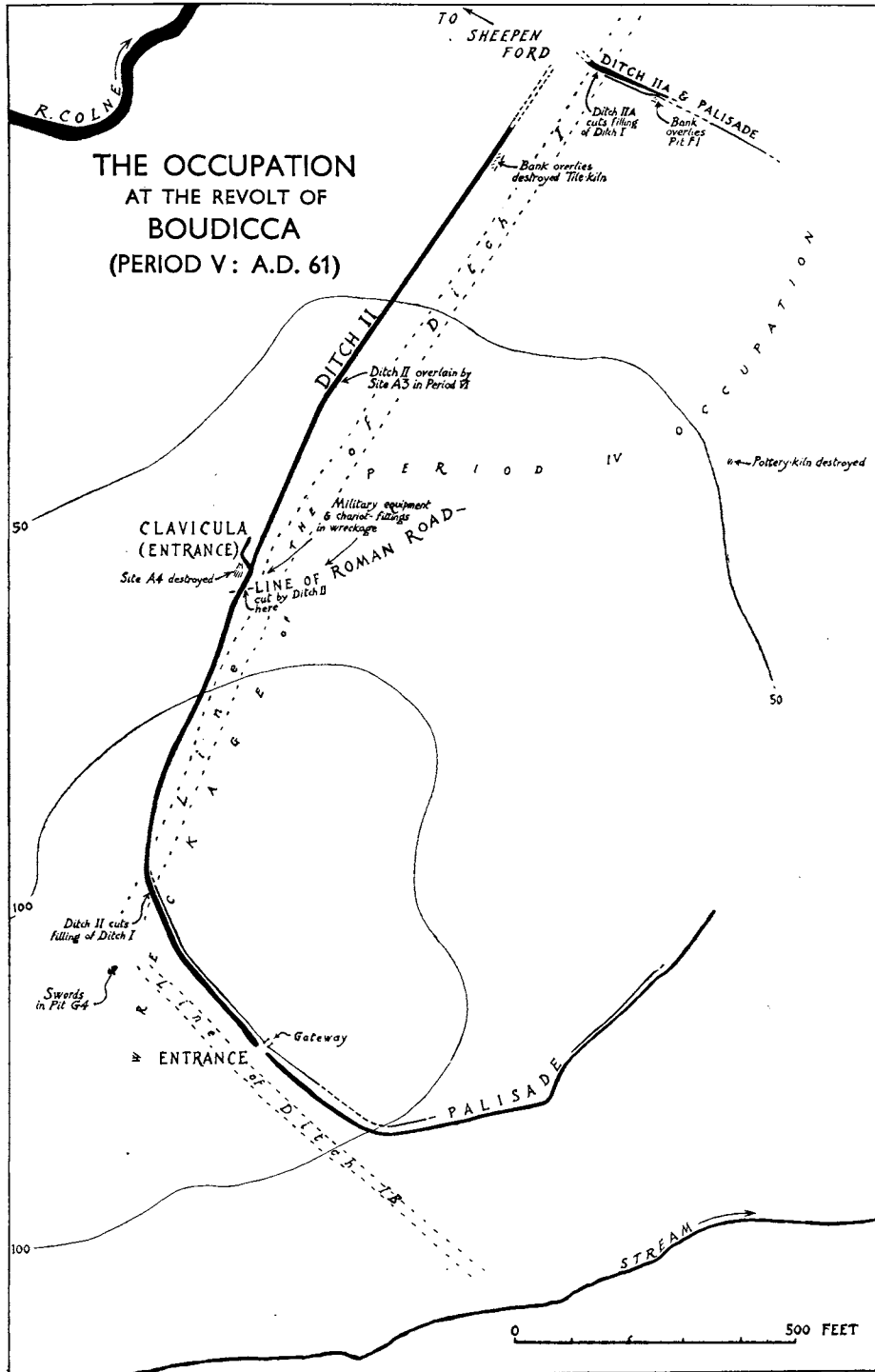


FIG. 4. Plan of the Sheepen site in period V (Revolt of Boudicca). Compare figs. 2 and 3, and the general plan pl. cxii. The line of the period I defences (ditches I-IB) has been added for comparison with that of ditch II. Contours in feet.

of Roman Britain. But before that amalgam could harden, the political atmosphere had to be cooled by the gathering and clearing of the storm of revolt.

Boudicca and the abandonment of Sheepen, A.D. 61-5

Boudicca's rising found Roman Colchester unprepared, and our site has brought telling evidence of a desperate effort to rearm. Yet there was no effective resistance when her onslaught came, and Sheepen and its industries, the Colonia¹ and its temple, met a common ruin. But when the flames died down the significance of the Sheepen site may have been asserted in a new way. If its refortification (fig. 4) was indeed taken in hand by her, the ditch and palisaded rampart were to redraw the lines of Cunobelin's mightier defences. Boudicca will have aimed not only at fortifying a base for her campaign, but at strengthening her cause by founding afresh—and no doubt re-dedicating to Camulos the war-god—the capital of the old Belgic king. Her defeat and death quickly followed. If the refortifying works are not hers, they can only be attributed to the victorious Romans. They will then represent a project for turning the site into a large base-camp, which was countermanded before they had been finished. In either case they were very quickly levelled; and the Roman authorities decided to abandon the site altogether. While the Colonia was rebuilt, the wreckage Boudicca had left behind her here was decently buried in rubbish-pits² and under spreads of gravel; the road was made up; and a sizeable hut of the old type was built in one place over the newly filled-in ditch, for someone—perhaps a native overseer of these humble works—whose family possessions suggest an old loyalty to Rome.³ Soon the works were done and the hut demolished; and but for some continued quarrying, and a shack or two on the eastern outskirts with a little metal-working,⁴ nothing was left.

CHRONOLOGICAL TABLE

Period I	.	.	.	.	.	A.D. c. 10-43
Period II	.	.	.	.	.	„ 43/44
Period III	.	.	.	.	.	„ 43/44-48
Period IV	.	.	.	.	.	„ 49-61
Period V	.	.	.	.	.	„ 61
Period VI	.	.	.	.	.	„ 61-c. 65

¹ The Colonia Pottery-shop destroyed in the sack (pp. 20, 39) produced pottery paralleled on our site as follows:—

DECORATED TERRA SIGILLATA: *E.A.S.T.* xix. 278, pl. 1, 2 (our pls. xxxiv, 14; xxviii, 1); 3 (xxxii, 5, &c.); 4 (xxxv, 7); 5 (xxxii, 16); 6 (xxxv, 2); 9 (xxxiii, 8; xxx, 14); 10 (xxxii, 26; xxxviii, 24, 28); pl. III B (xxxviii, 16).

PLAIN TERRA SIGILLATA: Dr. 15/17, most abundant (our s6); Ritt. 1 (s7); Dr. 18 (s8); Dr. 16 (s9); Dr. 27 (s14 B-c); Dr. 24/25 (s15 B-c); Ritt. 8 (s16); Ritt. 9 (s17); cf. our Table, pp. 188-9.

OTHER FORMS: our f. 17 B, f. 62, f. 94, and a little Gallo-








Belgic Terra Rubra (p. 204), unidentifiable.

² Pits F15, H26 (p. 70), A23, A24, A25, A26, A27, A29 (pp. 85, 95), D3, D4, D10 (p. 107), C15, C16, C20, C21, G2, G3, G4, G5, G6, G7, G11, Y32, Y43, Y46, Y48, Y49, Z4, Z8, Z9, Z12, ditch Z1, ditch Z4 (pp. 115, 121), pit L38 (p. 126). Cf. those on the General Post Office site in London: *Arch.* lxxvi, 235; and Mr. G. C. Dunning's observations on the Boudiccan burning of Roman London and their similar relation to it: *Antiq. Journ.* xxv, 48 ff., 52.

³ Site A3: p. 95.

⁴ Site D10 (p. 107); metal-working, *ibid.*

KEY TO SYMBOLS

Top soil	
Gravel	
Clean sand	
Dirty sand	
Sandy earth	
Light earth	
Dark or dirty earth	
Turf-laminated earth	
Dark clayey sludge	
Loam	
Dirty loam and gravel mixture	
Clay	
Black layers, burnt or charred matter	
Organically preserved timber	
Undisturbed natural deposits are normally	

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Key to the symbols used in sections (figs. 6-36).

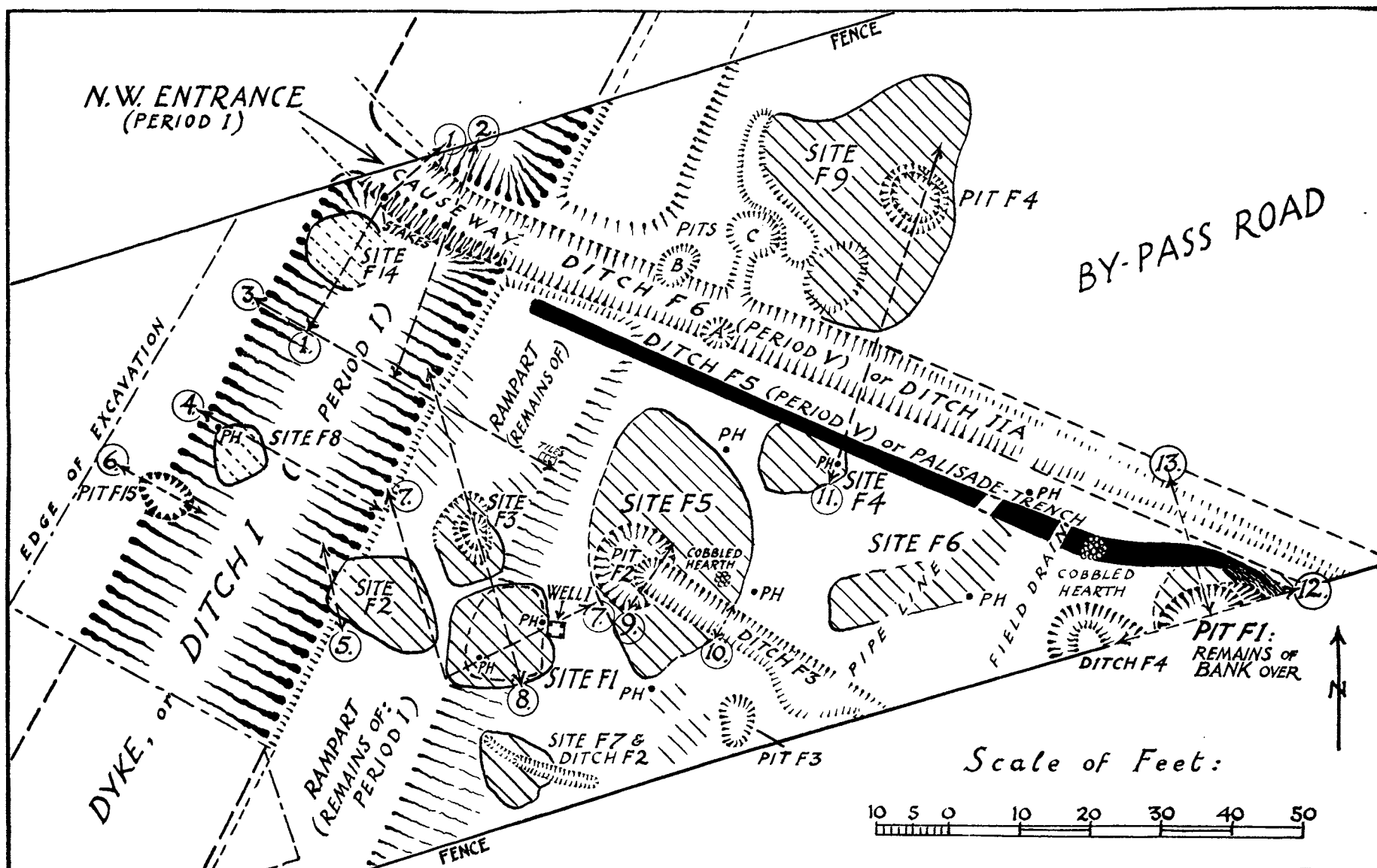


FIG. 5. Detail plan in region 1 (area F), with ditch I and the adjoining features. Compare pl. cvr. The diagonal hatching marking occupation-sites is in broken line where these overlie ditch or pits of period I. PH = post hole. Numbers in circles are the index-numbers of sections: 1-2, fig. 6; 3-6, fig. 7; 7-8, fig. 8; 9-13, fig. 9.

B. THE EXCAVATIONS

INTRODUCTORY NOTE

THE general plan of the site is given on pl. cxii. For purposes of description it has been divided into six regions, numbered 1 to 6. The regions are planned separately on pls. cvi-cxi. The south-western outlying sector at the far end of ditch IA will be described with region 5. The south-eastern outlying sector is occupied mainly by the second-century potters' kilns, and will therefore await our Second Report, but such first-century remains as it has will be described with region 5 also. In the eastern sector of region 1 the late Flavian temple, together with the stone wall bounding its enclosure or temenos, will also await our Second Report.

The scheme adopted for describing each region is as follows:

A. Stratification:

- (i) Key-deposits;
- (ii) Other stratified sequences (if any).

It will thus always be clear which deposits are integral parts of the key-deposit system already explained, and which are related to it only by means of their datable contents.

B. Features by Period.

The same distinction will be emphasized in describing the features assigned, whether by key-deposit or other stratification, or on the strength of finds or by analogy only, to each of the six periods in order.

The division into regions has been made for the sake of convenient presentation to the reader. In the actual business of excavation the site was divided into areas, lettered A, B, C, D, E, F, G, H, K, L, W, Y, Z. The boundaries of these are shown on the region plans, and their distinguishing letters have been retained as index-letters in the numeration of the individual deposits, thus: site A1, site A2, pit A1, pit A2, &c. The only features not so numbered are those whose importance transcends area and region bounds—namely the Sheepen Dyke itself, ditch I, with ditch IA and ditch IB; the period V ditch II, with ditch IIA; and the central roads I and II; also timber-lined wells, kilns, clay-pits, gravel-diggings, and burials.

REGION 1

Plan, pl. cvi; photographs, pls. II-IV; xv, 1

This region comprises two areas: area F, the strip of the By-pass road excavated in 1930, and area H, lying S. of it and N. of Sheepen Road, excavated in 1935 and now the site of St. Helena's School. Between them these cover the bulk of that part of the site which lies on the habitable flood-plain of the Colne. The natural formation is firm flood-plain gravel, usually covered by a foot or two of the fine whitish flood-loam known locally as 'pug'. The average elevation is some 25 ft. O.D., about 5 ft. above the present level of the river, which curves round the region on the N., Sheepen Ford being some 250 yards away WNW. from the nearest excavated point on the By-pass. The almost level expanse of the flood-plain is just diversified by a slight rise towards the eastern edge of the region, crossing area F and chosen in area H for the site of the late Flavian

temple. There were indications in certain places, most notable on the line of ditches F5 and F6, that in antiquity the expanse was not quite so level as now, but these were nowhere very pronounced.

A. STRATIFICATION

(i) Key-deposits

Sequence (a)

Period I. The leading feature is Sheepen Dyke, ditch I, which crosses the W. end of area F obliquely at about N. 28° E. Its width is from 30 ft. to 27 ft. 6 in. With intermissions along the section-lines 1 and 2 and centrally between sections 5 and 6, it was entirely excavated for 85 ft. (measured along its median line) from the N. boundary-fence. Fig. 5 is a detail-plan covering this and the adjacent portion of the area, in which virtually all its key-deposits lie, the chief being in ditch I itself. These are first seen in sections 1 and 2 (fig. 6), which run lengthways along the ditch on either side of its median line. They show how its bottom here falls to form a sort of basin, 1 ft. in maximum depth (between these sections), and how NE. of this it rises for the interruption of

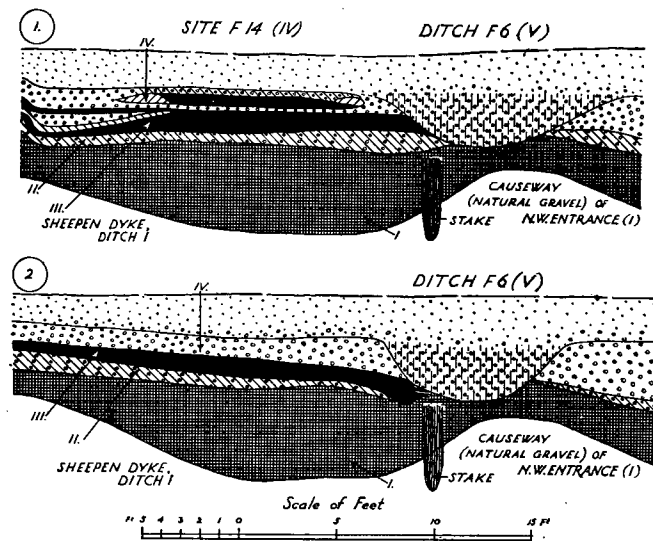


FIG. 6. Region 1: sections 1 and 2, along ditch I at NW. entrance and across ditch F6 (or IIA). See fig. 5.

a natural gravel causeway, still nearly 4 ft. high and originally, allowing for wear and weathering, doubtless flush with the natural gravel of the flood-plain. This was the causeway of the *NW. Entrance* through the dyke. Allowance for denudation will give an original breadth of some 8 ft., and at what must have been its S. edge the stumps of two stout oak stakes were found (fig. 5 and pl. II, 2), standing now 2 ft. deep in the gravel. They were of circular section, just under 1 ft. across and tapering at the bottom: nearly 4 ft. of each survived. One was 8 ft. from the outer, the other 10 ft. from the inner lip of the ditch: they were 9 ft. apart. Perhaps with others now vanished, they had supported a revetment of the edge of the causeway. That the ditch, with this as an original feature, is of period I, is shown by the contents of its primary silting, with those of the sealing-layers above. The stratification is seen in pl. II, 1, and may be studied in sections 1-2 (fig. 6) and 3-4 (fig. 7).

The primary silting was a heavy blackish deposit of sticky sludge 3 to 5 ft. thick. It was waterlogged at the bottom, which, being below river-level, soon filled with standing water on excavation (pl. II, 2), though not actually touching the underlying London Clay. The sludge contained great quantities of refuse, mainly broken pottery and animal bone, and the ditch had evidently been used as an open midden. The pottery includes a good deal of Arretine Sigillata, with stamps including Ateius and Xanthus, but no standard South Gaulish ware. The Gallo-Belgic, also including stamps, was abundant, especially platters, cups, and beakers; there were jugs and flagons in pale wares, many amphora fragments, and ten pieces of wall-sided Roman mortaria (form 191A). These last and two sherds of Roman cooking-pots (f. 266) are the only pieces which suggest a date as late as the conquest; the great preponderance of the pottery was native ware, both fine and coarse. Animal bone was very plentiful: horse (including a complete skull), ox, sheep or goat, pig, dog, fox, and cat are all represented, the food animals greatly predominating. Two of the ox-scapulae may have been used as shovels. The numerous bones of the scavenger raven suggest a midden festering with carrion. Among the other bird bones those of domestic fowl are of special interest as the earliest specimens (with but one elsewhere) yet dated in this country. Oyster-shells were abundant. The charcoal and wood remains were wholly oak and hazel.

Period II. Directly above this sludge lay a deposit clearly formed by the relaying in the ditch of the greater part of the accompanying rampart. This filling of rampart-material is a mixture of gravel and loam, in some places (e.g. section 4, near which was found the impression of the Cunobelin coin 103) positively clayey. It was indiscriminately and evenly spread over the period I silt to produce a level surface, and contained numerous more or less distinct tips or shoots of dirty rubbish, in which a good deal of pottery was included; these had evidently been cleared off the occupied area adjoining. The pottery is in the main similar to that from the sludge below. Native wares predominate, and the Sigillata is mainly Arretine; but with much Gallo-Belgic the Roman wares now extend to several beakers (f. 102, 108 (2), 119 (2)), a bowl f. 218, and another f. 242. This slightly larger instalment would be expected on the morrow of the conquest.

Period III. Above this, as far as but not beyond the line of the entrance-causeway (sections 1-2), was spread a continuous layer of black sooty occupation-earth, about 1 ft. thick, full of pottery and refuse. In one place (sections 1 and 3) a clay floor had been laid, with a hollow, either made purposely or sunk by the users' weight, afterwards made up with gravel; this was an incident within the period, as the black earth extended both below and above. The pottery is significant. Arretine still predominates in the Sigillata, but standard South Gaulish ware now begins to appear; the Gallo-Belgic series now includes specifically Claudian forms like 16A and 16C, and the cup f. 56 (42) and beakers 112 and 113 (32 and 88 specimens) are especially plentiful. Native ware is still abundant, but the Roman list is now much longer: as well as jugs and flagons, amphorae and mortaria, there are not only beakers and bowls, but Roman cooking-ware in appreciable amount.

Period IV. The entire period III layer was covered with clean and rather loose gravel, and this formed a made-up floor, about 1 ft. thick, upon which, though pottery had been trodden into it everywhere, actual habitation was confined to two hut-sites. *Site F8* (section 4) was squarish, with a post-hole recognizable at the NW. corner, and some 8 ft. across; *site F14* (section 1) was rounder and about 10 ft. across, edged by small loam banks where its walls had been. The intensely charred state of both sites and their scatter of burnt clay wall-daub, especially thick in site F14, point to the destruction of both by fire. From these sites and the gravel layer as a whole, the pottery continues the tendency begun in the preceding layers: South Gaulish Sigillata is well in evidence, and Gallo-Belgic somewhat diminished, though the beaker f. 113 is still plentiful (48 specimens). The native list, though by no means small, accompanies a Roman assemblage with definitely Claudian features. An *as* of Claudius (copy, grade II?) was also found (no. 163).

Period V. The stratification in section 1 suggests that the burning of site F14 was rapidly

followed by the digging of the adjacent *ditch F6*. Its attribution to period V is, however, not proved here, and will be discussed separately below (p. 64).

Period VI. The only later feature here was *pit F15*, dug through from the top of the period IV gravel over the outer edge of ditch I (fig. 5 and section 6, fig. 6). It measured 8 by 6 by nearly 3 ft., and its earthy filling contained material probably collected and buried in the final clear-up of the site, including pieces of a 'gladiator' glass cup (p. 300, no. 52).

Sequence (b)

The counterpart of ditch I was of course its *rampart*, of which only the base survived the levelling of period II. Stratified deposits were, however, found both under and over this, whereby

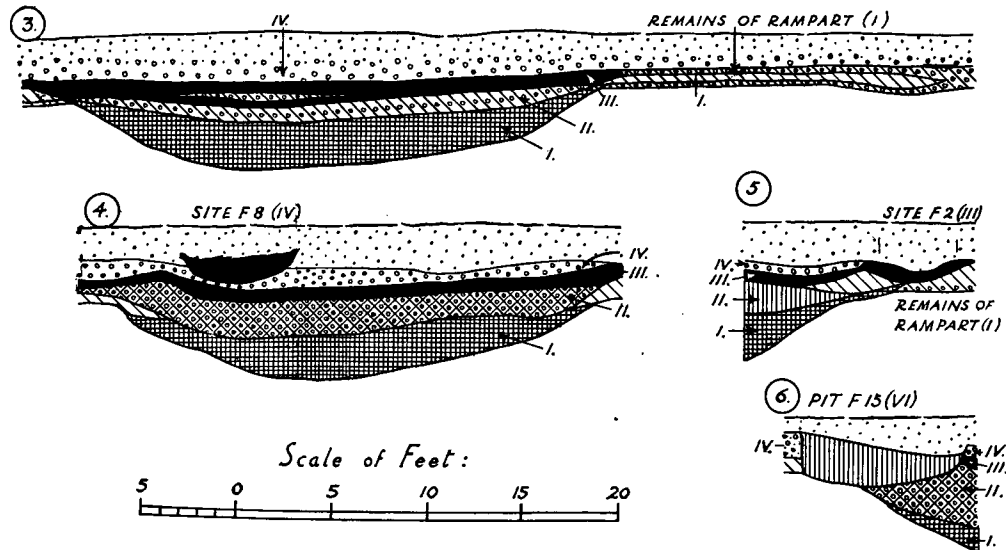


FIG. 7. Region I: sections 3-6 across ditch I or its edges. See fig. 5.

the key system can be extended.

Period I. The base of the rampart was found as an even stratum of laid loam, 6 to 12 in. thick and 25 to 30 ft. wide, running along the inner lip of the ditch. No traces of revetting-timbers were noticed, but the face may, as in Lexden Dyke (p. 13), have been revetted with turf. The stratum petered out opposite the entrance-causeway across the ditch, evidently for an entrance-passage; it was just here that the later ditch F6 cut across it, and traces of an original gateway were not recognized. For the rest, the rampart-base lay on a 4-in. thickness of dirty gravel, representing the old ground-surface above the natural gravel subsoil. In this original surface-gravel, and also in the rampart-base itself, along and S. of the line of section 3, which shows the stratification (fig. 7), was found pottery. This, as antedating the rampart, is the earliest stratified material found, and must belong to the beginning of period I as above defined (pp. 27-8). There was little of it. All was native ware: that sealed in the rampart-base itself consisted only of a few indeterminate scraps; that sealed under it in the gravel comprised sherds of two bowls, f. 217, 218, of soapy-smooth superior ware, and one of a coarse store-jar, f. 271, with four scraps of burnt clay. So small a yield agrees with the view that no serious occupation of this area need be allowed for before the advent of the dyke-builders, to whom in fact these few leavings may well be assigned.

Period II. That the filling-stratum over the ditch I silt is indeed of material relaid from this rampart is confirmed by the way it and the remaining rampart-base lie over against one another

on the lip of the ditch in sections 3 and 4 and in section 8 (fig. 8). The levelling can only have been deliberate, and the surface of the rampart-base as well as of the relaid stratum was used for occupation.

Period III. Section 3 shows how the black occupation-layer over the latter runs directly into a dirty gravel layer, some 6 in. thick, overlying the former; the beginning of the same thing is seen in section 4, and in section 5 (also fig. 7), fortified by an extra tip of loam, the buried lip of the ditch has been covered by a hut-site, *site F2*. It has a floor of blackened occupation-earth of almost pentagonal shape (fig. 5), some 13 by 19 ft., and two of its S. wall post-holes were found, about 5 in. in diameter. One of these is seen in section 7 (fig. 8), which runs obliquely across the rampart-base from NNW. to SSE. (fig. 5). Five feet farther S. the tail of the latter gave place to the blackened earth floor of another hut-site, *site F1*. To follow this the section was turned through a right angle ENE. (fig. 5), and reveals the floor running on this line for 16 ft. It was about 9 in. thick, and lay directly on the natural surface, both here and in the transverse section 8 (also fig. 8),

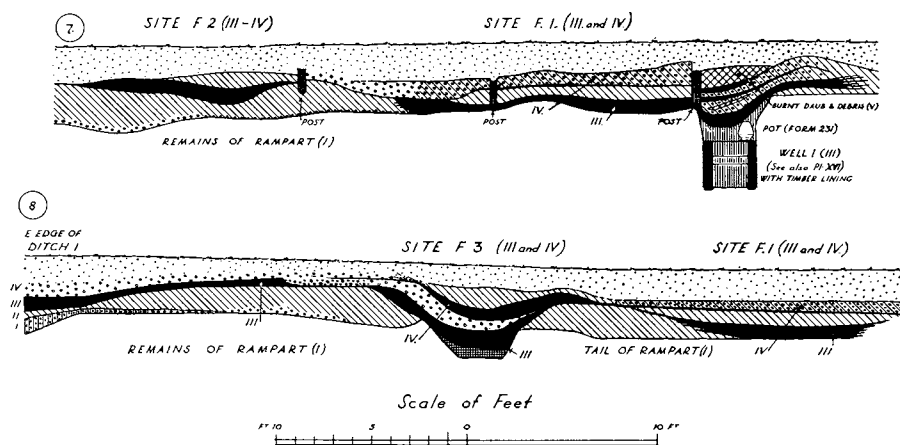


FIG. 8. Region I: sections 7-8, across sites F1, F2, and F3, with well I. See fig. 5.

where it is 15 ft. broad. Its pottery comprises native ware with an instalment of Roman forms wholly consistent with period III. That of site F2 had similar pottery, with Arretine as well as South Gaulish Sigillata, trodden into its floor; but higher in its 9-in. thickness was material showing that it lasted into period IV. Site F1, on the other hand, was then refloored, sealing over its period III material, and the same was done in the third of this group of sites, *site F3*, lying directly N. of it (fig. 5 and section 8). This was hollowed into the rampart-base and through it into the underlying natural gravel (pl. iv, 1): its blackened primary floor, subquadrangular in shape and 13 ft. by 9, ran down to a central pitlike hollow, with flat bottom 2 ft. 6 in. across, covered with damp sludge, the whole yielding typically period III pottery. Its N. edge ran directly, like that of site F2, into the period III occupation-layer over the filling of the ditch, and the gravel with which it was made up for reflooring was likewise continuous with the period IV gravel over that again. Its S. edge just touched site F1. On the E. side of the latter, at the edge of its period III primary floor, a square well was found, *well I*, 4 ft. 6 in. deep from the floor-level and nearly 8 ft. from the surface (section 7; pl. III, 3; fig. 37 and pl. xv, 1). This had a timber lining of oak boards superimposed on edge, retained at the corners by upright posts 2 ft. 6 in. long and 6 in. square. The bottom penetrated to the London Clay, and the whole was full of dark mud, the removal of which produced a foot or so of standing water. The scanty material in it agreed with period III, and in the mud at its mouth was a complete flask f. 231A (pl. LXXIX)-standing upside down. This was covered by

a charred black stratum, sealed by a deposit of dirty loamy gravel, containing a streak of burnt clay wall-daub, and topped by a further black stratum level with the top of the site F1 primary floor.

Period IV. The reflooring of sites F3 and F1 is equated by stratification with the period IV gravel over ditch I, with which the 8-in. gravel make-up in site F3 is continuous, while the black occupation-earth of the floor upon it is in turn continuous with the corresponding new floor of site F1 (section 8). This was laid on a 9-in. make-up of clean loam (cf. pl. III, 3), in which were embedded the roof-posts of a fresh hut. Those at the two S. corners were found, and are shown in section 7, the SW. one $4\frac{1}{2}$ in. in diameter, the SE. 6 in. and standing right on the edge of well I, which must now have been sealed up by the layers just described. Their charred material and burnt daub come presumably from the destruction of the primary (period III) hut contemporary with the well itself. Like the pottery from the upper part of site F2 already mentioned, the pottery from these secondary floors of sites F3 and F1 is typical of period IV. Their native and Gallo-Belgic wares, with a little Arretine survival, were offset by definitely Claudian material: e.g. Roman f. 119, 140 (2), and cooking-pots f. 266/7 (8), with South Gaulish Sigillata, in site F1 floor itself, and Roman f. 161, 218, 231, and 242, with tile fragments, in the material upon it.

Period V. The charred nature of the site F2 deposit, and equally of that of the site F3 secondary floor, suggests destruction by fire. Though that of site F1 was only thin, it also was blackened, and the posts appeared to have been burnt *in situ*; further, while all three deposits yielded burnt clay daub, this one had a regular bank of it along its E. edge, lying on a new charred layer over the previous sealing of well I (section 7). All this is consistent with a destruction of all three sites in period V.

Period VI. Directly afterwards, and so presumably in period VI, site F1 was covered with dirty loamy gravel and sites F2 and F3 with loam.

(ii) Other stratified sequences

Sequence (a)

Period I. Close to site F1 on the ENE. (fig. 5), and perhaps belonging to it, was *pit F2*, a circular straight-sided pit 13 ft. across and 5 ft. deep below the natural loam surface (section 9, fig. 9). Its datable material, accompanied by much food-animal bone, a sawn piece of red-deer antler, oak and hazel charcoal and wood, including a piece of oak 2 ft. 6 in. long and the blade of a small spatulate implement, was exclusively consistent with period I and lay in 9–15 in. of wet sludge. It was probably a rubbish-pit.

Period II (?). This was sealed by 4 in. of rammed gravel.

Period III. The pit and the whole surrounding area was then made up with loamy earth, to provide a floor for a hut-site, *site F5*. This was vaguely hexagonal in shape, and three post-holes, 5–6 in. in diameter, were found on its S. and E. edges, 20 ft. apart and subtending an angle of about 120°. Near the E. edge was a cobbled hearth 2 ft. across. The pottery in the make-up indicates period III, and that from the occupation is in part as early.

Period IV. Most of the latter is, however, of period IV. Then, or possibly already in period III, the site was furnished with a drainage-ditch, *ditch F3*, running off to the SE. It begins in a rounded cut into the make-up over pit F2 (section 9), and assuming a neat V shape (section 10) passes out of the site to broaden into a clay-bottomed sump near the S. road-fence; a slight ditch also ran into this from the opposite direction. Above a little rapid silt it was filled with dirty sludge, and the contents agree in date with the site F5 occupation. They included some pieces of native-baked tile (p. 347), and wall-daub with marks of wattling.

Period V. The latter was burnt, and other signs of fire suggest the same destruction as of sites F1–2–3.

Period VI. The same making-up with gravel followed here also.

Sequence (b)

Period III. SW. of site F5 was a smaller hut-site 12 ft. by 9, *site F7*; its pottery, native, Gallo-Belgic, and Roman, seems to begin in period III, but continues thereafter.

Period IV. The main occupation belongs to period IV, as the pottery and the presence of Roman as well as (p. 347) native-baked tile show. Here, too, a drainage-ditch was dug, *ditch F2*, similar to ditch F3 but smaller. Roman cooking-pot f. 267 with its typical period IV pottery suggests it remained open into *period VI*.

Sequence (c)

Period IV. Under the S. road-fence at the E. end of the area mapped in fig. 5 was found *pit F1*. It did not extend across the nearest trench cut in area H, 10 ft. beyond the fence, and the segment

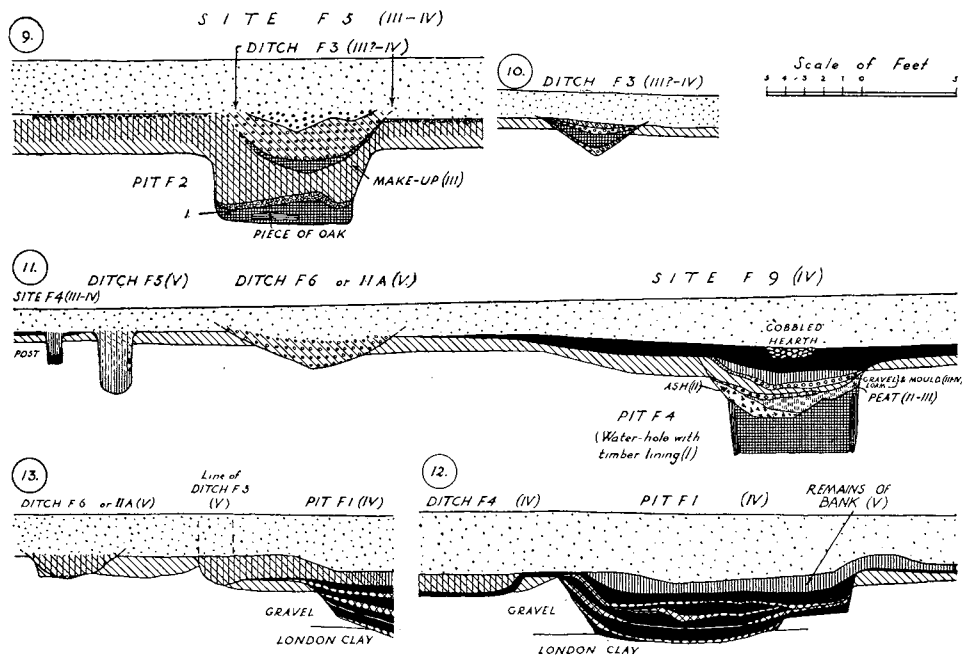


FIG. 9. Region I: sections 9-10, across pit F2 and ditch F3; 11, across ditches F5-F6 (or IIA and palisade-trench), sites F4 and F9, and pit F4; and 12-13, across pit F1 and adjoining features. See fig. 5.

excavated in area F was 4 ft. wide (section 13) and 15 ft. 6 in. along the fence-line (section 12); it was thus not quite circular, measuring perhaps 16 by nearly 14 ft. Its sides were cut down straight and steep to a depth of 7 ft. from the surface, or 4 ft. from natural loam, with a shelf 3 ft. wide, 2 ft. 3 in. below the latter level, curving round its E. end. The main floor reached down to the London Clay and was very wet. The filling consisted of malodorous stiff black mud, seamed by four successive strata of laid clay. The pottery throughout, and round the pit's edges, is to be assigned to period IV. With it, plentiful especially low in the pit, were much food-animal bone, oyster-shells, clay loom-weight fragments, native-baked as well as Roman tile pieces (one Roman piece with plaster adhering), clay daub, and wood and much charcoal of oak and hazel.

Period V. When thus filled nearly full, pit F1 was covered over with a deposit of dirty earth,

which section 13 shows running out northwards into a loamy bank beyond the pit's edge. Beyond, it is not quite clear what is banked-up loam and what natural; but the surface was evidently then higher than now appears, and has since been planed down by ploughing. For 10 ft. from the edge of the pit passes the same *ditch F6* that we have already seen cutting across the period IV stratum over ditch I (p. 60): its whole course from there to the road-fence here was excavated, and the apparent diminution in depth and width which it displays at this end (cf. fig. 5) was seen certainly to be due to this planing down of an original rise in the ground. Thus section 13 shows what is really only its lower portion; however, it was not found again in area H, the other side of the fence, although planing down of the surface had there ceased, so that it must have come to an end within 10 ft. of the fence. Here and throughout its course it contained miscellaneous pottery of all periods to IV inclusive, which is consistent with the demonstration above ditch I (sections 1-2) that it is later than period IV. But there is more to be said.

Nearly but not quite parallel to it on the S. runs a vertical sided trench, *ditch F5*, which has every appearance of being a bedding-trench for a timber palisade. It begins abruptly 5 ft. from the inner lip of ditch I, where it is cut into the remains of the rampart-base close to the interruption caused by the original entrance (p. 58). It is here only 2 ft. from ditch F6, but 50 ft. farther this distance has increased to 5 ft., as seen in section 11 (fig. 9), which shows the profile of both ditches. While ditch F6 remains 8 ft. 6 in. across and 2 ft. deep, of widely splayed V shape and full of loose loamy gravel (cf. pl. III, 1), ditch F5 is 3 ft. deep, with vertical sides and slightly rounded bottom: the bottom was elsewhere nearly flat, as seen in pl. III, 2, which also shows a cobbled hearth laid in the top of its filling (location in fig. 5). The filling was everywhere of dirty loam, containing, like that of ditch F6, pottery of all periods to IV inclusive. Thus when it approached the bank of similar material on the edge of pit F1 its profile was difficult to make out (section 13); however, that it was later than this pit is shown not only by its association with this same bank, but by the fact that on plan (fig. 5) it curves out towards ditch F6 in order to avoid running over it. In a bedding-trench for a palisade which required stability this is natural, though its coming so near the pit at all points to hasty planning. Being thus proved to agree with ditch F6 in post-dating period IV, and to be associated with the loam bank over the edge of pit F1, it and this bank may reasonably be taken together with ditch F6, with which it is so closely aligned, as a single complex. Now in regions III and IV we have the exactly similar phenomenon of ditch II (p. 40) and its associated palisade-trench, which will be proved (pp. 85, 110) to be not only later than period IV, but earlier than period VI—in other words, to belong to period V. We have in fact identified them (pp. 41-3) as remains of unfinished defences erected round the site in that period either by Boudicca or by the Romans after her defeat. It would seem that ditches F5 and F6 here are part of the same defences, their otherwise inexplicable terminations being perhaps accounted for by the unfinished state of these, proved in region 6 (pp. 125-6). The bank over pit F1 will thus be part of the small rampart, upcast from ditch F6, backing the palisade in ditch F5, and all will be of period V together. This may be expressed by calling them *ditch IIA* and *palisade-trench*. The latter was picked up again in area H, and pursued there as far as between 190 and 210 ft. from the road-fence, where it petered out. The argument being inferential, the term ditch II is not used outright, nor are they classed as key-deposits; but they fit so well with the plan of ditch II and its palisade that their identification as the northern face of the same defences may be accepted as virtually certain, and has been adopted in the discussion above (pp. 41-3), illustrated by fig. 4 (p. 55). The convergence of ditch F6 or IIA with ditch II must be located just outside the excavated area some 200 yards from Sheepen Ford, as is indicated by the NW. course on which it passes out of the area under the N. road-fence and by the NE. course of ditch II when last seen in region 2 (p. 77). There was presumably an entrance through the defences there, answering to the original entrance through the period I defences here already described.

Period VI. The filling in of ditches F5 and F6, and consequent removal of the associated bank except where partly left above pit F1, will then have soon followed. Two shallow rubbish-pits dug in the latter's filling N. of site F5, and another connected with it by a short drainage-ditch close by (fig. 5), belong presumably to period VI, but yielded nothing distinctively datable.

Sequence (d)

The last-mentioned pit was dug partly into the edge of a curving bank of clayey loam, bounding a large habitation site, site F9, which will be described in succession to what underlay it, beginning with period I.

Period I. 18 ft. from ditch F6 on the line of section 11 (fig. 9) was a cylindrical pit, *pit F4*, 8 ft. in average diameter and 5 ft. 6 in. below natural loam surface. Its flat bottom cannot lie far short of the London Clay, as over 1 ft. of water stood permanently in it after excavation. It is most naturally interpreted as a water-hole, situated as it is just inside the site's original NW. entrance, for its sides had been carefully lined with large oak barks, set vertically, 3 ft. high; of these a number remained *in situ* (pl. v, 1: cf. section 11). These were almost wholly covered by the mass of dark wet sludge which filled the pit; it contained very little, only nine pieces of oak, a piece of slag, and some purely native pottery (f. 249, 272, 102). This paucity of rubbish supports the water-hole explanation.

Period II. Over this tips of ash and peat turves had been shot in to seal the pit; these contained pottery no later in date (native f. 116, 229, 266, 271; beaker 113), so that the sealing need be no later than period II.

Period III. Above them were successive strata of gravel, loam, and again gravel, with pottery including (with native ware) Roman f. 245, and so indicating period III, when the top gravel stratum will have formed the surface.

Period IV. These strata settled into the underlying pit-filling, so that a layer of stiff clayey mould was required to level up for the floor of *site F9*. This mould contained, again with native ware, Roman f. 119, 185A, 218, 232B, and Gallo-Belgic including, with f. 56 (3), part of a f. 12 fitting pieces from elsewhere in the site F9 floor. It is thus of period IV together with the latter, which yielded, with two Arretine survivals, much South Gaulish Sigillata Claudian at earliest, Gallo-Belgic including, with e.g. f. 5, the Claudian f. 16 and 17, and with much native, bowl, beaker, and cooking-pot also Roman f. 234, 263, 265 (2), and 266/7 (6), and amphora f. 185 as well as 182. No remains of structure were recognized, but the site's blackish occupation-earth had a cobbled hearth in it just over pit F4, and extended over a subtriangular space some 36 by 28 ft., with a shallow oval hollow on the SW., and the above-mentioned loam bank bounding it on the W. There was nothing later than period IV, but destruction by fire was not positively attested.

The remaining stratifications in the region do not call for exposition in formal sequences. They consist partly of minor successions on individual sites. In *site FR3* (section 16, fig. 10) the lowest occupation-level, with a post-hole, and pottery perhaps of period I, certainly of III, was in part covered with a loam floor over which the pottery was certainly of period IV. Similarly in *site FR6* (section 18) material suggesting period I was found in the centre of the floor, the N. edge of which was covered by a heap of loam and gravel obtained by digging a shallow round pit here to a lower level; the pottery in this and in the upper part of the occupation-earth was of periods III and IV. And in *pit F9* (section 20, fig. 11), really only an unusually deeply hollowed occupation-site, the low-level pottery was a typical period I group, and the primary occupation-layer was impinged on at the N. end by a loam deposit coming apparently from the collapse of the wall-bank on this side, with the destruction of the wall marked by a juxtaposed layer of burnt daub, over which a thick stratum of charred material and ash covered the whole occupation-layer; over this a sand floor was laid, and a secondary occupation followed with pottery indicating period III. Thus site F13 shows

reconditioning at the start of period IV, and these other two probably destruction at the conquest, followed by renewed occupation thereafter. And in the S. centre of area H *pit H20*, 6 ft. deep and at least 16 ft. across containing mainly native pottery but also a piece of Sigillata form 29, and so best assigned to period III, had its 2 ft. of filling cut into by two secondary pits, *pits H21 and 22*, the material in which indicates period IV.

The second form of stratification to be noted, in area H, results from the presence over large parts of the area of a recognizable period I loam surface, with a scatter of occupation-material concentrating into more or less distinct patches or sites in places, and with contemporary pits dug in it in others, with over it a varying incidence of floor-surfaces of later periods, often discontinuous and interrupted by pits, vaguer disturbances, and in places of stone structures of the later period distinguished by the two Roman temples. The resulting stratification was often complicated, but is on the whole instructive in general rather than in detail. The features of which it was composed will therefore be noted only under their various periods.

B. FEATURES BY PERIOD

Period I

(a) *Defences (with entrance)*. Described pp. 58–60; and see further pp. 71, 77 ff., 108 ff.

(b) *Occupation-sites*. These may be divided into large, with area approaching or exceeding 1,000 sq. ft., and small, less than half that size. Of the former well-defined examples are in this region

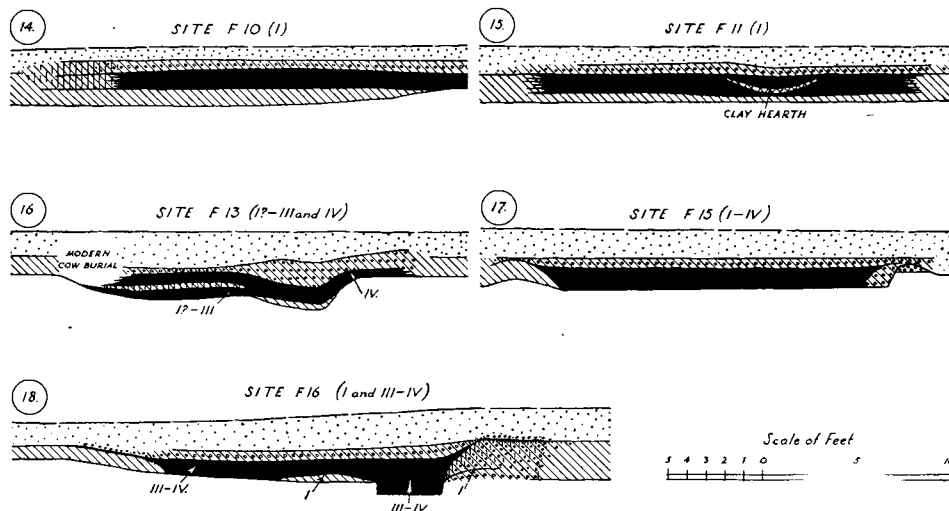


FIG. 10. Region I: sections 14–18, across sites F10, F11, F13, F15, and F16.
See pl. cvI.

rare. *Site F10*, which was bisected by the S. road-fence and only excavated within it, had been more or less circular, 36 ft. in diameter. Section 14 (fig. 10) shows half of its very simple cross-section, with occupation-earth 1 ft. thick lying level upon natural loam; after the close of the period it had been covered with loamy gravel. No structural remains were noticed. *Site F15*, some 200 ft. farther ENE., was a large oval dwelling 40 ft. by 26 surrounded by a low wall-bank (section 17 and pl. iv, 2). This had been made by removing the natural loam over the enclosed area to leave the underlying gravel surface as the floor; on the N. the bank was hard to distinguish from the natural loam, but on the S. it was gravelly, and had been reinforced on the inside. The 15 in. thickness of occupation-earth within was devoid of stratification, and its beginning in

period I is inferred only from the large amount of native and other pre-conquest pottery (e.g. four pedestals f. 202 and one 201, Arretine with stamps 20-21 and (p. 284) graffiti) present besides wares of periods III and IV, into which the occupation continued uninterrupted. The Cunobelin coins 27 and 58 were also found. A few other sites as large may be represented by areas of the occupation-surface in area H, but were less well defined. The smaller type of hut-site was more plentiful. *Site F11*, near site F10, had a squarish dwelling-area floored by level natural loam (section 15) 21 ft. by 17; after 1 ft. of occupation-earth had accumulated, a bowl-shaped clay hearth had been made in the middle, an oval 11 ft. by 8. Structure was represented by one post-hole, 18 in. across and 21 in. deep, on the W. wall-line. The pottery was all period I, and in the layer above the hearth was a gold-plated coin of the Brigantes (p. 135, no. 1). *Site H3* was just inside the ditch IIA palisade S. of F10, which it resembled on a smaller scale, 20 ft. in diameter. A more hollowed-out type was represented by the site called *pit H25*, 50 ft. W. of the later temple enclosure-wall; its flat floor, 10 ft. across, was sunk 1 ft. into the loam and covered flush with occupation-earth. *Pit H24* was another such, 5 ft. across and 1 ft. deep, in the S. of the area: it lasted into period III. On the excavated line running midway between the last-named, SW. from the smaller Roman temple, were six less determinate patches in the level loam surface which may have been regular occupation-sites but were not definite enough for numeration: all had exclusively period I pottery. Another, SW. of pit H2, covered periods I-III, as did *site H2*, 8 ft. across and SW. of the larger temple, adjoining which, however, were two further patches with period I pottery only. A further area of patchy period I and period I-III occupation was trenched along a line parallel with the S. road-fence and some 10-12 ft. from it. And in area F within the fence the initial occupation of *site F13* and *site F16* (sections 16, 18, fig. 10) and of *pit F9* (section 20, fig. 11) has already been given as of period I (p. 65); a period I occupation lasting without break into period III was further noted on *site F18*, SW. of pit F9, which was adjoined by a small pit and other indeterminate occupation-patches.

(c) *Wells*. The untimbered *wells H1 and H2* are possibly but not certainly as early as this period (p. 69).

(d) *Pits*. The timber-lined water-hole *pit F4* has been described (p. 65, Section 11, fig. 9). All the other period I pits in the region resembled *pit F2* (p. 62, section 9, fig. 9) in having been used as rubbish-pits, though this may not have been the primary purpose of all or possibly of any of them (p. 48). They were *pit F3* (an oval 7 ft. by 4, 15 in. deep from loam surface), *pit H3* (27 in. in diameter and in depth below mean loam surface), *pit H4* (7 ft. in diameter and nearly 4 ft. deep from loam surface), *pits H5 and H9* (5 ft. in diameter, 3 ft. 6 in. deep from mean loam surface), and *pit H6* (5 ft. in diameter and depth). *Pit H2* closely resembled H3 and 4, but was barren. *Pits H15 and 16*, in the occupation-area near the road-fence just mentioned, contained pottery largely of this period, but partly of period III, as did pits F3 and H5, 10 and 11 (p. 68).

Period II

Levelling of defences. Described pp. 59-61; and see further pp. 30-2. The abandonment, destruction, or reconditioning of period I sites may theoretically be assigned to this period also, but does not call for separate notice here.

Period III

(a) *Occupation-sites*. Unbroken continuation of the period I occupation is attested on *site F13*, *site F15*, *site F18*, *site H2*, *pit H24*, and the various patch-areas in area H just noticed, where, however, there was a good deal less continuation than cessation at the conquest. New patches of period III were also noticed occasionally in the road-fence neighbourhood, SW. of the smaller and within the area of the larger Roman temple; also near pit H2 and S. of site F15.

Occupation renewed after destruction or reconditioning of period I sites is attested on *site Fr6* (section 18, fig. 10) and *pit F9* (section 20, fig. 11). Of the new occupation-areas and sites now beginning, that over the filling of ditch I, with the adjoining *sites Fr1, Fr2, Fr3*, has been noticed above under key-deposits (pp. 59–62, with figs. 6–8). The remainder are *site F4*, bordered by the palisade-trench (ditch F5), with one recognizable post-hole (seen in section 11, fig. 9); *site F6*, adjoining it, with two post-holes but mutilated by modern pipe-lines; *site F7*, already noticed (p. 63); *site Fr12*, an oval 12 ft. by 8 against the N. road-fence; *site Fr17*, 16 ft. by 9, S. of site F15 and connected with it by a continuous dirt-patch; *site Hr1*, a loam-floored hut-site with vague remains of structure in the W. corner of area H, some 20 ft. across; and the small, sunk-floored site *pit H7*, 6 ft. across. All the above are sites of the smaller category, except site F15; in the larger, we have already described *site F5* (over pit F2, p. 62 and section 9, fig. 9). Except where there were disused features of period I to be covered up (e.g. pit F4, p. 65, and section 11, fig. 9), gravel metalling was not employed in this period, and the occupation in general appears as simply a modified and diminished version of that of period I.

(b) *Wells*. The timber-lined *well I* in area F, described on p. 61 (with section 7, fig. 8), is discussed further below, p. 126 (with pls. III, 3; xv, 1; fig. 37). Of the untimbered wells in area H, *well Hr1* is possibly of this period or (p. 67) of period I, but its contents provide only definite evidence for period IV (p. 69). *Well H2*, under the N. wall of the later building adjoining the SW. corner of the Roman temple-enclosure, was impossible to measure accurately owing to the soft sand, but narrowed downwards: it was cleared to 8 ft. from surface. The large amount of pottery in it was certainly as early as period III, and it may possibly have been open already in period I (p. 67); but it remained open in period IV (p. 69). *Pit Hr1*, SW. of well H1, may be an attempted well-shaft of this period, but was barren.

(c) *Pits*. The continuance of *pit F3* has been noticed (p. 67); *pit H5* (p. 67) and *pit H10* (adjoining and otherwise similar to pit H9: p. 67) may also have continued, with (perhaps) the larger *pit Hr1* (p. 67), adjoined by two minor pits. Other rubbish-pits, new in period III, are *pit H12*, narrow and 4 ft. deep from contemporary surface; the large oval *pit H13*, 6 in. deeper; and perhaps *pit H19*: the last two continued later (p. 69). *Pits H15 and 16* (p. 67) contained some pottery of this period but no later. This is also the date of *pit H20*, later converted into *pits H21 and 22* (p. 66).

(d) *Ditches*. *Ditch F3*, draining site F5, has been noticed (p. 62); *ditch Hr1*, a small drainage-ditch (apparently), 3 ft. 3 in. wide and 1 ft. deep, was found running on a gently curving course directly S. of the ditch IIA palisade line SE. of pit H10: the pottery in it is in part as early as this period (also p. 69).

Period IV

(a) *Occupation-sites*. This period brought considerable changes in the character and distribution of the occupation. The layer of gravel already described in the key-deposit sequence over ditch I (p. 59) is only one instance of a widespread application of this form of metalling to the old, normally loam surface, especially in area H where the previous occupations had been denser than nearer the margins of the site in area F. However, this gravel metalling was often hard to distinguish from subsequent applications in period VI, and again in connexion with the later Roman temples. Only well-defined instances of it in relation to sites or pits of this period will therefore be further mentioned.

Occupation-sites continuing without break from period III are *site F2* (p. 61, sections 7–8, fig. 8); *site F4* (above: section 11, fig. 9); *site F5* (p. 62, section 9, fig. 9); *site F6* (above); *site F7* (p. 63); *site Fr12* (above); *site Fr15* and the connected *site Fr17* (above and p. 67: section 17, fig. 10); *site Fr16* (above and p. 67: section 18 *ibid.*); *site Hr1* (above); and *pit H7* (above); all these are of the smaller category except sites F5 and F15. We have already described the re-flooring now of

sites *F1* and *F3* (pp. 61, 62, sections 7–8, fig. 8; pl. III, 3), and of site *F13* (p. 65, section 16, fig. 10). Of new sites, having described the large site *F9* (p. 65, section 11, fig. 9) and sites *F8* and *F14* over ditch I (p. 59, sections 1 and 4, figs. 6–7), we have to record *pit F11*, an oval site S. of site *F13* with loam-floored flat bottom cut 3 ft. in natural gravel; various less determinate patches in new-laid gravel SW. of the small later temple and W. of it near the S. road-fence; and a considerable scatter under and in the Flavian cella make-up of the larger temple, where with period IV pottery there were coins of Claudius (nos. 143, 145), and a number of interesting British coins (13, 22–3, 25, 76–7, 98). In the S. of the region, too, by well *H2* and pits *H21–22*, the earlier loam surface was overlain by an extensive burnt clay layer 6 in. thick, with (apart from

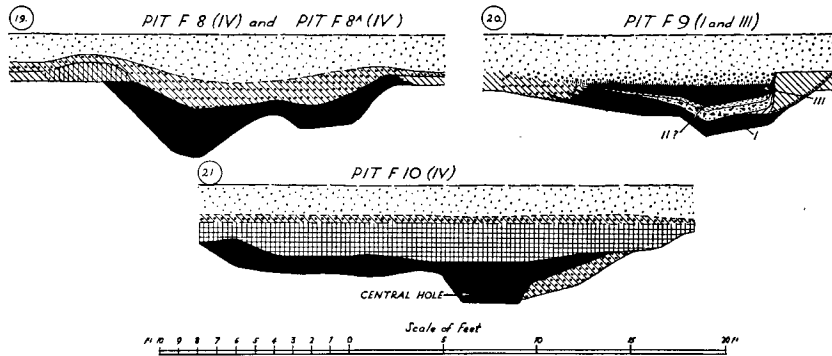


FIG. 11. Region I: sections 19–21, across pits *F8* and *F8A*, *F9*, and *F10*.
See pl. CVI.

earlier strays) period IV pottery and abundant relics of metal-working, comprising bronze fragments and slag, pieces of vitrified clay and crucibles, and much charred matter.

(b) *Wells*. Both the untimbered wells *H1* and *H2* (pp. 67, 68), although earlier dating cannot be ruled out, produced a great preponderance of pottery (with tile) of this period.

(c) *Pits*. *Pit F3* and pits *H13* and *I9* (pp. 67, 68) contained pottery including this period; the digging of pits *H21–22* into their period III predecessor has been described (pp. 66, 68); and *pit F1* also, with its sequence of clay layers. New pits of this period are pits *F11*, *I2*, *I3*, and *I4*, of which *I3* contained, with typical period IV pottery, tile, and vitrified furnace-clay, a quantity of bracken, preserved in the wet sludge on its bottom; pits *H8* and *H14*; and a notable complex of rubbish-pits SW. of site *F15*, comprising two small outliers, pits *F6* and *F7*, a linked pair of larger pits, pits *F8* and *F8A* (section 19, fig. 11), and, enlarged from a deep central hole to measure 34 by 22 ft. and impinge on the latter, the enormous *pit F10* (section 21, fig. 11). The amount of rubbish in them was immense: period IV characteristics dominated the pottery, and with it a varied miscellany included clay daub, Roman tile, pieces of clay loom-weights and other objects, vitrified furnace-clay, slag, bronze objects, notably brooches, iron nails, &c., and an iron latch-lifter, wood and charcoal (oak and hazel), and great quantities of food-animal bone. We cite this simply as a particularly rich example of the sort of assemblage found in all these pits, whether small or large. It remains possible that the large pit 8–8A–10 complex may have originated as a threshing-hollow; on this, see p. 75 below (and above, pp. 48, 52).

(d) *Ditches*. Ditches *F2* and *F3*, draining sites *F7* and *F5*, have already been noticed (pp. 62, 63); the pottery in ditch *H1* (p. 68) extended well into this period. An unexplained semicircular ditch with a flat bottom only 18 in. deep, ditch *F4*, adjoined *pit F1* (p. 63), the topmost filling-layer of which ran over into it (section 12, fig. 9); its pottery also agrees with this period.

Period V

(a) *Destruction.* By far the greatest number of the sites and pits in this region yielded nothing later than period IV, and this abrupt cessation may safely be equated with the Boudiccan destruction. Signs of fire were noted especially in *sites Fr-2-3, F5, F8, Fr2, Fr4* (pp. 61-2, 59-60), and the metal-working area in the S. of the region (p. 69), but of no site can it be said that it was certainly not destroyed by violence.

(b) *Defences.* *Ditches F5 and F6* have been described above and identified with this period's defences as *ditch IIA and palisade* (p. 64).

Period VI

These, as containing nothing datable later than period IV, were presumably filled in directly afterwards, and any of the period IV deposits of which the same is true may only now have been completed. In general, however, the main work of this period was the covering over of the abandoned sites, pits, &c., with gravel. *Ditch F2* and *pits Fr1 and 14* (pp. 62, 69) received a little new rubbish, and the gravel expanses in area H, e.g. by well H2, from time to time included pottery as late as this, distinguishing this period's new applications of metalling from those of period IV. NE. of this, near and over pit H25, the second of two gravel layers displayed a great number of holes such as might be made by large tent pegs (such as would be necessary with leather tents of the Roman type): this (p. 43, n. 3) was the only hint of positive occupation. In that layer was dug *pit H26*, with pottery as late as period VI; this was a small round pit dug 1 ft. into the loam. The larger *pit Fr15*, of this period, dug over ditch I, has been described under key-deposits above (p. 60).

Later Remains

The larger Roman temple, with its polygonal enclosure-wall, was of the end of the first century, and the related occupation, including the small building outside the W. corner of the enclosure above well H2 and widespread new gravel metalling, was mainly of the second century; the smaller temple N. of this was added in the third century.

REGION 2

Plan, pl. CVII; photographs, pls. v-vi; xv, 4

This region comprises area E, the greater part of which is the strip of the By-pass road excavated in 1931. The remainder, a single long trench in the field E. of this and of Sheepen Farm, was excavated in 1934. W. of a point opposite the farm-house, watch on the construction of the By-pass showed no traces of occupation, other than a very extensive area of clay-diggings and brick-field debris, of Flavian or later date; here in fact the Colne comes within some 80 yards of the road-fence, and the hill-side swings away SW. to form the hollow where rise Sheepen Springs. The excavated strip between this and Sheepen Road, the boundary of region 1, lies centrally across the knoll, standing at about 30 ft. O.D., in which Sheepen Hill here terminates above the water-meadows of the river. The London Clay is here only covered by 4 to 6 ft. of gravel and loam; this strip is thus not so dry as region 3 higher up. It lies outside Sheepen Dyke, and largely outside the period V defences also.

A. STRATIFICATION

*Key-deposits**Sequence (a)*

Period I. The Sheepen Dyke, *ditch I*, was revealed in section 22 (fig. 12). It was of softened V form, about 9 ft. deep from ancient (11 ft. 6 in. from modern) surface-level, and originally, it would seem, some 32 ft. wide, but now splayed by weathering to about 36 ft. In the bottom was 12–14 in. of dark sludge, yielding native pottery including f. 116 and 254 and Gallo-Belgic f. 3. Nothing was to be seen of the rampart.

Period II. And the period II filling was not formed simply of rampart-material as in region 1. Apart from a small bed of dirty loam on the W. side, it consisted of clayey earth blackened by burnt material, and it would seem that here the destroyers of the rampart employed the bulk of it for other purposes, and used this part of the ditch as a shoot for destruction-rubbish, resulting presumably from the events of the conquest. It was 20 in. thick and contained little pottery (native f. 128; Gallo-Belgic 2 and 3), and was covered by a thin layer of barren sand.

Period II–III. Above this was a further destruction-rubbish stratum, of a maximum thickness of 21 in. and running not only, like its predecessor, right down from the ditch's inner lip, but right over the outer lip and for some 38 ft. beyond, as a continuous layer 6–10 in. thick (section 23). It contained native ware (including f. 259/60, 260B, 271), much Gallo-Belgic (f. 1, 2 (2), 3, 12, 51, 53, with beaker f. 79, 113 (4), 114), and Roman mortarium f. 191—an assemblage still virtually of period I character, and thus in itself capable of deposit in period II. But since there is already one period II stratum beneath it, and since we are not dealing with a true deposit of rampart-material here, it is better to allow its formation to have lasted long enough to qualify for period III. It is therefore classed as of period II–III; further cases of this will occur presently.

Period III. Period III proper was in fact represented above it by another sand layer, 18 in. thick. The combined pottery-list from this and the gravel layer next above was still not positively later than period III: Arretine (platter-rim); Gallo-Belgic f. 2, 56, 85, with beaker 113 (3); native f. 115 (2), 116, 165, 218, 221, 259; and Roman f. 186 and 193.

Period IV. But the gravel layer obviously corresponds to the period IV gravel found in this position in the region 1 sections (figs. 6–7), and it must be taken as laid, with that, in period IV, but containing only rubbish or type-survivals from the preceding period. Into its W. end was dug *pit E3*, of rectangular profile 4 ft. 6 in. across and 2 ft. 9 in. deep, on the far side of which the gravel had been banked over with dark earth; this and the pit contained typically period IV pottery, and the pit-filling was wholly of intensely black charred matter. The explanation came 30 ft. farther W., where a deep excavation had been made for the accommodation of a Roman *tile-kiln*. The stoke-hole sloped up in the direction of the pit, and its gravelly clay lining was continuous with the surface-level upon the intervening period II–III layer and the earth bank adjoining the pit—made presumably of earth from its excavation. The furnace-mouth of the kiln, 2 ft. 9 in. wide, was found *in situ* (pl. v, 2); it was built of mortared tile and had culminated in an arch, which, however, had had its crown deliberately broken. The flanking walls were cleared for 2 ft. on each side and were of the same build, backed with stiff clay packing, which reappeared in the section in a thick stratum spread for some distance at the back of the kiln. The excavation of the kiln itself was not permitted, and there was no closely datable pottery even in the blackened stoke-hole floor. But the whole stoke-hole and kiln-mouth were choked with clay and tile debris, overfired wasters and other tile fragments, and since on the site as a whole the appearance of tile in quantity coincides with the opening of period IV, the kiln's stratigraphical dating to that period is abundantly confirmed. This will be found of value in the next sequence.

Period V. Since the abandonment of the kiln was accompanied by the deliberate breaking of its

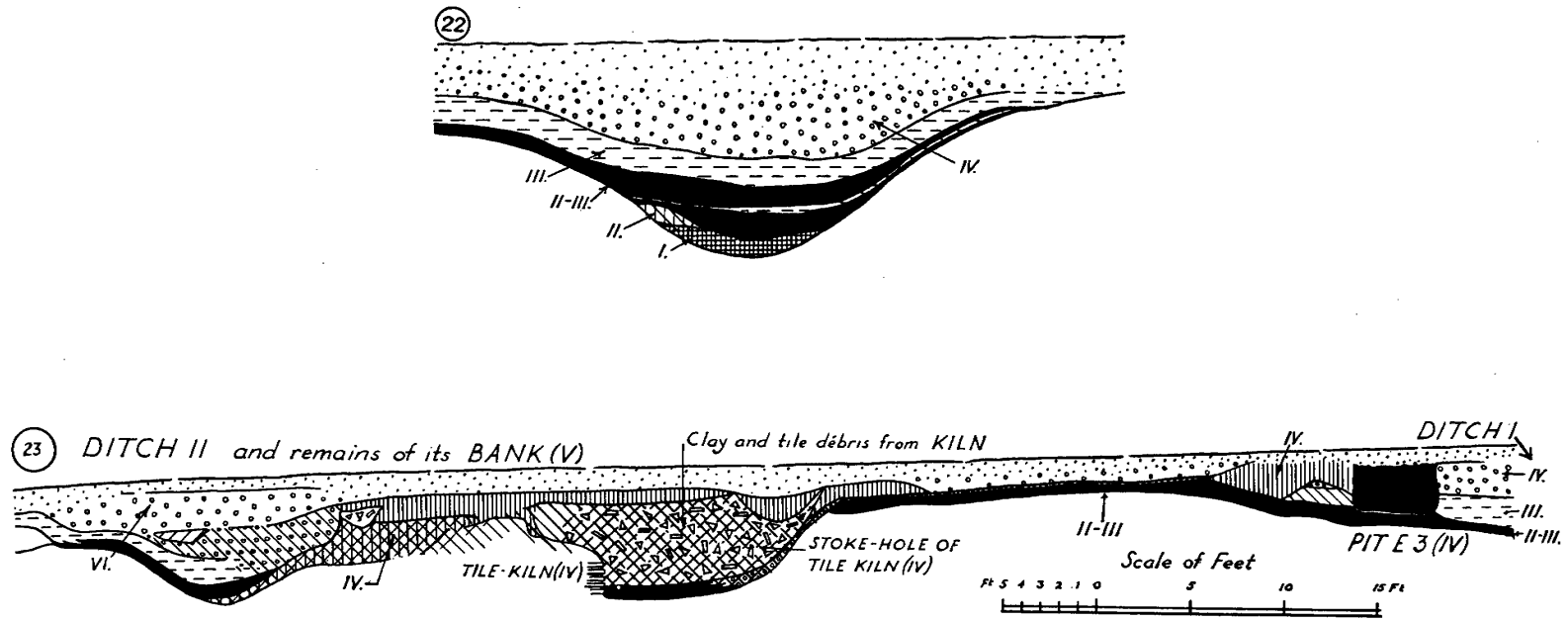


FIG. 12. Region 2: sections 22, across ditch I; and 23, across ditch II and its rampart ('bank'), tile-kiln, and pit E3 (in same line).
See pl. cvii.

furnace-arch, it looks like the work of the period V destroyers; and particular reason for this is supplied by the fact that the site was wanted for the period V defences. *Ditch II*, exactly on the alinement given it at the N. edge of the neighbouring region 3, in fact passes directly behind the kiln, being dug through the clay stratum continuous with its back packing; and from over this to a point 5 ft. beyond the stoke-hole mouth the whole filled kiln-excavation was covered with the upcast from the ditch, spread to form the base of the accompanying bank (just as that from ditch IIA over pit F1, p. 64). And its interlocking with the debris under it at the stoke-hole mouth shows that the filling of the kiln-excavation with debris, and the laying of the bank over it, were parts of one operation. The bank was spread to some 30 ft. wide; there was no certain sign of a palisade-trench, and ditch II itself had an unfinished appearance. It was roughly V-shaped, some 16 ft. wide and 4 ft. deep. It contained a primary silt layer of black destruction-rubbish, 6-8 in. thick, with much period IV pottery.

Period VI. Directly on this lay the gravel-loam refill obtained evidently from the upper part of the bank, with a little more such pottery; above lay loose gravel metalling, as again on the other side of the kiln-site.

Sequence (b)

Period I. Near the middle of the W. portion of the region, but linked with the preceding sequence as will be explained, was *site E1*, roughly circular, 18 ft. across and sunk a foot or so into the natural gravel. As seen in sections 24-5 (fig. 13), it is mutilated by two modern water-mains, but a flooring of grey clay could be made out, shown at its S. end in section 24, and irregularly mingled with sand in section 25. Out of it on the NE. side opened the drain *ditch E4*, and from the rather vague expanse NE. again the further drain *ditch E5*, also fed by a second affluent passing N. of the site itself. The other edge of the site was cut in steps into the gravel, and a gravel ledge and a bank of sand here overlay the grey floor: the wall must have been bedded here, but no post-holes were found. The black occupation-earth on the floor and against this bank (section 25) contained exclusively period I material: an amount of native ware (e.g. f. 259), Gallo-Belgic (e.g. 7, 56) and beaker (84, 113), and the Arretine stamp C.VIB (p. 192, no. 25). Briquetage of Red Hills type (p. 346) occurred; also an iron fire-dog-head, and—a find of particular interest (p. 342)—an iron horseshoe and part of another, definitely stratified with the rest (fig. 64, 1, 2-3). Ditch E4 also contained period I pottery; it ran E. for some 30 ft. undisturbed, and its farther end provides one link with the preceding sequence. It was truncated, after filling (section 26), by the NW. edge of what will be described directly as *Hollow E1*, which at its full extent will be shown to be of period III, and need only be mentioned here because it may, as will be seen, have begun on a smaller scale, not yet in contact with ditch E4, and possibly before the end of period I. This possibility does not interfere with the stratified succession. The other link with sequence (a) is provided by site E1 itself.

Period II is there only represented negatively by the breaking off of the occupation and the disappearance of whatever structure it carried.

Period III. Directly afterwards, site E1 was covered by what is left of the gravel and sand upcast from the digging, close past its S. edge, of *ditch E3*. This remarkable ditch, profiles of which are seen in sections 24-5-6, ran on a sinuous course right across the region, coming from the direction of Sheepen Springs, and it will be identified below (p. 76) as an aqueduct bringing water therefrom. It must have been closed in, and so has no primary silt. It was filled, on disuse, artificially and all at once, with a uniform packing of hard-rammed gravel. This contained patches or pockets of dirty earth, rubbish, and charcoal, and they contained an assemblage of pottery unmistakably of period III and no later. The correctness of this dating is stratigraphically confirmed by the fact that, where the ditch passes closest to the period IV tile-kiln above described, no wasters or

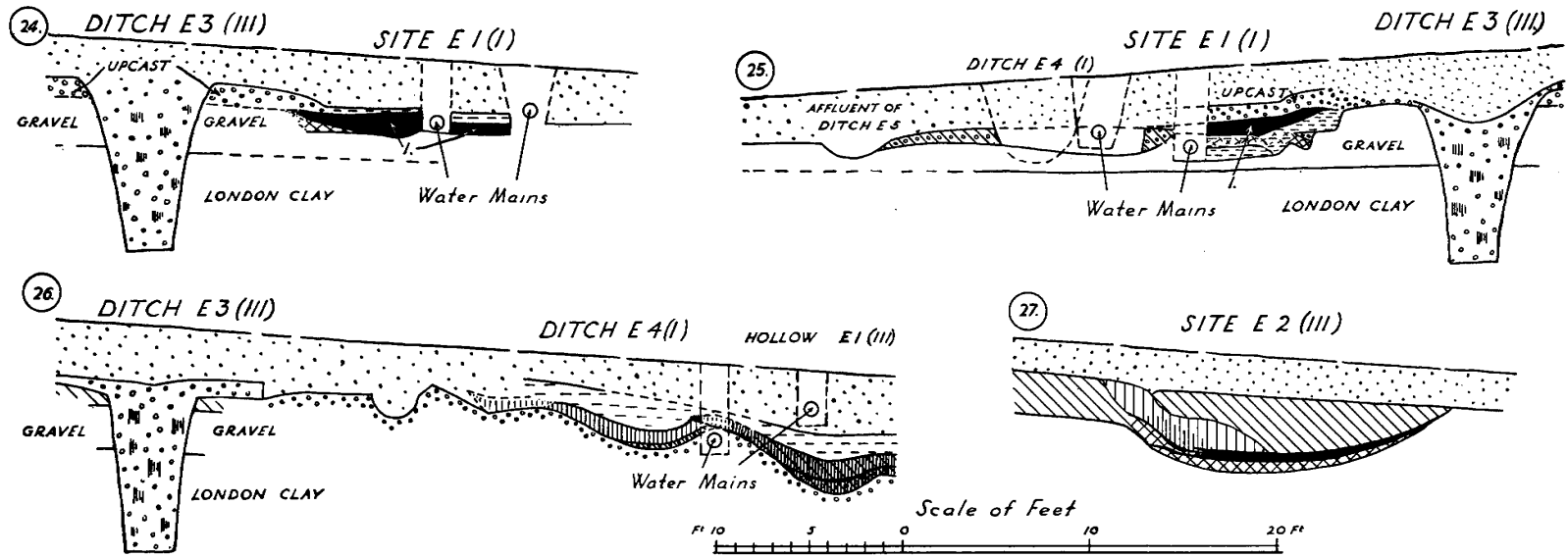


FIG. 13. Region 2: sections 24-6, across ditch E3, site E1, ditch E4, and hollow E1; and 27, across site E2. See pl. CVII.

other tile-rubbish from it were found in it below the top of the filling. This would be inconceivable if it had been filled in period IV, especially since it is here directly adjoined on the N. (the side farther from the kiln) by *hollow E1*, which had waster tiles evidently from the kiln scattered in great profusion *over* its filling; whereas the filling itself was of muddy loam, and, like the otherwise dissimilar filling of ditch E3, contained none. Both ditch and hollow were therefore filled no later than the establishment of the kiln in period IV; and as the upcast from the former overlay site E1, and the edge of the latter truncated ditch E4, the dating of these by pottery to period I is stratigraphically confirmed, and ditch E3 and (in its final form at least) hollow E1 will have been dug in period III. Both the latter, and the neighbouring hollow E2, will be discussed under this period below.

Period IV in this sequence is then only represented by the scatter of wasters over the filling of hollow E1 from the kiln.

B. FEATURES BY PERIOD

Period I

(a) *Defences*. Described p. 71; and see further pp. 58–60, 77 ff., 108 ff.

(b) *Occupation-sites*. In this region outside the defences sparse occupation is to be expected. The single *site E1* has been described p. 73 (sections 24–5, fig. 13). *Hollow E1* is noticed under period III.

(c) *Ditches*. *Ditch E4*, and the shorter *ditch E5* and its affluent, draining site E1, have been described *ibid.*

Periods II and II–III

(a) *Partial levelling of defences*. The destruction-rubbish in and adjoining ditch I has been described, p. 71; and see further p. 32. That site E1 was destroyed and its drainage-ditches filled at the conquest is further suggested by the exotic brooch of type VIA (no. 52, p. 312, pl. xcii) found in the filling of *ditch E4*, the pre-conquest importation of which is less likely than its arrival with the invading Roman army.

Period III

(a) *Occupation-sites*. *Site E2* was a circular hut-site 16 ft. across, clay-floored, with remains of a wall-bank on the S., and hollowed into the gravel (section 27, fig. 13); with pottery typical of this period it contained a British coin (pp. 141, 162, no. 135).

(b) *Hollows*. Two extremely large hollows adjoined site E2, *hollow E1* on the W., *hollow E2* on the E. The latter was at least 40 ft. long; its E. edge was ill defined, but it agreed in character entirely with hollow E1. This was in shape an irregular oval, nearly 60 ft. from E. to W., and some 35 ft. from N. to S. On the NW., as has been seen (p. 73), its edge truncated ditch E4, a period I drainage-ditch then already filled. This edge is then no earlier than period III, and that may well be the date of the whole hollow. But it need not all have been dug in one period, and if begun from a smaller nucleus not yet in contact with ditch E4, this nucleus could perhaps be as early as period I. For the explanation of the hollow, and of hollow E2, must surely be the same as that of the closely similar hollows recognized, e.g., in the Iron Age farm-settlements of Little Woodbury, Wilts.,¹ and Meon Hill, Hants,² and the Romano-British settlements at Choseley Farm, Odiham, Hants,³ and Elmswell, E. Yorks.⁴—the first three on chalk, the last on gravel as

¹ Bersu in *Proc. Prehist. Soc.* iv, pt. 2, 311; vi, pt. 1, 64–78.

² Bersu, *ibid.*, 103–4; Liddell, *Proc. Hants Field Club*, xiii, pt. 1, 7 ff. ('cutting III'), with fig. 2. Others at Park Brow, Sussex: *Arch.* lxxvi, 30 ff. ('hut-sites'), figs. P, T.

³ *Proc. Hants Field Club*, xiv, pt. 3, 367–8.

⁴ P. Corder, *Excavations at Elmswell, E. Yorkshire* (Hull Univ. Coll. and Hull Mus., 1940), 22–3; *Antiq. Journ.* xx, 339.

here. These have been identified, on the initiative of Dr. G. Bersu at Woodbury, as working-places for the hand-threshing of grain. As such, they were dug and filled up piecemeal, as required for each succeeding year's harvest. The date of hollow 1's full extent is therefore not necessarily that of its beginning. However, both it and hollow E2 might easily have been completed in the four or five autumns of period III, and in default of further evidence this will be taken to be their main period. They had the form of continuous uneven scoopings in the gravel, down to about 4 ft. from contemporary surface, filled up with muddy earth, dirty and with occasional black streaking, and mixed in its lowest level with gravel (section 26). This earth contained nothing datable, but the period IV tile-rubbish lying upon (never in) it has been already explained. Above was a covering of sand, doubtless of period VI. These hollows, with which certain of the larger pits elsewhere (e.g. pits F8-8A-10, p. 69) may possibly be comparable, are noticed further on p. 52. A barren hollow touched in the SW. corner of the region may perhaps be another.

(c) *Wells*. NW. of site E1 was found *well IV*, the timber lining of which provides a fine specimen of shoulder-jointed framing, discussed below, p. 128, with fig. 40 and pl. xv, 4. The average internal measurement is 2 ft. square, the plank-ends projecting up to 1 ft. Five courses and parts of a sixth were found *in situ*, but after 5 ft. of the shaft had thus been opened the By-pass road engineers intervened, and the rest had to be left unexcavated. Thus the only find in the filling was a piece of Roman mortarium f. 191, and the attribution to period III is not really certain. SW. of site E2 was a rectangular pit, *pit EI*, 3 ft. 6 in. by 3 ft., which was probably intended as a well-shaft; the pottery in the filling was no later than this period, and it may have been associated with site E2.

(d) *Aqueduct (ditch E3)*. The stratigraphical position of this has been explained, pp. 73-5. Excavation of it totalled rather over half its observed length of 80 yards. It was found to enter the region at its SW. corner, coming in between the 35 ft. and 40 ft. contour-lines NE. from the direction of Sheepen Springs (pl. cxii); it then turned ENE., to run nearly parallel with the road-fences. After about 30 yards it bent a little S. of E. and described a gentle S-curve, which left it running out of the excavated area pointing nearly ESE.; it was not found again. Throughout, its profile and dimensions remained almost constant (sections 24-5-6, fig. 13; pl. vi): width at top, average 5 ft., splayed to 7 ft. at W. end; at bottom, 2 ft. 6 in. throughout; depth, almost exactly 9 ft. from ancient surface throughout (average 11 ft. 3 in. from modern surface). The sides, somewhat splayed above where cut through loam and gravel, are lower down, where cut through the stiff London Clay, always within 5°-10° of vertical. The bottom is invariably flat and sharply squared, and with no primary silt upon it. The whole must therefore have been lined, presumably with timber, and probably covered over, but no trace of the lining was found. Its deliberately rammed filling of gravel, with pockets of rubbish, has been described above and dated from its pottery-content to period III (p. 73). Its explanation as an aqueduct is confirmed by these further facts: at the upper excavated end nearest to Sheepen Springs, water flowed in so fast that a pump had to be kept continually at work to keep it clear; the exploitation of the Sheepen Springs water-supply by an aqueduct is to be expected of the Romans in period III, after their arrival and before the transfer of the main civilian occupation to the Colonia in period IV; and the ditch's sinuous course is readily explicable in terms of the contour of the knoll round which it here runs. Repeated measurement showed that the gradient of its bottom was almost exactly even from end to end of the 80 yards examined, the vertical extent of the fall in that distance being just 3 ft., equivalent to a gradient of 1 in 80. It is possible that it was never finished, but in any case its abandonment and filling within period III point to a change of policy by the Romans which fits well with the change in the character of the whole site dictated by the foundation of the Colonia, the dividing-line between periods III and IV.

Period IV

The regular occupation of the region now ceases, except for the *tile-kiln*, with its *pit E3*, described above (pp. 71-3, section 23), and the possible continued use of *well IV* (p. 76); a small drain, *ditch E1*, running N. into the filling of ditch E3, may also be of this period.

Period V

The *defences*, ditch II, palisade, and bank, running over the now destroyed tile-kiln, have been described (p. 73, section 23); ditch II reappeared at the extreme E. of the region beyond hollow E2.

Period VI is only represented by covering-layers of gravel and sand.

REGION 3

Plan, pl. cviii; photographs, pls. vii-xi

This region is separated from region 2 by the Sheepen Farm buildings and lies between the gravel-pit (p. 22), some 50 yards S. of them, and the brow of the hill 150 yards farther S. Its E. boundary is the hedge bounding its containing field, O.S. no. 496; on the W. it is for the most part bounded by the square of the municipal water-enclosure round Sheepen Springs. The hill rises steadily from N. to S., from 60 ft. O.D. at the gravel-pit to over 100 ft. at the S. limit of the region. The formation below modern plough-soil is wholly sand and gravel drift, of very variable consistency; the flood-plain loam has been left behind, and the London Clay remains deeply buried. The region is thus well drained and is suitable for habitation but for the disadvantage of its exposed northern aspect. For excavation it was divided into three. Area A, excavated in 1931 and 1932, extended from the gravel-pit to the diagonal foot-path—formerly (p. 21) a hedgerow—which runs, from the N.-S. foot-path along the E. boundary, past the S. fence of the water-enclosure; in its SE. corner is the sand-pit previously mentioned (p. 22). S. of this line there were excavated the N. division of area B on the west, and the N. division of area C on the east, both in 1932, an unexcavated strip being left between them. The steep slope NW. of area A was also left unexcavated, as lying well outside the defences.

A. STRATIFICATION

*Key-deposits**Sequence (a)*

Period I. The Sheepen Dyke, *ditch I*, crosses the region from NNE. to SSW. It is carefully laid along the easy spur, with a mean gradient of 1 in 15, between the hill's gentler NE. face in region 4 and the steep slope towards the springs. Midway along it is the site of the original W. entrance; this sequence is confined to the sector N. of that. The exposure of the greater part of the ditch's cross-section in the gravel-pit is shown in pl. vii, 1; this was taken in 1934, but the exposure attracted attention as early as 1930, when an excavation was made behind it, as a preliminary to the work of the next year, in what was then the margin of the pit.

This produced section 28, seen on fig. 14 with sections 29-30-31, which were taken in 1931 at varying intervals beyond, the four together giving a fair sample of profile and stratification. The measurements of the ditch are:

Section 28:	width,	29 ft.;	depth,	8 ft.;
„ 29:	„	32 ft.;	„	8 ft.;
„ 30:	„	34 ft.;	„	8 ft.;
„ 31:	„	42 ft.;	„	10 ft.

THE EXCAVATIONS

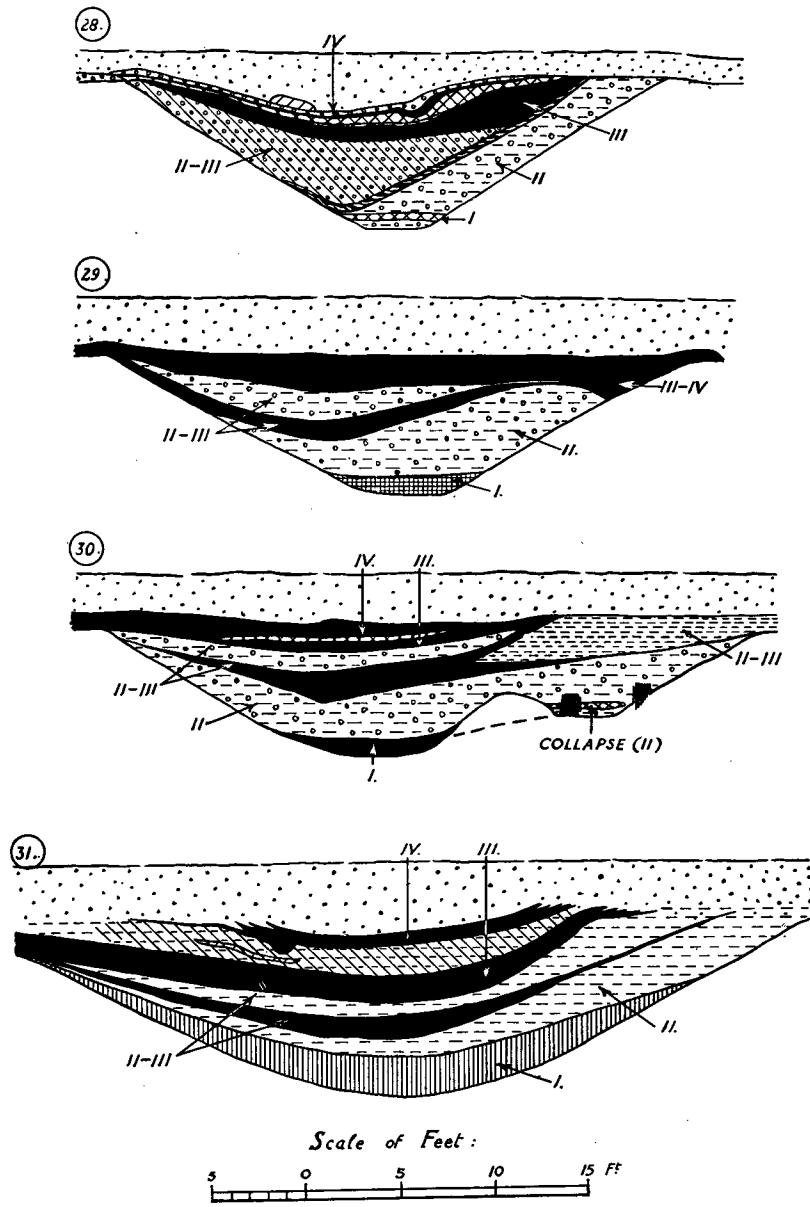


FIG. 14. Region 3: sections 28-31, across ditch I. See pl. cviii.

The widening at section 31 was perhaps intentional, as flanking the near-by entrance (cf. section 41 on the other side), though the softness of the natural sand has also to be considered (as there); in section 30 it is simply due to a collapse of this sand on the ditch's inner lip and is not original (see under period II). The primary silt was in section 28 of gravel under washed clay, in 29 of clayey mixture, in 30 of the same blackened (all 1 ft.), in 31 of clayey-sandy earth (2 ft.): the clay evidently

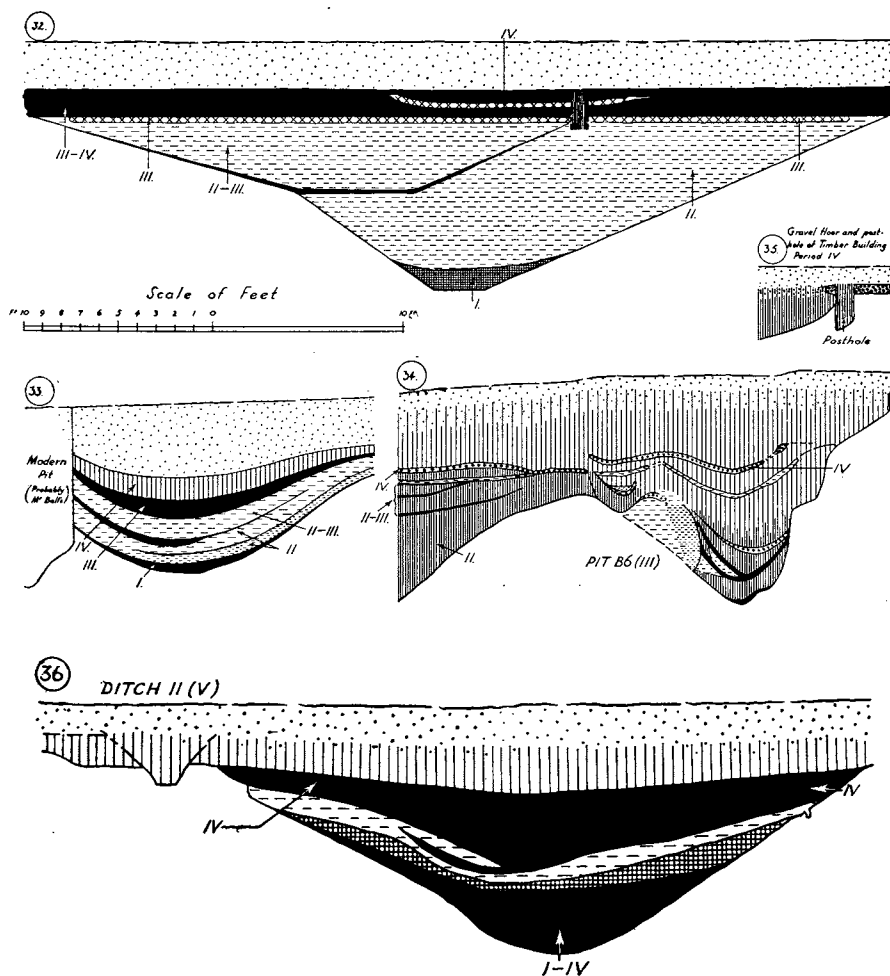


FIG. 15. Region 3: sections 32-6, across ditch I, with pit B6, &c., and ditch II
See pl. cviii.

came from the forward face or foot of the associated rampart, where a little of it was found *in situ* opposite section 32. In this section (fig. 15) the ditch was 9 ft. deep and 45 ft. wide, the width being again due to the soft sand, which has caved in on the outer lip; the primary silt is again 1 ft. of clayey mixture. Pottery was obtained from this silt in all four sections. Its paucity compared with that from region 1 is due partly to the relatively small amount of silt here permitted by the downhill scour along the ditch, partly perhaps to a less intense period I occupation in this region.

Period II. The rampart in all these sections has been filled back into the ditch in two successive stages. Only the first has been classed as genuinely of period II. It produced a filling-deposit

which in section 28 was enough to cover the primary silt, but extended down the inner face of the ditch only; in sections 29 and 32 it was thick enough to reach half-way up the outer face; and in sections 30 and 31 it was evenly spread to cover both faces, hollowed after the profile of the ditch in the middle. In the last two sections it was of pure sand, in the rest of sandy gravel—the natural formation in which it had been originally dug from the ditch comprised both, in varying proportions. In section 30 the re-filling brought on the collapse, already mentioned, of the sand forming the inner lip of the ditch: a pocket was formed in the ditch-face below, and in this and under the filling-deposit was found a puddle of clay and two very disintegrated stumps of oak, all evidently from the rampart. The pottery from the filling-deposit was not abundant.

Period II–III. This designation has been adopted for the second of the two filling-stages, on the same principle as for the analogous deposit of destruction-rubbish in section 22, region 2 (p. 71). Its deposit was separated from that of period II below it by a black layer of burnt material, varying in thickness from 3 in. in section 32 and 6 in. in section 28 (where it was densely packed with oyster-shells) to 15 in. in section 29, 16 in. in 31, and 21 in. in 30. This represents a doubtless short but yet uncertain lapse of time, and the pottery from it and the filling-deposit above (clayey gravel in section 28, sandy gravel in 29 and 30, and pure sand in 31 and 32) has therefore been classified under the period II–III heading. In section 30, above the collapse just noticed, an extra deposit of rather dark sand, intercalated in the back layer, has also to be included.

Period III. As in the region 1 sections, however, the first occupation-layer above the filling is wholly of period III. It consisted of blackened material, 6 in. to 2 ft. thick, and in section 32 lying upon a laid clay floor 4 in. thick, which lateral clearance proved to be 25 ft. wide. No structural remains were found in it in this sector. Its pottery was typical of period III, accompanied on the section 32 floor by a *dupondius* of Claudius (Antonia; copy, grade I: p. 146, no. 125), and off it (strictly period III or IV) by a British coin (no. 136; pp. 141, 162).

Period IV. Simultaneously with the laying of this period's gravel above the filling in regions 1 and 2, the period III occupation-surface here was variously and discontinuously covered over. In section 29 nothing was put down, and a single occupation-layer continued to accumulate; in section 31, 18 in. of loamy sand with a contained clay patch was laid (with Cunobelin coins 18 and 32); in 30, there was a clay patch 12 ft. across in the middle only, presumably a hut-floor; in 32 there was another, which was cleared also laterally and proved to be an oval hut-floor 14 ft. by 12, associated on the line of the section with a post-hole 9 in. across and 2 ft. deep. The pottery in the occupation-layer on it was distinctively of period IV, as was that from the equivalent other layers; five British coins, four of Cunobelin (nos. 46, 50, 81, 89, 146), were found on this oval hut-floor. In section 28 there was a similar hut-floor right across the period III layer, with a clay floor averaging 6 in. thick, on which was much period IV pottery. It is not possible to show this string of occupation-areas satisfactorily on plan (pl. cviii), but the filling-surface in this period, even more than in the last, was clearly marked out deliberately as a habitation-area (cf. fig. 3, p. 52).

Periods V and VI were represented here respectively by the burning of the hut, leaving much burnt clay wall-daub, and a covering of loose gravel; there is every reason to think the period V destruction here was general.

Sequence (b)

Period I. Ditch I will now be considered in the sector S. of the entrance-area. S. of the widening adjacent to the entrance on this side, as on the other (p. 79), the ditch resumed its average width of 32–4 ft.; near the S. limit of the region it was apparently rather less, but this seems to be due to the erosion of the hill-brow gravel through which it is cut. The bottom was only exposed here in section 36, where it lay 13 ft. below modern, 10 ft. below ancient surface. Being here close above the catchment-area of Sheepen Springs, it was wet, and choked with a mass of dark sludge, containing pottery and animal bone, and for 3 ft. up black with charred matter. There had, how-

ever, here been no filling in period II or II-III, and no period III occupation-layer; this portion of the ditch in fact remained as an open rubbish-shoot well into period IV, as the Roman elements in the pottery make clear. Material from this section has therefore been excluded from the key-deposit lists of pottery.

Periods II and II-III. 40 ft. N. of it, the normal period II filling was found, and is shown over the inner lip of the ditch in section 34, formed of sandy earth. In its upper part were two black layers, the analogy of which to those in sequence (a) require these levels to be classed as of period II-III; little pottery was here found.

Period III. While rubbish continued to be shot in section 36, *pit B6* was dug on the ditch's inner lip in section 34, cutting the edge of the period II filling. The soft natural sand under this, when the pit was about a quarter full of charred and other rubbish, collapsed partly into it, after which some gravel was put down and the earthy filling of the pit completed; over it was laid a thin layer of sand, answering to that over the filling of the ditch. The pottery in the pit was none of it later than period III in type. That in *pit B4*, dug in a similar position just by section 36, was indeterminate, but may be contemporary.

Period IV. Immediately N. of *pit B6* was a third pit in this position, *pit B7*, which contained pottery pointing certainly to period IV, and was not sealed by the ubiquitous gravel metalling typical of this period, which was widespread here otherwise. This metalling is seen sealing the period III *pit B6* and the adjacent ditch-filling in section 34; in the small section 35 the S. edge of this pit is seen with the gravel not only running over it but associated with a post-hole, 1 ft. across and 2 ft. 6 in. deep below the gravel surface, belonging to a timber building. The remains of such buildings here will be noticed under this period below (p. 90). Lastly, in section 36 the rubbish-filled sludge in the ditch was covered over with sand in the course of, perhaps early in, the same period. There was period IV material amongst the pottery below the sand, and a great deal more above, in a second deposit of black matter that filled the ditch to its mouth, over which was earthy material, perhaps a further covering-layer, still of this period.

Period V. The earthy layer was continuous with the natural subsoil over the outer lip of the ditch, and into the latter had been cut the bottom of *ditch II*, only 1 ft. of which was discernible owing to the denudation of the hill already mentioned. It was widely splayed and had a flat bottom 6 in. wide. This is the latest feature of the sequence: it will reappear in the next in more important relationships.

Sequence (c)

Period I. This sequence deals with the area of the W. entrance. Section 31 has already shown us *ditch I* widened in the sector directly N. of it, but section 37 (fig. 16), 65 ft. farther S., shows it beginning to narrow down again, here to 30 or 28 ft., with a bottom, without discernible primary silt, only 6 ft. below contemporary surface. From here for 35 ft. farther the lengthways excavation of both its lips showed them to be drawing steadily together, till they came to no more than 15 ft. apart. This was just S. of section 33 (fig. 15), which shows the outer lip cut by a modern pit, most probably one of the diggings of Mr. Ball a century ago (p. 21). The ditch was here still a good 6 ft. deep, with a little blackened primary silt of period I, but it did not attain this depth again till section 44 (fig. 17) is reached, 40 ft. farther S. And throughout this 40 ft. its width was never more than the 19 ft. shown by that section; it shrank indeed to only 15 ft. at its narrowest, and did not attain 20 ft. before reaching section 38 (fig. 16), 12 ft. beyond, where its bottom is actually only 4 ft. 6 in. below from contemporary surface, and still without any primary silt. Beyond again, on the other hand, section 39 shows the width increased to 25 ft., the depth to 7 ft., and primary sand silt of period I once more present. Then follows section 40, 14 ft. farther, with a fairly normal width of 33 ft., and a depth which is as little as 7 ft. only because of a collapse of the soft natural sand of the inner face, which made true V shape impossible. Next, section 41 shows

THE EXCAVATIONS

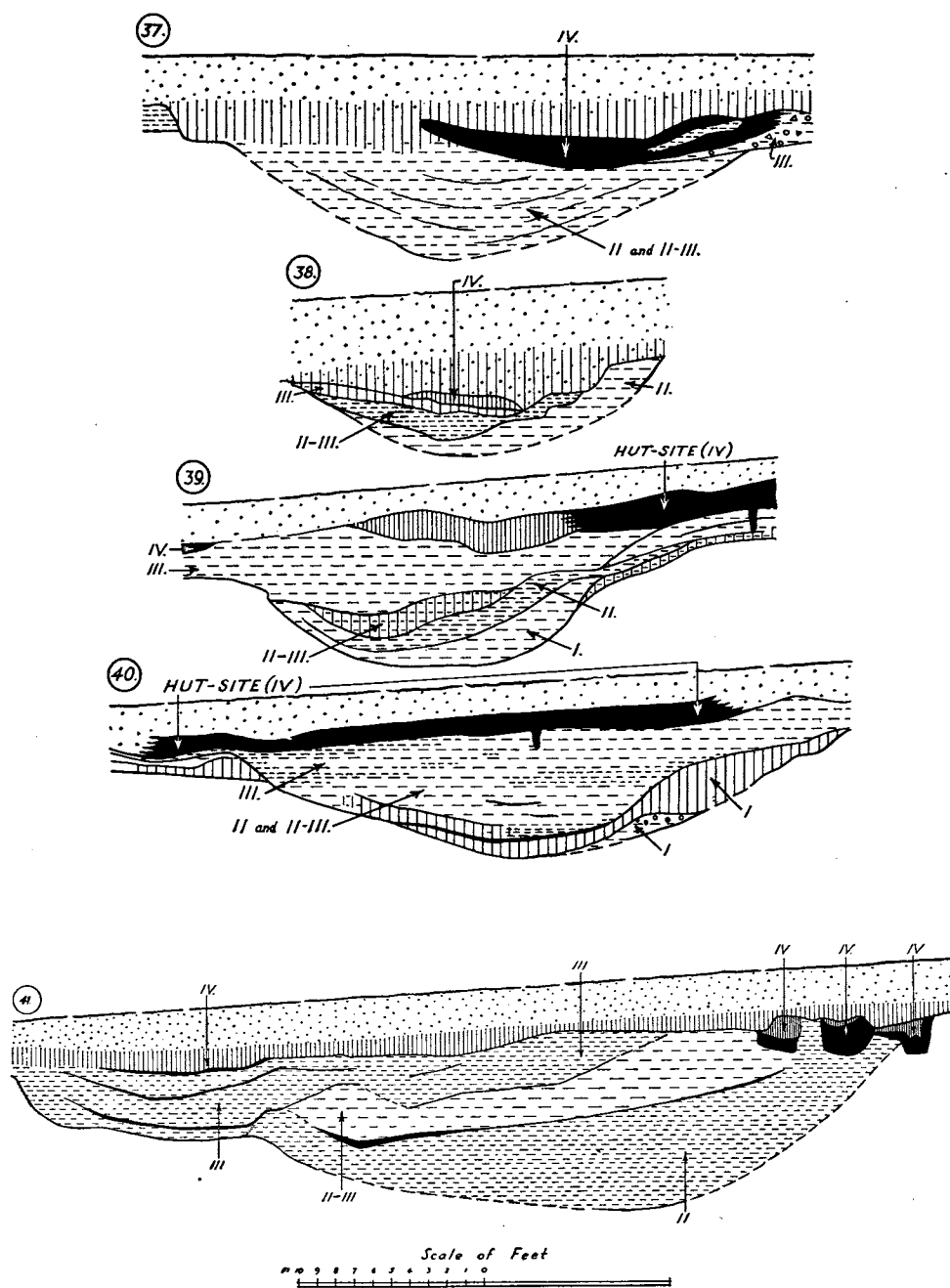


FIG. 16. Region 3: sections 37-41, across ditch I at and near W. entrance.
See pl. CVIII.

the maximum of the widening already mentioned as corresponding to that on the N. side of this sector, aggravated by the still worse behaviour of the sand, which made a V profile, if attempted, impossible to maintain, and primary sand silt, consequently, indistinguishable from natural. The effective depth, however, was almost 10 ft.; the width must have been some 40 ft. before a subsequent disturbance of the outer lip in period III. All this gives us the picture of a ditch by design a little, and by accident a good deal, wider than the normal on either side of a stretch where it is very much narrower; also very much shallower, and where shallower devoid of primary silt. And immediately S. of this shallower, siltless stretch, both sections 39 and 40 show an abnormally large amount of primary silt; that is uphill from it, and this silt had thus evidently accumulated against that stretch as an obstacle to downhill scour. Yet comparison with all the sections downhill from it shows that there was nothing naturally to prevent some silt from forming in the shallow stretch itself. The conclusion must be that the shallow, narrow stretch was only open for a very short time. In other words, until very shortly before the end of period I this stretch was not ditch at all, but an interruption, in fact a causeway, across the ditch. This is the first main argument for the existence here of the original W. entrance. The others are, first, that the ditch makes a definite change of direction here, which it does not otherwise do except at its (of course much sharper) SW. angle in region 5, where there is also an entrance; second, that directly after the conquest this was the point at which the Roman road-line was laid across its site, as we shall soon see—a choice most naturally explained by the following of a pre-existing route; and third, that in *site A2* inside the ditch we seem to have remains of a revetment of one end of the corresponding original rampart, flanking the entrance-passage through it (p. 87 below). For these reasons an original W. entrance here in period I is to be accepted; very shortly before the end of the period, its causeway across the ditch was cut through, producing the feeble, siltless, dwarf version of the ditch seen, for example, in section 38. It can only be thought most probable that this was done, interrupting as it did a main entrance into the place, as a last-minute measure of defence against the final Roman advance in A.D. 43.

Periods II and II-III. In all the sections here described, the refilling of the rampart back into the ditch is duly attested; the material was everywhere sand. It held little pottery but three British coins (42, 129, 133). It was everywhere susceptible of division into the same stages as in sequence (a), assigned to period II proper and period II-III respectively, except for the middle 25 ft. of the reduced entrance stretch, represented by section 44 and the other sections in fig. 17. There the initial period II filling forms the whole deposit. This was of course because a level surface across the ditch was immediately wanted for the passage of the period III Roman road.

Period III. This road is *road I*. Its course away from the ditch will be discussed below; its stratification over the period II ditch filling is seen in section 43, cut across it along the line of the ditch, and section 44 (fig. 17). In the latter it consisted of gravel on a bed of earth, the whole 1 ft. thick. In the former, where the filling beneath it was not dug out and only the N. part of it sectioned, it was 18-20 in. thick, consisting of a sand bed with a central gravel core, with a gravel surfacing over. Both sections show the muddy layer that formed upon it during use. On the S. side of it the ditch-filling was further made up with sand (sections 38-40); on the N., section 33 (fig. 15) shows a stratum of black occupation-rubbish of this period, which yielded appropriate pottery, and the end of this appears in section 43 lying in a hollow (made up with sand in period IV) below the edge of the sandy earth layer forming the N. verge of the road. East and west of the overlying period IV sand, this stratum turned to dark earth (seen e.g. on right of section 42) containing material of periods III and IV indistinguishably; in this, 60 ft. E. of section 43 at 2 ft. 6 in. below modern surface near the road-verge, were found the two fragments of large bones of whale(?) or elephant(?), described below, p. 353. Lastly, away in section 41 (fig. 16), there was a collapse of the sand on the outer lip of the three parts filled ditch, which may have been enlarged

THE EXCAVATIONS

by actual sand-quarrying, but was filled continuously with the main period III ditch-filling, in which were a couple of black rubbish-streaks.

Period IV. In this period occupation was intensified. Over the filling just mentioned in section 41 there was a new black occupation-patch, and over the opposite lip of the ditch here three small pits containing black period IV occupation-rubbish. In the same position in section 39 was the W. half of a definite oval hut-floor, with a post-hole near its S. edge, and the remains of an earthen wall-bank. Section 37, N. of the road-line, showed again a thick stratum of occupation-rubbish in

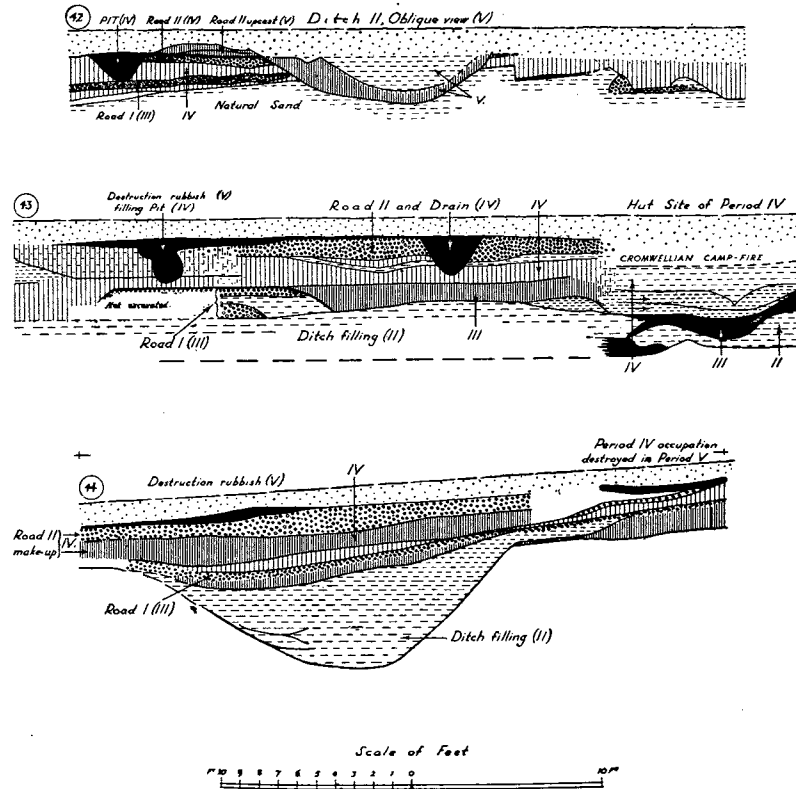


FIG. 17. Region 3: sections 42-4, across ditch I at W. entrance, with roads I and II, ditch II, &c. See pl. CVIII.

this position, with a streak of sand in it, and in section 40, S. of it, a large hut-site 30 ft. by 17 lay right across the ditch-filling, with a post-hole near its S. edge and a secondary clay floor-patch, very thin, in its central portion. While nearer the road-line sections 33 (fig. 15) and 38 (fig. 16) only show layers of earthy make-up now, there were more positive traces of occupation on the road-line itself, which appear in fig. 17 in section 43, cut transversely across the line, and section 44, at right angles to it across the ditch. Road I was abolished and covered with a fresh earth bedding for a new road, *road II*, the gravel surfacing of which was anything up to 16 in. thick. Its course away from the ditch will be discussed below, but section 43 shows that it did not exactly overlie that of road I, its S. verge coming over the middle of the latter. On the whole of this verge (sections 43 and 44) was spread the occupation-rubbish of some structure, including a pit that may have been a post-hole (section 43), and adjoined on the W. by another pit, seen in section 42. Beside the N. verge (section 43) the period III hollow was filled up with sand for the floor probably of an answering structure, but this had unfortunately been dug away for a camp-fire by the

Cromwellian troops of 1648 (p. 21). The centre-line of road II was here occupied by a V-shaped drain.

Period V. All these structures and habitations were destroyed by fire. That this put an end to the period IV occupation is shown firstly (section 43) by the way the destruction-rubbish from that on the S. road-verge spread itself right over the road and into the central drain, which it choked completely, and secondly by its immediate sequel, which was the deliberate cutting-across of the road, so littered, by *ditch II*. This is seen in section 42, taken across the intersection so as to show ditch II in oblique profile. On the left, that is, here, the inner side of it, remains of the upcast for the associated bank are seen, the lower part of it containing gravel upcast from the road-metalling. There was no sign of a palisade-trench, and one was apparently never dug, for a great deal of the upcast at once slipped back into the ditch, as the section shows, or else was never even shovelled out of it. The defences so represented, in fact, seem here to have been left unfinished. N. of the original entrance-area, a fresh entrance appears to have been intended; the Clavicula-ditch marking this will be discussed below. Further sections of ditch II, in the sector N. of this, will be found in fig. 21 (p. 94); of these section 51 will be included in this sequence directly. The ditch appears everywhere to have been very soon refilled.

Period VI. There is nothing of period VI in the entrance-area itself, but immediately NW. of it the filling of ditch II was cut into by two pits of this period, *pits A23 and 29*. Another, pit A28, was modern, dug no doubt by Mr. Ball (p. 21), but these two formed part of a definite group with the adjacent *pits A25-6-7* (pl. XI, 2), and all are of period VI. The three latter were the most productive, and though not actually cutting ditch II and so guaranteed by direct stratigraphy, their dating is in fact assured by their agreement in content with the other two pits of their group, which are so guaranteed, and also with the much greater yield of period VI pottery obtained from the two large pits found likewise cut into ditch II in region 5, pits G6 and G7 (p. 111). The group may thus be reckoned with the key-deposits as a whole (see p. 95). Among the contents of pit A29 were pieces of sheet-bronze scrap, and this introduces us to the fact that the remarkable *site A4*, SW. of the Clavicula, which will be described below as a metal-working emplacement used for intensive work by military armourers in the colonists' hasty rearmament against Boudicca in 61 (pp. 91-3), was wrecked when she captured the site, with all the litter of bronze- and iron-working lying in and around it, and only filled in finally in period VI, at the same time as these pits. This is shown not only by the presence of some of this litter in pit A29, but by the presence of elements definitely as late as period VI in the pottery from the site A4 filling; the same was true of pits A5 and 6 on site A1, and of *pit A21*, not far away to the SE. beyond road II, which contained also similar remains of military armourers' work (pp. 93, 95). The pottery thus cannot strictly be considered as key-deposit material (cf. pp. 177-8).

Lastly, in the N. of the region near the gravel-pit, the filling of ditch II was overlain by the substantial oval hut-site, *site A3*. This will be described below, but its stratigraphical position is shown in pl. XI, 3, and by section 51 on fig. 21 (p. 94). The pottery found in it, despite much that might be of period IV and some remarkable survivals of Arretine and Tiberian South Gaulish Sigillata, contains indisputably period VI elements and thus well fits the stratigraphy.

Sequence (d)

Period I. It will be shown below that on the N. side of the road-line inside the original W. entrance the natural sand surface was considerably levelled down in period IV, and then covered with rubbish, so that no remains of any entrance-structure belonging to the period I rampart have survived. On the S. side, however, remains of such a structure were identifiable in *site A2* (fig. 18; pl. VII, 2-3). The remains, only 3-4 in. high, of a turf wall 12-15 in. broad were found to run in a rather uneven line, slightly N. of E., alined precisely from the S. end of the diminished stretch of ditch I which has been shown to represent the original entrance-causeway. After 36 ft., this

ran against the N. edge of an expanse of laid clay, about 18 in. thick, which stretched for 30 ft. southward. This recalls the clay bedding of the original rampart already noticed in the line of section 32 (p. 79), and both it and the turf wall were pierced by the post-holes of the timber revetment-structure next to be described, the frontal wall-slot of which cut away both clay and turf at its E. end. This timber structure exactly demarcates the S. edge of road I and will be seen to be associated with it, that is, to be of period III. The anterior turf and clay structure will accordingly be of period I, and it is just in the right place for the end of the original rampart on the S. side of the entrance-passage, the clay being part of the bedding of its inner corner, the turf the revetment-wall of its face flanking the roadway. The large post-hole or pit seen on the extreme left of fig. 18 may possibly be a post-hole of the same entrance-structure; it lay right in the edge of road I, not clear of it, but the metallurgy was so sparse at this edge that their relative ages could not be made out. There was a patch of later occupation here, with which the hole may really be associated, and of period IV (cf. that in section 43); unfortunately nothing datable was found in it.

Period II. At any rate the dismantling of the entrance by the Romans was extremely thorough.

Period III. The association of the timber revetment-structure just mentioned here with road I, shown in fig. 18, is clear evidence for dating it in period III; no stratified pottery was present, and the structure will be discussed further below.

Period IV. When road I was succeeded by road II, the latter's new course was laid away from site A2 and to the ENE., where, N. and NE. of the sand-pit, it was found associated with the more ambitious timber structures of site A1. These comprised a stout revetment of the steep slope on the road's S. edge (pl. VIII, 1), and a long barrack-like timber building flanking the opposite edge (pl. IX). This, together with the road itself and the whole strip of ground along its N. side, was erected on a clean sand surface specially prepared by levelling (cf. the cross-section, section 45, fig. 19, p. 89, with plan *ibid.*); there is thus here nothing, save perhaps pit A10 (p. 88), earlier than period IV, and the whole site and its periphery, including a large group of pits (e.g. pits A4 and A5, sections 46-7, fig. 19), may be taken together as furnishing in the main a large key-deposit of that period (but for pit A5 see p. 93). The pottery and other finds from them were distinctively rich in purely Roman elements, and will be discussed when the site is described in detail, on p. 91.

Period V. The site suffered the full fury of the Boudiccan destruction. The whole of its sand surface was thickly covered by a great layer of destruction-rubbish, which ran down into all the pits open at the time (e.g. A4 and 5, sections 46-7), choked the road-drain (section 45) just as in the entrance-area, and was densely charged with black burnt matter from the destruction of the timber structures, the posts and footings of which were burnt out in their holes and bedding-gullies, thus showing up both plan and sections (fig. 19) in clear black against the yellow sand. For the most part, this layer contained nothing later than the end of period IV, though a certain number of bronze objects of contemporary native character, notably bronze linchpins and terrets of chariots and chariot-harness (pp. 330-2, pl. xcix, 4-8, &c.), may be assigned to the destroying rebels themselves.

Period VI. And the morrow of the revolt is represented by occasional pieces of period VI pottery in the upper parts of the layer, together with others in a few pits which must have been left to be filled up in that period. These are pit A7 (inside the site A1 building), pit A6, the top level in pit A5 (section 47, fig. 19), pit A21, and perhaps pits A1 and A8; A5, 6, and 21, in common with A4 and 26, contained remains of military equipment like those from site A4; those in A21, a small hollow filled with ash and charcoal, which spread for some distance round it, were a mass of iron helmet-fragments, together with bronze fittings, apparently dumped there in a sack (p. 336). Lastly, most of the destruction-layer was covered over with gravel, which is seen above the line of road II in section 45 (fig. 19).

B. FEATURES BY PERIOD

Period I

Defences. The course of *ditch I* across the region and its character have been described above (pp. 77–86); the clayey nature of its primary silt, and the clay and wood (oak) in section 30, have been seen to indicate the presence of clay, with wood, in the structure of the associated *rampart* (p. 79); and remains of this clay have been noticed *in situ* near section 32 (*ibid.*), and more plentifully, together with part of a turf revetment, on *site A2*, where we seem to have part of the southern rampart-end flanking the original roadway through the *W. entrance* (p. 86; fig. 18; pl. VII, 2–3); a possible post-hole of this entrance has also been noticed (*ibid.*). The existence of

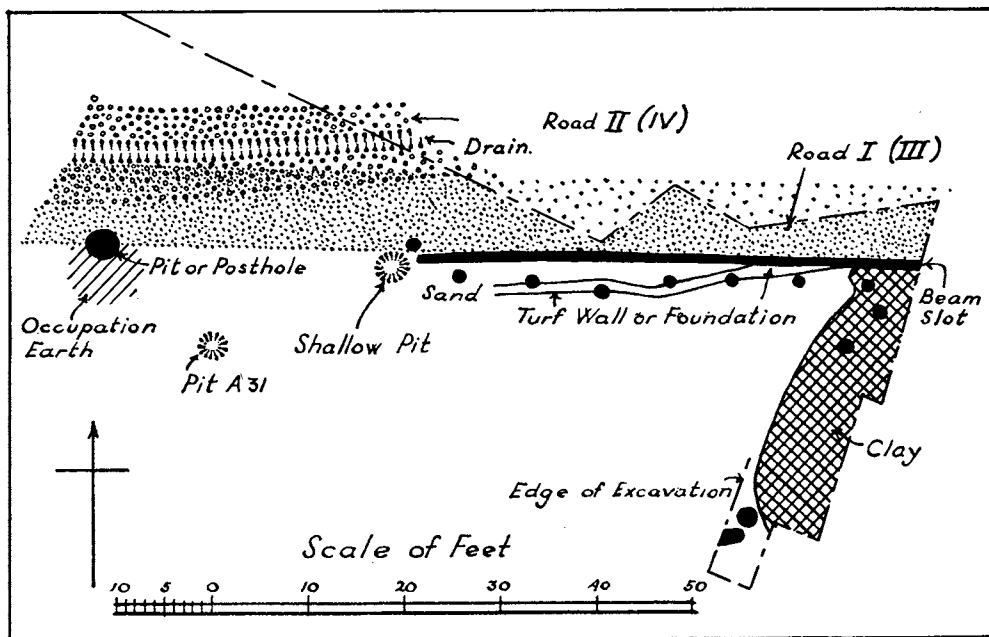


FIG. 18. Region 3: detail plan, site A2, with roads I and II, &c. Compare pl. cviii.

the entrance indicated by this and by the ditch's change of direction here (cf. plan, pl. cviii), has been argued fully from the stratification evidence (pp. 79–83), which has shown us that the ditch first widened slightly and then tapered off on either side of what was originally an interruption or causeway for the entrance across it. A very short while before the end of period I this was cut across, making the ditch continuous, though in a diminished form; since the period II filling immediately follows, this must have been done at the last possible moment, on the approach of the Roman army to put an end to the period I occupation by capture. The paucity of pottery in the primary silt of the ditch N. and S. of this suggests that the occupation in immediate vicinity was not intense. Nothing else unequivocally attesting it was found anywhere in the region. It must be added, however, that the existence of the entrance implies a road or trackway leading through it eastwards, although no trace of one here survived (see further pp. 96–8, region 4).

Periods II and II–III

Defences. The almost total destruction of the rampart, and the filling of ditch I with its material, have been described (pp. 79, sections 28, ff.). The filling was done in two stages, called periods II and II–III, everywhere except where an open rubbish-shoot was left in the region of section 36

(p. 81), and in the diminished entrance-sector, where the period II fill was total, in order to support the period III road (p. 83, section 44).

Period III

(a) *Road and Revetment.* This was *road I*, the course of which across the ditch-line has been described (p. 83, sections 42-4). Its gravel surface was typically thin and hard and, inside of its actual edges, never cambered. It crossed the ditch from without, where, cut by ditch II, it was traced as far as the water-enclosure but was not found in a thorough search beyond it, nearly due W. to E. Within, this brought it close alongside the line of the period I flanking-revetment on *site A2* (fig. 18). Apparently in order to retain the uphill slope of soft natural sand (perhaps still carrying uncleared period I rampart-material) above its S. edge, a new timber revetment was built on this same site, precisely demarcating the margin of the road-metal, cutting into the period I remains as above described, and so dating itself (p. 86; fig. 18; pl. VII, 2-3). Its traces consisted of a continuous gully or bedding-slot for a timber sleeper-beam, 15 in. wide and deep, beginning 37 ft. E. of the inner lip of ditch I and running straight beside the road for 52 ft. eastward. It had been retained at its W. end by a post in a large hole in the edge of the road-metal, 15 in. across and 2 ft. deep; and distributed along its inner side, 12 to 30 in. from it and 7 ft. apart, were seven more post-holes of the same size, to the posts in which, standing along the face of the revetted material, the facing it supported had presumably been anchored. The easternmost of them was adjoined by two more, as it were turning a corner to the S., and all these three cut through the period I clay rampart-bedding above described. 30 ft. farther S., at the SW. corner of the surviving bed of clay, was a larger post-hole, 2 ft. across, whence the line of another timber lying horizontally could just be traced for a few feet westward; it is possible that these really belong to the period I rampart-structure. All the posts and timbers had carbonized *in situ*, and the site was littered with blackened material in which pottery, coins, and brooches were lying loose; it would seem that the period III structure stood throughout period IV and was burnt in the Boudiccan destruction of period V, so that the revetted material and destruction-rubbish settled down over the remains and the disused road I, and weathered into an unstratified mass. Road I was traced E. from here until cut away by the sand-pit, beyond which it was not picked up again. Pit A34 and ditch A4, not before period IV, had disturbed the ground there, but in any case this was the jutting portion of the hill-side held up by the site A1 revetment above road II and accordingly much denuded after the destruction of that in period V, so that the farther course of road I could not be traced.

(b) *Occupation-sites.* The occupation of this period over the filling of ditch I has been described (p. 80). Nowhere else was any unequivocally attested (a start now for site C3 (p. 91) is possible).

(c) *Pits.* *Pit B6*, of this period, has been described (p. 81, section 52); the pottery-lists from *pits A10 and A22*, perhaps those also from *pits C1 and C2*, and possibly *pit B4* (p. 81), point to the same initial date. Rubbish continued to be shot into ditch I at section 36 (p. 81).

Period IV

(a) *Road and Revetment.* W. of the water-enclosure careful search did not reveal *road II* surviving, but it was found entering the region under the enclosure's E. fence 22 ft. (measured centre to centre) S. of road I, and on an ENE. course of its own, taking it at once diagonally across road I, above which it began to be centrally divided by a drain. Just where it was cut by ditch II it swung nearly due E. to cross the ditch-line, where its stratification has been described (p. 84, sections 42-4). It then bent more gently ENE. again, disengaging itself from the line of road I opposite site A2, which it ignored, and running on past the N. lip of the sand-pit, which just bites into it. Beyond this it enters *site A1*, planned separately on fig. 19. The whole natural sand surface had here been artificially levelled (p. 86), so that nothing of any earlier date remained.

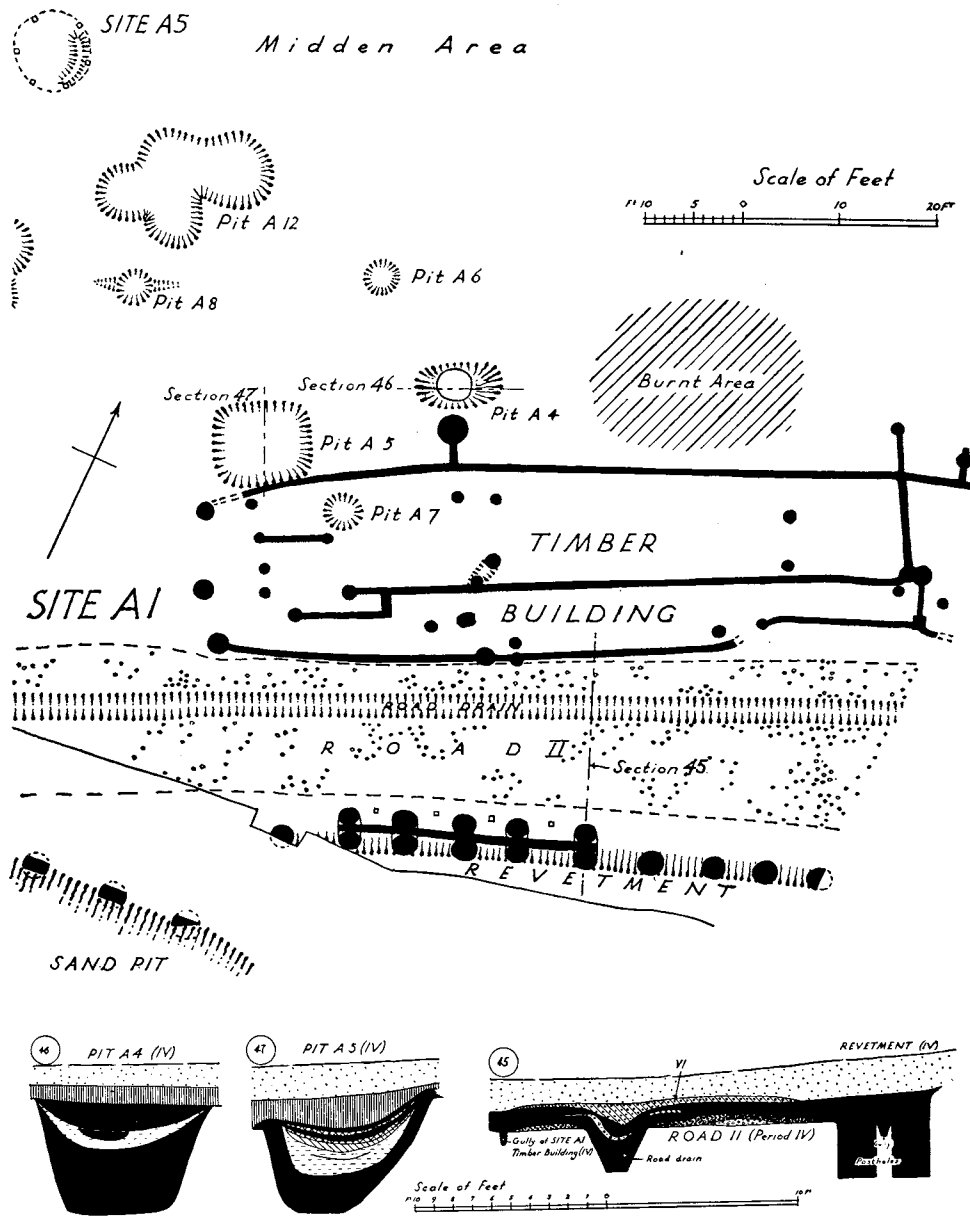


FIG. 19. Region 3: detail plan, site A1, with site A5, &c.; and sections 45-7. Compare pls. VIII, IX, and CVIII.

Section 45 (fig. 19) shows the road's gravel metalling laid directly on this surface, 3 to 8 in. thick, and slightly cambered (especially on the S. where it has a distinct sandy core) on either side of the drain, which here ran down it rather N. of the middle. The total width is some 18 ft., with the drain 3 ft. wide and nearly as deep, tapering to a 12-in. bottom.

Along its S. edge here were found ten of a line of large post-holes, 2 ft. across and 2 ft. deep from the edge of the metalling (fig. 19; pl. VIII, 1). All contained the charred remains of oak posts, and five of them were double, to hold twin posts paired at right angles to the road. Between these last ran a gully or slot for a fence or wall-beam, the relation of which to the posts is shown in section 45. In the intervals between these five post-holes, 18 in. in front of the slot, were four small holes, 6 in. square and 9 in. deep. The revetment so emplaced demarcated the S. edge of the artificially levelled area of sand surface, and retained above it the jutting portion of the hill-side which road I had run across (p. 88). After the revetment's destruction this became of course much denuded, but the surviving 2 ft. of it can be seen after excavation still standing along the line of the post-holes in section 45 and pl. VIII, 1. Three other post-holes noticed in the side of the sand-pit close by on the SW. are unexplained. The pottery, &c., found adjoining the revetment-remains, all agrees with period IV; in one of the large post-holes was most of a beaker f. 83, in another two bronze brooches of type III (one illustr. pl. xc, 24). The whole structure had perished in the period V destruction (see below).

(b) *Occupation-sites.* Flanking road II opposite the revetment was the *site A1 timber building*. It was a large oblong structure (fig. 19; pl. ix), supported on timber posts standing in holes, and with wattle-and-daub walls normally bedded in narrow slots or gullies (profile of one, section 45, left).¹ Its E. end extended outside the boundary of the excavation, the maximum excavated length being 80 ft.; but no trace of it was found in the adjacent region 4, and it is not likely to have been longer than 100 ft. The W. end was well defined, being formed by three big post-holes making a slightly convex 15-ft. frontage; from the outermost of these the main wall-gullies run back, bulging slightly outwards to make the maximum breadth 20 ft. From the N. wall three short projections run out, leading to post-holes: two are close together near the E. end; the other, 45 ft. farther W., ends in a post-hole of abnormal size. The S. wall-gully has two post-holes actually on its line, and 20 ft. farther E. bends in to break off for a doorway 3 ft. 6 in. wide between two more. It then resumes on a new alinement giving the building a breadth of 16 ft., and passes out of the excavation beyond a square post-hole from which a partition runs in to join a big double post-hole within, adjoined by two smaller ones. From this also a partition goes off to join the N. wall, and continues in the longest of the external projections; and from it also an internal partition, parallel to the outer walls, runs W. nearly the whole length of the building. It ends, throwing off an angular branch, in a complex of small post-holes, with one other short wall-gully, occupying the building's W. end; other post-holes, one double, presumably for further wall-supports, occur elsewhere within. The building thus had a complex of subdivisions at its W. end, and for its main length was divided by the long internal partition into a broader northern and a narrower southern aisle, of maximum width 12 ft. and 8 ft. respectively. Comparison naturally suggests itself with the regular Roman military barrack-building, with its subdivided centurion's quarters at one end, and its main aisle flanked by a veranda. The contemporary timber barracks at Hofheim² show an early version of this plan, which did not become stereotyped until later in the century, but their transverse division into *contubernia* is here absent, and the building cannot certainly be called military, but rather a variant of a military form. *Pit A7* within the W. end was not filled in till period VI (pp. 93, 95); whether it was open during the lifetime of the building remains uncertain; it contained coins of Gaius and Claudius, an 'eye'-brooch (type XVI; pl. xcvi, 123), and, with no Gallo-Belgic, more Roman than native pottery. The Claudian date of the building

¹ Cf. Wheeler in *J.R.S.* xxi, 119, with plan.

² *Hofheim*, 66-74 and abb. 17.

itself, already more precisely tied to period IV by its association on plan with road II (p. 86), was securely confirmed by Sigillata s7 (Ritt. 1) in one of its post-holes, and by contemporary s8 (Dr. 18) and Dr. 29 (pl. xxiii, 6) stratified with two Claudius coins (*asses*: 141, 146, p. 147) and Claudian brooches in the surface of its sand floor. With these, too, was a little Gallo-Belgic, some native, and more Roman pottery, but nothing which indicated the building's particular purpose (see p. 38). It had obviously been destroyed by fire, and its site was covered, in common with the whole of site A1 and its neighbourhood, by a thick destruction-layer with coins and a long list of pottery confirming its occupation-dating and wholly consistent with its destruction in the Boudiccan sack of the place (see under period V). With glass and brooches and other small metal objects were quantities of iron nails and Roman tiles, and of burnt clay daub and wood charcoal, revealing respectively its mode of roofing and walling; an abundance of slag, attesting metal-working in the near vicinity; and many bones of domestic animals. Taken together (with that from the various pits in and around it noticed below), all this site A1 material is interesting for its high proportion of specifically Roman elements. They agree with the Roman character of the building itself, and contrast (p. 54) with the greater proportion of native material from the poor hut-sites farther west, over and adjoining the filled ditch I.

The description of these (pp. 80, 84) will not be repeated, though they extended inside the ditch-line S. of the road; outside it, opposite, the structural remains were indeterminate. N. of the road, and adjoining site A1 on the W., there was, however, a particularly interesting example of the hut type of site. This was *site A5* (fig. 19 and pl. viii, 2), the floor of which was an almost circular saucer of clay, 8 ft. by 8 ft. 6 in., rising on the E. into what was left of a clay wall-bank; spaced nearly equally round this were six small stake-holes, 4 in. square and 9 in. deep, which had held the light wooden uprights supporting the wattle-and-daub walls (attested further by a litter of burnt daub-clay) and presumably a domed roof (p. 46). The burning of the hut in the period V destruction made these stake-holes detectable by their charred black filling and the sharpness of their edges in the hardened clay; otherwise, and especially if the more normal loam had been employed, they would doubtless have escaped observation as in the other similar hut sites found.¹ Between pits A9 and 10 was another patch of burnt clay, and near the S. limit of the region another, occupying a small squarish excavation in the gravel, 50 ft. within ditch I. There was only one other occupation-patch near this, but farther E. the strip excavated as area C disclosed a whole series of such patches, very poorly preserved in very loose sandy gravel, weathered and denuded so that stratification and accurate planning were impossible: some may have been the bottoms of shallow pits, others hut-floors (in the case of *site C3* hollowed into the gravel), another apparently a hearth, while farther N. site C1 had been made unintelligible by modern disturbance, evidently the diggings of Mr. Ball recorded at this point by Wire in 1843 (p. 21). The occupation-material everywhere in this area was scanty and unstratified, but seems mainly of period IV, though earlier dates are not excluded. There was nothing to suggest buildings of Roman type; but in area B adjoining ditch I the gravel metalling already noticed revealed post-holes and fragmentary wall-slots indicating this in the same form as the site A1 building (p. 90), though no intelligible plan could be obtained. Thus the period gives us in this region two sharply contrasted types of structure, a large rectangular Roman one, as on site A1, and a small native hut type, not noticeably rectangular and often round, of which site A5 (though the smallest) is the best-preserved example, and those over the filling of ditch I the most definite concentration.

(c) *Military Metal-working (site A4)*. Directly N. of the interruption of road II by ditch II was *site A4*, already mentioned as filled in in period VI after destruction in period V. Since it is outside and out of all relation to ditch II, that is, to the period V defences, its destruction may be confidently ascribed to the general sack of the site by Boudicca, and since there is no suggestion

¹ pp. 46-7, 53-4 above.

THE EXCAVATIONS

of an earlier date in the mass of material that it yielded, its construction and service are securely dated to period IV. It consisted (plan and section 48, fig. 20; photographs, pl. x) of a large pear-shaped excavation in the sand, 25 by 16 ft. and almost 3 ft. from ancient (6 from modern) surface at its centre, steep-sided round its larger S. end, but gently shelving at its narrower N. end and there enclosed by the emplacement of a massive timber structure. The centre of this was formed by a double post-hole, for two posts of 12 and 18 in. diameter respectively, 2 ft. deep, which had

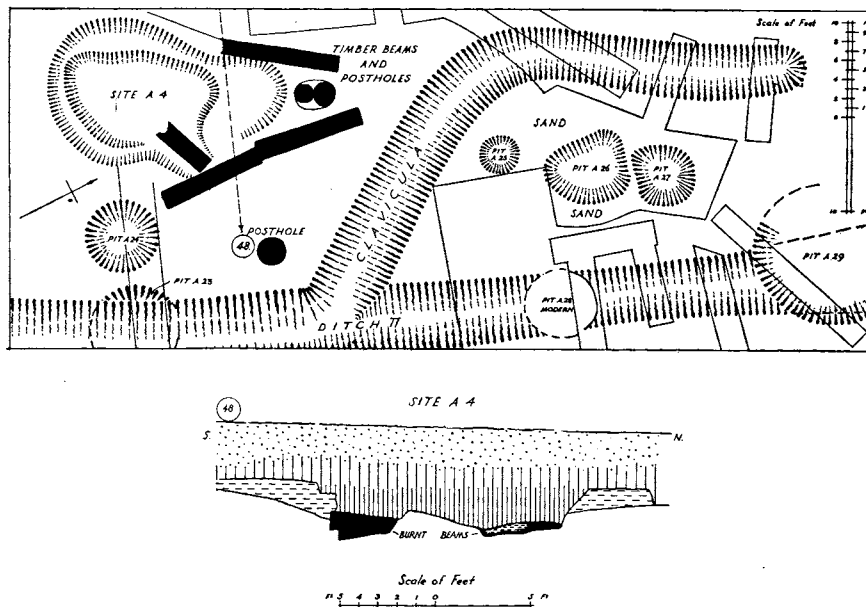


FIG. 20. Region 3: detail plan, site A4, ditch II and clavicula, with adjoining pits; and section 48. Compare pl. cviii.

been burnt *in situ*. On either side of that, disposed obliquely to each other, were two gullies or slots, of rectangular cross-section, for big timber beams. The western measured 13 ft. long by 21 in. wide by 18 in. deep, and contained the charred remains of a single beam exactly of these dimensions. The eastern, placed rather farther from the edge of the excavation, was cut to fit two such beams end to end, each 11 ft. long by just over 2 ft. wide by 18 in. deep, the charred remains of which lay *in situ* as before; upon the southern one lay the remains of an additional beam forming a second course, and there is no knowing how high the beam-structure in either gully may have been carried originally. Presumably it was at least high enough to retain the soft natural sand seen standing on either hand up to 3 ft. above their bottom-level in section 48. From the centre of the pit an oblique projection had been dug to meet the S. part of the eastern beam-gully, and in this was another beam nearly 2 ft. wide, the inner end of which merged imperceptibly into the blackened filling of the excavation. Lastly, nearly 4 ft. E. of the eastern gully was a large post-hole, 18 in. in diameter and 2 ft. deep, containing the burnt remains of its post and a piece of *Sigillata* form 29 (pl. xxxiii, 3).

The filling overlying these remains was one homogeneous mass of dark earth, much blackened by burning, which entirely choked the excavation and extended beyond it in every direction over the natural sand surface, exactly like the destruction-layer over site A1. The pottery in it, mainly of period IV, includes elements as late as period VI (cf. p. 85). With it were two British coins (nos. 12 and 105, p. 166), a silver *denarius* of Antony and Octavian, an *as* each of Caligula and Claudius, and an Antonia *dupondius* (nos. 14, 84, 127, 132, p. 166); the brooch-types represented

were III*b*, VII, X*b*, XVIII, XVIII*b*, XVIII*c*, and pl. xcvi, 165, 172; and the quantity of other metal, especially bronze, was prodigious. Pieces of sheet bronze, chiefly clippings from the trimming of large disks or ovals of the metal, were innumerable, and with these were shapeless bronze lumps and remains of manufactured bronze articles in very great profusion. Roman military equipment predominated, comprising bronze mountings and fittings from helmets, shields, armour, &c., both used and unused, and nails and studs in large quantity; this material is dealt with in detail below (pp. 336-40, with pls. c-civ), and must clearly be the leading factor in determining the explanation of the site. It was mixed together with pieces of iron and masses of bronze and iron slag, and the whole assortment plainly shows that the timber structure and the excavation it enclosed had to do with metal-working for military purposes on a large scale. With it must also be reckoned the presence of similar remains of equipment elsewhere in the vicinity, in pits A4, 5, 6, 21, and 26 (pp. 85, 95), at various points in the destruction-layer over site A1 and road II, in the adjacent sand-pit, and also nearer the line of ditch I. Slag was also often found in the destruction-layer, especially over site A1 at its E. end, and the remoteness of the latter from site A4 shows that metal-working in general in this neighbourhood was not confined to it. Nor does the presence even of so much military material mean necessarily that site A4 was constructed expressly for military work, since the period IV occupation as a whole has no military character. But the military metal-working was plainly going at full blast when the Boudiccan destruction overtook it, and this strongly suggests that it was undertaken—whether or no the site was already in existence for other purposes—in a desperate attempt at rearmament by the colonists and what few soldiers were with them on the approach of Boudicca's forces. This view of the matter has been taken above (p. 40), and tallies well with the detailed account of the material given below. Exactly what the timber structure on site A4 was is not easy to say, in the absence of parallels elsewhere; but the excavation clearly must have contained some kind of furnace, and the design of the timber-work must have been dictated by its needs, especially by that of a strong blast, necessitating probably a big fixed bellows. The mounting of such a bellows could well have been carried by the central double post-hole, with the beam-constructions on either side to hold up the sand walls of the emplacement and ensure the proper control of draught.

(*d*) *Pits*. The period IV pits here were numerous and will be described briefly. Two typical profiles are given on fig. 19, of *pit A4* in section 46, and of *pit A5* in section 47. The former, oval with steep sides 6 ft. deep, had a filling of black rubbish-material divided by a tip of clean sand, above which the filling is continuous with the overlying Boudiccan destruction-layer. *Pit A5*, lying up against the site A1 timber building, was squarish, 9 ft. across and 6 ft. deep on its uphill side, and had a filling of similar material the lie of which shows that it was open when the destruction occurred; afterwards tips of sand, loam, and clay were thrown in, and the upper black layers, as already noticed (p. 86), contained material as late as period VI. In the destruction-layer on the pit's very edge were pieces of a buff terracotta plaque (p. 349), with part of a Neronian Sigillata form 29 stamped OF·LVCCEI (no. 115, pp. 197, 200), and near by were pieces of semicircular tiles like those used in the Colonia forum (p. 348), and the fine bronze patera stamped P·CIP1·POLYBI seen in pl. ci, 1 (p. 334). The neighbouring pits with period IV material, going up to the time of the Boudiccan destruction, were *pits A11, 12, and 13*; also *pit A9*, in which were parts of the Tiberian Sigillata form 29 (pl. xxii, 9) of which other pieces were found in the period II and II-III fillings of ditch I near by, and above in the period III and IV occupation-layers. *Pits A1 and A8* possibly, and *pits A6 and A7* certainly, contained with their period IV material elements as late as period VI. The other pits with purely period IV contents were *pits A2, A20, A24, A30* (with square shaft suggesting an attempted well), *A31, A34*; and farther S. *pits B7* (p. 81), *B1, B2, B3, B8, B9, B10, and B11*.

(*e*) *Ditches*. Minor drainage-ditches of this period are probably *ditch A3*, possibly (p. 95) *ditch B3*, and perhaps *ditch B4*. The larger *ditch A4*, cut by the SE. corner of the sand-pit, was not

earlier, but perhaps not as early: it contained little, showed no stratification, and may not be ancient at all.

Period V

(a) *Destruction.* The universal and violent character of the Boudiccan destruction has been sufficiently emphasized. The whole occupied area of the region clearly went up in flames, and it has been explained that much of the period IV material found was contained in the enormous amount of destruction-rubbish so created, especially over site A1 and site A4. The few objects, notably

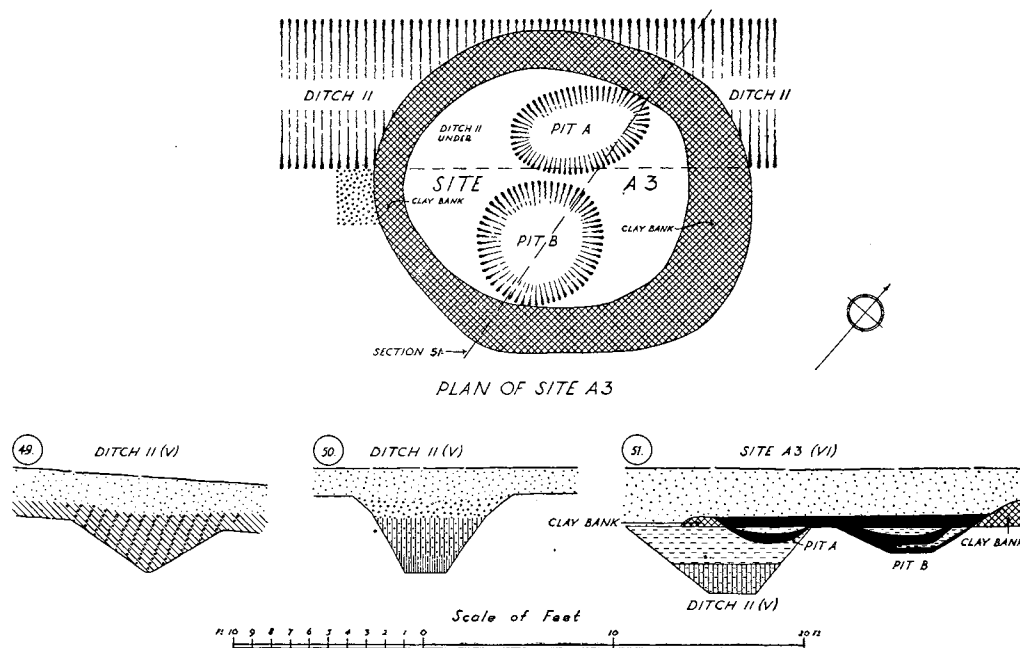


FIG. 21. Region 3: detail plan, site A3; and sections 49-51, across this and ditch II. See pl. cviii.

linchpins and terrets from chariots, assignable to the rebels themselves, have been noticed and are described below (pp. 330-2, pl. xcix, 4-8, &c.).

(b) *Defences: Ditch II and Clavicula.* The cutting of the Roman roads by *ditch II* has been described (p. 85, with section 42). Though there are two slight outward bulges in it S. of the roads, its course is almost exactly parallel to that of ditch I S. of the change of direction at the period I entrance; but it does not itself change direction correspondingly until 130 yards farther N., where it has therefore increased the interval between them from 8 to 10 ft. to just over 60 ft.; it then bends to become nearly parallel to ditch I again, and so runs out of the region to reach region 2, where we have already met it. It thus seems planned to approximate to the course of ditch I, but not very accurately, the latter having of course by this time been some 15 to 18 years invisible on the surface. The three cross-sections of it in fig. 21, sections 49-51, show its profile to be rather inconstant: in 49, V-shaped, 7 ft. 6 in. by 3 ft. from top of subsoil; in 50, 8 ft. by 4 ft. with steeper sides and a 2-ft. flat bottom; and in 51, 10 ft. by 3 ft. 6 in., with the same bottom and sides less steep. The filling in the latter two, of gravel and sand respectively, was in both earthier towards the bottom, but as a careful search found nowhere any trace of a palisade-trench here, its bank may not have been retained, so that any silt would form very quickly; and the whole aspect of the filling sug-

gested a speedy replacement. In section 51 it yielded a small piece of Sigillata form 29, Claudian or at least pre-Flavian, resembling the work of SCOTIVS, and one of store-jar f. 272 in hard Roman ware, both of manufacture best datable towards the end of period IV.

16 ft. N. of the N. edge of road II, ditch II threw off a curving branch on the W., bending round to end in a straight stretch parallel to the parent ditch and 16 ft. from it: the total length was some 60 ft. (plan, fig. 20). The profile and filling of this branch were identical with those of ditch II itself, and the junction (pl. XI, 1) showed that it was integral to it. The most natural explanation, adopted above (pp. 41-2), is an attempt here to execute a Roman *clavicula*-ditch. This should serve to protect an entrance-opening in the main ditch behind it, and though no such opening was found, ditch II behind it does narrow to 6 ft. only: this may be intentional, or it may be that there was at first an entrance-opening here, which was then cut across, as earlier that through ditch I had been, for a final defence.

Period VI

(a) *Occupation-site (Site A3)*. Just SW. of the gravel-pit in the N. of the region, the filling of ditch II was overlain by a large circular hut-site, *site A3* (fig. 21, plan and section 51; pl. XI, 3). A ring-like clay wall-bank surrounded a nearly flat floor of sand, in which two shallow pits (A and B) had been hollowed. The whole was filled with blackened occupation-earth, seamed in the two pits with spreads of clean sand, which produced pottery, a coin of Cunobelin (no. 92), food-animal bones and oyster-shells, iron nails and five pieces of Roman tile, clay wall-daub, and an iron latch-lifter (p. 341); no trace of any wall-timbers could be found. The pottery is of interest in its combination of late with early characters. The large amount of purely Roman coarse ware agrees with that from the contemporary pits G6 and G7 (pp. 85, 111), and such late forms as 144, 243, 267, and 171 in Roman ware demand a post-Claudian dating, supported by the absence of many native forms usual earlier (254, 255, 264, 265). This being so, the amount of Gallo-Belgic is abnormally large, and the Sigillata provides the striking anomaly of a list of plain forms which could well have come from the Colonia pottery-shop destroyed by Boudicca (p. 20), and a stamp of the South Gaulish potter MEDDILLVS who has never been dated before A.D. 60, with nevertheless two Arretine forms, one a virtually complete platter form 17 (pl. XII, 28, pp. 182, 193), and early South Gaulish form 29 including a complete bowl of Tiberian date (pl. XXI, 2, p. 170). But both the latter had been broken and mended by the owners with lead rivets, and plainly we have here a survival of old pieces as treasured family possessions. It is indeed fortunate that the stratification of the site directly over the period V ditch II makes its dating in the years immediately after the revolt of 61 an absolute certainty (cf. p. 85). The design of the hut was furthermore entirely of native type, and one may suppose that the occupants were 'trusties' who avoided taking part in the revolt, and were therefore allowed or appointed to settle (with their fragile heirlooms as well as contemporary material) on the site again in period VI, presumably in connexion with the work of clearing it up.

(b) *Pits, &c.* This work comprised laying down gravel in bad places (e.g. over road II on site A1, p. 86; section 45, fig. 19), filling up or completing the filling of *site A4* (p. 85) and *pits A5*, 6, 7, 21, and possibly *A1* and 8 at least in addition (p. 86), and digging and filling the group of *pits A23*, 25, 26, 27, and 29, cut into or adjoining the filled-in ditch II and *clavicula* (p. 85). In the S. of the region the winding drain *ditch B3* contained a little pottery consistent with this period also, though it may have been dug in period IV.

The only later Roman material was a good deal of second-century rubbish lying unstratified in the soil above site A4 and its neighbourhood.

REGION 4

Plan, pl. CIX; photographs, pls. XII, XV

This region consists of two areas: one is the N. half of field no. 652, adjoining region 3 directly on the E., the other is the field E. of that again, no. 647, artificially levelled as a playing-field in 1930, which operation occasioned our excavations there in that year. These consisted of the trenching of its W. portion, with clearance of the occupation-area in the NW. corner, of further trenching in its N. portion, and of a single diagonal trench across it from NW. to SE.; the whole forming area D (with pit D24 an outlier to the E.). The other field was excavated in 1938, and forms the greater (N.) part of area L, the trenching-arrangement of which is shown on the plan. The region extends up Sheepen Hill to just over 90 ft. O.D. on the SW., and slopes down both E. and N., so that the greater part of area D lies below 40 ft. O.D. and was practically flat when excavated. On the steeper slopes of the hill denudation has left the natural sand and gravel there close beneath the surface; the main extent of area L is marked by the appearance, in varied incidence over this, of a subsoil of loam, often very sandy; and in area D the gravel is generally covered by loam, as in region 1 immediately to the N. across Sheepen Road.

A. STRATIFICATION

(i) *Key-deposits*

Period I. The region's only direct link with the key-deposits of region 3 is the Roman road of period IV, *road II*, with the gravel metalling relaid over it in period VI. This was pursued right across area L from the point at which it passes out of region 3, and of its identity, with the drainage-ditch running continuously along it, there could be no question. Its predecessor in region 3, road I, of period III, has been seen to take a different course of which nothing more was found; but in region 4 there were clear indications that road II itself was laid in period IV on a line already in existence for road-traffic in period I. The line runs across area L, bending gently on to a course only just N. of E., as far as about 80 ft. from the hedges dividing it from area D, where it swings sharply to the left to run away NNE. towards region 1. It would have entered that region opposite the SW. corner of the later Roman temple-enclosure and its adjacent building (p. 70), which, with their associated spreads of fresh gravelling, have obliterated whatever traces of period IV age there may have been; however, it need not be doubted that the remetalled surface of period VI formed a road in use at and after the end of the first century for access to the temple precincts, and the course adopted for that purpose was simply that of the pre-existing traffic-line now to be discussed.

That this line goes back beyond period IV to the pre-conquest period I appears from the following considerations. In the first place, there must have been a traffic-line through the period I W. entrance in region 3, and road II, as we have seen, certainly coincides with it there. True, road I does the same, and then takes a different course. But this too may have had a pre-conquest forerunner, without prejudice to one for road II, for there may in period I have been several traffic-lines converging on the entrance, and if the Romans metalled one of them, or part of it, as road I in period III, they would be free to metal another as road II when altering its level across site A1 (p. 88) and changing the layout of the site generally, as they did in period IV. In the second place, there must be some explanation for the angle made by our road-line in the middle of region 4. One must suppose that it first led directly to a primary objective, and only then turned so sharply aside towards a secondary one. Now immediately beyond the angle the main alinement impinges on the region of site D1, the excavation of which will be recorded shortly

(pp. 99 ff.). This was indeed occupied in period IV, the period of road II, but only by hollows and pits which can give it no claim to be a primary objective for Roman planning in that period. On the other hand, its initial occupation belongs to period I, and the remains found suggest, as will be seen, that in this period it was a site of definite importance, something which a pre-conquest traffic-line could well be expected to take as a primary objective. And in the third place, excavation at various points along road II in this region has revealed traces of an earlier traffic-

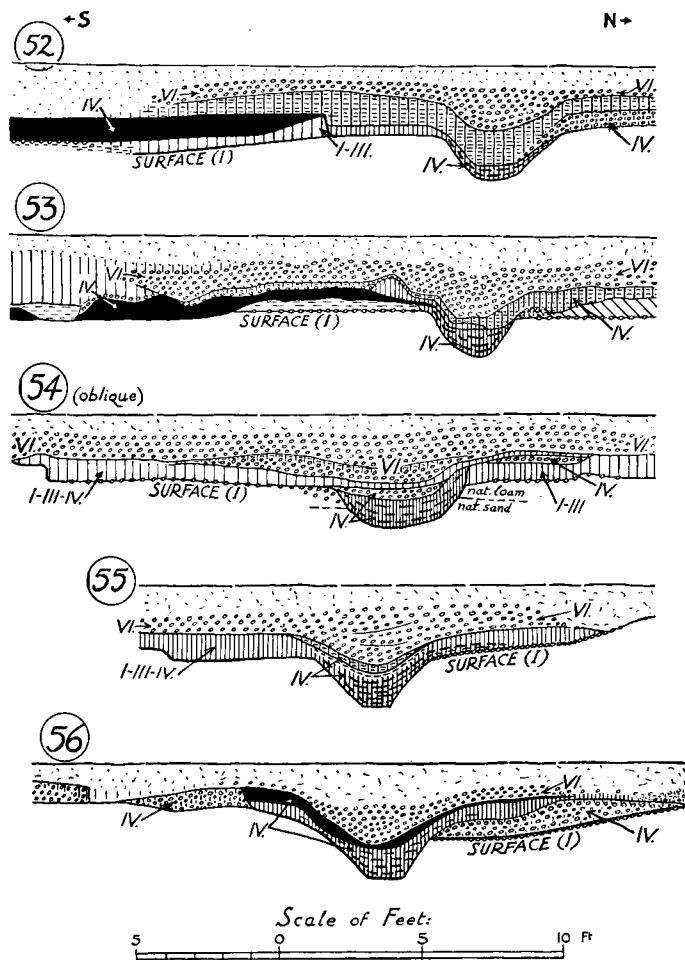


FIG. 22. Region 4: sections 52-6, across road II and its drain-ditch. See pl. cix.

surface beneath it, which was not made in period III, since beneath road II by the W. entrance (pp. 83-4) nothing of the kind was found to unite with road I; it then can only be of period I. What this surface is can now be explained.

Fig. 22 shows five sections across the road-line, spaced along its main alinement as seen in the plan, pl. cix; these from W. to E. are sections 52 to 56. Their measure of variety is accounted for by inequalities, subsequently masked, in the natural ground. In section 52 this is of sandy loam over sand, over which a layer of dark dried mud has been cut away at the verge of road II, and is adjoined on the S., under a period IV occupation-layer, by a patch of hard pebbly surface. In

section 53 this sort of hard pebbly surface extends across the whole line subsequently occupied by road II; and in section 54 (an oblique cut SW.-NE.) it does the same, the pebbles, covered by a layer of dark mud, being 9 in. thick in the middle and in a matrix set as hard as concrete. In section 55 the natural subsoil to the N. of road II's drain-ditch is gravel, and the surface of this, again under a mud layer, consists of a similar hard expanse of close-set pebbles. Section 56 shows just the same thing, under the road II metalling. And on fig. 23, section 57, taken across the road-line after it has turned NNE. on to its secondary alinement, shows the same phenomenon, which, moreover, is linked to the fig. 22 series by its occurrence in the same position in section 58, between the road-ditch and pit L7. On neither flank outside the road-line was there anything of the kind, and it would appear that the period I traffic-line for which we have argued took the form of a definite trackway, parts of the surface of which were formed, either sometimes naturally, or sometimes deliberately, of close-set pebbles, which were crushed, presumably by long-continued use, to a hardness which is in places extreme. It was not possible to ascertain whether this trackway, as well as branching NNE. on to the secondary alinement, actually went straight on past the angle to reach the site D₁ area as above suggested, for at the crucial point the ground was disturbed

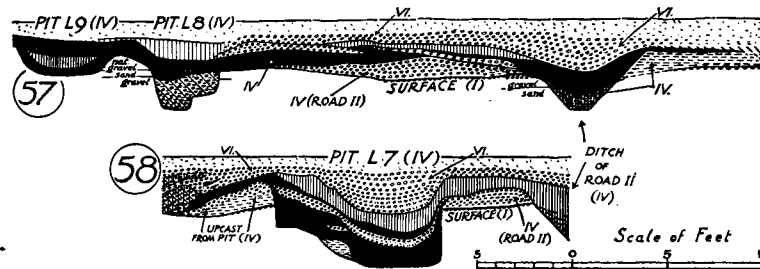


FIG. 23. Region 4: sections 57-8, across road II and its drain-ditch, with pits L7-L9. See pl. cx.

in period IV by the construction of a pottery-kiln (p. 106), closely adjoined by the edge of Roman gravel-diggings. But in view of what we have said this would appear to be at least highly probable. Pottery associated with this period I trackway was scanty.

Period III. The trackway was not demonstrably interfered with in period III, but pebble-surfacing in this period cannot be excluded, and in any case the mud layer in sections 52, 54, and 55 must be presumed to have gone on forming. It contained small sherds of coarse pottery only.

Period IV. Road II, with its drain-ditch as in region 3, was now built. The ditch, normally 18, sometimes 21 in. deep and 3 to 4 ft. wide, with steep-cut sides and a flat or hollowed bottom 12 to 18 in. across, was first dug, and its upcast used to a great extent to form the road. In section 53 a breadth of some 5 ft. of sandy loam was cambered up to 8 in. on the N., and nearly 7 ft. of sand to 6 in. on the S. of the ditch. In section 56, where the subsoil is gravel, this was spread 9 ft. wide and cambered up to 12 in. on the N., and nearly 5 ft. wide, cambered up to 8 in., on the S. of the ditch. In section 57 (fig. 23), where the subsoil is both gravel and sand, gravel was spread 15 ft. wide, cambered up to 14 in., on the N. (left of ditch here), with a little sand on the edge, and on the S. sand over 10 ft. wide, cambered up to 12 in. In section 54 (fig. 22) there was no natural sand, and what little gravel could be got from the old surface was laid on the N., 4 ft. wide and 3 in. thick, with a spill subsequently into the ditch. In section 55 no metalling was visible, and the old mud simply accumulated. Lastly, in section 52 gravel was laid 6 in. thick on the N., and the S. side introduces us to a further feature. The drain-ditch was found filled, 6 in. deep at the bottom, with laminated turf-peat, which extended up both its sides and for 4 ft., 4 in. thick, on the natural

surface to the S., which was cleared for it of the previously accumulated mud. The edge of the latter was cut clean away, and the turf was clearly laid purposely. It reappears in every section in the ditch, and in section 55 also for nearly 3 ft. on the N. side, 6 to 3 in. thick: both there and in section 56 a mud layer is continuous with it.

Intermittently along much of the S. side of the road, and on the N. especially by the angle where it changes direction, were the remains of a *metal-working occupation*. The black layer of charred debris which this produced is seen in sections 52, 53, and 56, and again (fig. 23) in sections 57 and 58 in connexion with the pits to be noticed in a moment. It yielded abundant furnace-charcoal, slag, and miscellaneous scraps of bronze, remains of crucibles and furnace-clay, and the like, together with occasional pieces of tile and a very considerable pottery-list entirely typical of period IV. The workshops seem for the most part to have been mere shanties which left no detectable structural remains, but there were traces of a timber building S. of the road opposite section 52, with an abundance of roof-tiles and much period IV pottery, and SE. of section 54 a long narrow timber structure of Roman type with post-holes and beam-gullies was planned, *site L3*, also with period IV pottery. This does not seem to be a road-revetment like those in region 3, for there can never have been anything to revet on such a gentle slope, and as being not in actual stratified relation to the road it will be described under its period below. It remains to notice that of the numerous pits in this area three were in stratified relation to the road (fig. 23). In section 57 these were *pit L8*, filled with a dirty gravel mixture, with period IV pottery, which ran up into the black layer of metal-working debris overlying both it and the road, and *pit L9* adjoining it, which was filled with the same black debris, intercalated with a tip of dirty earth, and yielded similar pottery. Section 58 reveals *pit L7*, which has the distinction of being dug right into the N. edge of the road, into which it bites for about 4 ft. It was apparently dug as a quarry for sand and gravel, a dump of which stood 18 in. high on its N. lip; it was nearly 4 ft. deep from the road surface, straight-sided with a shelving bottom on which in one place was some uncleared sand. The main filling was again black burnt debris, with oyster-shells and other refuse as well as three British (152-4) and two Roman coins (28, 30: Tiberius) and a typical list of Neronian (late period IV) pottery; above was a 6-in. gravel layer, with an intensely black burnt layer above again, perhaps from the period V destruction. It interrupts the road so seriously that towards the end of period IV there can have been no traffic here requiring more than 4 ft. of road-space—all that was left between it and the drain-ditch, on the far side of which there was here no road at all.

Period V. The burnt layers spread by the metal-workers were probably added to by the period V destruction, though stratification does not in general make this clear.

Period VI. The road was thereupon thoroughly reconditioned; sandy grey earth filling was laid over the road II surface and ditch and the adjoining deposits (in section 57 black rubbish from the adjoining debris and destruction layers), and over this fresh gravel was laid, of varying thickness, to produce a new road-surface, everywhere at least 20 ft. wide, a foot or so below modern surface. This road seems to have continued in use long after period VI, and to have led to the temple precincts established at the very end of the first century and occupied throughout the second century and into the third in region 1. But nowhere did the metalling itself produce pottery requiring a date later than period VI, and the filling beneath contained what must in the main be Period IV rubbish, together with two Roman silver *denarii* (2, Republican; 21, Augustus).

(ii) *Other Stratified Sequences*

Sequence (a)

Period I. The area around and south of sites D1 and D2, above suggested as perhaps the primary objective of the period I trackway preceding road II, had been much dug into in periods

THE EXCAVATIONS

III and IV, cleared and filled in VI, and entirely made up and levelled over at the end of the first century. The natural sand was covered by loam subsoil, of which a 2-ft. thickness remained; but the latter's surface could not be thought original: as well as being dirtied and trodden in the post-conquest periods, it had been planed down, truncating the mouths of the period I pits, so that these last were all that remained *in situ* of the pre-conquest occupation. That this occupation was of definite importance is suggested partly by that fact—here was something that the Romans were at special pains to destroy—partly by the nature of the pits; and partly by the character of

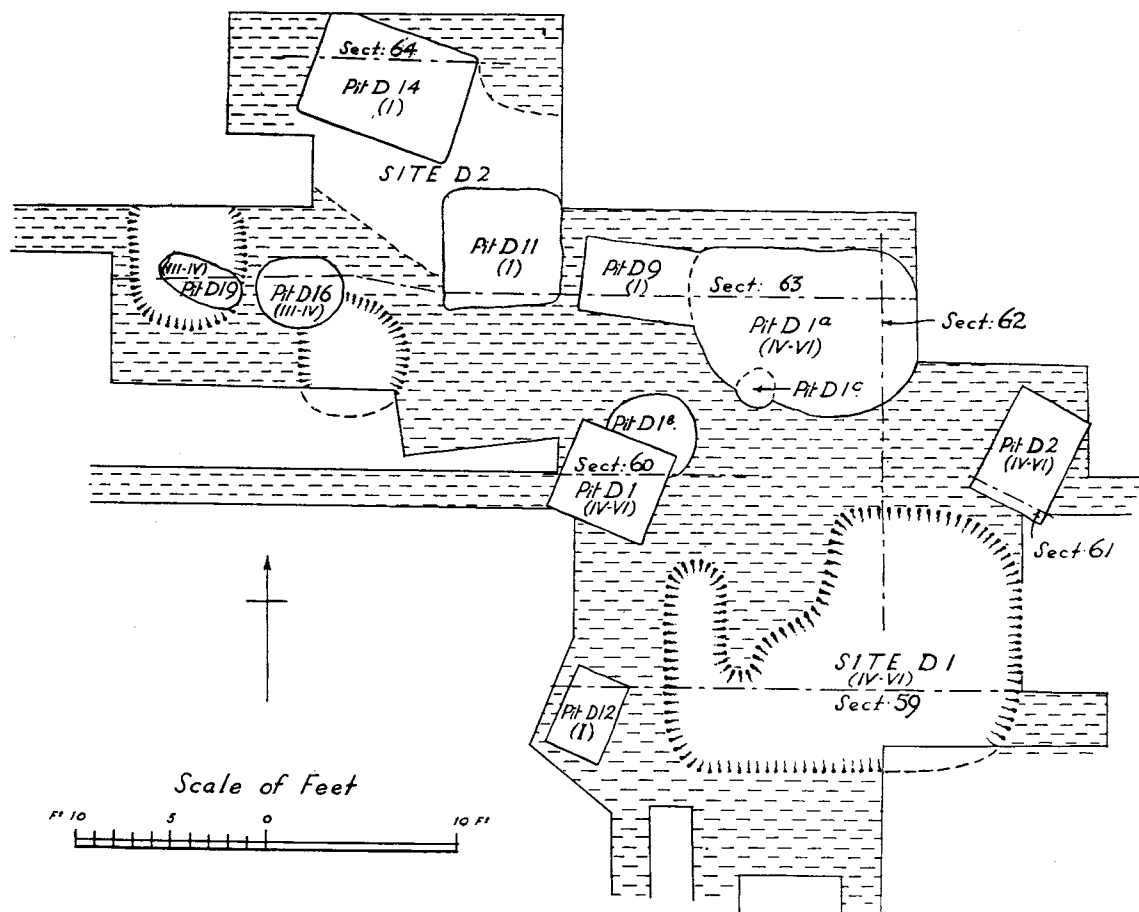


FIG. 24. Region 4: detail plan, site D1 and surroundings. Compare pl. cxix.

the period I material in them and incorporated in near-by later deposits. The immediate neighbourhood of sites D1–D2 was cleared as shown in the plan fig. 24, on which the sand, where left undisturbed under its covering of loam, is marked by broken shading, the pits and other features being dug into it through the loam, which, as explained, was itself nowhere certainly uninjured. The pits yielding period I material were peculiar in being rectangular. They were *pit D12*, measuring 5 ft. by 3 ft. by 6 ft. deep from the surviving loam surface; *pit D14*, 8 ft. by 6 ft. by 6 ft. deep; *pit D11*, 6 ft. by 6 ft. by 4 ft.; and *pit D9*, 6 ft. at least by 4 ft. by 5 ft. All these pits had been carefully lined with clay, which as found had mostly puddled itself at the bottom, but must originally have been retained by timbering; in the two surviving corners of *pit D9* were found iron nails with traces of wood adhering. In fig. 25 this pit and the adjoining *pit D11*

are seen in section 64; pit D12 in section 59; and pit D14 in section 60. Pit D12 had the sheerest vertical sides and rectangular profile, and its thick clay lining was still largely in position: the sharp state of its edges shows how the loam has been planed down to truncate its original mouth. Pit D14 had an uneven bottom, and the remains of its clay were covered by a burnt layer and sealed by one of loam, above which was a mess of rubbish with pottery indicating period III, so that the loam layer may be assigned to the destroying of the period I occupation in period II. Pit D11 had one slanting wall, and its lining was loamy clay, with burnt layers and dirty loam sealing of period II or III above. Lastly, pit D9 had had its E. end cut away by the later pit D1a (see below).

The chief of the period I material from the pits was as follows. Pit D12 had Arretine forms s2 (L.1), s4 (L.2: 2), s13 (L.10: fitting to pieces from pit D11), and s14A (L.11: 2); Gallo-Belgic including f.2 (4), 3 (2), 5 (2), 56 (4), and 112; native wares in plenty both fine (including two beakers f.114) and coarse (including store-jars f.270-1). All this was in the puddled clay, and Roman f.232c, 259 (2), and 266 indicate sealing in period III (or II) by the overlying rubbish, which, however, ran up indistinguishably into later material. In pit D14 the period I group below the loam sealing was extremely fine: with brooches of types III, X, XII (e.g. pl. xciii, 68) were the Arretine stamps 19 and 29, FONT and XANTI on s4 (L.2), and also the Arretine forms s11 (L.8: 4) and s14A (L.11); Gallo-Belgic f. 2, 3, 4 (6), 12 (5), 16A, with the white beaker 113 (8); native (fine) 218A, 221, 254, and (coarse) 266. The period III rubbish above contained with its Roman material much derived from the same occupation: Arretine stamps 7 and 16, ATEI and DIOMÉ on s11 (L.8); much early Gallo-Belgic, with stamps DVROTIX, IVLIOS, VISEROS, VRIT(VES), MARIO; and much pure native ware. The primary material in pit D11 was similar but less rich, the Arretine including s4 (L.2) stamped XANT. . (no. 30), and the Gallo-Belgic the stamps BITVOL and IVLIO. Lastly, pit D9 had in its puddled clay a great deal of pure native ware (f.34 (2), 92, 218 (2), 231, 232B, 253, 270, 271), and some good Gallo-Belgic. The filling above had been swallowed into the later sand fill of pit D1a, but it contained much early material, and the intrusion from it into the clay only of three fragments of Claudian Sigillata (s15B (24/25: 2), s14B (27)) agrees with an original depositing not later than period III. And below the puddled clay, scattered over the flat bottom of the pit, were ten bronze coins of Cunobelin, thus virtually equivalent to a hoard (nos. 114/23). A high proportion of early material was incorporated in most of the later deposits round about, and it thus appears that a period I site of importance had here been destroyed at the conquest, leaving only these rectangular clay-lined pits beneath it. The latter remind one rather of the timber-lined pits in the Roman camp at Haltern,¹ and whatever it was they were designed to contain, they are certainly unique among pre-conquest pits here and (we believe) elsewhere in Britain. Furthermore, none of the other period I sites excavated yielded so high a proportion of imported continental wares, and on this evidence the standard of living on this one must have been well above the average indicated, e.g., by sites L2, L4, L6, and L7.²

Periods (II and) III. The evidence for destruction here at or after the conquest has been included in the foregoing, and that this was at least as early as period III is shown by the stratification described, and by the appearance of new pits, independent of the pre-conquest series, themselves containing material no earlier than period III. These were the oval-mouthed *pits* D16 and D19 (section 64), both having saucer-shaped areas of occupation-debris appended, possibly the sites of dwellings; and *pits* D1b and D1c, which were cut into respectively by pits D1 and D1a. Material at least as late as period IV was, however, not excluded from the filling of any of these, and they cannot be dated quite exactly.

Periods IV-VI. Period IV added the large dish-shaped *site* D1, perhaps a threshing-hollow like those in region 2 (pp. 75-6), the rubbish-pit *pit* D1a (sections 63-4), and two new pits of the

¹ Haltern, text pp. 40 ff.

² For comment, see p. 46 above.

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rectangular clay-lined variety, pits *D1* and *D2* (sections 61-2). However, all vestiges of structure had vanished, for not only was the site apparently wrecked in the period V destruction, but it was then cleared and the filling of these pits completed in period VI, after which thorough making up and levelling followed towards the end of the first century. The floor-like expanse called *site D2* was perhaps only a levelling-layer prepared on this last occasion; it contained material

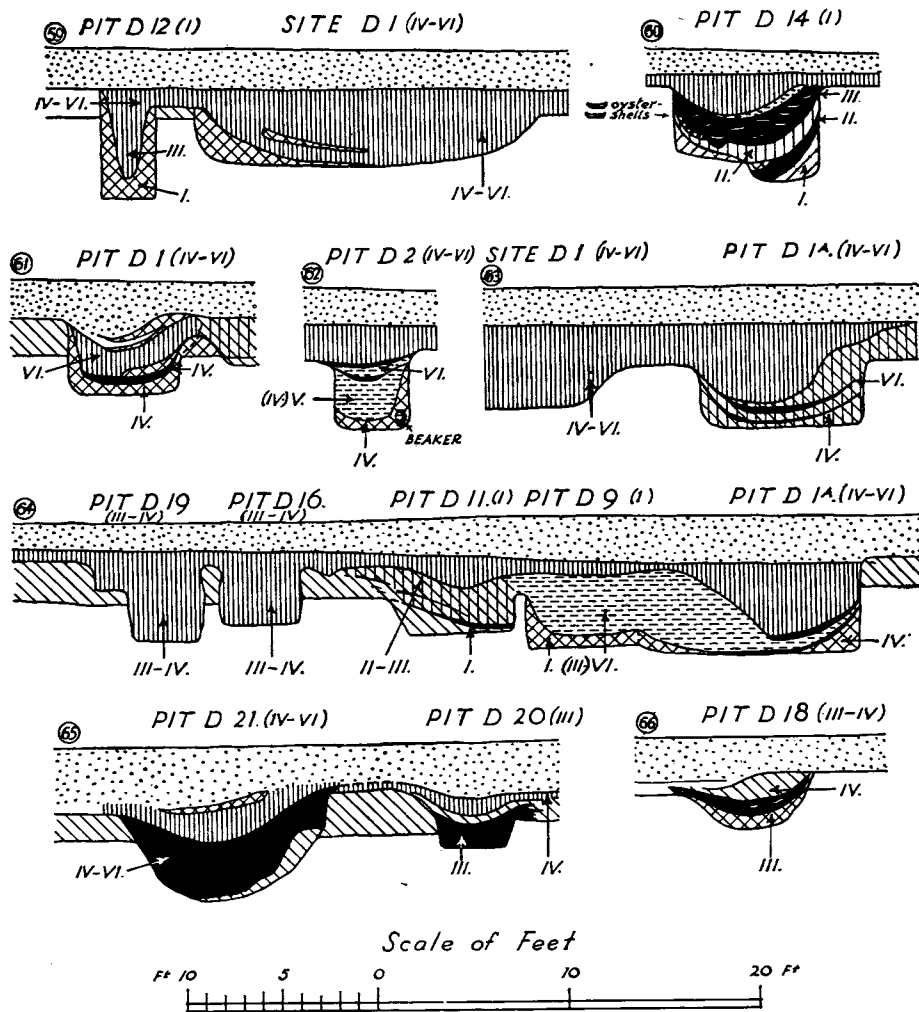


FIG. 25. Region 4: sections 59-66, across site *D1* and pits *D1*, *D1A*, *D2*, *D9*, *D11*, *D12*, *D14*, *D16*, *D18*, *D19*, *D20*, and *D21*. For sections 59-64, see fig. 24; for 65-6, pl. cix.

of all periods, and the mainly period IV assemblage in the filling of site *D1* also contained some period VI material; in the pits period IV material was primary, period VI material secondary. All this stratification is shown in the sections; it remains to notice that the period V destruction had had the same effect on the clay of pits *D1* and *D2* as on that of the similar pits of period I: in that of pit *D2* was found a nearly whole beaker f.108. Period IV sherds from all three pits and site *D1* were found to fit together, and with others from the great layer of make-up sealing all, and all the surrounding area, in common. This layer was of dirty earth, containing a great abundance

of material of all these periods, together with enough mid to late Flavian pottery to date it to the end of the first century, when the area was thus made up and levelled over presumably for agriculture.

Sequence (b)

Period III. About 100 ft. S. of site D1 was *pit D20* (section 65), filled with black debris with Period III pottery and sealed with loam so lying as to suggest it was filled before the adjoining pit D21. Immediately to the S. of it ended the long ditch-like *pit D18*, of which a cross-section is given in section 66. This, in its lower clayey and middle black filling, contained a great amount of pure native pottery (f. 115/6 (9), 218 (5), 221, 250, 254 (5), 257 (2), 259 (6), 260B (2), 262 (2), 264, 265, and great numbers of 266, 270, and 271), with much Gallo-Belgic (f. 2 (5), 3 (2), 5, 7 (4), 8 (8), 12 (5), 14 (3), 15 (3), 56 (13), 72 (6), 84, 84A; beaker 113 also plentiful), so that despite the presence of some Roman material the filling can hardly be later than period III and may consist largely of rubbish from a near-by period I occupation not itself discoverable.

Period IV. Over this and pit D20 were period IV sealing-layers, the latter continuous with the filling of *pit D21*, which contained abundant period IV material, lasting into period VI. Adjoining the latter pit was *site D3*, like site D1 perhaps another threshing-hollow, also with period IV material.

Sequence (c)

Period IV. In the NE. of the region were two hut-sites, *site D4*, 19 ft. 4 in. across and cut through the loam to a natural sand floor 2 ft. down, and *site D5*, similar, both with period IV pottery and signs of destruction presumably in period V.

Period VI. Thereafter site D5 had been made up level, with some period VI pottery in the material, and through site D4 had been dug an attempted well-shaft, *pit D10*. This was meant to be 5 ft. square, but collapsed before reaching water, at 8 ft. 6 in. below the site's original floor. In it was a miscellany of pottery with a number of pieces not before period VI, and the whole complex adjoined a big spread of gravel metallurgy associated with pottery equally late, answering to those farther N. in region I.

B. FEATURES BY PERIOD

Period I

The trackway underlying Road II has been described (p. 97, figs. 22-3), and its possible primary objective in the area of site D1 discussed, with the quantity of fine period I material found there and in the four distinctive pits, *pits D9, D11, D12, and D14* (p. 101, figs. 24-5). The only other sign of period I occupation in the region was within the angle made by the road-line, where a large accumulation of almost purely native pottery was discovered in one place, lying on the natural gravel at 28 in. from surface. No structural remains could be found, but a former hut-site may probably be inferred. Just S. of the area planned in fig. 24 the pits found included *pit D13*, which from its (scanty) contents may perhaps be of period I also (if not, III). Near it was *pit D7*, a shallow hollow 25 ft. across, very probably a threshing-hollow like those in region 2 (p. 75). It contained abundant native pottery and Gallo-Belgic (f. 3 (14), 12 (11), 13 (11), 84 (6), &c., and a fine f. 77), with Roman jugs, &c. (f. 102 (2), 154 (2), 161 (4), 161/3, 185A, 186A, 191A; cooking-ware absent) no later than period III, if as late; a period I initial date is possible. Farther SW., *pit D22* may also be as early, having in it nothing but native and Gallo-Belgic pottery with only a Roman amphora-stump f. 185.

Period II

Destruction in the site D₁ area may be reckoned as of this or the beginning of period III (p. 101).

Period III

On the slope S. of the road-line, *site L₅* was found as a thick occupation-layer lying on loam, at least 14 by 17 ft. An *as* of Claudius was found, and the pottery need hardly be later than period III; with it was much debris of bronze-working. For over 100 ft. SW. of this our trench revealed indefinite traces of occupation, and here was the large *pit L₁₆*, and beyond it *pit L₃₉*, a big oval pit with a sand-streaked dark filling, both also with period III pottery (the latter probably adding a Cunobelin coin, no. 56). N. of the road-line near the angle in it was *pit L₅*, bowl-shaped, 9 ft. across and 44 in. deep, with similar pottery; the filling was of heavily burnt matter streaked with a little sand and much burnt clay, and was probably debris from the metal-working which attained its height here with period IV. In the site D₁ area, *pits D₁₆, D₁₉, D_{1b}, and D_{1c}* have been noticed (p. 101); like the former two the neighbouring *pit D₂₃* can only be dated period III–IV indifferently, and the same is true of *pits D₈, 15, and 15a*, the latter two adjoining an apparent hut-site, *site D₈*, 12 by at least 26 ft. with a loam floor half of which was 5 in. higher than the other. In the ditch-like *pit D₁₈* period IV material has been seen to be secondary, in *D₂₀* absent (p. 103). *Pit D₂₂* and the hollow *Pit D₇* have been noticed as possibly going back to period I (p. 103). Wells II and III will be noticed below.

Period IV

(a) *Road II* has been described, pp. 96, 98–9, with figs. 22–3.

(b) *Occupation-sites*. Among the traces of occupation noticed above along the S. of it (p. 99), *site L₃* was outstanding. It consisted of a made floor of stiff loamy clay with a pebbled surface, stretching for at least 56 ft. parallel to the road, 14 ft. on average from it, and 4–5 ft. wide. This was bounded by beam-gullies like those of the site A₁ building (p. 90, fig. 19), 6 to 12 in. across and 6 to 9 in. deep, the northern one with post-holes disposed along the inner side, and one on the outer, and joined to the southern one by a transverse gully near the E. end. The incomplete clearance of this building was regrettable, but was enforced by restrictions on excavation, the site being now destined for modern houses. The post-holes were from 9 to 12 in. across, and the remains as planned must be regarded as part of the narrow aisle of a bipartite timber building like that on site A₁, facing on to the road as there, the S. wall and E. end of which remain unexcavated. Here then is another example of this Roman type of structure, and the associated pottery, which included much Claudius–Nero Sigillata and practically no Gallo-Belgic, represents here, too, mainly the Roman element in the composition of period IV uppermost. The vague remains of another building W. of this have been noticed on p. 99, and N. of the road also portions of beam-gullies were observed close to the angle in it, where indications of metal-working in period IV were so abundant (p. 99). The remaining occupation-sites had been huts of the sharply contrasted native type (cf. p. 54). One was *pit L₁₇*, with floor sunk 3 ft. through the loam to sand, 25 ft. in diameter; it was adjoined by *pit L_{41A}* (see below). One, some way W. of the last mentioned, was *site L₁*, with a saucer-shaped floor 18 ft. across, rising to a wall-bank on the E. and covered with thick black occupation-debris. There had been another, 130 ft. from the road on the S. side.

Sites D₄ and D₅ in the NE. of the region have been noticed (p. 101). Near site D₃ lay *site D₇*, a hut-floor some 34 ft. across (N.–S.), sunk 2 ft. into the loam, flanked by remains of wall-banks; it was filled with charred debris with burnt daub-clay, and had perhaps been burnt in the period V destruction. S. of this and of site D₈ was the less well defined *site D₉*, and a hearth and other patches possibly of this period.

(c) *Hollows and Pits.* *Site D1* itself (fig. 24 and p. 101) was a large dish-shaped hollow dug through loam into sand, 18 ft. by 14 by 6 ft. 6 in. maximum depth in the centre. Its edge was diversified by an undisturbed tongue on the NW., bounding a shelving terminal gully. The filling was very mixed dirty earth with patches of burnt and unburnt clay, and such is typical of the Iron Age threshing-hollows with which those in region 2 have been compared (p. 75), and this, like pit D7 (p. 103), seems to be another of these. The pottery in the filling, with which were two black and two white paste counters, type III and other brooches, a spill of hard pink-white mortar, and an *as* of Claudius, was strong in Sigillata Claudian at earliest and in Roman grey and buff wares; the Gallo-Belgic included the late forms 14 (4), 16 (2), and 16c (several); and there were still later elements such as mortarium 195B (2) and many Roman grey cooking-pots 266 which show that the filling was not completed till period VI. *Site D3*, farther S., was apparently another such threshing-hollow, 22 ft. across, with definitely period IV pottery. With these may be contrasted many ordinary rubbish-filled pits: *pit D 1a* (p. 101) close to site D1; *pit D21*, 11 ft. across and 6 ft. deep (both these with pottery just extending into period VI); *pit D6*, away in the centre of its area, with pottery not so late; the outlying *pit D24* to the E. (found after the 1930 excavations, in the grounds of the Dogs' Home), with primary period IV pottery, and period VI material over; and a number more in area L. These were *pit L3*, a big pit in the metal-working region N. of the road, dug probably for sand and gravel and filled with layers of these alternating with burnt rubbish; *pits L7, L8, and L9*, already described (p. 99, fig. 23), in the same region; the small *pit L24* near by; *pit L6*, farther N. and probably an attempted well, at least 15 ft. deep, with a filling rich in period IV pottery; *pits L10 and L12* S. of this; S. of the road *pit L4*, 18 ft. across and nearly 7 ft. deep, with clay (perhaps from a lining) at the bottom under charred debris possibly from the period V destruction, covered by gravel and made earth only completed in period VI; the smaller, black-filled *pit L29*; and the not dissimilar *pit L31*; and S. of these again *pit L41a*, adjoining pit L17 (p. 104), *pit L41b* and the black-filled *pit L32*. To be distinguished from these are several pits more or less rectangular in form. *Pits D1 and 2* in the site D1 area (p. 102, figs. 24-5) were the only ones resembling the period I pits already described in that area with clay, originally timbered, linings (p. 100). The others were the small *pit L1*, N. of the road, which only contained a black and gravelly filling; its larger neighbour pit L2, which was not fully cleared; *pit L30* S. of the road, with rectangular mouth 8 by 12 ft. but only one vertical side, the filling being of black debris, clayey below and completed with gravel above; and *pit L15*, just S. of pit L41b, which had sloping sides and a mouth not truly rectangular (8ft. by 5 at N. end, 6 at S.), and a single dark earthy filling with sandier completion above. All had period IV pottery, and whatever their original purpose were filled up as ordinary rubbish-pits.

(d) *Pottery-kiln, with Pit L19.* Wholly distinctive, however, was *pit L19*, 6 ft. square in plan with an oblong adit on the E. 4 ft. 6 in. long and 17 in. wide (fig. 26, 2). It was cut 3 ft. deep through the loam to a flat bottom formed by the natural sand surface below, the sides being steeply sloped except the S. which had collapsed; the adit had vertical sides and a flat bottom 1 ft. 4 in. shallower than the pit. The pit was plainly dug as the emplacement of a pottery-kiln which was never built, the adit being for the flue; the work was interrupted, and the pit filled to the mouth with shattered fragments of Roman tile, especially of the semicircular form (in two different diameters) used (as in the temple-precinct of Claudius in the Colonia) for building columns or pilasters (p. 348; cf. others from region 3, p. 93), and of newly broken pottery vessels. A number of the latter could be restored, and pl. XII, 2 shows the nine best pieces. The Sigillata (in front) corresponds closely to that from the Colonia pottery-shop destroyed by Boudicca (p. 20): left, form s6 (15/17, incomplete) stamped REC·ENV; centre, s14 (27), stamped OF LICN; right, s8 (18), stamped OF LICINI. The unglazed vessels represented were mostly amphorae and other handled types: amphora left, f.18; right, f.18; one-handled flagon, f.139; large two-handled jug, f.174B (unique); smaller, behind, f.168c; four-handled vessel, Haltern form L.63 (the first complete

specimen known), f.176. As will be seen from the remarks on each of these types below, the date indicated is the end of period IV, and the interruption of the kiln-building can scarcely fail to have been due to the Boudiccan revolt. That this neighbourhood was then the scene of a definite pottery industry is not only suggested by the availability of these complete vessels for filling an unfinished kiln-pit but is proved by the discovery, just beyond the angle in road II, of an actual kiln.

The Pottery-kiln (fig. 26, 1; pl. XII, 1) was slightly built compared with those of the second century in the southern quarter of the site (p. 26), and had undoubtedly had much less use. It was built of clay, without strengthening of tile or sherds, and the general shape was rectangular, with the flue to the N. It had been violently destroyed by fire, and nothing was preserved to a greater height than 9 in., so that what we have is the plan only of the flued furnace underneath the oven or kiln proper; the floor of this had been supported on a projecting partition-wall, 4 ft. 6 in. long and 14 in. wide, across the middle of the furnace-space. The inside measurement

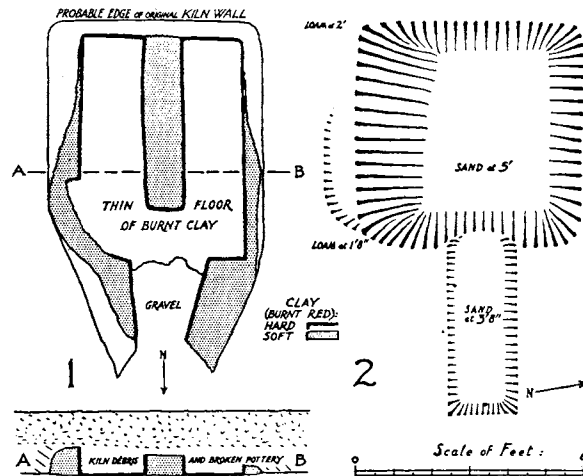


FIG. 26. Region 4: plans of pottery-kiln (with section, A-B) and pit L19. See pls. XII, CIX.

of the space was 5 ft. 8 in. by 4 ft. 2 in., representing presumably 6 by $4\frac{1}{2}$ Roman feet. The flue, at the N. end, was better preserved than most of the rest because of the greater mass of clay used to wall it, the mouth being only 15 in. across, splayed to 2 ft. at the inner end. But the outer side of the walling was damaged nearly all the way round, and at the NE. angle the inner side had suffered likewise. The actual hard-baked inner facing of the structure was under 2 in. thick, backed by 6 in. or more of clay burnt brick-red but not brick-hard. The floor resembled the wall-facing, less than 2 in. of hard-baked clay, laid directly on the natural gravel: it showed signs of strong burning and in most of the flue was missing, having been broken up probably in the repeated raking out of ashes. A thick black deposit of charcoal and soot surrounded and choked the flue-mouth. The whole kiln was found filled with a mass of red clay fragments, the remains of its floor and dome, no features of which, however, could be recognized. In this mass, their bodies showing up like great eggs in a colossal pie, were quantities of buff jugs and flagons, obviously the last loading of the kiln, which had perished with it. A number of these could be restored, and the forms are f.154, 149 or 150, and 171; the series is described p. 282, and figured fig. 58, 1-9, with the pieces of other vessels found also in, or in association with, the kiln, namely rough-cast beaker f.94B (10-11) and bowl f.62 (12), one bowl f.243 (13), two fragments of another bowl (14), and platter f.17 in its latest and worst form (15), with a few lid-fragments. The date cannot be

earlier than the very end of period IV, and most of the forms also occur in period VI. The evidence is thus wholly consistent with the kiln's destruction in period V by Boudicca (thus agreeing with pit L19), before it had been in use at all long. Its date will thus be the short time immediately preceding the revolt in 61, or the very end of period IV. There were probably other kilns near by, on ground afterwards removed by the Roman gravel-diggings to be noticed below.

Period V

Other signs of the Boudiccan destruction in the region have been noted in various places above (pp. 99, 102, 103), and here as elsewhere it evidently put an end to the main occupation.

Period VI and later

Thereafter the same gravel metalling as observed near by in region 1 was laid in the NE. corner of the region, where 22 pieces of a Roman store-jar f.273A were found sealed in it, with more of the same fabric lying upon it, together with much amphora f.187, Sigillata forms s6, s8, s14, and s15 (Dr. 15/17, 18, 24/5, 27), and other pottery as much Roman as native, tile, burnt clay, slag, &c. Through site D4 adjoining was now dug the attempted well, *pit D10* (p. 103), and that the two other wells found in the region may have been used or even dug in this period will be seen directly. The making-up of the site D1 area and its surroundings has been noticed (p. 102), and positive traces of occupation were confined to two places in the S. and SE. of the region. S. of site D9 was a rectangular clay floor, *site D10*, 20 ft. by 15, yielding in the main only amphora-fragments f.187 like the gravel metalling just described; and in the SE. corner of the field were two pits, *pits D3* and 4, the former containing Roman ware including f.242 and 272D, with Sigillata s14 and s15 (Dr. 15/17, 24/5) as well as some native pottery, the latter a still more Roman assemblage of pottery, with a silver coin of Cunobelin (no. 15). Both were sealed over with gravel, upon which was a burnt layer covering both, containing a great deal of bronze slag, pieces of crucibles and casting-moulds, and pottery which included Flavian pieces; there were also coins of Domitian. Farther W., near well III, was a small hearth made of sherds of amphora f.187.

Features not closely dated

(a) *Wells*. About 100 ft. S. of the attempted well *pit D10* was found the timber-lined *well II* (pl. xv, 2). Its timbering will be described below with the others of its class (p. 126); it was 8 ft. deep from ancient (10 ft. 6 in. from modern) surface. In the sludge at the bottom were the intact flask f.235 and the beaker f.108A, with the two intact jugs f.155A and B; these should indicate a date in period IV or even III, but the filling above contained an assortment of pottery including pieces at least as late as period VI, and the well was most probably dug at the beginning of period IV and not filled in until period VI or even Flavian times. On the extreme S. margin of the region was *well III* (pl. xv, 3), also timbered, and described p. 126. It was 8 ft. 6 in. deep from ancient (12 from modern) surface, and in the sludge at the bottom was a large part of a Sigillata bowl s19 (Ritt. 12), with a white jug-neck of peculiar form. The pottery in the filling above was undistinguished, and the same chronology as for well II may be conjectured, but without a near approach to certainty.

(b) *Pits*. The following pits could not be dated: *pits L18, 20, 21, 21A, 22, 23, 27*.

(c) *Roman Gravel-diggings and Sand-pits*. Along the E. foot of Sheepen Hill, from a point just short of the pottery-kiln for about 225 yards southward, and then turning W. for a short distance on the hill-side, excavation located the edge of a large ancient gravel-working, extending back at least as far as the line of the foot-path dividing areas L and D. The edge is represented on the modern surface by a lynchet-like shelf in the ground. The rubbish thrown into these gravel-diggings, which were no doubt at first discontinuous though later for the most part united, was repeatedly sampled and found to contain extremely miscellaneous pottery. There was sufficient

Claudian material to suggest that working may have begun as early as period IV, when gravel and sand were certainly being dug elsewhere on the site, but it probably went on for some while into the Roman times, and cannot be precisely limited. There were indications that its N. end had destroyed other pottery kilns adjacent to the one found, which it had only missed by a few inches. A detached portion of the same working was found E. of the foot-path as *pit D17*, which was a sand-pit, and contained rubbish with pottery of both the first and second centuries and a Flavian bronze brooch.

REGION 5

Plan, pl. cx; photographs, pls. XIII-XIV

This region covers the top of Sheepen Hill and its short southern slope. The top is flattish, rising just above the 110-ft. contour-line; the northern slope covered by region 3 bends sharply in on the west, beyond Sheepen Springs, dropping into a wide gully which reaches far enough southward to leave on the west margin of this region a neck only some 100 yards across between its head and the reverse slope to the south. The latter is the flank of the valley in which flows eastward the small stream forming the southern boundary of the site. The head of this valley being away up to the west, the stream enters the region at about 85 ft. O.D., and has fallen nearly another 20 ft. before passing out of it on the east. The slope down to it begins gently, but from the 100-ft. line continues steeply. Damp loam and clayey drift lie in the valley floor, but the main mass of the hill is formed as before of sand and gravels, of varying consistency and incidence. Denudation of these has been strong from the 110-ft. line eastwards, where a scoured sand surface is met with only a few inches under the turf. The gully on the west has been bitten into in ancient times by diggings cut through the sand and gravel to get at the underlying clay. The hill-top is exposed and windy, but well drained and suitable for habitation accordingly; the southern valley-slope is of course sunny and sheltered, though damp below 100 ft. The region was excavated, with various gaps of no demonstrable importance, piece-meal during the seasons of 1932-4, with supplementary work in 1939. The excavated portions of the N. and NE. of it are the south division of area B and the central division of area C, continuing from region 3; the centre is covered by areas G and Z; area Y covers the west with its northern and western divisions and the south with its central and eastern divisions; and the SE. corner, with the extension beyond outside the limits of pl. cx, forms the southern division of area C. The detached portion of the region outside the plan to the SW., at the far end of Sheepen Dyke, is area W. The hedge and foot-path crossing the region from E. to W. divide the Sheepen property from that of Kingswode Hoe; the gate which up to the present has given access to this from the N. end of Sussex Road lies just within the region on the W.

A. STRATIFICATION

Key-deposits

Sequence (a)

Period I. The Sheepen Dyke, *ditch I*, enters the region from region 3 still holding strictly to the SSW. alinement followed by it from the W. entrance on. Its interruption by ditch II, pit G11, and clay-pit III is the chief stratigraphic interest of this sequence (sections 67-8-9), which is concerned with the length, of just 100 yards from the N. limit of the region, where the dyke is represented by ditch I proper. This length ends at the original SW. entrance, at which ditch I stopped with a slight inward turn, seen on plan as a bulge, 28 ft. across, projecting for 8 ft. to E. in from the main line of the inner lip. This termination is confronted, across an entrance-causeway

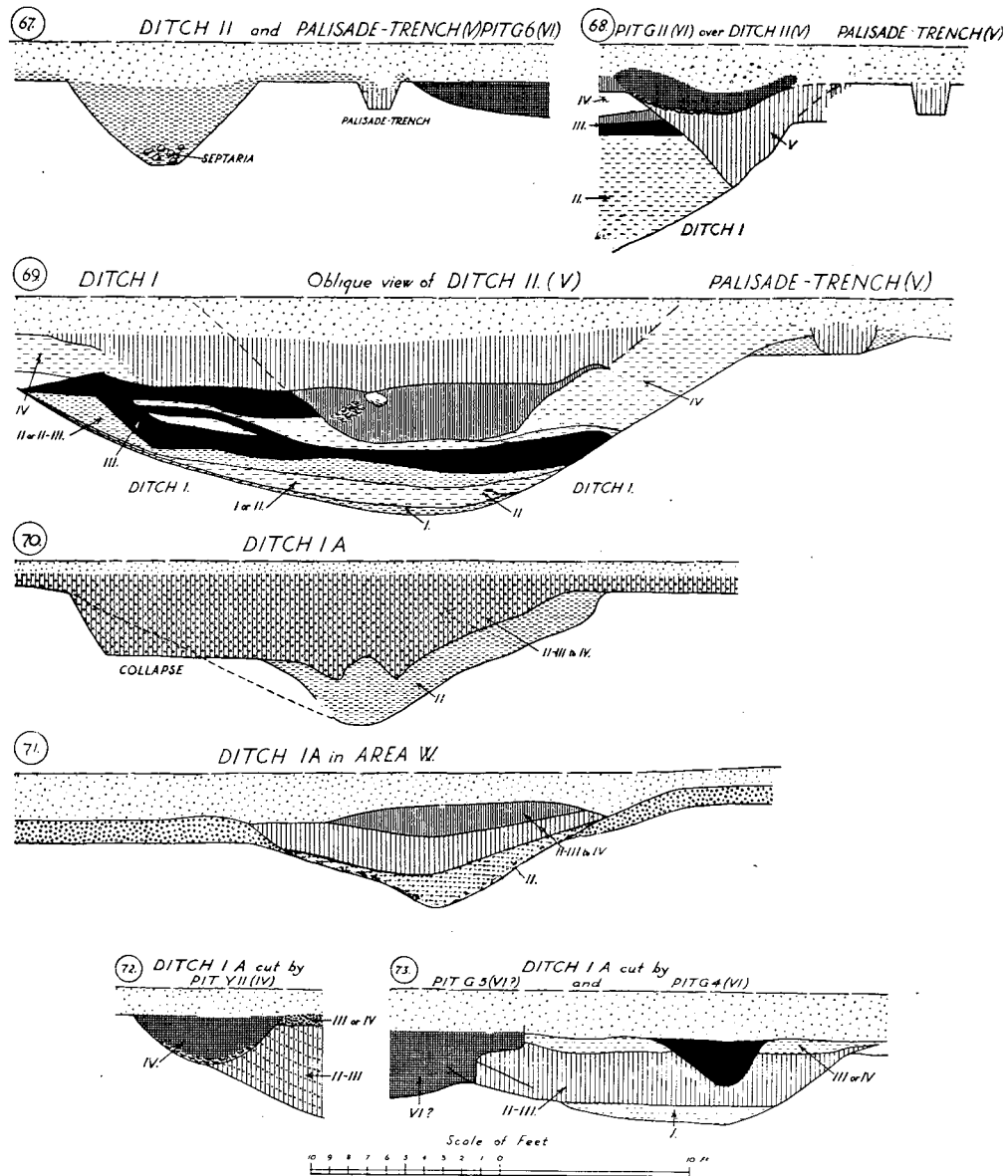


FIG. 27. Region 5: sections 67-9, across ditch II and palisade-trench, ditch I, and pits G6 and G11; and 70-3, across ditch IA, with pits Y11, G4, and G5. See pl. cx; and, for 71, pl. cxii.

of undisturbed sand 30 ft. broad, by the opposite termination of ditch IB, which continues the original defences SE. as far as they go and will be described under sequence (c). At some time before the end of period I an additional defence-line was made to run SW. from the original end of ditch I, bending off on to an alinement of its own and running on to end in area W: this is ditch IA and will be described under sequence (b). Here in sequence (a), ditch I proper was 36 ft. wide, and just over 8 ft. deep from its lips as found (11 ft. 6 in. from modern surface); a slightly oblique cross-section is given by section 69 (fig. 27). It was dug in natural sand, and on its broad U-shaped bottom had 5 in. of primary sand silt, overlain by 14 in. of paler sand, which may either be more period I silt or a little of the rampart thrown back in period II; the two layers were not everywhere distinct (on the Sigillata form 29 fragment pl. xxii, 25, see p. 177). There was no trace of the rampart itself, which was probably faced with turf to retain the sand of its body.

Period II (and II-III). A great deal of the rampart was not thrown back into the ditch in period II. The pale sand just noticed was overlain by up to 14 in. more of darker sand, containing the Cunobelin coin no. 75 at c. 6 ft., and one or both of these should represent partial refilling in period II or II-III (the latter in the same sense as in region 3, p. 80); but the period III black layer over them lay still as low as 5 ft. 6 in. from lip level, and clearly the bulk of the rampart, if not left temporarily *in situ*, must have been removed elsewhere for the sake of its sand. In the partial section 68, however, there was a much thicker period II sand filling, so the extent of the refill was evidently inconstant.

Period III. The period III stratum, 8 to 20 in. thick, was a black layer of occupation-debris, with some amount of pottery.

Period IV. Over this was a further sand layer, presumably the last of the rampart, seamed in a few places with black or earthy seams of debris, and partly covered in section 69 by a black stratum 18 in. thick, again with some amount of pottery.

Period V. The major importance of this sequence is its stratigraphic proof of the age of *ditch II*. This enters the region from the N., somewhat narrowed by denudation (cf. p. 81, region 3 adjoining), some 30 ft. outside ditch I and bending almost due S. so as to cut its line. The intersection was very nearly destroyed by clay-pit III (p. 121), but not quite, and immediately S. of the edge of the clay-pit ditch II was found to be cut diagonally across the filling of ditch I from NNW. to SSE. This is seen in pl. XIII, 2, and in section 69, the profile of ditch II being seen obliquely. It was cut clean through the period IV black stratum just observed and into the sand below; its filling consists of an even mixture of the two, redeposited, before the formation of any primary silt, after serving as the material of the associated rampart. The period IV material so redeposited contained oyster-shells and a little other rubbish, and some tumbled septaria; the palisade-trench which had held the rampart's facing is absent (as in region 3) N. of the clay-pit, but S. of it duly appears in section 69 just above the inner lip of ditch I, or 8-10 ft. from that of ditch II. Ditch II is thus later than period IV. That it is earlier than period VI is first shown in section 68. Here, 10 ft. farther S., ditch II has crossed to a position exactly on the edge of ditch I, where the stratification of section 69 is repeated, with the addition of a later pit, *pit GII*, a shallow rubbish-hole 9 ft. across and at most 2 ft. deep, dug into the top of the ditch II filling. It contained dark sludgy earth full of rubbish and a floor-layer of oyster-shells. There was nothing in it later than period VI, and its attribution to that period was confirmed by the contents of the adjacent pits G6 and G7 (see below). This section gives a true profile of ditch II, nearly 12 ft. wide and 5 ft. deep, and of the palisade-trench, 3 ft. 6 in. from it, 2 ft. wide, and 20 in. deep. A standard profile, clear of ditch I, is given by section 67, taken 75 ft. farther along to the SSE.: the surface has been a little denuded, so that the ditch appears 10 ft. wide; the palisade-trench, 5 ft. from it, is 2 ft. 3 in. wide, with sides slanting steeply to a flat bottom a foot narrower and some 18 in. deep. Having disturbed nothing, the redeposited upcast filling the ditch is pure

sand, containing only again tumbled septaria; the material in the palisade-trench is slightly darker.

Period VI. The right-hand portion of this section (67) is turned N. to show part of the adjacent *pit G6*, which is here seen just clear of the palisade-trench, but which, as the plan (pl. cx) shows, runs out immediately beyond to cut both it and the inner edge of ditch II. Touching it on the N. was *pit G7*, which did the same. Both pits were filled with dark sludgy earth, exactly like that in *pit G11*, which we have just seen dug into ditch II's filling in section 69. The three pits form in fact a single group, and fortunately enough the contents of pits G6 and 7 were so rich in distinctive unglazed pottery that they can be reckoned the most valuable key-deposits of period VI found anywhere on the site. On the character of the period VI pottery assemblages so typified, see pp. 43-4.

Sequence (b)

Period I. The original termination of ditch I at the SW. entrance was the starting-point for the extension of the period I defences by *Ditch IA*. That this is secondary could not indeed be proved by any stratification in the primary silting, which was throughout meagre and of loose, barren sand; but it is very obvious on plan. Leaving the slight inward turn in which ditch I ended at the entrance as the lateral projection above described, ditch IA at once sets off on an outward curve, bringing it on to a new course heading almost due SW. Simultaneously, it narrows from a minimum of 32 ft. to a standard width of only 24 ft., and the bottom along the initial curve was found to be sloped evenly up from a depth of 8 ft. to one of only 5 ft. (7 ft. below modern surface). There was nothing to show how late in period I this extension of the defences had been made, but since its purpose would seem to be military, and since it slants across the level neck linking the hill with the main plateau and so blocks the usefulness of the SW. entrance, it looks like the sort of protective measure one would expect only at the end of the period, in the troubled months after Cunobelin's death, and very possibly, like the cutting through of the W. entrance causeway in region 3 (p. 83), a last-minute expedient adopted only in face of the final Roman advance. Section 73 shows the rather feeble profile characteristic of ditch IA, with a foot of primary sand silt in its bottom. This was under 40 ft. from the SW. entrance; nearly 100 yards farther SW. we have the slightly oblique section 70, where the width is as much as 26 ft. and the depth 7 ft. The fairly good V profile is marred by a collapse of the gravel-pocketed sand of the outer slope, spoiling the definition of any primary silt.

The other complete section, section 71, was that taken in the detached area W, outside the plan pl. cx, at the far SW. end of the line. The exact alinement, as was verified intermediately, was preserved along ditch IA's whole length of almost exactly 300 yards until right at the end, where, on the brow of the slope down to the boundary stream just above the 100-ft. contour-line, it broadened to fade out in an even inward curve. Section 71 was taken just short of this, rather obliquely: the 24-ft. width seen represents a real one of 17 ft. between the lips as preserved, and the depth from these is 6 ft. No primary silt could be clearly defined.

It remains to notice that 170 yards E. from here, due S. of section 70, a trench carried right down to the brink of the stream disclosed, between the 95- and 85-ft. contours ('site Y2'), a slight scarping of the natural slope. This was in two tiers, the lower answered by a shallow counter-scarp, giving the semblance of a ditch. The natural subsoil here was clayey loam laid by the stream, and thickened above these works by more recent lynchet-formation from modern ploughing of the slope; at and above the scarped levels was a good deal of charcoal, and the scarping was undoubtedly both artificial and ancient. It is plausible (though nothing datable was found) to connect this with the extension of the defences by ditch IA; the continuance of it along the whole length of the valley-slope between ditches IA and IB will make a complete triangular addition to the defended area, and the terminal inward curve of ditch IA well suits this conception, which will be mentioned again below.

Periods II and II-III, III, and IV. The scantiness or absence of primary silt in ditch IA confirms the view that it was only made at the very end of period I. In the region of sections 72 and 73 the bulk of the filling, of sandy, in places gravelly, earth, was continuous up to a high level, and though in these two sections there was a sealing-layer above, of gravel and sand respectively, the sealing was very patchy, and rubbish was able to accumulate in the filling well into period IV (see below), though in this region the actual levelling of the rampart into the ditch produced a homogeneous matrix which need not be denied to period II, or II-III as above defined (p. 80). At a low level (5 ft.) in this, just SW. of section 73, was a coin of Claudius (no. 137), and in section 72 one of Cunobelin (no. 43). Farther along, both in sections 70 and 71, only the lower part of the fill can be ascribed to period II, and the remainder above must be distinguished anyhow as II-III, and allowed in places to include material of IV. The dirty upper stratum in 71 may be wholly of IV; but in any case the whole stretch of unsealed filling along the ditch cannot be treated as a key-deposit in any strict sense, and pottery that cannot be earlier than IV was often liable to turn up in it. The gravel layer seen in section 72 was laid presumably to give a firm passage across the still loose filling below; a little farther N. it had been made up with a patch of sand covered by a second spread of gravel, in which was a small drain. *Pit YII*, in section 72, was dug through the gravel, and was full of sooty black earth and oyster-shells; near section 70 the ditch was just touched by another period IV pit, *pit Y3*. *Pit G8* will be mentioned directly. In the outlying area W the filling of the ditch's terminal curve was homogeneous and may be assigned to period II primarily; in it was found a native pedestal-base f.203, and native pottery with slight Roman admixture was found on the old surface-level near section 71. For a part of the terminal curve, the inner lip had been dug into for sand, and rubbish with pottery, in part at least of period IV, shot into the excavation.

Periods V and VI. In the middle of section 73 the filling was interrupted by *pit G4*, which was 5 ft. across, 2 ft. 6 in. deep below the sand surface from which it had been dug, and quite full of intensely sooty black earth. This contained much pottery, which included f.21, 34, 108, 112, 270, with Roman f.161, 177, 242, 243, and is definitely taken into the time of Nero by the bowl f.62B. At the bottom, as seen in pl. xiv, 1, were four crumpled and battered Roman iron swords (p. 340: pl. civ, 3-6). Thus dated, these suggest the fighting of A.D. 61, and the pit may be regarded as contemporary with *pit A21*, site A4, and the other deposits yielding military remains in region 3 (pp. 91-5).

Subsequently the outer edge of the filled ditch here had been bitten into by the large and almost barren sand-pit, *pit G5*, which had a heavy dark filling and is probably as late as period VI, cutting as it does the S. lip of the period IV *pit G8*. And near section 72 the inner edge was interrupted by the big oval *pit Y46*, which contained nothing that need be after period IV, but is probably of VI from its similarity to those to be noticed below in and beyond area Z.

Sequence (c)

No structural features of the SW. entrance were recoverable owing to later disturbance of the ground, and recognition of its genuineness depends upon the proof that the two ditches between which its causeway runs are contemporary and parts of a single plan—in other words, that ditch Ib belongs to the same defensive scheme as ditch I. *Ditch Ib* runs from the causeway across which it faces the original termination of ditch I (p. 108) SE. for a total distance of some 275 yards. It ends by running out at the bottom of the slope on the brink of the southern boundary stream, just outside the plan pl. cx. It takes the fall of over 40 ft. at a fairly easy gradient, being laid at an angle of about 60° to the contours. Its course is nearly though not absolutely straight, and its dimensions are not as constant as those of ditch I. The shape of its profile, however, is quite as constant, as is seen from figs. 28-30, where of all the sections shown only section 79 (fig. 29) displays a really flat bottom, a view of which is given in pl. xiii, 1. For the rest, it makes a fairly

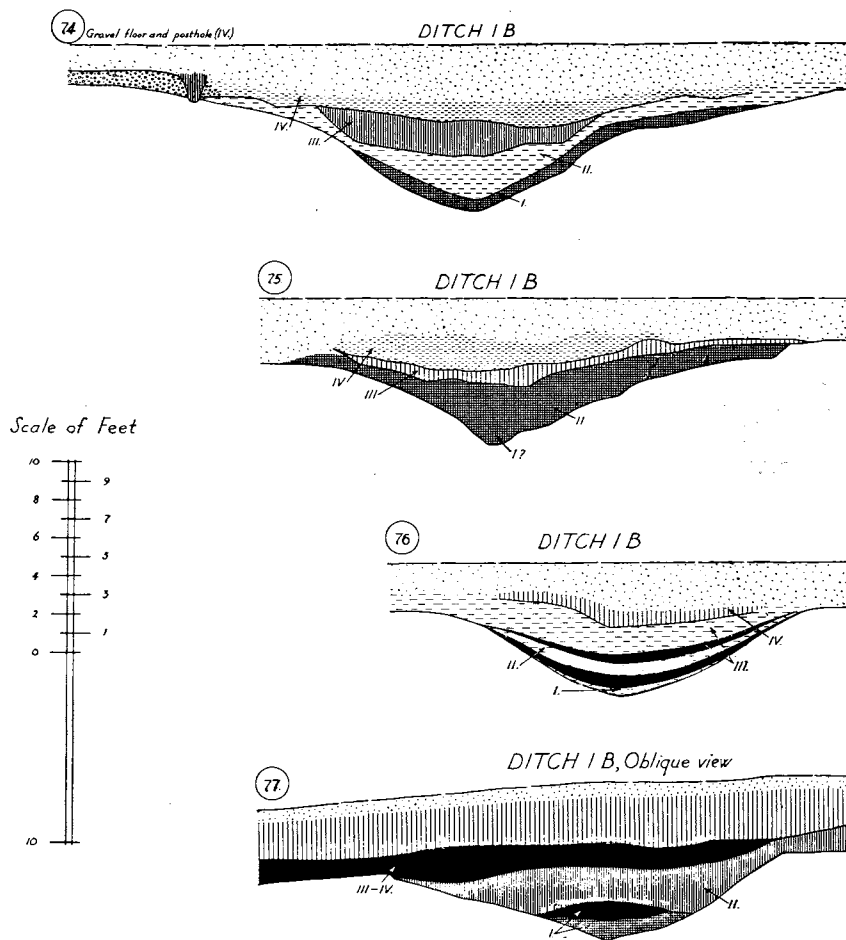


FIG. 28. Region 5: sections 74-7, across ditch I B. See pl. cx.

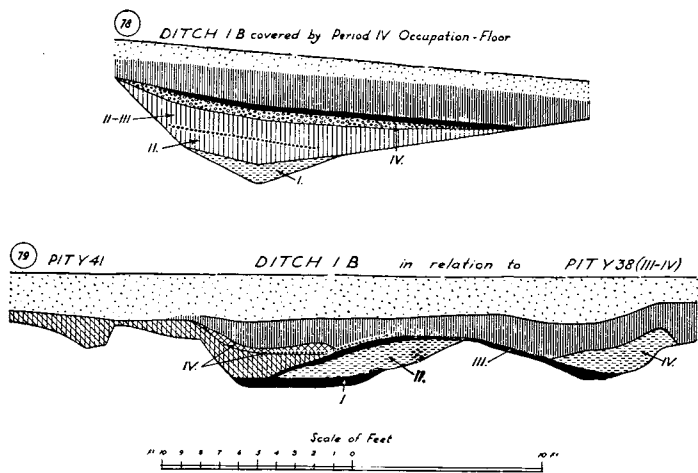


FIG. 29. Region 5: sections 78-9, across ditch I B, with pits Y38 and Y41. See pl. cx.

constant approximation to a V profile, save where, in section 80 (fig. 30), the sand into which it is dug is very soft and loose. There was nowhere any sign of its rampart *in situ*. It begins at its NW. end at a width of 12–14 ft., and increases quickly to 24 ft. (section 80) and then to its maximum of 30 ft. (section 74), after which it varies between 26 and 28 ft. as far as about 120 yards from its start; here it narrows to between 14 and 18 ft. (sections 79, 76, 77) and only gradually thereafter regains 26 ft. before its end. The original depth appears everywhere to have been between 4 and 6 ft. except in the flat-bottomed sector at section 79, where it can hardly have been much more than 3 ft. The narrower and shallower portion is that where the slope is steepest, from 103 to about 80 ft. O.D., so that its reduced dimensions need not be supposed accidental. It is conceivable that it originally stopped altogether where these begin at the top of the steepest slope, and was prolonged only afterwards just as ditch IA prolongs ditch I. But there is no positive argument for this, and whereas ditch IA was distinctive in having little or no primary silt, ditch IB showed a primary silt in every section cut, except where none was visible in section 80 owing to the softness of the sand, and in 75, where the whole contents below the period III level were a dark sludgy mass without stratification (for Roman coin no. 4 (*denarius*) here see pp. 30, 144, 153, 161). This primary silt was occasionally clean sand (sections 78, 80), more often dark sludgy mixture (74, 75 (?), 77), and again sometimes contained or consisted of black burnt material (76, 77, 79, 81, 82); its thickness varied from 6 in. (79) to 2 ft. (centre of 77). Not very much pottery was found in it. Stratification thus supports the view one would naturally take from the plan, that ditch IB and ditch I belong together. However, ditch IB is the less regular both in dimensions and alinement, and was evidently finished with the less care as the less important.

Periods II and II–III. In a few places ditch IB was found to have a fairly complete filling assignable to period II (sections 75, 77, 81). Often, however, this was incomplete (sections 74, 76, 78–9), and occasionally (section 82) quite scanty, and here there was always a secondary fill above attributable to period II–III in the sense defined above (p. 80). Black layers were several times present in these, but they produced very little, with one interesting exception. In the period II–III fill in section 76 was a deposit containing ten fragments of clay slab-moulds, of the peculiar pitted type described below (pp. 129–133) and conjectured to have been used in the manufacture of coins at Cunobelin's mint. It is in general clear that the filling of this ditch was done rather irregularly and imperfectly, and much of the vanished rampart-material may have been taken away for other use.

Period III. Layers of this period, of one kind or another, overlay the filling in sections 74, 75, 77, 79, 81, 82, and 83. In section 76 the filling was only now completed; in 77 the layer was a thick one and from its material must run well into period IV—it might even be no earlier than that. In section 79 the layer was of black debris and ran over the edge of the ditch into *pit* Y38, one of a whole row of shallow sand-quarries dug along this sector. In section 82 the layer was a thin black one with a clay patch, perhaps a hearth, in the middle of it, and ran over the edge into the upper part of *pit* Z1, a big straight-sided pit 6 ft. deep, cutting away the outer lip of the ditch and full of dark sludgy rubbish-material, with some sand, the whole of whose contents could be assigned to period III. In section 83 there was again a layer running over into an interrupting pit, *pit* Z3, with a period III filling, sandy below and black above.

Period IV. In sections 74–6 this period produced only sand or earth make-up over the ditch-filling; in 77 there was occupation, as just noticed; in 78 there was a well-laid gravel floor with a rich occupation-stratum on it, like those in region 3 (p. 80). In section 79 the filling of the ditch was now completed, in one with that of the adjacent *pit* Y41, the earlier pit Y38 being left choked with sand; in 80 a big cylindrical pit, *pit* G1, probably an attempted well, was dug into the ditch's outer lip, and a black debris-layer shot over the filling; in 82 there was nothing necessarily of period IV at all. In both sections 82 and 83, which adjoin one another, the period III deposits were covered by a compact layer of earthy make-up, on which, in 83, was sand, covering

also a final black layer in *pit Z3*. All over this sand, and beyond it into section 82, was a dense stratum of wood-ash, and in and on this, centred on the middle of section 81, was a great mass of Roman tiles and tile fragments and wasters. Tiles had clearly been made here, but very full excavation showed no trace whatever of a kiln, and it would appear that a non-permanent construc-

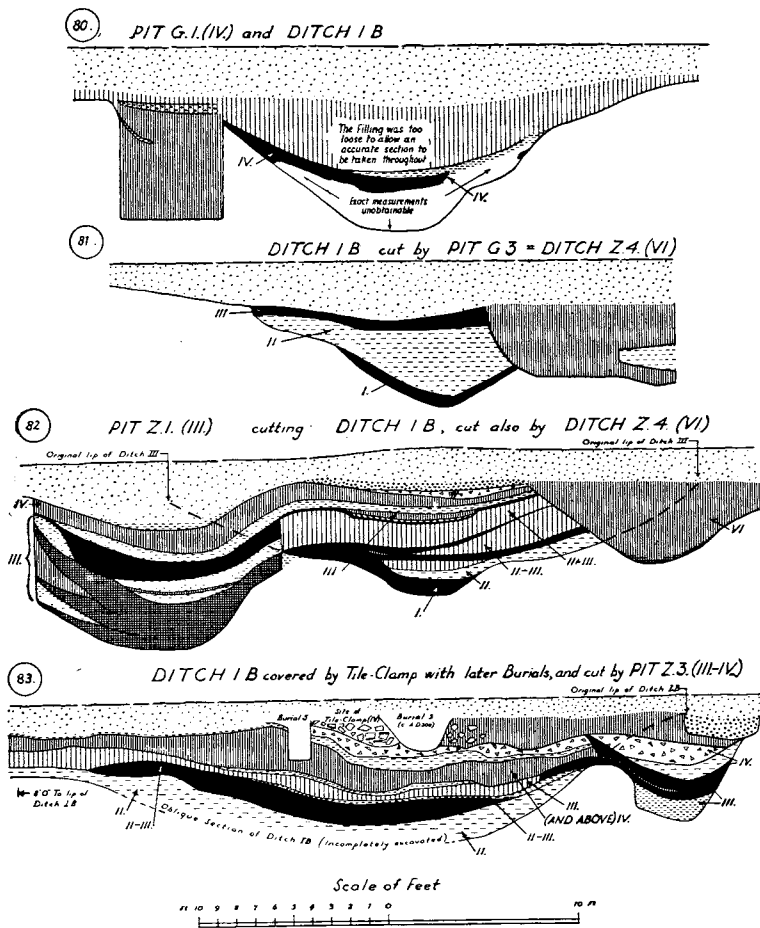


Fig. 30. Region 5: sections 80-3, across ditch I B and pits G1, G3 (ditch Z4), Z1, and Z3, &c. See pl. cx.

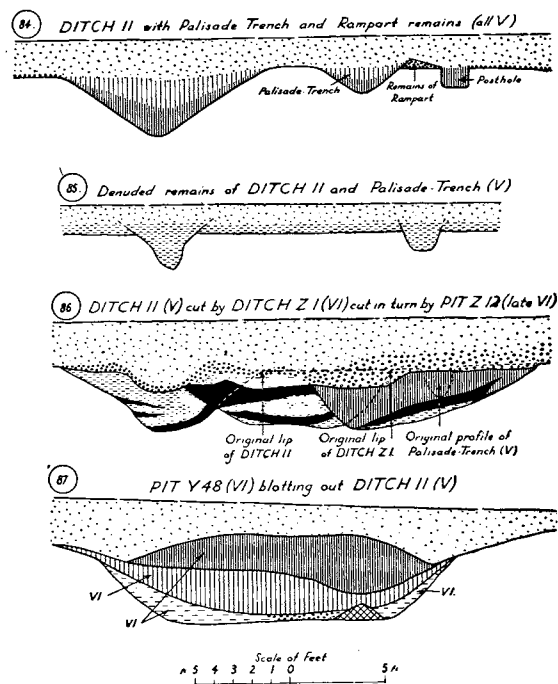


Fig. 31. Region 5: sections 84-5, across ditch II and palisade-trench; 86, across ditch II, ditch Z1, and pit Z12 (see fig. 32); and 87, across pit Y48. See pl. cx.

tion or *tile-clamp* had been used. The whole was associated with typically period IV pottery. Farther SW. the ditch was cut into by the contemporary *pit Y42*.

Period VI. Only two interruptions of this period cut into ditch I B: one, at its narrowest part, was *Pit Y43*, with Roman grey-ware pieces certainly no earlier, and the other was the elongated excavation on the border of areas G and Z, called in the former *pit G3*, but definitely known as *ditch Z4*. This appears in both sections 81 and 82, where it is seen to cut through the whole filling of ditch I B including the period IV layers. Its own content was a homogeneous earthy mass, with pottery including native ware only in small worn scraps, and a good deal of Roman cooking-pot f.266, with much tile from the adjoining 'clamp' deposits; that it is indeed as late as period VI is confirmed by the analogy of the similar elongated pits or ditches running along the line not of ditch I B but of ditch II, as will be seen in the next sequence.

Other Features. Pit Y35 had no datable contents. In section 83 the period IV deposits are seen interrupted by two of a group of six Roman burials, inserted into the abandoned clamp-site at various dates in the second and third centuries.

Sequence (d)

Period V. This sequence begins only with *ditch II*, which cut into no earlier deposit after crossing ditch I, but was cut into by later ones. In fig. 31, section 84 shows a profile of it and its palisade-trench taken near the E. limit of area G, where the palisade-trench was found with sides splayed in the soft sand by weathering after an imperfect fill (cf. pl. xiv, 1), and adjoined by meagre remains of its gravel rampart-base and a post-hole, perhaps but not certainly associated. Section 85 shows another in the heavily denuded sector on the border of area C (south); the other two sections were taken in between these. The line of section 84 is marked on the plan fig. 32. Ditch II was probably just over 10 ft. wide here originally, and was dug 3 ft. 6 in. into natural sand; it was filled with its upcast, replaced from the vanished rampart, streaked with burnt debris but barren of significant finds.

Period VI. This was cut into by *ditch Z1*, an elongated rubbish-trench dug along its line, just as was ditch Z4 along ditch IB, and filled with sand thickly streaked and more thickly covered with more burnt debris, in which were a legionary *denarius* of Antony (no. 16), four Caligula *asses* (74-7) and another Roman coin (p. 166), and two Cunobelin coins (91, 107), but only scrappy pottery. This in turn was cut into, and the palisade-trench obliterated, by the circular *pit Z12*, with a slanting bottom covered with sand and burnt debris, and a main filling of dark sandy earth; in this was a little Roman pottery, still no later than period VI. Lastly, section 87 shows ditch II entirely blotted out, on the line of the boundary hedge between areas Z and Y (east), by *pit Y48*, which with its neighbour *pit Y32* further represents the same class of elongated rubbish-trenches or pits of period VI. Just N. of this the palisade-trench was cut by two small round pits of the same age, *pits Z8 and Z9*.

Sequence (e)

Period I. In the middle of the area planned in fig. 32, and shown in section 88 (fig. 33), were two pits with their bottoms covered by heavy sludgy deposits containing only pure native pottery, *pit Z11 and pit Z6*. They would have lain just at or by the tail of the original rampart belonging to ditch IB, and that they may be assigned to period I is confirmed by the overlying stratification.

Period II. The earthy filling of pit Z11 contained still only native pottery, with a couple of Roman jug-sherds, and with the barren sand filling, pit Z6 may tentatively be assigned to period II: that is, both must have been deposited at or soon after the Roman Conquest.

Period III. For pit Z11 is cut by the northern end of a third pit, *pit Z17*, the filling of which, with a black stratum at its base, also seals pit Z6. This pit Z17 was peculiar, an elongated oval in plan, 29 ft. long by 9 ft. 6 in., with northern end forming a sort of shelf 7 ft. wide; this was 3 ft. deep, but the main pit was 7 ft., or 9 ft. 6 in. below modern surface, with extremely steep-cut sides (sections 89-90). Its primary filling of dark clayey sludge may be the remains of a clay lining, and was covered by earth streaked and flecked with sand and gravel: these layers contained native pottery with a certain proportion of Claudian Roman wares.

Period IV. They were sealed by a wedge of clean gravel, over which lay earth or sandy gravel with pottery not earlier than period IV. In the extension over pit Z6 (section 88) this gravel became a burnt layer, which was cut by ditch II (fig. 32) and thus has its age confirmed.

Period V. *Ditch II* was interrupted opposite these pits for the entrance which stands out as the chief structural feature associated with this period's defences, and will be described under its period below (with figs. 32 and 34).

Period VI. Over the whole complex of pits, and over the period V entrance as well as ditch

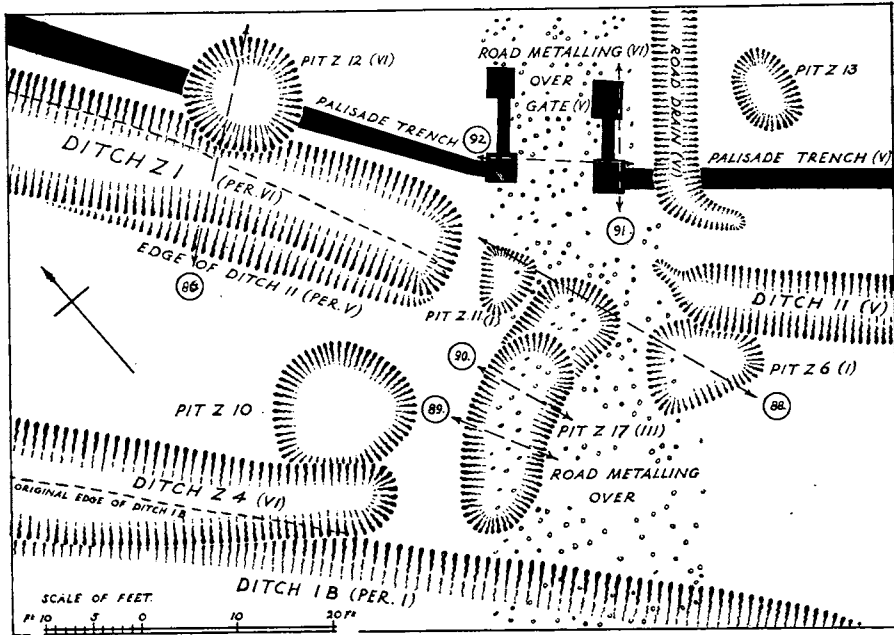


FIG. 32. Region 5: detail plan in area Z, with entrance-gateway of period V, &c. Compare pl. cx.

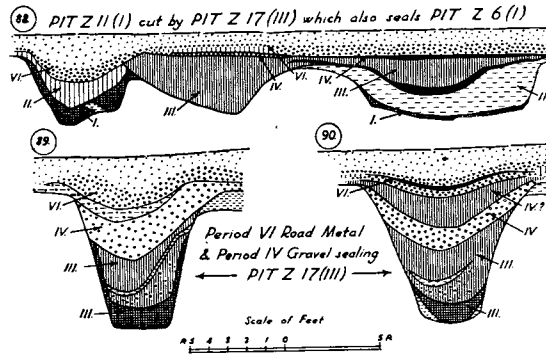


FIG. 33. Region 5: sections 88, across pits Z 11, Z 17, and Z 6; and 89-90, across pit Z 17. See fig. 32.

1B, a thickly gravelled *road* had been laid in period VI, associated with a drain, the curving end of which is seen in fig. 32 to cut through the period V palisade-trench. This sequence thus represents every period in the history of the site.

B. FEATURES BY PERIOD

Period I

(a) *Defences.* What has been said above about these (pp. 108-14) amounts to this: all three elements in the final form of the Sheepen Dyke system are present in this region, converging on the SW. entrance. *Ditch I* is primary; *ditch 1B*, though second-rate in execution, need not be considered secondary, but is simply the inferior limb of the primary plan; *ditch 1A*, on the other hand, is definitely secondary, and encloses, together perhaps with the scarping along the boundary stream observed at site Y2, a triangular annexe to the main defended area, shutting off the SW. entrance from its natural line of communication outwards. This may well be an addition made against the final advance of the Roman invaders (cf. the cutting of the W. entrance-causeway in region 3); anyhow, the absence or scantiness of primary silt in ditch 1A alone suggests that it was not open for long. Unfortunately no traces of rampart were anywhere discoverable, and no structure had left distinguishable traces at the W. entrance itself, owing to disturbance of its site in period IV and perhaps to subsequent denudation there. Also, the causeway was overrun by a ditch made by the Cromwellian troops encamped here in 1648, with a narrower trench branching S. from it.

(b) *Occupation-sites and Pits.* If there was an occupation-site anywhere near the two period I pits, *pits Z11 and Z6*, it was elusive, and so was anything else of the kind there may have been in the excavated remainder of the main defended area. Outside ditch 1B, however, there was something of the kind, namely *site Y1*. Its traces, where first found directly S. of the foot-path and hedge in area Y (centre), were, for structural remains in this region, unusually bold and clear, and the more extensive stripping of the ground, not elsewhere judged worth while, was here undertaken. Two big beam-gullies were found (plan, pl. cx), lying nearly parallel and roughly SW.-NE., with a third crossing them at an angle. The W. one was 6 ft. across by 21 in. deep, and thus must represent something broader than a single sleeper-beam; it was traced for 40 ft. to an abrupt end on the SW. Its fellow, 3 ft. 9 in. by 9 in., ran (not quite straight) for nearly 60 ft. to a similar end, and the transverse one, also 3 ft. 9 in. by 9 in., at its SE. end stopped dead likewise. All three were of the same rounded concave profile, and all filled with dark sandy soil, which yielded much pottery, as did the surrounding natural sand surface (21 in. below the modern), though there was nothing like a floor upon it. On the other side of the foot-path in area G were three wider gullies which it is hard not to connect up with them as marked on the plan, but since the obstacle to excavation made by the hedge and foot-path made complete planning impossible, and the area G gullies were overlain by later occupation-patches, all one can say is that here was a timber building of some kind. There were no post-holes, and uprights must have been mortised to the gully-bedded sleeper-beams. No special purpose other than ordinary occupation can be suggested for the structure on the strength of the associated finds, which were virtually all of pottery, and largely of brown-black soapy-faced native domestic ware. The form-list agrees well with that from the period I key-deposits, and is as follows:

In gullies S. of hedge: Gallo-Belgic, T(erra) N(igra), f.2, 5; T(erra) R(ubra), f.56 (2), 114 (plain).

Native, f.21 (5), 36, 47A, 47B, 115 (14), 116 (4), 212A, 216, 217A, 218 (very many), 219 (2), 229, 256, 259 (6), 260B (2), 264, 265 (4), 266.

No Roman.

In gullies N. of hedge: Beaker 113 (2, red); Native 115 (2), 116 (3), 218; Roman 161/3, 185 (2); and, at higher levels, merging into the overlying later occupation-patches, Gallo-Belgic T.R. 76 (2), 84 or 112; T.N. scraps; beaker 113 (4); Native, 115 (many), 119, 218 (2), 234, 256, 266 (several); Roman, 161/3, 186, 187.

On associated surface-level S. of hedge: Gallo-Belgic, T.N. 2 (3), 12, 56 (3); T.R. 5, 7A, 7B, 56, 72, 112, 114; 113 (3).

Native, 21, 115 (5), 116 (4), 119 (2), 218 (10), 219, 229, 255 (2), 259 (2), 260B, 265, 266 (3), 270, 271.

Roman, 161 (2), 191A. Just above it was a Cunobelin coin (no. 24).

SE. of site Y1 was *pit* Y26, containing nothing but similar native pottery, apart from a piece of the late T.N. f.16c, probably intrusive, and directly E. of this pit was a large oval area of modern disturbance, with an assortment of remains including many fragments of pitted slab-moulds (pp. 129-33).

Periods II and II-III

The ditch-fillings so attributed have been explained above (pp. 112-14).

Period III

So have those of period III (*ibid.*), with *pits* Y38, Z1, Z3, and Z17. The centre and west of area Y had the following pits with a good deal of pottery probably as early as this, though with period IV elements as well: *pits* Y8, Y12 (with a fragment of pitted clay slab-mould: pp. 129 ff.), Y14, 22, and 23. In area C (centre) the same was true of pits C4, 10, and 11. Similarly it is not impossible that among the occupation-areas to be assigned in a general way to period IV there may be traces really of III; but in the main this period reproduces the scantiness of the period I occupation of the region. *Pits* Y33 and 36, however, seemed definitely of III.

Period IV

(a) *Occupation-sites.* Occupation broadly assignable to period IV was, on the other hand, widespread, though the loose sand or gravel subsoil was normally just denuded enough to confuse attempts to plan building-traces systematically. This was disappointing; but ill-preserved remains of wall-gullies like those of the site A1 building (p. 90, fig. 19) were detected in places in area C (centre), area G, and area Y (west), in the latter two associated with post-holes, of which others occurred in the E. of areas Z and Y (centre). Taken as a whole, the pottery scattered in these localities and lying in and round the patches of occupation-debris of one kind or another, which were more generally disseminated over the region, was of period IV. That is, its proportion of elements, Claudian at earliest, was never small, and wholly native ware and Gallo-Belgic forms going back beyond Claudian times, nowhere really predominated. Where such occupation-patches or layers enter the key stratifications they have been noticed (pp. 110-16), and further minutiae are superfluous, since nowhere was anything of definitely structural interest, like the wall-banked and occasionally post-holed hut-sites of the more northerly regions. Sand and gravel such as we had here simply will not retain flimsy structural features against the loosening agencies of weather and surface-denudation. But it is beyond question, even so, that occupation was greatly intensified in period IV from the sparse measure of the preceding periods. What appeared to be hearths of clay, e.g. in area Y (centre), and spreads of gravel metallage, are also associated. The tile-working in area Z has been observed (p. 115), and scattered fragments of tile were ubiquitous, but in the main, industrial remains were rare here in contrast to the abundant traces of metal-working in regions 3 and 4.

(b) *Pits.* In addition to *pits* Y11, Y3, G8, Y41, Y42, G1, already noticed in the key-stratifications (pp. 112, 114), and to *pits* Y3, Y8, Y12, Y14, Y22, and Y23 (*ibid.*), we have of this period

pits C4, 5, 6; C7, 8, 9, and 9A (smaller); C10, 11, and 12 (larger again); Z5, 15, and 16; G9 (apparently an attempted well); Y4, 6, and 10; Y29, 30, and 31 (an attempted well, isolated on the southern slope). Pits Y44 and 45 were evidently sand and gravel diggings, as perhaps were some of the others; the removal of period I rampart-material for its sand or gravel is a probability already noticed (pp. 110, 112, 114).

Period V

Defences: Ditch II, Palisade-trench, and Entrance. Though conditions did not often give us deposits attesting the period V destruction (the most notable was pit G4, p. 112), the period V defences were here at their best. In the N. of the region they have been described under sequence (a) above (p. 110); 30 ft. beyond pit G7 they turn to run almost due SE., and here their profile is that shown in section 84 (fig. 31), both of them with noticeably splayed sides. They were cleared for some distance in this sector, giving the picture seen in pl. xiv, 1. Their homogeneous filling

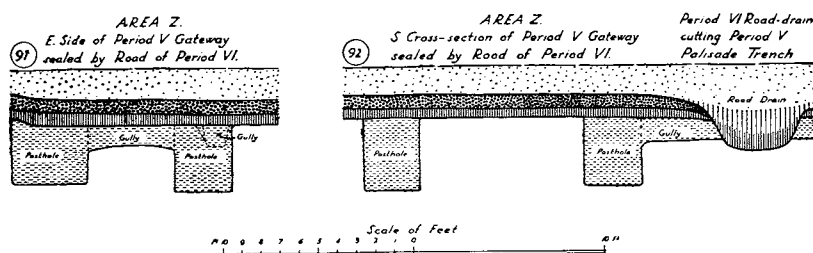


FIG. 34. Region 5: sections 91-2 across entrance-gateway of period V, sealed by road of period VI. See fig. 32.

contained older scraps of pottery, but nothing of any interest except sometimes tumbled septaria (p. 42, n. 2). Then, after the interruption of ditch Z1 and pit Z12 (p. 116), we reach the entrance, briefly noticed above and planned in fig. 32 (p. 117). The surface of the causeway breaking the line of the ditch is of clean period IV gravel (covering pits Z11 and 17); it is 20 ft. wide. When the ditch resumes on the SE. side of it, it begins in a curious narrow steep-cut form suggesting that it had never been properly finished; its further course, just cutting the flank of pit Z6, is as before, though only 8 ft. wide and scarcely 3 ft. deep (4 ft. from modern surface).

The entrance passed through the palisade by a four-square gateway. On its course past pit Z12, the palisade-trench had been losing its splay, and now approached the gateway as a slot-like gully, 18 in. wide by 15 in. deep. This ended opposite the W. side of the causeway in a large post-hole, cleanly cut in the firm sand with vertical sides and flat bottom, measuring 3 ft. square by 3 ft. 9 in. deep. A similar gully 4 ft. 6 in. long ran off from this at right angles to reach another post-hole, square again and 3 ft. 6 in. deep. These formed the W. side of the gate; the passage through it was 8 ft. 6 in. wide, and the other side was formed of a similar pair of post-holes, linked by a similar gully: the northern measured 4 ft. by 3 ft. by 3 ft. deep, the southern 3 ft. square by 3 ft. 6 in. deep, and from the latter the main palisade-trench continued on a slightly more easterly course, 15 in. deep and splayed to a width of 21 in. at the mouth. Profiles are seen in sections 91-2 (fig. 34); post-holes and gullies alike were filled only with barren, rather loose, and only slightly dirty sand: the timbers in them had been removed entire—indeed, one cannot be sure that they had ever been erected, and the absence of any distinguishable road-surface along the entrance-way shows that it cannot have remained long in use.

Beyond this and beyond pit Y48, the defences turn rather N. of E., just where interrupted by pit Y32, and so enter the corner of area C (south). On the edge of this, section 85 (fig. 31) shows

how denudation has reduced their profile, and this held good till they were left passing out of the region in a ENE. direction.

Period VI

The interrupting *pits* *GII*, 6, 7, *ditch* *ZI*, and *pits* *ZI2*, 8, 9, and *Y48*, 32 have all been described (pp. 110-11, 116), and it remains to notice that over the period V entrance a sandy make-up was now laid, supporting the gravel metalling of a new road, approaching from a vague start to the S. and 16 ft. wide over the filled-in post-holes, beside which it begins to be flanked on the E. by an open drain, the outbent end of which (section 92) cut across the period V palisade-trench. The road and drain were picked up again 40 yards farther N., but did not reappear in area C or elsewhere. Otherwise it has only to be said that the great size typical of most of the pits just mentioned as interrupting the period V works is still more pronounced in *pits* *G5* and *Y46* (p. 112) cutting ditch IA, and *ditch* *Z4* cutting ditch IB (p. 115). *Pits* *G2* and *Z4* were similar, both yielding pottery-lists like those of the period VI key-deposits *pits* *G6* and *G7* (pp. 111, 43-4); in *Z4* were also several Roman military belt-mounts, recalling the finds from site A4 and elsewhere in region 3 (pp. 91-5), the most striking analogue to which has already been mentioned here, *pit* *G4* with its burnt filling and Roman swords (p. 112; pl. xiv, 2). *Pit* *Y43* (p. 115) contained pottery showing that it was not filled before this period; *pit* *Y49*, near site Y1, may have been contemporary but contained little. In the SE. quarter of the region, on the edge of and outside the plan pl. cx, there were two or three patches of occupation of this date, and *pits* *C15*, *16*, *20*, and *21* also.

Later Features

(a) *The Pottery-kilns*. The second-century pottery-kilns discovered in 1933 and mentioned in the Introduction (p. 26) lay in this quarter, and they and other features (e.g. the timber structure *site* *C4* encroaching on ditch II and palisade) and rubbish of their period had interfered to some extent with the earlier remains, so that pottery of the two periods was always appearing together (e.g. in pits *C14* and 17-20). Site *C4* also had pits (A to H), all except perhaps one (H) of the later period, and the squared stone block over ditch II here might be contemporary.

(b) *Burials*. An inhumed burial with a group of second-century pots was found in the filling of ditch II here, and another in the palisade-trench; farther S. was a fourth-century lead-coffin burial, and the burials in area Z on the tile-making site have been noticed above (p. 116).

(c) *Occupation-sites and Well*. In the far SE. corner of the site was the timber-lined *well* *V* (p. 128); it contained second-century as well as some earlier material and was adjoined by remains of a timber building with Hadrianic pottery. Lastly, on and beyond the extreme N. edge of the region, towards Sheepen Springs, final trenching in 1939 disclosed that there had been a Roman building or buildings intensively occupied in the second and third centuries.

The Clay-pits

The three large clay-pits, probably parts of a single complex of workings, in the NW. of the region, contained rubbish with a great deal of pottery mainly indicating period IV, but sometimes VI. There was nothing later, but undoubtedly on this side of the hill clay was dug for pottery and tile- and brick-making in one place or another throughout Roman times, and probably (though there is as yet no positive evidence of it) previously for the potters of British Camulodunum.

REGION 6

Plan, pl. cxi.

This region covers the remainder of the E. slope of Sheepen Hill, S. and SW. of region 4, and E. and NE. of region 5. The hill rises steadily and fairly steeply from E. to W. here, from 55-60 ft. O.D. to 100-5 ft. Towards the top, in the W. and SW. of the region, denudation has been severe, leaving a scoured surface of yellow sand only a few inches beneath the turf. Lower down, the subsoil becomes better covered and is looser and in places more gravelly, with well-defined spreads of loam, from the N. to the E. and SE. of the region, overlying in the main pure gravel. The region was excavated in 1938, with supplementary work in 1939, and was divided between two areas, area K representing the southern two-thirds of it, and the S. division of area L the other third, marching with the rest of that area in region 4.

A. STRATIFICATION

The only representative of the key-deposit system in the region is *ditch II*, with its palisade-trench (period V), which, entering from the corner of region 5 on the ENE. alignment last described (p. 121), soon turns NE. and runs on to end near the E. boundary. It was not found to make contact with any other stratified deposits of importance, nor were there any independent stratified sequences meriting separate treatment. The features of the region can therefore be treated by period only.

B. FEATURES BY PERIOD

Period I

Sites of pre-conquest occupation were found scattered rather sparsely over the hill-side between 70 and 100 ft. O.D. In the NW. corner of the region a single complex was probably formed by sites L2, L6, and L7, with pits L40 and L42. The subsoil is fairly firm sand, the denudation of which set strict limits to the intelligibility of what was found. *Site L2* revealed a thick scatter of occupation-debris in its central portion, lying directly on the sand, and, dug into it, the bedding-trenches of a timber construction, the plan of which was more extensive, and suggests a subquadragular enclosure, set NNW.-WSW., the maximum preserved dimensions of which were 110 by at least 28 and possibly 80 ft. Sites L6 and L7 and pit L42 will then have lain inside this, and the second dimension should thus before denudation have been something like 200 ft. The trench of the main enclosure-wall was crossed in the central portion by another, which ran SE. to a defined inner end 16 ft. away, and outwards bent NNE. to fade out vaguely after the same distance, leaving continuation open to question. Some 10 ft. E. of the crossing lay the trace apparently of a loose piece of timber, but the bedding-trenches themselves contained the clear remains of their sleeper-timbers lying horizontally *in situ*, carbonized an obvious black against the yellow natural sand. This contrast showed up at a mean depth of 28 in. from modern surface, but the original occupation-surface lay at 18 in., the intervening 10 in. consisting of sand too loose and blackened by occupation and destruction for differentiation from the trenches. The top 10 in. of these had then to be removed unplanned, and the plan only shows what was left at the bottom. The unevenness of this is due to the fact that the bottom sleeper-timbers were just tree-trunks, no straighter than in nature and most roughly trimmed, with the stumps of lopped-off branches variously protruding, and with further irregularities wherever the narrow top of one trunk lay up against the broad butt of the next. The greatest measurable diameter was 3 ft. Where last visible at the denuded SE. corner, the main trench seemed starting on a curve to the SW., presum-

ably corresponding to that of the NE. corner, round which only the very bottom of the trench could be traced, until 28 ft. from the NNW. alinement even this petered out, and was only doubtfully picked up again 52 ft. farther on. The purpose of the cross-timber in the central portion remains obscure, but this feature and indeed the whole construction strongly recall the contemporary site YI in region 5 (p. 118). Some 30 ft. S. of it the main trench had been cut through by *pit* L40, 11 ft. across, with sides steeply slanting to a bottom shelving from 2 to rather over 4 ft. deep from the clean sand level. The filling was grey-streaked sand for the lowest foot, with dark earth above, covered by a foot of charred black matter seamed with sand near the top and sealed by dirty gravel. The pit, though stratigraphically later than the trench and so dug only after the destruction of the timber-work, contained only period I rubbish and pottery very similar to that of site YI (pp. 118-19). The pottery from the site's main occupation-scatter was extremely abundant; there was also a British coin probably of Addedomarus (no. 6). It appeared that the timber-work had been destroyed by fire, and the digging of pit L40 can hardly have been appreciably later: the occasion may or may not have been the conquest.

Some 60 ft. within the SE. corner of the enclosure was found *site* L6, a saucer-shaped occupation-hollow in the sand, 1 ft. deep (3 ft. from modern surface) in the middle, and 22 ft. in diameter; it yielded similar period I pottery, but no visible structural features. Directly W. of it was *site* L7, which falls into the large category, being 41 ft. in maximum diameter. Its E.-W. cross-section,

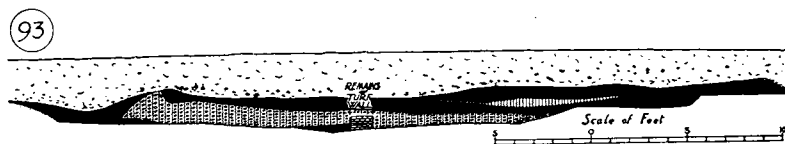


FIG. 35. Region 6: section 93, across site L7. See pl. cxi.

section 93, is seen in fig. 35. It also was hollowed into the sand, to a central depth of 2 ft. (4 ft. 3 in. from modern surface), with a 6-ft. shelf at 6 in. on the E. From the edge of this shelf the main hollow was filled with what seemed to be a made-up flooring of gravelly brown earth, a foot thick, which ended in a wall-bank, 9 in. thicker, against the side of a pit-like hollow, 8 ft. across at the mouth, occupying the W. end of the site. The flooring was, however, not primary, for under the wall-bank and again in the centre of the hollow were black layers, 3-4 in. thick, and the latter stopped on the E. against the remains of a turf wall, 15 in. wide and preserved to a maximum height of 10 in., running N. and S. Six courses of turves could be seen, but little more than 4 ft. of the length remained, and it was distinctly sealed over by the flooring, which must therefore be a secondary make-up. Over the latter, from the wall-bank on the W. to the far edge of the hollow above the shelf on the E., lay a black stratum of debris, up to 10 in. thick. A 6-in. deposit of dark loamy earth above and within the shelf may represent a collapsed secondary wall-bank, and above it, running from the site's E. extremity to merge into the main black stratum in the middle, was a further black layer, 8-10 in. thick. The hollow on the W. was choked with similar black material, and the site seems certainly to have been destroyed by fire. This may well have been at the conquest, since nothing requiring a later date than period I was found. The pottery was chiefly native domestic ware again like that from site YI. W. of site L7 there had been a further period I occupation-site, but little was left of it owing to denudation, which had also scoured away the mouth of the adjoining *pit* L42, cylindrical, 45 in. in diameter, and 7 ft. deep from modern surface (the scoured sand lying at 16 in.). This had a homogeneous sandy filling, with more period I pottery, and a British coin (no. 132, illegible). 40 yds. NE. of this complex was found a big patch of clayey loam, over 80 by 40 ft. in extent, and apparently natural, overlying the sand.

Its surface, 2 ft. below the turf on the N. and only 8 in. on the S., was extensively cleared, since the portion marked black on the plan was a thick and blackened deposit yielding a mass of native pottery, and a little more of this was found strewn over the uneven surface of the surrounding loam. The whole was named *site L4*, and it seems certain that there was period I occupation here, but the uneven loam surface and the absence of structural features and of any true occupation-layer in or upon it show that whatever there was had been destroyed. This probably happened at or just after the conquest, for apart from one piece of Tiberian Sigillata form 29 the pottery was all native domestic ware. Nearly 90 yds. S. of site L7 denudation had spared the circular *site K2*, 14 ft. across and hollowed 9 in. into the sand: its dirty sandy filling yielded a smaller but similar period I pottery-series. In the SE. of the region was the similar *site K1*, 18 ft. across, with a ditch-like hollow just NE. of it; 10 yds. beyond were the two small *pits K19A* and *B*, and beyond again another ditch-like depression: the pottery from all these was again purely native and of period I, but nothing further could be made out.

W. of this site were two more areas of period I occupation, one spread over the loam surrounding the period III pits K13 and 14 (p. 125), some 40 ft. wide but with no significant features surviving, and the other in the neighbourhood of pit K2 and ditch II. This comprised three patches on either side of ditch II, and another filling an irregular shallow hollow on the SW. of pit K2, which had been cut through it in period III. Just to the W. was the contemporary pit K1, and the ground was also riddled with pits of period IV (p. 125), so that the impression given, as in the site D1 area in region 5 (pp. 99-103), is of a considerable period I concentration, the features of which have been very thoroughly destroyed after the conquest.

What those features were can nevertheless be conjectured with an interesting degree of probability. For along with the period III pottery in pit K1, and in less quantity also in its neighbours, was a mass of material from a metal-working industry, and one of a distinctly specialized kind. Together with much burnt material, slag, furnace-clay, pieces of crucibles, &c., was a great quantity of fragments of peculiar pitted slab-moulds of highly baked clay, others of which occurred sporadically elsewhere over the site, mainly in the adjacent regions and most notably in region 5, where a group has been noticed (p. 114) stratified in the period II-III filling of ditch IB in section 76. Subsequent research on these and the rest of the material (described below) enables one to say with an acceptable approach to certainty that it is actually wreckage from a *mint* of Cunobelin, the moulds being for casting the flans on which the coins were struck. That the mint would be soon destroyed by the Romans is a foregone conclusion, and the bulk of its destruction-rubbish would not be carried far, but rather buried on the spot. These poor occupation-patches, unintelligible in themselves, will then probably be all that was left of the moneymen's workshops. The burial of the rubbish takes us into period III.

Period III

Pit K1, in which most of this rubbish had been buried, was oval at the mouth, 16 ft. by 13, with sides dropping to a funnel-like lower shaft, 11 ft. deep. The filling consisted largely of tips of charred black matter, interspersed with others of ash, burnt earth, and sand, banded in confusion and evidently all shot in at one time; it was covered by a sealing-layer of brown earth, 18 in. thick in the middle. Everywhere were great quantities of fired clay, in pieces of varying size all tumbled together; many were partly vitrified by heat, and most seemed to be broken-up remains of furnaces. A fair number of crucibles were also represented; but the quantity of slab-mould fragments was the outstanding feature. There was also a variety of fragments of bronze and slag. The detailed examination of all this, with spectrographic analysis, is summarized below (pp. 129-33), and the conclusion that it probably comes from the wreck of a mint of Cunobelin seems scarcely avoidable. No animal bone or other domestic refuse was present, and the pit seems to have been purposely dug to contain the mint-wreckage. The pottery consisted of native and early Gallo-Belgic and

Roman wares, which date the deposit to period III. *Pit K2*, 14 ft. in diameter and 10 ft. deep, was very similar in form, and its filling was of dirty brown earth with streaks of burnt sand and three tips of black matter, all probably shot in at once. Here again were apparent mint remains, though in rather less quantity, and a very similar period III list of pottery. *Pit K18*, 50 ft. farther E., had a similar filling with scantier contents, being only 6 ft. across and 4 ft. deep, and beyond it *pit K15* was similar again; so also, 40 yds. farther N., were *pits K10* and *K11*; these four contained virtually nothing to suggest mint remains. Lastly, *pits K13* and *K14*, dug into the period I layer W. of site *K1*, were rectangular, 5 ft. square and 6 by 9 ft. respectively, and both over 6 ft. deep. They contained much native pottery from the adjacent layer, with (as also over the latter) a slight Claudian admixture.

Period IV

The constellation of *pits K3-4-5-6-7-16-17*, dug into the mint area, serves only to show that no mint remains were lying about by the time the period IV features that characterize their pottery had become current. N. of them *pit K9* was rectangular, 10 ft. by 5, but neither this nor *pits K12*, 20, 21, 22, were of further interest. In the extreme N. of the region *Pits L13* and *L37* were both irregularly dug, the latter being really multiple; both were perhaps gravel-diggings, and were filled with varied tips of rubbish containing period IV pottery.

Period V

Ditch II, the lower part of it only preserved, was found entering the region from the corner of region 5 on the ENE. alinement last described (p. 121), just S. of pits *K1* and *K2*. The ground here had been a good deal disturbed in the period of the second-century kilns in region 5 near by, and no trace of the accompanying palisade-trench could be found. Immediately N. of pit *K18*, ditch II turned NE. by N., and after some 30 yds. bent again almost due NE. At this point the palisade-trench was picked up again. As shown in section 94 (fig. 36), both ditch and palisade-trench had been reduced by denudation to poor, shallow profiles, some 3 ft. apart, in the yielding natural sand 2 ft. or so below modern surface: that of the palisade-trench nearly 1 ft. deep and splayed to 3 ft. wide, with an almost clean sand filling, and that of the ditch but little deeper, nearly 4 ft. wide with a filling of darker earthy sand. Both passed just SE. of pit *K12*, and here the ditch filling was only distinguishable from the natural sand through containing a compact dump of oyster-shells. 25 yds. farther, the palisade-trench was again invisible, but after this the ditch broadened into a rather better preserved V profile, 7 ft. wide and 3 ft. 6 in. deep, and bent NE. by E. Just beyond this bend, section 95 was obtained: the natural sand was firmer, and the palisade-trench displayed its true flat-bottomed profile, 2 ft. across and 6 in. wider at the sand surface, from which it was 1 ft. deep. Ditch II, 8 ft. away, was found nearly 7 ft. wide and 2 ft. deep, with a rounded profile broken by a shelf on one side suggesting that it had been left unfinished. Both were filled with dark earthy sand, the former containing also black charred matter. After this, there was no further trace of the palisade-trench, but ditch II, bending back on to its NE. alinement, was picked up 80 ft. farther on and found to be 2 ft. 6 in. deep and rather over 9 ft. wide, with a dark earthy-sand filling (section 96). 48 ft. farther still, it gave section 97, with a similar profile 8 ft. wide and 3 ft. deep, the filling with a thin charred layer at the bottom. 20 ft. beyond, the E. lip of the ditch was still on alinement, but the visible width was only 2 ft., and this point proved to be only just short of the

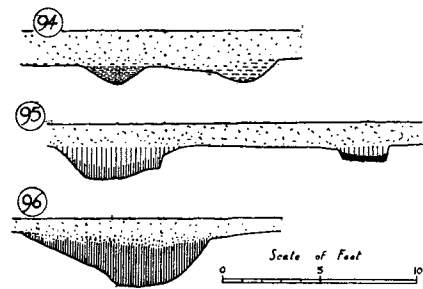


FIG. 36. Region 6: sections 94-5, across ditch II and palisade-trench; and 96, across ditch II. See pl. cxI.

ditch's end, since the next trench showed nothing but undisturbed natural sand, which continued to the edge of the Roman sand-diggings that were disclosed 10 ft. from the region's boundary hedge. Any possibility of an inward return was ruled out by the trenches dug across and beyond pits K20-1-2, and it must be concluded that at this spot the digging of ditch II was abandoned incomplete.

Period VI and Later

Period VI was represented only by *pit* L38, just N. of the period IV *pit* L37; pits L35 and 36 had no datable contents. Disturbances in the S. of the region connected with the near-by second-century kilns have been already noticed; they contained typical debris of the period. A second-century cremation-burial was found just E. of site L2, with a glass cinerary urn covered by a pedimental slab of Purbeck marble, adjoined by a complete vessel of cooking-pot type. Lastly, the Roman gravel-diggings already noticed in region 4 adjoining on the N., extended far into this region, where the limits of this gravel- and sand-quarrying activity covered a large part of its NE. quarter.

NOTE ON THE TIMBER-LINED WELLS

Photographs, pl. xv.

Well I, in region 1, adjoining site F1 and of period III (pp. 61, 68, with section 8, fig. 8, and pl. III, 3) is shown again in pl. xv, 1, and diagrammatically in fig. 37. It had four oak corner-posts, 31 in. tall and averaging $4\frac{1}{4}$ by $3\frac{1}{2}$ in. in cross-section, the inner angles being bevelled off; these stood in a square of roughly 30 by 30 in., retaining horizontally laid oak planking. The top course of planks were from 9 to 13 in. broad, 1 to 2 in. thick, and respectively $27\frac{1}{2}$, $28\frac{1}{2}$, $28\frac{1}{2}$, and $30\frac{1}{2}$ in. long; the second from 5 to nearly 9 in. broad, 1 to 2 in. thick, and 29 in. in average length; the third 13 to 15 in. broad, 1 to 2 in. thick, and 30 in. in average length. All the planks and the posts, instead of being sawn, had been split, with wedge and mallet, radially from natural logs cut into the required lengths (average 30 in.) with the axe.

Well II, in the E. of region 4, most probably of period IV (p. 107), is shown in pl. xv, 2, and fig. 38. It was much less well preserved, but showed quite a different method of construction. It was made of sawn oak planks only, the need for corner-posts being dispensed with by shoulder-jointing the planks into square horizontal frames, placed one above the other. Two frames were found *in situ*. The top half of the upper had rotted away: the original breadth had probably been about a foot, and the planks average $1\frac{1}{2}$ in. thick; the shoulder-jointing gave an internal measurement of 3 ft. square, the projecting ends, where preserved, measuring 6 and 8 in. The lower frame made an inward offset of $3\frac{1}{2}$ in. on the upper, and so measured internally 29 by 29 in., the average size of the planks being 31 by $8\frac{1}{2}$ in. The oak used was very knotty, which may be why it was sawn and not split.

Well III, in the SE. of region 4, probably also of period IV (p. 107), is shown in pl. xv, 3, and fig. 39. Its upper framing, 2 ft. square internally, was shoulder-jointed as in well II; this had rotted to pieces, leaving parts of two oak planks only *in situ*. Below this was a lower frame, found in fine condition: here the construction was as in well I, with four oak corner-posts 27 in. long and about $3\frac{1}{2}$ in. square in average cross-section, retaining four stout planks 22 in. by 13 in. thick at the bottom and tapering in a way which well shows how they had been split, like those of well I, and not sawn. They were moreover re-used timber, and two had old mortise-holes in them, useless in their position as found. Below this again, the bottom of the well was formed by an oak tub or half-barrel, 12 in. deep and 16 in. in maximum diameter, no doubt also re-used. The vertical staves, 17 in number, were rotten and could not be preserved, being only $\frac{1}{4}$ in. thick; the horizontal

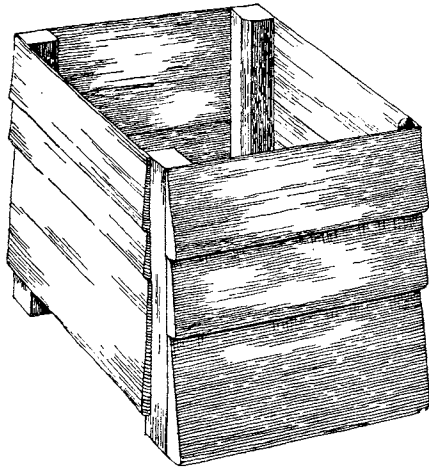


FIG. 37. Well I. See pls. xv, cvi;
figs. 5, 8.

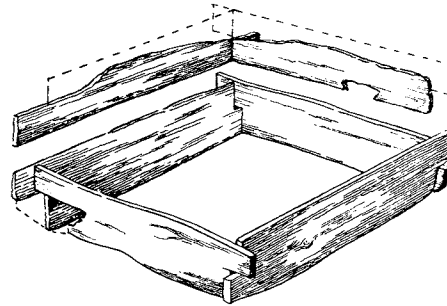


FIG. 38. Well II. See pls. xv, cix.

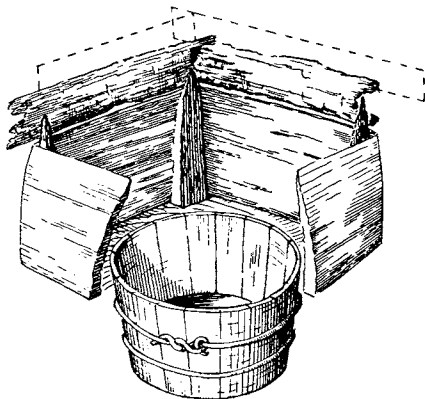


FIG. 39. Well III. See pls. xv, cix.

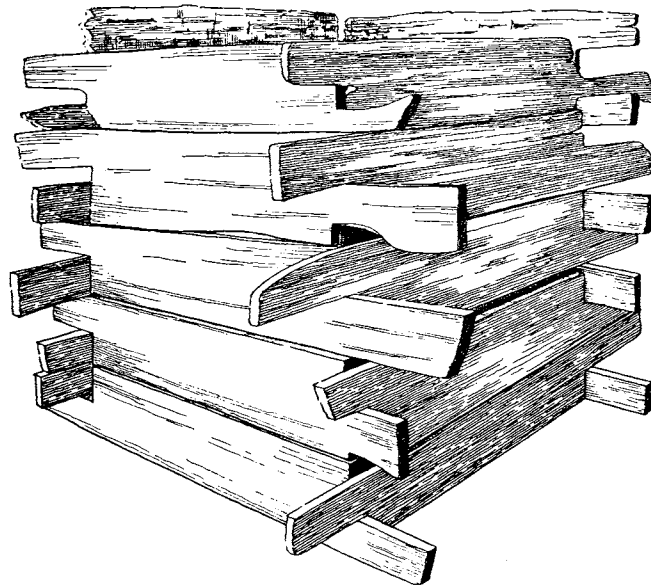


FIG. 40. Well IV. See pls. xv, cvii.

bands, 2 in number, each fastened by twisting as shown in the sketch, were of split hazel-rods, as used on modern English apple-barrels.

Well IV, in the NW. of region 2, probably not earlier than period III (p. 76), consisted, as far as it was excavated, entirely of shoulder-jointed framing in oak, of which it provides a very fine example (pl. xv, 4, and fig. 40). The average internal measurement was 2 ft. square, the projecting ends of the planks being anything up to a foot long. Five courses and parts of a sixth were found *in situ* as shown, covering a depth of some 5 ft.; the planks varied in breadth from $7\frac{3}{4}$ to 11 in., and their tapering thickness showed that they were not sawn like those of well II, but split, as in well I and the middle frame of well III. The whole construction excavated has been treated for preservation, and is exhibited in the Colchester and Essex Museum.

Well V, in the SE. corner of region 5, certainly open and perhaps dug in the second century (p. 121), had a shoulder-jointed lining like that of well II, but was too badly preserved for detailed examination. For horse bones here, see p. 354.

C. THE FINDS

I. THE COINS

A. POSSIBLE REMAINS OF THE BRITISH MINT

NOTHING has done more to make the fame of British Camulodunum than its recognition as the place of Cunobelin's mint. The recovery of the site where his moneyers worked was hoped for throughout the excavations, but it was not until the season of 1938 that possible signs of it came to light. In the SW. part of region 6 there was in one area directly N. of ditch II the appearance of a period I occupation of some intensity which had been obliterated very thoroughly after the Roman Conquest. Of the numerous pits dug in this area thereafter, those shown by their contents to be of period IV were of no particular note. But those of period III not only contained native pottery from the period I occupation but included in pit K1, and to a less extent in pit K2, the remains of a destroyed metal-working industry which may be recognized as that of Cunobelin's mint with some probability.

This part of the excavations is described above on pp. 124-5, and the relevant facts may here be summarized as follows.

1. The contents of pit K1 had been deliberately buried as rubbish all at once and sealed over, could not conceivably have been brought from far, were devoid of all strictly domestic refuse, and included with Roman pottery not later than period III a good deal of native pottery typical of period I. They therefore represent the wrecking, within a short time of the conquest, of a pre-conquest occupation situated in the adjacent area and apparently devoted entirely to metal-working. The contents of the neighbouring period III pits agree with this, while in the neighbouring period IV pits nothing similar was found.

2. The material in question comprised much fuel refuse, burnt earth and sand, a variety of fragments of bronze and slag, a certain amount of fragmentary iron, great quantities of fired clay in a tumbled assortment of pieces, many partly vitrified by heat, and the broken remains, also in part affected by vitrification, of a number of crucibles and a multitude of open pitted slab-moulds of highly baked clay, which last were not found thus associated with any of the other metal-working areas on the site (in regions 1, 3, and 4), and therefore constitute the distinguishing character of this one.

3. The occurrence of these slab-mould fragments elsewhere on the site was sporadic only, and but for eight strays in region 1 (area F, 2; area H, 6) and two in region 3 (ditch I filling, in section 35), was confined to the adjacent portions of region 4 (area L, with 20 scattered finds) and region 5 (areas C and Y). The finds in region 5 comprised, with four strays, a fair quantity in the area of modern disturbance E. of the period I pit Y26 (p. 119), a single find in the period III-IV pit Y12 (p. 119), several in the period IV pit C12 (p. 120), and a group of ten sealed in the period II-III filling of ditch Ib in

section 76 (p. 114). The distribution and stratification of these finds alike permit acceptance of the destroyed period I occupation-area adjoining pits K1-2 as the primary source of the moulds.

The attribution of the moulds to a pre-Roman native metal industry, of a specialized kind, is borne out by the fact that the similar moulds recorded on the Continent are confined to the corresponding La Tène III Celtic culture, and to sites important enough to have specialized metal industries, namely Mont Beuvray (Bibracte, the capital of the Aedui), Saintes (Mediolanum, of the Santoni), and Stradonitz, the great hill-town of the Boii in Bohemia.¹ At Mont Beuvray Déchelette found specimens in a metal-workshop with two crucibles, brooches, and Gaulish coins, and his recognition of them as moulds for the multiple production of bullet-like metal castings finds support in the discovery of fragments of a two-piece variant of the type, and of corresponding castings in gold, respectively at Axomis and Adulis in Ethiopia, southern outposts of the trade of the same Hellenistic world which influenced the arts of Celtic Europe.² The only British specimen of the type found away from Camulodunum appears to be the fragment from Needham in Norfolk, a site of the still unannexed Iceni of Claudian times.³

The Camulodunum moulds (pl. xvi, 1-14) consisted of large flat slabs of hard, sandy, and sometimes sparsely flint-gritted clay, fired to a slaty grey and an almost metallic consistency. The fragments found do not allow of the restoration of any whole specimen, but attest uniformly straight edges and normally rectangular corners; in two cases the shape was apparently hexagonal. The normal size was perhaps something like 12 by 6 in.; the average thickness is between $\frac{1}{2}$ and $\frac{3}{4}$ in. A number of the fragments are partially vitrified by intense heat. The open pits which are stamped into the upper surface, in rows more or less parallel in both senses, are roughly circular, with diameter approximately 0.4 or 0.5, or more rarely 0.6 or 0.7 in. at the mouth, and depth about two-thirds, or sometimes appreciably less, of the thickness of the slab, and are often splayed so as to give a somewhat reduced diameter at the bottom. The bottom may be either cupped or nearly flat. Their circularity in section is seldom quite perfect, and is sometimes distorted by their having been stamped into the soft clay successively, so that each impression distorted the one before it. The continental moulds appear to be more regularly pitted, probably by a multiple stamp, which sometimes at Stradonitz and normally at Mont Beuvray produced squarish instead of circular impressions.

It will here be suggested that these moulds were used for casting the blank flans from which coins were made. There is indeed no *a priori* reason either against the use of the type for other purposes requiring small round castings or against Celtic coin-manufacture without its use. One or two fragments of a quite different version of the same idea were found in the sand-pit in region 3 in 1927, made of soft buff clay untouched by furnace-heat, with impressions up to an inch in diameter, arranged in alternating rows and with the bottom of each pierced by three small holes running through to the bottom of the slab.⁴ Whatever these were, they show that something generically similar to our moulds

¹ Déchelette, *Manuel*, iv, 1050-3, with fig. 715, 2-5.

² *Ibid.* 1051-2, with fig. 715, 1-1b.

³ *Antiq. Journ.* xxi, 50-1, fig. 8, c; and see p. 131, n. 1.

⁴ *C.M. Report*, 1928, 30, 43, pl. xv, centre.

might be used for some non-metallurgical purpose.¹ And not all Celtic coins are likely to have been manufactured by means of moulds of our type. Indeed, their flans were not all produced in the same way. Sometimes, as is quite frequently shown by Gaulish bronze coins, the flans were cast in strips, that is, in moulds with the cavities interconnected by runnels. Most of the flans for gold staters were apparently more or less spherical: their edges are nearly always somewhat split, and a number of examples from Belgic Gaul show that this spherical form might be retained for actual coins, bearing a small cross but not otherwise marked at all: these had been cast in two-piece moulds like those above quoted from Ethiopia. It has indeed been argued, from the concavity of known examples of Celtic coin-dies, and the frequency of the scyphate or 'dished' form among Celtic coins generally, that such bullet-like flans were always—at least on the Continent—the normal form.² But silver and bronze coins are not usually found with split edges, and the majority of bronze and probably also of silver coins seem to have been struck on flat or else bun-shaped flans—the scyphate form, though perhaps facilitated by the latter, being essentially a product of striking. These flans need not always have been cast in pitted moulds of our type: in the small bronze-foundry of the first century B.C. at Szalacska in SW. Hungary, where coins were made as a side-line, nothing of the kind was found.³ But the type's association with the metropolitan mint-sites of Stradonitz, Mont Beuvray, and Colchester is impossible to disregard, and though its pits seem too large for silver, they would suit both in size and shape the casting of such flans for a Celtic bronze coinage.

In fact, at our site three unstruck bronze flans have been found, of bun-shaped to flattish forms which agree precisely with the supposition that they were cast in moulds of the type in question (pl. xvi, 15–17). No. 15, found unstratified in region 3 by site A1, measures 0.55 by 0.45 in. in diameter and 0.27 in. in depth, and so would exactly fit one of the cupped pits of imperfectly circular form and average size. However, it contains 69.8 grains of metal, about twice the weight to be expected of a British coin, and is thus best regarded as a reject: it was lying some 350 yards from the pit K1 area. No. 16 was found in region 3 on the upper or period IV clay hut-floor over ditch I in section 32, with the four Cunobelin coins 46, 50, 81, 89 (list, p. 138): it was probably itself used as a coin by the occupants. Being approximately 0.45 in. in diameter and 0.1 thick, it would well fit a nearly circular pit with a flattish bottom; its weight, 34.1 grains, is perfectly suited to a bronze coin of Cunobelin. No. 17, an unstratified stray find, would fit a similar pit 0.4 in. in diameter with a cupped bottom: it is a little lighter, but well within the attested range of these coins in weight as in size. Individual bronze flans would not need to be weighed very accurately, and it would no doubt suffice for a unit weight of metal to produce so many coins. Though for lack of restorable pieces we cannot tell the number of pits to a mould, one would expect the capacity of each slab to represent a unit weight of metal accordingly. The type would thus be a metrological as well as an

¹ And cf. *T.R.I.B.A.* 1880–1, fig. 11 (Brading: 'made of cement').

² Evans, *Coins of the Ancient Britons*, 43; E. Gohl, *Revue numismatique*, 1907, 175–7.

³ Gohl, loc. cit. 170 ff.; K. Pink, *Die Münzprägung der Ostkelten und ihrer Nachbarn* (Dissert. Pannon. ii, fasc. 15, 1939), 16–19.

industrial device of the Celtic moneyers, no doubt originally borrowed, like the coinage itself, from a Hellenistic source.

There is then a reasonable *prima-facie* case for attributing these moulds, and their site of primary origin adjoining pit K₁, to Cunobelin's mint. To test this experimentally Dr. A. A. Moss of the British Museum Research Laboratory very kindly undertook a spectrographic examination of specimen fragments of the moulds, with other material from pit K₁, and of a sample series of Cunobelin bronze coins. His report attests the presence of heavy metals in all the moulds and other material examined, and a very similar content in the sample coins. The results may be presented as follows:

Heavy metal content of slab-moulds compared with Cunobelin coins

<i>Moulds (29 specimens)</i>		<i>Coins (29 specimens)</i>	
Copper, silver	3	Copper, silver	2
(one with silver ?10%)			
Copper, silver, tin	10	Copper, silver, tin	16
(two with tin ?10%; two with tin trace only; five with tin and silver trace only; one with all three metals trace only)			
Copper, silver, tin, lead	4	Copper, silver, tin, lead	7
(two with tin trace only; one with tin ?10% and copper and silver trace only; one with silver, tin, and lead all trace only)		(one with tin trace only)	
Copper, silver, tin, zinc	1	Copper, silver, tin, lead, zinc	2
(silver, tin, and zinc all trace only)		(one with tin trace only)	
Copper, tin, lead	1	Copper, silver, lead	2
(tin ?10%, copper trace only)			
Copper, tin, zinc	2		
(tin and zinc trace only)			
Copper, tin	6		
(four with tin trace only; two with both metals trace only)			
Copper only	1		
Zinc (trace) only	1		
	29		29

Heavy metal content of other material examined from pit K₁

One specimen piece of vitrified furnace-clay	Copper only
Two specimen pieces of bronze slag	Copper, zinc, iron and silica, in appreciable quantities
One specimen piece of corroded bronze, with good metallic core	Copper, tin, and (trace only) lead

It will be seen that the same five metals, copper, silver, tin, lead, and zinc, which appear in the constitution of the coins appear also in the moulds, and four of them also (with the iron and silica in the waste slag) in the other material examined; that 25 out of 29 coins show the same three combinations of metals as 17 out of 29 moulds; and that of these three that of copper, silver, and tin is in both the most frequent (16 coins, 10 moulds), with that of copper, silver, tin, and lead second (7 coins, 4 moulds), and that of copper and silver third (2 coins, 3 moulds). Of the 12 moulds without exact spectrographic counterparts among the coins, 2 show respectively copper and zinc only, and of the rest 6 show only copper and tin, the most ordinary constituents of bronze. This non-corre-

spendence suggests that the moulds were used for casting a wider range of metals, probably including ordinary bronze, than is represented by these 29 coins. But the proportion of correspondence is yet nearly three to one, and it seems probable that it would be increased if moulds and coins were spectrographically examined in greater numbers. Perhaps the most remarkable fact disclosed is that all the coins examined contain silver as well as copper. This is scarcely to be expected of industrial bronze, and since 18 of the 29 moulds examined show the same thing, the case for their attribution to Cunobelin's moneyers seems thereby very materially strengthened. A more thorough application of spectrographic analysis to the British coinage will undoubtedly lead to results of the greatest interest, and the material here sampled remains available for further examination. Meanwhile we may fairly claim it as probable that this material indeed belongs to the royal mint of Camulodunum, and was partly scattered but in the main buried on the spot when the workshops it attests were demolished by the Romans.

B. BRITISH COINS

The case for regarding the Sheepen site as the official centre of Cunobelin's capital is appreciably strengthened if we accept the attribution of the remains described above to the mint which struck his famous Camulodunum coinage. That the pre-Roman occupation of the site coincided approximately with his reign may be inferred independently from a consideration of the numerous coins found there, of which the known total is 222.

How many of the chance finds of British coins recorded from the Colchester district¹ have actually been made at Sheepen is of course unknown; but it may be taken for granted that the site has contributed far more than the 24 whose provenience is definitely attested, all of which reached the Colchester Museum in the years from 1931 to 1940. These are listed below in group II, and as many as 22 are of Cunobelin. The full number of British coins from the Sheepen excavations, listed below in group I, is the relatively large one of 198. Of these 130 are identifiable, and of that total Cunobelin accounts for no fewer than 110, probably indeed as many as 116—that is to say between 85 and 90 per cent. As will be seen later, sufficient of them were stratified in period I or period II deposits to make it certain that coins of Cunobelin were current on the site during the pre-Roman occupation.

On other than numismatic grounds, we are confident that the period I occupation at Sheepen began between A.D. 1 and 20, and a date about A.D. 10 is indicated by our view of the pottery-evidence.² The site's position at the inner base of the completed system of dykes³ points to its occupation from the start as the capital. Mr. D. F. Allen has reviewed the chronology and historical significance of the British coinage of this period in a recent paper in *Archaeologia*.⁴ He there shows reasons for thinking that the first coinage of Cunobelin at Camulodunum—the only evidence we have for the date of his accession—began about A.D. 10,⁵ precisely the same date as that proposed for the first

¹ p. 2 above; Evans, *Coins of the Ancient Britons*, 292.

² Summarized above, pp. 28-9.

³ pp. 8-16 above.

⁴ 'The Belgic Dynasties of Britain and their Coinage': *Arch.* xc (1944), 1-46. See above, pp. 5-6, 29.

⁵ *Op. cit.*, 20-3 (with 17 ff., 15, 7), and chart, 45.

occupation of the Sheepen site. Thus the reign of Cunobelin, which only ended with his death a year or two before the Roman Conquest, will almost exactly cover the period of the pre-Roman occupation of the site.

The earlier history of the Colchester district is in contrast poorly represented in the coins found at Sheepen. During the decade preceding Cunobelin's accession the Trinovantes were under the rule of Dubnovellaunus, whose chief kingdom lay in Belgic Kent.¹ Dubnovellaunus had more or less directly followed Addedomarus, apparently a native Trinovantian ruler, whose reign had begun about 15 B.C.² The latter appears to have been a contemporary of Tasciovanus, Cunobelin's father and predecessor in the Catuvellaunian dynasty, and ruler of Belgic Verulamium. Had the Sheepen site been in occupation before the accession of Cunobelin we might well expect that coins of these three rulers would make some showing there. In fact there have only been found there three doubtfully attributed to Addedomarus, three of Dubnovellaunus, and three struck at Verulamium by Tasciovanus. The relative scarcity of these earlier coins confirms the impression already gained, that Cunobelin's accession and the foundation of the Sheepen capital were simultaneous and related events, about A.D. 10.

It has already been suggested above that the earlier nucleus of Camulodunum lay elsewhere within the Colchester area,³ and it is hoped to throw light on this by further excavations to be published in a Second Report. It will probably be best to reserve for that Second Report the full discussion of the Camulodunum coinage which Mr. D. F. Allen has been asked to contribute. It only remains now therefore to draw attention to a few features of the coins so far discovered. In the first place, there are a few uninscribed non-local coins. Groups I and II have each a silver coin of the Trinovantes' northern neighbours, the Iceni, coins rarely found outside their own frontiers, and group II has another of unpublished type probably struck by the same tribe: all of these may have been issued in the twenty years or so before the Roman Conquest, though the Icenian coinage continued to circulate thereafter. The unpublished coin bears some relationship to the coinage of the still more northerly Brigantes, here represented by remains of two gold-plated coins, perhaps discarded at the time as forgeries, though many of the original and genuine coins appear to have been also more or less thickly plated. They may date from about A.D. 30-40, and one was here found in a period I deposit. It should be noted that at North Ferriby on the Humber, immediately opposite South Ferriby where the hoards were found from which the gold type is chiefly known, an assemblage of Belgic pottery similar to that of Camulodunum⁴ attests close relations (doubtless by sea) with Cunobelin's capital in the latter part of his reign. What may be a specimen of his coinage, together with a coin of the Iceni, is also known from the Elmswell site inland in east Yorkshire.⁵ A paucity of non-local coins is to be expected on a site such as Colchester which was abundantly supplied with a coinage of its own.

The bronze coins ascribed to Addedomarus and those with the name of Dubnovellaunus are all new discoveries, and add a new denomination to these two reigns. There is

¹ Op. cit., 23, 30-2, and chart, 44.

⁴ *Antiq. Journ.* xviii, 261-7.

² Op. cit., 15-17, and chart, 44.

⁵ *Ibid.* xx, 338; cf. 342.

³ p. 11 above.

also a new uninscribed bronze type of the period of Tasciovanus, while Cunobelin's coins present to us at least nine hitherto unpublished types, some of great interest. All these coins will require fuller comment in the Second Report.¹ A coin of particular interest is the British version of a Roman Republican *denarius* (group I, no. 130), the existence of which confirms what Dr. Sutherland has to say below² concerning the occasional penetration of Roman silver into pre-Roman Britain. No similar coin is known to exist.

Lastly it must be recorded that the first identifications of the coins found in 1930, 1931, and 1932 were made by the late Dr. G. C. Brooke, F.S.A., to whose work the study of this period owes so much. The coins found in subsequent years were identified by Mr. D. F. Allen, and on his notes on the whole series the following lists are based. We are greatly indebted to Mr. Allen for his help, much of which has been rendered under inevitable difficulties since 1939.

In the lists which follow E. stands for Sir John Evans's *Coins of the Ancient Britons* (1864: plate numbers A-H and I-XVII) and *Supplement* (1890: plate numbers K-N and XVIII-XXIII).

GROUP I

Coins from the Excavations of 1930-9

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Period of site, if stratified*
BRIGANTES (2)					
1	Æ on Æ, plated	Copper core very thinly plated with base gold: contemporary forgery of the Æ type E. xvii, 9-11; cf. those from S. Ferriby, Lincs. (<i>Num. Chron.</i> 1908, 43, no. 65), N. Kelsey, Lincs., and Pickering, Yorks. <i>Pl. XVII, 1.</i>	fair (but fragment only)	1	i
2	„	Similar to 1, but core alone surviving; represents the S. Ferriby Æ type loc. cit. no. 64 (unique).	core only	4	..
ICENI (1)					
3	Æ	E. xvi, 9. <i>Pl. XVII, 3.</i>	fair	4	..
ADDEDOMARUS (?) (3)					
4	Æ	Type unpublished. 5.1. <i>Obv.</i> Horse galloping r., head and chest each formed of annulet containing pellet (⊙), tail single. Below, between legs, leaf or feather pointing down; above back, ⊙; above this, corded line. <i>Rev.</i> As <i>obv.</i> , but horse trotting, and pellet instead of leaf between legs; ⊙ above back much larger, and no corded line. <i>Pl. XVII, 4.</i> Horse closely paralleled in head and pose on Æ of Adde-domarus as E. xiv, 9, &c.; in construction of body, on 'Herts' Æ, E. G, 3-4; for leaf or feather, cf. the Iceniæ Æ, E. xvi, 5.	fine (but chipped)	3	..

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

¹ In which more will be illustrated: e.g. nos. 7, 14, 19, 55, 130, 203.

² p. 152 f.

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Period of site, if stratified*
ADDEDOMARUS (?) (cont.):					
5	Æ	Type unpublished. 19.7. <i>Obv.</i> Head r.? <i>Rev.</i> Horse galloping l.; ☉ above; pellets around. Cf. 4, and E. c, 7-8.	poor	6	..
6	Æ	Ditto. 14.7. <i>Obv.?</i> <i>Rev.</i> from same die as 5.	fair	6	i
DUBNOVELLAUNUS (3)					
7	Æ	Type unpublished. 25.9. <i>Obv.</i> Head l., surrounded by fillet; above, the hair rises in perpendicular strokes. In front, DVBNOV [?] (?) <i>Rev.</i> Horse r. with swirling tail and head turned back; ☉ in front and behind. Below, DVB [?] or DVN [?] Both <i>obv.</i> and <i>rev.</i> from same dies as 8 and 9. Resembles E. iv, 4, thought by E. to be of Eppillus, by Brooke of Tasciovanus; this new coin decides for Dubnovellaunus.	poorish	4	..
8	Æ	Ditto. <i>Obv.</i> Head l. (beardless) as 7; no legend visible. <i>Rev.</i> As 7 (much corroded). <i>Pl. XVII</i> , 5.	poor	3	IV
9	Æ	Ditto.	poor	5	..
TASCIOVANUS (3)					
10	Æ	E. vii, 3 (Verulamium). 29.4. <i>Obv.</i> Leg. VERL[AM]I[O]	good (but chipped)	3	..
11	Æ	E. viii, 5 (Verulamium). 36.7. <i>Obv.</i> Two pellets in centre between crossed 'wreaths'; a pellet in each quadrant. <i>Rev.</i> Boar; below, traces only of legend; on r., part of beaded circle. Cf. also E. xxi, 2. <i>Pl. XVII</i> , 6.	fine	5	..
12	Æ	E. viii, 5 (Verulamium). 37.1. <i>Rev.</i> Legend off flan. Beaded circle above boar and crescent. Boar more heavily built than in E., and with head bent lower. <i>Pl. XVII</i> , 7.	fine	3	vi
PERIOD OF TASCIOVANUS (1)					
13	Æ	Type unpublished. <i>Obv.</i> Pattern as E. vii, 14, but in place of letters on the outer edge a series of crescents link the extremities of the design. <i>Rev.</i> Sphinx l. as E. xi, 14, but with ☉ between wing and tail. Probably no legend. <i>Pl. XVII</i> , 8.	fair	1	iv
CUNOBELINUS (110)					
14	Æ	Type unpublished. 13.0. <i>Obv.</i> Two bull-headed snakes intertwined, surrounded by a guilloche pattern. <i>Rev.</i> Horse prancing l. in fine style, with halter; above, beaded circle with central pellet; below, ☉; behind, RO (?); in exergue, CVNO This new coin is of great importance: it is the silver counterpart of the Æ coin E. xxii, 14. The uninscribed Æ type E. x, 7 has a similar snake. The <i>rev.</i> horse type places the coin very close to Tasciovanus, at the beginning of the Cunobelin series.	fine	4	..

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Period of site, if stratified*
CUNOBELINUS (cont.):					
15	Æ	Type unpublished. 13.1. <i>Obv.</i> Small male head r., probably bearded, and apparently (though corrosion prevents certainty) winged. <i>Rev.</i> Probably horse moving r. <i>Pl. XVII, 9.</i> Both fabric and types indicate Cunobelin: for winged head, cf. E. xii, 6. Sp. G. 9.329, giving silver content of c. 29%.	poor (partly corroded away)	4	vi
16	Æ	E. x, 4. 16.3. <i>Obv.</i> CVN[] in panel in beaded circle. <i>Rev.</i> Horse as in E.; above, rosette; beneath, CA <i>Pl. XVII, 10.</i>	fine	1	IV
17	Æ	E. x, 10. 17.3. <i>Obv.</i> [T]ASC IOVANNI <i>Rev.</i> CVNOB[ELI] <i>Pl. XVII, 11.</i>	much oxidized	3	IV
18	Æ	E. xi, 3. Apparently base silver.	indifferent	3	IV
19	Æ	Type unpublished. 34.3. <i>Obv.</i> Head l., bearded, with hair indicated in the manner of a wreath. Cf. E. xi, 2. In front, CAMV[?] <i>Rev.</i> Animal prancing l., with disproportionately small head on elongated neck, and wavy line around legs. Below, CVNO <i>Obv.</i> Corresponds to the Æ type E. xi, 3; die apparently same as 20, 21, 22, the <i>rev.</i> dies of all four being variants of each other.	fine	4	..
20	Æ	Ditto. 25.5. <i>Obv.</i> As 19. <i>Rev.</i> Horse galloping l., with elongated neck; the head off the coin. A long wavy line joins all four hoofs. In exergue, [C]VN <i>Pl. XVII, 12.</i>	crumbling	3	..
21	Æ	Ditto. <i>Obv.</i> As 19, 20. <i>Rev.</i> Horse l.; circle above; curved branch below. In exergue, CVN <i>Pl. XVIII, 1.</i>	poor	5	VI
22	Æ	Ditto. <i>Obv.</i> As 19, 20, 21. <i>Rev.</i> Animal much as 19, with four teats along belly. In front, part of beaded circle; above, ☉; below, wavy line around legs, CVNO	indifferent	1	Late Flavian deposit
23	Æ	Type unpublished (cf. 24). <i>Obv.</i> Beardless head l., resembling that of 7-8-9, but with untidy short hair marked in upward and backward strokes; fillet round head; ☉ behind. In front CAML <i>Rev.</i> 'Lugdunum' type of eagle with spread wings and head turned l. Traces of legend beneath. Beaded circle. <i>Pl. XVIII, 2.</i>	indifferent	1	ditto
24	Æ	Type unpublished. 28.5. <i>Obv.</i> Beardless head l., as E. xii, 1, but no letters below truncation. In front, CAML <i>Rev.</i> Similar eagle with spread wings leaning slightly r., the head off the flan. Below, five-pointed star and [C]VNO <i>Pl. XVIII, 3.</i>	poor: edges crumbling	5	i
25	Æ	This and 23 appear to be varieties of the same new type. Type unpublished. <i>Obv.</i> Male head l., with short hair; fillet around head and tied behind. In front, downwards, CVNO Beaded circle.	Partly corroded	1	Late Flavian deposit

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Period of site, if stratified*
CUNOBELINUS (cont.):					
		<i>Rev.</i> Bull charging r. with lowered head; ☉ above and below. Beneath bull's legs legend [? E]RO or BO A mark ((in front of bull may be a continuation of this. Left-hand side of coin badly corroded and no details visible. <i>Pl. XVIII, 4.</i>			
26	Æ	E. xi, 5.	indifferent	3	IV
27	Æ	Probably E. xi, 9. <i>Obv.</i> Portions of body visible, human or animal. <i>Rev.</i> Horse r., probably with rider; traces of letters below.	crumbling	1	i-iv
28	Æ	E. xi, 7.	poor	1	iii
29	Æ	E. xi, 10 (probably same dies as E.'s). <i>Rev.</i> Legend CVN	unworn but corroded	3	III-IV
30	Æ	E. xi, 10.	poor	1	..
31	Æ	E. xi, 12.	fine	3	..
32	Æ	E. xi, 13. <i>Obv.</i> Animal more curved than E.'s, as on <i>rev.</i> of his c, 13. Probably no rosette below body.	poor	3	IV
33	Æ	E. xii, 1.	all poor or indifferent	5	iv-vi
34	Æ	"	"	5	iv-vi
35	Æ	"	"	5	iv-vi
36	Æ	"	"	3	IV
37	Æ	"	"	3	IV
38	Æ	"	"	1	..
39	Æ	"	"	5	..
40	Æ	E. xii, 3.	poor	3	IV
41	Æ	E. xii, 4.	fine	1	..
42	Æ	E. xii, 5.	unworn but corroded	3	II
43	Æ	"	poor	5	II or II-III
44	Æ	"	"	3	IV
45	Æ	"	"	3	IV
46	Æ	"	"	3	IV
47	Æ	"	"	3	IV
48	Æ	E. xii, 6.	corroded	3	IV
49	Æ	E. xii, 8. 27.7. <i>Rev.</i> Horse's body more compact than in E.; legend CVN <i>Pl. XVIII, 5.</i>	fine, but edges chipped	3	..
50	Æ	E. xii, 8. <i>Obv.</i> [C]Λ/MV; beaded circle. <i>Rev.</i> CVNO; beaded circle.	chipped	3	IV
51	Æ	E. xii, 8. 36.2.	good	5 (area X)	..
52	Æ	" 30.8.	"	3	..
53	Æ	"	poor	3	IV
54	Æ	"	"	3	..
55	Æ	E. xii, 9. 49.3.	fine	6	ii?
56	Æ	" 32.8.	poor	4	iii
57	Æ	" 47.1. <i>Rev.</i> Sphinx as E., but wing straight, like a feather.	fair	3	IV
58	Æ	E. xii, 9.	poor	1	i-iv
59	Æ	"	"	1	iv
60	Æ	"	"	1	iv
61	Æ	"	"	3	IV
62	Æ	"	"	3	IV

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Period of site, if stratified*
CUNOBELINUS (cont.):					
63	Æ	E. XII, 9.	poor	3	IV
64	Æ	"	"	3	..
65	Æ	" (not quite certain).	"	1	vi
66	Æ	" (" " ").	"	3	IV
67	Æ	" (probably).	"	1	..
68	Æ	E. XII, 10. 37.5. <i>Pl. XVIII</i> , 6.	good	5	..
69	Æ	" 33.3.	fine	3	III-IV
70	Æ	"	"	1	..
71	Æ	"	indifferent	1	..
72	Æ	"	"	3	..
73	Æ	"	"	3	..
74	Æ	"	"	3	..
75	Æ	"	"	5	II
76	Æ	E. XII, 11 (probably). <i>Obv.</i> Animal, ?boar, advancing l. with one front leg raised. Beneath, traces of legend, probably CA[M]; all within a beaded circle. <i>Rev.</i> Uncertain animal, ?horse, advancing l. Legend, probably CV, below; all within a beaded circle. Only a part of the die on the flan. E. XII, 11 was never seen by E., but copied by him from Beale Post, who records it as found near Colchester. (In E.'s illustration the <i>obv.</i> and <i>rev.</i> are interchanged.) This is therefore the second specimen recorded. <i>Pl. XVIII</i> , 7.	fair	1	Late Flavian deposit
77	Æ	E. XII, 12. Scyphate.	good	1	ditto
78	Æ	" 35.8. <i>Rev.</i> As in E., but O of CVNO almond-shaped. <i>Pl. XVIII</i> , 8.	fair	3	..
79	Æ	E. XII, 12.	poor	1	iv
80	Æ	"	"	4	iv-vi
81	Æ	"	"	3	IV
82	Æ	" (not quite certain).	"	3	..
83	Æ	" (probably).	"	1	..
84	Æ	E. XII, 13. <i>Obv.</i> Annulet above and below legend-panel.	"	3	..
85	Æ	E. XII, 13. <i>Obv.</i> As 84. Flan thicker than usual.	crumbling	3	..
86	Æ	E. XII, 13.	poor	3	IV
87	Æ	"	"	3	IV
88	Æ	"	"	3	..
89	Æ	"	"	3	IV
90	Æ	"	"	5	VI
91	Æ	"	"	5	VI
92	Æ	"	"	3	VI
93	Æ	"	"	1	iv
94	Æ	"	"	2	III
95	Æ	"	"	2	..
96	Æ	E. XII, 14.	good but crumbled edges	1	iv-vi
97	Æ	"	poor	1	iv
98	Æ	"	"	1	Late Flavian deposit

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Period of site, if stratified*
CUNOBELINUS (cont.):					
99	Æ	E. XII, 14.	poor	1	i
100	Æ	"	"	3	IV
101	Æ	"	"	1	..
102	Æ	"	"	5	..
103	(Æ)	Oxidized impressions on clayey earth of <i>obv.</i> and <i>rev.</i> of coin, probably E. XII, 14.	..	1	II
104	Æ	E. XIII, 1.	crumbling	1	..
105	Æ	E. XIII, 2. 30.3. <i>Rev.</i> Two pellets in front of lion's mouth: legend CΛΛV <i>Pl. XVIII, 10.</i>	fine	3	vi
106	Æ	E. XIII, 2. 30.5. <i>Rev.</i> The lion has a long nose and looks more like a dog. <i>Pl. XVIII, 11.</i>	fair	5	vi
107	Æ	E. XIII, 2. 24.7. <i>Rev.</i> Legend [C]ΛΛ	fair, but chipped	5	VI
108	Æ	E. XIII, 2.	poor	5	II
109	Æ	"	"	5	VI
110	Æ	"	"	3	..
111	Æ	E. XIII, 5 (probably). <i>Obv.</i> Boar with marked spines on back.	"	1	..
112	Æ	E. XXII, 14. 22.4. <i>Obv.</i> As in E., but better preserved. <i>Rev.</i> The animal's tail curls in \mathcal{E} shape above its back, and from its end hangs what looks like a bunch of grapes. Behind, annulet; above, beaded circle. Legend, CVP (correcting E.'s CNI). <i>Pl. XVIII, 12.</i>	fair	5	..
113	Æ	E. XXII, 14 (badly encrusted).	poor	5	iv-vi
'HOARD'					
114-19	Æ	E. XII, 9 (certain), six;	} Found together as described on p. 101, on the bottom of pit D9 (a sealed deposit).	4	i
120-2	Æ	E. XII, 9 (probable), three;			
123	Æ	E. XII, 12, one.			
CUNOBELINUS (?) (6)					
124	Æ	<i>Obv.</i> worn away. <i>Rev.</i> Standing figure like E. x, 11 <i>obv.</i>	poor	3	IV
125	Æ	Perhaps E. XII, 2.	v. poor	5	IV
126	Æ	Very possibly E. XII, 9.	corroded	4	iv-vi
127	Æ	<i>Rev.</i> C VN[O] Type?	poor	3	IV
128	Æ	Probably Cunobelin.	v. poor	5	..
129	Æ	Perhaps Cunobelin.	corroded	3	II
COPY OF A ROMAN DENARIUS (1)					
130	Æ	British copy of a Roman Republican <i>denarius</i> : not strictly copied from any one model, but on <i>rev.</i> not unlike the coin of T. Carisius (<i>B.M. Cat. Rep. i, 530, 4070</i> = pl. LI, no. 8) represented by nos. 272-3 and (?) 18 in the site's Roman coin-list (pp. 144, 149; cf. p. 49). 36.4. <i>Obv.</i> Bearded head r.; traces of legend behind. <i>Rev.</i> Victory riding in chariot drawn by two horses r. On exergual line, EPITV (?). In exergue, a zigzag, perhaps representing traces of another legend.	fair	4	..

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.



ILLEGIBLE (68)

131-98. The distribution of these by region and period may be tabulated as follows:

		Regions						
		1	2	3	4	5	6	
{	Period I (Key-deposits)	..	..	..	..	..	..	0
	" i (other deposits)	I	..	..	..	..	I	2
	" II (Key-deposits)	..	..	I	..	..	..	I
	" III (" ")	I	..	..	..	..	..	I
	" iii (other deposits)	I	I	..	..	..	..	2
	" III-IV (Key-deposits)	..	..	9	..	..	..	9
	" IV (" ")	I	..	6	3	..	..	10
	" iv (other deposits)	2	..	..	2	..	..	4
	" iv-vi (" ")	I	..	..	I	(?) I	..	3
	" vi (" ")	2	..	..	..	..	..	2
Unstratified		13	I	8	5	4	3	34
Total		22	2	24	11	5	4	68

GROUP II

Chance Finds from the Sheepen Site

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Location of find, if known*
ICENI (1)					
199	Æ	E. xvi, 8.	good	3	Sand-pit
ICENI (?) (1)					
200	Æ	Type unpublished. Scyphate. 9.4. <i>Obv.</i> Four formalized 'wreaths' crosswise, as on the coins of Addedomarus: in one quadrant a large rose (partly covering one 'wreath'); in the next to the right, a small cross; in the other two, uncertain objects. <i>Rev.</i> Horse galloping r., naturalistic but for mane ending in scroll; above,  ; below,  ; behind and in front, S (these are not letters). <i>Pl. XVII, 2.</i> Apparently related to Icenian Æ such as E. xvi, 1-2; or xv, 1 (inscribed ECEN). The scyphate fabric and the weight, however, recall the inscribed Brigantian coins in the Honley hoard (<i>Num. Chron.</i> 1897, 297 ff.) and for the <i>obv.</i> rose cf. that on Brigantian Æ such as E. xvii, 1.	fine	4	Area D
CUNOBELINUS (22)					
201	Æ	E. xii, 6.	worn	4	Sheepen Road
202	Æ	Prob. E. xii, 8. 26.3.	poor	1	School
203	Æ	E. xii, 9. 49.3.	good	1	"
204	Æ	" 44.6.	poor	1	"
205	Æ	"	"	3	Sand-pit
206	Æ	" 33.5.	worn	1	School
207	Æ	" 32.1.	poor	1	"
208	Æ	Poss. E. xii, 9.	worn	?	Sheepen Farm
209	Æ	E. xii, 12.	indifferent	4	..

* In the last column 'School' indicates coins found in the St. Helena's School building-excavations of 1936-7 in area H.

No.	Metal	Description, Evans reference, weight (where of interest) in grains	Preservation	Region where found	Location of find, if known*
CUNOBELINUS (<i>cont.</i>):					
210	Æ	E. XII, 12.	poor	3	..
211	Æ	E. XII, 13.	corroded	4	Sheepen Road
212	Æ	„ 23.7.	indifferent	1	School
213	Æ	„ 19.1.	poor	1	„
214	Æ	Prob. E. XII, 13. 25.5.	worn	1	„
215	Æ	E. XII, 14. 21.8.	indifferent	1	„
216	Æ	Prob. E. XII, 14. 26.2.	corroded	1	„
217	Æ	E. XIII, 1. 30.9. <i>Rev.</i> Boar sitting higher on haunches than in E. <i>Pl. XVIII</i> , 9.	good	3	Sand-pit
218	Æ	E. XIII, 1. 28.2.	worn	1	School
219	Æ	„ 20.5.	poor	1	„
220	Æ	E. XIII, 2. 34.1.	v. fair	1	„
221	Æ	„ 25.0.	indifferent	1	„
222	Æ	Type uncertain.	v. poor	3	Sand-pit

* In the last column 'School' indicates coins found in the St. Helena's School building-excavations of 1936-7 in area H.

C. GAULISH COINS

Three Gaulish coins only were found, all of the same Æ type, struck after the Roman conquest of Gaul. Nos. 1 and 2 were found in the period IV stratum at the mouth of pit F1 in region 1, neither perfect, but with impressions of both faces almost perfectly preserved on the enclosing loamy earth. No. 3 was found, worn, unstratified in area H in the same region.

Obv. Head r. *Rev.* Bull l.: $\left. \begin{array}{l} (1) \text{ GERMANVS INDVTILLI} \cdot \text{L} \\ (2) \text{ GERMAN[VS INDVTILLI} \cdot \text{L]} \\ (3) \text{ [GERMANVS] INDV[TILLI} \cdot \text{L]} \end{array} \right\}$

Muret, *Cat. des monnaies gauloises de la Bibl. Nat.*, and de la Tour, *Atlas id.*, no. 9248; Blanchet, *Traité des m. g.*, 253, fig. 119. The type is copied apparently from a Lugdunum issue of Augustus (*BMC Emp.* i, 93, no. 564), dated (*loc. cit.*) by Mr. Mattingly *c.* 10 B.C.; he would now prefer *c.* 15-10 B.C. The stratification of nos. 1-2 here shows that these coins had a life of some 60-75 years in Britain, but it remains uncertain when they first reached this country.

D. ROMAN COINS

By C. H. V. SUTHERLAND

Six groups of coins—two essential and four subsidiary—have been examined in the preparation of this report.¹ They are as follows:

¹ My thanks are due to Mr. Hawkes and Mr. Hull for the opportunity of working on this remarkably interesting series of coins: numismatists are seldom privileged to examine site-finds which can be dated with such chronological exactitude as those of Camulodunum. To my colleague at the Ashmo-

lean Museum, Dr. J. G. Milne, I am indebted for kind assistance in the confirming of certain results contained in this report. It should be added that many of the coins here listed received their primary classification from Mr. Harold Mattingly of the British Museum.

Essential:

- Group I. Coins from the main excavations of 1930-9 (270);
 Group II. Chance finds from the Sheepen Site (74).

Total, 344.

Subsidiary:

- Group III. The Colchester and Essex Museum's general collection of Pre-Flavian coins from Colchester (219), together with 5 coins from Lexden and 2 from Fingringhoe;
 Group IV. Post-Claudian coins from the excavations of 1935 in the Temple area of region I (36);
 Group V. Post-Claudian coins found in the building-excavations of 1937 in the same area (8);
 Group VI. Post-Claudian coins from the excavations of 1934 in the Kiln area of region 5 (3).

Total, 273.

In all, 617 coins.

The two essential groups, I and II, thus represent the yield of the area of British Camulodunum as a whole, while of the four subsidiary groups, IV, V, and VI represent the additions thereto from the two relatively small portions of it where special occupations in post-Claudian times have been attested. The detailed description of these last will appear with those of the temples and kilns respectively in the projected Second Report. Group III falls likewise outside the scope of the present study, but its statistical significance, in comparison and contrast with that of our two essential groups, is considerable¹—as indeed, within their smaller and special fields, is that of groups IV, V, and VI. Accordingly, while no descriptive lists of these four subsidiary groups are given below, their figures have been incorporated in the various statistical tables contained in the following pages.

In the subjoined lists of groups I and II, coins are specified as D (= *denarius*), Sest (= *sestertius*), Dp (= *dupondius*), As, Sem (= *semis*), Quad (= *quadrans*), and Ant (= *antoninianus*): the conventional symbols $\text{Æ}1$, $\text{Æ}2$, $\text{Æ}3$ are also used occasionally to denote the various brass or copper denominations. Republican coins are classified according to H. A. Grueber, *Coins of the Roman Republic in the British Museum* (London, 1910; 3 vols.) (= *BMCRep.*): references for Imperial coins are to H. Mattingly and E. A. Sydenham, *The Roman Imperial Coinage* (London, 1923 onwards; 5 vols.) (= *RIC*). The preservation of the coins is indicated by italicized arabic numerals, as follows:

1 = very good	5 = fair-worn
2 = good	6 = worn
3 = very fair	7 = much worn
4 = fair	

Corrosion or other natural deterioration of the surface is shown by the abbreviation *corr.* As will be seen later (pp. 155 ff.), a very high proportion of the Claudian *aes* coins are imitations, of varying stages of excellence: these have been classified in accordance with

¹ It is to be hoped that a published list of group III may in due course be made available elsewhere.

the simple scheme set out previously in my *Romano-British Imitations of Bronze Coins of Claudius I* (American Numismatic Society's *Numismatic Notes and Monographs*, no. 65, New York, 1935).

GROUP I

Coins from the Excavations of 1930-9

(a) REPUBLIC (18)

No.	De-nomination	Moneyer, Triumvir, &c.	Reference	Pre-servation	Date of issue B.C.	Notes	Region where found	Period of site,* if stratified
1	D	L. Antistius Gragulus	i, 142, 976	5	c. 124-103	..	4	..
2	"	D. Silanus	i, 245, cf. 1780	4	c. 88	..	4	IV-VI
3	"	Q. Titius	i, 287, 2225	7	c. 87	..	5	IV
4	"	"	" "	5	c. 87	..	5	II
5	"	Gargilius, Ogulnius, and Vergilius	i, 333, 2606	6	c. 84	..	4	..
6	"	C. Egnatius	i, 400, 3276 ff.	3	c. 75	..	3	IV
7	"	P. Fonteius Capito	i, 478, 3851	2	c. 60	..	3	IV
8	"	M ^r . Acilius	i, 497, 3944 ff.	3	c. 50	..	6	..
9	"	Julius Caesar	i, 506, 3955	5	c. 49	..	3	IV
10	"	Albinus Bruti f.	i, 509, 3967	6	"	..	4	..
11	"	Julius Caesar	ii, 469, 31	5	c. 48	..	6	..
12	"	"	" "	5	"	..	6	iii
13	"	L. Plautius Plancus	i, 516, 4004	6	c. 47	..	1	..
14	"	Antony: Octavian	ii, 498, 123	6	c. 40	..	3	vi
15	"	Antony: Cleopatra	ii, 525, 179	6	c. 32-31	..	4	..
16	"	Antony (legionary)	ii, 527, 189 ff.	7	c. 31	? defaced	5	VI
17	"	Antony (legionary)	ii, 529, 210	7	"	Punchmarks V□E	4	iv
18	"	T. Carisius (?)	(cf. nos. 272-3)	6	?	Damaged	6	iii

(b) EMPIRE: PRE-CLAUDIAN (69)

No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D. (after no. 21)	Notes	Region where found	Period of site,* if stratified
19	As	Augustus	84	7	22 B.C.	..	5	..
20	D	"	99	3	18 B.C.	..	3	..
21	"	"	350	5	2 B.C.-A.D. 14	Obv. punchmark I	4	IV-VI
22	Dp	"	362	7	10-14	Obv. countermark IMP (?)	3	III
23	As	"	364	5	"	..	3	IV
24	"	"	"	5	"	..	3	III
25	"	"	?	corr.	?	..	3	IV
26	D	Tiberius	3	4	14-37	..	5	vi
27	"	"	"	5	"	..	6	iv
28	"	"	"	5	"	..	4	Late IV
29	Dp	" (Div. Aug.)	i, 95, 7	6	22+	..	4	IV
30	As	" "	i, 95, 6	5	"	..	4	Late IV
31	"	" "	"	7	"	..	3	iii-iv
32	"	" "	"	7	"	..	3	IV
33	"	" "	" (?)	7	?34-7	Rev. ? thunderbolt, as RIC i, 95, 1.	1	..

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D.	Notes	Region where found	Period of site,* if stratified	
(b) EMPIRE: PRE-CLAUDIAN (cont.):									
34	Dp	Tiberius (Germ.)	36	5	(? 35-7)	..	3	IV	
35	As	,, (Agrippa)	32	2	See p. 154 f., below.	..	4	iii	
36	5		..	6	..	
37	5		..	4	VI	
38	5		..	6	iv	
39	6		..	4	iv	
40	6		..	I	..	
41	6		..	3	IV	
42	6		..	5	..	
43	7		..	3	IV	
44	7		..	I	vi	
45	7		..	3	..	
46	corr.		..	3	IV	
47	Sest	Caligula	26	4		37-8	..	I	..
48	27	2		3	IV
49	As	..	30	4	..	..	4	..
50	..	,, (Germ.)	44	4	..	..	3	IV
51	4	..	..	3	IV	
52	4	..	..	3	IV	
53	4	..	..	3	IV	
54	5	..	..	3	..	
55	5	..	..	5	? iv-vi	
56	5	..	..	3	..	
57 (?)	5	..	Obv. counter-mark (?)	4	..	
58	Sest	..	35-7	4	37-41	A halved coin	6	..	
59	Dp	,, (Div. Aug.)	i, 96, 8	3	..	..	3	IV
60	5	..	..	5	..	
61	..	,, (Nero Drusus)	43 (?)	corr.	..	..	4	iii-iv
62	As	..	30 ff.	4	..	..	4	..
63	4	..	..	3	IV	
64	4	..	..	3	..	
65	5	..	..	3	IV	
66	5	..	..	3	..	
67	5	..	..	3	IV	
68	5	..	..	4	..	
69	5	..	..	4	iv	
70	6	..	..	I	vi	
71	6	..	..	3	IV	
72	6	..	..	3	? iv	
73	6	..	..	3	iv	
74	6	..	..	5	VI	
75	7	..	..	5	VI	
76	7	..	..	5	VI	
77	7	..	..	5	VI	
78	7	..	..	3	..	
79	7	..	..	3	..	
80	corr.	..	..	3	..	
81	3	..	
82	3	IV	
83	3	..	

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

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No.	De-nomination	Emperor	Reference	Pre-serva-tion	Date of issue A.D.	Notes	Region where found	Period of site,* if stratified
(b) EMPIRE: PRE-CLAUDIANT(<i>cont.</i>):								
84	As	Caligula	30 ff.	<i>corr.</i>	37-41	..	3	vi
85	"	"	" (?)	"	"	..	3	IV
86	"	"	31-2	4	39-41	..	3	III-IV
87	"	" (?)	?	<i>corr.</i>	?	..	3	IV
(c) EMPIRE: CLAUDIUS (98):								
88	Sest	Claudius	60	4		Orthodox	4	..
89	"	"	"	6		"	3	IV
90	"	"	62	4		" (fragment only)	1	..
91	"	"	"	6		"	5	..
92	"	"	"	6		"	3	..
93	"	"	64 (D)	5		"	3	..
94	"	"	"	5		"	3	..
95	"	"	64	5		"	5	..
96	"	"	"	6		"	3	..
97	"	"	"	6		"	3	..
98	"	" (Nero Drusus)	78	2		"	3	iii-iv
99	Dp	"	67 (D)	3		"	3	..
100	"	"	67	4		"	3	..
101	"	"	"	4		"	4	..
102	"	"	"	5		"	4	..
103	"	"	"	<i>corr.</i>		"	6	..
104	"	" (pl. XIX, 4)	67 (D)	2		Orthodox (?)	3	IV
105	"	"	67	5		"	3	IV
106	"	"	"	6		"	5	IV
107	"	" (pl. XIX, 5)	67 (D)	2		Copy: grade I	1	..
108	"	"	67	4		"	5	iv
109	"	"	"	6		"	3	..
110	"	" (Antonia)	82 (D)	3		Orthodox	5	..
111	"	" "	"	5		"	5	? iv
112	"	" "	"	5		"	1	..
113	"	" "	82	4		"	5	? iv-vi
114	"	" "	"	5		"	1	..
115	"	" "	"	5		"	2	..
116	"	" "	"	6		"	1	vi
117	"	" "	"	6		"	4	..
118	"	" "	"	6		"	4	..
119	"	" "	"	6		"	4	..
120	"	" "	"	7		"	3	..
121	"	" "	"	6		Orthodox (?)	3	..
122	"	" "	"	<i>corr.</i>		"	3	IV
123	"	" "	"	"		"	5	? iv
124	"	" "	"	6		Copy (?)	6	..
125	"	" "	"	4		Copy: grade I	3	III
126	"	" "	"	4		"	3	..
127	"	" "	"	4		"	3	vi
128	"	" "	"	4		Copy: grade I-II	3	iv
129	"	" (?)	?	7		..	4	..
130	As	"	66 (D)	2		Orthodox	1	..
131	"	"	"	3		"	3	IV

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D.	Notes	Region where found	Period of site,* if stratified
(c) EMPIRE : CLAUDIUS (<i>cont.</i>):								
132	As	Claudius	66 (D)	4		Orthodox	3	vi
133	"	"	66	3		"	5	IV
134	"	"	"	4		"	5	..
135	"	"	"	5		"	5	? iv-vi
136	"	"	"	<i>corr.</i>		"	1	vi
137	"	"	"	3		Orthodox (?)	5	II or II-III
138	"	"	"	4		"	1	vi
139	"	"	"	6		"	3	iii-iv
140	"	"	"	<i>corr.</i>		"	3	IV
141	"	"	"	"		"	3	IV
142	"	" (pl. XIX, 8)	66 (D)	3		Copy: grade I	5	..
143	"	"	66	2		"	1	iv
144	"	"	"	3		"	4	..
145	"	"	"	3		"	1	Flavian
146	"	"	"	4		"	3	IV
147	"	"	"	5		"	6	..
148	"	"	"	6		"	3	..
149	"	"	"	6		"	5	..
150	"	"	"	6		"	3	..
151	"	" (pl. XIX, 9)	66 (D)	2		Copy: grade I-II	1	..
152	"	"	"	3		"	3	..
153	"	"	66	6		"	3	..
154	"	"	"	7		"	3	..
155	"	"	"	7		"	3	IV
156	"	"	"	5		Copy: grade I-II (?)	4	..
157	"	"	"	5		"	4	..
158	"	"	"	6		"	4	..
159	"	"	66 (D) (?)	3		Copy: grade II	5	IV
160	"	"	66	5		"	3	IV
161	"	"	"	6		"	1	..
162	"	"	"	6		"	3	IV
163	"	"	"	<i>corr.</i>		Copy: grade II (?)	1	IV
164	"	"	"	6		Copy: grade II-III	4	..
165	"	"	"	6		"	6	..
166	"	"	"	<i>corr.</i>		Copy: grade II-III (?)	1	..
167	"	"	"	5		Copy: grade IV (cf. Sutherland, op. cit., pl. VIII, 1-2 for <i>obv.</i> die)	3	IV
168	"	"	"	7		Copy (?)	6	..
169	"	"	"	<i>corr.</i>		"	4	..
170	"	"	"	"		"	6	..
171	"	"	66 (?)	6		Copy (?). Small	3	..
172	"	"	"	7		"	1	..
173	"	"	"	7		"	3	..
174	"	"	"	7		"	1	..
175	"	"	"	<i>corr.</i>		"	3	IV
176	"	"	"	"		"	1	..
177	"	"	68 (D)	3		Orthodox	1	..
178	"	"	"	5		"	1	..

For the dating of Claudian *aeri* see p. 158 f., below.

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

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No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D.	Notes	Region where found	Period of sites,* if stratified
(c) EMPIRE: CLAUDIUS (cont.):								
179	As	Claudius	68	5	} See p. 158 f.	Orthodox	3	..
180	"	"	"	4		"	6	..
181	"	"	"	5		Copy: grade I-II	5	vi
182	"	"	69	3		Orthodox	5	..
183	"	"	"	corr.		..	3	..
184	Quad	"	72-3	6	41-2	Orthodox	5	..
185	"	"	74	6	"	"	4	..

* In the last column capital figures indicate Key-deposits (see pp. 27, 57 ff.), small figures other deposits.

(d) UNCERTAIN: POSSIBLY CLAUDIAN AND POSSIBLY JULIO-CLAUDIAN (36)

186-221 2 Sest (one a halved piece), 1 Dp (possibly Claudian), 13 Asses (8 of them possibly Claudian), 16 Dp or Asses (some very small and light), and 4 Æ3 coins.

The distribution of these by region and period may be tabulated as follows:

	Regions						
	1	2	3	4	5	6	
Period II (Key-deposit)	..	..	1	..	..	..	1
" IV (Key-deposits)	..	..	7	..	..	..	7
" iv (other deposits)	1	..	..	..	1 (?)	..	2
" VI (Key-deposits)	..	..	..	..	1	..	1
" vi (other deposits)	1 (?)	..	..	..	1	..	2
Unstratified	13	2	3	1	4	..	23
Total	15	2	11	1	7	0	36

(e) EMPIRE: POST-CLAUDIAN (34)

No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D.	Notes	Region where found
222	Dp	Nero	cf. 306	5	65+	..	5
223	As	"	?	7	"	..	1
224	Sem	"	?	..	"	Rev. quite smooth and blank	1
225	As	Vespasian	cf. 497	6	c. 71	..	3
226	"	"	cf. 500	6	"	..	4
227	"	"	?	5	"	..	6
228	"	"	?	6	"	..	4
229	"	"	?	7	"	..	6
230	"	"	cf. 528	7	c. 72-3	..	3
231	"	"	cf. 746	7	c. 73	..	3
232	"	"	786	4	77-8	..	4
233	"	Domitian	301 B	6	85	..	4
234	"	"	356	5	87	..	4
235	Dp	"	417	6	95-6	..	6
236	Sest	" (?)	?	7	?	..	1
237	Dp	Trajan	cf. 538	3	103-11	..	5
238	As	"	?	5	c. 107	..	4
239	"	"	644	7	c. 114-17	..	6

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No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D.	Notes	Region where found
(e) EMPIRE : POST-CLAUDIAN (cont.):							
240	As	Hadrian	?	7	117-38	..	3
241	Sest	"	884 f.	6	134-8	..	4
242	"	Antoninus Pius	?	7	138-61	..	3
243	Dp	"	?	7	"	..	1
244	Sest	M. Aurelius	?	5	161-80	..	5
245	"	Commodus	?	6	180-92	..	3
246	Ant	Claudius II	109	6	268-70	..	2
247	"	Tetricus I	?	6	270-3	..	1
248	"	Carausius	?	4	287-93	Rev. struck with obv. type incuse	3
249	"	'Radiate'	?	7	c. 270	..	1
250	"	"	?	7	"	..	5
251	Æ3	Constantine I	Rev. Gloria Romanorum	6	c. 325	..	4
252	"	Crispus	Rev. Beata Tranquillitas PTR	1	"	..	3
253	"	Constantius II or Constans	Rev. Fel. Temp. Reparatio copy	6	c. 350	..	4
254	"	"	"	7	"	..	3
255	"	Valens	Rev. Gloria Romanorum OF | I CONST	4	364-78	..	3

(f) ILLEGIBLE (15)

256	As	Region I	Period III
257	"	I	iv
258	"	I	vi ?
259	" (rev. countermarked)	I	
260	Æ3	I	II
261-6	"	I	
267	"	2	iv ?
268-9	"	2	
270	"	I	

GROUP II

Chance Finds from the Sheepen Site

(a) REPUBLIC (3)

No.	De-nomination	Moneyer	Reference	Pre-servation	Date of issue B.C.	Notes	Region where found	Location of find, if known*
271	D	Q. Sicinius	i, 503, 3947	3	c. 49	..	I	School
272	"	T. Carisius	i, 530, 4070	6	c. 45	..	I	"
273	"	"	"	7	"	..	I	"

* In the last column 'School' indicates coins found in the St. Helena's School building-excavations of 1936-7 in area H.

(b) EMPIRE: PRE-CLAUDIAN (27)

No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D. (after no. 275)	Notes	Region where found	Location of find, if known*
274	As	Augustus	81	7	22 B.C.	..	I	School
275	D	"	350	5	2 B.C.-A.D. 14	..	I	"
276	"	Tiberius	3	2	14-37	..	I	"
277	As	" (Agrippa)	32	5	..	..	I	"
278	"	" "	"	7	} See p. 154 f., below.	..	I	"
279	"	" "	"	7		..	I	"
280	"	" "	"	7		..	I	"
281	"	" "	"	7		..	I	"
282	"	" "	"	7		..	I	"
283	"	" "	"	7		..	I	"
284	"	" "	"	7		..	I	"
285	"	" "	"	5		Copy: grade I	3	Sand-pit
286	"	" "	"	6			3	"
287	Sest	Caligula	35	3		37-8	..	I	School
288	"	"	23	6	"	..	I	"
289	As	"	30	5	"	..	4	Sheepen Rd.
290	"	"	"	* corr.	"	..	3	Sand-pit
291	"	" (Germ.)	44	6	"	..	..	By-pass Rd.
292	"	" (?)	43 (?)	6	"	..	?	..
293	Dp	" (Nero Drusus)	43	7	37-41	..	I	School
294	"	" (Div. Aug.)	i, 96, 8	6	"	..	I	"
295	"	" "	"	6	"	..	I	"
296	As	"	30 ff.	6	"	..	I	"
297	"	"	"	7	"	..	I	"
298	"	"	"	7	"	..	I	"
299	"	"	31-2	6	39-41	..	4	SE. corner
300	Sest	"	29	5	41	..	I	School

(c) EMPIRE: CLAUDIUS (38)

No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D.	Notes	Region where found	Location of find, if known*
301	Sest	Claudius	60 (D)	5	For the dating of Claudian <i>ans</i> see p. 158 f., below.	Orthodox	I	School
302	"	" (P.P.)	64 (E)	1		"	I	"
303	"	"	64	4		"	I	"
304	"	"	"	5		"	I	"
305	"	"	64 (D)	6		"	4	Sheepen Rd.
306	"	"	64	4		Copy: grade I	4	"
307	"	" (Nero Drusus)	78	5		Orthodox	I	School
308	"	" "	"	7		"	I	"
309	Dp	"	67 (D)	5		"	I	"
310	"	"	67	5		Copy: grade I (?)	I	"
311	"	"	67 (D)	4		Copy: grade I	I	"
312	"	"	"	4		"	I	"
313	"	"	67 (D)	6		"	4	Sheepen Rd.
314	"	"	67	6		"	I	School
315	"	"	"	6		Copy: grade I-II (?)	I	"
316	"	"	"	6		Copy: grade II (?)	..	By-pass Rd.

* In the last column 'School' indicates coins found in the St. Helena's School building-excavations of 1936-7 in area H.

No.	De-nomination	Emperor	Reference	Pre-servation	Date of issue A.D.	Notes	Region where found	Location of find, if known*
(c) EMPIRE: CLAUDIUS (cont.):								
317	Dp	Claudius	67	7	For the dating of Claudian <i>aes</i> see p. 158 f., below.	Copy (?)	I	School
318	"	"	"	7		"	I	"
319	"	" (Antonia)	82	7		Orthodox (?)	I	"
320	As	"	66	7		Orthodox	I	"
321	"	"	66 (D)	5		Orthodox (?)	?	..
322	"	"	66	6		"	I	School
323	"	"	"	6		"	I	"
324	"	"	66 (D)	5		Copy: grade I	I	"
325	"	"	66	6		"	I	"
326	"	"	"	6		"	I	"
327	"	"	"	6		Copy: grade I-II (?)	I	"
328	"	"	"	6		Copy: grade II	I	"
329	"	"	"	7		" Very small	I	"
330	"	"	"	7		" "	I	"
331	"	"	66 (D)	4		Copy: grade II	I	Water Lane
332	"	"	66	7		Copy: grade II-III	I	School
333	"	"	"	6		Copy: grade III Pierced	I	"
334	"	"	"	6		Copy (?)	?	..
335	"	"	"	7	"	I	School	
336	"	"	68	6	Copy: grade III	I	"	
337	"	"	69	5	Copy: grade I (?)	?	..	
338	"	" (?)	"	7	..	?	..	

* In the last column 'School' indicates coins found in the St. Helena's School building-excavations of 1936-7 in area H.

(d) UNCERTAIN: POSSIBLY CLAUDIAN (3)

339-341	Three illegible Æ2	I	School
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(e) EMPIRE: POST-CLAUDIANT (3)

342	As	Nero	318 ff.	7	65+	..	?	..
343	D	Titus (Div. Vesp.)	63	3	79-81	..	3	Area A
344	Æ3	Constantine I	Rev. Soli In- victo Comiti T | F P | L | N	5	c. 320	..	?	..

We may now summarize the primary periods defined in the preceding lists. To the totals of the coins in groups I-II are added, in accordance with the principle set out above (p. 143), the corresponding figures from groups III-VI.

TABLE A
General Summary of Pre-Neronian Coins found at Colchester (uncertain excluded)
(with Summary of Neronian Coins appended)

	I	II	III	IV	V	VI	Totals
Republic	18	3	12	0	0	0	33
Empire: Pre-Claudian	69	27	60	0	0	0	156
" Claudian	98	38	154	0	0	0	290
Totals	185	68	226	0	0	0	479
" Neronian	3	1	92	1	3	0	100
	4		96				
	Total						579

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TABLE B

Summary for all Periods of the Coins of Groups I-II

Republic	21 = 7.2 per cent.	} of total certain
Empire: Pre-Claudian	96 = 33.1 "	
" Claudian	136 = 46.9 "	
" Post-Claudian	37 = 12.8 "	
	<hr/> 290 = 100.0 "	
Uncertain and illegible	54	
Totals	344	

TABLE C

Summary for all Pre-Neronian Periods of the Coins of Groups I-VI

Republic	33 = 6.9 per cent.
Empire: Pre-Claudian	156 = 32.5 "
" Claudian	290 = 60.6 "
Total	479 = 100.0 "

In the detailed analysis of the coins from Camulodunum it is important to remember that the stratified levels of pre-conquest date produced no Roman coins at all: the period which has been termed 'the morrow of the conquest' is therefore the earliest to which any but an exceptional infiltration of Roman coins can be assigned. In the southern districts of England this infiltration began about or soon after the Augustan period.¹ At Camulodunum, however, where the prolific output of Cunobelin's mint can be estimated from the preceding pages, there was evidently little need for any Roman coin as subsidiary currency: it should be noted how very slight a proportion of British coins from other mints entered Cunobelin's capital. The increasingly nationalist character of Cunobelin's administration, as viewed by modern historians,² would itself act as a deterrent to such infiltration and steadily discourage the acceptance (in areas dominated by Cunobelin) of any but Cunobelin's coinage: as a natural corollary, Cunobelin's coinage seems to have prevailed well beyond the confines of his own kingdom.³ It is true that an Augustan *denarius* served as the central decoration in the Lexden tumulus medallion;⁴ but this is fully in accordance with the practice—not unknown to-day—whereby 'foreign' coins possess a greater attraction for use as ornament with jewellery than is possessed by 'home-produced' coins, the naked fact of whose currency-value is generally uppermost in the public mind. On the Sheepen site the only definite sign of pre-conquest infiltration of

¹ Cf. C. H. V. Sutherland, *Coinage and Currency in Roman Britain* (London, 1937), p. 3 f., with which D. F. Allen, 'The Belgic Dynasties of Britain and their Coins', *Arch.* xc (1944), 1 ff., should now be closely read.

² See R. G. Collingwood and J. N. L. Myres, *Roman Britain and the English Settlements*² (= *Oxford History of England*, i) (Oxford, 1936), p. 73 f.; A. Momigliano,

Claudius: the Emperor and his Achievement (Oxford, 1934), p. 56.

³ See G. C. Brooke, 'The Distribution of Gaulish and British Coins in Britain', in *Antiquity*, vii (1933), pp. 268 ff., especially map xi on p. 285; also Allen, *op. cit.*

⁴ See p. 13 above.

Roman coin¹ is the British silver copy of a Republican *denarius* noted above by Mr. Allen (p. 140, no. 130); it will be noticed that the original which it most closely recalls (of T. Carisius, c. 45 B.C.) is represented by two examples in group II here (nos. 272-3), and one doubtful example in group I (no. 18).

We are, then, to suppose that any coins of pre-Claudian date which entered Camulodunum before the conquest did so during a somewhat limited period. And, naturally, only a small proportion of the 40 per cent. of pre-Claudian issues contained in Table C above (p. 152) need have come to Camulodunum at a pre-Claudian date. For the currency of the Claudian period in a romanized area would normally include coins of a much earlier date.² Thus, of the 33 Republican *denarii* noted above, 7 are 'legionary' pieces of Antony (c. 31 B.C.), which, owing to their very baseness, continued current in Britain at least to the end of the second century of our era.³ The remaining *denarii* were mostly struck between c. 90 B.C. and 31 B.C.: their preservation varies between 5 and 7, i.e. they might have been in circulation—on and off—for anything up to 50 or 60 years. The 26 coins of Augustus contained in groups I-VI include 11 *denarii*, 9 *asses*, 3 *dupondii*, 1 *sestertius*, and 1 *quadrans*: the bronze, in general, is rather worn, but the silver (and this is by far the largest proportion of the whole) is still in very fair condition,⁴ and it would be unnatural to exclude a good proportion of Augustan silver from currency in the Claudian period, even while admitting that some *denarii* (like that of the Lexden tumulus medallion) reached Camulodunum before that period. It is virtually certain (to judge by the present coins) that silver of Tiberius was regularly current in Claudian Britain: Colchester has produced nine examples, in generally fair condition:⁵ the reigns of Caligula and Claudius can show only one *denarius* apiece.⁶ Clearly, Tiberius' silver made up for the scarcity of that of Caligula, and for the similar scarcity—or non-infiltration—of that of Claudius; and its general utility is perhaps to be recognized in the occurrence of one rough plated copy (*RIC* 3), together with two plated examples (of more orthodox appearance) of the same type, in group III.

It was not, however, with silver that Claudian Colchester, or Claudian Britain as a whole, was chiefly concerned. The preceding lists of British coins (pp. 135 ff.) show how substantial—even surprising—a proportion of Cunobelin's coinage was of copper or bronze.⁷ This frequency of *aes* coinage, though it is an undoubted fact, is not altogether easy to explain. The relative profusion of British gold and silver issues indicates well enough how often, in Cunobelin's time, values and accounts were reckoned in metals more precious than *aes*, even though *aes* was abundantly struck for everyday use. And *aes* would—and did—continue indispensable for everyday use. But Cunobelin's mint seems to have been deliberately destroyed after the conquest (above, p. 129); and, though

¹ On the three or four Roman coins stratified in the infilling of the Sheepen Dyke, see pp. 30-1.

² Compare the slightly earlier cross-section of continental currency provided by Hofheim: E. Ritterling, 'Das früh-römische Lager bei Hofheim i. T.', in *Annalen des Vereins für Nassauische Altertumskunde und Geschichtsforschung*, xxxiv (1904), pp. 24 ff.; xl (1912), pp. 99 ff.

³ Cf. Sutherland, *Coinage and Currency, &c.*, p. 37.

⁴ 1, 1; 2, 1; 3, 3; 4, 1; 5, 3; 6, 1; 7, 1.

⁵ 2, 3; 3, 2; 4, 1; 5, 2; 6, 1.

⁶ The silver of Claudius is normally rare in Britain: cf. Sutherland, *op. cit.*, p. 5.

⁷ Increased emphasis should undoubtedly be laid henceforward upon the scope and frequency of the late British *aes* coinage.

British gold and silver coins continued to circulate down to Boudicca's time¹ (above, p. 35), yet they received no appreciable supplement in the form of *aurei* or *denarii* from Rome. We must therefore suppose that, from the time of the conquest onwards, reckonings of value—however high—came to be made more and more in multiples of *aes*: it may be that within the new province Roman policy discouraged the continuation of 'capitalist' owners of gold and silver. More than this, it may be conjectured that some other circumstance (very possibly the fact of legionary payment in *asses* or *dupondii*) helped to make *aes* additionally popular. Its popularity is shown by the following figures.

Groups I–VI contain 61 coins attributed to Tiberius. As we have seen, 9 of these are *denarii*: the balance consists of 50 *asses* and 2 *dupondii*. Of the *asses*, 7 are of the 'Divus Augustus' series: 4 are of miscellaneous types; and 39 are of the familiar 'Agrippa' type (*RIC* 32). Of Caligula there are 69 coins—1 *denarius*, 8 *sestertii*, 6 *dupondii*, and 54 *asses*: these 54 *asses* include 36 of the common 'Vesta' type (*RIC* 30–2), and 15 of the 'Germanicus' type (*RIC* 44). The Claudian coins consist of 1 double-*denarius*, 1 *denarius*, 30 *sestertii*, 79 *dupondii*, 170 *asses*, and 7 *quadrantes*.

It is clear that *aes* coinage, and especially the *as*, was profusely current; and it will be shown that the *as* received a particularly warm welcome. First, however, an old and difficult problem confronts us, and must receive discussion. The 'Agrippa' *asses*, to which reference has already been made, bear the name of no reigning emperor. They are struck in the name of M • AGRIPPA • L • F • COS • III and bear his portrait with rostral crown: the reverse shows the appropriate figure of Neptune, with the normal letters s • c. Their style proclaims them clearly to be post-Augustan; and, in the writer's opinion, there is little doubt that they are pre-Claudian.² Between the alternative reigns of Tiberius and Caligula modern scholars have made no absolute decision.³ Historically, there is little that assists in solving the dilemma. Agrippa—the chief military and naval lieutenant of Augustus (whose tradition Tiberius so sedulously perpetuated)—was the father of Tiberius' first and beloved wife Vipsania: on these grounds, therefore, Tiberius might justly issue a commemorative coinage. But Agrippa was also Caligula's grandfather; and, although Caligula might at times belittle the connexion,⁴ it is well to remember that after his catastrophic illness he seems to have moved away from the Augustan tradition towards absolutism and unorthodoxy, in which the commemoration of Agrippa rather than Augustus might appear desirable, if only for its 'nuisance-value'. Numismatically, too, conclusive arguments are lacking. It has been noted that these *asses* bear countermarks which can be dated no earlier than Caligula, and that they are found not uncommonly in Claudian hoards: from these facts a date under Caligula has been postulated.⁵ 'Hybrids'⁶ suggest a Tiberian date. The style of the coins, again, is

¹ Elsewhere, too, the British issues long continued beside the Roman in circulation—in some places, down to the second century: see Sutherland, *op. cit.*, pp. 5 f., 14 f., 25 f.

² A Claudian date is championed only by H. Willers, *Geschichte der römischen Kupferprägung* (Leipzig and Berlin, 1909), p. 204 f.

³ See H. Mattingly and E. A. Sydenham, *RIC*. i, p. 101;

and the open position adopted by Mr. Mattingly in *BMC Emp.* i, p. cxxxiii.

⁴ Suetonius, *Gaius*, 23.

⁵ By L. Laffranchi in *Riv. Ital. di Num.* xxiii (1910), pp. 26 ff.

⁶ That is, pieces with an obverse of one date (or reign) and a reverse of another. Arguments from these 'mules' are not

inconclusive, for they have affinities with those of Tiberius and Caligula alike. Here, perhaps, is a clue. May it be that these *asses* were struck in bulk in Tiberius' last two years, A.D. 35-7? In 35, Tiberius adopted Caligula (together with his own grandson Tiberius Gemellus, of whom little account was ever taken) as his heir. The dynastic association of Tiberius and Caligula enables us to pool the reasons which each, individually, might possess for commemorating Agrippa, who was in fact one of the few links which connected them. In this case, these *asses* would have served as a sort of dynastic manifesto—indirect and veiled, as might be expected of Tiberius. The date A.D. 35-7 certainly accords with the facts afforded by the Colchester coins. For the wear of the 'Agrippa' *asses* (2, 1; 4, 2; 5, 5; 6, 14; 7, 12) balances evenly with that of Caligula's 'Vesta' *asses* (4, 6; 5, 6; 6, 8; 7, 8). Group II, moreover, provides two copies of the 'Agrippa' type: group III, perhaps, two more; and from group III, again, comes a 'Vesta' copy. If the 'Agrippa' and 'Vesta' coins were not simultaneous issues, it would certainly seem that they were very nearly so.

We may now pass to the Claudian coins, of which it may be said at once that they are a most remarkable and important group. They may most conveniently be tabulated.

TABLE D

Orthodox Claudian Coins, and Pieces struck in Imitation

0.4%	1 <i>denarius</i>	Orthodox
10.4%	30 <i>sestertii</i>	29 orthodox (96.7%)
		1 copy (grade I) (3.3%)
27.4%	79 <i>dupondii</i>	29 orthodox (39%)
		45 copies { 30 grade I (40%)
		7 grade I-II (10%) } (61%)
		8 grade II (11%) }
		[5 doubtful]
59.0%	170 <i>asses</i>	28 orthodox (18.5%)
		121 copies { 46 grade I (30.5%)
		23 grade I-II (16%) } (81.5%)
		28 grade II (18.5%) }
		15 grade II-III (10%) }
		7 grade III (5%) }
		2 grade IV (1%) }
		[21 doubtful]
2.4%	7 <i>quadrantes</i>	Orthodox
0.4%	1 <i>mule</i>	Tiberius-Claudius: see above, p. 154, note 6.
	Total 288	

always safe: Group III provides a mule of Tiberius (*obv.* with portrait) and Claudius (*rev.*, Minerva S.C): cf. *Num. Chron.*⁵ xix (1939), p. 217, no. 6.

THE FINDS

TABLE E

Relative Frequency of Claudian Aes Types

	(RIC)		
<i>Sestertii</i>	60	<i>Ob Civēs Servatos</i>	3
	61	” (P.P.)	1
	62	<i>Nero Claudius Drusus</i>	3
	64	<i>Spes Augusta</i> (one with <i>obv.</i> P.P.)	15
	78	<i>Nero Claudius Drusus</i>	7
<i>Dupondii</i>	85	<i>Agrippina</i>	1
	67	<i>Ceres Augusta</i>	49
	82	<i>Antonia Augusta</i>	30
<i>Asses</i>	66	(<i>Minerva</i>) S.C.	154
	68	<i>Constantiae Augusti</i>	8
	69	<i>Libertas Augusta</i>	8
			279

TABLE F

Weights of Claudian aes copies (sestertii excepted) in grammes

Type	Orth. wt.	Grade I		Grade II		Grade III		Grade IV	
		Number	Av. wt.	Number	Av. wt.	Number	Av. wt.	Number	Av. wt.
Dp Ceres	15.48	14	11.0	5	10.4	..	..	..	..
„ Antonia	14.88	6	9.6	2	10.0	..	..	..	..
As Minerva	10.97	31	8.0	20	5.4	6	6.6	2	6.0
„ Constantia	10.89	[1]	[7.5]	..	..	[1]	[8.5]	..	..
„ Libertas	10.20	4	7.5	..	..	..	..	..	..

(Total: 92 coins weighed)

As will be seen from Table D above, the greater proportion of Claudian *aes* consists of imitations made on the model of orthodox Roman coins. Space precludes more than a compressed discussion of these copies: nor is a wider statement necessary, for the Colchester copies only confirm—though they do so in a very remarkable degree—the results of previous analysis.¹ The following facts had already been put forward:

(i) Most parts of Claudian Britain (with other districts besides) have produced copies of the Claudian *aes* coinage in considerable numbers: usually the proportion of copies to orthodox pieces on any site is at least 20 per cent.

(ii) The coins most often copied are always the ‘Minerva’ *as*, the ‘Ceres’ *dupondius*, and the ‘Antonia’ *dupondius*: imitations of the ‘Spes’ and other *sestertii*, and of the ‘Constantia’ and ‘Libertas’ *asses*, occur more rarely. Copies of the *quadrans* seem to be unknown.

(iii) The copies may be divided into four grades:

I, in which coins show all the detail, and much of the excellence of fabric, possessed

¹ See Sutherland, *Romano-British Imitations . . . of Claudius I*, cited above, p. 144; and, for a shorter account, the same writer’s *Coinage and Currency*, *£c.*, pp. 11 ff.

by their prototypes, but lack the essentially 'Roman' character of their prototypes. Legends in this group are generally correct.

II, including coins of rougher fabric than in grade I, with a growing inaccuracy of detail. Here the legends, when visible, seem mainly to be correct.

III, in which the coins are of crude and barbarous style, roughly and unskilfully struck, with their legends blundered or non-existent.

IV, in which are classed the rare instances of the reversal of one or both types.

(iv) Weight, though it must not be used as a primary criterion in an irregularly produced series, is of great assistance in confirming previous classification by style. A marked and sharply progressive decline in weight is shown by Claudian copies throughout the four grades of imitation.

(v) Copies of grades I and II tend to associate with the primary military or administrative centres of Claudian date (e.g. Richborough, Lincoln, Wroxeter), or with 'ex-tribal' capitals such as Winchester, Dorchester (Dorset), Silchester, and Cirencester: the cruder copies appear to be characteristic of the outlying rural areas, where (it might be conjectured) they were imitated from the superior imitations emanating from the town areas.

(vi) Finally, it was inferred that Claudian *aes* copies were issued under official or semi-official sanction in the main centres of administration or occupation, being first made by native craftsmen of tolerable merit on the model of the orthodox pieces brought in with the army of conquest, and that the habit spread thence to the more backward rural areas.

These essentially tentative conclusions may now be said to be strongly confirmed and reinforced:

(i) If we exclude from calculation the 7 *quadrantes* in the present lists, we find that, of 279 *aes* coins, 157 (or 56 per cent.) are imitations. Or, if we exclude the *sestertii* as well, we find that, of 249 *dupondii* and *asses*, 156 (or 62.5 per cent.) are imitations. Between one-half and two-thirds of the Claudian *aes* at Colchester may therefore be regarded as imitated coinage.

(ii) The denomination most often copied is the *as*: of 170 *asses*, 81.5 per cent. are copies. Of these, the vast majority consists of the 'Minerva' type (see Table E). But the *dupondius* is also widely copied: 61 per cent. of the 79 *dupondii* (49 'Ceres', 30 'Antonia')¹ are imitations. Among the 30 *sestertii* there is only a single copy; and there are none among the 7 *quadrantes*.

(iii) The grading of the copies is upheld, though the indifferent condition of certain coins makes exact attribution difficult.² A type set is illustrated on pl. XIX.

(iv) Evidence of weight closely supports the results of earlier analysis. Imitated *dupondii* of grades I–II drop up to 4 or 5 gm.: imitated *asses* may drop by as much as half the weight of the orthodox prototype. Degradation of style, in fact, is matched by progressive lightening of weight.³

¹ 'Ceres' copies are always more common than 'Antonia': was the type slightly earlier in date, or just more attractive, or originally more numerous as a model?

² Group III contains one 'Antonia' *dupondius* (pl. XIX, 3) which must certainly have been made by an experienced

British moneyer, for it shows the slightly bulbous convexity familiar to students of the British coinage.

³ Doubtless due often to the restriking of old and worn flans.

(v) As Table D shows, grades I–II supply the great majority of copies at Colchester, and it may be stated confidently that, in this early administrative centre—the prime official foundation of the new province—the standard of imitation is distinctly good.

(vi) Can we conclude, finally, that these copies were official or semi-official currency originating in Claudian Colchester itself?

That they were official or semi-official currency can hardly be doubted: their circulation at Colchester was overwhelming in both the British and the Colonia areas,¹ down to Boudicca's rising. Nor was such a phenomenon unique. It might have been supposed that the Claudian camp at Hofheim would have been able to draw more easily upon supplies of *aes* from Italy, and so to present a series of some uniformity and consistency. Instead, Hofheim supplies us with a far more motley group of coins,² including not only Claudian copies but copies of earlier coins, together with hybrids, halved pieces,³ and the like. The Claudian copies at Hofheim, however, seem to be more crude than those at Colchester, and may have been made in Gaul, and carried forward by the Claudian legions. The generally even and competent standard of the Colchester copies argues against the application of such a theory to them: they form a not inconsistent series, to which might be naturally assigned some uniformity of origin. Cunobelin's mint, as we have seen, was quickly destroyed after the conquest; and, though the army of conquest and the attendant officials must have brought supplies of money with them, supplementary supplies would soon become necessary as circumstances—military, economic, or political—dictated the increased use of *aes*. Imitation was rife on the Continent, as pre-Claudian finds have frequently shown.⁴ Official imitation in Britain, probably a necessity, would also be natural enough in the Claudian period. And where more natural than in the first administrative centre, where increasingly long pay-rolls, and a steady growth of population, had to be met with supplies of cash?

The *aes* coins to be copied would, of course, be among the earliest of Claudius' reign. His first eleven months of power (February to December, A.D. 41) saw the emission of vast quantities of *aes* dated TR · P · IMP. In January, A.D. 42, Claudius assumed the title *Pater Patriae*; and the style TR · P · IMP · P · P thereafter prevails without any alteration upon *aes* which, at first closely succeeding the TR · P · IMP series, continues for an uncertain length of time which may have extended to between A.D. 45 and 49.⁵ Now, of 71 fully legible coins at Colchester, 69 (including orthodox and imitated pieces) bear the early form of legend: only 2 (both orthodox: one from group II (no. 305), the other

¹ Group III, in fact, shows 20 per cent. orthodox to 80 per cent. copies (28 : 108 coins), while groups I–II show 55 per cent. orthodox to 45 per cent. copies (72 : 58 coins). But it must be remembered that group III is a Museum collection, i.e. the residue of coins not retained for individual interest or private collection, and that its proportion of copies is thus, in all probability, misleadingly high.

² See Ritterling, in the works cited above.

³ Halved pieces occur at Colchester also: Æ1 of Caligula, Æ1 of Claudius, Æ1 illegible.

⁴ And see *BMCEmp.* i, p. cxliii f.

⁵ See *BMCEmp.* i, p. cli, where the lower limit of the P·P series is conjectured to be A.D. 43 or 44, or perhaps a few years later—prior, at any rate, to A.D. 50, since no *aes* reference occurs to Agrippina or Nero. It may perhaps be conjectured that the P·P *aes* was struck in A.D. 43/4 and 44/5: the imperial mint, idle in 42/3 and 45/6, was busy in the intervening years, and, open once again in 46/7, duly commemorated the British conquest. Parallel emission of *aes* with imperial gold and silver between 43 and 45, and cessation of *aes* in 45, would help to explain the omission of any reference to the British triumphs on the *aes*.

from group III) read P·P. Evidently, the orthodox coinage which came in with the legions in A.D. 43 was the early series of A.D. 41, lacking P·P; and the early form of legend was transferred, virtually without exception, to the copies. This strongly suggests that the manufacture of copies was hastened on in the very early months of conquest as an official means of supplying cash: such copies, in the circumstances, could hardly be represented as the slow achievement of a reluctantly romanized community. It would appear, too, that the P·P *aes* of c. A.D. 42 (?)—45/9 arrived at Colchester well after the great supplementary batch of copies had been produced on the earlier model—too few, perhaps, and certainly too late, to become the models for imitation.

The foregoing arguments are, of course, not in themselves conclusive. Only the discovery of a 'Claudian' mint would settle the problem finally. In its absence we may fall back on the strongest presumptive grounds—based on numbers, style, consistency, affinity, and date—for thinking that these copies were officially made at Colchester.

The somewhat differential distribution of Roman and of British coins on the Sheepen site, the Roman tending to associate with Roman roads and structures, the British with structures of native type, will be noticed below (p. 167). To this may be added the fact, natural enough, that pre-Claudian coins are more frequent at Sheepen (40·3 per cent.) than in the Colonia area (33 per cent.). Until c. A.D. 49 the Colonia site was virtually a virgin site; and the British area therefore used Roman coins for some half-dozen preceding years, with pre-Claudian coins prominent, since they were still prominently current. By A.D. 49 Claudian coins would predominate everywhere; and after that date, with the Colonia built and British Camulodunum relegated to the status of a *quartier ouvrier*, it may be supposed that most of the current coinage circulated in the Colonia area, in which the life of the community was now to be centred.

Claudian *aes* coinage enjoyed a long life. The early TR·P issues, as we have seen, reached Colchester in bulk in the very first years of the Roman occupation, and were swiftly supplemented by imitation: subsequently, only a small number of P·P *aes* was added, i.e. Claudius' later *aes* (of c. A.D. 43–5?) never attained frequent currency. The early Claudian *aes* therefore sustained a currency of up to twenty years, for no Neronian *aes* was struck until c. A.D. 64.¹ This will explain the relatively worn condition of the Claudian *aes* at Colchester, shown in the following table:

TABLE G
Wear of Claudian Aes Coins

<i>Preservation</i>	<i>Sest</i>	<i>Dp</i>	<i>As</i>
1	1	..	1
2	1	2	6
3	1	9	15
4	8	18	28
5	6	17	27
6	10	20	56
7	3	8	28

¹ Cf. *BMCEmp.* i, pp. clxvi ff.

The emphasis is plainly on preservation 6, i.e. *worn*, and this is fully consistent with a circulation up to twenty years in duration, amid the economic conditions afforded by contemporary Colchester.

Nero's *aes*, once it was issued, was struck and circulated on a very wide scale. But groups I–II listed above supply only four examples—1 *dupondius*, 2 *asses*, and 1 *semis*. Clearly, British Camulodunum was moribund or dead when Neronian *aes* was current. Moreover, none of these coins is more than *fair* or *much worn* in preservation. The whole of inhabited Colchester was sacked in 61: Nero's *aes* dates from 64 onward, and could not have reached the place in any appreciable numbers before *c.* 65. Here, then, is the case for the abandonment of British Camulodunum—the Sheepen Site—about A.D. 65, after an interval spent in organized salvage and tidying-up. Of the eight Neronian coins there present—four in groups I–II, and four in groups IV–V from the temple area—it is probable that all reached the site, after fairly long circulation, in the Flavian period, or indeed towards the end of it, when the temple enclosure was in fact built. On the other hand, the Colonia has produced 92 Neronian coins—an obvious and impressive contrast. The Flavian coins from Sheepen are again considerably worn, though some of Domitian from the temple area are fresher; thereafter the lists provide little information of interest or value, and (with three coins of Antonine–Severan date from the kiln area) show only a feeble trickle of coinage, dying out *c.* A.D. 360–70, such as is natural on a site, so near the Colonia, once possessed of the size and importance of Camulodunum in its prime.

KEY TO THE PLATE OF ROMAN AES (PL. XIX)

Number in
group I
(pp. 144 ff.)

..	1.	Caligula.	<i>As.</i>	Imitation of <i>RIC</i> 30 ff. (grade II). Colchester Museum.
..	2.	Claudius.	<i>Dp.</i>	Imitation of <i>RIC</i> 82 (D) (grade I). Colchester Museum.
..	3.	Claudius.	<i>Dp.</i>	Similar (but grade II). Colchester Museum.
104	4.	Claudius.	<i>Dp.</i>	<i>RIC</i> 67 (D). Probably orthodox. Excavations of 1930–4.
107	5.	Claudius.	<i>Dp.</i>	Imitation of <i>RIC</i> 67 (D) (grade I). Excavations of 1930–4.
..	6.	Claudius.	<i>Dp.</i>	Similar (but grade II). Colchester Museum.
..	7.	Claudius.	<i>As.</i>	<i>RIC</i> 66 (D). Orthodox. Colchester Museum.
142	8.	Claudius.	<i>As.</i>	Imitation of <i>RIC</i> 66 (D) (grade I). Excavations of 1930–4.
151	9.	Claudius.	<i>As.</i>	Similar (but grade I–II). Excavations of 1930–4.
..	10.	Claudius.	<i>As.</i>	Similar (but grade II). Colchester Museum.
..	11.	Claudius.	<i>As.</i>	Similar (but grade II–III). Colchester Museum.
..	12.	Claudius.	<i>As.</i>	Similar (but grade III). Colchester Museum.
..	13.	Claudius.	<i>As.</i>	Similar (but grade IV). Colchester Museum.
..	14.	Claudius.	<i>As.</i>	Imitation of <i>RIC</i> 68 (D) (grade I). Colchester Museum.

Nos. 1–3, 6–7, 10–14 are all group III = Colchester Museum General Collection.

E. STRATIFICATION OF COINS

PERIOD I

Key-deposits

None

Other deposits

BRITISH

No.	Metal or denomination	Ascription	Region	Deposit and details
1	<i>A</i> on <i>Æ</i>	Brigantes	1	Site F11.
6	<i>Æ</i>	Addedomarus (?)	6	Site L2.
24	"	Cunobelin	5	Site Y1.
99	"	"	1	Pit F10 filling.
114-23	"	" ('hoard')	4	Pit D9 bottom.
131	"	Illegible	1	Strat. outside S. wall of Temple temenos.
132	"	"	6	Pit L42 filling.

ROMAN

None

Despite the lack of coin-finds in the period's key-deposits, the presence of 16 British coins in deposits assigned on their pottery content to period I combines with the absence of Roman coins to form the strongest evidence for the pre-conquest date of the whole period, which has been above identified, broadly speaking, with the duration of the reign of Cunobelin.

For completeness, the two Cunobelin *Æ* 27 and 58 may be appended here, from site F15 (region 1), dated period I-IV.

PERIOD II

Key-deposits (all in ditch I or Ib filling, at depths from lip level as under)

BRITISH

42	<i>Æ</i>	Cunobelin	3	I, S. of sect. 40, 5 ft.
103	"	" (impression)	1	I, nr. sect. 4, c. 3 ft.
129	"	" (?)	3	I, nr. sect. 41, c. 5 ft.
133	"	Illegible	3	I, nr. sect. 40, c. 5 ft.

These four coins were current at the time of the main filling of ditch I, and accepting this as the morrow of the Roman Conquest, they must have been current already in period I, the coin-evidence for which they thus supplement.

ROMAN

4	<i>D</i>	<i>Q.</i> Titius (c. 87 B.C.)	5	Ib, sect. 75, 3-5 ft.
189	<i>As</i>	Claudius (?)	3	I, nr. sect. 40, 5 ft.-5 ft. 6 in.
260	<i>Æ</i> ₃	Illegible	1	I, nr. sect. 1, c. 3 ft.

Of these three coins, it must remain uncertain whether 4 was already on the site before the conquest, since there is independent evidence for occasional pre-conquest penetration of Roman silver, though such Republican *denarii* were certainly still current in Claudian times (pp. 152-3). For Roman *aes* there is no such evidence, and it is fair to conclude that 189 and 260 were brought over at the conquest. They will then have been dropped

when the ditch was filled, which must have been directly afterwards, as what follows will confirm.

PERIOD II—III

Key-deposits (all in ditch I or IA filling, at depths from lip level as under)

BRITISH

No.	<i>Metal or denomination</i>	<i>Ascription</i>	<i>Region</i>	<i>Deposit and details</i>
43	Æ	Cunobelin	5	IA, sect. 72, 5 ft.
75	"	"	5	I, at end opp. SW. entrance, c. 6 ft.
108	"	"	5	I, S. of sect. 69, c. 6 ft.

These three coins, from places where the ditch-filling may extend from period II into III, continue the period II evidence.

ROMAN

137	As	Claudius, orthodox (?)	5	IA, SW. of sect. 73, 5 ft.
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This is the earliest stratified Roman bronze coin with a definite attribution. If, as suggested by Mr. Sutherland, it is an orthodox issue of A.D. 41, the fact is appropriate to deposit in or very soon after period II (A.D. 43/4), with which its condition, rated 3, or 'very fair', also agrees.

Altogether, when contrasted with their absence from period I, this well-stratified but small number of Roman coins from the enormous excavated volume of period II and II—III ditch-filling points directly at a date for it just after the conquest, as is anyhow indicated by intrinsic probability and also confirmed by pottery evidence (pp. 30—2, 177), as well as by the coin-evidence from the succeeding periods.

PERIOD III

Key-deposits

BRITISH

94	Æ	Cunobelin	2	Ditch E3 filling.
134	"	Illegible	1	Occup. over ditch I.

ROMAN

22	Dp	Augustus	3	Over ditch I nr. N. end of sect. 43, on road I level in make-up beneath road II.
24	As	"	3	Occup. over ditch I nr. W. entrance.
125	Dp	Claudius (Antonia), copy grade I	3	Occup. on lower clay hut-floor over ditch I in sect. 32.
256	As	Illegible	1	Occup. over ditch I.

These two British and four Roman coins are few enough, in contrast with the large numbers from period IV, to suggest that period III was relatively short. Pre-Claudian coins are still circulating, but a Claudian grade I copy (condition 4 or 'fair') has already appeared.

Other deposits

BRITISH

28	Æ	Cunobelin	1	Pit H20 bottom.
56	"	"	4	Lip of pit L39 (not quite certainly stratified).
135	"	Illegible	2	Site E2.

ROMAN

No.	Metal or denomination	Ascription	Region	Deposit and details
12	D	Julius Caesar (c. 48 B.C.)	6	Pit K2 filling.
18	"	T. Carisius (?)	6	Pit K2 filling.
35	As	Tiberius	4	Site L5.

These three British and three Roman coins supplement, without altering, the key-deposit evidence.

PERIOD III-IV

Key-deposits

			BRITISH	
29	Æ	Cunobelin	} (both unworn)	{ 3 } Occup. over ditch I by W. entrance.
69	"	"		
136	"	Illegible		
137-44	"	"		
86	As	Caligula	ROMAN	3 Occup. over ditch I by W. entrance.

Other deposits

			ROMAN	
31	As	Tiberius	3	Occup. S. of roads I & II against waterworks fence.
61	Dp	Caligula	4	Pit D18 filling.
98	Sest	Claudius (Nero Drusus), orthodox	3 }	Occup. W. of site A4 against waterworks fence.
139	As	" (?) (prob. A.D. 41), orthodox (?)		

These eleven British and five Roman coins come from deposits where no distinction could be drawn between periods III and IV.

PERIOD IV

Key-deposits

			BRITISH	
8	Æ	Dubnovellaunus	3	Site A1, by revetment.
16	Æ	Cunobelin	1	Site F2, upper level.
17	"	"	3 }	Occup. over ditch I } SW. of W. entrance in sect. 31.
18	"	"		
26, 36, 37, } 53, 66, 86, } 87, 100 }	Æ		3	Site A1.
32	"	"	3	Occup. over ditch I in sect. 31.
40, 44, 45	"	"	3	Site A1, road II surface.
46, 50, 81, } 89 }	"	"	3	Occup. on upper clay hut-floor in sect. 32.
47	"	"	3	Occup. over ditch I SW. of W. entrance.
48, 57, 62, 63	"	"	3	Pit A12 filling.
61	"	"	3	Pit A5 bottom.
124, 127	Æ, Æ	" (?)	3	Site A1.
125	Æ	" (?)	5	Tile-clamp level in sect. 81.
145	"	Illegible	1	Gravel over ditch I.
146	"	"	3	With 46, 50, 81, 89 as above.
147-50	"	"	3	Site A1.
151	"	"	3	In ditch of road II over ditch I, nr. sect. 43.
152-4	"	"	4	Pit L7 filling (i.e. late in period IV).

These 39 coins, in all conditions from fine to very poor, attest an abundance of British (mostly Cunobelin) coinage still current in period IV.

ROMAN

No.	Metal or denomination	Ascription	Region	Deposit and details
3	D	Q. Titius (c. 87 B.C.)	5	Pit G8 filling.
6	"	C. Egnatius (c. 75 B.C.)	3	Site A1.
7	"	P. Fonteius Capito (c. 60 B.C.)	3	Site A1, on ditch of road II.
9	"	Julius Caesar (c. 49 B.C.)	3	Occup. over ditch I by W. entrance.
23, 25	Asses	Augustus	3	Site A1.
28, 30	D, as	Tiberius	4	Pit L7 filling (i.e. late in period IV).
29	Dp	"	3	In road II ditch, sect. 56.
34, 32, 41, } 43, 46 } 48, 85 }	Dp and } 4 asses } Sest, as }	" } " } Caligula }	3 } 3 } 3 }	Site A1. } Site A1, in road II ditch. }
59, 50-3, } 65 }	Dp and } 5 asses }	" } " }	3 } 3 }	Site A1. }
63, 67	Asses	"	3	Occup. over ditch I, NE. and SW. of W. entrance.
71	As	"	3	Pit A12 filling.
82	"	"	3	Pit A1 bottom.
87	"	" (?)	3	Site A1, in road II surface.
89	Sest	Claudius (prob. A.D. 41)	3	Site A1.
104	Dp	" orthodox (?)	3	Pit A3 filling.
105	"	" " (?)	3	Pit A12 filling.
106	"	" " (?)	5	Occup. over ditch IB, sect. 74.
122	"	" (Antonia), orthodox (?)	3	Site A1.
131	As	" orthodox (prob. A.D. 41)	3	Site A1.
133	"	" " " "	5	Strat. over ditch IB, N. of pit G1.
140	"	" " (?) " (?)	3	Occup. over ditch I at W. entrance.
141	"	" " (?) " (?)	3	Site A1, in surface of sand floor of timber building.
146	"	" copy grade I	3	
155	"	" grade I-II	3	Pit A3 filling.
159	"	" grade II	5	Occup. over ditch IB in sect. 76.
160, 162	"	" " "	3	Site A1.
163	"	" " (?)	1	Gravel over ditch I.
167	"	" grade IV	3	Site A1.
175	"	" " (?)	3	Site A1, in ditch of road II.
	Seven Æ ?	Claudian and ? Julio-Claudian	3	Site A1 (5, 1 by revetment, 1 in ditch of road II), pits A4 and A6 filling.

These 51 Roman coins, from Republican silver to copies (down to grade IV) of Claudian *aes*, form the main pivot of the site's Roman chronology, showing as they do that Claudian coins, though already current in periods II and III, were still the latest circulating in period IV. Their abundance further shows that that period, unlike period III, was of substantial length.

Other deposits

BRITISH

No.	Metal or denomination	Ascription	Region	Deposit and details
13	Æ	Period of Tasciovanus	1	Under cella make-up of larger temple.
59	"	Cunobelin	1	Site F13, upper level.
60	"	"	1	Strat. over pit F1.
79	"	"	1	Occup. in centre of area H.
93	"	"	1	Well H2, upper filling.
97	"	"	1	Gravelly loam spread in area H.
155-6	"	Illegible	1	Site F9.
157	"	"	4	Pit D1 bottom.
158	"	"	4	Pit L17 occup.

GAULISH

1-2	Æ	Germanus Indutilli L. (c. 15-10 B.C.±)	1	Mouth of pit F1.
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ROMAN

17	D	Antony, legionary (c. 31 B.C.)	4	Pit L4, in top of filling.
27, 38-9	D & 2 asses	Tiberius	6, 6, 4	Pits K16, L13, L4 filling.
69, 73	Asses	Caligula	4, 3	Pits L12, B3 filling.
72	As	"	3	Ditch A3 filling.
108	Dp	Claudius, copy grade I	5	Occup. N. of pit G7.
111	"	" (Antonia), orthodox (prob. A.D. 41)	5	Ditch IA upper filling opp. pit Y46.
123	"	" " " (?) " (?)	5	Occup. S. of pit Y46.
128	"	" " copy grade I-II	3	In rubbish shot into ditch I nr. sect. 36.
143	As	" copy grade I	1	Under cella make-up of larger temple.
	Two Æ, ? Claudian and ? Julio-Claudian		{ 1	Site F7, in floor.
			{ 5	Ditch I-IA junction, upper filling.
257	As	Illegible	1	Site F9, on floor.
267	Æ3	"	2	Ditch E1 filling.

These 10 British, 2 Gaulish, and 16 Roman coins, from deposits assigned to period IV on their pottery content, are wholly consistent with the key-deposit series.

PERIOD IV-VI

Key-deposits

2	D	D. Silanus (c. 88 B.C.)	} 4 {	Strat. in layer over road II ditch, sect. 58.
21	"	Augustus		

Other deposits

BRITISH

80, 126	Æ	Cunobelin (126, ?)	4	Site D1.
96	"	"	1	Occup. in area H.
159	"	Illegible	4	Lip of pit D1a.
160	"	"	1	Occup. in area H.
<i>Clay-pits (? IV-VI)</i>				
33	Æ	Cunobelin	5	Clay-pit II.
34, 35	"	"	5	Clay-pit III.
113	"	"	5	Clay-pit I.
161	"	Illegible	5	Clay-pit I.

ROMAN

55	As	Caligula	5	Clay-pit I.
113	Dp	Claudius (Antonia), orthodox (prob. A.D. 41)	5	Clay-pit I.
135	As	Claudius " "	5	Clay-pit II.

These 10 British and 3 Roman coins come from deposits where no distinction could be drawn between periods IV and VI.

THE FINDS

PERIOD V

No stratified coins.

PERIOD VI

Key-deposits

BRITISH

No.	Metal or denomination	Ascription	Region	Deposit and details
21	Æ	Cunobelin	5	Pit G3 filling.
90	"	"	5	Pit G4 filling.
91, 107	"	"	5	Ditch Z1 filling.
92	"	"	3	Site A3.
109	"	"	5	Pit G7 filling.

Of these six coins from the last period of the occupation, 92 at least shows that British coinage was then still current, since it comes from a hut-site (the others come from rubbish-pits only, and so are not equally conclusive).

ROMAN

16	D	Antony, legionary (c. 31 B.C.)	5	Ditch Z1 filling.
37	As	Tiberius	3	Site A1, gravel over road II ditch, sect. 56.
74-7	Asses	Caligula	5	Ditch Z1 filling.
	Æ	? Claudian or Julio-Claudian	5	Ditch Z1 filling.

These seven Roman coins are important as showing that even in period VI no coinage later than that of Claudius can be associated with the occupation.

Other deposits

BRITISH

12	Æ	Tasciovanus	3	Site A4 filling.
15	Æ	Cunobelin	4	Pit D4 filling.
41	Æ	"	1	Gravel spread in area H.
105	"	"	3	Site A4 filling.
106	"	"	5	Pit Z4 filling.
162-3	"	Illegible	1	Gravel spread in area H.

Of these seven coins, 41 and 162-3 being found, not like the rest in rubbish-pits, but in contemporary surface metalling, may support the key-deposit find 92 as evidence that British coinage was in period VI still current.

ROMAN

14	D	Antony and Octavian (c. 40 B.C.)	3	Site A4 filling.
26	"	Tiberius	5	Pit Z4 filling.
44	As	"	1	Occup. S. of larger temple.
70	"	Caligula	1	Occup. in SW. corner of temple temenos.
84	"	"	3	Site A4 filling.
116	Dp	Claudius (Antonia), orthodox (prob. A.D. 41)	1	Occup. in SW. corner of temple temenos.
127	"	" " copy grade I	3	Site A4 filling.
132	As	" orthodox (prob. A.D. 41)	3	Site A4 filling.
136	"	" " "	1	Occup. in SW. corner of temple temenos.
138	"	" " (?)	1	Under S. face of temple temenos wall, S. stretch.
181	"	" " copy grade I-II	5	Pit C16 filling.
	Two Æ, ? Claudian and ? Julio-Claudian		{ 5	Pit C20 filling.
			{ 1	Ditch IIA (pit c) filling, area F.
258	As	Illegible	1	Ditch IIA (pit c) filling, area F.

These 14 coins confirm the evidence of the Roman coins from the period VI key-deposits.

No.	Metal or denomination	Ascription	Region	Deposit and details
<i>Late Flavian</i>				
22, 23, 25, } 76, 77, 98 }	Æ	Cunobelin	BRITISH	1 In cella make-up of larger temple.
			ROMAN	
145	As	Claudius, copy grade I		

These coins (6 British, 1 Roman) were doubtless already present on the site and re-deposited in the cella make-up when the temple was built.

F. DISTRIBUTION OF COINS

The British and Roman coins excavated (viz. group I of each series) were distributed over the six regions of the site as follows:

	<i>Region</i>					
	1	2	3	4	5	6
British	53	4	75	31	28	7
Roman (post-Claudian excluded)	52	6	92	34	37	15

It will be seen that the numbers of British and Roman for the most part rise and fall together from region to region, the order of frequency being 3; 1; 4 and 5; 6; 2. The relatively small number of British coins stratified in pre-conquest deposits, and the abundant evidence of their continued currency in the post-conquest periods, prevent any comparative study of habitation-distributions before and after the conquest on a basis of coin-distributions. But it is broadly true that dwellings of native type and their immediate neighbourhood tend after the conquest to maintain an association, though not an exclusive one, with British coins. On the other hand, while both Roman and British coins are noticeably frequent along the course of the main road across regions 3 and 4, Roman coins show a marked tendency to association with structure of Roman type, as represented by the site A1 timber building in region 3. The rest of region 3, in which nearly all the coin-finds come from the post-conquest belt of native-type occupation along the filled-in surface of ditch 1, produced altogether 48 British and 33 Roman coins, and thus display the association of the former with native-type structure in the form of a positive preference. Conversely, site A1 and its immediate neighbourhood produced (including the group II chance finds from the sand-pit) only 32 British coins and as many as 62 Roman. This distinctive concentration of Roman coins was in fact not even approached in any other excavated portion of the site. The fact is clear testimony that Roman (mainly of course bronze) coinage was current preferentially among the conquerors, while the little native coins were left as small change circulating mainly among the conquered. One is left to wonder what was the rate of exchange officially established between them.

II. THE POTTERY

A. DECORATED TERRA SIGILLATA

In all, pieces representing over 800 vessels of Decorated Sigillata were found. A detailed catalogue of the whole has been prepared, with the invaluable co-operation and advice of the late Dr. T. Davies Pryce, F.S.A., who personally examined every piece and wrote exhaustive notes for embodiment in the text. We owe him a deep debt of gratitude for his labours, and the complete catalogue in typescript has been placed in the Colchester and Essex Museum.

Over half the total consists of pieces (all, save two, of South Gaulish ware) too small to require illustration, and often too poor for close dating: many are unstratified finds, and in no case does any evidence from them modify the conclusions based upon the series of 310 selected for illustration. This series comprises all the stratified finds of any importance, and 133 unstratified pieces chosen to supplement and as far as possible to complete the typological aspect of the whole. Five pieces, whether or no made actually in Italy, have all the characteristics of Arretine ware;¹ the remainder are unmistakably South Gaulish, and the entire series, with a few exceptions subsequent to the main occupation, belongs to the pre-Flavian era. Eleven bowls have been restored in full in the plates, and these, with 10 other pieces including all those of form 11 (the pedestalled crater), are described in detail; it has not been thought necessary to print the remainder of the catalogue, but the typological date of every piece is stated (deposit-dates are summarized by period on pp. 176-8), and the illustrations will enable the student to verify the conclusions drawn from the ornament. They form the largest series of pre-Flavian Decorated Sigillata yet published from any one site. A chronological chart of the 225 significant stratified pieces follows (fig. 41, p. 175), and the dating-evidence so furnished is then summarized and discussed.

Note. Unstratified pieces are indicated in the plates by the sign +.

DECORATED ARRETINE WARE, AND SOUTH GAULISH WARE OF DRAGENDORFF FORM 11

Plate xx

1. Six fragments, probably of one bowl. Arretine: O & P form 11c (Haltern 19).

The glaze is yellowish-red, matt, the ware yellow and soft in the break; all characteristics of Arretine ware of the Augustan-Tiberian period. The rouletted rim is followed by a wide fluting, below which is a rouletted moulding. Rouletting in these situations is characteristic of the work of M. PERENNIVS (*K. text-fig. 4b*), RODO, the slave of CORNELIVS (*Loeb Coll., fig. 168*), CRESTI ATE EVHODI (O & P, pl. 11, 1, Haltern), and CN ATEI XANTHI (O & P, pl. 11, 2, 4).

The large beads situated above the decoration occur in the work of M. PERENNIVS and

¹ On the uncertainties attending the archaeology of Arretine ware, see p. 180 below, on the Plain Sigillata.

BARGATES (*K.* text-fig. 4b; *U. Pasqui, Vasi Arretini*, fig. 39). The decoration itself is too fragmentary to be understood, but the fragments permit of an outline drawing.

Period. This kind of crater (11 c), with nearly upright rouletted rim, is comparatively late and is characteristic of the work of M. PERENNIVS—BARGATES (chiefly A.D. 1–20), ATEIVS, XANTHVS, and P. CORNELIVS: Oxé, *Arr.* figs. 29, 30, 45, 62, 68, 73, 74, 86, 87, 93, 94, 96; *Nimègue*, pl. 1, 2. Date of bowl *c.* A.D. 1–20; date of deposit (ditch E3 filling), *period III*.

2. Small chip only of crater, Arretine: form 11 (approx.) part of the rim and wall. Soft, yellowish paste; worn glaze. Two grooves occur above the ovolo, which approaches the triangular in form, as in many examples of Italian ware (cf. *K.* text-fig. 4b, M. PERENNIVS). There is no bead-row above the ovolo, as usually occurs on Arretine ware, but this absence is occasionally met with, as in the work of BARGATES, one of the later slaves of M. PERENNIVS (*Chase, Boston*, fig. 128). The ovolo has no tongue, an omission frequently seen in Italian fabric (cf. *Boston*, fig. 14: 61, 93, ATERENTI; 106, ATTICVS; 108, 119, C. TELLI; 92, C. TELLI).

Date of bowl, *c.* A.D. 1–30: Region 1 (area F), unstratified.

3. Small fragment of an Arretine crater showing neat ovolo with two borders. Plain tongue, as usual in Arretine and early South Gaulish examples. Date, pre-Claudian: date of deposit (pit L15), *period IV*.
4. Three fragments of crater (restored: one figured pl. xxii, 1), South Gaulish: copy of Arretine form 11 = Haltern 18.

Yellowish-red, matt glaze, softish fracture. Ovolo with single border; plain, thin tongue of Arretine type. This class of ovolo is characteristic of the earliest or pre-Claudian examples of the crater: cf. *K.* 2 D, E; 3 P (Bregenz). The decorated surface is divided into diamond-shaped compartments by rows of small beads terminating below in relief-lines which form a basal arcading, both features being characteristic of Italian Sigillata (cf. *Loeb Coll.*, figs. 221, 222); leaf decoration, a not uncommon schematic arrangement in Arretine ware (e.g. *ibid.*, fig. 351). The upright leaf is exactly similar to that occurring on a crater at Sels, 15 B.C.—A.D. 40 (*K.* 41 G), as also the bird on the vertical bead-row. Below, this vertical bead-row ends in a rosette from which two diagonal rods project (cf. *K.* 2, J: early crater at Bregenz), and a spiral leaf with bilateral basal leaflet (cf. *K.* 2H: crater, Bregenz; 4 Q, form 29, Bregenz; 40 B, INGENVVS, Hofheim; *Richboro' III*, xxii, 1, SENICIO).

Similar diamond-spacing with basal arcading occurs on a Tiberian 29 by CADMVS at Vichy.

Date of bowl, typologically pre-Claudian, *c.* 30–40: date of deposit (site A4 at 3 ft.), *period VI*, or (p. 85) IV–VI.

5. Chip of South Gaulish crater of uncertain form. Minute ovolo with straight tongue, and bead-row above. Traces of a stalky scroll.

Date of bowl, early Claudian: deposit (occupation over ditch I, S. of W. entrance), *period IV*.

6. Fragment of a rim of a South Gaulish crater, form 11 A. Date, early Claudian: date of deposit (site A4, filling), *period VI* or (p. 85) IV–VI.
7. Plain rim-fragment, not rouletted, of large South Gaulish crater without the everted lip of Drag. 11 or Haltern 18; yellowish-red paste, reddish-brown glaze; diam. uncertain. Almost identical with one from Tong, Kent: *Antiq. Journ.* vi, 310–11, fig. 4. Date early Claudian: date of deposit (filling of ditch F6, i.e. ditch 11A), *period VI*; but scarcely ranks as stratified.
8. Rim-fragment only of South Gaulish crater, form 11A; two grooves on outside; diam. 6 in. Cf. Oxé, taf. LXIV, 155 f.; LXII, 95. Date, early Claudian: date of deposit (pit D15), *period IV*.

Two other small fragments of Arretine crater were found in region 1, one (between sites F1 and F3) with a Cupid (?) in high relief, the other (in *period I* stratum near ditch 11A in area H) with remains of ovolo with double border and straight tongue, and ansate label in field reading XA[NTHI] (p. 193).

DECORATED SOUTH GAULISH SIGILLATA OF FORMS 29 AND 30

Note. The form is 29 unless stated to be otherwise. The numbers of the decorative *motifs* are those of Knorr, 1919 (= *K.*). The sign (?) indicates a probable or not wholly certain attribution.

Plate XXI

1. Bowl reconstructed from the fragments shown on the right. Brownish-red, matt glaze; yellowish-red fracture. Hemispherical contour. Short rim with two equal, rouletted mouldings; inverted lip. The reversed arcading of the upper frieze occurs on a very early Tiberian 29 by CADMVS (*K.* 50 F, Augst). The loop or lower curvature of the arcading is marked by a rosette, thus differing from the above example. Cf. Oxé, *Frühgall.*, taf. v, 16 and 21b, both from Sels Tilery and very early.

The lower frieze is decorated with two winding scrolls bearing only one tendril and one leaf, and with all the leaves pointing in the same direction. Such scrolls are always very early; cf. the pre-Claudian craters *K.* 2 D, E; 3 M, N, O; 4 I J (Neuss), and O & P, pl. iii, 7. The lower scroll is rather angular, another very early feature, cf. Oxé, *Frühgall.*, taf. III, 13. The striated leaf of the upper scroll was copied by BASSVS and MURRANVS. The leaf of the lower scroll is DARRA II; its striated borders are an early feature. Bifid tendril bindings with basal beads: design closed by a bead-row, an unusual and early feature on form 29.

Date, typologically pre-Claudian: deposit, region 3, sand-pit (+).

2. Bowl restored from numerous fragments. Dull, brownish-red glaze, rubbed off in places (rather than flaked off): yellowish-red, rather soft fracture—both typically pre-Claudian features. Neat, small lip; upright, short rim, the upper rouletted moulding slightly deeper than the lower. Rounded contour: hemispherical.

The simple repeated ornament of the upper frieze is characteristic of some of the earliest Sigillata, a row of rosettes taken direct from Arretine ware (e.g. Dragendorff, *B. J.* xcvi, taf. v, 40; cf. Oxé, *Frühgall.*, taf. XII, 50; xv, 60; and *K.* 4 T and 50 E, F, G: all very early). The rosette itself is seen on *K.* 7 Aa ('very early South Gaulish'). See also Hermet, *Grauf.*, pl. cvii, 4, and May, *Colchester*, pl. xiv, 71.

Rouletted central moulding bordered by large, well spaced beads, both chiefly characteristic of pre-Claudian sigillata (Oxé, *Frühgall.*, *passim*).

Lower frieze of repeated gadroons, full and bold, with well-defined borders as usual in the earlier sigillata.

Date: typologically pre-Claudian and not Claudian, probably manufactured in the reign of Tiberius or Caligula.

Date of deposit (site A3 occupation layer), period VI; the bowl was evidently a survival, like the platter by XANTHVS found with it (form 15: pp. 182-3; cf. p. 95).

Plate XXII

1. See pl. xx, 4 (form II).
- 2-29. Fragments of form 29, of Tiberian or pre-Claudian manufacture (except nos. 6, 9, 16, 20, and 25, which are possibly or certainly early Claudian). Note the number of rouletted central mouldings.

Plate XXIII

Fragments of early Claudian manufacture, of which a few, such as nos. 1, 3, 7, 8, 9, 18, 20, may be even earlier.

Plate xxiv

1. Fine, brownish-red, matt glaze. Rim rather narrow but outbent; little carination. Leaf of upper frieze rather resembles one on *K. 92 D* (Claudian). The tendril-binding is *K.*'s *AQUITANVS 14*; the concentric circles *AQUITANVS 31*, *ARDACVS 12*, *INGENVVS 7*; the rosette *AQUITANVS 12*, *INGENVVS 13*.

The lower zone of upright leaves or plant-forms on intersecting arcs is in the style of *AMANDVS*, *INGENVVS*, and *SENICIO*. One of the leaves is used by *AMANDVS* (*K. 6 B*) (larger than *DARRA 5*) and the other is similar to *INGENVVS 1*, but is smaller.

Date, early Claudian: deposit, region 3, sand-pit (+).

2. Stamped *OFI·MACCA*. This variation of the impression of *MACCARVS* does not appear to be his earliest, but it occurs on the early sites of Augst, Nijmegen, Sels, and Vechten. Dull, brownish-red, matt glaze; upright and comparatively short rim. Rounded contour. Exactly the same scroll of the upper frieze occurs at Sels (*ante 41*); see *K. 92 E*. The acute bend of the tendril carrying the spiral bud is characteristic of much early scroll ornament. The leaf is *SENICIO 27*; cf. Hermet, *Grauf.*, pl. x, 12. The fine volute decoration of the lower frieze is a copy of an Italian type used by *M. PERENNIVS* and *BARGATES* (*Boston*, fig. 133) and *CN. ATEIVS XANTHVS* (*O & P*, pl. 11, 2). It occurs frequently on pre-Flavian provincial *Sigillata* (cf. *K. text-fig. 28*, *VRVOED*, Mainz; 1a, *ALBINVS*, Bregenz; 79A, *STABILIO F*, Sels) and in the early Claudian period. The astragalus is *DARRA 10*.

Date, pre-Claudian rather than Claudian: deposit (pit A20), period IV.

Plate xxv

Fragments of Claudian manufacture: upper scrolls using only one-leaf pattern, and scrolls using two, with a few using three. The majority early Claudian.

Plate xxvi

Further fragments of Claudian upper scrolls in which spirals are developing, and fragments of tall jugs or flagons, nos. 5-6e.¹ It is not quite certain that no. 6a belongs to the same vessel as 6b-e, although found with them (region 4, area L). Nos. 4 and 20 show the division of the lower zone into two. No. 10 has the same bead row as nos. 5-6, and there are examples of festooning in the lower zone (7-9, &c.)

Plate xxvii

1. Bowl restored from many fragments. Rather thick and heavy with rather high relief. Upright rim and rounded contour. The simple two-leaved scroll is of early type. The leaf is *INGENVVS 8*, the tendril-binding is the same as on pl. xxiv, 1.

The gadroons are large and tend to be coarse, but are quite well defined.

Date, Claudian; deposit (site A4 filling), period VI, or (p. 85) IV-VI.

2. Bowl restored from eight fragments. Dark, brownish-red glaze. Upright rim. Small bead-rows. Compare the upper scroll with *K. 40 D* (*INGENVVS*, Neuss). The tendril-bindings are *CARVS 14*, *SENICIO 12*, and see pl. xxvi, 17, 21. The leaf is *PUDENS 12*, and also appears on *K. 99 C* (Burladingen, after A.D. 85). This must be an accidental resemblance between two different leaves, for our bowl is obviously Claudian.

The gadroons of the lower frieze are small and very neatly executed. The whole is good work.

Date, Claudian; deposit (site A4 filling), period VI, or (p. 85) IV-VI.

¹ A fragment of a handle of one of these flagons (or possibly of f. 135) was found at 3 ft. 6 in. in the filling of ditch Ia.

Plate xxviii

1. Stamped OF·AQVITĀNI Dull red, slightly blotchy glaze. Fairly upright rim, rounded contour. Low or squat footstand, showing a shallow fluting rather than the definite groove of later examples of this form.

In the upper frieze the floral ornament is INGENVVS 14, DARIBITVS 21, the concentric circles are INGENVVS 7, and the spiral bud INGENVVS 10. The peculiar style of the scroll is exactly paralleled on a bowl by DARIBITVS (K. 31 E) at Bonn.

The lower frieze has two zones. The upper is of short neatly formed gadroons, closed below by a bead-row. The lower zone is of continuous festoons with rosettes in the spaces. Good parallels are provided by CARVS (K. 20 F, Vindonissa), ARDACVS (K. 10 A) and May, *Colchester*, pl. x, 12 and xi, 22. Early work of this potter.

Date, typologically early Claudian. Chance find in region 5 (area c).

2. Stamped OF CRESTIO Rather bright and light-coloured glaze. Broad, everted rim, grooved on lip. The upper frieze of characteristically early type with leaf like GENIALIS 2, but it is almost impossible to identify with certainty the many leaves of this pattern.

The larger leaf of the lower scroll is CARVS 3; CRESTIO 14; NAMUS 7 (?), and the tendril-binding is CRESTIO 22. The smaller leaf is on the Colchester bowl stamped by LICINVS and VOLVS (*C.M. Report*, 1928, pl. III, 6771.27) and a form 30 at Silchester (May, pl. xvii, 2) by K's ALBINVS b; possibly also on K. 1 c (ALBINVS a).

For the style compare K. text-fig. 16 c (OF CRESTIO), CARVS (especially K. 20 D), and NAMVS (K. 61 c).

Date, Claudian; deposit (pit C5), period IV.

Plate xxix

1. Most part of a bowl with excellent glaze, stamped OF . CRESTIO. Everted rim, no marked carination. Upper scroll *without* small spiral tendrils; consists of rosette, ALBVS 5 (?), DARIBITVS (?); berries NAMVS 15, SENICIO 32; tendril-binding CRESTIO 22, ALBVS 7. Compare the upper frieze of May, *Silchester*, pl. vi A (OF CRESTI); *Nimègue*, pl. II, 3; *M.Z.* vii, 49, abb. 3 (Weisenau), of a Claudian bowl at Neuss (K. 93 c), and especially one at Vechten (K. 76 c) stamped SENICIOFE; also two bowls by INGENVVS (K. 40 D and 41 F), and CARVS (K. 20 E and F); and again PRIMVS (K. 66 E, Hofheim).

The lower frieze consists of four large, leafy festoons containing animals with groups of birds round an ornament between. The festoons are composed of NAMVS 3, the rosettes at their base are the same as in the upper frieze. The lion and boar inside have not been identified, but the boar resembles OF MARC 1 (K. 52) and the lion is a copy of VALERIVS 3. The two large birds were used by many potters from DARIBITVS to VITALIS. The smaller birds are MERCATO 23 and 24. The plant ornament occurs on a Claudian form 30 at London, *Arch.* lxxviii, 94-5, fig. 64.

For a very similar lower frieze see K. 44 c, LABIO, Bregenz, and see no. 2 below. Less similar: AMANDVS, Mainz, Claudian (K. 6 A); DARIBITVS, Vindonissa (K. 30 B), IVCVNDVS (early work), Vechten (K. 43 B); NAMVS, Mainz (K. 60 A); also K. 90 A and B.

Date, Pre-Flavian, Claudius-Nero; deposit (low in filling of site D1), period IV.

2. Many fragments. Good, dark, matt glaze. Everted rim. The upper frieze includes the rosette MURRANVS 4 and the tendril-binding MURRANVS 6 (?) and has small spiral tendrils.

The lower frieze is similar to that of the preceding bowl but has saltires between the festoons, and the decoration is purely floral. The large leaf is perhaps SENICIO 23.

A very close parallel is the lower frieze of a bowl by CALVVS at Bonn (*K.* 17 B) and one by BASSI COEL at Rheingönheim (*K.*, text-fig. 42).

Date: Neronian; deposit (scattered through site D1 filling), period IV–VI.

3. Many fragments. Good, matt glaze. Everted rim. The upper scroll closely resembles the preceding example. The flower is FELIX 7, PASSIENVS 44; the same scroll is on a bowl at Vechten by PASSIENVS (*K.* 64 H) and on a sherd at Colchester (*May*, pl. x, 4).

The lower scroll includes the leaf *Aislingen* pl. vi, 9, which resembles MASCLVS 33 but is smaller. The whole scroll is very close to one by LABIO (*K.*, text-fig. 43) which is Neronian. The small dog (?) in the medallion is imperfect; it is smaller than that used by Genialis, Germanus, and Niger.

Date, Neronian; deposit (as no. 2), period IV–VI.

There is nothing nearly resembling these three bowls in the Pompeii hoard (*J.R.S.* iv, 27).

Plate xxx

Fragments of Pre-Flavian manufacture, many probably Claudian. No. 1 is stamped PAS . . . (stamp no. 145). Large lower scrolls. The upper scrolls with rosettes or the like in the field. No. 14 still has a rouletted central moulding, with imbricated arrow-heads below. On nos. 21–3 the spade-shaped flower appears.

Plate xxxi

1. Several large fragments of a fine bowl stamped LIC·INVS·F (no. 103).

Good, dark, matt glaze. Rim fairly upright. Small bead-rows. Upper frieze, with long leaf and rosette of 12 petals with astragalus bindings, and with small concentric circles or ring-and-dot pattern in field. Lower zone gadroons.

The leaf, rosette, and binding were used by many potters. A very similar upper scroll by DARIBITVS (*K.* 30 B) uses this leaf. The rosette is LICINVS 30. Date, Claudius–Nero. Found when excavating the basement for the east boiler-house of St. Helena's School in area H, region 1 (1937).

2. Fragments of a large bowl with fine red glaze, almost glossy. Upper scroll very similar to pl. xxix, 1–3, and xxxiii, 9–11. Lower frieze with large, multiple scroll and medallions, cf. pl. xxix, 3; xxxiii, 19; xxxv, 7. Polygonal leaf is perhaps NAMVS 17; the fish appears to be NIGER 11; cf. *Hermet, Grauf.*, pl. xxii, 219. Date, Claudius–Nero. Found S. of larger temple in region 1, in a deposit of period VI.

Plate xxxii

Fragments of pre-Flavian manufacture. Nos. 2, 4, 8, 13, 14–16 are Claudian, no. 3. Claudius–Nero, the remainder mostly Neronian.

Plate xxxiii

Fragments of pre-Flavian or Neronian–Early Flavian manufacture. Nos. 1, 2, 4, 9, 11, 16, 18 are Claudius–Nero, the remainder Neronian, though some, nos. 3, 10, 14, 17, 19, are better classed as Nero–Vespasian.

Plate xxxiv

Fragments of pre-Flavian manufacture. Nos. 1–4, 5 (?), 10, 11, 12, 14, 19 are probably Claudian; nos. 6–9 (9 stamped COCI OFIC, no. 69), Claudius–Nero; nos. 16–18 (18 stamped OF ARDACI, no. 57) and 20–3 Nero (nos. 2–4, 16–17, 22–3 are from one vessel in each case).

THE FINDS

Plate xxxv

Fragments of pre-Flavian manufacture, mostly Claudian. They show panelling and festooning, and also straight wreaths in the upper frieze. Nos. 2, 4-7 (7 stamped SCOTNVS, no. 162), 18 are late Claudius to Nero, and no. 12 may be dated Nero-Vespasian.

Plate xxxvi

Fragments of pre-Flavian manufacture, continuing panelled and festooned upper friezes, with varied lower friezes. No. 9 is stamped LICINVS (almost illegible), and no. 12 may well be from the same mould. Most are Claudian, but nos. 2, 7, 11, and 14-16 may be later.

Plate xxxvii

Fragments of pre-Flavian manufacture, with some perhaps, or probably, of Flavian date. Saltires and medallions, straight wreaths in lower zone, and other late characteristics appear. Nos. 5, 9, 13, 15, 22 are perhaps Claudian, nos. 3 and 25 are fairly certainly Flavian, and nos. 19-21, 23-24 have a somewhat Flavian appearance; the remainder are probably Claudius-Nero or Neronian (in no. 23 the device is a figure holding a trident).

Plate xxxviii

Fragments of form 30, except no. 16, which is from a small globular vessel like Déch. 67, difficult to date.

Nos. 1-20 could all be Claudian, though some (e.g. 14, 15, 16, 17) may, like 25, run into Nero's reign. No. 21 is probably Neronian, and all the rest should be Nero-Vespasian at earliest, no. 23 being fairly certainly a Flavian piece.

DECORATED TERRA SIGILLATA: CHRONOLOGICAL INCIDENCE OF
STRATIFIED PIECES

The use of Decorated Sigillata for the close dating of stratified deposits has in recent years come under critical discussion, particularly in an article published in 1935 by the late Sir George Macdonald.¹ Sir George there contended that the method had two 'ineluctable limitations': first, 'a substantial margin of error' in the dating of sites or deposits by Sigillata typology, and second, the worthlessness of 'comparison between the (Sigillata) yield of sites, unless the sites have first been dated'. Now our site has been dated, in a sequence of six periods, on a framework of evidence consisting essentially of stratigraphy, history, and coins. In other words, the period-dating has sufficient validity independent of the Decorated Sigillata to permit its use as a yard-stick to check the latter's typological dating, and so to compute, on a statistical basis, a 'Macdonald's margin' of error. The abundance of our stratified material enables us to present this process in the form of a chart (fig. 41), with the archaeological dates of the deposits and the typological dates of the 225 significant pieces of stratified Decorated Sigillata ranged respectively along vertical and horizontal axes.

¹ 'The Dating-value of Samian Ware', *J.R.S.* xxv, 187-200 (formulated as a 'Rejoinder' to T. Davies Pryce and E. B. Birley, *ibid.* 59 ff.): see also the review by Prof. E. Fabricius, *Germania*, xx, 214-16.

These typological dates, estimated by Dr. Pryce and ourselves independently and without reference to the stratification-evidence, have been grouped to form seven columns, as follows:

- | | |
|----------------------------------|---|
| Tiberius to Claudius (54 pieces) | Pre-Flavian (no closer dating possible: 8 pieces) |
| Claudius (67 pieces) | Nero-Vespasian (13 pieces) |
| Claudius-Nero (70 pieces) | Flavian (3 pieces) |
| Nero (10 pieces) | |

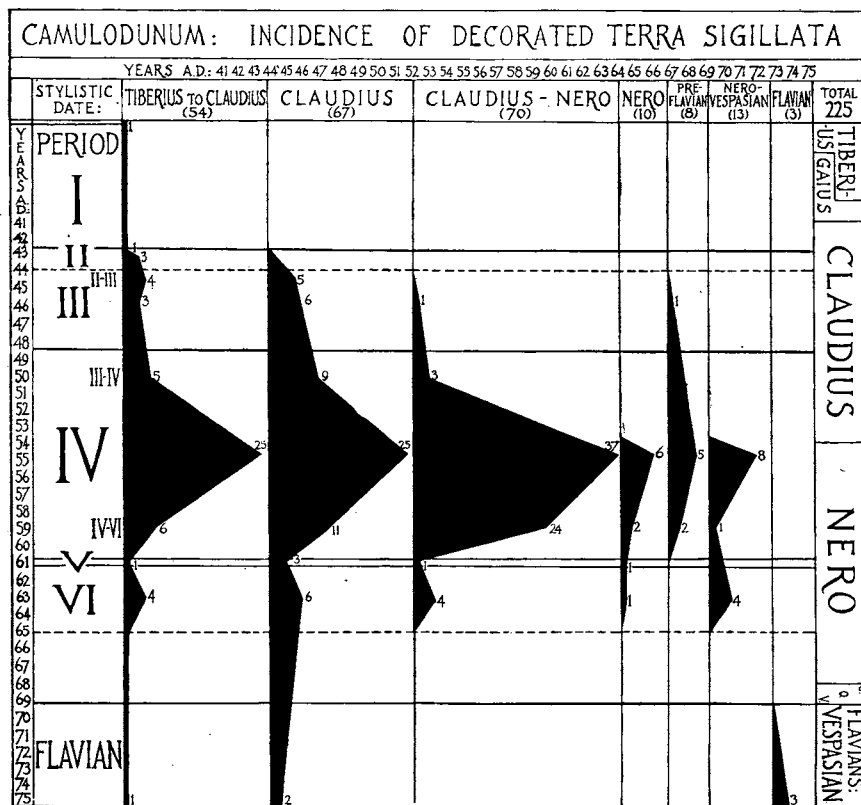


FIG. 41. Chart of the chronological incidence of Decorated Terra Sigillata at Sheepen.

These columns are set out horizontally along a chronological scale covering the years from within Tiberius' reign to A.D. 75, this scale being graded uniformly with the vertical scale along which are set out the successive periods of the site's occupation, from within period I to A.D. 75 likewise. The incidence of the Sigillata in every column is shown by means of a black-and-white graph, demarcated, at the chronological mean of each period (or composite period), by points measured out from the left according to that period's number of stratified pieces. Each graph begins and ends at zero according to the stratigraphic or typological limits covered, whichever are the narrower.

To consider first the typological groups, the following conclusions emerge:

1. Of the 54 stratified pieces in the Tiberius to Claudius column, all of them

typologically earlier than A.D. 49 when period IV has been reckoned to begin, only 12 were found in deposits certainly earlier than that date, while 37 (or 70 per cent.) were in deposits certainly later. Many of the latter, e.g. pl. xxii, 28 from the Flavian deposit on site D2 (p. 102), must no doubt be rubbish-survivals—redeposited sherds of vessels broken earlier, but it is clear that one must allow for a proportion of genuine survivals. To take an extreme case, the Tiberian bowl form 29, pl. xxi, 2, the whole of which was found in the occupation-layer of site A3, a period VI key-deposit (p. 95), must be regarded as an 'heirloom' vessel, in use up to at least 30 or 40 years after its typological date of manufacture. It was accompanied not only by the sherds pl. xxii, 6 and xxiii, 7, dated A.D. 35–45, and the pre-Claudian xxii, 27, but by the whole of the Plain Arretine platter by Xanthus noted below (pp. 182–3, 193), evidently another 'heirloom', and indeed repaired with lead rivets. Where the time-lag is shorter, as in the case of pre-Claudian pieces stratified in period IV, the proportion to be allowed for must be correspondingly higher (see further below).

2. The Claudius curve begins only at the conquest (on pl. xxii, 25 from ditch I, see para. 9 below), but thereafter it is very similar to that for Tiberius to Claudius, the numerical increase from that to this being only 7.7 per cent. altogether, and for period IV deposits nil. That is, reckoning with rubbish-survivals included, the Claudian years of period IV actually show no excess of new pieces over typologically old ones.

3. The Claudius–Nero column shows only one piece certainly (pl. xxxii, 7, from pit L11), and only three pieces even possibly, stratified before period IV. Thus on initial datings typology is seen to be a fairly sound guide, for this means that features recognized to last from Claudius' reign into Nero's were only just beginning to appear in the later forties. For periods IV and IV–VI the numbers present rise to their maximum, which is again appropriate. It must be only chance that later survival does not here manifest itself.

4. The figures for Nero's reign cover only periods IV to VI and are very much smaller. This suggests that purely Neronian features had not had time to become at all strongly established before the end of period IV, after which little if any fresh Sigillata reached the site during the rest of the reign.

5. The next column shows those pieces for which no closer dating than pre-Flavian can be formulated, and simply agrees with the conclusions already reached.

6. The Nero–Vespasian column agrees with the Neronian in covering periods IV to VI only. Comparison of the two suggests that features destined to last from Nero's reign into Vespasian's took their rise simultaneously with those typical of Nero's reign only, and were in fact simply the more 'advanced' components of Neronian fashion.

7. Lastly, the securely pre-Flavian termination of period VI is confirmed by the fact that no Flavian pieces appear until later, when three (one of them pl. xxxvii, 3) found their way into the post-occupation make-up over the region of site D1.

The yield of each period of the occupation may now be considered serially.

8. *Period I.* The one piece here stratified is the pre-Claudian fragment of Arretine crater from region 1 stamped ΧΑ[ΝΤΗΙ] (pp. 169, 193). As will be seen, Plain Arretine

was relatively plentiful in pre-conquest times, and the five other crater pieces found were probably all pre-conquest imports. On the other hand, South Gaulish Sigillata is altogether absent from period I, and on present evidence must be regarded, like Roman bronze coinage, as introduced only at the conquest.

9. *Period II.* The only conceivable suggestion to the contrary comes from the pre-Claudian or early Claudian fragment of South Gaulish form 29, pl. xxii, 25, with its early straight-wreath and long corded bud (*K. SENICIO* 25, cf. *AMANDVS* 76B). This was found in the bottom of ditch I near its original termination, in region 5, where the loose sand of the silt and of the first filling were not easy to distinguish (p. 110). It has accordingly been placed in the chart on the border-line between periods I and II, but in the circumstances one cannot press the theoretical possibility of a period I date against the weight of negative evidence excluding South Gaulish Sigillata before the conquest. The pieces from the main period II filling of ditch I are the pre-Claudian pl. xxii, 4 and the early Claudian xxv, 17 and 19.

10. *Period II-III.* From the upper part of the ditch I filling so designated (p. 80, &c.) come the Tiberian and early Claudian pl. xxii, 4 and 20 (with one not figured) and the Claudian xxv, 2, xxvi, 18, and xxxvii, 22 (and one Claudian piece not figured).

11. *Period III.* The key-deposits of this period over ditch I yielded pl. xxx, 3, dated A.D. 37-50, and the Claudian xxxvi, 5 (with one pre-Flavian piece not figured); other deposits yielded the Arretine xx, 1 from ditch E3 (pp. 73, 168), the early Claudian xxiii, 24, and the Claudian xxiii, 23; xxv, 15b; xxvi, 17; xxxiv, 2/4; and xxxv, 8 (with one pre-Flavian piece not figured); the Claudius-Nero piece xxxii, 7 has been noted in para. 3.

12. *Period III-IV.* Of the five Tiberius to Claudius pieces in these deposits, those figured are pl. xxiii, 32 and xxv, 8; of the nine Claudian, pl. xxxii, 16; xxxiii, 15; xxxiv, 10; xxxvi, 1; xxxvii, 7; and xxxviii, 6; of the three Claudius-Nero, pl. xxxii, 3. Five of the eleven figured pieces are from key-deposits.

13. *Period IV.* For Tiberius to Claudius we have the Arretine pl. xx, 3 and the South Gaulish craters xx, 5, 8, and (with six not figured) the following: xxii, 2, 5, 7, 11, 13, 14, 17, 18, 19, 26, 29; xxiii, 22, 27, 31; xxiv, 2; xxv, 9. The Claudian pieces (with one not figured) are: xxiii, 4, 5, 6, 11; xxv, 6, 20; xxvi, 6, 9, 10, 13, 15, 20; xxx, 4, 13; xxxii, 8, 13; xxxiv, 3, 19; xxxv, 14; xxxvi, 9, 10, 17; xxxviii, 1, 3, 9. The Claudius-Nero pieces (with 17 not figured) are: xxix, 1; xxx, 10, 20, 24; xxxii, 6; xxxiii, 2, 4, 12, 13, 16, 18; xxxiv, 7; xxxv, 5; xxxvi, 7; xxxvii, 1b, 2, 6; xxxviii, 14, 16, 25. The Neronian are: xxx, 8, xxxiii, 6, xxxiv, 8, 18, 22, 23, xxxv, 16; the pre-Flavian (with two not figured) xxx, 9, xxxiii, 3, 8, 10, 19, and xxxviii, 26. Of the 75 figured in all, 53 are from key-deposits.

14. *Period IV-VI.* This category has been made up rather differently from the corresponding categories of stratified coins. It comprises first (as they do) the deposits where IV and VI are indistinguishable on and around site D1, which produced (with one not figured) pl. xxiii, 2 (pre-Claudian); xxx, 17; xxxvi, 11; xxxviii, 17 (Claudius-Nero); xxix, 2, 3 (Nero); xxiii, 16 (pre-Flavian); and xxxvii, 19 (Nero-Vespasian). In addition, we have included two deposits strictly of period VI, but containing such

large masses of broken period IV pottery redeposited after the Boudiccan destruction that it would be perverse to assign the Sigillata (as one must the relatively unbreakable coins) to period VI outright. These are the filling of site A4 in region 3 (p. 85), and the deposit over the ditch of road II in region 4 (p. 99). The former produced (with five pieces not figured) the pre-Claudian and early Claudian xx, 4 and 6 (craters) and xxxii, 2; the Claudian xxvi, 21; xxvii, 1, 2; xxx, 5; xxxv, 13; and xxxvi, 12; and the Claudius–Nero xxxii, 5; xxxiv, 11, 21; xxxvi, 15; and xxxvii, 10. The latter produced (with one piece not figured) the early Claudian xxiii, 17; the Claudian xxv, 21, 22; xxvi, 1, 2; and xxxviii, 12; and the Claudius–Nero xxxii, 9, 10; and xxxv, 2. Lastly, the pre-Flavian xxvi, 11 came from the upper sealing of pit A5 (p. 93), again a period VI deposit full of period IV rubbish.

15. It may here be added that pl. xxii, 21, xxxii, 11, xxxiii, 7, and xxxv, 9 came from the chronologically almost valueless clay-pits in region 5 (p. 121) and are therefore excluded from the chart.

16. *Period V.* In the filling of ditch II were pl. xxv, 7 (dated A.D. 35–45), the Claudian xxv, 3 and xxxvii, 15, and a Neronian piece not figured; the Claudian xxxiv, 16 and 17 came from ditch F5, the palisade-trench of ditch IIA in region 1 (p. 64). These are of course all rubbish-survivals, but the inclusion of these half-dozen fragments in a category of their own seems the best way of indicating on the chart the collapse of the use of Decorated Sigillata in the Boudiccan interlude.

17. *Period VI.* The yield of the key site A3 (pl. xxi, 2; xxii, 6, 27; xxiii, 7, with one Claudian piece not figured) has been noticed above in para. 1. The period's other deposits yielded the Claudian xxv, 23; xxxiv, 14; and xxxviii, 5 (with three not figured); the Claudius–Nero xxxi, 2 and xxxiii, 9 (with two not figured); the Neronian xxvi, 5; and four Nero–Vespasian pieces (not figured: comparable to xxxiii, 3, 10, 14, 17, 19; or xxxv, 12).

18. *Flavian.* The Claudian or earlier pl. xxii, 28, and the Claudian xxiii, 19 (with one not figured) are rubbish-survivals in the Flavian make-up of the site D1 area, which also contained (cf. para. 7) three actual Flavian pieces, one of them xxxvii, 3. The other Flavian pieces figured (xxxvii, 25; xxxviii, 23) represent the small unstratified scatter of the same period elsewhere.

It will be seen that the typological date-range of the Decorated Sigillata found represents fairly accurately the time-span independently determined for the site's occupation as a whole. But that (excluding its insignificant Flavian appendix) is a period of just over half a century. The dating of the component archaeological periods can again be established fairly correctly—their initial dating very correctly—on the evidence of the Decorated Sigillata alone. But that is because the quantity of it available, from this ten years' excavation, is so large. Not many Romano-British sites have yielded over two hundred pieces of it which are both typologically significant and also well stratified. Reduce this at random to a tenth, the theoretical equivalent of one year's excavation, and the possibilities of error in dating the deposits by this method alone are seen to be considerable. Naturally, the circumstances of every site and every excavation vary, but the

lesson would seem to be that in default of historical, numismatic, or other evidence superior in kind to that to be drawn from the typology of Decorated Sigillata, a series of at least fifty or sixty, and more desirably of something like a hundred effective finds of this ware should where possible be made, before the 'Macdonald's margin' can normally be claimed to be under safe control.

Actually, the 'margin' covers two distinct phenomena, rubbish-survival and genuine or use-survival, of which the 'heirloom' is just an extreme case. The former will be a variable quantity, depending on the weight and nature of anterior occupation and destruction on a given site. The latter is more interesting, because a just estimate of it will give the proportion of old to new Decorated Sigillata in actual use at any one time. Hitherto we have been blocking the two sorts of survival as the excavator finds them, together. But since before the conquest our site was receiving Arretine Sigillata only, we shall have no rubbish-survival to allow for if we seek to calculate what range of South Gaulish Decorated ware was introduced when the conquest took place. And that calculation can be made as follows. The Tiberius to Claudius column in our chart contains 54 pieces. Three are Arretine, one stratified in its own period I (XA[NTHI] stamp, p. 193), and one each in III and IV (pl. xx, 1, 3). Subtracting these as pre-conquest imports, we are left with 51 South Gaulish pieces, all of which, in whatever periods they may have been found stratified, should have reached the site at or in the immediate wake of the conquest. Nineteen of them are typologically early Claudian, 18 pre-Claudian; 14 can be either, and so may fairly be apportioned equally between the other two totals. If this were all, we should have 26 early Claudian pieces, typologically contemporary with the conquest, and 25 pre-Claudian, or typologically older—in other words, an almost equal balance. But the contemporary figure has obviously to be weighted with a proportion drawn from the Claudius column, since this consists of pieces typologically assignable to any part of Claudius's reign, the conquest year included.¹ There are 67 of these pieces, and 11 years from the conquest in A.D. 43 to Claudius's death in A.D. 54; the just annual allotment is thus not less than 6 pieces. The total typologically true to the year 43/4 therefore becomes 32, as against the 25 typologically older. The result is that of the South Gaulish Decorated Sigillata brought to the site at the conquest, only 60 per cent. can be reckoned on as of strictly contemporary fashion. The continuance in use of older pieces must be allowed for to the extent of 40 per cent. Since any pre-conquest introduction of the ware has been ruled out, this will mean that *the Claudian troops and their immediate civilian following had on an average two old Decorated Sigillata bowls in use for every three new ones.* There seems no reason why the breakage-rate of a pioneer expeditionary force and its tail of miscellaneous empire-builders should be particularly low. As no permanent Roman structures have been found before period IV on the site, which was after all not the conquerors' own stronghold but their victim, one might even rather expect the contrary. But this two-to-three proportion is entirely consonant with the readings of our chart for the Roman occupation period by period, if

¹ That this is not mere theory is indicated by the presence of four of these pieces in deposits as early as period II-III (see above).

allowance be made for each period's included accumulation of rubbish-survivals, and it may perhaps be taken as typical, if not of all Roman sites yielding Decorated Sigillata in quantity, at any rate of all such where a military or semi-military element was predominant.

It remains to notice that like Roman bronze coins (p. 167), Decorated Sigillata shows a distinct, though of course by no means exclusive, tendency here to concentrate on areas, like site A1, of specifically Roman occupation. It was in fact characteristically the pottery of the Roman conquerors.

B. PLAIN TERRA SIGILLATA

This was relatively abundant. The earliest is true Arretine ware, which appeared, as was to be expected, in the pre-conquest period I, while from the conquest onwards the field was increasingly dominated by the more efficient product typical of South Gaul. The distinction between the two wares is, however, not altogether clear-cut. At least after the beginning of the first century A.D. a good deal of pottery adhering more or less closely in form and character to the models of Arretium and the like Italian workshops seems to have been made outside Italy, and can only be called Arretine in a generic sense. Of this provincial Arretine some amount (p. 195) was probably made in South Gaul. But it is not at all fully transitional to the characteristic South Gaulish Sigillata, though its features may verge towards it, and the Arretine tradition was not everywhere or at once superseded when in the decade A.D. 15-25 the recognized South Gaulish fabric appeared on the market. The latter may initially display a modicum of Arretine character, but essentially, with its hard pinkish instead of soft yellowish paste, its lustrous cherry-red instead of rather friable dark-orange glaze, and its more standardized and metallic finish, it was a superior novelty, and it was soon adopted by the Roman armies of the German frontier. Yet the overlap between its advent and the disappearance of the older fabric is none the less real, and some light is thrown upon it by the evidence from Camulodunum (see also below on Potters' Stamps).

In presenting this, we have used the term 'Arretine' for all pottery in the tradition of genuine Arretine manufacture, whether made at Arretium or not, and have restricted the term 'South Gaulish' to pottery having the classic character of the workshops of La Graufesenque and Montans, which despite some initial influence from the Arretine tradition seldom fails to be readily recognizable. We have, however, classified by form alone (s1-s25), without attempting any prior segregation by fabric, since the incidence of different fabrics varies from form to form. The continental sites most frequently referred to are Oberaden (occupied *c.* 12-8 B.C.)¹ and Haltern (occupation mainly late Augustan; abandoned A.D. 16)² on the Lippe, and Hofheim in the Taunus (primary occupation A.D. 40-51),³ which, like Xanten and Mainz, though not Mt. Beuvray or Trier,⁴ were of course military establishments.

¹ Albrecht, *Oberaden* (p. xviii), 36 ff.: dating (by coins and dates of Drusus-Tiberius campaigns), 31, 34.

² Loeschcke, *Haltern* (p. xviii), 101 ff.; see p. 28 also for

dating.

³ Ritterling, *Hofheim* (p. xviii), 198 ff.

⁴ Nijmegen (p. xviii) is a special case: the Hunnerberg

PLATTERS

Fig. 42

s1. *Platter with overhung lip*: Loeschcke (Haltern) 1a and 1b, earlier version.

Interior wall-moulding essentially bipartite, a convex band above, a concave below. The earliest Arretine platter-form represented, as shown by the sequence *Oberaden*, taf. 41, 2 (still suggesting the Campanian prototype), 4-8, to *Haltern*, abb. 1, 2-4, the latter our closest parallels (late Augustan-early Tiberian). No doubt entirely a period I import: fragments

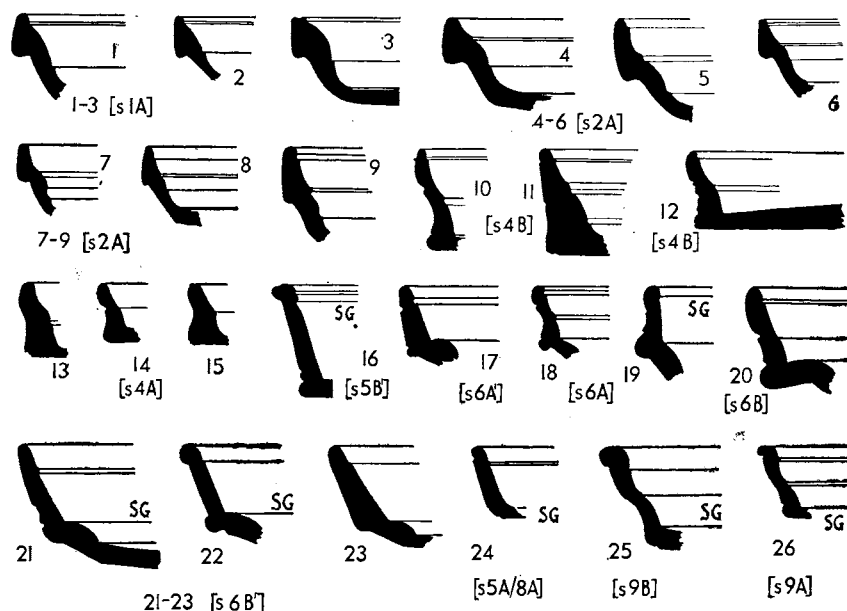


FIG. 42. Plain Terra Sigillata, rim-profiles. Scale $\frac{1}{2}$. For the type-figures s2-s6, see pl. xxxix; for s8-s9, pl. xl. SG = South Gaulish; the rest are Arretine.

were rare, small, and worn, and no complete section was obtained, but two sizes could be recognized, differing probably as the types s2A, B; s4A, B; from which indeed rimless fragments cannot often be distinguished.

s1A: small. 12 rims, all Arretine (fig. 42, 1-3): one each from periods I and II/III in ditch I, rest post-conquest rubbish-survivals. The variant

s1A' (fig. 43, 1, site F3, period III: one other) has the upper moulding concave, cf. s2.

s1B: large. 7 rims, as s1A, all Arretine: all post-conquest rubbish-survivals.

Plate xxxix

s2. *Platter with overhung lip*: Loeschcke 1a and 1b, later version.

Interior wall-moulding essentially tripartite, a convex band between two concave ones. Rouletted wreath normal round interior base. Not yet common at Oberaden (taf. 41, 9, 11), but standard at Haltern, where our closest parallels are late Augustan-early Tiberian Arretine (*Haltern*, abb. 1, 1, 5). Less rare than s1, but still evidently a period I import. Two types to be distinguished:

cemetery is almost certainly that of a Roman fort, occupied contemporary native Batavian oppidum (Breuer, *Nimègue*).
A.D. 14-70 (Vermeulen, *Nijmegen*), the Ubbergen site the See further now Holwerda, cited p. 203, n. 3.

- s2A: small, with bevelled footring. Standard version Arretine, as at Haltern: range of rim-forms (cf. *Nijmegen*, pl. iv, 1), fig. 42, 4, 5, 9 (periods I and II in ditch I), 6 (pit D1a, period IV), 7-8; type-example, pit D11, period III. Most fragments small and worn, and in post-conquest deposits clear rubbish-survivals. But over half the 30 pieces are of provincial Arretine appearance, with poor glaze little better than matt paint, and should be later than the Haltern standard. The variant
- s2A', twice found, has the central convex wall-moulding reduced to a groove only: type-example period IV or later.
- s2B: large, with squared footring. 10 examples only, all Arretine. Footring very large (cf. s4B, s6B), glaze normally absent or patchy within it; rims, all similar to type-example, include one from period I in ditch I. Almost all fragments small, rubbish-survivals when in post-conquest deposits. Type-example as at Haltern (cf. *M.Z.* xiii, 59, abb. 23, 4, P.ATT1; *Nimègue*, pl. iv, 1-10).
- s3. *Unique large platter*, an early (rouletted-rim) variant of s4(B), with bold external offset and multiple internal moulding: cf. the single quarter-round moulding of s6, and (nearer) *Nimègue*, pl. iv, 24. Large finely rouletted wreath round interior base; in centre, worn remains of 2-line stamp: both Arretine features, as are the paste (but rather dark-yellowish and hard), glaze (good though worn, matt dark-orange), and virtual absence of latter within the heavy squared footring. Diam. 31.5 cm. Probably early Tiberian. Ditch F5, bottom of filling, period V: found complete, so 'heirloom' survival, no doubt from period I.
- s4. *Platter with upright lip*: Loeschke 2a and 2b, Dragendorff 17. Engendered from s2 (suppressing the lip-overhang and sharpening the wall/base junction) and s5. Rouletting never found round interior base, but may be present externally round lip, and then often also round wall/base moulding (very rarely round concave moulding above this). Profile absent from Oberaden, save for the prototype-like taf. 41, 13: standard first at Haltern, Arretine; afterwards South Gaulish (O & P, pl. XLII, 4-8). Here present in both wares (date-range late Augustan-Claudian); a Period I import not quite exclusively. Two types to be distinguished (cf. s2A, B):
- s4A-4A': small, very seldom rouletted, with bevelled footring. Standard wall-profiles Arretine, as at Haltern: more often S-curved (type-example 4A, with fig. 42, 12; cf. *Haltern*, abb. 2, 1), less often straighter (type-example 4A': *ibid.* 3); but interior, and sometimes exterior too, may be less carefully finished (fig. 42, 13, 14-15: *ibid.* 2, 9), and this is specially noticeable in provincial-Arretine and South Gaulish fabrics. Type-examples represent Arretine series from ditch I, 4A' period I, 4A period II. Incomplete rim/wall fragments often indistinguishable from s6A, but some 50 are certain (representing with other sherds about 100 vessels): of these 5 (one lip rouletted, another most like fig. 42, 11) are standard Arretine, 10 seem provincial-Arretine (as s2A); most of the rest (none rouletted) are South Gaulish, but only definitely so in post-conquest periods, when, however, not all Arretine specimens need be rubbish-survivals or 'heirlooms'.
- s4B-4B': large, less seldom rouletted, and with squared footring. Standard wall-profiles, Arretine as at Haltern, differ as 4A-4A', but careless work rarer: see fig. 42, 10 (B standard: cf. *Haltern*, abb. 2, 9), 11 (B-B' compromise). These and most Arretine walls rouletted, most South Gaulish not. Footring as s2B, but often taller, though many indistinguishable from s2B or s6B; glaze normally absent or patchy within it. Period I (Arretine) series represented by fig. 42, 10-11 from ditch I, and type-example from pit D14 bottom (stamped FONT: p. 192, no. 19); later periods introduce South Gaulish, but their (fewer) Arretine specimens need not all be rubbish-survivals: one exception is a complete example of 4B' stamped XANTI (p. 193, no. 28), mended with lead rivets

and an evident 'heirloom', from site A₃ occupation, a key-deposit of period VI (pp. 95, 176); also there may have been a few post-conquest imports. In all, some 40 rim/wall fragments certain.

- s5. *Platter with vertical wall*: Loeschcke 5a and 5b.

Prototypes only at Oberaden (taf. 41, 15-18), without wall-grooves and rarely so angular: standard in Arretine at Haltern only (abb. 2, 10), afterwards South Gaulish, Tiberius-Claudius (false-handled: e.g. *Kat. Bingen*, taf. 10, 1, 4; 11, 2; one at Köln, OFIC.ACVTI), as are ours: six fragments only, none pre-conquest. Type-example shows normal small size, s5A; fig. 42, 16 shows Claudian variant of large, s5B (5B'), with lip and upper wall/base moulding beaded (one at Trier, S. Matthias, SCOTN OF: another here is simpler); 24 is a cross between s5A and s8A (Dr. 18).

- s6. *Platter with externally fluted wall and internal quarter-round moulding*: Loeschcke 3, Drag. 15/17.

Classic description O & P 173 ff.: the great quantities found here serve as some supplement for the form's pre-Flavian phases. As with s2 and s4, these comprise two types, A small and B large. The Arretine prototype phase has just begun at Haltern (abb. 2, 8 and 7), and its development from s4 runs in two forms for each type, curved-wall (s6A, B) from s4A, B, and straight-wall (s6A', B') from s4A', B'. Arretine examples are mainly Tiberian, and were rare here, beginning in, though perhaps just outlasting, period I; then South Gaulish successors appear in the Tiberius-Claudius period and become very plentiful, as here, under Claudius and Nero.

s6A-6A', with s6A'': small, with bevelled footring. The earliest profiles (rare) are still close to s4A-A': fig. 42, 17 (A'), 18 (A), both Arretine, former influenced by s5, latter rouletted like s6B (one from ditch I, period II, is cross between this and 19); four more like these (one false-handled), and three like 19, are South Gaulish (none pre-conquest). The standard South Gaulish series (conquest onwards) is represented by the type-examples s6A and s6A' (over 100 wall-profiles, a few rouletted), only slightly splayed and typically Claudian (as e.g. O & P, pl. XLII, 14-16, 23, 26), together with s6A'' (about another 100 wall-profiles), more splayed, often triple-moulded externally, and typically Claudius-Nero (as e.g. O & P, pl. XLIII, 29 ff.), commonest in and after period IV.

s6B-6B', with s6B'': large, with more or less squared footring. The earliest profiles (again rare), still close to s4B-B', are all Arretine: s6B, rouletted, type-example and fig. 42, 20 (ditch I, period I): s6B', not rouletted, *ibid.* 23, unique. Without rouletting, s6B continues in the standard South Gaulish series (conquest onwards), which differs from s6A-A'' in that the exterior moulding adopted by 6B from 4B persists and is especially common (period IV onwards) on the Claudius-Nero splayed form of wall, type-example s6B'', while mouldings identical with those of s6A-A' are less common (proportion about 1 : 3) and typically Claudian only, type-example s6B', with the rarer fig. 42, 21: mainly periods III-IV. The variant with plain wall boldly (once weakly) beaded top and bottom (*ibid.* 22: cf. 16) is rare and Claudian at latest (e.g. O & P, pl. XLII, 21: cf. 9-11). In all, some 150-80 profile pieces.

Fig. 43

- s7. *Platter with low, curved wall*: Loeschcke 4, Ritterling 1.

The Arretine form, without external rim-groove (late Augustan-Tiberian) is at Haltern rarer large than small: here the one example found is large (fig. 43, 2, site E₂, period III: probably rubbish-survival from I). The South Gaulish form, with grooved-off rim, is always

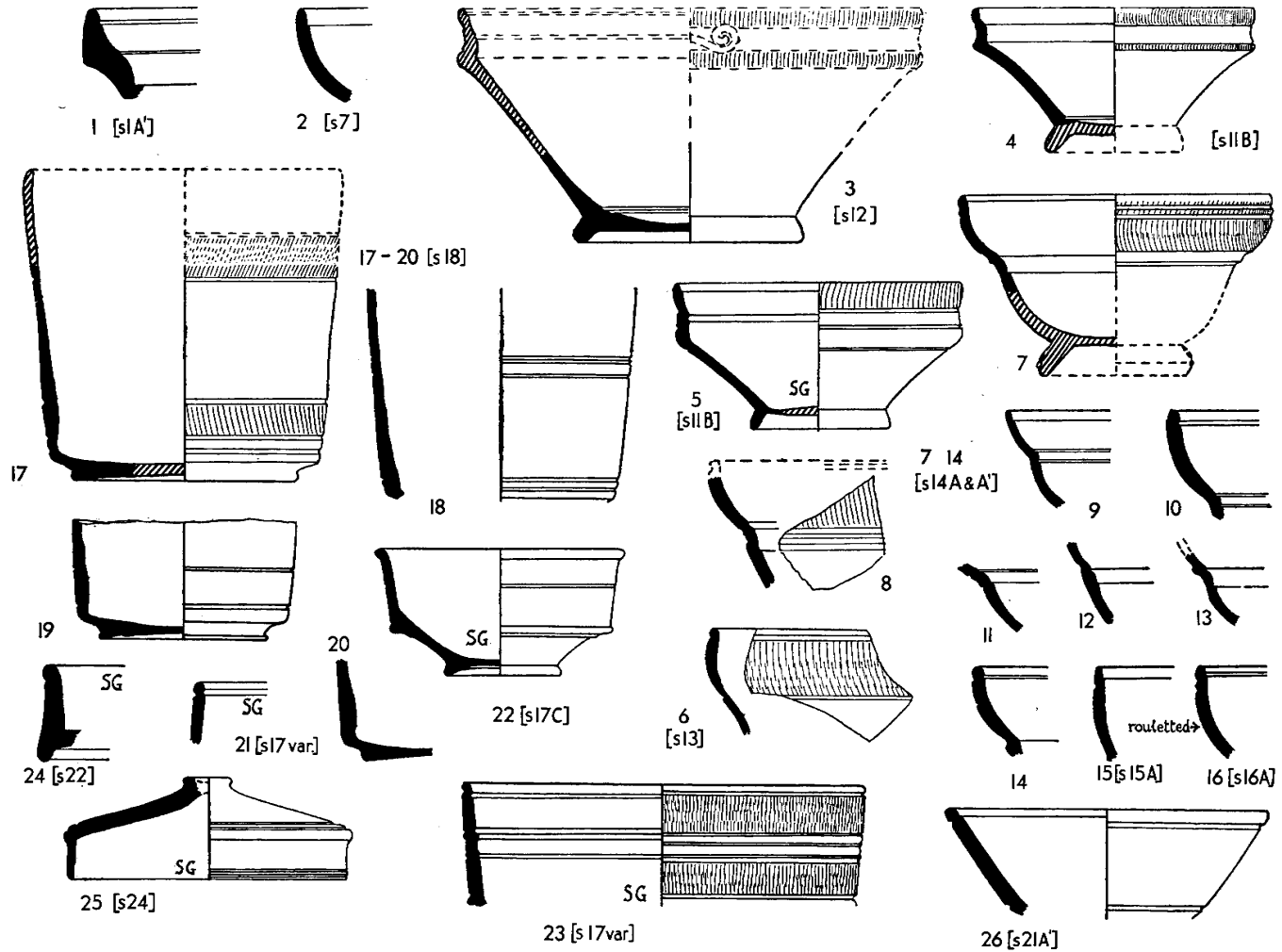


FIG. 43. Plain Terra Sigillata. Scale $\frac{1}{2}$. For the type-figures s2-s7, see pl. xxxix; for s8-s21, pl. xl. SG = South Gaulish; the rest are Arretine.

small (Tiberius–Claudius to Claudius–Nero): 16 examples found (one false-handled), covering periods III–VI.

Plate XL

s8. *Platter with low, oblique curved wall and bead-rim*: Drag. 18.

There is little to add to the classic description O & P 181 f.; wholly South Gaulish in origin, these platters were very numerous and quite normal for their period, Claudius–Nero. Useful confirmation was obtained of the early date of the small offset, both internal and external, at the junction of wall and base (cf. *Nijmegen*, pl. IV, 6A, &c.). A series of 250 specimens was examined for this feature, with the following result:

<i>Period</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>III–IV</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>Unstrat.</i>	<i>Total</i>
Offset, internal and/or external	1	5	2	11	67	3	35	103	227
No offset	..	..	..	..	3	..	..	20	23

The offset thus apparently began to be omitted in the decade A.D. 50–60. But even in the next decade its omission remained extremely rare.

As with s2, s4, and s6, two types of this platter may be distinguished, A and B.

s8A is the common small platter with bevelled footring: type-example from pit D2, period IV–VI, stamped *NEETOR FEC* (p. 198, no. 140).

s8B is the less common large platter with more or less squared footring: type example from pit D1a, period IV–VI, stamped *OFIC.PR[IMI]* (p. 198, no. 148). These often bear a fine rouletted wreath round the interior base instead of the small scored circle otherwise normal to the form.

As regards date, the whole series is post-conquest, with five fragments from period II in ditch I (one chip from pit H10 (pp. 67–8) need not be before period III). The form is rare before period IV, but then became quickly popular, without, however, equalling s6 (Dr. 15/17) in numbers.

s9. *Platter with externally fluted wall and bead-rim*: Drag. 16, Ritterling 3.

This South Gaulish form, of period Claudius–Nero, is nowhere very common. Of the two types distinguishable as before, A and B,

s9A, small with bevelled footring, is the norm (19 specimens): type-example, period IV over ditch I, and fig. 42, 26, period VI, site A4.

s9B, large with more or less squared footring, had only two specimens: type-example, period IV over ditch I, stamped *MARSI* (p. 198), and fig. 42, 25, period V, ditch II. None are certainly before period IV and all could well be Neronian.

CUPS, BOWLS, ETC.

s10. *Bell-shaped cup with small, overhung lip*: Loeschcke 7a and 7b.

At Oberaden (Taf. 42, a large, c small) this is simple and splayed, with narrow lip and base quite flat; at Haltern (7b large, a small) more elegant and less splayed, with broader lip and base flat or very slightly convex. The type-examples A, B, from Xanten (Bonn Mus.), with lip and base-convexity developed, are chosen as answering most closely to the rare fragments from our site, which are rubbish-survivals—only two (B) of significant size—in periods III and III–IV from period I, since the form is wholly Arretine and pre-Claudian. Cf. two at Silchester, May, pl. v, 11; *Nimègue*, pl. III, 3–6; *M.Z.* viii, 73, abb. 7, 1; xii/xiii, 59, abb. 23, 2; xxix, 93, abb. 14, 1: early Tiberian at latest.

s11. *Conical cup with upstanding, rouletted rim*: Loeschcke 8, 8A, Ritterling 5.

These cups, not yet in evidence at Oberaden, are the commonest Arretine vessels at Haltern,

where the shorter, rounder-footed, vertical-rimmed form 8 is on the whole earlier than the taller, more angular-footed, splay-rimmed 8A. South Gaulish manufacture ensued, Tiberian (Wiesbaden, Sels) and then (rarer) Claudian, with simplified, unrouletted, vertical rim (Hofheim, 207; cf. *M.Z.* viii, 73, abb. 8). The range is thus late Augustan–Claudian. The normal Arretine sizes, diam. (b) *c.* 5 in., (a) *c.* 3½ in., are our S11A and B, beginning in period I: type-examples from ditch I, period III, stamped respectively CN.ATEI (p. 192, no. 3) and XANTH (ibid. no. 26), with fine hard glaze. Little more than a dozen of both sizes (including all from period I) are in standard Arretine ware, and most of the rest are definitely South Gaulish. Loeschcke's 8–8A distinction is hard to maintain, the height/diameter ratio being always around $\frac{5}{8}$ in our S11A, and ranging in S11B from $\frac{1}{2}$ (as his 8) to $\frac{5}{8}$ (covering his 8A) without evident chronological significance. But the Hofheim simplified rim-form was rare (only five or six), and not always South Gaulish then (fig. 43, 4, period IV), and so was absence of rouletting, most rims even when South Gaulish being rouletted at least on the upper band (ibid. 5). Arretine imports in period I were clearly caught up and outnumbered by South Gaulish after the conquest, and the typology of the latter thus shows the small Hofheim series to be unrepresentative. The popularity of the Arretine form was in fact continued in South Gaulish ware into at least early Claudian times, and was only then overtaken by that of S14 (Dr. 27).

- S12. *Conical cup with narrow, rouletted rim*: Loeschcke 9.

A rare Arretine relative of S11 with distinctive rim and base. Stamp no. 25, C.VIB (p. 192: period I), and fig. 43, 3, a base in thin provincial-looking ware, were the only finds (latter a survival over site AI): cf. *M.Z.* xii/xiii, 59, abb. 32, 1, P.ATTI.

- S13. *Bell-shaped cup with curved, rouletted rim*: Loeschcke 10.

A rare Arretine relative of S10 and S14: type-example from fragments in pits D11–12, period I. Fig. 43, 6, a survival on site F7 (period III–IV), was the only other rim found. Cf. Haltern, abb. 4, 10 (Mainz, XANTHVS) rather than 6–8.

- S14. *Cup with constricted, double-curved wall*: Loeschcke 11, Drag. 27.

The Arretine form (A), absent at Oberaden and mostly late at Haltern, is late Augustan–Tiberian (mainly); the first South Gaulish (B) mainly Claudian; the second (C) initially Claudius–Nero and more typically Flavian (classic description, O & P 186–8).

S14A, A'. Of 34 fragments found, about a quarter are standard Arretine, the rest provincial-looking. There are two sizes, A diam. 5½–6 in., A' diam. 3½ in.: type-examples both ditch I, period I (A standard Arretine, FELI' (p. 192, no. 17); A' provincial). In fig. 43 variations in the constriction-moulding and the always unthickened lip are shown for A by 8, 10, and for A' by 7, 9, 11, 12, 13, 14: 11 in provincial fabric, 9 and 14 standard Arretine but, exceptionally, not rouletted; 14 also anticipating the South Gaulish forms in omitting the constriction-moulding altogether. All these are from post-conquest deposits, where rubbish-survival will hardly explain every piece: a little importation probably continued after period I (see p. 190, and p. 200 on stamp no. 179, TERTIVS). Four at Silchester, May, p. 13 and pl. v, 10, 12 (ATEI, SILVA.); cf. also *M.Z.* viii, 73, abb. 8, 9, XANTI; *Nimègue*, pl. III, 38, 39.

S14B, B'. The South Gaulish Claudian form of Dr. 27, again in two sizes (B diam. 5½ in., B' 3 in.), appears directly after the conquest and is commonest in period IV. Elegant, in thin finely-glazed ware, it has a small bead-rim flattened on top (rarely, rounded on top but pointed externally). In all, some 175 certain specimens: see type-examples and O & P, pl. XLIX, 2–5, 7–9; grooved footing universal.

S14C, C'. The mainly later South Gaulish form, rather thicker and with full bead-rim, was already present also at Claudian Hofheim (208: Ritterling 7 covers both this and the preceding), and occurs here from period II onwards, most often in period IV. For

type-examples see O & P, pl. XLIX, 13, 14, but grooved footring still almost universal. In all, some 130 certain specimens. One base-fragment is in yellow/red marbled ware.

s15. *Hemispherical cup or bowl with rouletted rim*; Loeschcke 12, Drag. 24/25.

The Arretine form, rare and probably late at Haltern, is in its low-rimmed small size represented at Colchester (from our site?) by O & P, pl. XL, 14, XAN (May, *Cat.* pl. xxxviii, 110), Tiberian (plain lip). All our fragments are of the large size: these make

s15A. Rim tall above wall-moulding, lip grooved off, whether rouletted or plain; false handles and peculiar footring typical. Rare, small fragments (type-example largest; another, fig. 43, 15), and only from periods II and III, so probably period I import (late Augustan–Tiberian).

s15B. Early South Gaulish specimens (to Nero) may have the low rim and false handles of the small Arretine form: plain lip, footring between a and c. Type-example period VI, site A3, MEDIL (p. 198): cf. O & P, pl. XL, 15, with the larger 16; but fragments are apt to be indistinguishable from c.

s15C. The standard South Gaulish form, Tiberius to Nero–Vespasian (Ritterling 6 at Claudian Hofheim, very abundant) was from the conquest onwards even more plentiful than s14, especially in period IV. Classic description, O & P 171–2; here false handles quite rare, rim sometimes straight (*Nijmegen*, pl. IV, 7B), more often curved, as in type-example. This shows the small size, but the large was almost equally common.

s16. *Hemispherical bowl*: Ritterling 8, with prototype.

Loeschcke 13 (one Haltern fragment only) is related, but this form's closer Arretine prototypes are O & P, pl. XLVIII, 3 and *Arch.* lxxviii, 79–80, text-fig. 1 (London), joined now by our type-example s16A, with rouletted wall-band (cf. s18); fig. 43, 16 is similar, but South Gaulish: both period IV, site A1, but probably Tiberian.

The standard South Gaulish form, s16B, Claudius–Nero at latest, appears with the conquest, but was never very common. The offset inside the footring is peculiar to this form and s17 (one exception; cf. *M.Z.* VII, 73, abb. 8, 10). Wall-groove usual, lip-grooves invariable (one lip is like s14B). Otherwise see O & P 184–5, with pl. XLVIII, 4–9.

s17. *Cup or bowl with vertical wall*: Loeschcke 15, Ritterling 9.

The Arretine form, false-handled and often rouletted, was represented only in two early (Tiberian?) South Gaulish variants: fig. 43, 21, rouletted and with grooved-off lip, period II, ditch IB; and 23, partly restored from fragments, period II, Ditch I, with similar lip, and wall-mouldings internal and external, the latter dividing two rouletted bands. The 69 other pieces were all of the standard South Gaulish form, without handles or rouletting, and with bead-rim like s14B or c, and offset within base like s16. In the large size, 17A has the angle-moulding flat, 17B protruding (type-example period IV, site D1, LEUIIOS, p. 197, no. 90); in the small size 17C, the type-example (AQVIT, p. 196, no. 50) and fig. 43, 22 approximately correspond, but the series covers the whole range of O & P, pl. xxxix, 4 ff., and is like s16B Claudius–Nero at latest.

s18. *Cylindrical beaker*: Loeschcke 16.

At Oberaden (taf. 42f, 43h) of near-cylindrical bell shape, this Arretine beaker appears soon after at Wiesbaden and Haltern with a sharp-moulded wall/base angle which relates it to Dr. 30 (O & P, pl. xxiii, 12; lxxxiv, 5, relief-ornamented). Ours, rare, are similar, but with moulded wall-bands (type-example and fig. 43, 18), once rouletted (17: cf. *Haltern*, 156, Xanten); or at least grooved (19, 20). All are rather hard, probably Tiberian provincial, Arretine: doubtless (two stratified post-conquest) rubbish-survivals from period I.

s19. *Straight-flanged and spouted bowl (gritless mortarium)*: Ritterling 12.

Exclusively South Gaulish, initially perhaps Tiberian (from the unglazed Cisalpine-derived mortarium-form 192A (p. 254: cf. *Haltern*, 244, Loeschcke 60), but typically Claudius–Nero

(pieces from Flavian Hofheim are then Claudian rubbish-survivals); here periods II–VI (one from pit H5, probably III). Little variation (and never stamped): type-example shows standard large size; small rather rarer: O & P 210–11, pl. LXXI, 1–5. The Flavian drooping flange (Curle 11) never occurred.

- s20. *Small bowl with flatly outcurved rim and hanging lip*: Ritterling 14.
On these plain South Gaulish precursors of the barbotined Dr. 35 and 36 (cf., too, 42) see O & P 192, 194, with pl. LIV, 5A. Very rare here as at Hofheim, they seem mainly Neronian: e.g. from ditch F6, period V; others (one barbotined) unstratified over (?from) period IV layer over ditch I.
- s21. *Conical cup*: Drag. 33, Ritterling 10.
s21A'. This hitherto unrecognized Arretine prototype (cf. *Haltern*, abb. 4, 9) is rare and not yet found in Britain: type-example from Xanten (Bonn Mus. 22530g, stamped L.S.G.); cf. *M.Z.* viii/ix, 73, abb. 8, 16; 128, abb. 3, 4, FELIX.FEC. But of s21A, more closely anticipating B in its slightly convex wall (cf. O & P, pl. LI, 2, non-sigillata, Mt. Beuvray), we have ten small fragments, one from pit H3, period I, the others mostly (but perhaps not all) rubbish-survivals, e.g. fig. 43, 26, period IV (with grooved wall). All are in poor provincial-looking Arretine.
s21B. The earliest South Gaulish form is still rare, as at Claudian Hofheim: of some half-dozen pieces, most are period VI, only one IV. Groove outside, offset inside, at top and bottom of wall: latter offset exactly as in Gallo-Belgic form 56 (p. 226), which is related (cf. A).
- s22. *Flat-bottomed plate with vertical wall*: Drag. 22/23.
One unstratified South Gaulish fragment, fig. 43, 24. Claudian: cf. O & P, pl. L, 6 (Ritterling 11A).
- s23. *Inkpot*: Ritterling 13.
Six South Gaulish fragments as O & P, pl. LXX, 3, Claudian at earliest.
- s24. *Lid*. Fig. 43, 25, early South Gaulish: poor but bright glaze.
- s25. *Strainer-bowl*. One large fragment in hard, pinkish ware with dark glaze, possibly Central Gaulish, from a small bowl of general form as shown fig. 50, 7 (p. 233). Region 5, unstratified.

Plain Terra Sigillata—Stratified Incidence of Forms

TABLE

Figures in heavy type 1, 2 indicate Arretine only.
 „ „ ordinary type 3, 4 „ Arretine and South Gaulish mixed.
 „ „ italic type 5, 6 „ South Gaulish only.
 * means 'actually more'
 ** „ 'actually much more'
 *** „ 'actually very much more' } if small fragments be included'.
 L. = Loeschcke. Dr. = Dragendorff. Ritt. = Ritterling.

Form	Period									Unstrati- fied	Total
	I	II	I-III	II-III	III	III-IV	IV	V	IV-VI and VI		
s1 (L.1, earlier)	1*	..	..	1*	2	2	1	2	1	9	19*
s2 (L.1, later)	5*	1*	2*	..	6	5	4	..	..	19	42*
s3, platter var.	..	..	..	..	..	..	..	1	..	..	1
s4 (L.2, Dr. 17)	7*	2*	..	..	19*	7	17*	..	3	34*	c. 30*+59*
s5 (L.5)	..	..	..	..	I	..	I	..	2	2	6
s6 (L.3, Dr.15/17)	2*	3*	..	..	17**	12**	143**	2*	14*	210*	c. 10+383***

Form	Period									Unstratified	Total
	I	II	I-III	II-III	III	III-IV	IV	V	IV-VI and VI		
s7 (L.4, Ritt.1)	..	..	..	..	1	I	I	..	4	10	1+16
s8 (Dr.18)	..	5	I	..	6**	12**	92**	3	35*	211*	365***
s9 (Dr.16)	..	..	..	..	..	I	4	I	3	12	21
s10 (L.7)	..	..	..	..	1*	1*	..	..	..	..	2*
s11 (L.8, Ritt.5)	6	4	..	..	17	11	25	9	13	70	c. 20+c. 135
s12 (L.9)	1	..	..	..	..	..	..	..	..	1	2
s13 (L.10)	1	..	..	..	..	1	..	..	..	1	3
{s14A (L. 11)	2	2	..	..	4	..	10	7	1	8	34
{s14B, c (Dr.27)	..	2	I	..	11*	7*	83**	2	38**	160**	304***
{s15A (L.12)	..	1	..	..	2	..	..	..	..	3	6
{s15B, c (Dr.24/25)	..	I	I	..	15*	7*	107**	3	52**	168**	354***
s16 (Ritt.8)	..	I	..	..	6	3	1+12	..	4	30	1+56
s17 (Ritt.9)	..	2	..	I	I	5	26	..	7	29	71
s18 (L.16)	..	..	..	..	1	1	..	..	..	7	9
s19 (Ritt.12)	..	3	I	..	..	5	16	I	16	43	85
s20 (Ritt.14)	..	..	..	..	..	..	..	3	I	5	9
{s21A (Dr.33 prot.)	1	..	..	..	..	..	2	..	1	6	10
{s21B (Dr.33)	..	..	..	..	..	..	I	..	4	..*	5*
s22 (Dr.22/23)	..	..	..	..	..	..	..	..	..	I	I
s23 (Ritt.13)	..	..	..	..	..	I	I	I	..	3	6
s24, lid	..	..	..	..	..	..	..	..	..	I	I
s25, bowl	..	..	..	..	..	..	..	..	..	I	I

Aggregate Totals

Arretine. About 190*, representing (quite approximately) some 250 vessels; 25* stratified in period I.

South Gaulish. About 1890***, representing (quite approximately) some 2,500 vessels; none stratified in period I.

The following conclusions may be drawn.

Arretine. Arretine ware is alone present in period I, and in post-conquest deposits is for the most part represented only by rubbish-survivals and an occasional 'heirloom'. Continental datings and typological evidence show the majority of the forms to be wholly pre-Claudian. These are therefore wholly pre-conquest imports to the site, and all are consistent with an opening date for period I late in the reign of Augustus. Any earlier date is ruled out by the absence of all near parallels with Oberaden, as against close correspondence with the later material at Haltern, followed by Tiberian developments. Our opening date about A.D. 10 is therefore unequivocally supported. For there is no evidence that the occupation antedated the importing of the earliest Arretine found, and the ware was evidently imported throughout the reign of Tiberius (A.D. 14-37). An increasing proportion of it, sometimes verging in character towards South Gaulish fabric, seems to have come from provincial workshops. But it had not yet been superseded here at the time of the conquest of A.D. 43.

The later Arretine platters s4 and s6, with the cups s11 and s14A and the rare s21A, show a small proportion of pieces which do not look necessarily like rubbish-survivals and

are not 'heirlooms', and yet come from post-conquest deposits. Now it is agreed that Arretine manufacture, wherever located, had ceased to sell to the provincial Empire before A.D. 50, and that it had lost the military market about A.D. 25. But its final loss of the civilian market has not hitherto been dated within this interval, and our evidence suggests that sales of these latest-lasting forms to the natives of Camulodunum may probably have continued into the first years of Claudius' reign, and even just survived the conquest into period III. This British outlier of the civilian market might well be among the last resources of a trade dying within the Empire, though the extension of the Empire to Britain would then quickly kill it altogether. That it was killed no later than these years is clear: the pieces in question here are only a small fraction of the total of Arretine found, and do not make the finds of these forms in post-conquest deposits absolutely more numerous than those of the rest. It is therefore probably safe to date the final extinction of Arretine business outside Italy about or soon after A.D. 45. There is nothing anywhere to suggest that it lasted later;¹ but since our series runs to the latest limit of normal Arretine typology, and since some five-sixths of our stratified total comes from post-conquest deposits, with 'heirloom'-survival as late as period VI, there is equally nothing to suggest it had ceased earlier. It had no doubt ceased by about A.D. 40 to deal in most of the standard forms; but after that, the few late platter and cup pieces just mentioned seem to represent a last flicker of the industry, in face of the overwhelming competition of the South Gaulish standard, to which the British market, till then an Arretine preserve, was released by the conquest.

Though the proportion of post-conquest to pre-conquest Arretine stratifications was five to one, the odds are at least twenty to one that any given Arretine piece here is in fact a pre-conquest import. This situation remains radically different from that presented by purely Roman military sites of the Claudian period such as Hofheim or Richborough, where no Arretine is known at all.² The reason can only be, as the potters' stamps will be found below to confirm, that the Arretine industry was not finally put out of the civilian business north of the Alps until some 20 years after it had been dropped by the military.³ Throughout, its import-rate at this site remained low. The total amount found represents only about 250 vessels, which have to be spread over some 35 years. The bulk appears to be Tiberian, corresponding to the heyday of Cunobelin's prosperity within period I. But some period I occupation-sites, all in the centre and south of the site, have little or none of it to show (e.g. sites Y1, L2, L6, L7: pp. 118, 122, 123), and its main

¹ In particular, Arretine is unknown from the Colonia site. Individual rarities of later date brought from Italy like the L. R. PISANVS piece from Cambridge (O & P 4, n. 2) are no evidence of regular business and are here disregarded.

² Cf. Pryce & Oswald, *Arch.* lxxviii, 74 ff., 98-100.

³ If the Arretine-fabric potters had ceased work altogether in the middle of Tiberius' reign when the Roman army dropped them, it would be scarcely possible to explain the amount of their products found here, on a site outside the Empire that had only then been some 15 years occupied, still less the five-to-one proportion of these from its post-conquest

deposits of Claudius' reign or later. Broadly speaking, Arretine imports into Britain must be regarded as ending with the conquest years. Thus there will be no need to propound a lower dating-limit as early as A.D. 30-5, or earlier than the conquest at all, for finds like group 'B' at Prae Wood-Verulamium (Wheeler, *Verulamium*, 153 ff.: cf. Myres, *Antiquity*, xii, 18). On the other hand, Pryce and Oswald's view (*Arch.* lxxviii, 74 ff.) that the remarkable Arretine series from London probably implies a pre-conquest settlement of continental traders is hereby in no way upset, but rather confirmed.

concentration (cf. p. 195) was in the northern and north-eastern regions down nearer the river, largely no doubt in the hands of the wealthier classes of the British inhabitants and the trading community. See also p. 285 for graffiti on Arretine found there.

South Gaulish. Standard South Gaulish ware was introduced at the conquest in appreciable bulk. As against its total absence from deposits of period I, nearly 20 pieces of Plain ware were found in the ditch I filling of period II. That this is because it was already on the site in quantity in the first months after the conquest, and not because that filling took any longer time to be deposited, is shown by the minutely small proportion the figure yet bears to the total amount found, which covers little more than 20 years. There are already well over 80 pieces stratified in period III, and the total amount represents some 2,500 vessels, or just about ten times the total amount of Arretine. Since its importation covers little more than half the time covered by that of Arretine, its average import-rate will for this site be nearly twenty times as great. And yet from the conquest onwards the site was no longer a capital but a secondary site. That the conquerors arrived with a full equipment of Sigillata, including a good proportion of already old pieces, has been shown from the Decorated ware above. An answering proportion cannot be closely calculated for Plain ware, but early features of form and fabric have been noticed which leave no doubt that it was appreciable, though the breakage-rate here will obviously be much higher. For the most part, then, the assemblage of forms is typical of the period of Claudius, as the close parallels with Hofheim show, and of Claudius-Nero, the latter having a well dated corresponding type-group near by in the Pottery-shop destroyed in the Boudiccan sack of the Colonia (p. 20), to which the range of forms in the answering period IV destruction-layers here is closely comparable. Flavian features not otherwise known to have been anticipated in pre-Flavian times are totally absent before the end of period VI, and Flavian pieces (e.g. of Dr. 18/31 and 33) from intrusive or superficial deposits have been excluded from consideration. This evidence then entirely agrees with a terminal date for the occupation about A.D. 65.

From the conquest onwards, the ware seems to have been in more or less general use, but its notable abundance on specifically Roman sites like site A1 shows that it shared something of the characteristic association displayed by the Decorated Sigillata (p. 180) with the dominant Roman element in the post-conquest population.

C. POTTERS' STAMPS ON TERRA SIGILLATA

ARRETINE WARE

On Arretine ware as defined above (p. 180) 55 recognizable potters' stamps were found (period I, 13; II, 4; I-III, 1; II-III, 1; III, 6; III-IV, 4; IV, 7; V, 1; VI, 1; total stratified, 38; unstratified, 17). The proportion from period I and so true to pre-conquest date is noticeable: in this rather friable ware, stamps easily vanish from rubbish-survival

pieces. The period V and VI specimens are both on 'heirloom' vessels. The list is as follows:

<i>Pl. XLI</i> <i>no.</i>	<i>Stamp (worn specimens</i> <i>restored if possible)</i>	<i>Form of vessel</i> <i>(L. = Loeschcke)</i>	<i>Notes</i> <i>(P. = fabric of</i> <i>provincial</i> <i>appearance)</i>	<i>Region</i>	<i>Deposit</i> <i>(if stratified)</i>	<i>Period</i>
1	AQ	s15A (L.12)	..	5	..	..
2	CN ATEI in trefoil	s4 (L.2)	..	1	Ditch I silt	I
42	CN ATEI	s11A (L.8b)	good glaze	1	Over ditch I	III
3	CN ATEI	s11B (L.8a)	..	1	Ditch I silt	I
4	CN ATEI	s11 (L.8)	..	1	Ditch I silt	I
	CRESTI (?)					
5	CN ATEI	platter	..	1	..	..
6	CN ATEI	platter	P.	4	Pit L15	IV
	ATEI Y (?)	cup	..	1	..	..
7	ATEI. circular	s11 (L.8) ?	..	4	Over pit D14	III
8	A[TE]I circular	s11 (L.8)	..	3	(Sand-pit)	..
9	ATEI. <i>retro</i>	s11 (L.8)	fine glaze (suggests P.)	1	Ditch I filling	II
43	ATEI. <i>retro</i> followed by rosette	s11 (L.8)	..	1	Over ditch I	IV
10	ATEI	s4 (L.2) ?	poor ware: P.(?)	1	Over ditch I	IV
11	[C]N[AT]EI. EVHO[DI] circular	cup ?	..	1	Ditch I filling	II
12	[CN ATE]I EVHOD[I] circular	cup	..	2	..	..
13	ATEI v. worn ←←←← XAN..	s4 (L.2)	P., rouletted wreath	1	Ditch I silt	I
14	[CN] ATE[I] framed [Z] OILI framed	s4B (L.2b)	..	1	Over ditch I	III
15	HILARVS	large platter	..	4	Top of pit L6	IV
	ATTI					
38	CR ...	platter	..	3	Ditch I filling in sect. 31, middle black layer	II-III
39	CRESTI	cup	shelving foot- stand in Italian manner	3	Site A1	IV
16	DIOME framed	s11 (L.8)	..	4	Over pit D14	III
17	FELII	s14 (L.11)	..	3	Ditch I filling	II
18	FONT	s11 (L.8)	..	2	..	..
19	FONT	s4B (L.2b)	..	4	Pit D14 bottom	I
20	::LEPIDI:: in swallow-tail label	s4 (L.2) ?	fine ware	1	Site F15 low level	I (?)
	Another, the same	s4 (L.2) ?	thin, good ware	3	..	..
21	M P S in trefoil	flat-based cup	..	1	Site F15 upper level	(I ?)- III-IV
22	ROMVLVS	s4 (L.2) Graffito	P. ? thin ware S1 or IS be- neath	1	Site F17	III-IV
23	C SENTI	s4 (L.2)	good ware	1	..	..
24	C SENT	s4 (L.2)	good, hard glaze	1	Pit F10 filling	IV
25	C VIB framed	s12 (L.9)	..	2	Site E1	I

<i>Pl. XLI</i> <i>no.</i>	<i>Stamp (worn specimens</i> <i>restored if possible)</i>	<i>Form of vessel</i> <i>(L. = Loeschcke)</i>	<i>Notes</i> <i>(P. = fabric of</i> <i>provincial</i> <i>appearance)</i>	<i>Region</i>	<i>Deposit</i> <i>(if stratified)</i>	<i>Period</i>
40	VITLI framed	sII (L.8)	..	I	Pit H12 at 5 ft.	I-III
26	XANTH	sII (L.8)	..	I	Over ditch I	III
	XAN[NTHI] external in ansate label	crater, Dr. II (p. 169)	As Oxé, <i>Arr.</i> , taf. X, 33 (cf. XX, 93-4)	I	Occup.-layer nr. ditch IIa	I
	XANTH (?)	sII (L.8)	..	2	..	..
27	XAN[NTI] (?)	?	..	2	..	..
28	XANTI in swallow-tail label	s4B (L.2b)	..	3	Site A3	VI
29	XANTI	s4 (L.2)	..	4	Pit D14 low level	I
41	XANTHI circular	?	..	I	..	..
30	XANT ..	s4 (L.2)	..	4	Pit D11 low level	I
31	[...XA]NTH in trefoil	s4 (L.2)	fine ware	I	Ditch I silt	I
32	X.... preceded by rosette	platter	..	3	Over ditch I	III-IV
33	X....	platter	..	2	..	..
34	X....	s4B (L.2b)	..	I	Ditch I filling	II
	[...C] IAVSF	flat-based cup	..	I	Over ditch I	III
35	Doubtful: perhaps HIL[ARI] (?) (?: cf. 15) OFFATT in beaded label	sII (L.8) ?	..	I	Site F11	I
	Another, possibly same stamp	sII (L.8)	..	3	..	..
36	... ANI or [RV(?)]FINI	platter ?	..	4	..	..
37	OFIENI	sII (L.8)	P. (?)	3	Over ditch I	III-IV
	Badly worn: prob. ATEI· XANT	platter	..	I	Ditch I silt	I
	circular					
	Uncertain, in trefoil: ...ZOIL (?)	platter	P. (?)	3	..	..
	MIV ... (?)	cup	..	3	..	..
	XT ... (?)	sII (L.8)	..	I	Site F3, upper level	IV
	Illegible: 2 lines in circular frame	sII (L.8)	..	I	..	..
	Illegible: 2 lines	s3	..	I	Ditch F5, bottom of filling	V

Notes on the Potters (C.I.L. xiii, 10009 is cited as C.).

1. AQ. Unless this is for Aquillus (*Haltern*, 168, no. 12), it suggests that the South Gaulish potter Aquitanus of La Graufesenque (p. 196, nos. 48-51 and Oswald, *s. v.*) began as a maker of Arretine.

2-14, 26-34, 36(?), 38-9, 42-3. ATEIVS, with CRESTVS, EVHODVS, XANTHVS, ZOILVS. On this firm see *Haltern*, 128 ff.; O & P, 5-10, 273; *Arch.* lxxviii, 74 ff.; and (most recent) Oxé, *Arr.* 6-7, 36 ff. Cn. Ateius, established at Arretium in the late 1st century B.C., extended his business by setting up, between about A.D. 1 and 10, provincial workshops managed by Greek freedmen. These were probably on the Rhine or at least were nearer to it than South Gaul. Some of their output was stamped with Ateius' name alone, as was normal at the parent factory (nos. 2, 3, 5-10, 42-3), but often the freedman's name appears with it (nos. 4(?), 11-14), less often (as early as this) alone. Their fabric rarely shows any provincial divergence from the Arretine norm (nos. 6, 9, 10). They came to an end soon after A.D. 20—Oxé thinks in consequence of the Gallic rebellion of A.D. 21; and thereafter some of the freedmen worked independently. Xanthus (nos. 26-34) and Zoilus returned to Arretium, where Zoilus, as also Ateius himself, disappears by A.D. 30. Crestus perhaps migrated to South Gaul: his Arretine output (nos. 38-9; and at

Neuss after *c.* A.D. 25) had given place, before the end of Tiberius' reign, to a standard South Gaulish fabric (p. 196, nos. 71-4).

Of our 11 Ateius stamps, none need antedate the provincial workshops, from which most, probably, come (e.g. none are radially placed in the earlier Italian manner); thus, with the 6 (or at least 4) Ateius-cum-freedman stamps, they will cover the period A.D. 1/10 to 20/30, and nearly all are more or less closely paralleled at Haltern. Crestus sole (2 stamps) and Zoilus sole (? 1 stamp) are absent from Haltern and will be mid-Tiberian. The 12 (?14) stamps of Xanthus sole, who only just appears at Haltern (in forms not paralleled here), need be no earlier, and may all belong to his Italian period, which need not have ceased long before A.D. 40.

15 (and 35?). **ATTIVS**, with slave **HILARVS**. P. Attius' main factory was in north Italy (Cisalpine Gaul), beginning in the late first century B.C. But stamps coupling his name with a slave's (distinguished, as generally, by the nominative case) only occur outside Italy and not before Haltern, where our no. 15 is paralleled (172, no. 119; also *C.* 58, Langres; and at Köln, *Oberaden*, 61). Hilarus and his fellow Antigonus thus probably managed provincial workshops, contemporary with those of the Ateius firm (so Oxé, *Oberaden*, 49).

16. **DIOMEDES**. In the late first century B.C. a slave, then freedman, of A. Vibius of Arretium (*Oberaden*, 56-7, no. 42, with others cited; 60-1, Sels); subsequently, the Vibius business having broken up (see on no. 25), he stamped alone, and this example is paralleled at Haltern (175, no. 33; and see *C.* 107).

17. **FELIX**. A potter of Puteoli, perhaps at first slave of Naevius or another (see on no. 40): this form of his independent stamp appears (doubled) at Haltern (175, nos. 135-6, taf. xxviii). He subsequently migrated to South Gaul (O & P 10: Oswald, *s.v.*) and set up as a producer of standard South Gaulish ware (cf. p. 197, no. 78).

18-19. **FONTEIVS**. Absent from Italy, plentiful in Gaul and Germany (*C.* 130), always on L.8a=our **SI I**, as, e.g., at Xanten and Haltern (175-6, nos. 137-44). So doubtless a provincial potter (? of South Gaul; *Haltern*, 176).

20. **LEPIDVS**. While two-line forms of his stamp occur, e.g., at Rome (*C.I.L.* xv, 2, 5282), this swallow-tail form is paralleled at Sels (Oswald, *s.v.*) though not at Haltern: it may thus be mid-Tiberian at earliest (cf. no. 28).

21. **M.P.S.** Not at Haltern, but *C.* 184 gives, e.g., Neuss (after *c.* A.D. 25), Vechten, Xanten; always in trefoil.

22. **ROMVLVS**. Seems not previously recorded on Arretine ware.

23-4. **C. SENTIVS**. Established at Arretium in the later first century B.C., when, however, dated stamps from Mt. Beuvray, Basel, and Oberaden are different from ours (*Oberaden*, 54, no. 28). Of the 12 at Haltern (182, taf. xxix), nos. 195-6 and 197-8 come nearer respectively to our 23 and 24, but among the many others known (*C.* 231) 23 has an exact counterpart at Neuss (i.e. after A.D. 25), 24 one in Wiesbaden Mus. (? late Augustan or Tiberian). Under Tiberius the firm probably migrated to La Graufesenque, its name being thenceforward frequent on standard South Gaulish ware (Oswald, *s.v.* *Sentvs—sic*).

25. **C. VIBIVS**. Stamps of the Vibii of Arretium were absent from Haltern, not necessarily (pace L., *Haltern*, 186) because too early, but perhaps because excluded by provincial (e.g. Ateius') products: **C.VIB** occurs at Vechten (*C.* 295) and Vindonissa (*Germania* xi, 5), and this Vibius migrated under Tiberius to produce standard South Gaulish ware at Montans (Oswald, *s.v.*). Our stamp being on the rare cup **SI 2** (p. 186) is probably Italian of the Haltern period.

40. **VITLVS** (=Vitulus). A slave of the Puteolan Naevius (*Haltern*, 178, no. 107, **VITLVS/NAEV**), who then became independent (our stamp); subsequently he turned over to South Gaulish ware, this transition being marked by the platter and bowl Dr. 29 stamped **VITLVS** from Silchester (O & P 5, n. 3, 9-10): these are still Tiberian, and our stamp should be mid-Tiberian.

Conclusions

None of these stamps need be (and few could be) earlier than Haltern; of the potters unrepresented there, Crestus sole, M.P.S. and Vitlus are later, Lepidus perhaps later. 22 to 25 out of the total of 43 or 44 intelligible stamps are of potters represented there other than Xanthus sole. The latter, with 12 to 14 stamps here, is recognized to be almost entirely later; of the rest, Zoilus sole also continued later, the Ateius firm as a whole slightly later, while Felix and C. Sentius, together with Crestus sole, C. Vibius and Vitlus who are absent from Haltern, continued and then (certainly or probably) turned over to standard South Gaulish ware. The stamps thus cover late Augustan and Tiberian times and extend to the very end of the Arretine industry's regular business with the provinces. It may be added that the later stamps do tend to appear more often in the later deposits, as might be expected from our previous findings about survival.

The production-centres represented include Arretium and Puteoli in Italy, the Rhine-ward-Gaulish establishments of the Ateius firm and their like, and other provincial workshops probably in South Gaul. It was from among the latter, when the provincial activity of the Ateius group gave out in consequence of the A.D. 21 rebellion, that the standard South Gaulish industry sprang, gradually winning recruits from the older trade, especially from Italy. Our series is of particular interest for its reflection of these developments in the industrial history of the Empire.

As for the ware's local distribution here, its great concentration in the northern and north-eastern parts of the site is noticeable. Out of the total of 55 stamps, regions 1 and 2 account for 35, and the 8 from region 4 all come from the northerly part of it. Region 3 has only 11 stamps, region 5 only 1, region 6 none. The distribution on the site of Arretine ware generally (p. 191) agrees with this bias, and suggests that the wealthier and more commercially active sections of the pre-conquest population tended to concentrate on the lower ground beside the river, up which the continental imports must have been brought.

ON SOUTH GAULISH WARE

The earliest Sigillata produced in South Gaul has been shown to fall—whether recognizably or not—into the provincial Arretine category already considered.¹ On standard South Gaulish ware as defined above (p. 180) the site produced 277 recognizable potters' stamps,² all those stratified being in post-conquest deposits of periods II to VI. The whole series may thus be reckoned Claudian–Neronian. The great majority are of potters already known to have been at work in either or both of these reigns, and so listed in Oswald's *Index* (p. xviii), reference to which for these is here made once and for all. Oswald's dating holds good for all stamps in the ensuing list not marked *; notes on those so marked will be found below.

The series is of interest mainly as a single whole, and detailed statements of provenience here are therefore unnecessary. Only two have a period II stratification, nos. 128

¹ See further Oxé, *Frühgall.* (p. xviii), 1–2. In his view abandonment of Haltern in A.D. 16.
ware of this kind was being produced at Montans before the

² On no. 179 see note on Tertius below, p. 200.

(Masclus) and 163 (Scotius/Scotnus), from ditch I filling in regions 1 and 3 respectively; the latter is on cup form s14B = Dr. 27, of fabric still showing Arretine influence (sc. of Tiberian date). In distribution the stamps agree with the South Gaulish ware generally (pp. 180, 191), and thus make a marked contrast with those of Arretine ware.

The list is as follows:

<i>Pl. XLII</i> <i>no.</i>	<i>Stamp (restored if possible)</i>	<i>Potter's name</i>	<i>Factory site, if known: LG = La Graufesenque M = Montans B = Banassac L = Lezoux</i>	<i>Period, if known: T = Tiberius C = Claudius N = Nero V = Vespasian D = Domitian</i>	<i>Form of vessel</i>
44	OAC	Acutus	M	T-N	s15, Dr.24/25
45	ALBVSFE	Albus	LG	C-N	s6, Dr.15/17
46	AMABI[LIS]	*Amabilis	..	..	?
47	OFAMAN	Amandus	LG, M	T-V	s14B, Dr.27
48	OF·AQVITANI	Aquitanus	LG	T-N	Dr.29 (pl. xxviii, 1)
49	OF·AQVITANI	"	"	"	platter
50	AQVIT...	"	"	"	s17, Ritt.9
51	..AQVITANI	"	"	"	s8, Dr.18
	AQVITA...	"	"	"	platter
52	[OFI]CARDACI	Ardacus	LG	T-C	s4, Dr.17
53	OIIARDACI	"	"	"	s8, Dr.18
54	[O]FARDACI	"	"	"	platter
55	OF·ARDACI	"	"	"	s8, Dr.18
56	OFARDACI·	"	"	"	platter
57	OF·ARDACI·	"	"	"	Dr.29(pl.xxxiv,18)
58	OF·ARDACI[.]	"	"	"	"
59	OF·ARDACI	"	"	"	"
60	OARDAC	"	"	"	platter
	[... AR] DAC	"	"	"	cup
	ARDAC	"	"	"	"
	AR[DAC..]	"	"	"	s15, Dr.24/25
61	AVE	'Ave Vale'	B	T-N	s15, Dr.24/25
62	BASSVS	Bassus	LG	T-V	s14, Dr.27
	BASSIO (?)	"	"	"	s17, Ritt.9
63	[OFI]CBILICAT..	Bilicatus	"	T-C	platter
64	OF·CALVI	Calvus	"	N-V	s6, Dr. 15/17
65	CAPITOF	Capito/Capitus	..	C-N	s15, Dr.24/25
66	CENNATI	Cennatus	..	C-V	platter
67	CENNAT..	"	..	"	s8, Dr.18
68	COCVS	Cocus	LG, B	T-N	s14, Dr.27
69	COCI OFIC	"	"	"	Dr.29 (pl. xxxiv, 9)
70	COSIVS·VRAP	Cosius, slave of Vrappus	LG	N-V	s14, Dr.27
71	CRESLI <i>retro</i>	Crestus	LG	C-V	s14, Dr.27
72	OF·CRESTIO	"	"	"	Dr.29 (pl. xxix, 1)
73	OF CRESTIO	"	"	"	platter
74	OF CRESTIO	"	"	"	Dr.29 (pl. xxviii, 2)
	OF CRESTI..	"	"	"	s6, Dr.15/17
	[.. C]RESTI	"	"	"	" "
75	DAMO...	Damonus	"	C-N	platter

<i>Pl. XLII</i> <i>no.</i>	<i>Stamp (restored if possible)</i>	<i>Potter's name</i>	<i>Factory site, if known: LG = La Graufesenque M = Montans B = Banassac L = Lezoux</i>	<i>Period, if known: T = Tiberius C = Claudius N = Nero V = Vespasian D = Domitian</i>	<i>Form of vessel</i>
76	DAMONVS	Damonus	LG	C-N	s14, Dr.27
77	DARR[A]F	Darra	"	"	s15, Dr.24/25
78	FELICISMA	Felix	M, LG	C-V	Dr.29
	FELICISMA } same matrix	"	"	"	"
79	OFIFIRM	Firmus	LG, M	C-D	cup
80	OFFIRMO	"	"	"	s15, Dr.24/25
81	OFIRM..	"	"	"	"
82	FLORV..	Florus	M	C-N	s6, Dr.15/17
83	FORTIS..	*Fortis	..	(-N)-D	platter
84	OF INGE	Ingenuus	LG	T-N	s14, Dr.27
85	OFING	"	"	"	s15, Dr.24/25
86	INGENVI	"	"	"	s16, Ritt.8
	INGENVI } same matrix	"	"	"	s15, Dr.24/25
87	LABIO	Labio	LG	C-N	s14, Dr.27
88	LARTIMA	*Lartius	(L ?)	C-N	s6, Dr.15/17
89	LAVRIO	Laurus	..	N-V	s17, Ritt.9
	LAVRIO } same matrix	"	..	"	s15, Dr.24/25
90	LEUIIOZ	*Leueos (?)	..	(-N-)	s17, Ritt.9
91	LIBERTVS	Libertus	LG	N-V	s14, Dr.27
92	LIBNVSFE	*Libnus	"	T(-C ?)	?
93	OF LICINI	*Licinus	LG	C(-N ?)	s8, Dr.18
94-6	OF LICINI	"	"	"	platters
97	OF LICINI	"	"	"	s8, Dr.18
98	OF LICNI	"	"	"	platter
99-101	OF LICN (3 variants, 7 stamps in all)	"	"	"	{ s14, Dr.27 (4) s15, Dr.24/25 (2) cup (1)
102	LICINVS•F	"	"	"	s6, Dr.15/17
103	LICINVS•F	"	"	"	Dr.29 (pl. xxxi, 1)
104	LICINVSFE..	"	"	"	platter
105-7a	LICINVS (3 variants, 9 stamps in all)	"	"	"	{ s6, Dr.15/17 (2) s15, Dr.24/25 (2) platters (4), Dr.29
108	LICIN }	"	"	"	s14, Dr.27
	LICIN } same matrix	"	"	"	" "
109	LICNI (4, all same matrix)	"	"	"	{ s14 (2); s15, Dr. 24/25; s6, Dr. 15/17
110	LICN (3, all same matrix)	"	"	"	{ s14, Dr.27 (2); s16, Ritt.8
111	LICNVS..	"	"	"	s15, Dr.24/25
112	LICNVS	"	"	"	s14, Dr.27
113	[L]IC[N]VS	"	"	"	s15, Dr.24/25
114	OFLVCCEI	*Lucceius	"	(N-V)	s6, Dr.15/17
115	OFLVCCE[1]	"	"	"	Dr.29
116	OFLVC	"	"	"	s14, Dr.27
117	OFMACCAR	*Maccarus	"	T-N	s16, Ritt.8
118	MACC...	"	"	"	s4, Dr.17 (?)

<i>Pl. XLIII</i> no.	<i>Stamp (restored if possible)</i>	<i>Potter's name</i>	<i>Factory site, if known: LG = La Graufesenque M = Montans B = Banassac L = Lezoux</i>	<i>Period, if known: T = Tiberius C = Claudius N = Nero V = Vespasian D = Domitian</i>	<i>Form of vessel</i>
119	.. MACCARI	*Maccarus	LG	T-N	s15, Dr.24/25
120	.... CCARI	"	"	"	platter
121	OFI·MACCA MAC	"	"	"	Dr.29 (pl. xxiv, 2)
122	MĀNERTVS·F	Manertus	"	C-N	s15, Dr.24/25
123	MARNIVSF (sic)	*Marinus	"	N-V	Dr.29
124	MA[RNI]VSF (sic: seems same matrix as 123)	"	"	"	platter
125	MARS MARSI	*Marsus	..	C-V	"
126	OFI·MART·IAL	*Martialis	LG	(C-)D	sgB, Dr.16
127	OFMĀSCI	*Masclus	LG	C-V	s6, Dr.15/17
128	OFMĀSCI MĀ[SCL]VS F (?) MEDIL...	"	"	"	s15, Dr.24/25
129	OFMĒM	*Meddillus	"	(C-)V	?
130	OFMODES	Memor	"	C-V	platter
131	OFMODE OFMODE	Modestus	"	C-N	s14, Dr.27
132	MODE	"	"	"	s15, Dr.24/25
133	MODE	"	"	"	s15, Dr.27
134	.... DES	"	"	"	"
135	OF·MVRRĀN OF MVRRĀN	Murranus	"	C-V	s6, Dr.15/17
136	OF·MVRRĀ[N]	"	"	"	"
137	OFMVRRĀ.. OFMVRRĀN (2)	"	"	"	platter
138	..... RĀN	"	"	"	s8, Dr.18
139	OFMVRR.. OFMVR...	"	"	"	"
140	NESTORFEC	*Nestor	"	(C-)V	platter
141	NOIOBITO	*Noiobitus	LG (?)	(-C)	s14, Dr.27
142	OF	?	..	..	s8, Dr.18
143	PAESTO	Paestor	..	C-	s6, Dr.15/17
144	O PASEN	*Passenus	"	(C-)V	?
145	PAS...	"	"	"	s16, Ritt.8
146	□PRIMIMĀ	Primus	M, LG	C-V	s15, Dr.24/25
147	PRIMIMĀ	"	"	"	Dr.29 (pl. xxx, 1)
148	OFICPRIMI } same OFICPRIMI (2) } matrix	"	"	"	s15, Dr.24/25
149	OFPRIMI O[F]P[R]IM (?) PRIM (?)	"	"	"	s6, Dr.15/17
150	PRIMI PA...	*Primus & Pater	LG (?)	(C-N)	s14, Dr.27
151	RECENV...	Regenus	LG	C-N	platter
152	REC ENV..	"	"	"	s6, Dr.15/17
					large platter

<i>Pl. XLIII</i> no.	<i>Stamp (restored if possible)</i>	<i>Potter's name</i>	<i>Factory site, if known: LG = La Graufesenque M = Montans B = Banassac L = Lezoux</i>	<i>Period, if known: T = Tiberius C = Claudius N = Nero V = Vespasian D = Domitian</i>	<i>Form of vessel</i>
153	ROGATI•OF	Rogatus	LG	T-C	s8, Dr.18
154	ROGATI ROGAT... (?)	"	"	"	s15, Dr.24/25 "
155	RO....	"	"	"	?
156	RVFI	*Rufus	LG, M	(C-)V	s14, Dr.27
157	OSABI	Sabinus	"	N-D	"
158	C•SALARI•AR..	C. Salarius Artus (?)	LG	N	platter
159	SAMOS F SAMO (?)	*Samos "	LG "	(C-N) "	" s14, Dr.27
160	SCOTNS	Scotius/Scotnus	"	T-N	platter
161	SCOTNS	" "	"	"	s6, Dr.15/17
162	SCOTNVS	" "	"	"	Dr.29 (pl. xxxv, 7)
163	SCOTN..	" "	"	"	s15, Dr.24/25
164	SCOTN..	" "	"	"	platter
165	SCOT...	" "	"	"	"
166	[SC]OTIVS	" "	"	"	s14, Dr.27
167	SCOT...	" "	"	"	platter
168	SCOT...	" "	"	"	"
169	SECYNDI	Secundus	LG	C-V	s15, Dr.24/25
170	SEMICIOF..	Senicio	"	T-C	Dr.29
171	SENICIO	"	"	"	s15, Dr.24/25
172	SE[N....] (?)	" (?)	"	" (?)	Dr.29
173	SENILIS	Senilis	"	N-V	s14, Dr.27
174	SENO	Cn. Seno	"	C-V	s14, Dr.27
175	SILAN SIJAN	*C. Silanus "	LG "	(C-V) "	s15, Dr.24/25 s14, Dr.27
176	SILVINI	Silvinus	"	C-D	"
177	TÁVDACII	(T.) Audax (?)	"	T-C (?)	"
178	ŦERTIVSF (3)	*Tertius	LG, M	T-D (?)	platters
179	TER....	"	"	"	s14A, L.II
180	VOLVS (3)	Volus	LG	T-C	{s6, Dr.15/17 (2); s14, Dr.27
181	VOL..	"	"	"	platter
182	ILDO or ICDO } or LDO or CDO }	*Ildo (?)	"	(-N-)	s14, Dr.27
183	... ESTVS	?	"	"	?
184	COLIVBIC (sic)	?	"	"	s15, Dr.24/25
185	MV VAD (sic)	?	"	"	"
186	cmoE (sic)	?	"	"	"

And 46 other unintelligible stamps.

Notes on the Potters

46. *Amabilis*. Either O.'s L. Iulius Amabilis or another of South Gaul: rare and hitherto undated within the first century.

82. *Florus*. O. says Domitianic, but on slight evidence: here period IV.

83. *Fortis*. Not Fortis of Lezoux: must be reckoned a new South Gaulish potter.

88. *Lartius*. If really of Lezoux (O.) is the only Central Gaulish potter present: period IV.
90. *Leueos* (?). Previously unrecorded: period IV-VI.
92. *Libnus*. Dated by O. only from Tiberian Dr. 29 from Eppesheim in B.M. (Walters, *Cat.*, 45, M5): here period IV-VI, so ? at least as late as Licinus.
- 93-113. *Licinus*. As well as the 35 stamps listed, at least 10 Claudius classed as 'unintelligible' are probably also his; he is thus the most plentifully represented potter on the site.
- 114-16. *Lucceius*. O. dates Flavian, Knorr (*K.*, p. 7) A.D. 60-75; but no. 116 is on a cup s14 (Dr. 27) still close to L.11 in form, no. 114 on an early type of s6 (Dr. 15/17) base, both (and no. 115) of period IV: his initial date is thus Claudian at latest.
- 117-21. *Maccarus*. Nos. 118-20 are on vessels still close to Arretine in fabric, 118 being of period III: O. gives Tiberius as initial date, so these belong to this potter's earliest period.
- 123-4. *Marinus*. O. assigns the similarly mis-spelt form 'Marn' (*sic*) to a Marinus of Lezoux (?), Flavian (?), but our stamp is evidently of Marinus of La Graufesenque.
125. *Marsus*. Both our stamps period IV and on vessels Claudian at latest in form, thus correcting O.'s date 'Nero-Vespasian' to Claudius-Vespasian.
126. *Martialis*. On s6 (Dr. 15/17) with rouletted wreath, period IV-VI: O. dates Flavian, but initial date should thus be Claudius.
- 127-8. *Masclus*. Since no. 128 is of period II (pp. 195-6), this cannot be the Domitianic Masc(u)s, but rather a Claudian stamp of Masclus.
- Meddillus*. On a false-handled s15 (Dr. 24/25), so date should be Claudius-Vespasian rather than O.'s 'Nero-Vespasian'.
140. *Nestor*. Here period IV: O. says Nero-Vespasian, but his Colchester example is from the definitely Claudian grave-group May, *Cat.*, 251, grave 3, and none of the others need be later.
141. *Noiobitus*. Rare (Trion once, Vertault twice), here period IV: seems Claudian at latest, probably of La Graufesenque.
- 144-5. *Passenus*. O. says Nero-Vespasian, but no. 145 is on a Dr. 29 with ornament apparently Claudian (pl. xxx, 1).
150. *Primus and Pater*. Rare (only Trion once): here period IV-VI, so definable as Claudius-Nero, and is probably of La Graufesenque.
156. *Rufus*. Period IV: on a base of s14 (Dr. 27) still Arretine-like in form, so O.'s initial date Nero should be Claudius.
159. *Samos*. New form of this name: period IV, so now datable Claudius-Nero.
175. *Silanus*. Unstratified, but date more probably Claudius-Vespasian than O.'s Flavian (cf. association at Stephensfeld, *Ber. R.-G. Komm.* vii (1915), 207-8).
- 178-9. *Tertius*. No. 178, period IV; no. 179, period VI; and on a Dr. 27 base which on form and fabric can only be classed as s14A, L.11, i.e. indistinguishable from (provincial) Arretine (p. 186: so classed in table, p. 189). Thus O.'s initial date, Tiberius, is confirmed in a manner indicating that this potter began work in the Arretine tradition, like Aquitanus (?), Felix, C. Sentius, C. Vibius, and Vitlus (pp. 193-4), though he soon turned over to standard South Gaulish ware.
182. *Ildo* or *Icdo* (?). Here period IV: occurred thrice in the Colonia pottery-shop (*E.A.S.T.* xix, 283, fig. A, 7; and has occurred elsewhere in Colchester), so is at any rate Neronian. Reading difficult: the initial I may possibly not be a letter, but Ildo seems the most probable.

Conclusions

South Gaulish potters entirely (see only no. 88, ? Lezoux) excluded Central Gaulish from the site in our period. Two new potters are recorded (nos. 83, 90), and a number of others either dated for the first time or furnished with initial dates earlier than those

hitherto recorded. The continuity of the standard South Gaulish industry with the provincial Arretine tradition is further confirmed from the cases of Maccarus, Rufus, and Tertius.

D. LAMPS AND 'SAINT-RÉMY' WARE

Lamps (pl. XLIV) were scarce: none were pre-conquest in stratification, and all are of types current in Claudian times. The majority are certainly imports, but a few look like local imitations, and a fragment (nozzle portion) of a mould for Wheeler type I was found in region 6, of the same yellow-buff ware as mentioned below.

*Wheeler type I*¹ (Ritterling 35), with voluted angular nozzle. Nos. 1–2 are fragments in creamy ware, formerly colour-coated. The complete lamp 3, from an unknown Colchester grave (C.M., Joslin Coll.), is from the same mould (galloping horse) as 4: these and another, not colour-coated (also C.M., Joslin Coll.), are in yellow-buff ware, very possibly locally made. Almost certainly locally made, in hard rough dull-red ware, are 5 and 6 (latter with Minerva: another fragment with the same). In creamy ware again are 7 (pale, traces of light-red coating: Mars defending ? rampart), 8 (yellowish, soft: traces of draperies), and 9 (almost white, traces of dark chocolate coating); 10 (trophy of arms) is hard buff, with red coating.

Wheeler type II (Ritterling 36), with voluted rounded nozzle. Nos. 11 (orange-buff), 12 (nearly white), and 14 (soft creamy: gladiatorial combat), all with reddish coating, 14 still with 'varnish' glaze; also perhaps 15 (hard creamy, same coating: bird in tree, very sharply moulded) and 16 (same ware: floral wreath). 17 is in white ware: ? type.

To the unvoluted type Ritterling 37, rare pre-Flavian prototype of Wheeler type IV,² belong 13 (creamy white, no coating: ovolo round shoulder; nozzle sawn off in antiquity) and possibly 18 (creamy, red-coated: cruder ovolo).

These finds were too few for their distribution to be very significant: stratified specimens were 2, 9 (period III), 4 (III–IV), 8 (IV), 11 and perhaps 14 (VI).

'*Saint-Rémy*' Ware (fig. 44). This rare pale ware with vitreous glaze from Central Gaul, dated in general Augustus–Claudius, was represented by a few fragments.³



FIG. 44. 'Saint-Rémy' ware. Scale $\frac{1}{2}$.

Fig. 44, 1. Part of a bowl of form resembling Dr. 29 but with torus moulding replaced by a

¹ R. E. M. Wheeler, *London in Roman Times* (London Mus. Cat. 3, 1930), 62 ff., based on Walters, *B.M. Cat. Lampen aus Vindonissa* (Zürich, 1919).

² Type II in Loeschcke, op. cit.

³ For previous Colchester finds of this ware see May, *Cat. Lamps* (1914). His types I and II are I and IV in Loeschcke,

bead-row, with large gadroons below and traces of continuous arcading above, all moulded in high relief; ware hard, nearly white, glaze yellow-brown. Cf. Déchelette, *Vases*, i, 47, figs. 34-7 and mould for just this type. Unstratified, region 5.

Fig. 44, 2. From the rim of a hemispherical bowl of 9-10 in. diameter. Decoration in high but not sharp relief, upper band of chevrons between horizontal ridges, simple loose scroll below; two shallow flutings inside plain lip. Ware hard, pale yellow; glaze thick, almost olive-green. Well H2 (region 1), below 6 ft. 6 in.: Period IV at latest.

Other finds were the base of a small yellow-glazed bowl, and part of a small lion-phial, exactly as from the Claudian Colchester grave 3: May, *Cat.*, pl. LXXV, 3^b.

E. UNGLAZED POTTERY

(i) GENERAL SURVEY

The site has in these excavations produced over 40 tons of unglazed pottery. When classified, this mass of material reveals the interaction of two at first distinct traditions of pottery-making, one native, for the most part derived from the late La Tène culture of the Belgic invaders of the first century B.C., and the other continental, imported from the romanized provincial areas of Gaul and the Rhineland. That interaction led at last to the emergence of the standard range of Romano-British pottery as we know it in the Flavian period. To study the whole complex process is in fact to work in detail through the links binding the Romano-British ceramic tradition to its two sets of origins in pre-Roman Britain and contemporary Roman Europe. The material is thus highly significant as reflecting the cultural fusion inherent in Romano-British civilization.

We have classified it throughout by form. The forms have been arranged under type-numbers, from 1 to 275 (it has been convenient to leave certain gaps which can accommodate later additions), and the ware or wares in which each form was made will be specified in the course of description. The main fabrics or groups of wares will therefore first be reviewed in general survey.

Gallo-Belgic and other Roman Wares

Gallo-Belgic. Gaulish imitation of Italian glazed pottery began in the Mediterranean south, where from the third century B.C. Campanian ware, and from the first century B.C. Arretine Sigillata, were locally rendered and the results in the latter century passed on to Central Gaul. There the pottery of Gergovia¹ and Mont-Beuvray² shows not only southern imports but further local renderings of such forms as platters and butt-shaped beakers. The material is mostly either burnished dark-faced ware or paler fabric often coated with a red slip imitating Arretine glaze. The military designs of Augustus against Germany then carried the demands of romanization in a special form to the Belgic province on the north-east, and the result was the distinctive industry best described as

95-7, with general account (based on Déchelette, *Vases*, i, 47-63), and note of other finds: for Britain, add to May, *Silchester*, pl. XL A, 49-51 now *Antiq. Journ.* x, 161-2 (Bapchild); specimens in B.M. (Walters, *Cat.* K. 65-75) include another jug from Colchester (cf. *R.B. Guide*, 119); all no doubt early post-conquest imports.

¹ *Arch. Journ.* xcvi, 52 ff., 63 ff.

² Déchelette, *Manuel*, iv, 987 ff., summarizing Bulliot, *Fouilles du Mont-Beuvray* (1895) and *Album* (1899), and Déchelette, *Fouilles du Mont-Beuvray* (1904); material in Autun and Saint-Germain museums.

Gallo-Belgic.¹ Its main object was the imitation of Arretine. At Oberaden around 10 B.C. it is only just beginning,² but it took shape in the years immediately after, and in the next half-century its products were spread from the western Alps to the Netherlands,³ and from sites like Vertault just short of the Belgic border to the Roman outposts beyond the Rhine. Among its centres of production we know of Vertault (Côte d'Or),⁴ Villeneuve-au-Châtelet (Aube),⁵ Bussy-le-Repos (Yonne) and Bergères, Champillon, Courmelois, Fontaine-Denis, La Prosne, Morains, Sept-Saulx, Thuisy (Marne)⁶, Lavoye (Meuse),⁷ Bavay (Nord),⁸ Trier, Karden, and Kobern on the Mosel,⁹ and Weisenau,¹⁰ Friedberg,¹¹ Remagen,¹² Bonn,¹³ and Xanten¹⁴ in the Rhineland. The industry is further documented by the excavated sites of Haltern (late Augustan-early Tiberian),¹⁵ Nijmegen-Hunnerberg (thence to Nero),¹⁶ and Hofheim (Claudian),¹⁷ from many finds at big centres like Trier, Mainz, and Köln, and from numerous dated graves in the Marne, Saar, and Middle and Lower Rhine districts.¹⁸ There is thus a fair amount of evidence for its chronology through the Augustan, Tiberian, and Claudian periods; after about A.D. 50 it declined before the intensive competition of Gaulish Sigillata, the manufacture of which indeed presently arrived (at e.g. Lavoye and Trier) to take its place, and from sites occupied down to 69/70 its tradition can be seen merging into the ordinary Rhineland

¹ The ambiguity of the German term *Belgische Ware* or *Gefässe*, applied to this ware first by Dragendorff (*Mitt. der Alt.-Komm. f. Westfalen*, iii, 79), was rightly pointed out by G. Chenet, who accordingly coined (with the paternal approval of Camille Jullian) the adjective 'gallo-belge' (*Bull. Soc. arch. champenoise*, xxii (1928), 14, n. 1). French, Belgian, and Dutch scholars have followed his lead, and the term 'Gallo-Belgic' is accordingly recommended for standard English usage. It aptly distinguishes this product of Gallia Belgica from the pottery of the pre-Roman Belgae, whether of Gaul or Britain.

² Not yet published in Albrecht, *Oberaden*; but see taf. 45-6 of part I (1938) for some imitations of Arretine forms (Dortmund Mus.).

³ In 1941 Dr. J. H. Holwerda published a fresh study of the ware, *De Belgische Waar in Nijmegen*, based on the large collection from cemeteries at Nijmegen in the Kam Museum there (studied by M. R. H. in 1933). This work has reached us (in April 1945) too late for use in the detailed documentation of this Report; but see review by M. R. H. in *Arch. Journ.* ci (1945).

⁴ Bohn, *Germania*, vi (1922), 123-5; Lorimy in *Bull. arch.*, 1923: material (excavated 1910-13) in Châtillon-sur-Seine Museum.

⁵ Unpublished (excav. Brisson and Loppin): cited p. 2 of Thuisy report (see next note).

⁶ Bussy-le-Repos: Bolnat in *Bull. Soc. sc. hist. et nat. de l'Yonne*, 1930 (cf. *Revue arch.*, 1935, 1, 267-9). Thuisy: Fromols in *Bull. Soc. arch. champenoise*, xxxii (1938). Sept-Saulx, *ibid.* xxxiii (1939). Others unpublished in detail; but La Prosne (excav. Bry) cited p. 14 of Prunay I report (see n. 19 below), and the remainder cited p. 2 of Thuisy report just mentioned: all excav. Brisson and Loppin, except Champillon and Courmelois, excav. Jorssens and Lacroix, who kindly

showed and communicated details of the Courmelois material to C. F. C. H. in 1933. R. Lantier's article 'Neue Töpfereien im römischen Gallien' in *Germania*, xix (1935), 317-23, gives further details and references for Bussy-le-Repos (plan, photo) and Courmelois, with remarks also on Vertault and other sites.

⁷ Chenet, *Bull. Soc. arch. champenoise*, xxii (1928), 11-26; *Revue des études anciennes*, xl (1938), 251-86; *Germania*, xiv, 64 ff.

⁸ Hénault, *Pro Nervia* i (1923-4), 105, 205; iii (1926-7), 350, 390; iv (1928-9), 74 ff.: material in Bavay Museum.

⁹ Trier (material in Trier Museum); Loeschcke, *Tr. Ztschr.* ix (1934), 135, 139, 165; xi (1936), 220; cf. iii (1928), 69; *Tr. Jahresber.* 1908, 19; 1913, 7; 1923, 35; *Westd. Ztschr.* xv (1896), 241, 253; Steinhausen, *Arch. Siedlungskunde d. Trierer Landes* (1936), 313, where Karden and Kobern also cited (Bonn Museum).

¹⁰ Behrens, *M.Z.* x (1915), 90 ff.

¹¹ *Arch. f. Hessische Gesch. u. Alt.-Kunde* 1843, 1; *Friedberger Geschichtsblätter*, 1909, 7.

¹² *Ibid.* cxxii (1917), 247.

¹³ *Ibid.* cvii (1901), 221.

¹⁴ On the extent of the adoption of Belgic fabric by the Xanten potters, see Loeschcke, *Haltern*, 112-13, 259, 276 ff.

¹⁵ *Ibid.* 258 ff.

¹⁶ Breuer, *Nimègue*, 22 ff. ¹⁷ Ritterling, *Hofheim*, 325 ff.

¹⁸ e.g. *Bingen*, *Xanten*; Bonn (Andernach: *B. J.* lxxvii, 152 ff.), Köln (*Prähist. Ztschr.* xviii, 255 ff.), Mainz (*M.Z.* frequently) and Trier Museums; Koblenz-Neuendorf: *B. J.* cvii, 73 ff.; Lebach: *Saar* ii, 29 ff., iii, 29 ff., 59 ff.; iv, 13 ff. (Saarbrücken Mus.); Vermeulen, *Nijmegen*, 27 ff.; Holwerda, *De Belgische Waar in Nijmegen* (1941: see above, n. 3); Prunay I and II (Marne): Bry and Fromols in *Bull. Soc. arch. champenoise*, xxxii (1938).

coarse-ware of Flavian times.¹ It was imported into Britain for a full generation before the conquest of 43, and in Claudian times, but is rare on post-Claudian sites.²

Gallo-Belgic ware retained throughout its essential character as an imitation of Arretine Sigillata, but its range of forms is wider, including as well as platters, cups, and beakers some types of continental La Tène derivation. It was made in two varieties, red or Terra Rubra and black or Terra Nigra, here abbreviated T.R. and T.N. *Terra Nigra* is made of a well-levigated, pale grey paste of varying degrees of hardness and fineness, and its polished surface-coating is normally black, occasionally graphited, but shading off into greys which are now often as pale as the paste beneath. It is very often finely mica-dusted. It cannot be subdivided into categories, but our series contains a fair proportion with rather inferior paste and surface abnormal to the continental standard, and suggesting possible manufacture at Camulodunum itself. *Terra Rubra* comprises three imported varieties (in part possibly also manufactured locally) and one certainly of local manufacture only. These are:

- T.R.1. The paste, fine but often soft or 'chalky', is pale buff, cream, or nearly white: the red colour-coating is usually applied to one side of the vessel only, that meant to be seen (i.e. of platters the upper side and the rim, of beakers the outside).
- T.R.2. The paste is brick-red all through, usually fairly hard but with some tendency to flaking; the polished red coating is the same colour.
- T.R.3. The paste is orange-red, fine and hard; the well polished surface is either bright red or, more often, fumed a rich chocolate. This ware was only used for beakers.
- T.R.4. This is not found in the continental industry, and is a local copy, not a true Gallo-Belgic fabric: the paste is of indifferent quality and grey colour, with the surface baked red-brown and left matt; though sometimes smoothed and partly burnished, it is seldom really polished.

The 'Pompeian red' ware peculiar to form 17 and its lid will be noted thereunder below (p. 221).

Gallo-Belgic forms were also imitated at Camulodunum in native and sometimes in standard Romano-British ware (pp. 206-7).

Pale Wares (including Amphorae and Mortaria). The ancient Mediterranean tradition of buff and other pale or reddish pottery was also established in southernmost Gaul in pre-Imperial times, and its further dissemination after Caesar's conquest introduced to the new provinces jug and flagon types of Hellenistic derivation, and, e.g. the typically Roman mortarium, as well as multiplying the supply of the amphorae in which the wine of the south had already been accustomed to reach the Gaulish drinker.³ The making

¹ e.g. Rheingönheim in the Palatinate (Speier Mus.).

² The full British site-list is too long for a footnote here. After Camulodunum, Verulamium (Prae Wood) and Silchester are the best-known pre-conquest sites for it: Wheeler, *Verulamium*, 153 ff.; May, *Silchester*, pl. LXX, 150-5; LXXIII, 174-80; LXXIV, pp. 167 ff., 174 ff., 176 f. The others cover Norfolk, Suffolk, Cambs., Herts., Essex, Kent, Sussex, Surrey, Berks., Hants, Wilts., and Dorset. There is also North Ferriby on the Humber (Yorks.) datable c. A.D. 25-50: see *Antiq. Journ.* xviii, 262-77, where, however, the general essay in dating this and other wares typologically should be taken with reserve. Early Roman sites are Richborough (e.g.

Bushe-Fox, *Richborough III*, pl. xxxiv, 209), London (e.g. Wheeler, *London in R. Times*, 143-4, fig. 53), Chichester (*Sussex Arch. Colls.* lxxvi, 138 ff.), and Leicester (not yet published) to name only leading cases: here the ware is less in evidence and of later complexion; the latest specimens dated are perhaps these from the Agricolan fort of Castlecary on the Forth-Clyde isthmus (Macdonald, *Roman Wall in Scotland*, 251).

Nowhere in this country has it been found in such plenty as at Camulodunum.

³ For Gergovia and Mont-Beuvray see nn. 1-2, p. 202 above.

of such wares became established in Belgic Gaul together with that of red and black Gallo-Belgic and ordinary coarse pottery,¹ and the dated sites of Oberaden,² Haltern,³ and Hofheim⁴ are simply milestones in the history of an industry well documented throughout the region of the Rhine.

The importation of amphorae into pre-conquest Britain is well known from such burials as the Welwyn vaults and the Lexden Tumulus.⁵ Jugs and flagons were also imported, at least to Camulodunum, where they have been found in graves at Lexden.⁶ Thus on our site the series of these wares extends throughout, from period I to VI. The familiar flanged-rim mortarium was introduced only at the conquest, but had been preceded here by the distinctive wall-sided type.

Among the varieties of ware to be noted in describing the forms below, some are certainly of local make, and the thin whitish ware used for the beaker form 113 must beyond question be a local product, from the enormous quantities of the standardized vessels found all through the occupation. The local manufacture of jugs and especially of flagons evidently made great advances after the conquest, being well represented at the kiln in region 4 (pp. 106, 281), and leads on into the well-known Romano-British series. All these wares are best further described below, in discussing the individual forms in which they were made.

Roman Coarse Ware. Some small amount of continental Roman coarse pottery seems to have been brought over at the conquest, but this was soon replaced by the romanization of the native industry, to which we must now turn.

Native Wares and their Romanization

Native Wares. The ware of wholly native type made at Camulodunum belongs in the main to the Swarling-Aylesford La Tène III family. It may be broadly divided into 'fine' and 'coarse'. The 'fine', always wheel-made, is rather thick, moderately levigated, sometimes noticeably sandy, and grey in the core, normally burning to a pinkish-brown immediately under the outer surface, which is leather-brown, warm greyish, or brownish-black, and polished to a fairly smooth rather soapy consistency. The ware is no more than moderately hard-baked, never hard enough to emit a metallic note when struck, and is often quite soft. The 'coarse' is less well levigated, and may be positively gritty; for the cruder cooking-pots and especially the large store-jars it is always so, assuming an unmistakably 'porridge' texture. Not all this coarse ware is wheel-made: some of the simpler bead-rim vessels are hand-made and look back to a pre-Belgic tradition, and there are others with their upper parts or mouths only turned on the wheel. Decoration on the fine ware is most typically cordoned, or corrugated. As a whole, the pottery is not so 'prehistoric' in appearance as that from Wheathampstead;⁷ its range just overlaps with

¹ e.g. at Thuisy (n. 6, p. 203 above) all three kinds of pottery were made in the same group of kilns.

² To be dealt with in a still (1941) unpublished part of Albrecht's *Oberaden* (Dortmund Mus.).

³ Loeschcke, *Haltern*, 233 ff. ('Tongründige Gefässe').

⁴ Ritterling, *Hofheim*, 275 ff.

⁵ There were several of f. 181 and an unknown number of f. 182 in the Lexden Tumulus.

⁶ p. 13 above.

⁷ *Verulamium*, 149-50, pls. XLIX-LI.

this, but much more with the groups of later date from Belgic Verulamium at Prae Wood,¹ and though pedestal-urns, as there, are rather uncommon, its fabric stands on the whole closer to the pottery of the Kentish cemeteries.² Copies of Gallo-Belgic butt-beakers also ally it to the Prae Wood as against the Wheathampstead series; decoration on these may attempt to copy the rouletting of the originals. The coarse vessels, both cooking-pots and especially large store-jars, exhibit below a single crude shoulder-cordon a remarkable assortment of ornamental devices: finger-printing, stab-marks, slashes, impressed rosettes, circles, horseshoes, chevrons, or tooth-comb lines in a horizontal row, and furrowed, combed, or brush-marked lines in simple grouping or utter disorder, which last often cover the whole body of the vessel. Such crude ornament is common before and after the Roman Conquest in Belgic Gaul³ and Germany,⁴ and in Britain on the Kentish⁵ as well as the Hertfordshire sites. Both fine and coarse fabrics are typically pre-conquest, and occur in especial plenty on period I sites like sites Y1, L2, L6, and L7 (pp. 118, 122-3); later the fine recedes, but the coarse maintains itself better, and especially for store-jars remains well attested throughout the occupation.

Romanizing Native Wares. These are likewise fine and coarse. The fine ware so distinguishable is thinner, finer, and more metallic than the wholly native: it is unmistakably still native fabric, but is better fired and finished. It is already preponderant on the site in period I, and continues to flourish thereafter in periods III and IV, advancing in romanization; in period VI it becomes more or less assimilated to standard Romano-British potting. The fine forms continue the La Tène III tradition in intensified and somewhat standardized elegance; save for the ornament inspired on butt-beakers by the rouletting of their Gallo-Belgic originals, ornament is entirely an affair of cordons. The coarse vessels are simply rather improved renderings of the native tradition, the paste a degree better in quality, the firing somewhat sharper. They abound throughout the occupation, and from first to last form the great majority of the enormous mass of cooking-pots. The quantity of store-jars is also very considerable; these maintain, but with rather more restraint, the ornament characteristic of their kind. The romanization of native potting is thus seen to have been well enough established here before the conquest for this class of wares to stand out throughout distinct from, and preponderating over, the wholly native style of work. While at Verulamium the contemporary ware of Prae Wood is comparatively un-romanized, and as such is expressly contrasted with the Camulodunum material,⁶ here the coarse ware of this class differs but little from the romanized domestic ware exemplified on the Continent at Haltern and Hofheim, and the fine ware is well on the way to the standard of Claudian Richborough⁷ or the first Roman London.⁸ On the other hand, this class of ware was not as a rule employed in pre-conquest burials, and in this the graves at Lexden (p. 13) are no exception: even

¹ *Verulamium*, 151 ff.

² *Swarling*, 17 ff., 21-3; cf. pp. 5-6, 45 above.

³ e.g. Pommiers: Déchelette, *Manuel* iv, 473 (refs.); exx. in St. Germain Mus.

⁴ e.g. Basel Gasworks; *Anz. f. Schweiz. Altkde.* xix, 230-51; Bittel, *Kelten in Württemberg*, 88 ff.; Kastell Hüfingen,

Germania, xi, 118, abb. 8.

⁵ e.g. Walmer: *Arch. Cant.* xxvi, 9 ff., *Antiq. Journ.* x, 166-7; Margate (B.M.); *Richborough II*, 97-9.

⁶ *Verulamium*, 154.

⁷ e.g. *Richborough I*, pl. xx ff.

⁸ e.g. R.C.H.M. *Roman London*, fig. 63.

when in company with imported continental vessels the native pottery there is quite un-romanized. This indication of a specific native conservatism in sepulchral furniture deserves notice.¹

Standard Romano-British. The regular locally made Romano-British series begins to be prominent only in period IV and is most distinctive of period VI. In this hard-burnt fabric, the paste well levigated and baked to a uniform clear light grey, the forms continue for the most part in the native fine-ware tradition, modified to a duller norm by their romanization. They are not remarkably abundant, but the analogous coarse forms are more plentiful, and both take their place, together with derivatives of Gallo-Belgic and a number of new forms which now made their first appearance, in forming here at its outset the ceramic tradition of Roman Britain.

(ii) POTTERS' STAMPS

Gallo-Belgic. The Gallo-Belgic potters from the first took over the habit of stamping their platters and cups from the Arretine industry whose products they were primarily imitating. The custom of placing three or four impressions of the same stamp radially on the surface of a platter is a relatively early Arretine feature (p. 194) which they were not too late to incorporate in their practice; centrally placed stamps in the mainly later Arretine manner, however, preponderate on their platters as a whole, and of course are universal on cups. The stamps for the most part give the names of the potters themselves, in renderings of Roman capitals and partly romanized in spelling. In the following table about 360 recognizable Gallo-Belgic stamps are listed, about 350 from the Sheepen site, the remainder mostly unrecorded local finds in the Colchester and Essex Museum. The place and date of each potter's activity are given where possible on the basis of the continental finds quoted. It will be seen that the series is drawn from all over the continental area of the industry's activity, and extends from late Augustan at least to Claudian times. Most of the datable potters were certainly at work under Tiberius: this is probably true of 22 out of the 23 to which dates are certainly or tentatively assignable; 10 of them (probably) were already at work under Augustus; 10 extend or belong to Claudius' reign.

This last figure should probably be augmented by the number of senseless or illegible stamps prevalent in this late phase of the industry (see note at end of table). Some of these, and perhaps even some of the others, may be of Camulodunum potters. The incidence of all stratified specimens by period is as follows:

<i>Period:</i>	<i>I</i>	<i>II</i>	<i>I-III</i>	<i>II-III</i>	<i>III</i>	<i>III-IV</i>	<i>IV</i>	<i>V</i>	<i>IV-VI & VI</i>
	17	4	7	12	15	19	32	5	19 or 20

Total stratified: 130 or 131.

Total unstratified: about 230.

¹ The relatively greater frequency of the native Belgic pedestal-urn in graves as against habitation-sites may in measure be similarly explained, cf. the Folkestone grave-

group (*Antiq. Journ.* v, 63-7; *Swarling*, 20-1, pl. v, 1); wholly native pedestal-urn, with flagon and Sigillata cup Dr. 27 certainly later than A.D. 50.

TABLE OF GALLO-BELGIC POTTERS' STAMPS

<i>Pl. XLV</i> no.	<i>Stamps (rad. = radial)</i>	<i>Ware</i>	<i>Form of vessel</i> (<i>pl. = platter</i>)	<i>Period if stratified</i>	¹ <i>Potter's name; other occurrences; PLACE and date of activity if known</i>
1	ACVTVS rad.	T.R.	pl.	I	Acutus. C. 27-37 (but not the Sigillata potter) [Bingen, Köln, Nijmegen]. Andernach, gr. 9 (<i>B. J.</i> 89, 51; and 96/7, 88); <i>Haltertern</i> , 265; Hofheim, 329; Lebach, gr. 6 (<i>Saar</i> ii, 36); <i>Nijmegen</i> , 54, 1 (refs.); nr. Frankental, Soissons, Trier, Weisenau. Late Aug.-Claud.
2	[AC]VTVS	"	7 or 8	..	
3	ACVTV ..	T.N.	pl.	..	
4	ACVTII rad.	"	?	I-III	
5	ACVTIO	"	pl.	..	
6	ACVTO	"	"	I	
7	ACVTO rad. (two)	"	"	..	
8	.. V. TO rad.	T.R.	"	I	
9	AQT (two)	"	56	..	Same. C. 155; Reims. <i>Nijmegen</i> , 54, 4-7.
10	.. CVT rad.	T.N.	pl.	..	Same. See 1-8.
11	ADICA	"	13	III	Adica. No other record.
12	A:ND	T.R.	56	I	Andecos. Köln, Kreuznach [Speier, Tournai], Vertault [Worms].
13	ANDII	T.N.	pl.	..	
14	ANDICAS	"	"	..	VERTAULT. (<i>Germ.</i> vi, 23). Tib. (?)
	[AN]DICAS	"	56	..	
15	ÂNDECO	{	cup	..	..
16	ÂNDECO		?	..	..
17	ANDECO	"	8	..	..
18	ANDII (two)	"	pl.	One II-III	..
19	ANDORA rad.	"	"	III-IV	Andora. <i>Nijmegen</i> , 54, 2 (form 16A). Tib.-Claud. (?)
20	ANDOR	"	"	..	
	.NDORV	"	"	..	..
	ANDO ..	"	"	..	..
21	ANIIHI	"	cup	..	(?) Perhaps imitates an Ateius (Arretine) stamp. No other record.
	OVROS				
22	AR (three)	T.R.	56	..	Ar No other record.
23	ASSINO .. rad.	T.N.	pl.	III-IV	Assinos. C. 180: Andernach, Kobern, Köln. <i>Haltertern</i> , taf. xxx, 9 (misread 265); Murston, Kent (B.M.: Walters, <i>Cat.</i> , M2377, T.R. form 8). Cf. <i>Asin</i> , <i>Nijmegen</i> , 56, 31-2 (refs.). <i>KOBERN</i> (?). Late Aug.-? Claud.
24	ASSINO rad. (two)	"	"	..	
25	ASSI (two)	"	cup	One II-III	
26	ASSI	"	"	III	
	ASSINNO rad.	"	pl.	IV	
27	ATATV	"	"	IV	Atatus. No other record.
28	AT[EC]	"	16A	..	Atecnodus. C. 185: Andernach, Langres, Paris, Trier. <i>Bingen</i> , 74, 194, 196; <i>B.R.G.K.</i> vii, 207 (Brumath, Strasbourg); Vertault. <i>VERTAULT</i> (<i>Germ.</i> vi, 123). Tib.-Claud.
	N[V.D. .]				
29	VTECI	T.R.	?	V	
30	ATEVL .	T.N.	pl.	..	Ateula(?) Perhaps imitates an Ateius (Arretine) stamp. No other record.
31	ATEVLA rad.	"	"	II	Atias(s)us. C. 193: Bingen, Sels, Rheintürkheim [Speier], Trier, Weisenau. <i>M.Z.</i> xxiv, 69, abb. 9, 5 (Nierstein). Tib. (?)
32	ATIASV rad.	"	"	II	
33	ATIT ..	"	"	IV	Atitos (?) No other record.

¹ In the last column *C.I.L.* xiii, 10010 is cited as C., with occurrences there given. Other references and occurrences then follow. Names in square brackets are of museums only.

<i>Pl. XLV</i> no.	<i>Stamps (rad. = radial)</i>	<i>Ware</i>	<i>Form of vessel</i> (<i>pl. = platter</i>)	<i>Period if stratified</i>	¹ <i>Potter's name; other occurrences; PLACE and date of activity if known</i>
34	AT	T.N.	pl.	I	..
35	ATONO rad.	"	"	..	Atonos. No other record.
36	ATTA rad. (two)	"	"	III, III-IV	Atta. C. 201: Andernach, Bingen, Hermes (Oise), Köln, Königshofen, Mainz, Rheinzabern. <i>Bingen</i> , 194; <i>Haltern</i> , 266; Lebach, gr. 30a, 36 (<i>Saar</i> ii, 48, 50); <i>Nijmegen</i> , 54, 8 (refs.); Vertault. <i>VERTAULT</i> (<i>Germ.</i> vi, 123). Late Aug.-Tib.
37	A\TT'A	"	cup	II	
38	ATTA	"	?	..	
39	ATT:..	"	cup	IV	
40	ΛIIA	"	?	..	
	.. TTA	"	?	..	
41	ATTISSV rad. (two)	T.R.	pl.	IV	Attissus. C. 208: Forêt de Compiègne, Ergnies (Somme), Rouen.
42	ATTISSV	"	7 or 8	..	
43	ATTISSV (two)	"	56	One IV	<i>Haltern</i> , 265; <i>C.I.L.</i> vii, 1336, 112
44	ATT . . .	"	pl.	III-IV	Casterley, Oare (<i>Devizes Mus. Cat.</i> ² 110; pl. LI A, not Arretine).
45	AT	"	"	III-IV	
	ATT . . . rad.	"	"	IV	Late Aug.-Tib. (?)
46	AVNAVO (two)	T.N.	"	..	Aunus. (avot = fecit ?) ² <i>Hofheim</i> , 330. Claud.
47	AVI	"	54	IV	? No other record.
48	BELLIVS	"	inkpot	(top) IV-VI	Bellius. No other record.
49	BEIITO (seven)	"	7 or 8	..	Bentos. C. 291: Mogland, Trier, Vechten, Xanten.
50	BITOΘ	"	pl.	IV	Bitos. C. 316-17: [Bar-le-Duc], Nijmegen. Silchester (May, 273).
51	B/IT/V/OL/ circular (three)	T.R.	56	One I	Bitvolus. C. 323: [Douai], Mettlach, Nijmegen, Vechten.
52	BITVCAN rad. (two)	"	pl.	III, IV	Bitucanus. C. 318: Arras (cf. 319, Bitu/caro, Sels).
53	BOLLVS rad.	"	pl.	I-III	Bollus. C. 334-5: Forêt de Compiègne, Mainz (cf. <i>M.Z.</i> vii, 102, abb. 11, 7), Trier, Weinheim, Weisenau, <i>Prunay I</i> , 12. Aug.-Tib.
54	BOVDVI	T.N.	pl.	..	Boud(u)os. C. 347: [Douai]. <i>Nijmegen</i> , 54, 10 (form 16A); Vertault. <i>VERTAULT</i> (?). ? Tib.-Claud.
	BOV . . . rad.	"	"	..	
55	BOVD	T.R.	"	IV	
56	BOVTI rad. (two)	T.N.	"	..	Boutus. Silchester (May, 273).
57	[B]OVTI rad. (two)	"	"	I, II-III	
58	CANICO	"	56	IV-VI	Canicos. C. 429-31: [Bingen], nr. Kreuznach, Mainz, Nijmegen, Reims, Vertault, Weisenau. <i>Bingen</i> , 197; Silchester (May, 273). <i>VERTAULT</i> (?), <i>SEPT-SAULX</i> . Tib. (?)
	S. FNAI	"	pl.	I-III	
59	CANICOS } same	{	"	III	
	CANICOS rad. } matrix	{	"	II-III	
60	CANIC rad. (two)	"	"	..	
61	CANICO ..	"	"	..	
62	CANIC rad. (five)	"	"	One III-IV	
<i>Pl. XLVI</i>					
63	CANICOS	"	8	..	
64	CANICO	T.R.	56	IV-VI	
65	CANI . . .	T.N.	pl.	III	

¹ In the last column *C.I.L.* xiii, 10010 is cited as C., with occurrences there given. Other references and occurrences then follow. Names in square brackets are of museums only.

² On *Avot* see G. Dottin, *La Langue gauloise* (Paris, 1920), 41-2. We owe the reference to Mr. C. E. Stevens, F.S.A.

<i>Pl. XLVI</i> no.	<i>Stamps (rad. = radial)</i>	<i>Ware</i>	<i>Form of vessel</i> (<i>pl. = platter</i>)	<i>Period if stratified</i>	¹ <i>Potter's name; other occurrences; PLACE and date of activity if known</i>
66	CARI[SSO] RITV[SCIA]	T.N.	pl.	..	See 67. Andernach; Wilmington, Sussex.
67	CARISV	T.N.	12	..	Caris(s)us. C. 458-9: Nijmegen, Paris. London (B.M.: Walters, <i>Cat.</i> , M2839).
68	CARIIVIR (two) } same CARIIVIR } matrix	T.R. T.N.	7 or 8 7 or 8	II-III IV-VI	Cartivir. C. 460: Dalheim, Reims, Soissons [Worms]. <i>Nijmegen</i> , 54, 11-15 (refs.). Tib. (?)
69	CATV ... LVSSI ..	T.R.	pl.	IV	No other record.
70	CICCARV rad.	T.N.	"	..	Cicarus. C. 555: Andernach, Bavay, Köln, Reims, [Rouen], Trier, [Wiesbaden]. <i>Hofheim</i> , 330 (refs.); <i>B.R.G.K.</i> vii, 207 (Brumath). Tib.-Claud.
71	CORTERVS VS.FE[C]	"	"	..	Corterus. C. 648: Épernay.
72	DANNO MAROS	T.R.	"	..	Dannomarus. Cf. C. 744-5: Poitiers. Also 3030: Brussels; <i>Haltern</i> , 265 (Dann).
73	DIMIO (three)	"	7 or 8	One IV-VI	Dimios. C. 3005a: Beauvais. <i>Nijmegen</i> , 55, 17 (refs.); Andernach. Tib. (?)
74	[DI]MIO (two)	"	7 or 8	..	
75	DIV ...	T.N.	pl.	..	Diveros (?). Cf. C. 787, 792; and e.g. <i>Haltern</i> , 266; Urmitz. London Wall (Wheeler, <i>London in Roman Times</i> , 143-4). ? Aug.-Claud.
76	DONI	T.R.	56	..	Donus (?). Cf. C. 810 (?).
77	DVRICI (? O)	T.N.	"	..	Duricus (?). No other record.
78	DVR (two)	T.R.	"	One V	Same as 77 ?
79	DVROTIX (two)	"	7 or 8	I, IV	Durotix. C. 832: Amiens, Forêt de Compiègne, Mainz, Reims, Xanten.
80	IHUDO (four)	T.N.	One 8	One I	Eudo (?). <i>COURMELOIS</i> (apparently: cf. Lacroix's no. 45).
81	IA.P.P.I (three)	"	Two 2, 56	One I	Iappus. C. 1004: Bavay, [Heidelberg], Köln, Mainz, Andernach; <i>Bingen</i> , 98, 196, 197; <i>Haltern</i> , 265, taf. xxx, 19. Late Aug.-Tib.
82	IATII	"	cup	..	Iatius (?). No other certain record.
83	IAT ...	"	pl.	IV-VI	
84	IAVO	"	"	"	Iavos (?). No other record.
85	ILIXI	"	cup	I-III	Illox. No other certain record.
86	ILLOS rad. (three)	T.R.	pl.	..	Illos. C. 1023: Bingen, Reims, Rouen, Vechten. Lebach, gr. 10
87	ILL (two)	"	cup, pl.	..	(<i>Saar</i> , ii, 43); Weisenau. Tib. (?)
	IL ...	T.N.	pl.	..	
88	INDVHO	"	"	IV	Indutios. C. 1031: Auberive (Marne), Trier. Andernach; Silchester (May, 273).
89	[IN]GIINVØ .rad.	"	"	IV	Ingenuus. <i>Bingen</i> , 98; Vertault. <i>VERTAULT</i> (<i>Germ.</i> vi, 123).

¹ In the last column *C.I.L.* xiii, 10010 is cited as C., with occurrences there given. Other references and occurrences then follow. Names in square brackets are of museums only.

<i>Pl. XLVI</i> no.	<i>Stamps (rad. = radial)</i>	<i>Ware</i>	<i>Form of vessel</i> (<i>pl. = platter</i>)	<i>Period if stratified</i>	¹ <i>Potter's name; other occurrences; PLACE and date of activity if known</i>
90	INITA.E rad.	T.N.	pl.	..	No other record.
91	IVLIOSAV rad. (five)	"	"	One 5	Iulios. C. 1065-6: Andernach, Avenches, Forêt de Compiègne, [Luxemburg], Mainz, Soissons, Trier, Vertault, Weisenau. <i>Haltern</i> , 265; <i>Hofheim</i> , 330; <i>Nijmegen</i> , 55, 21-2 (refs.); Trier (St. Matthias).
92	IVLLIOS	"	56	IV	
93-6	IVLLIO (five)	"	Two 56, Three pl.	..	
97	IVLIOS rad.	"	pl.	..	
98	IVLIOS	"	56	III-IV	
99	IVLIOS rad. (two)	"	pl.	One I	
100	IVLIOS (two)	"	56	One V	VERTAULT (?), SEPT-SAULX.
101	IVL·10S	"	"	III-IV	Late Aug.-Claud.
102	IVLI·S (five)	"	Four 56, One pl.	..	..
103	IVLIO	T.N.	56	I	..
104	IVIJO	"	"	I	..
105	IVL.IOS	"	"	..	..
106	IVL . . . (several fragmentary)	"	"	..	..
107	[L]VLLLOS AVOTI	T.N.	pl.	..	Lullos. C. 1177: Andernach, Dalheim, Köln, [Reims], Scarponne, Tongres.
108	LVLLOS rad.	"	"	..	..
109	[LV]LLOS	"	7 or 8	..	..
110	MARIO retro. rad. (five)	"	pl.	One I-III, one III-IV, one IV	Marios. Cf. C. 1275, Trion, Koblenz, Urmitz, Vertault (<i>Bull. Arch.</i> 1926, 127). VERTAULT. Aug.-Tib. (?)
III-16	MEDI } MEDI } rad. (eleven)	"	pl.	..	Med(d)illus. C. 1322, 1328 (but not the Sigillata potter): Angreau, Bavay, Dalheim, Épinay-Ste.-Beuve, [Tournai].
117	MIILOS: rad.	"	"	..	Melos. No other certain record, but cf. C. 1336.
118	MIILOS (two)	T.N., T.R.	"	One IV	..
	MIILOS	T.N.	56	III-IV	..
119	NAMA[NTO] rad.	T.R.	pl.	II-III	Namantos. C. 1403: [Douai], Köln, Mainz, Reims, Vechten, Xanten. And cf. <i>Nijmegen</i> , 54, 3 (?).
120	[NA]MANTO	"	"	..	
121	NAMANTO	"	"	..	
122	OTAO[Ξ] (two)	T.N.	pl., 58	One IV-VI	? No other certain record; but cf.
123	OTAOΞ (two)	"	58	..	Ot . . . Silchester (May, pl. LXXXII, 15); Otav Prae Wood (<i>Verulamium</i> , 176).
124	TATOΞ (four)	"	56	One II-III, One III	
125	RELAN	"	pl.	..	Relanos or Belanos. C. 1623: Boulogne, Ghent, Reims. <i>Haltern</i> , 274; <i>Nijmegen</i> , 55, 23. Late Aug.-Tib.
126	ROMA Brownish local	"	"	..	Romanus (?). No other record.
127	ΞACIRV	"	56	..	Sacirus (? the Sigillata potter: see C. 1692-3).
<i>Pl. XLVII</i>					
128	SCALI ETI'	T.R.	"	VI	No other record.
129	SIINODO rad.	T.N.	pl.	..	Senodos. No other record.
130	SIINORV	T.R.	56	..	Senorus. No other record.
131	SMER . . . rad.	"	pl.	IV-VI	Smertucos. C. 1823: Reims.

¹ In the last column *C.I.L.* xiii, 10010 is cited as C., with occurrences there given. Other references and occurrences then follow. Names in square brackets are of museums only.

Pl. XLVII no.	Stamps (rad. = radial)	Ware	Form of vessel (pl. = platter)	Period if stratified	¹ Potter's name; other occurrences; PLACE and date of activity if known
132	SMRĒT	T.R.	56	II-III	..
133	SMĒRT . rad.	"	3	III	..
134	SMĒRT .	"	?	..	..
135	SMERT	"	53	..	..
	VCOS				
136	[S] MERT [V] CCOS	"	?	III-IV	..
137	SMERTV (two) [S]ME[RT] rad.	"	pl.	..	..
138	SOLLOS	T.N.	56	IV	Sollos. C. 1832: Köln, Rhein-
139	SOLL[OS]	"	"	V	zabern, Sigmaringen. <i>Nijmegen</i> ,
140	SOLL[OS]	"	"	II-III	55, 24-6; Andernach; Courmelois;
141	SO[LLOS] (three)	"	"	..	Trier (St. Matthias). <i>COURME-</i> <i>LOIS</i> (Lacroix: abundant).
142	SOVRINI rad. (two)	"	pl.	One IV	<i>Sourinus</i> . No other record.
143	TIOTAG	T.N.	pl.	..	<i>Tiotagos</i> . C. 1911: Landreville
144	TIOT (three)	"	56	One IV, one VI	(Aube). Prae Wood, <i>Verulamium</i> , 176.
145	TOR[NOS] VOC[ARI]	"	pl.	..	<i>Tornos</i> (slave of <i>Vocaros</i>). C.
	TORNOS	T.R.	cup	I-III	1929-30: Andernach, Bavay, Becht-
	VOCARIF				heim, Cambrai, Gondorf, Kobern,
146	TORN . .	T.N.	cup	..	Le Châtelet, Mainz, Metz, Trier, Weisenau. Foxton, Camb. (with
	VOCAR . .				Arretine crater): Fox, <i>Arch. Camb.</i>
147	TORNO	"	"	..	<i>Reg.</i> 201. <i>KOBERN</i> (?). Tib. (?)
148	TORNO [TORN]O (?)	"	56 pl.	III VI	..
	[VOCARI]				
149	[. T[. R]] O . | X. round	"	"	I	<i>Troxos</i> . C. 1943: Paris, Weisenau.
150	TROXOS rad.	"	"	IV	Trier (St. Matthias).
	TR rad.	"	5	IV-VI	..
151	VARIA	"	pl.	..	<i>Varia</i> . No other record.
152	VII BRVS rad. (two)	"	"	IV, IV-VI	<i>Vebrus</i> . No other record.
153	VELVCNI ^o	"	"	IV-VI	<i>Velucn(i)os</i> . C. 1995: Bingen,
154	VELVC . . .	"	7 or 8	..	Heddernheim, Köln, Trier.
155	VERIIAMO rad. (two)	"	pl.	One VI	<i>Verilamos</i> (?). No other record.
156	VER ^o	"	56	III-IV	<i>Veros</i> . No other record.
157	VIRNLIS (under base)	"	104 (prob.)	..	<i>Virnilis</i> (?). No other record.
158	VINI . .	"	13	III	No other record.
159	VIRIO[DAC . .]	"	pl.	VI (?)	<i>Viriodacus</i> . C. 2057: [Brussels, Luxemburg], Mainz, Paris, Vech-
					ten. <i>Bingen</i> , 100; Vertault. <i>VER-</i> <i>TAULT</i> (<i>Germ.</i> vi, 123).
160	VISEROS	"	2 or 12/13	I	<i>Viseros</i> . C. 2061: Bussy-le-Châ-
					teau, [Reims].
161	VRITVES rad. (six)	"	pl.	One I, one IV	<i>Uritues</i> . C. 2097: Andernach, Bavay, Boulogne.
162	VXAVOT <i>retro</i> (two)	"	58	One IV	<i>Ux</i> . . . <i>COURMELOIS</i> (Lacroix, 16). ? Tib.-Claud. (?)

¹ In the last column *C.I.L.* xiii, 10010 is cited as C., with occurrences there given. Other references and occurrences then follow. Names in square brackets are of museums only.

163-250 *Uncertain, illegible, or senseless stamps.* (Pls. XLVII-XLVIII.)

T.R.: form 7 or 8: 241; form 8: 171; platters: 169, 183, 183a, 211, 236; (radial): 179, 196 (two), 205; form 56: 176, 183b, 184-5, 203, 212, 219 (three), 237, 247-9; cups: 225, 232.

T.N.: form 12: 192; form 13: 188 (late), 189, 191, 202; form 15: 167; form 16: 200, 230, 242; platters: 163, 165, 173-4, 178, 180, 194-5, 197, 199, 206-8, 210, 213, 216, 227-8, 243-5; (radial): 166, 170, 198, 209, 210a; form 56: 164, 168, 182, 187, 190, 193 (cf. *M.Z.* vii, 102, abb. 118), 214, 217-18, 220, 220a, 222 (four), 223, 231, 233-4, 246; form 58: 177 (two), 215; form 58B: 238; cups: 172, 175, 204, 224.

The following were stratified: Period I: 210a; II: 210; I-III: 214; II-III: 225, 237; III: 172, 196 (two), 220; III-IV: 173, 189, 191, 224; IV: 175, 183, 188, 201-2, 205, 209, 220a, 246; V: 207; IV-VI and VI: 163, 211.

Senseless stamps are predominately a late feature of the Gallo-Belgic industry, and were plentiful at Claudian Hofheim (*Hofheim*, 331) and, e.g., at the scarcely pre-Claudian kilns at Courmelois, though their occurrence throughout the earlier duration of the industry is attested, e.g. at Haltern (*Haltern*, 265), Nijmegen (*Nijmegen*, 55), and the Augustan-Tiberian kilns at Thuisy. Our no. 203 is notable as an imitation of the Arretine stamp of Ateius (pp. 192-3) such as occurred also at Nijmegen-Hunnerberg (*Nimègue*, 73), the Prunay I cemetery (*Prunay I*, 13-15), and the Courmelois and La Prosne kilns (*ibid.*). No. 229, inserted here (pl. XLVIII) for comparison, is not from Sheepen, but was found in the clay rampart of the Colonia together with a coin of Cunobelin.

Over 50 other incomplete, illegible, or uncertain stamps were found, all on Gallo-Belgic T.R. or T.N. These can be seen in Colchester Museum.

Native and Romano-British. Imitations in these local wares of Gallo-Belgic platters and cups also occasionally bear more or less crude potters' stamps. The chief are as follows:

Pl. XLVIII

<i>no.</i>		<i>Native Ware</i>
251	VV.V	Platter, cf. form 2, but no footring.
252	IIIIII	Platter fragment, soft brownish.
253	VIVVVII	Platter fragment, thick.
254	.X.I.II.I.	Cup, bad version of T.N.
255	NV (?)	
256	AI (?)	
	CATAL	Cf. no. 69 above. Platter, grey.
	VS.IC	

Romano-British Ware

257	...OME	Cf. no. 126 above (might be same matrix). Fine grey.
258	MA...	Platter fragment, sandy grey.

Amphora Stamps. Amphorae, and so proportionately potters' stamps thereon, were abundant, attesting the volume of wine and possibly other southern produce imported both before and still more after the conquest. The most legible stamps are as follows:

On Spindle-shaped Amphorae (pp. 251-252)

Fig. 45
no.

- 1 AQA (circular, with branch above and below), on shoulder of form 186A (cf. *C.I.L.* xiii, 10002, 65, AQA, Forêt de Compiègne; 541, AQA, Mont Beuvray). Region 3, sand-pit.
- 2 BV, BI (two stamps juxtaposed as figured), on blunt spike of amphora like form 183B, in almost chocolate ware with large white flecks (cf. *C.I.L.* *ibid.* 119 ff. BA; BC; BT, Mont Beuvray). Unlocalized, Colchester Museum.

These two represent the circular 'monogram' form of stamp, which is typically Augustan only; the position on the shoulder, normally below the handle, is also (when

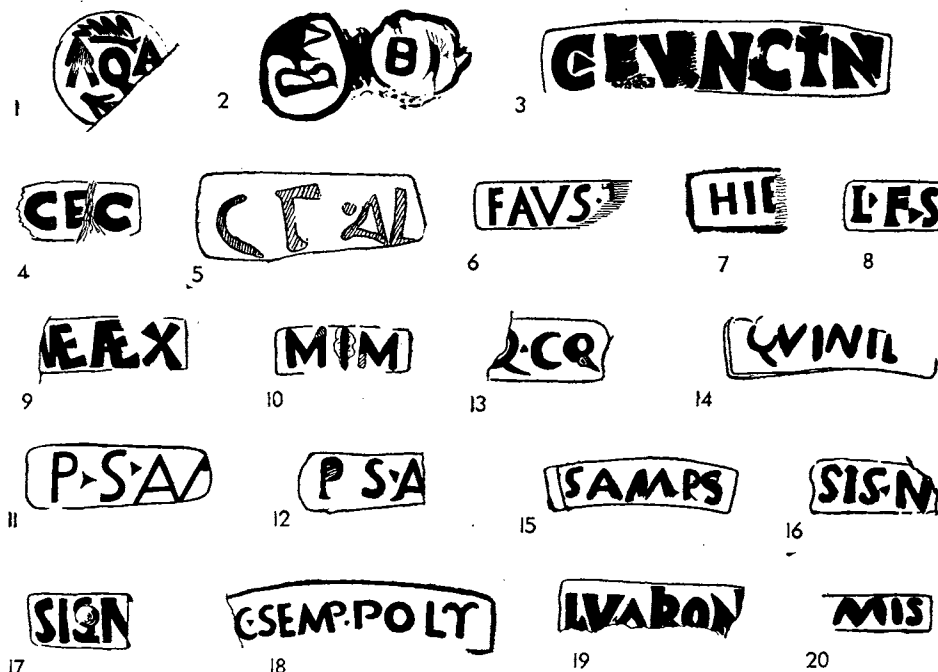


FIG. 45. Potters' stamps on amphorae. Scale $\frac{1}{2}$.

not earlier) an Augustan feature (Bohn, *Germania*, xi, 6). All the rest are of the oblong label form.

A stamp of 5-6 letters at base of handle apparently of form 181 occurred in Region 4: illegible (? N RVII).

- 6 FAVS-[T . .] on handle of form 182 (white), and FAVS . . . on top of handle also of form 182, both region I, seem not previously recorded.
- 7 HI[B .] or HI[E . ?] on rim of form 181 (cf. *C.I.L.* *ibid.* 249, HI, Clermont) comes from just inside Lexden Dyke, in cemetery area marked on pl. I (p. 13): *C.M. Report*, 1932, 35. Also on rim of form 181, an illegible stamp from the bottom of well II (region 4: period III-IV); another, from region 3, on rim of form 186 (L . . .).

On Globular Amphorae, Form 187 (p. 252)

Except where otherwise stated, all are on the handle.

- 3 C. LEVRNCTIN (site A1, period IV) seems not previously recorded, and is difficult to interpret.

- 4 C E C Pit F11, upper fill (period VI).
 5 C Γ . AV 2nd letter? P.
 8 L . F . S . Pit D3, upper fill (period VI).
 9 MAE ALEX M. Ael(ii) Alex(andri): *C.I.L.* xiii, 10002, 85b, Port-sur-Saône; xv, 2689 (Rome). Period III–IV, over ditch 1B filling.
 10 MIM (Region 5): *C.I.L.* xiii, 10002, 263 records Vichy, Trion (4), Autun, Nyon (MIM); Trion, Besançon, Grimmlinghausen (M. I. M.); Mainz legionary fortress, Zugmantel, Alteburg, Neuss (M. I. M): none need be post-Claudian.
 POP *retro.* Region 1 (found 1889).
 11 P. S. AV . . P. S. Aviti: *C.I.L.* *ibid.* 434 (numerous records). Pit G2
 12 P. S. A . . . } (period VI), and region 1.
 13 Q. CQ Site D1, period IV, seems not previously recorded.
 14 QVINTIL . . Pit D10, period VI, ditto.
 15 SAMPS (P doubtful), region 1, ditto.
 16 SIS. N . . Region 2. } Perhaps for **Sisenna?**; but cf. *C.I.L.* *ibid.* 477, P. Sisi, Mont
 17 SISEN . . (Region 4, two) } Beuvray; xv, 3188, Rome.
 18 C . SEMP . POLY C. Semp(ronii) Poly(cliti). This stamp, of which an incomplete variant . . . POL comes from pit D10 (period VI), was found at the waterworks below Balkerne Hill, between region 6 and the Colonia (*C.M. Report*, 1932, 35). Records in *C.I.L.* *ibid.* 464; xii, 5683, 275; xv, 376; vii, 1331, 107 include Rome, Mt. Beuvray, Autun, Lezoux, Trion, Angers, Troyes, Port-sur-Saône, Studenberg, Aarau Mus., Wiesbaden, London; the date is obviously early, and the example *Wroxeter* 1913, 44–5, fig. 17, 18, may well come from the undiscovered legionary fortress.
 19 LVARION . . L. Varion(is): *C.I.L.* xiii, 10002, 524, Trion, Autun (cf. xii, 5633, 307).
 Region 4.
 20 . . . MIS Region 4, period VI or later.
 Six others were found, more or less illegible, five on handle, one at base of handle, of form 187.

The whole series well illustrates the wide extent of the trade in amphora-borne produce in which Camulodunum shared.

(iii) DESCRIPTION OF THE UNGLAZED POTTERY BY FORMS

The forms are here described typologically, with continental or other British evidence bearing on their date. The detailed figures of their stratified incidence on the site by period are tabulated in the succeeding section, which has its own statistical preface (pp. 275 ff.); here the totals there given are quoted, with the signs + (plus many fragments), n (unknown number), N (innumerably many). An estimate of the period-range of each form's actual life follows, with the extent of any apparent rubbish-survivals (r-s) added in brackets.

Platters of Gallo-Belgic and Allied Wares (pl. XLIX)

Forms 1 and 2. Plain-walled platters (Halter 73).

After earlier prototypes in Mediterranean Gaul (St. Rémy, Ensérune), both forms are prevalent at Mt. Beuvray (Bulliot, *Album*, pl. XXI, 2a–4b), Gergovia (*Arch. Journ.* xcvi, 67 ff., figs. 12, 5 and 10–11; 14, 4; 19, 3), Basel Drusus-fort, and Oberaden, i.e. are initially Augustan.

Form 1. Always in black matt ware, not true T.N., usually micaceous: even, slanting wall, highish footstand. No stamps. In Britain normally pre-conquest: *Verulamium*, 157, 17. Type-fig.: ditch I, period I. Total 75: range I-IV (r-s to VI).

Form 2. In highly polished true T.N.: convex inner wall-face (as 2A, B, or C), lower footstand than 1, and flatter base (dished form 2A rarest, mostly early), on which concentric scribed circles and/or rouletted wreath (this not yet at Haltern) are common. Stamps normally radial, usually triple. Abroad (Autun, Vertault, Thuisy (A, B), Harmignies (Brussels Mus.), Trier and district, Nijmegen, Koblenz-Neuendorf, Wiesbaden, Vindonissa) typically pre-Claudian (*Haltern*, 266): absent from Hofheim. In Britain normally pre-conquest: *Verulamium*, 157, 18; cf. *Silchester*, pl. LXXIV, 189: *Hengistbury*, pl. xxvii, 28. Total 334+: range I-IV (r-s to VI).

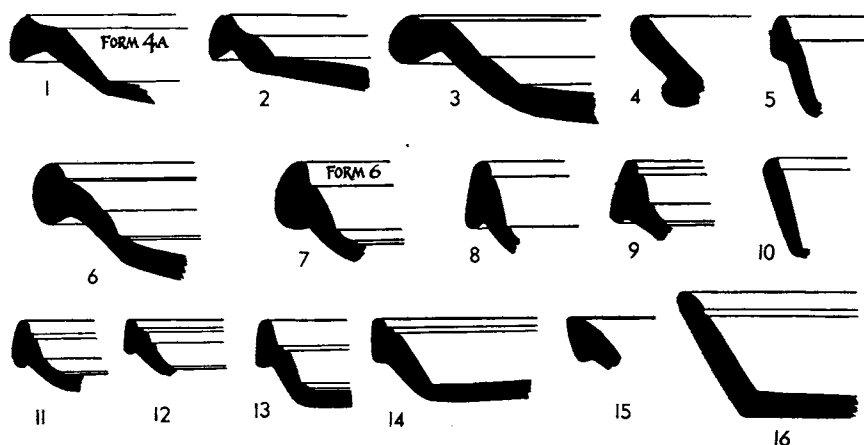


FIG. 46. Gallo-Belgic platters, rim-profiles. Scale $\frac{1}{2}$.

Form 3. Large platter with overhanging rim: outspread wall with two shallow, concave inner mouldings (*Haltern* 72).

Here slightly less angular in rim than the Augustan *Haltern*, abb. 3, 3a, but otherwise identical in all features (upper rim-lip grooved but not moulded, occasional internal offset at bottom of wall, wide low footstand) but for presence of rouletted wreath as in form 2. T.R.1 c. 5%, T.R.2 c. 40%, T.N. c. 55%, all fine. Stamps radial or central. Prevalent in T.R.1 at Vertault; T.R.2 rim under the lowest road in Mainz legionary fortress, *M.Z.* xxiv, 70, abb. 3, 1; fine large examples in graves at e.g. Andernach, gr. 21, Trier (with CN. ATEI cup), Minden-am-Sauer (Claudian). In Britain normally pre-conquest: *Verulamium*, 174-5, 8; cf. *Silchester*, pl. LXXIV, 187. Total 132+: range I-IV (r-s to VI).

Form 4A. Similar platter, but with straight wall surmounted by a single concave inner moulding (cf. fig. 46, 1).

Rare but unvarying, save for occasional offset at inner foot of wall; usually in T.N. Stamps here absent, but our nos. 7 and 110 occur on this form at Andernach and Urmitz (Bonn Mus.). Total 29: range I-III (r-s to VI).

Form 4B. Similar platter with base profile like form 1, and short, thick wall and rim.

An early version of the form with close prototypes at Mt. Beuvray; occurs in the Tiberian (?) grave 36 at Weisenau: here once in ditch E3 (period III).

Degenerate versions of form 4 are Claudian (*Hofheim*, 334, abb. 86, 2-3): of such we have only one (fig. 46, 2) and a few native copies.

Form 5. Platter with overhanging rim; outplayed wall with two internal ledge-mouldings (Haltern 72 A; Hofheim 97 a).

Rim not so undercut as in forms 3 and 4A: its upper lip stands up as a half-round moulding; otherwise profile is angular: sometimes a flat offset at inner foot of wall. Form 5A is normally very large; it changes little from Augustan to Claudian times, but the Haltern type (72Ab) is deeper, the Hofheim one (97Aa) narrower than ours, which may stand as typologically Tiberian, as *Bingen*, taf. 14, 1. Form 5B is rare, small, footless.

In both the workmanship is always fine: base may have concentric scribed circles and/or rouletted wreath. Stamps radial, usually triple; sometimes one central also.

T.R.1 c. 10%, T.R.2 c. 25%, T.N. c. 65%. As the form is a direct imitation of the Arretine platter Loeschke 1 (*Haltern*, 138 and taf. x), it occurs earliest in T.R.1, as at Oberaden and the 'Triangle' at Haltern (also at Autun): T.R.2 and (sparsely) T.N. begin in the main Haltern camp (late Aug. to early Tib.). At Claudian Hofheim both T.R. and T.N. are found (only T.R. radially stamped). Here T.N. predominates, but both are present. Exceptionally large rim in T.R.1, fig. 46, 3; and variant form 5/6, *ibid.* 6. Abroad it is common, especially on German sites, but also at Thuisy: abundant in both T.R. and T.N. at Trier (most notably in the kiln found in 1912); Andernach, in T.R.2 (one in grave with coin of Antonia) and T.N.; Köln, Urmitz, Bingen (with stamp; our no. 153), all T.R.2; Mainz, Wiesbaden, T.N.; Koblenz-Neuendorf, both wares. Local variants occur at Urmitz, Bingen, and *Nijmegen* (32, 16A and c). In Britain there were seven in T.N. at Silchester (*Silch.*, pl. LXXIV, 188), also one *Richborough III*, pl. xxxiv, 209: so pre- and post-conquest. Total 376+: range I-IV (r-s to VI).

Form 6. Large platters with heavy overhung rim and steep side variously moulded (Fig. 46, 7-9).

Such rims, variously resembling forms 5 and 7, recall *Haltern*, abb. 38, 6-7 (also at Thuisy); most are in T.R.2, a few in T.R.1. Total 36: range I-IV (r-s to VI).

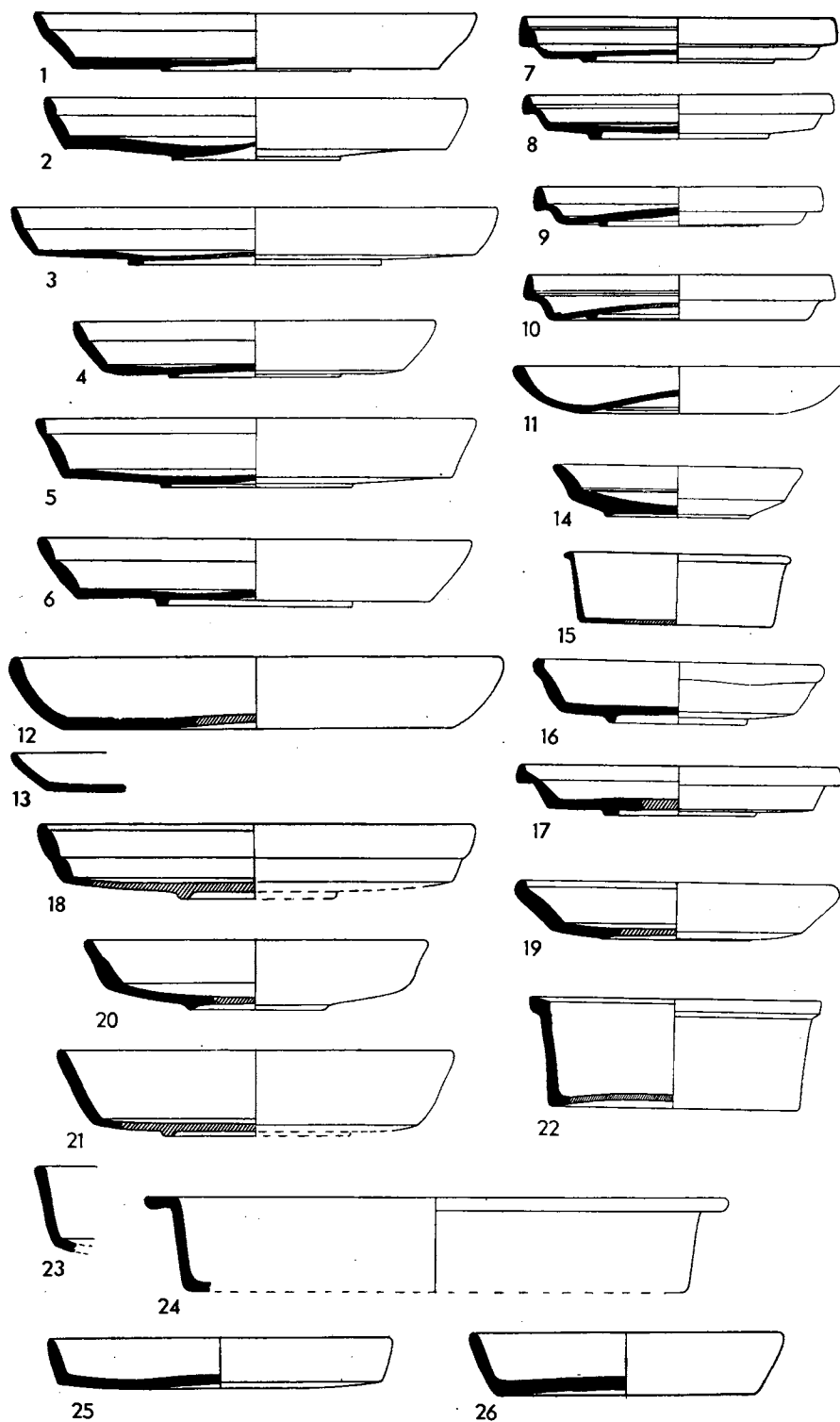
Form 7. Platter with steep, moulded side and vertical, overhanging rim (Haltern 72 B, a and b; Hofheim 97 Ab).

This is imitated from the Arretine platter Loeschke 1a (*Haltern*, 138 f. and taf. x), and is kept much closer to its original than usual in the Gallo-Belgic industry: the best examples reproduce every detail except the tall footstand. The exterior angles may be rounded or sharp without distinction of date. Vermeulen (*Nijmegen*, 32-4, type 17) has subdivided according to the slope of the outer rim-face, but this seems of no chronological import, and the interior mouldings are of more interest: here the vertical lip is marked off by an offset or squared ledge, below which the side may be either straight or convex-curved, with a hollow (fig. 47, 7) or flat (fig. 47, 8) moulding at the bottom. Exaggeration of the former at the expense of the side proper gives us a sub-group A (fig. 46, 12: period II, &c.) paralleled at Trier and Bingen, and by *Silch.* LXXIV, 185, in T.N., while its reduction to a narrow, flat form, with either straight or convex-curved side above, gives us B (frequent in T.R. at Köln, perhaps later on the whole than A, fig. 46, 11, 13). Very rarely (c) this moulding is suppressed altogether (fig. 46, 14).

All here both pre- and post-conquest, both in T.R.2 and rather less often in T.N.: sub-group B accounts for over 50, 41 in T.R.2, 10 in T.N. Most T.R. examples have the moulding hollow, nearly all the T.N. have it flat. The straight side is perhaps in general earlier than the convex. Stamps (normally central) found on forms 7 or 8 include: no. 2, (AC)VTVS, no. 42, ATTISV, no. 49, BENTO (several), no. 68, CARTIVIR, no. 73, DIMIO (several), no. 79, DVROTIX (two), no. 109, LVLLOS, no. 154, VELVC . . . , and various illegible.

Common abroad (especially B) from Augustan (*Haltern*) to Claudian (*Hofheim*) periods: Thuisy, Trier and district, Andernach, Urmitz, Koblenz, Bingen, Weisenau, Mainz (one from between the earth and stone fortress levels: *M.Z.* xxiv, 70, abb. 3, 20). The raising of the base to

THE FINDS

FIG. 47. Gallo-Belgic and Native platters. Scale $\frac{1}{4}$.

nullify the use of the footring is often but not always a late (Claudian) feature in this form and the next: see below on form 16. Total 197+ : range I-IV (r-s to VI).

There is some evidence for a T.R. variant with curved wall and only a small groove at lip (fig. 46, 15, period I).

Form 8. Similar platter with taller rim, not overhanging.

A direct derivative of form 7, with the rim exaggerated at the expense of the side. T.R.2 c. 34%, T.N. c. 66%. Stamps normally central. Abroad it overlaps form 7 (e.g. Thuisy), but lasts longer. In Britain there are two in T.N. associated with the Arretine crater from Foxton, and another from Litlington (Fox, *Arch. Camb. Reg.*, pl. xx, 4-7); one from Murston, Kent (*B.M. Cat.* 144, fig. 53), and another from London Wall (Wheeler, *London in Roman Times*, fig. 53): both T.R.2; on the whole mainly post-conquest. Total 393+ : range I-IV/VI. For stamps see under form 7. Further drawings: fig. 47, 9, 10.

Form 9. Small platter with curved wall and overhanging rim.

The curved wall is thin and offset by a rectangular internal moulding from the base and likewise from the lip. Rare: always in fine T.N. Stamps here absent. These platters occur neither at Haltern nor Hofheim, but fall between Haltern 72B and Hofheim 98A: one at Nijmegen (Vermeulen's type 17A) is in a Claudian grave group, while in grave 6 at Weisenau one occurs stamped ACVTIO (our no. 3) with coins of Caligula (*M.Z.* viii, 40: cf. 44). Total 14: range I-IV/VI?

Form 10. Larger platter with similar curved wall and external flange.

This form, rare in Germany (Trier, Köln), is no less so here. Total 4 (all T.N.): range ?

Form 11. Platter with straight outplayed wall and slight internal groove or offset near lip (Haltern 74).

Never common, this form is confined to T.R.: its two normal varieties may be distinguished thus: A, wall thickens upwards to a flat, sharp-edged rim, with offset close below (fig. 46, 10) which is rarely omitted (Stambruges, Brussels Mus.); size usually small (as type-fig., T.R.2, from period III-IV). B, even wall, lip rounded off, offset a groove only; size larger, heavier (fig. 46, 16). Loeschke (*Haltern*, 267-8) dates the type late in Augustan times; cf. one (B, but grooveless) in the Augustan grave 812 at St. Matthias, Trier; those at the Lebach cemetery (*Saar* ii, taf. 8, 10, d, g; 9, 23, k) may be Tiberian, but there are none at Nijmegen or Hofheim.

The connexion with form 12 is obvious, and is borne out by *Haltern*, abb. 39, 1-4, and the intermediate platter from grave 11 at Beckingen (*Saar* iii, taf. 14, 11). Total 19: range perhaps I only (but r-s to VI).

Forms 12-14. Platters with outplayed wall divided internally by a single offset.

Despite their initial connexion with so rare a form as 11, these platters are here extremely common (probably over 600 examples). All are of medium size, and all in T.N. The three forms make a series in type and (broadly speaking) in date.

Form 12. Straight wall, divided internally by offset in the upper third of the height, which in the earliest specimens is slight (*Haltern*, abb. 39, 2-4),¹ but later becomes very marked. Base flat, often with slight central 'kick', where stamp is now always placed, surrounded by concentric grooves and/or rouletted wreath. Footring low, small, rectangular.

Not so common abroad (Autun, Andernach (gr. 8) Urmitz (in grave with Augustan jug), Bösenheim, Koblenz-Neuendorf, Xanten (gr. 23, with Claudian Sigillata), Trier); Louis-Linz-Strasse kilns at Trier produced a waster stamped TATIRA, and the form was also made at Courmelois. In the main Claudian. Here very common (? made locally). Total 409+ : range I-IV (r-s to VI).

¹ We have one exceptional rim like abb. 39, 4 in T.R.

Form 13. Exactly as form 12, but the wall is bent over to a concave exterior curve, and swells internally above and below the offset. Stamps (normally illegible) central. Rare abroad; Trier (3, St. Matthias); Peissant, 3 (Brussels Mus.); here commoner (? made locally); all T.N. Total 151 + : range I (just)—IV (r-s to VI). Further illustrations fig. 47, 1-6.

Form 14. Exaggerated from form 13, with the concave curvature pronounced, and the offset closer under the rim (Nijmegen type 18). Base normally similar, but depth relatively greater. As one of the latest of these platter forms (stamps very rare) it is found in three different fabrics:

- (a) True but inferior T.N., as made at Courmelois, and perhaps locally here: common.
- (b) Fine grey ware fumed and polished, with basal rouletted wreath—Roman copies: rare.
- (c) Coarse Roman grey ware, fumed and smoothed, probably local copies: common.

These latter (*b* and *c*) begin to be common in period IV and probably last into Flavian times; they occur, though rarely, in the Colonia.

This late development, absent from Haltern and always rare in Germany (Hofheim, none; Strasbourg, 1; Lebach, gr. 154, 1 (*Saar* iv, taf. ix, 154 e); Courmelois (where made)—all T.N.), was, however, exported to Britain both before and after the conquest: *Verulamium* (174-5, no. 9), Chichester (*S.A.C.* lxxvi, 157, 3). Total (*a*), 257 + : range I (just)—IV/VI. Total (*b-c*), 85: range I (just, *b* only)—VI and later.

Form 15. Deep platter with nearly vertical plano-convex wall, joining the base at a sharp angle.

Base usually flat, with small, rectangular footing, and concentric grooves round central stamp. They occur at Urmitz (early graves), Andernach, Mainz, Bingen, Koblenz-Neuendorf, and at Trier in the Kapellenstrasse kilns, dated first half of the first century. Here all in T.N. (stamps rare): not pre-conquest. Total 57: range III—IV (r-s to VI).

Form 16. Platter with roundly curved, concave wall (*Hofheim* 99 A-B).

The wall, sometimes thicker towards the rim (fig. 47, 11), is curved almost to a quarter circle, and in the best work has an internal offset at its junction with the base. The form is well known from continental La Tène dishes, beginning at least under Tiberius. At Hofheim it is very common (over 150 examples), and Ritterling drew attention to the rising base (as our 16A) bulged up to nullify the footing (*Hofheim*, 335): following him, many have taken this to be a Claudian feature, but there is no evidence that it is so exclusively, and it is probably best ascribed to deformation before firing, due to careless loading of the kiln. In any case it is rare at Colchester, where the basal kick is normally slight. Material almost always T.N. (one T.R. at Nijmegen and Köln). Abroad is well represented in France (e.g. Autun, Morains (Marne), Courmelois, where made), Belgium (Harmignies, Stambruges), and Germany, especially at Köln and Trier, where made (the pieces from the third Louis-Linz-Strasse kiln, variously T.N. and T.R.2, show that this distinction is one of firing only). At our site the form is at first rare, and is commonest in Period IV; it still occurs in VI. Stamps not common. Total 142 + : range I (just)—VI.

Other British examples are Claudian or later: Chichester (*S.A.C.* lxxvi, 141, no. 2), the Claudian well at Margidunum (*J.R.S.* xiii, pl. x, 5), and the large early camp at Malton (*Malton*, fig. 17, 6), datable c. 71-4.

Form 16B. Roman copy of form 16A (cf. *Collingwood* type 40).

These are usually narrower than the originals, and the wall meets the flat base at something of an angle externally, and without an offset internally. The footing is clumsily finished. Material chiefly soft sandy grey ware, but may be brown or grey, polished, sometimes with a thickened rim (fig. 47, 11). Four with imitation stamps occur in a grave in the Colchester West Cemetery (May, 290-1, pl. xci, 4) with flagons of our form 154, probably Neronian, and they are common

in the Colonia; likewise abroad they are specially common at Köln in the contemporary Colonia Agrippinensis (founded A.D. 50). Total 135: range III (just)—VI and later.

The disappearance of the footring and the influence of our form 17 produced in Flavian times the well-known Romano-British dish series Collingwood types 35–9, which continues throughout the Roman period.

Form 17. Red-coated platters, with flat base and curved wall (with lids) (Haltern 75A; Hofheim 100).

The flat base has no footring, and the plain lip is brought up almost to a point (very rarely with a half-round external beading; only one example at Colchester). Concentric scribed circles are normal on the base interior, stamps absent (see below). The bottom is usually much blackened by fire owing to use in the kitchen—Loeschcke says 'to cook large flat cakes', for which purpose they were provided with lids. Their distinctive ware and finish set them apart from normal Gallo-Belgic pottery, but they are here provisionally classed with it (cf. Betterman, *Bemalte Keramik*, p. 3) and not as 'Roman': no centre of manufacture has yet been discovered. There are several varieties:

A. Finest, earliest: usually very large (35–46 cm. diameter, seldom *c.* 22 cm.), in rather coarse brownish-red ware, sandy and often micaceous; the whole interior covered by a thick coat of deep, rich 'Pompeian Red', carried over and a little way down beyond the lip. The circles on the base are arranged in three or four groups of as many as 8 or 10 together. Stylus signatures or occasionally stamps may occur *underneath* the base; see *Haltern*, 269–70: the commonest is D.MARI (one only at Colchester).

These superior platters occur abroad from Augustan times (Oberaden, Haltern) onwards. Total here 104: range I–IV/VI.

B. Also fine, but later (fig. 47, 12); smaller (20–8 cm.), in good reddish-brown ware, not sandy but always finely micaceous; red coating brighter and thinner, more like wall-plaster paint; the unpainted surface has a thin, scarcely perceptible coat of matt, reddish-brown, normal also on the lids. Claudian at Hofheim: at our site always post-conquest, and good examples occurred in the Colchester pottery-shop (p. 20): *E.A.S.T.* xix, 285, pl. II, 5–6; xx, 214. Total 37: range III (just)—VI.

c and d. Later and inferior (fig. 47, 13): ware poor, yellowish, reddish, or whitish, not regularly micaceous; colour coating weak, thin, dark red or yellow-brown. The circles on the base are now bold grooves usually in pairs, never multiple. Post-Claudian at Hofheim, and at our site (where made) most prominent in Period VI, some of very large size. Combined total 54: range IV–VI. See our fig. 47, 12, 13.

For grey-ware copies cf. *Wroxeter 1912*, fig. 17, 22; *Richborough I*, 85.

The *lids* correspond in ware and finish (but never have the glossy red coating, only the matt red-brown); one is shown over the type-figure, another on pl. LXXXV, 21. Never knobbed, they are reversible, having a slight footring above, or at least a slight offset surrounding a recessed centre. Total 75: range I/III–VI.

Fig. 48 also illustrates a few *unusual rims of platters*. Nos. 2 and 4 are in thick micaceous ware like that of forms 1 and 4B. No. 5 is fine T.N. No. 15 is T.R.2, possibly form 7.

'Sub-Belgic' (Native) Platters (pl. L)

While Gallo-Belgic platter forms are as a rule clear-cut and easy to classify, the native British forms imitated from them are the opposite, and borrow from each other so freely that they overlap to an embarrassing extent. Our classification of these native or 'sub-Belgic' platters is thus naturally not exhaustive. Type-figures are difficult to select where so few rims are alike, and even the large number of drawings given scarcely represents a quarter of the forms actually found. The native potter rarely attempted the neat angular mouldings and footrings of the Gallo-Belgic

forms: his versions of the mouldings are generally scamped, and his footrings, though seldom omitted, are small and rounded. The platters are usually better finished inside than out, which often alone distinguishes their sherds from those of lids. Though frequent in 'soapy' pure native ware, they are usually romanizing, conformably with their relatively late average date. In graves they are uncommon (Aylesford, *Arch.* lii, pl. ix, 2; Allington, *Swarling*, pl. xi, 8; Hurstbourne Tumulus, *Belgae*, fig. 32, 7-10), and are better known from Verulamium (Prae Wood): *Verulamium*, 155 ff.; but at our site their numbers are overwhelmingly greater, many hundreds of vessels being represented. Their incidence is mainly post-conquest. The chief exceptions to this are forms 21 and 22.

Form 21. Native copy of Gallo-Belgic platter form 1.

The outline varies greatly: while the majority (21A and B) stand reasonably close to the original, yet in many cases reduced width and modified profile lead to aberrant forms (21C-D-E), of which C is almost rather a bowl than a platter (another drawing, fig. 47, 14). They are rounded, not pointed at the lip, and with the wall variously everted and either straight (A-B)—sometimes chamfered away beneath as E—or slightly outcurved as D; sometimes even incurved like form 30. The ware includes native as well as romanizing fabric, and varies from brown to grey and black. Variants link to form 31 (fig. 47, 20-1), while fig. 48, 1 copies the tendency of form 1 to dip at the inner base of wall. Total (with form 22) 147+ : range I-VI.

Form 22. Native copy of form 2.

This more accurate copy is quite scarce: there are only three in all. The type-figure is of period III, and another is of period VI (without footring, fig. 47, 25). Brown to black ware.

Form 23. Native platter, modelled on Gallo-Belgic form 5 or Arretine form Loeschcke 1A (SI).

These are not numerous. The characteristic feature is a hollow band inside an occasionally overhung lip. 23A is the more normal; the figured specimen of 23B is in hard polished ware, and bears a punched roulette-like wreath on the base. Total 23: range IV-VI(?).

Form 24. Native copy of Gallo-Belgic platter forms 7-8.

Some of these are the best of all native copies: despite rounding of angles and carelessness over mouldings, the average workmanship is much neater than usual. The worst examples are those made not in native but in hard grey Roman ware, normally late. Those figured (24A-B-cab) have been selected to represent the main varieties of form. Other variants are given fig. 47, 17, fig. 48, 2, 4-6. Total 89+ : range III/IV-VI.

Forms 26 and 27. Native copies of Gallo-Belgic platter forms 12 and 13.

These copies, though not neat, are fairly accurate, and can be distinguished by the same criterion as their prototypes: the wall in 26 (like 12) is convex, in 27 (like 13) it has a marked concavity below. Among variants may be noted two parallels to *Richborough I*, types 9 and 10 (fig. 47, 18 and 48, 3). Combined totals 16: range (26) I-VI, (27) IV-VI.

Form 28. Native copy of Gallo-Belgic platter form 14.

These reproduce, with some exaggeration, the high-placed offset of the prototype. The wall may be straight or variously curved (A-B-C), generally very boldly (often more so than here figured). Some variants are given fig. 47, 16, 19 and fig. 48, 7, 8, 11, 12, 14, 15. Total 89: range III/IV-VI.

Form 29. Native development of form 24 or 27.

The wall is widely splayed and sometimes incurved strongly at the top, fig. 48, 9-10. Scarce. Total 8: range IV (3).

Form 30. Native copy of Gallo-Belgic platter form 16.

These, with their distinctive incurved wall, are very scarce: only three in all, two stratified in IV. Compare fig. 47, 20.

Form 31. Native platter with straight wall.

These are scarce; no two are quite alike, but as they connect the Gallo-Belgic series with a well-known family of later Romano-British forms, they deserve recognition. Of the varieties 31A has a useless rectangular footring and a squared lip; B a plain lip and base; C (a rarity from ditch II silt, period V) has two internal mouldings; D (period VI) shows a deepening tendency accentuated in E, which has a chamfered foot and a crude bead-rim. Others are shown fig. 48, 13, fig. 47, 21, 23, 26; rim developed in 22, compare 15 and 24 (form 41). Total 13: range III-VI.

Form 32. Native platter with slightly moulded wall.

Those figured as 32A-B-C illustrate the varieties: all are scarce. Total 13: range I-VI, the earliest being one in site Y1.

Form 33. Native platter with internal quarter-round moulding.

A single incomplete example in brown-black ware from pit D1 (period IV), another in Period VI, and one unstratified. A similar platter is among the vessels from Grügelborn in Trier Mus.

Native, Gallo-Belgic, and Roman Bowls (pls. LI and LII)

Form 41. Straight-sided bowl with horizontally everted rim.

Never common, these occur in native romanizing and Romano-British wares (but never T.R. or T.N.). The rim may or may not be reeded (fig. 47, 22, 24); the reeding is exaggerated on the mica-coated examples (fig. 48, 30), which are the best finished and seem all to be early. The type-figure is from a Claudian rubbish-pit near the British cemetery area at Lexden (p. 17): others come from the Colonia. Total for Sheepen, 12: range IV-VI.

Form 42. Bowl with slightly curved wall and reeded rim (Hofheim 94).

Also scarce, as at Hofheim. The form was romanized on the Continent from a Mont Beuvray type (Bulliot, *Album*, pl. xxxi, 29), and appears here either in light grey clay of Roman character, or in a brown-black 'knobbly' native rendering. The close relationship to forms 41 and 44-5 is obvious. Total 19, with a possible further 2 in period I-III: range (?II)/III/IV-VI.

Form 43A. Similar bowl with plain, flanged rim (fig. 48, 25).

This is here scarcely more than a variant of form 42, but deserves separate recognition as the apparent prototype of the long-lived Romano-British flanged series. Some are in native ware, but more are romanizing: one is in Roman buff ware, with traces of red coating. Total about 10, chiefly period VI.

Form 44A. Bowl with outplayed wall, outbent rim generally hollowed on top, and footring.

Not found abroad; of crude ware, black, brown, or grey, often with the native 'soapy' finish. Profile varies and connects closely with forms 41-2 and 45. Rim hollowed for lid: cf. fig. 48, 16 (form 47B). Total 24: range probably III-IV.

Forms 43B and 44B. Large varieties of bowl (pl. LII).

These extremely large forms vary in detail, but seem never to have a footring. Some other rims are given fig. 48, 19-21. Total only about 5: range III-IV.

There are a number of variant rims not easily placed among the preceding forms, but certainly from their ranks. Some are shown fig. 48, 17, 18, 22-3, 29, 31-2.

Form 45A. Bowl of form 44, but on tripod (pl. LI).

In the absence of complete examples the length of the three legs is unknown. The ware is

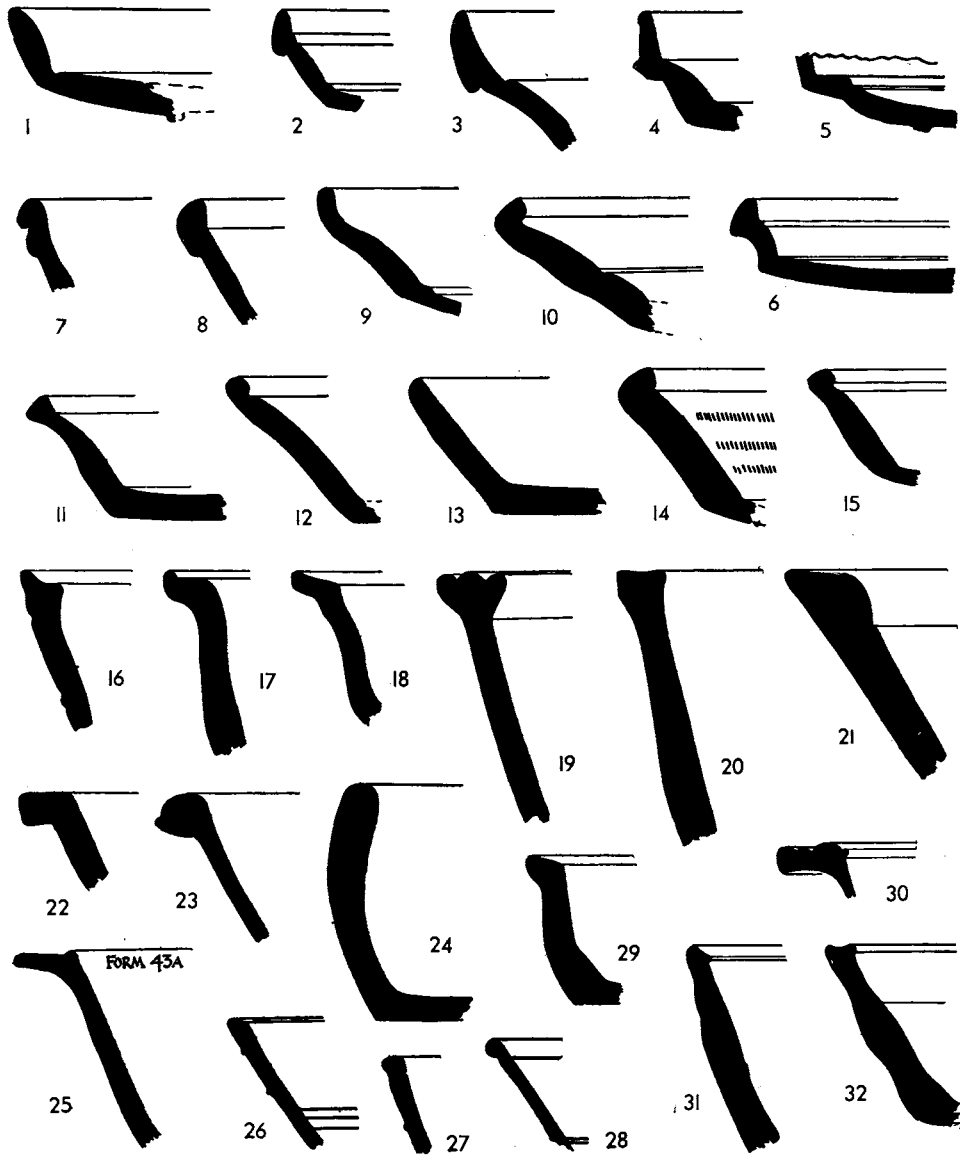


FIG. 48. Gallo-Belgic and Native platters, bowls, and other unglazed pottery, rim-profiles. Scale $\frac{1}{2}$.

rough, brown or black and very micaceous, as in form 262. Two found (periods II-III and IV). Cf. Silchester, *Arch.* lxi, 210, fig. 6. A very large pointed oblong foot occurred in ditch I, period II.

Form 45B. Tripod bowl with flanged rim.

The rim-form is Roman abroad (Weisenau, *M.Z.* vii, 48 abb. 2; Mainz legionary fortress, *ibid.* xxiii, 64, abb. 18, 3, 11-13), and the light but fumed grey clay is of Roman character. Two found: type-figure period VI, found with the lid pl. LXXXV, 20, in similar ware and probably belonging to it: other rim figured is of period IV.

Tripod bowls were numerous at Mt. Beuvray, but they never became popular with the Romans, and all seem to have died out by the end of the Flavian period (*Wroxeter 1913*, 55, mica-gilt, '80-120', need be no exception). Combined total 6: range IV-VI.

Form 46. Hemispherical bowl with flanged rim (Hofheim 129).

This form, probably taken from Sigillata form Ritt. 12 (S19), is fairly well represented at Hofheim: Ritterling calls it 'Belgic', but our specimens (also in the Colonia) are of coarse Roman red or buff ware, smoothed. Our type-figure (pl. LII) has traces of a spout like Ritt. 12. Total 4: range III-VI.

Form 47A and B. Heavy carinated bowls (Pl. LII).

A. With heavy bead-rim; native black with roughly tooled brown surface.

B. Rim with hollow recalling forms 43-4; soft native black 'soapy' surface. Fig. 48, 16 is probably another example: it is of similar ware, latticed outside. Total 9: range I-IV.

Form 48. Hemispherical bead-rim bowl.

Cordon under lip either doubled, tripled, or absent: ware either T.R.4 (type-figure), brown, grey, or black. Cf. Vermeulen, *Nijmegen*, type 23; also *Richborough I*, type 18 (Claudian). Total 35: range III-VI.

Form 49. Deep bowl imitating Sigillata form 29 (Hofheim 109A).

This form of the imitation is uncommon: our four examples, in fine black ware, almost T.N., reproduce one from Mainz (Stadt-Museum) in fine T.N., which gives our type-figure. Range doubtful, one in VI.

Form 50. Deep bowl, the base with central 'kick' (Hofheim 109B).

One of the commonest T.N. vessels at Hofheim; despite its absence from Haltern, it is derived by Ritterling from a late La Tène form used at Mt. Beuvray (Bulliot, *Album*, pl. xxvi, 11; xxviii, 4, 12; xxx, 8, 13, 18), with notice of its relationship to Sigillata 29 and our form 72. Of his two variants, B is at present absent from our site; but a further variant, C, with nearly straight wall and plain lip, comes from the sand-pit, in Roman buff ware: it is paralleled in T.N., e.g. at Weisenau (whence our type-figure 50c). Total 15 (?): range III-VI.

Form 51. Bobbin-shaped bowls with strong basal 'kick'.

This peculiar Gallo-Belgic form suggests a wooden prototype (Loeschcke in *Trierer Zt.* iii (1928), 68). At Haltern the ware is fumed grey-black, highly polished, and very micaceous (Loeschcke, p. 290 compares Mt. Beuvray fabric); the same ware is prevalent here (but not at Hofheim where the form is rare and degenerate): two examples in true T.N., one in T.R.4. There are three variants:

A. Fine horizontal cordons all over outside. So at Trier and Andernach (whence our figure), one of our rims fig. 48, 27. Not at Haltern. Total 18: range III-IV.

B. Banded at top and waist only (as *Haltern*, taf. xxiv, 18). Rim shown fig. 48, 26. Total 9, all unstratified.

C. Plain outside. Cf. Breuer, *Nimègue*, pl. vi, 24, and Hofheim type 108. Total 65: range III-IV.

The fine horizontal lines on the interior and on the base are a peculiarity shared by all three variants and allow the identification of quite small fragments.

A form with nearly flat base was made at Trier (Louis-Linz-Strasse), cf. *Verulamium*, 162-3, 34, and *Arch. Journ.* xcvii, 54-5, with 79 ff., fig. 23, 8 (Mt. Beuvray), and cf. 1 (Angers) and fig. 22, 1 (Pont-Maure), with the 'kick'.

As form 52 we have grouped our remaining bowls: these are diverse.

Form 52A. Carinated bowl with everted rim and rouletted body band (Hofheim 127).

Scarce at Hofheim, was made at Lavoye (*Germania*, xiv, 67, fig. B; cf. *M.Z.* viii/ix, 130, abb. 9, 1, Bretzenheim). One example in pale T.N., period IV.

Form 52B. Bowl or deep platter with outcurved wall.

Ware pale grey with darker polished surface, slightly micaceous (cf. form 45): form seems at present unparalleled. Total 16: range II-IV (r-s to VI).

For other carinated bowls see below, forms 241-6.

Form 52C. Hemispherical bowl with footring and moulded rim.

Only two rims were found, in black ware. Type-figure is T.N., Mainz Mus. Period doubtful.

Other rims on fig. 48. Most of these have already been mentioned. No. 24 is a very heavy rim in Roman grey ware, possibly later than our period. No. 28 is in fine T.N. with two grooves inside, possibly from some form of our form 49.

Gallo-Belgic Cups, Roman Bowls, and their Native Imitations (pl. LIII)

Form 53. Bell-shaped cup imitating Arretine cup Loeschcke 7 (Haltern 77).

Broad, with wall outcurving to extended rim, with lip properly vertical but more often rounded off, demarcated by offset. Base nearly flat, with normal squared footring. A bold groove runs round inside the wall, which is thicker below this than above. Made (A) in white 'T.R.3' clay with grey-chocolate coating: early (Oberaden, Koblenz-Lohrstrasse, &c.), here one sherd only; (B) in true T.R.3: occurs at Urmitz in a probably Tiberian grave, in Trier district, and Harmignies (Brussels Mus.): here over 20. Of (C), in true T.N., several examples. Combined total 30: range I-III (r-s to VI).

Form 54. Narrower bell-shaped cup with pendent rim, also imitating Loeschcke 7.

Differs from the preceding in having wall rising direct from the footring in an S-curve, and an overhanging rim demarcated on the inside by a double offset or groove enclosing a narrow fluting. Made in T.R.3. Absent from Haltern, and from Hofheim; apparently Tiberian (4 at Xanten). Stamps occur. Total 22 (four rims are very small): range I/III-IV (r-s to VI).

Form 55. Conical cup with rouletted rim, imitating Loeschcke 8.

One unstratified example only, in a thin fine T.R., yellowish-red with light red coating. Rare: one at Köln, and cf. *M.Z.* vii, abb. 12, 5-5a.

Form 56. Bell-shaped cups, carinated below the rim, imitating Loeschcke 7 and 8 (Haltern 80, Hofheim 103).

These are extremely common, though the superior Augustan T.R. forms (Haltern 78-9) are absent. They are made (Haltern, 273) in two sizes. *Form 56A* is the normal larger-size form in T.R.2, while *Form 56B* is more usual in the smaller size. In A the rim is inclined slightly inwards from the carination and is relatively low (at Haltern $\frac{1}{5}$ of the diameter, at Colchester nearly $\frac{1}{10}$); in B it is more sharply so inclined on the outside, but is thickened behind the carination and thus runs up vertically on the inside. In both there is an internal lip-groove. Inside the bottom of the

S-curved wall projects a cleanly offset quarter-round concave band; the base has a central stamp above, and a footing of normal form below, applied, and so easily detached. The ware is a fine T.R.2, orange-red with a rather darker surface wash on rim and interior. Stamps are very numerous.

The taller-rimmed Claudian form Hofheim 103 (rim-height $\frac{1}{4}$ of the diameter) is here very rare in T.R., but 56A and B are common in all our periods.

Form 56c is normal in T.N.; of about 350 found only 27 have rims approximating to A, and only 2 like B. The form in both larger and smaller sizes is more thickly made than A or B, with a blunter carination hollowed internally in a sharper V. Above this the tall rim slopes in slightly, the lip-groove sometimes lower than in A and B, as in the type-figure. About 30 small rims have no offset at all. The greater rim-height is nearer to the Hofheim form, but the general resemblance is still rather to Haltern 80b: the incidence again runs throughout, but compared with the T.R. forms its emphasis is later. Stamps again numerous.

The form in general is common abroad from Augustus to Claudius (Haltern, Nijmegen type 21, Trier, Hofheim, &c.; also (including T.R.1) Vertault, Autun), and was imported into Britain before and after the conquest: e.g. *Verulamium* (Prae Wood) 158, no. 26, Chichester (*S.A.C.* lxxvi, 141-2, 18). Total here 675: range I-IV/VI.

Form 57. Copy of form 56.

The form was copied in Roman grey ware (Urmitz, in Claudian(?) grave), and here once in ditch I silt, region 1, but normally at Colchester in brownish native ware (type-figure, with matt black surface). Total 10: range I-VI.

Form 58. Gallo-Belgic imitation of Sigillata form 24/5 (Hofheim 104).

Made both in T.R.2 and T.N., the incidence of which varies at different sites: mostly T.R. at Nijmegen, all save one T.N. at Hofheim. Made in two sizes: the larger *form 58A* is nearly hemispherical, with internal offset below the slightly curved rim: the exterior flange is sharply moulded, the footstand unusually tall. The smaller *form 58B* has a squatter footstand and clumsier flange, above which the wall is almost vertical. Neither is very common, and the type is hardly pre-Claudian: Hofheim, Nijmegen type 32, Urmitz (in Claudian graves), Trier, Köln, &c.; also (without inner rim-offset) Vertault, Forêt de Compiègne (St. Germain Mus.). Stamps occur, T.N. twice as common as T.R. and on the whole later: occasionally made in white or Roman grey. Total 67: range III-VI.

Form 59. Copy of form 58 or of its prototype.

These have a tall vertical wall above a flange which is always pressed out from within; the girth lines (enclosing matt band) above it and the offsets below, as in the type figure, are not regular. Our examples are all in grey romanizing-native fabric polished outside, save one in brittle orange-buff. Cf. *Richborough I*, 100, no. 74; *III*, no. 211; *Silchester*, pl. LXXVIII, 176-7; and here in Colonia. Total 27: range III/IV-VI.

Form 60. Carinated bowl with bead-rim.

A rare form, found in black-faced polished brown ware, the bead-rim grooved off inside and out, the base neatly finished with a footing. Cf. *M.Z.* vii, 101, abb. 10, 2. Finished outside, possibly a lid. Total 8: range IV-VI.

Form 61A. Deepened hemispherical bowl (Haltern 40B).

Common at Haltern in red, bluish, and hard blue-black wares, this form has Italian prototypes, especially the Arretine form Loeschcke 13 (*Haltern*, 217). The plain rim and deep wall of these Augustan bowls last into Tiberian times (Alteburg, Köln), but modifications set in, of which our

form represents one, with internally beaded rim, but retaining the original's profile and low-placed external broad groove. Our type-figure is in thin brittle red-brown ware; another example is scaled like form 62Ad. The form is already present at Haltern, and at Nijmegen is dated Augustan–Tiberian (*Nimègue*, pl. VII, 31–2); Köln, Bingen, Mainz, and Trier have blue-grey examples. We have only one such. See on 61B.

Form 61B. Similar bowl, more broadly bulged (Haltern 40A).

The bulging profile already manifest in the Haltern form later becomes combined with a loss of depth and a higher placing of the external groove, which may be either accentuated by a tiny raised line or else may demarcate a slight setting-back of the rim above. Normally in good red-brown ware, once in T.R.4.

The form is typologically midway between the Haltern shape and the shallower Claudian form 62. Total for 61A and B, 9: range I–IV (r–s to VI).

Form 62A. Hemispherical bowls, colour-coated (Hofheim 22).

These smaller, shallower bowls have no body-groove, but may be classified by the different treatments of the rim: *a*, plain with small cordon just below; *b*, entirely plain; *c*, with beading of several small cordons; *d*, plain and narrowed by being set back from the external line of the wall, i.e. without any offset; 62*f* is exceptional. Though at Hofheim they were in brownish or reddish wares, our examples, like the Nijmegen type 44 (B), are all in creamy white clay, very fragile and soft. They are coated inside and out with a colour-coating of metallic chocolate 'varnish', very easily wearing off. Such 'varnishing' of complete vessels was almost limited to lamps and inkpots in Augustan times (*Haltern*, 200), and its extension to such forms as this is a mainly Claudian development, which had of course a long subsequent history of expansion. It is in this form usually combined with 'rough-casting' or some form of ornament in relief, here represented as follows: *a*, regularly 'rough-cast' all over inside and out, save for the rim above the cordon; *b*, 'rusticated' all over; *c*, abnormal in being left plain; *d*, with body below the plain set-back rim ornamented in relief with imbricated scales. Other varieties of relief ornament, e.g. 'rusticated ridges', and the 'raspberry' applied roundels copied in form 62B, also occur. These bowls are well represented in the Rhineland (Koenen, *Gefässkunde*, pl. XII, 18–21a), and at Hofheim one variety, with a tendency to carination, lasted into Flavian times (cf. the handled type Hofheim 23, twice found in early Colchester graves (May, pl. xxxi, 134), but not yet on our site). Our type may be defined as Claudius–Nero: cf. *Silchester*, pl. XLVI, 49–51; *Richborough I*, no. 59; *III*, 229; London, *Guildhall Cat.*, pl. XLVI, 5; *Wroxeter 1914*, pl. XXVII, 73–4; and here in the Colonia. Total 83+: range III/IV–VI.

Form 62B. Coarser copies of form 62A.

Rarer: *a* is in black-faced red-brown ware, rough-cast within and with applied 'raspberry' roundels without; *b* is quite plain, in poor T.R.4, but with the set-back rim of form 62Ad. The third is like *a*, but with bead-rim. Total 18: range IV–VI.

Form 63. Hemispherical bowls with flat-topped projecting rim standing on tripod feet.

Represented at one of the Mainz kilns (*M.Z.* xxiv, 149, abb. 8, 1–2), this form seems Neronian at Colchester: here, made of the same creamy clay as 62A, with traces of reddish colour-'varnish' inside and out, and rough-cast all over the exterior. The parallel form Hofheim 32 is deeper and coloured only round the rim, but has the same conical feet. Cf. the Wroxeter examples: Anderson, *Uriconium*, pl. x, 10, and *Wroxeter 1914*, nos. 73–4; also *Silchester*, pl. XLVII, 49–51. Total 19: range IV–VI.

Form 64. Straight-sided bowl in dull black 'egg-shell' ware.

This seems also Neronian; there are parallels at Nijmegen and Köln, and one (yellowish) was

in a Weisenau grave with a platter of form 16c and a FORTIS lamp. A complete example was in the Colchester grave marked by the Favonius Facilis tombstone (p. 18): May, p. 264. Total 119 (about 100 in one deposit in region 1, area H): range IV-VI, mainly late.

Form 65. Large bowl in white 'egg-shell' ware.

Restored in drawing from two fragments in pit D18 (periods III-IV); decorated with horizontal grooves, the lower ones broken by shallow round depressions. Cf. that in grave 37A at Weisenau, with raised bands in place of grooves and the depressions triangular; *M.Z.* viii, 46, 5.

Form 66. Bowl with plain incurved rim and three external grooves.

This one piece only, in polished Roman grey ware, unstratified over site A4, but probably of our period.

Form 67. Small carinated cup with outbent cordoned rim, in native ware.

One only, in pure native 'soapy' brown-black ware, found in pieces in the first small pit in site A3 (thus period VI, but accompanying early survivals: p. 95). Unparalleled at present.

Form 68. Copy of Sigillata form 29.

That figured is in hard dark grey Roman ware, the ornament rendered in cordoning and oblique scored lines traversed by a horizontal groove; from ditch 1B, period III. Another in Roman light grey, period IV. Occurs in the Colonia, and in the 'Claudian well' at Margidunum, *J.R.S.* xiii, pl. xi, 17. Total 3: range III-IV (but of course lasts later).

Form 69A. Cylindrical bowl with indented ornament (Hofheim 28B).

Base-fragment only, in good T.R.3, the upright wall ornamented with the same indented wavy-lines so common on forms 111-12 (the Hofheim examples are rouletted). Unstratified.

Form 69B. Copy of Sigillata form 30.

Here (and in Colonia) in matt T.R.4. Rim slightly beaded; four groove-divided ornamental zones, the inner pair obliquely scored, the outer with running wavy-line. Cf. Koenen, *Gefässkunde*, pl. xi, 12, and those from Park Brow, *Arch.* lxxvi, 26, fig. 36, and the Hambleden villa, *ibid.* lxxi, 177, no. 99. Total 3: range III/IV-VI (but of course lasts later).

Form 70. Carinated bowl with inturned rim and two high handles.

Fig. 57, 9 (p. 274). Half-complete specimen, found in the gravel-pit with the bronze epaulette (p. 338). Thin hard grey-black ware with reddish surface bearing traces of white coating. Unparalleled at present. Period IV-VI?

Gallo-Belgic Pedestal-Beakers (pl. LIV)

These attractive vessels have never yet obtained the recognition they deserve; indeed the two Silchester examples (May, *Silchester*, nos. 178-9) are the only ones hitherto recorded in this country. The standardized pattern-work usually typical of the Gallo-Belgic potter here stereotyped no more than the pedestal-foot: the body-outlines present a rich variety of elegant profiles, in part at least suggestive of wooden prototypes. The excavations have produced pieces of at least 230 vessels, all in the same fine orange T.R. 3, covered not usually with a fumed chocolate coating but with a thin red or dark orange-red slip, highly polished, applied to the outside only. It has often been impossible to assign fragments precisely to their proper forms, especially detached pedestals and pieces of rim; we have therefore given a full illustration to the main range of forms,

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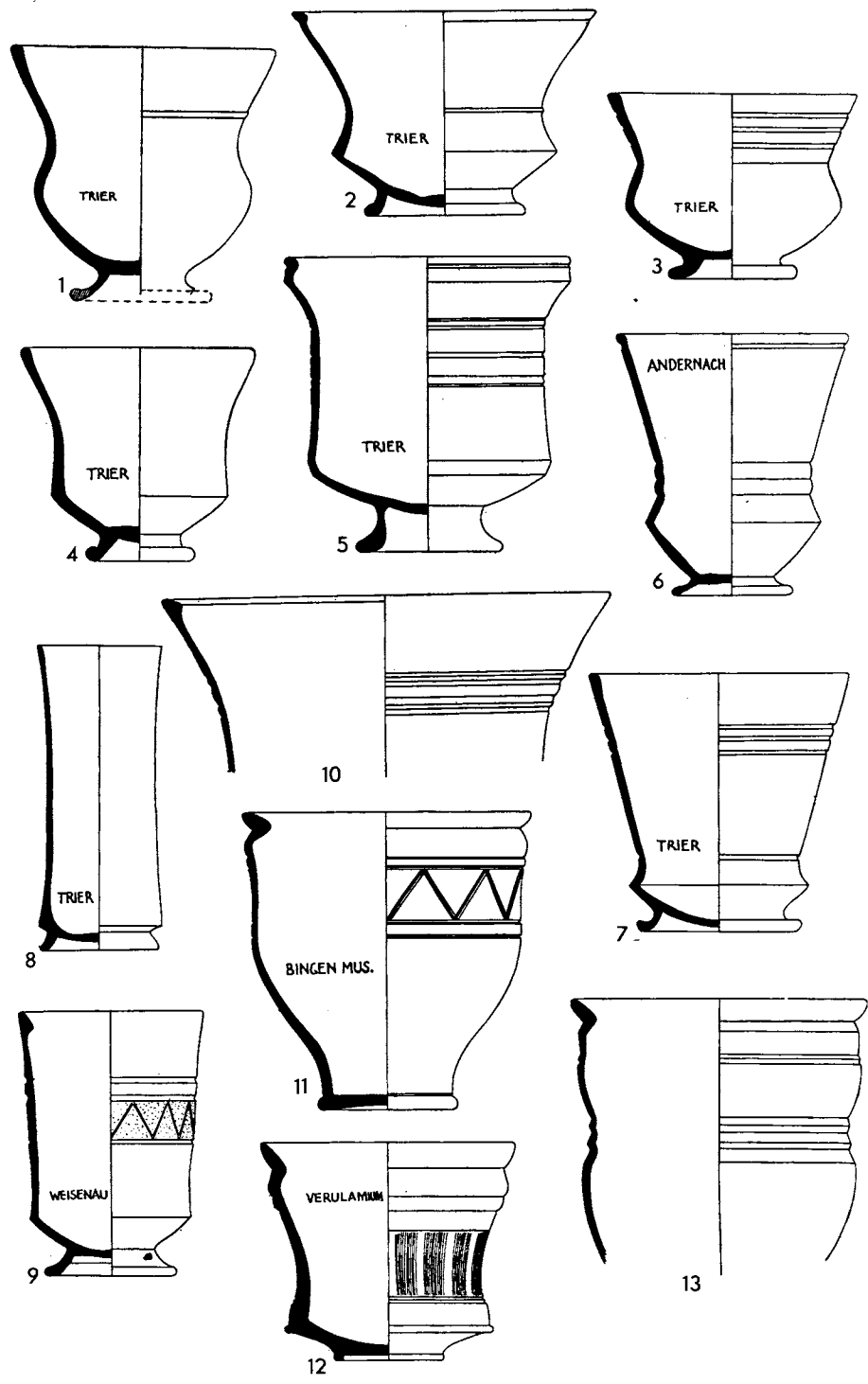


FIG. 49. Gallo-Belgic and Native beakers. Scale $\frac{1}{4}$.

where necessary by figuring complete examples from continental museums. The peculiar and fine fabric of these beakers associates them with forms 53-6 and forms 82, 84, 86, 91, and 112; evidently a number of the Gallo-Belgic pottery centres produced them, but a detailed study on these lines is not yet possible, nor are we able to construct a chronological series of their forms.

We have thus classified them simply according to form; they may occur in all our periods, both pre- and post-conquest.

Form 71. Copy of Arretine crater form 11.

Not found at Colchester, type-figure from Xanten (Bonn Mus.): plumper, closer copy (grey), Oberaden, taf. 45, 3; 46, *b*; another (Trier Mus.) is in 'soapy' native ware from a site contemporary with ours at Biewer.

Form 72A and B. Pedestalled copies of Sigillata form 29.

Both forms, A, grooved below rim and at carination, B, modified towards a La Tène necked-bowl shape, are very common in the Rhineland (Andernach, Bingen, Mainz, Trier), and may be expected at Colchester, though not yet certainly attested.

Form 73. Bell-mouthed pedestal-beaker with constricted middle and globular body.

In this and the following forms the internal thickening of the rim should be noted as a constant and typical feature. This form has a smoothly curved profile recalling the prehistoric bell-beaker; it is quite plain all over. There are pieces of 3 certain vessels (one IV/VI, but range uncertain). Thinner and finer than examples at Trier (fig. 49, 1, 3).

Form 74. Bell-mouthed pedestal-beaker with constricted middle and carinated body.

Commoner than form 73 at Trier and here (fig. 49, 2, 4); 74A is normal, 74A' is a much wider example from Trier, 74B approximates to form 79. Total 38: range I-III/IV (r-s to VI).

Form 75. Cup-mouthed pedestal-beaker with triply carinated body.

The carinations are separated by broad flutings. Fragments only: the type-figure, in the Rijksmuseum Kam at Nijmegen, has been kindly drawn by Miss Evelijn; there are numerous fine specimens from Vertault. Total 7+: range dubious, but includes IV.

Form 76. Cup-mouthed pedestal-beaker with constricted middle and globular body.

There are two varieties: A, bulged-out cup-mouth with bead rim, short constriction formed of several contiguous cordons; B, shallower cup-mouth with bead-rim, tall constriction with single cordon at top and bottom. It has been assumed that all fragments of cupped bead-rim belong to this form, but some are probably variants of e.g. form 75 or 78. Not yet definitely paralleled abroad. Type-figure A from Lexden grave 5, (p. 13, n. 5), with the jug form 161 (pl. LXIV) and amphora 165A; of B from pit D7 (period III). See also *C.M. Report*, 1928, pl. VII, 6113.27, and example of buff ware copy, *ibid.* 6526.27. Total here 104: range I-IV (r-s to VI).

Form 77. Nearly cylindrical pedestal-beaker with bevelled carination and mouth expanding to sharp angle surmounted by bead-rim.

Complete example, fig. 49, 5, from Trier Mus., is chocolate-grey like the early examples of form 53; incomplete type-figure in T.R. 3 restored from 4 fragments found, one stratified in pit D8 (period III-IV). The body is banded with grooves and cordons. Total 4+: range uncertain. Another complete example now from Lexden grave 7 (p. 13, n. 5): *Antiq. Journ.* xxii, 62, fig. 2, 9.

Form 78. Pedestal-beaker with constriction above sharp carination, the upper part broadly fluted and moulded, expanding to bead-rimmed mouth.

Normal red slip. Various fragments may, but do not certainly represent this form: the type-figure is from Koblenz-Neuendorf, and there are numerous fine specimens, some without body-moulding, from Vertault.

Form 79A. Similar but more cylindrical pedestal-beaker, with cordon body mouldings and without bead-rim.

Of the recognizable pieces a few are made in T.R.2. Represented at Vertault, Harmignies (Brussels Mus.), Andernach, and Trier. The fragment found at Warham Camp in Norfolk (*Antiq. Journ.* xiii, 409, fig. 3, 16) is almost certainly of this form. Total 19 + : range I-III/IV.

Form 79B. Local copy of form 79A (pl. LXXXI).

Fragments of a vessel from pit G₄ (period VI) may be so regarded, in dark brown romanizing ware with highly polished black surface, the lip and cordons carefully finished.

Form 81 (pl. LIV) and (p. 230) our fig. 49, 1-9 continue the continental series: 10 is a further rim from the site, of abnormal size.

Gallo-Belgic Girth-Beakers and their Imitations (pl. LV)

These vessels are characteristic of the first half of the first century A.D., and take their name from the cordoned body-girdle with which most of them are constricted. In their thin walls, bold mouldings, elegant foot, and careful finish the Gallo-Belgic fabric is seen at its best. The ware is the same orange-red T.R.3 as in the pedestal-beakers, but here the outer surface is usually fumed to a reddish or chocolate-brown; how this was done in the kiln is shown by the foot's escaping the fuming and remaining orange-red, being covered by the mouth of the vessel inverted next above it when the beakers were stacked foot upwards upon each other for firing. As in the similarly made butt-beaker form 112, the rim is an everted pointed-oval, but directly below it the wall breaks back in one or more strongly bulged cordon-mouldings. The concave curving of the foot is at first absent (Haltern 87), but already occurs sometimes at Haltern and soon after became general. The variations in body outline have been grouped into the following forms, which, however, naturally do not cover all exceptional specimens. Decoration in the form of fine incised lines set vertically in groups is normal, and the exterior is highly polished. Well over 300 vessels are represented here by fragments, but the bulk are too small for precise identification of form. Local copies of these popular imported beakers were naturally forthcoming, and we have pieces of at least 30 such in polished T.R.4 (mostly it seems of form 84), and (of 82 and 84) in black-polished native brown ware, and also in Roman fumed and polished grey ware. Girth-beakers occur throughout the occupation: they are well marked in period I and on into III, but are only rubbish-survivals after IV.

Form 82. Girth-beaker with decorated body constricted by one or more boldly moulded cordons.

Developed from Haltern form 87, this type appears before the end of the Haltern occupation (Haltern, 288-9, abb. 44, 10, taken as our type-figure; a better example has since been found there), and its general incidence is early (certainly not post-Tiberian: Urmitz (Haltern, *ibid.* 8), Andernach, Trier, Wiesbaden, Bingen). Of our few examples the earliest are from site F16 (period I and III-IV), and pit Z1A (period III?). Fragments from claypit 3 give us our fig. 50, 1, a fine example with debased girth-moulding. Total 8: range I(?)-IV/VI. Possibly really I-IV.

Form 83. Native copy of form 82.

One completely restorable example is figured, in native brown ware with black-polished 'soapy' surface, decorated with obliquely scored lines, from pit Y29 (period IV).

Form 84A and B. Large (A) or small (B) girth-beaker with body bulging both above and below the constriction, but decorated only above it.

The Augustan form Haltern 87, with its conical lower half, developed a broad bulge above an

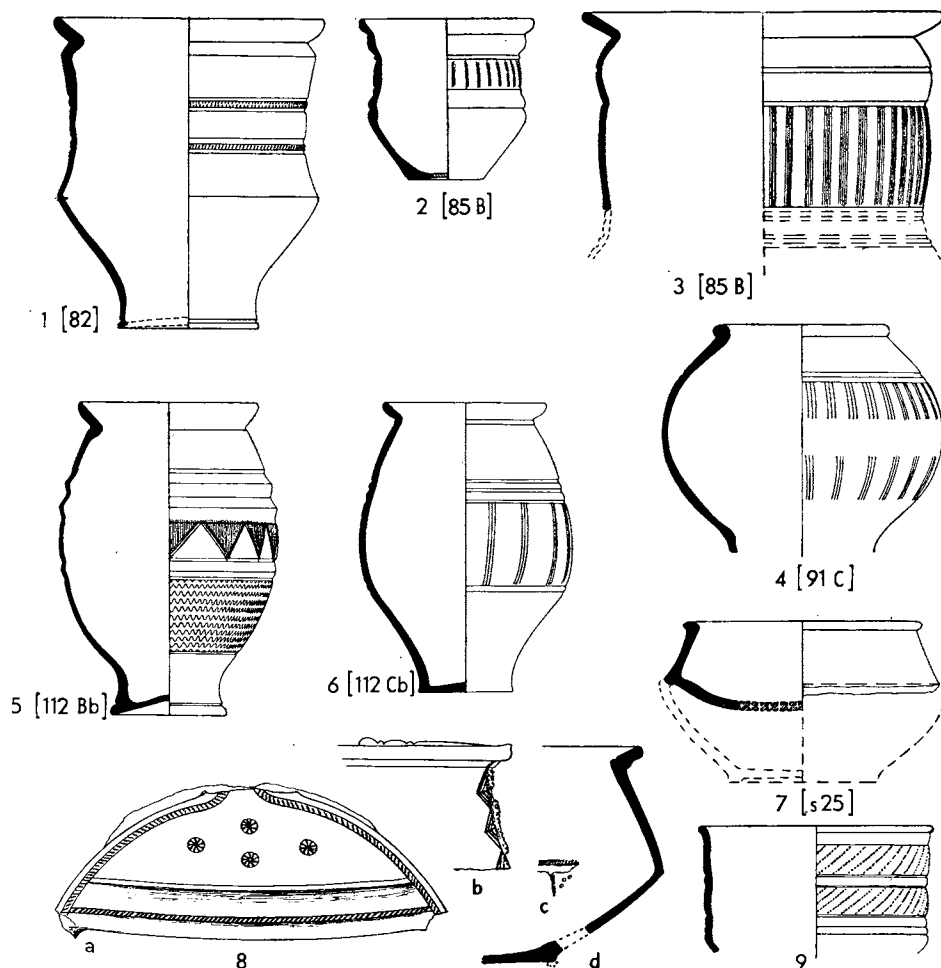


FIG. 50. Gallo-Belgic and other pottery (7 is Terra Sigillata: p. 188). Form-numbers in square brackets, 8, p. 273; 9, p. 274. Scale $\frac{1}{4}$.

incurved foot, and so continued apparently for several decades, in a large and a small size. The number of cordons below the rim varies from 3 or 4 to 1; the fewer they are, the broader is the decorated zone below them, and also the taller is the vessel. They are widespread abroad (Trier, Urmitz, Weisenau, Fussgönheim, Waldsee (Speier Mus.), Fontenouille (Brussels Mus.), Ver-tault), and plentiful at our site. One from region 3 (area A) had no decoration (fig. 49, 13), and the horizontal rilling of our type-figure 84B is anomalous. Total 275+ : range I-III/IV (r-s to VI).

Form 85. Copies of form 84.

A. In native ware, as form 83. Fairly close copy, rather splayed. Decoration, usually groups of vertical lines, combed or brushed: once oblique lines; cf. fig. 49, 12 (*Verulamium*, 159-61, 33 a-b). Not yet certainly attested here.

B. Fairly close copies in T.R.4 occur throughout the occupation, e.g. fig. 50, 2-3: vertical incised or combed lines are the usual decoration. Very carefully made. Total 57: range I-IV (r-s to VI).

C. A crudely 'generalized' rendering in soft pure native ware comes from pit Y29 (period IV); cf. a vessel from Smithfield, London, *Guildhall Mus. Cat.*, pl. xl, 3.

D. In Roman grey ware in similar style to (A). Decoration comb-stamped lattice pattern as on forms 108 and 119. One only, pit Y29 (period IV).

A variant copy, closer to Haltern 87, rouletted, in matt buff ware, comes from Clermont-Ferrand (St. Germain Mus.).

E. A rough and simplified copy in coarse buff ware, narrow and cylindrical above a projecting carination, comes from one of the revetment post-holes by the road on site A1 (period IV); cf. one from Runcton Holme, Norfolk, in *P.S.E.A.* vii, pt. 2, 238, no. 7. Two other fragments.

Form 86. Unconstricted girth-beaker.

Not certainly attested here, but fragments may well belong to it. A simplified form apparently mainly Claudian and largely confined to the middle Rhine districts (our type-figure from Bingen: fig. 49, 11, cf. *Kat. Bingen*, taf. 14, 6; 15, a, c, d; also, e.g., from kiln at Weisenau: *M.Z.* vi, 142, abb. 2, 1), and to Trier, where, however, some are said to be Augustan (*Tr. Jahresber.* iii, 20, abb. 7a and taf. iv, 2, 1). One from Champlieu, Forêt de Compiègne, is in St. Germain Mus. The decorated zone is concave but uninterrupted, with a cordon above and below; Bingen examples favour a plain bulge below the rim, Trier examples a band of cordons.

Form 87. Copies of form 86.

Not certainly attested, but many of the fragments listed under form 85B could well belong to copies of form 86.

Form 88. Simplified girth-beaker in Roman grey ware.

An unparalleled form with flat everted rim comes from site A4 (period VI); the body is stab-ornamented as in form 108, with a cordon at the mild constriction, below the carination the foot is missing.

Globular and Ovoid Beakers (pls. LV-LVI)

These are in general Gallo-Belgic and later adaptations of La Tène forms.

Forms 91A and B. Gallo-Belgic globular beakers with small bead-rim and incurved foot.

The normal form is A, relatively small and globular. The large variety B, with thickened but very low bead-rim and groove-divided body, is a rarity only paralleled at Vertault: the concentric circles and wavy-lines decorating it are finely combed, and the ware is fine T.R.3 with rich chocolate surface. Type-figure B restored from fragments, ditch I, period III.

In A the decorated zone with its groups of vertically incised lines is bounded by two bold grooves, the upper often exaggerated. The rim is somewhat thickened within but forms quite a low beading; the foot is identical with that of forms 82, 84, 86, and 112. The ware is also the same fine orange-red T.R.3, the body fumed chocolate-brown, the foot escaping this as already explained for the girth-beakers (p. 232). Only two fragments at Haltern (abb. 42, 7-8): the form's main incidence is probably Tiberius-Claudius (several at Trier, though none at Hofheim). Of 38 certain pieces

here, 1 was of period I and 2 of II, 2 of II-III, 3 of III, 1 of III-IV, and 2 each of IV, V, VI. Pieces of T.R.4 copies (91c) also occur, 12 being rims (type-figure period V) and one a distorted waster, fig. 50, 4, in poor T.R.4, from region 1.

Combined total 53+ : range I-IV (1-s to VI).

Form 91D. Gallo-Belgic globular beaker with everted rim.

Here the rim resembles that of forms 95-6 and 108, the body and foot remaining as in 91A; this is the universal form at Nijmegen (type 31—also 30 with plain body), where three occur in dated Claudian graves. We have only four rims, none stratified, one is in T.N. They should be post-conquest.

Form 92. Copy of form 91 in native to Romano-British ware.

The ware typically is brown, with deep black polished surface, but may vary through all graduations up to (but not apparently including) Roman ware. Decoration is either in vertical scored lines or rows of tiny punch-marks; the cordons above it on the type-figure are more often replaced by a simple offset, so marked that it seems ancestral to beakers like *Wroxeter 1912*, 28-30, or Ward, *R. Fort at Gellygaer*, pl. xi, 8. A particularly elegant example is added, pl. LVIII, in fine native ware, black polished, with lattice-decoration. Total 60: range I-VI.

Form 93. Small ovoid beaker with stout bead-rim.

Only one restorable. Made in thin, hard, horn-coloured ware (cf. the 'hornfarbene Ware' of Haltern 78). Not yet paralleled save by the handled specimen in grave 23 at Andernach (late Tiberian or Claudian): type figure period IV. Total 20: range I-III (1-s to VI).

Form 94. Ovoid or globular beakers, colour-coated and rough cast (Hofheim 25).

Probably developed from the Augustan form Haltern 45, and certainly ancestral to the Romano-British 'bag-shaped' beaker, in which the maximum diameter has sunk to below or about the middle (*Brecon*, 222-3, C51): here it is in the upper third of the pot, and measures about the same as the height. Our type-figures show the extremes of size: most are quite small. The ware is soft creamy buff (rarely harder reddish), the 'varnish' coating a glossy chocolate, or, more frequently a very poor matt red paint, as in form 62; normally only the outside is rough-cast (2 were rouletted instead). A is continental and has the rim sharply everted with exterior lip-groove; B, local copy, has it less outcurved and rounded off: either may be slightly cupped (as type-figure A). Scarcely pre-Claudian (see on Nijmegen type 46), the form is here, and in Colonia, post-conquest. Total: A, 334+; range III-VI, in which 6 exx. are definitely B (rare here, developed subsequently). A few coarse ware copies occur, as at Newstead (Curle, pl. XLIX A, 9). They are chiefly in sandy red ware. (The figure 6 for B above is considerably increased by those found in the kiln: p. 281.)

Form 95. Bossed globular beakers, with mica-gilt surface (Hofheim 26c).

The rim is sharply (A) or mildly (B) everted, and is usually rather cupped; there may be neck-cordons. Two pieces only, one stratified low in pit D10 (periods IV-VI); type-figure A from Urmitz, B Mainz. Ware light buff-brown or pinkish; bosses pressed out from inside. Rarely pre-Claudian (*Westd. Zt.* xxiii, 364, taf. 5, 9) or Claudian (e.g. Hofheim), the form is commoner under Nero (Nijmegen type 29; Mainz, *M.Z.* vii, 56), and not much later (*Richborough III*, no. 286; *Brecon*, 224-6, C55, &c.).

Form 96. Spike-studded globular beaker in Roman grey ware.

Rare and unparalleled; the sharp spikes are set in single or double impressed circles. Total 5: range III-IV/VI.

Form 97. Blunt-studded globular beaker with plain curved rim.

Nijmegen type 36, with slight shoulder-cordon and low body-studding in parallel rows; neat base as form 120. Ware thin, hard matt black. Stratified only in pit A2 (period IV). Total 4.

Forms 98 and 99. Globular beakers 'rusticated' with jagged coruscations.

This peculiar method of combining decoration with a firm hand-hold was first adopted, in a shouldered form recalling pre-Roman roughened bowls, in early Tiberian times (Haltern 98B, from native burials). Our examples seem to be the next recorded: 98, squat and with cupped rim, in grey ware retaining native character, from over site A3 (period VI); 99, larger, globular, with bead-rim, in Roman light grey, from pit D1 (period IV). 98 has its rustication in rows (as do 4 unstratified fragments), 99 in the spiny, haphazard form so well known from the Agricolan forts in the north. Cf. *Richborough III*, no. 287; *Wroxeter 1914*, no. 76: Neronian or a little later in the south, it became a northern speciality (taller, with everted rim) in Flavian times, when its place was taken at Colchester by the local form 108E. There was a Gallo-Roman parallel from Troyes (*Cat. Reims Mus.* 128, no. 3814). Totals each 5: range IV-VI.

Form 100. Ovoid beaker decorated in barbotine (Hofheim 118).

The continental prototype (Claudian to Flavian: Hofheim and, e.g., Andernach grave 25 with $\text{Æ}2$ of Nero) has light grey barbotine applied on a black surface. Here only light grey, with barbotine in vertical streaks, circles, and horseshoes; such fragments are commoner in the Colonia, and cf. May, *Silchester*, pl. LXX, 156-9, and London, *Guildhall Cat.*, pl. XLIII, 2-4, 6-7. Total 5: range IV-VI.

The form spread north (Margidunum 'Claudian Well', *J.R.S.* xiii, pl. x1, 19; *Malton*, figs. 15, 17-19), and resulted in the well-known Flavian-Hadrianic barbotine series, largely excluded from Colchester by form 108E.

Some of the southern vessels are in brightly coloured clays.

Form 101. Ovoid or globular indented beaker.

Indentation of the walls of beakers is rare before Flavian times (Haltern 44, Hofheim 27), and we have no example restorable (cf. one in grave 7 at Weisenau, *M.Z.* viii, 40); the fragments are in thin, nearly black ware, as in the Colonia. Such are ancestral to the 'thumb'-indented series beginning with Newstead type 31. Total 13: range IV(?) - VI.

Form 102. Ovoid beaker with outcurved rim inset for lid.

In 'romanizing' mica-coated brown ware; but slightly specialized from a simple La Tène form. Though numerous none would restore and our figure is taken from a grave in the Lebach cemetery. Total 72: range I-IV.

Form 103. Beaker with everted rim and cordoned body (pl. LXXVII, 10).

One only, found in fragments in pit C10 (period III-IV), in soft grey ware with black polished exterior. The central cordon is pressed out from within, dividing two zones decorated with vertical strokes of a nine-toothed comb. Cf. Nijmegen type 37 (rouletted), and one from grave 6 at Weisenau stamped VOCARAF, with coins of Caligula (*M.Z.* viii, 40).

Form 104. Small ovoid beaker with short-necked rim.

Thin and fragile, in thin, fine black ware with black to brown-black polished surface. A base, with stamp beneath reading VIRNLIS (?), is probably of this form, though no fragments are certainly attested earlier than period VI. They are found in the Colonia in the Flavian period (May, pl. LVII, 249, and in graves, e.g. *ibid.*, pl. xci, 4 (3 exx.)); also one unpublished in a late first-century pit with coin of Domitian). Total 12: range VI (onwards).

Form 105. Small globular pedestalled beakers.

- A. Pale, soft buff with thin red slip, probably period VI (region 5).
 B. Fragments of two, soft buff, apparently copy, but found near the smaller temple in region 1 and possibly late Roman.

Form 108. Globular or ovoid beakers with everted rim and stabbed decoration.

These vessels form an important local type at Colchester, romanized out of the La Tène tradition apparently in the years just before and after the conquest, well established first in period IV and increasing greatly in period VI and thereafter. The normal range of rim and body form is shown in type-figures aa-d, while ba shows the plumper form in pure Roman fabric which became almost universal in Flavian times and almost excluded rusticated and barbotine beakers (see forms 99-100) from the Colchester market. This appears first mainly in period VI, alongside the A series, which had been made in increasingly romanizing native brown ware with high black polish. The decorated band on aa (from well II bottom) is sharply rouletted in an early technique, abnormal to the form (as is the beaded foot), but showing the inspiration of the normal ornament.

This consists of one or two bands, variously demarcated by grooves, of oblique or nearly vertical rows of stabs made with a short comb. The usual arrangements are (a) and (c). Rarely it is replaced by incised herring-bone pattern (8 examples) or (twice only) deep finger impressions; wavy comb-lines are just attested (*C.M. Report* 1927, pl. III, 5433, 5375). The form is very common in the pre-Flavian and Flavian Colonia cemeteries and appears to continue, in a large size like our ac, to an unknown date in the second century. Cf. May, Joslin graves 46A, 50A, 66B, Taylor grave 140B, &c.; also *J.R.S.* xiii, pl. xi, 22 (Claudian well, Margidunum); *Richborough I*, pl. xxiv, type 47. Total here 549 + : range I (just)-VI and later.

Form 109. Globular beaker with everted rim and markedly offset shoulder.

These were not common, but run roughly parallel to form 108. The shoulder offset usually bears a row of stab-marks; the rim form varies and may be flattened or beaded. Ten are in ware like 108A, 2 in sandy grey black, 10 in good Roman grey, without stab-markings. Cf. the rouletted types in *Richborough III*, nos. 280-3, and later at Wroxeter (1912, nos. 26-7) and Newstead (Curle, fig. 25, 4, 7). Total 22: range III-VI.

Gallo-Belgic and other Butt-Beakers (pls. LVII-LVIII)

The butt-beaker is agreed to be a late La Tène and early Provincial adaptation of pre-Imperial Mediterranean prototypes (e.g. Holwerda, *Nederlands Vroegste Beschaving*, 101-2; Déchelette, *Vases Céramiques*, I, 31); such are well seen, e.g., at Ensérune, and Central Gaulish renderings are prominent at Mont Beuvray (Bulliot, pl. vi, 3, 5; xxiii, 12; xxiv, 3; xxv, 9) and Vertault. Augustan forms occur at the Basel Drusus-fort, and at Haltern the Gallo-Belgic industry has produced two standards of shape, Loeschcke's types 84 and 85. Such Augustan-Tiberian forms, in cream-white, red coated, or reddish wares, occur as imports in Britain mainly in Wessex (May, *Silchester*, pl. lxx, 152 &c.; Hurstbourne Tarrant tumulus, *Belgae*, 306-7, nos. 4-6; Worthy Down, *H.F.C.* x, pt. 2, 187, pl. iv, 62-3; Highfield, *W.A.M.* xlvi, 605-6; Casterley, Oare, *Devizes Mus. Cat.*², pl. xxvii, 1-2; xxviii, 1; xli, D; xlv, A-D), and are almost absent at Colchester (form 111 only). But the barrel-shaped native butt-beakers which they inspired (forms 116-18, roughly) became widespread in southern and south-eastern Britain alike, from the latter years of the first century B.C. onwards (noted especially at Prae Wood, *Verulamium*, 12, 20, 44-6, 152, 159, nos. 31a-d), and were evidently established before the advent of the chief imported form at our site, which is the mainly Tiberian and Claudian form 112.

Fragments of this have been found imported in Wessex (*Hengistbury*, 58, pl. xiii, 8; *Rotherley*, pl. cxiv, 6; Casterley, *Devizes Mus. Cat.*², pl. xxvii, 3), but its abundance at Colchester is at present

unique. More remarkable still is the huge quantity of form 113 in white ware, which must beyond question have been made here on the spot, and a similar version of the type was more elegantly rendered in native and subsequently in Roman ware as form 119, from which later derivatives are descended.

Form 111. Gallo-Belgic butt-beaker, sharp-rimmed and not incurved above the foot (Haltern 85).

Fig. 57, 5 (p. 274). A few fragments of one base in cream ware, as exported in some cases from Gaul to Wessex (see above). The Haltern examples are silver-grey. The body profile is wholly convex, and the form is the original of the native forms 115-16. Rubbish survival in pit DIA (period IV) doubtless from period I.

Form 112. Gallo-Belgic butt-beaker, sharp-rimmed but incurved above the foot (modified from Haltern 85).

The bold incurving above the grooved-off foot is characteristic, distinguishing this form from Haltern 85 just as the analogous girth-beaker form 84 is distinguished from Haltern 87. Though the sharp rim and upper profile remain similar, this form is easily recognizable as being made in the same orange-red T.R. 3, with chocolate fumed surface stopping short of the base, as forms 82, 84, 86, and 91. White or cream fragments are rare. The ornament consists normally of two zones bearing contrasted patterns; the upper usually cross-hatched with double incised lines, the lower finely rouletted. Variations range less widely than on Haltern 85 (*Haltern*, abb. 43), but include close lightly hatched wavy-lines, groups of two or three incised lines set vertically or combined in a 'union jack' or other design, rouletting with widely spaced triangular impressions, and a diaper of lightly impressed small rectangles. In the large size, A, each zone is surmounted by a double cordon; in the medium, BA, BB (fig. 50, 5) one or more cordons are omitted. The rarer small size, C, has only one decorated zone, nearly always rouletted, occasionally otherwise (fig. 50, 6), bounded by grooves. The form was made (as wasters show) at Vertault, and occurs in the Forêt de Compiègne (St. Germain Mus.) and at Armentières, Aisne (Moreau, *Caranda*, 2, pl. 53 bis) as well as at Trier (one an exact replica of our type-figure A), Mainz, Köln, Urmitz, and Andernach, where grave finds show it to be mainly Tiberian-early Claudian. The few Wessex fragments have been noted above. Total here 609 + : range I-IV (r-s to VI).

Our type-figure A is in the burial-group, probably from the Belgic cemetery north of the Lexden Tumulus (p. 13), published in *E.A.S.T.* xviii, 270; B from the silt, C from the filling, of ditch I (periods I, II).

Form 113. Butt-beaker in thin white ware, with lipped rim and slightly humped-up, rouletted body.

Both rim and body-form, and the invariable simple rouletting in bands between grooves or cordons, look back to the other Augustan form of butt-beaker, Haltern 84, from which, however, there has been considerable departure. Links with the Augustan type (which was made in T.R.) are provided by a vessel at Trier very like our form but more globular, and another more closely similar from Haltern (recent excavations, unpublished): these are both in the fine grey-buff ware of our forms 168, 196-7, 205, over which the Trier vessel is red-coated below the rouletting and within, the Haltern one inside the rim only. Another in the old Reims Museum (*Cat.* no. 3861) had a similar partial red coating. There are a very few such fragments at Colchester.

But the white beaker thus engendered was never taken up abroad, and there are apparently no true foreign parallels to the Colchester form, of which our site has yet produced innumerable pieces of something like 3,000 vessels. There can thus be no real doubt that it was made here, from pre-conquest (Tiberian) times until the Boudiccan destruction. (And if this, then probably other equally good wares.) But the ware is unmistakably of genuine Gallo-Belgic quality, most of it very fine, and must be the work, at least initially, of potters from the Continent settled in Camu-

Iodunum—a point already noticed above (p. 205). When found on other British sites, therefore, as at North Ferriby (*Antiq. Journ.* xviii, 268, fig. 3, 18–21), Prae Wood (*Verulamium*, 159, pl. LIV A, 3–6), Chichester (*S.A.C.* lxxvi, 157–9, fig. 12), Casterley and Oare (*Devizes Mus. Cat.* 2, pl. xxvii, 6–8; xli, B), these beakers should be regarded as made at Colchester or some allied British site. The bold lip-moulding of the everted rim often has a small cordon in the angle beneath it, and the inner rim-face, always quite flat and set at a pronounced angle, is cut sharply away below into an overhang, a remarkable feature which is very seldom absent. When so (very rare at Colchester) the mouth seems to have been wider in proportion to the height, approximating to Haltern 84, and the number of such rims at Braughing (at present unpublished) suggests that they fathered our type, for Braughing seems to begin somewhat earlier than the Sheepen site.

Some exceptional pieces seem to have had a bituminous black coating exactly like the best T.N.

Copies (B) occur in sandy bright red ware, with poor white coating, and in inferior soft buff ware; some of these vary between 113 and 119 in form, but most are rouletted and are to be derived from 113. Such copies are normally late: cf. *R.C.H.M. Roman London*, fig. 63, 5 (Claudian); and among the later butt-beakers based mainly on form 119 something like this form also may survive, e.g. *Wroxeter 1914*, 62–3, no. 71 (second century). But the true form is unknown from the Colonia. Total here: 2,730+ : range I–IV (r-s to VI).

Form 114. 'Herring-bone' barbotine beaker in white ware.

Here the butt-beaker form is truncated above into an inbent shoulder and a thick outbent rim of rather rectangular section, which are normally mica-gilt, later simply painted orange, seldom plain. The two or more rows of barbotine are bounded by grooves, the lowest sometimes omitted if post-Augustan. For a variant 'hanging' pattern see Koenen, *Gefässkunde*, taf. xi, 11, and Andernach grave 22 (late Tiberian), rare here. This Augustan–Tiberian (Haltern) type occurs at Köln, Urmitz, Andernach, Bingen, and especially Trier; cf. also Hirstein, *M.Z.* vi, taf. iv, 9: it outlasts Claudius and influenced Flavian forms like *Newstead*, pl. xlvi, 28, through degeneration which begins here in soft buff copies (114B), approximating rather to forms 94 or 108 (cf. *Antiq. Journ.* iv, 23, fig. 1, B, no. 2, Minster). The originals are all imported. A few are red-coated within, like the prototypes of form 113. The later specimens are coarser and thicker than the earlier, and the barbotine gradually disappears. A few pieces occurred at Prae Wood, *Verulamium*, pl. LIV, A, 1–2. Total here 216: range I–VI. Total for 114B, 46: range same.

Forms 115–18. Native butt-beakers based on Haltern 85 and 84.

The appearance of this group of forms in Britain has been already noticed (p. 206), and their incidence at Verulamium (Prae Wood). Ignoring the incurved profile of form 112, they remain based on the ovoid shape of Haltern 85 (form 111 here), as best seen in our type-figure 116A; but the rather humped profile of Haltern 84, with its blunt moulded rim, is also perceptible (e.g. type-figure 115). The range of form thus typified is common to both 115 and 116, T.R.4 and native Belgic respectively. They promised to be different forms, but turn out to be indistinguishable. It is even difficult to differentiate between the wares at times. Further native simplifications are the humped barrel shape of 117, and the quite plain 118, which yet keeps to a true ovoid profile. The four types thus distinguished merge into one another and overlap, and the classification cannot be kept very rigid; thus the exact numbers quoted for each should not be closely pressed.

Form 115. Butt-beaker in native brown-black ware.

Form 116. Butt-beaker in T.R.4.

Fragments are often impossible to differentiate. Hundreds in true T.R.4 (116) were counted, but none could be restored; our type-figure A is from fragments from a contemporary burial at Great Wakering (the whole vessels published *C.M. Report*, 1921, 9, 10, nos. 3995–4005.20): the

profile may vary from the less humped outline shown in 115c to the more truly ovoid 116A. The rims vary from sharpish to rounded, and are often hollowed within for a lid. Decoration is normally in three cordon-divided bands, often with contrasted patterns. These comprise faint vertical combing (commonest, at times with cross-combing), notched wavy-line diapers, small impressed rectangles or palmettes, combed line-groups in various arrangements, rows of round punch marks, and actual rouletting. A plain foot is normal, beaded rare.

There were still larger numbers of 115, in rather thick native ware varying from a close similarity to T.R.4 to 'soapy'-surfaced brown-black (commonest) and a harder matt finish. Body and rim forms vary as in 116, as does size (c is abnormally small), and decoration (plain bands as D exceptional). The type A was well represented, but by fragments only, and the figure is from a group at Burnham-on-Crouch with forms 1, 112, 165, and 204 (*C.M. Report 1932*, 8): cf. *Swarling*, pl. IV, 2 (Deal). 115B has a finely impressed pattern of large palmettes. Combined total 1,365 + : range I-VI (later, cf. *Antiq. Journ.* ix, 125, fig. 7, 33, Alchester).

Form 117. Simplified native butt-beaker, humped form.

Native brown-black ware with polished surface, cordoned but otherwise plain; rare; cf. the fine beaker from Dumpton Gap, Broadstairs: *Arch.* lxi, 428, fig. 1. Total 4 (two III), but probably more, for this form is not readily recognizable from fragments.

Form 118. Simplified native butt-beaker, ovoid form.

Also rare. But for the beaded foot and a round-lipped rim with small cordon below, the vessel is quite plain, with 'soapy' polished surface on a brown-black native ware. Cf. the flat-cordoned beaker of this shape from Hauxton; Fox, *Arch. Camb. Reg.* 91, pl. XIII, 1B; another (plain) in Lexden grave, C.M. 4310.22 = *Swarling*, pl. III, fig. 2. Perhaps the neckless everted-rim cooking-pots, form 160, are derived from this. Total 4 (one period I).

Form 119. Butt-beakers, native and Roman, of developed form.

The type of Augustan butt-beaker represented by Haltern 84, with its slightly humped body and moulded rim, lent itself naturally to influence from the common late La Tène family of jars with shoulder, inbent neck, and outbent rim, producing an S-profile, easily repeated below by incurving above the foot. This tendency appears already in the prototypes of form 113, and while that became standardized, native development went on to produce this form 119. It is already manifest at Mont Beuvray (Bulliot, *Album*, pl. xxiv, 3) and on the Rhine, e.g. at the native cemetery of Wallertheim (*M.Z.* xxiv/v, 125 ff.), and duly appears in Britain especially in the Kentish cemeteries; Aylesford, *Arch.* lii, pl. VIII, 4 (close to form 116), ix, 1 (to form 113); Folkestone (similar), *Swarling*, pl. v, 2 = xi, 5; *ibid.* 3 = 4 (purely La Tène rim); and *Swarling* type 34 (pl. ix). While a much less developed form appears standardized as type 102 at Hofheim, this La Tène development became fully established in Britain (*Silchester*, pl. Lxx, 154-5; Hitchin and Cambridge districts, Fox, *Arch. Camb. Reg.* 91 and pl. XIII; Great Chesterford also, but not at Verulamium), and is plentiful on our site, both before and still after the conquest. The everted rim is thickened, and may (A) or may not (B) be hollowed within for a lid: the inbent neck springs from a humped-out body bearing three low or flat cordons, ridges or grooves, demarcating two decorated bands. The decoration (usually matching) may be in zigzag comb-impressions (as A); plain (as B) or grouped (as C) vertical comb-lines; horizontal, oblique or latticed lines; diapers of combing or rectangular impressions, rows of round punch-marks, or actual rouletting—always very light, except when comb-stabbed as in form 108. The ware is brown-black native, fumed black and polished: while form A is usually pure native, B is more often romanizing, and after the con-

quest appears in hard Roman grey ware, which is the rule for the evolved form c (as in the Colonia). Total 704 + : range (A-B, native and romanizing) I-IV (r-s to VI); (B-C, Roman) II (just)-VI.

For the Roman form (rarely red, as *Antiq. Journ.* xiii, 306-7, figs. 3-4, W. Wickham) cf. *ibid.* ix, 125, fig. 7, 40 (Alchester); *R.C.H.M. Rom. London*, fig. 63, 3; *Richborough III*, type 277. Later derivatives as *ibid.* 271; *II*, 142; *Wroxeter 1914*, 80, lead on to the well-known late Roman series, well represented in the Colonia (May, pl. XLII, 155 ff.; pl. XLIII, &c.).

Carinated Beaker (pl. LVIII)

Form 120. Sharply carinated beaker, incurved above (Hofheim 113).

Absent from Haltern, and never common, this widespread form appears under Tiberius (graves at Köln, Trier, &c.), and is Claudian at Hofheim; thin brittle, black-polished ware, at Colchester brown in the paste (A). The earliest and best examples have the finely formed foot of our figure B. Thicker native or Roman copies occur. Colonia examples, May, pl. v, 48 ff.: nos. 53-5 are later developments, but for the Claudian form in Flavian deposits in London, see *Arch.* lxvi, 247-50, no. 16, contemporary with the later form no. 17. Potters' stamps are not infrequent, but we have none. Totals here: A, 28; B, 9; range IV-VI.

Jugs and Flagons

The mass production of jugs and flagons is a leading feature of Roman ceramic industry, in absolute contrast to that of the La Tène culture, from which they are virtually absent. Thus the advance of Roman civilization into Gaul is at first marked by their importation from the south rather than their imitation. Likewise in Germany Loeschke points out (*Haltern*, 292 ff.) that the presence of Roman jugs on a site is no proof of the presence of Romans, as the natives imported them so eagerly. His further contention, that they never took to making these vessels themselves, seems indeed hardly borne out by the facts: besides the rare Gallo-Belgic form 135, forms 165 and 166 were certainly early products of Belgic Gaul and the Rhineland, and 161 and 162 appear at Colchester in identically the same ware as the butt-beaker 113, which we have seen to be the product of a manufacture on Gallo-Belgic lines established in British Camulodunum well before the conquest. But such manufacture was undoubtedly preceded and stimulated by importation, in Britain as abroad, and the presence of imported jugs and flagons in our period I harmonizes with such a find as that of a flagon of form 136 in a grave (p. 13) at Lexden (*Swarling*, pl. xi, 2).

Naturally, in and after the Claudian period the abundance of these vessels increases enormously, and our series provides the starting-point for the well-known sequence of later Romano-British types.

Here one-handed vessels will be referred to as flagons, two-handed as jugs. Throughout, the forms have in the main been classified by the shape of the mouth and lip, the portion most frequently serviceable to the excavator. The earliest neck-forms tend to be wider at the top, and these and cylindrical forms are in time ousted by splayed shapes wider at the bottom, but the application of this rule varies a good deal from form to form. Body-shape must obviously be a secondary feature in classification, but it may be observed that one-handed flagons (except forms 148-50) nearly all have a footring before about A.D. 50, while in two-handed jugs this feature is not normally pre-Claudian.

One-handed Flagons (pls. LIX-LXII)

Forms 131-4 are native products of unusual character.

Form 131. Tall pedestal flagon with cupped mouth.

The unique pair of vessels of this form was found in the Lexden grave 1 (p. 13, n. 5). The

ware, thick and reddish, is mica-gilt, and the whole effect suggests a metal prototype, the stepped pedestal recalling the Middle La Tène form of the pre-Belgic Marne culture (*Belgae*, 172-3, fig. 5, 3). Decoration is by fine grooves imitating cordons: handle two-ribbed.

Form 132. Squat flagon with carinated mouth.

There are two of these in C.M. without locality, in soft rough brown native ware of very 'pre-historic' character; the form suggests a metal prototype rather more vaguely. The rounded handle of round section has its lower end pointed and pierced through the vessel's body. Cf. the superior 2-handled version of the type in fine orange ware from Reims, in B.M. (Morel Coll.).

Form 133. Squat flagon or ewer with wide mouth.

Two fragments of one only found: region 3, unstratified. Regular soapy-surfaced brown-black native ware; apparently a crude rendering of the form of Graeco-Roman bronze oinochoe found imported e.g. at Aylesford (*Arch.* lii, fig. 14; *B.M. Iron Age Guide*, fig. 137); cf. Nijmegen type 49. Handle with central rib.

Form 134. Flagon with narrow conical neck (pl. LXI).

134 (1). Fragment in soft black ware, found in period III-IV deposit by pit D11. Cordon at base of neck; solid handle deeply hollowed down centre.

134 (2). Rim from pit G7 (period VI), perhaps supplies the missing lip. Copy of form 140D. One other similar rim in a period III deposit.

Form 135. Tall-necked cup-mouth flagon in Gallo-Belgic ware (pl. LIX).

This fine vessel comes from grave 9 (p. 13, n. 5, no. 7) in the Joslin Collection (May, pl. LXXVI, 9; p. 255), of early Roman date (with the rosette-brooches of Type X, pl. XCIII, 70, 71). It is in fine T.R. 3, with 'soapy' blood-red finish all over. The tall cylindrical neck, biconical body, and shapely ringed foot are of notable elegance, and the only complete parallel, in Trier Mus., has been claimed as Arretine. Part of a handle of similar plain flat-oval section in good T.R. was found in Claypit 3, and one in a period III deposit over ditch 1A; another from the Highfield site at Salisbury, *W.A.M.* xlvi, 605, no. 68. The date of manufacture should be Tiberian at latest.

Form 136, A and B. Small flagons with outcurved lip, not undercut.

The type-figure 136A is from the Lexden grave already noticed (p. 13, n. 5); its globular body (as in forms 140-1) and the long curve of its 3-ribbed handle should be post-Augustan, and it is evidently a Tiberian development of Haltern 46: cf. *Nimègue*, pl. VIII, 21-4. This is in brown-buff clay like form 167; three rims are in creamy ware, with 2- and 3-ribbed handles, two from pit D18 (periods III-IV).

136B (pl. LX), also creamy, is from the same pit, restored after an exact duplicate in Bingen Museum. Fig. 51, 1-2 are period IV. Cf. *Nimègue*, pl. VIII, 28, and others at Trier, in red ware. A date before A.D. 50 is confirmed by grave finds at Andernach with coins of Augustus, and others at Trier (with one from the Louis-Linzstrasse Kiln III). Combined total 17+ : range III-IV (r-s to VI).

Form 136c. Similar flagon with lip beaded beneath.

Type-figure also from pit D18, restored from a Bingen specimen; pl. LXI, 3 (red-buff) is period IV. The smooth neck-body curve is, however, typologically earlier than that of A-B: cf. Nijmegen type 70 (early Tiberian): Claudian examples, Mainz, *M.Z.* xxiv/v, 151, abb. 13, 4 (with body-form of B); *Richborough II*, no. 138. Two-ribbed handles preponderate. Flavian derivatives: Caerleon, *Arch.* lxxviii, 185, nos. 48-50. Total here 12+ : range III-IV (r-s to VI).

Form 137. Flagon with ovoid body, cylindrical neck, and splayed mouth (fig. 51, 3).

Chance find, region 1 (school site): rough, creamy. Common in the Rhineland, especially in graves at Andernach (with coins of Augustus, Tiberius, and Antonia) and Urmitz, where the body is ovoid with the widest diameter low down. Similar necks at Trier on globular body-form

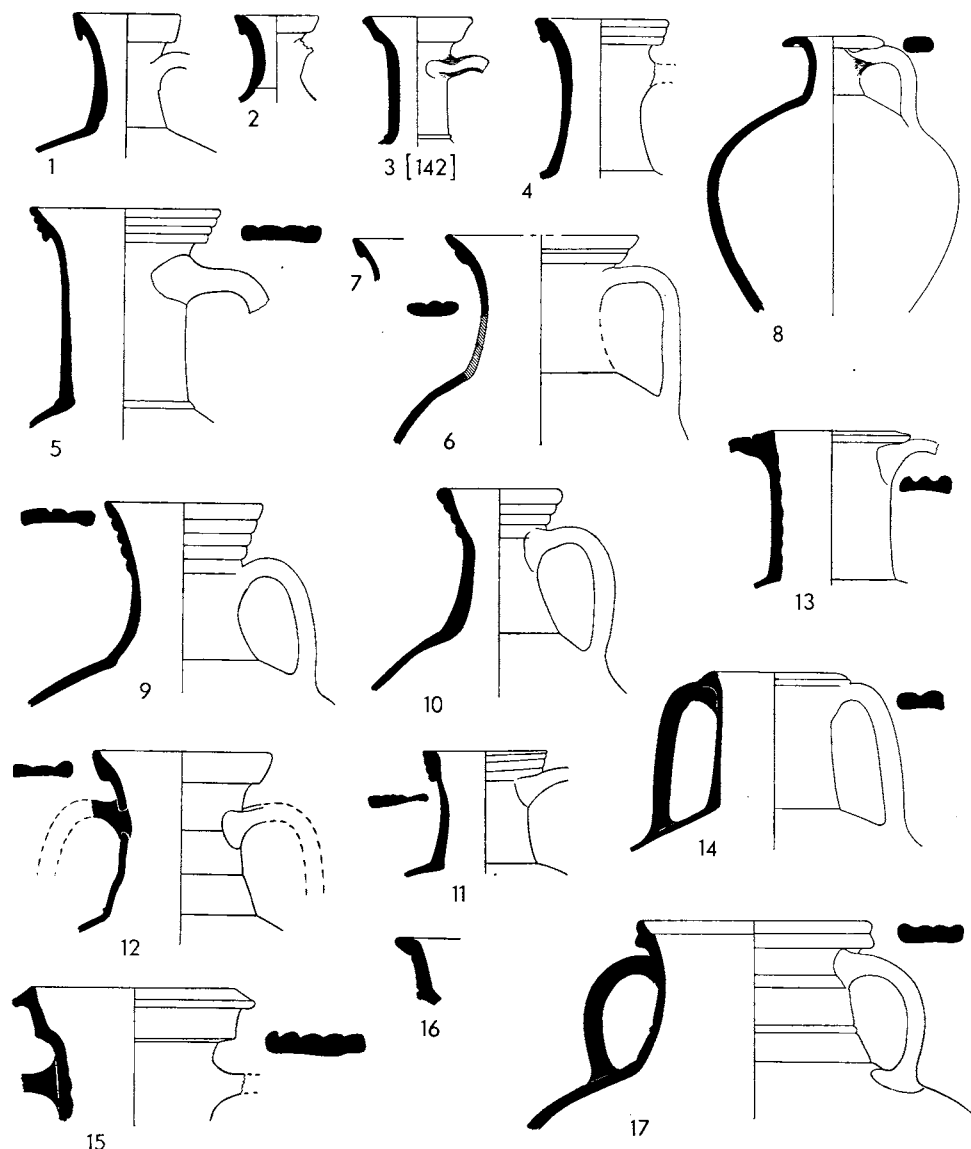


FIG. 51. Flagon- and jug-necks. Form-number in square brackets. Scale $\frac{1}{4}$.

Handle here flat, though 3-4 ribs usual. Good footring always, sometimes with groove as well. Tiberian-Claudian?

Form 139. Large flagon with cylindrical neck and heavy bead-rim (pl. LXIX).

Only one restorable (pit L19, end IV/V). Clay very pale buff, as in some amphorae: perhaps

locally made. Rim usually flattened on top, and fragments easily mistaken for form 182. Apparently without parallel. Handle of round section, base flat. Total 11: range II-IV/VI.

Form 140A and B. Flagons with nearly cylindrical neck and outcurved triangular lip, undercut (Hofheim 50).

A is precisely the Hofheim form drawn from the only complete example in the Wiesbaden Museum; scarce here. Total 9+: range I/III-IV/VI. Cf. *Verulamium*, 171-3, fig. 22, 1.

B is similar in the lip but longer necked and otherwise more like D: necks (pl. LXI) are either wide at top (4), cylindrical, or splayed downwards (5-7). Total 9 (one IV).

The lip in these is sometimes grooved externally (fig. 51, 4-5), a feature going back to some Mont Beauvray forms (Déchelette, pl. xx), indicating a common source for this and form 154. B is not common in the Colonia (found in the street-metalling with coins of Nero), where C is more frequent.

Form 140C. Similar flagon with conical neck, rim not undercut.

This degeneration, with the general softening of the outline present already at Hofheim (abb. 62, 2, 6-7, 11-12), is seen in pl. LXI, 9-11: 11 is of period VI and shows the post-Claudian tendency. The Flavian continuation claimed by Ritterling (*Hofheim*, 280) for Germany takes the form in Britain of *Wroxeter 1913*, no. 46, and the like. Total here 9: range IV-VI.

Form 140D. Similar flagon with cupped mouth and stepped lip, not undercut.

This new feature first appears under Claudius, a pronounced cupping going with a longer neck as in B, and enlarged general size (2 found, 1 III/IV). The profile thereafter softening as in C, and many examples are as C-D or not typologically assignable. The neck pl. LXI, 8 is a unique variant. Total 32+: range I (just)-VI.

Total for 140, together, 338+: range I-VI and after.

Form 141. Narrow-necked flagon with everted, shallow-cupped mouth.

A. Necks only; total 7 (range III/IV-VI): type-figure one of two from the Colonia West Cemetery (hospital site), *C.M. Report*, 1932, pl. VIII, 5. Brittle brown-buff ware: examples in Kam Mus. Nijmegen, and (white) at Köln.

B. The same kind of mouth on a different neck and body, same ware, found with those from the hospital site, a neck of another from region 6.

Form 143. Flagon with pulley-wheel mouth (Haltern 47).

Pl. LXI, 12 and 15 reproduce the Augustan forms *Haltern*, abb. 24, 3-3a; but cf. *Silchester*, pl. LXII, 113 and *Richborough II*, no. 143; I, 67; Claudian, and here in the Colonia. The series *ibid.* I, 69, 39, 37, and III, 197-200, leads to the definitely Flavian *Newstead*, pl. XLIX B, 2-4. Only 3 found (IV-VI): range uncertain.

Form 144. Flagon with undercut moulding below lip.

Probably derived from Haltern 47, this is a purely British form, in good buff ware, beginning after the conquest. The larger have 3-ribbed, the smaller 2-ribbed handles; body-form normally as *Richborough III*, 186, but one with girth constriction was in the Joslin grave 9 with the T.R. flagon 135 (q.v.). One with cupped mouth, *C.M. Report*, 1927, pl. XVII, 6777.27: more normal are pl. LXI, 13-14 (unstratified), and one from a Claudian find in the Colonia, *C.M. Report*, 1927, p. 18, 5373.27B (pl. III). Total here 40: range III-VI.

Form 146. Flagon with heavy double-moulded rim (pl. LXI).

The mouth, expanded in trumpet shape but slightly cupped within, curves inwards beneath to a single bold step or ring. Probably originally a variety of 140. Very common in Germany in Flavian times and later (e.g. *Heddernheim*, iv, taf. XII, 1-4). Rare in this country; here two necks only, and three possible fragments: all may have been imported. Clay soft, creamy white. Total probably 4: range IV-(?)VI.

Form 147. Small flagons in black-polished grey ware (fig. 51, 6-7).

These are imitations, but it is not certain of which (probably of more than one) of the foregoing forms. The varied remains too fragmentary as a rule to illustrate, but indicate that there was some attempt to imitate most Roman buff forms in native ware. None occur in the Colonia. One was in pure Roman ware, the rest in romanizing to Roman. Handles 3-4 ribbed, but one of round section on a girth-constricted body-fragment (period IV). Total 45: range I/III-VI.

Form 148. Flagon with flat or turned-down lip (Hofheim 55).

The longish, curving neck, rather angular shoulder, and 2-ribbed handle attached against the lip, are distinctive of this Claudian-Neronian form (cf. Nijmegen type 81). Type-figure pl. LXII, from Colonia, neck pl. LXI, 18, and one other found: range IV-VI; cf. the Flavian derivative *Richborough III*, 204.

Form 149. Small squat-necked flagon with similar lip.

Three found: fig. 51, 8, period IV; pl. LXI, 20-1, VI; pl. LXII type-figure, from the Colonia, may be Flavian, like *Richborough III*, 190-1, but earlier occurrences abroad include several at Urmitz, one in a grave with Arretine platter, and the early Claudian Nijmegen type 72.

Form 150. Straight-necked, heavier-lipped version of form 148.

Cruder than the preceding and rounder-bodied, this rare version occurs at Nijmegen (*Nimègue*, pl. VIII, 44-6), in the Colonia, and here twice: pl. LXI, 19 (red-brown), and period VI (white-buff). Cf. the later *Wroxeter 1913*, 47.

Forms 153-5. Flagons with multiple-ringed mouthpiece.

These are often called screw-necked—a misnomer, for their ringed mouthpieces are not normally spiral. They have received much notice in this country, but originate in pre-Claudian times on the Continent, where they are in general commoner than has been realized.

Form 153. Squat-bodied flagon with short neck and vertical ringed mouthpiece.

Ritterling (*Hofheim*, 281, abb. 63, 1-2) figures two of these from Augustan graves at Trier, and there is a Tiberio-Claudian series in Andernach graves 13, 15, 20, 23. Absent at Hofheim and later (e.g. here in the Colonia). The footring, oblately globular body, humped-up, many-ribbed handle, and invariably vertical rim are typical. Ware usually rough, whitish. Fig. 51, 11 shows a larger, pl. LX a smaller, thin version (restored after one of two at Nijmegen, where there is also a plain-mouthed form, Vermeulen's type 75). Total 14: range I/III-IV.

Form 154. Globular or ovoid flagon with stout, slightly conical neck and straight, gently everted, ringed mouth-piece.

This form is pre-Claudian and Claudian abroad (Trier, Louis-Linzstrasse kilns; Minden-am-Sauer; Bingen) and normally large; here and from Colonia graves many, both small (like one from Koblenz-Lohrstrasse) and large. The footring, body-form with sharply offset neck, and straight though gently splayed mouthpiece are typical, as is the humped-up curve of the handle, broad

and 3-ribbed (the central rib narrow). The rim has 4–6 rings and the lip may be thick and flat-topped (as type-figure), or thin and sharp as fig. 51, 9. Hard buff ware, smoothed or even polished. Typically pre-Flavian (the Radnage example, *Antiq. Journ.* iii, pl. xxxv, 2a, looks continental). Total here 67+ : range III–VI.

Form 155. Conical-necked flagons with well-everted mouthpiece, the rings stepped out (Hofheim 52).

This development begins under Claudius (*Hofheim*, 280–1, with Trier examples: there are others, e.g., at Vertault); here and in the Colonia made in soft white-buff ware. Type-figures A and B (from well II, together) show bodies of globular and-inverted pear-shapes, between which there is much variation (the oblate form of May, pl. XLVIII, 204 is rare). The lengthened neck, general by Flavian times, appears earliest with pear-shaped bodies. The neck may always spring either sharply or in a smooth curve from the body. The number of mouthpiece rings is variable, but they are always more or less stepped out to follow the splay of the mouth, and in time the topmost or lip ring becomes enlarged, while the rest may degenerate to a mere grooving. The handles, 3–4 ribbed, remain boldly bent during the first century. The initial affinity to form 154 is well seen in fig. 51, 10, and there are early forms at Trier standing midway between the two. Thus the origin of the well-known Flavian–Antonine sequence (*Wroxeter*, 1912, no. 1, &c.) is fully traced. Total here 32+ : range III/IV–VI.

Forms 157–9. Flagons with pinched spout.

These are derived from the Graeco-Roman metal oinochoae of similar form.

Form 157. With sharply constricted neck.

Represented by one top from site A4 (period VI), in coarse buff ware, grooved and shoulder-cordoned; three other variants. All are degenerations of the Augustan form Haltern 54: here the mouth resembles 159. The 2-ribbed handle is, however, as there, affixed below the lip, and bears a thumb-piece above; the shoulder has a white-painted band, and above a graffito X incised before firing. Total 4: one in VI.

Form 158. With tall neck.

Paralleled at Nijmegen (Vermeulen's Type 103A, and *Nimègue*, pl. VII, 37, 49, 55); the neck has a gentle, cordon-marked constriction. The handle here, 3 ribbed and still with thumb-piece, runs into the moulded lip; the type-figure (pit A8) is in soft red ware. Total 6: three VI.

Form 159. With wide, upright neck.

This is the Claudian type *Hofheim 86A* (Nijmegen 103B), and appears here in hard grey imported Roman ware (rarely left reddish). The spout-pinching produces a mouth of clover-leaf shape, broadly moulded and reeded or grooved above, into which the 2-ribbed handle runs (still with thumb-piece). The neck is very slightly conical, and joins the flat shoulder at a sharp angle. Total 13+ : range IV–VI, and in Colonia. Pl. LXI, 16–17 have an exact parallel at Trier, from the fifth Louis–Linzstrasse kiln, dated after A.D. 50 (cf. *M.Z.* viii, 47, Weisenau), and the type runs on, somewhat simplified, into Flavian times (*ibid.* xxiv, 149, abb. 8, 9) and later (Collingwood type 54).

Two-handled Jugs (pls. LXIII–LXIX)

Form 161. Jugs with vertical neck and sharp, straight-edged, undercut lip.

These, made in fine, hard pipe-clay, generally dead white and very thin, are among the most excellent of the ceramic products of Belgic Gaul, where their manufacture, exclusively before the middle of the first century A.D., accompanied that of the other wares of the Gallo-Belgic industry

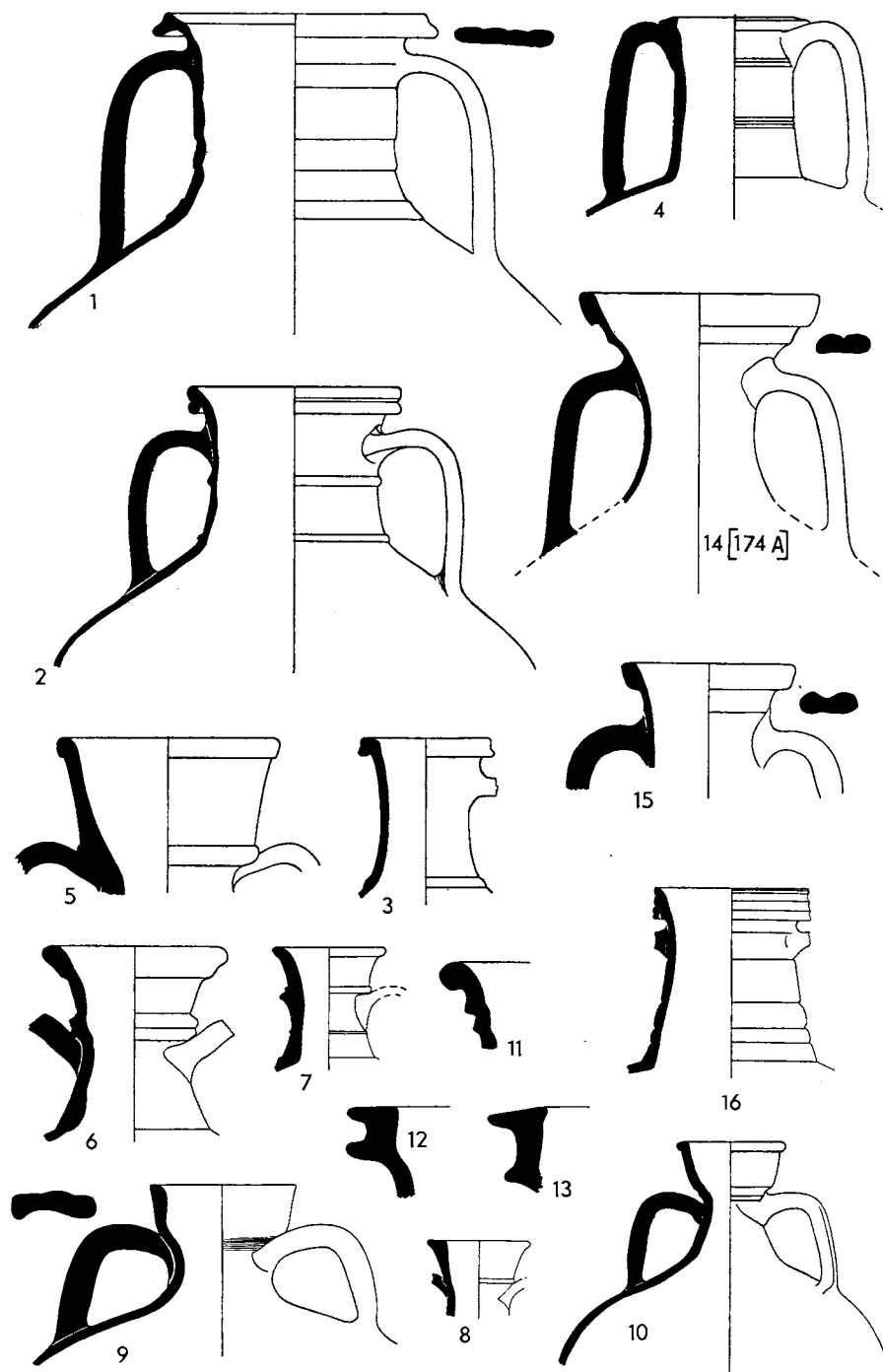


FIG. 52. Flagon- and jug-necks. Form-number in square brackets. Scale $\frac{1}{4}$.

already described. The form was apparently standardized by the end of the preceding century, being exactly represented at Mont Beuvray, and Oberaden.

In the predominant version, *form 161A*, the neck is regularly vertical (when not actually wider at the top), the sharp lip well outbent and undercut, with more or less vertical edge: two or three small raised bands encircle the neck, and the broad, flat handles are multiple-ribbed and bent at right angles: the body approaches the biconical, with a rather flat shoulder, and there is a well-made footring. Pl. LXIV shows a fine large specimen (as at Haltern, Trier, Bingen): the smaller (161Ab, pl. LXIII) are the commoner (at Trier in a St. Matthias grave with Arretine stamp CN. ATEI). Though typologically so early they are scarce at Haltern (abb. 28 B, b 1), and again at Hofheim (where the necks tend to be somewhat splayed); they must have been plentiful in Tiberian times, when exports to Britain are here represented by 27 in our period I. Their Claudian continuance is, however, manifest. Total 880+: range I–VI; includes form 161B, small-sized, with unbanded neck, rarer, but certainly Tiberio–Claudian (I and VI): pls. LXIII, LXV.

Form 162. Modified version of form 161 (pl. LXV).

The splaying of the neck noted in Hofheim 58 is here accompanied by a softening of the lip-profile and handle-form. The ware may now be soft-white or buff. Continental examples include grave-finds from Andernach and Urmitz with Claudian coins, and though just present at Haltern (abb. 28 B, b 2), this modified type is mainly Claudian. Type-figure restored from one at Nijmegen. Total 9+: range I–IV.

Form 163. Large jug with splayed neck and reeded lip.

This is a further Tiberio–Claudian development, of large size, with regularly reeded lip and splayed neck decorated variously with grooves and broad cordons or bulged bands. The ware is always soft white or buff, never pipe-clay. The lip may be nearly vertical, as 163A (pl. LXV) and fig. 52, 16, or slanting, as in the fine large 163B (pl. LXIV). Fig. 51, 12, in native grey ware with 'soapy', brown surface, vertically tooled and polished, is an obvious copy. There are examples at Urmitz and Coblenz-Neuendorf: cf. also *Nijmegen*, type 82B (in grave 3, pl. XIII, late Tiberio–early Claudius). In a Claudian grave at Tong, Kent (*Antiq. Journ.* vi, 311, figs. 1–3), and at Casterley Camp (*Devizes Mus. Cat.*², pl. xxvii, 9). Total here 122+: range I–IV (r–s to VI).

Form 165. British rendering of the type of 161–3 in red ware with white coating.

These jugs seem limited to British sites where occupation began before the conquest. They are not strict copies, but rather local interpretations of the type in general. Their fidelity is, however, reasonably close save in the following three particulars. The lip is standardized not as a vertical collar but a drooping ledge, rather hollowed on the top. The neck springs from the shoulder not at a sharp angle but in a smooth curve. Finally the clay is a soft dull pinkish-red, with a soft yellowish-white external coating. Their manufacture had begun before the conquest, and thereafter declined: not one has been found in the Colonia. Fig. 52, 3 shows a unique one-handed form (1–2 are normal); pl. LXIII type-figure is from Burnham-on-Crouch, found with forms 204, 1, 84, 115 (*C.M. Report*, 1932, 8); another in grave (p. 14, n. 5) on the Abbey Field, Colchester, also with form 204 (*C.M.* 851 and 852.05). The quantity from the unpublished site at Braughing shows slight differences due to local make, as does the Silchester series, May, pl. LX, 109, 108 (more like 163), and 105–6 (black). Copies also in native grey ware with 'soapy' brown surface; fig. 51, 17. Total 284: range I–IV (r–s to VI).

Form 166. Jug in mica-gilt ware with cable-handles.

This speciality is frequent at Mont Beuvray and Vertault, but though one has been recorded at Reims it seems absent from the Rhineland, and a Central Gaulish diffusion-centre seems pro-

bable, active at latest until about A.D. 50. The ware and mica gilding recall form 114. Rim deeply moulded (pl. LXV type-figure and variant), neck broadly cordoned. The cable handles are made of two oppositely twisted ropes of clay stuck together, with one or more deep thumb-holes at the base (166a-b normal, 166c variant). A body found in pieces over site F7 resembles form 163 in shape but is peculiar in a decoration of large knob-ended spirals applied to the surface in high relief. Total 18 + : range I/III-IV.

Form 167. Jug with oblate, squat body and two-ribbed handles (Haltern 50-2, Hofheim 57).

The Augustan Haltern type continues through Claudian times as Hofheim 57, with the same distinctive body-form, a flat or (as type-figure) bevelled lip, a slightly splayed neck, and high-arched handles. Claudian examples at Minden-am-Sauer and Nijmegen (type 82A: cf. *Nimègue*, pl. IX, 1-2, 12-17). Pl. LXIII type-figure from period III-IV occupation over ditch I; fig. 51, 13 (site D1, period IV) shows the most cylindrical of the necks, longer than the Haltern model; cf. 14 and fig. 52, 4. Clay usually thin and brownish. Total 68 + : range III/IV-VI (and in Colonia).

The form is thus here Claudius-Nero: at Richborough (*III*, no. 195) one is dated 50-75, and another (*ibid.* 194) can scarcely be pre-Flavian; cf. the later versions *Wroxeter* 1913, no. 45; May, *Templeborough*, pl. xxx A, 181, &c.

Form 168. Tall cup-mouthed jug with plain round handles.

This classical-looking form seems confined to the middle years of the first century. The long, curved outline, mouth, handles, and bold footring are all distinctive; the ware, soft buff, red-coated within, recurs here only in forms 113, 196, 197, and 205, but is universal in Germany for 196 and at Haltern and Trier only for 113. Three were restorable; pl. LXIII type-figure (pit F1), 168B (pl. LXVIII; over pits D16-19), and 168C (pl. LXIX, very large, pit L19), all period IV. The form is not recorded elsewhere. Total 12 : range III-IV.

Form 169. Jug with pear-shaped body and funnel mouth.

Uncertainly represented by fragments on our site, but completely by the type-figure from a Claudian grave (with 161) in the Colonia West Cemetery (Queen's Road). White pipe-clay.

The body and handle-form (2-ribbed) recur frequently in early graves at Andernach, Urmitz, Trier, but the shoulder-ledge is unique, while the mouth rather resembles the next form.

Form 170. Short-necked jug with stepped-out funnel-mouth (Haltern 53, Hofheim 59).

The Augustan (as at Andernach) type Haltern 53 appears in Claudian times as Hofheim 59, with smaller and differently placed handles, and this, with its variants *Hofheim*, abb. 68, 4, 5, 8 and ?9, is what we have here (14 examples, 7 stratified, all in periods III-IV). On a broad, ovoid body, a thick, short, conical neck is surmounted by a funnel mouth with its lower margin stepped out as a projecting ring, often balanced (pl. LXVI, type-figure: period IV) by a bead-lip above. Detail varies (fig. 52, 5-10), as does ware: (5, 6, 9, good buff, cf. 140; 10, yellow-buff; 7, 8, pipe-clay; pl. LXVI, type-figure, soft buff; cf. also fig. 51, 15, soft white, 16, soft buff). Handles may be variously ribbed or flat. Examples in the Louis-Linzstrasse kilns at Trier are Claudian and later, and the dating Claudius-Nero reappears at Richborough (*III*, no. 193). Total here 21 + : range I (just)-VI.

Form 171. Globular-bodied jug with splayed mouth and reeded lip.

This more elegant form, with ornamental lip, neck-cordon, and fluted body, has points of contact with the last in *Hofheim*, abb. 68, 4, 8; it is found at Trier and Bingen (cf. also *Nimègue*, pl. IX, 4). One deep red buff, at bottom of pit D10 (period IV or VI). Others in the kiln in area L (p. 281, with fig. 58, 4-6). Total 1 + n: range IV-VI.

Form 172. Very large jug with curved profile and heavily moulded mouth.

Normally found only in many fragments, this has been restored with the help of the complete specimen from a Lebach grave (*Saar* ii, taf. 8, 5a) found with coins of Tiberius. Some mouths are moulded as fig. 52, 11. Stout 2-ribbed handles and a bold footring are typical; ware, white or buff. 43 were recognized, the stratified incidence increasing from 1 in period II to 6 in VI; Flavian examples have a more massive rim, as *Templeborough*, pl. xxx A, 180; *Malton*, fig. 1, 17; and one in C.M. (P.C. 674). For the type at Nijmegen see Vermeulen's Type 84 and Breuer, *Nimègue*, pl. ix, 5, 7, 34-5, &c. Total here 51: range II-VI.

Form 173. Very large jug with 'pulley-wheel' mouth.

A still larger jug in another Lebach grave, with Claudius coins (*Saar* iii, taf. xii, 94a), explains four rims like fig. 52, 12-13 (cf. *Nimègue*, pl. ix, 41), all probably period VI.

Form 174. Large jug with curved neck and stepped trumpet-mouth.

A, fig. 52, 14, is in fine pipe-clay, from low in clay-pit III.

B, pl. LXIX, an obvious copy, but very large, is in crude local clay (body ? not wheel-turned): pit L19. Both have narrow, 2-ribbed handles. Fig. 52, 15 (rough white, region I) is nearest parallel. Range apparently III-IV.

Two-handled and Four-handled Storage-jars (pls. LXVIII, LXIX)

Form 175. 'Honey-pot' storage-jar (Haltern 62, Hofheim 66A).

The Augustan Haltern form, with peaked handles rising from the greatest diameter of a grooved body, appears here (175A) in two large flat rim fragments in coarse red ware from pit D7 (prob. period III), and in two large handles (pipe-clay and buff). Smaller forms are first late Augustan at Sels, and one from grave 19 at Weisenau with a barbarous Augustus coin-copy (*M.Z.* viii, 43) introduces the Claudian Hofheim series, which is both small and large. The handles are now smaller and set on the shoulder only, and our type-figures 175B and C represent many examples, one (175C) from pit D14 (period I), indicating some pre-conquest importation, though most are III-VI. Cf. the Colonia example May, pl. XLVI, 192; also Silchester, pl. LXIV, 120: *Richborough III*, nos. 296-7 (post-Claudian: the Flavian form at Hofheim is the taller 66D). The ware is buff or reddish, rarely white. Totals; A, 4; B-C, 53: range I-VI.

Form 176. Tall ovoid storage-jar with four handles (Haltern 63).

The handles are alternately horizontal (of round section) and vertical (narrow, flattened). Ware sandy, gritty red-buff, white-coated (like the one Haltern fragment, the complete form of which is here recovered). Type-figure from pit L19 (period IV/VI). Total 15: range III/IV-VI.

Form 177. 'Honey-pot' with hollowed rim.

A number of fragments have rims outbent and hollowed inside for a lid. Otherwise they were probably of the same form as 175: certainly the handles were the same in form and placed high on the shoulder. Ware usually creamy white and very soft, but one is red, white-coated, and a few are hard. Total 39: range III-VI.

Amphorae (pls. LXIX-LXXII)

For their use and treatment in general see Bohn in *Germania*, ix, 78-85. For potters' stamps see above pp. 213-15 and fig. 45.

Spindle-shaped Amphorae

This type of body is characteristically pre-Flavian.

Form 181. With upright collar-rim, long, cylindrical neck, and sharp shoulder-angle.

This is the oldest of these forms imported north of the Alps, and has constantly been found in Gallic *oppida* of pre-Caesarian date (Bohn, *Germania*, vii, 8-16): at Mont Beuvray it was the commonest type (Déchelette, 79, fig. 2), in reddish ware, sometimes white-coated. Analogous sites in Germany are less known, and its occurrence is thus rarer, but of two at Trier one is just like our type-figures: another from Sitzersath (*Tr. Jahresber.* i, 22, taf. v, 22); Urmitz produced a rim fragment, and there are several from Oberaden, while one was recently found placed across the mouth of the third potter's kiln at Haltern (*Germania*, xvi, 113). The type is well known in Britain from the richer Belgic tombs, e.g. Welwyn (*Arch.* lxiii, 4) and Lexden Tumulus (many fragments, p. 13). Of two others from Lexden Park one, perhaps from the tumulus also (p. 13), gives our type-figure, the other (stamp, fig. 45, no. 7, p. 214) was found just inside Lexden Dyke with one of form 185A (one also from Heybridge, May, pl. LXIX, 343). Ware always thick and reddish. The very heavy flat-ended hollow spike, sharp shoulder-angle, oval handles, and squared rim are typical. Total here 46: range probably not after I, but r-s to VI.

Form 182. With bead-rim, short cylindrical neck on conical shoulder, and sharply bent double handles (Haltern 66, Hofheim 73).

The spike is here short and stumpy, and the body proportionately longer; the shoulder, again set at a fairly sharp angle, is in the earlier (Augustan) pattern concave, with very short neck (e.g. Haltern, abb. 36), later straight-slanting or even convex as at Hofheim and normally here. All necks here are shorter than at Hofheim. The handles, made of two clay rods paired, giving an 8-section, are bent acutely. There are Tiberian occurrences at the Auerberg in the Allgau (*Beitr. z. Anthr. u. Urgesch. Bayerns*, xvi, 34) and on the Alteburg near Köln (*B. J.* cxiv-xv, 275: cf., too, *O.R.L.* xiv, taf. xi, 25, Pfünz, *canabae*), and the type recurs at Nijmegen. More probably await discovery on Claudian sites in Britain (cf. Wheeler, *London in Roman Times*, pl. lvi, 2), and though scarce here in the Colonia the type apparently just reached the Flavian period (e.g. Caerleon, *Arch.* lxxviii, 187, fig. 23, 80). The clay varies, but here is usually reddish with white slip, fine, and rather soft. Total here 96+: range I-VI.

Form 183. With bead-rim, longish expanding neck, and upcurving shoulder.

The spike is of medium size and expands downwards: the body approaches the cylindrical. The shoulder, above a fairly sharp angle, curves upwards to pass either at an angle (183A) or continuously (183B, c) into a more (A, B) or less (c) expanding neck. The handles, in A bent acutely, in B-c less sharply, either reproduce the type of 182 or imitate it with a deep median furrow. The clay is softish light buff, often white-coated and quartz-powdered. Though paralleled at Wiesbaden and (c) Unterkirchberg (*Germania* xiii, 17, abb. 6, 2), the form is rare in Germany and more may be awaiting record in Gaul. Commoner here after than before the conquest. Our figs. B and c are from complete specimens in C.M. from Heybridge and Stratford St. Mary. Caerleon again gives survival to Flavian times and one even to Hadrian (*Arch.* lxxviii, 187, fig. 23, 79-80). Total here 77+: range I-VI.

Form 184. With long neck, ovoid body, and high peaked handles (Haltern 67).

The slender body tapers to a solid snout-like spike, and the rounded shoulder curves continuously up into a nearly cylindrical neck, with bold bead-rim. Mont Beuvray gives early prototypes: at Haltern the handles are usually of square section, not round as thereafter; handle-peaks

overtopping the rim are also post-Augustan (Neuss, Nijmegen, Vindonissa). The type occurs in the Colonia, but ceased to be made soon after about A.D. 50 (Wheeler, *London in Roman Times*, pl. LV, 1; LVI, 1); it is rare in Britain (one from Hod Hill, B.M.). The evidently brittle clay is normally rather fine buff (rarely reddish), with no slip. Total here 31: range I-IV (r-s to VI).

Sausage-shaped Amphorae

Form 185A. With shortish, curved neck and collar rim (Haltern 70).

The rim with its deep collar-band is slightly everted, and the neck and shoulder-curve continuous. The weakly-curved handles have a deep median groove; the spike is conical and plugged solid with a ball of clay inside. The form has occurred at Mont Beuvray as well as Haltern, and under Tiberius at the Auerberg (see on 182) and the Alteburg (*B. J.* cxiv-xv, 278): also in the early levels at Neuss (*B. J.* ci, taf. 1, left) and Mainz (*Westd. Zt.* xx, 343, taf. xvii, 2, 3). Though absent from Hofheim, it occurs on our site not only before the conquest (periods I-II, 3) but after (periods II-IV, 9; VI, 4); 27 were recognized in all and there are 4 more in the C.M. The clay is sandy buff, as in 187. Normally pre-Claudian, it should anyhow be pre-Flavian, and the dating A.D. 130-60 at Caerleon (*Arch.* lxxviii, 187, fig. 23, 81), if correct, means unusual survival. A variant rim from ditch I, period I, pl. LXVIII. Total 46+: range I-VI.

Form 185B. With longer neck and bell-mouth.

This rarer version is on the whole later; the expanding bell-mouth may be collared or left quite plain: examples at Bingen Mus. and Nijmegen (*Nimègue*, pl. ix, 28). Total 13: range IV-VI.

The connexion between this form and the next is well seen in *M. Z.* viii/ix, 27.

Radish-shaped Amphorae

Form 186A. With long tapering neck and bell-mouth.

The body form is distinctive, expanding downwards and then contracting to a long tubular spike with blunt end. The neck, slightly demarcated from the shoulder, tapers up to an outspread bell-mouth with an overhanging lip-moulding. The handles, set in close to the neck, are of flattish oval section, sometimes imperfectly grooved. The fine but heavy yellow-whitish clay is white-coated. Augustan at Haltern, and (wider mouthed) rather later at Köln and Nijmegen. See on 186B.

Form 186B. With broad neck, short everted rim, and conical spike (Hofheim 72).

This Claudian version is seen at *Hofheim*, abb. 70: the hollow spike runs to a point, and the neck and rim-form are distinctive, as are the straight body-wall and sharply bent shoulder. The clay is as in 186A; incidence of the two is best given together: periods I-II, 3; II-IV, 9; IV, 15; VI, 8. Over 80 were found in all, and in C.M. are 3 other necks and a whole vessel. Our stamp AQA (no. 1, fig. 45) is on this form.

Total for 186 as a whole (pieces not further distinguishable totalled 122+), 138+: range I-IV/VI (and in Colonia).

Form 186C. With wide neck, overhung rim, and exaggerated spike.

The later, debased form, not found on our site. Illustrated Caerleon, *Arch.* lxxviii, 187, fig. 23, 78.

Globular Amphorae

Form 187. Globular or turnip-shape (Hofheim 76).

The prototype Haltern 71, half-way between the sausage form 185 and this, has not been found, but the full globular shape is attested as early as period I, after which its incidence steadily

increases: fragments were from period III onwards quite innumerable. The big globular body, small wart-like spike, heavy curved handles of round or oval section (rarely stamped at this early date), and thick-lipped, sometimes cupped mouth, are all distinctive: a longer neck has only doubtfully been thought an early feature, and the short form here is normal. The brown-buff clay is very sandy. The region 3 sand-pit and sites D3-4-5 were especially rich in fragments. The form of course continued in use almost throughout the Roman period, and it is the early date of its abundance here which is notable.

Amphorae with Footring

Form 188. At least one base and two handles belong to vessels of the type with broad flat shoulder and small ringed foot instead of spike, figured complete in *Saar* iv, taf. VIII, 150a, in sandy yellow-buff ware. C.M. also has two necks with handles stamped M.I.P.: cf. Wheeler, *London in Roman Times*, pl. LVI, 5; the type is normally post-Claudian, and is unstratified here.

Carrot-shaped Amphorae

Form 189. Hofheim 75.

These peculiar vessels are abnormal both in their form and their small size. The plain moulded rim with no neck, the small thick loop-handles, and the almost universal horizontal rilling of the whole body, are characteristic, though an early one from Wiesbaden (*Hofheim*, 302, abb. 72) has an almost upright rim, cf. Wheeler, op. cit., pl. LIV, 2. Normally Claudian-Neronian, as in the Colonia, at Richborough (*III*, no. 196), and London (*Arch.* lxvi, 247, fig. 14, 15; *Journ. Br. Arch. Ass.*, n.s. xxiv, 309; and Wheeler, loc. cit. 1, whence our type-figure); any Flavian survival must have been rare. The ware is a rough sandy reddish or tile-red, and fragments easily escape notice. Total 153+; range III/IV-VI.

Mortaria (pls. LXXII-III)

The abundance of mortaria is of importance in each of the two groups into which it falls. The first, comprising the various versions of form 191, provides a type which is almost new to British archaeology, the 'wall-sided' type, which is entirely pre-Flavian, and yet, on paper at least, curiously resembles the late Roman 'vertical-rim' types which form the concluding group of Mr. Bushe-Fox's well-known series (*Wroxeter 1912*, 76 ff.).

That series really only begins, with its no. 10, in the Flavian period, and since this type had by then died out without typological issue, it falls outside it altogether. The second group, forms 192-5, on the other hand, comprises the typological forerunners of the sequence of flanged-rim mortaria of which the Wroxeter series is in the main composed. That series begins (nos. 10-18) with the inner bead of the rim placed below the surface level of the flange, and proceeds to later forms in which the bead rises above the flange altogether. It might thus have been expected that here the bead would be even more insignificant than in the earliest Wroxeter examples. But the exact contrary is for the most part the case. The flat-flanged, low-beaded Flavian forms were in fact themselves 'evolved' from high-beaded precursors. Mortarium typology is thus seen to be the record of a fluctuating rather than a single-trend development so far as the rim is concerned. A more steady trend may yet be found in the form of development of the spout, which may prove a useful criterion in classification.

Form 191. Wall-sided mortaria (Haltern 59, Hofheim 79).

The distinctive features are the thick moulded lip with pendent 'wall' below it, the shape of the spout, and the absence of grit from the interior. It occurs in Narbonensis (e.g. Vaison) and Mont Beuvray, and at the early camps at Basel and Oberaden the Haltern form is already present.

See also *Nimègue*, p. 60: occurs also at Thuisy kilns (type 10): *Bull. soc. arch. champenoise*, xxxii, pl. 1, 21 and p. 17 of article.

The great bulk of the fragments found is easily divisible into three main rim-outlines and two main pastes: white, and pale yellowish-buff. Instead of grit inside, the interior is smooth, or sometimes provided with numerous concentric grooves. The spouts are small, narrow, abruptly curved outwards (fig. 53, 19), sometimes almost spirally (20). The base is quite flat.

There is possibly little chronological significance in the different rim-outlines, but the following observations have been made.

Form 191A, with hollowed curve inside the rim, seems to be the earliest. Variants are given fig. 53, 13-17; 18 is quite exceptional. Total 125 + : range I-IV (r-s to VI).

Form 191B, with continuous curve inside the rim, which continues the line of the wall. Some of these at Haltern, the majority at Nijmegen and all at Hofheim: therefore more definitely Claudian than 191A. Variants, fig. 53, 1-7. Total 87 + : range I-IV (r-s to VI).

Form 191C. Here the inner lip is incurved, or swollen inwards and offset. Rims of this outline are not recorded from Germany, and are not apparently so early as A and B at Colchester, though all three are pre-Flavian. Variants, fig. 53, 9-12; 9 is remarkable.

The clumsy vessel fig. 53, 8 is probably a local copy. The ware is grey, burnt red-brown at the surface and possibly once white-coated. The spout was not preserved. A degenerate version was made at the Corfe Mullen kiln, Dorset: *Antiq. Journ.* xv, 44-7, figs. 4-5, class B.

Total here of c, 108 + : range III-VI.

Form 192. With bold beading and long heavy flange (Haltern 60, Hofheim 80A).

Rare a: Haltern (abb. 33, 14, white), commoner at Hofheim; ours are not so uniformly large and shallow, nor so extravagantly gritted as there, though the grit is large, of white quartz or mixed. Clay good plain pale-buff. Spout moderately long and narrow, tapering outwards (see pl. LXXII). There are two main forms of flange: A, horizontal or nearly so, as type-figure and fig. 53, 23-5, 30, the tip either tapering or thick; B, drooping, as type-figure and fig. 53, 22, 26-7, the tip more usually thick (the ridge below no. 27 is abnormal): cf. Breuer, *Nimègue*, pl. xi, 80. Here not pre-conquest. Total 140 + : range II-VI.

Form 193. With low beading and short thick flange.

This apparently Neronian development is confined to red ware. The spout is small and clumsy, scarcely projecting (see pl. LXXII). There are two versions: A, in rough sandy red, often bright, with white grit, has a very weak beading and a flange either drooping and undercut (as type-figures aa, ab, the latter exceptional) or triangular (as fig. 53, 21); B, with beading broader but marked only by a weak groove on the rim, the flange more horizontal and with a strong ridge beneath, and made in darker, dull red, or red-brown with grey core, having red grit often covering the rim. The ridge under the flange is usual on this form. Totals: A, 38, B, 19: range (both) IV-VI.

Form 194. With small beading and short, thick, drooping flange (Haltern 60, Hofheim 80).

Just appearing at Haltern (abb. 33, 13: others found since), this form appears early at Mainz (*M.Z.* xxiii, 66, abb. 20, 11), is plentiful at Nijmegen (*Nimègue*, pl. xi, 64-71, 73-5), and in Claudian times was the commonest mortarium at Hofheim. In Britain it is unknown before the conquest, beginning here in period III or IV. Rough, hard clay, as at Hofheim, greyish-yellowish, with particles resembling crushed tile; grit white or mixed. The rims vary (type-figure and fig. 53, 28-9, 31: 28 with abnormal ridge below, red-buff ware), but whether the beading is upright or inbent the flange is drooping and bunched-up. The distinctive spout (see pl. LXXII) scarcely projects: the sides of the sharply narrowing opening are made by slanting the rim-beading out across

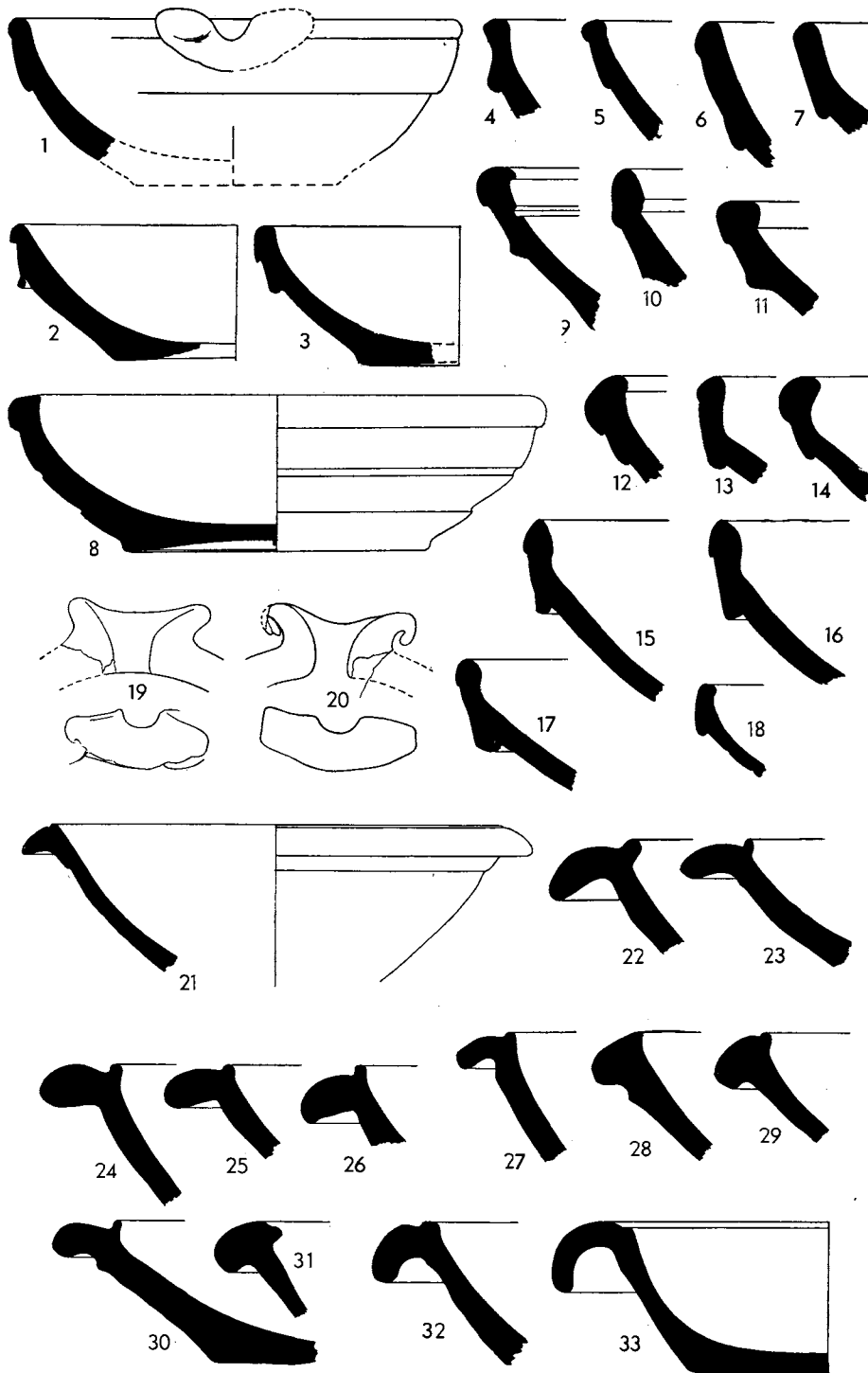


FIG. 53. Mortaria. 1-20, form 191; 21-33, forms 192-5 Scale $\frac{1}{4}$.

the flange, with the ends turned back abruptly along its edge. The profile approximates to Antonine forms such as Wroxeter 90-8, of which the spout shows it to be a progenitor. Total 73: range III/IV-VI.

Form 195A. With nearly flat-topped flange, beading small or absent.

This becomes the Flavian type which starts the Wroxeter series, but rims like its nos. 10-14 and Newstead type 24 are here Neronian (as in the Colonia). Buff ware, usually pale. The favourite form (later) of L. VALERIUS VERANIVS. Grit often carried over rim.

Form 195B. With thick curving flange and large beading.

In similar ware, similarly gritted, this form is also Neronian: the beading may still rise above the flange, as fig. 53, 32; or not, *ibid.* 33. The spout is longish, tapering to a slightly expanding end, apparently continuing form 192. The type seems to run straight through to the second century: cf. *Richborough II*, 141; *III*, 350-4; *Brecon*, figs. 98, 100, c37, c57; Wroxeter no. 22; *Tr. Cumbd. & Westmd. A.S.* n.s. xiii, pl. xvi, 3-4.

Total for 195A and B, 68 + : range IV-VI (and later).

Form 195c. Under a dozen of the Wroxeter form no. 34 (deep hook-rim, as fig. 53, 33, with illegible stamp) may all be Flavian or later strays, despite two recorded as from deposits of periods III and IV.

Miscellaneous Roman Forms (pl. LXVIII)

Form 196. Tall unguent-flask with narrow ringed foot (Haltern 30).

This Augustan form, in fine buff ware as forms 113, 168, 205, with red-brown interior slip, was very rare. Our type-figure is from grave 509 at Trier (with Arretine cup Loeschcke 12, &c.), and though a coarser red example at Wiesbaden looks later, all our six fragments should be pre-conquest imports, despite their incidence in periods III-VI (sites F2, F3; pit D18, &c.).

Form 197. Short unguent-flask with ovoid body and flat base (Haltern 31).

This, in similar ware, was also rare, though it outlasted 196 (e.g. in an Urmitz grave with Divus Augustus coin and Langton Down brooch; and Andernach grave 5, Tiberian or later). Total 7: occurs in period IV, but possibly as a survival.

Form 198. Frilled bowl on pedestal foot (Haltern 37, Hofheim 71).

Loeschcke (*Haltern*, 213, abb. 19) shows the emergence of these vessels from a crater type copying Arretine form 11; the frilled rim had there already appeared, and is regular at Hofheim, where a carinated version has developed, with a second frill on the carination: hence Coltingwood's type 34, of which there are many variants. Of 25 fragments here (red, buff, or white), none are sufficiently large to illustrate: range III/IV-VI (and in Colonia).

Form 199. Cheese-presses (pl. LXVIII).

These were scarce, not certainly before period VI. Only one was stratified (pit D10 filling). All in buff ware, as in the Colonia. Total 7.

Native Pottery and its Derivatives

The difficulties of classification have here been considerable. Owing to the large scale of the native pottery industry of Camulodunum, and to the continuous and increasing influence of romanization, the main form-groups are indeed more distinctly standardized than on the remoter

Hertfordshire sites of Wheathampstead and Verulamium, and can thus be fairly adequately covered by our series of some 75 form numbers. But relatively few of these vessels admit of restoration, and a high proportion of the thousands of disjected fragments cannot possibly be correctly attributed to their precise form. Mere rims, plain body fragments, and bases are seldom of use, and the more distinctive cordoned shoulders are often by themselves indecisive, for many closely related form-groups borrow features freely from each other, or rather display a range of kindred features in common. Thus the figures of incidence here given have a relative rather than an absolute value, and should be generously supplemented for any estimate of the actual numbers present. The range of wares, pure native, romanizing, and Romano-British or Roman, has been discussed above (pp. 205-7): quotations of the first and last can usually be given with precision, but the great mass anyhow of the 'fine' pottery exhibits intermediate romanizing character in such a variety of gradations that any attempt at close definition would be misleading. The main point concerning this process is that it was merely hastened, not engendered, by the Roman Conquest, and is perceptible already to a marked degree in the pottery of period I.

Pedestal-Urns (pl. LXXIV)

Form 201. Pear-shaped urn with 'dice-box' pedestal base. Swarling 5-6.

Though present in graves at Lexden (*Swarling*, pl. xi, 1; *C.M. Report*, 1923, 9, pl. iv, 4311.22) this Kentish form is very rare on the Sheepen site: its influence is, however, seen in form 203. A variant with interior cordon (site D2) is shown on pl. LXXIV. One in period I, one r-s in IV.

Forms 202-3. Pear-shaped urns with 'quoit-shaped' pedestal-base, either sagging (202) or rising (203) in the centre. Swarling 1-4, 8.

The central sag of 202 which when present in Belgic Gaul seems due to settling before firing (*Belgae*, fig. 8, 5, &c.), became deliberate in Kent (*Swarling* 3-4), and so appears here (pl. LXXIV, a-b, both from ditch I silt, period I, region 1). The 'quoit' foot is in these modified by moulding, but the standard plain form is also found, as it is in 203a. Here the centre is deliberately arched (203b, same deposit), as in the Gaulish prototypes of 201 (*Belgae*, fig. 10, 10, &c.), and may be quite high (203c: *C.M. Report*, 1928, pl. xx, 6622.27): this tendency may be connected with form 201, or even 204, but is here of no chronological import, and shapes approximating to 202 remain predominant in the Cunobelin period in Essex, though not on the whole so flat as in the Catuvellaunian area (*Belgae*, 247: *Verulamium*, 163-4, fig. 16). Most are in pure native ware, as in the Lexden and Essex graves generally, but their relative rarity here requires notice (p. 207 and n. 1). Total 30: range probably I only, but a scanty r-s to VI.

Two more fragments shown as 202/3: complete vessels *C.M. Report*, 1906, 2nd plate (Lt. Hallingbury); 1909, pl. II & III (Billericay); pl. VI (Lexden); 1913, pl. III (Hamborough Hill); pl. V (Lexden); 1922, pl. III (Gt. Wakering); 1923, pl. IV (Lexden); 1929, pl. II (Hatfield Peverel).

Form 204. Pear-shaped urns with hollow, trumpet-shaped pedestal-base.

This distinctive type is virtually limited to Essex (rare at Verulamium; 174-5, fig. 23, 5; atypical only in Kent; *Belgae*, fig. 21, 4); it is much less frequent than the preceding forms in graves (e.g. Lexden; Burnham; Creeksea: *C.M. Report*, 1905, 16; 1932, 8, no. 1998.31; 1926, pls. II and III), but is much the commonest pedestal form on our site. Some examples are closely similar to the remoter prototypes of the class in the earlier La Tène cemeteries of the Marne culture (*Belgae*, fig. 5, 1; *Swarling*, pl. x, 2-3), but this Essex recrudescence cannot be dated much before A.D. 1, and has been attributed to Roman influence (*Belgae*, 247). The discovery since that suggestion of such a wealth of imported pedestal vessels on our capital Essex site (forms 71 ff.) brings it strong confirmation: the example of the Gallo-Belgic pedestal-beakers, more than

of the rarer crater forms, would seem to have done most to inspire the development, which was, however, carried out in typically La Tène style. The ware is the usual brown-grey, with some romanizing tendency, the black surface polished or matt; type-figure 204A is from the sand-pit, 204B from pit C10: pit B1, area Z, and site F13 also produced restorable groups of fragments. Nos. 204a-e are selected to show the range of detail; a waist-cordon is fairly usual, and large specimens like 204a generally have two. 204d is an odd unstratified variant in soft native ware. With 204e cf. *J.R.S.* xiii, 115 (Margidunum), but the type had vanished by Flavian times.

The incidence is fairly even throughout. Total 271: range I-IV (r-s to VI).

An unusual rim and base fragment found together are shown on right of 204B: brown-black ware, site F13 (period III). Rims as fig. 54, 3-5, 10-11 are probably from pedestal-urns.

Form 205 (pl. LXVIII). An unusual vessel in fine buff ware, pink-coated within (cf. forms 168, 196, &c.), restored from fragments found round site D1. It seems a romanized version of form 201 (cf. Swarling 4), with low angular pedestal foot rather recalling *Belgae*, fig. 5, 5, from Mont Beuvray.

Form 206. Roman pedestalled vessels.

Pedestals of Roman forms are known from London (*Belgae*, fig. 22, 1-6; *R.C.H.M. Roman London*, 21, fig. 2) and occur in very large numbers at Colchester, but not on our site except in the Antonine kilns. Cf. May, pl. 1, 4-5: *C.M. Report*, 1928, pl. xx, 5958.27 and 202.28, both with second-century remains, while *C.M. Report*, 1932, pl. vii, 6 is now known to have been manufactured in the Antonine kilns on our site (region 5: p. 121), as also was *Swarling*, pl. x, 5. On the other hand, immediate first-century Roman derivatives of the native types are limited to a few renderings of form 203 in hard grey ware: May, pl. 1, 2-3 (2 from the false grave group Joslin 46 (ibid., pl. LXXXI), where the urn of our form 266 may be the only true associate), and two similar bases from our site, one a stray, the other from ditch B4 (period IV?): form as *Belgae*, fig. 21, 2.

The native pedestal-urn thus contributed next to nothing here to the Romano-British repertory.

Cups and Bowls of La Tène Type (pls. LXXIV-LXXVIII)

Form 209. Squat carinated bowls. Swarling, 22-6 (pls. LII and LXXIV).

This early type was rare. The best rims are 209a-d, of which c is not cordoned but fluted like Swarling 26, and d is an abnormal variant; all in fine soapy native ware, from site A1. Total 7; range really I only (?), but r-s to III/IV.

Form 210. Pedestalled tazza.

Large bowls or tazze with body like form 211 on a hollow pedestal like 204. The body-piece and pedestal-fragments 210a and b are from site F11 (period I): the only others are probably III (site F6, pit F9), or unstratified (210c-d) from area D: all are in fine native ware. Outside Essex the form is rare but widespread (Welwyn, *Arch.* lxiii, pl. III; Guilden Morden, *Antiq. Journ.* vi, pl. xxx; Woodcuts, *Belgae*, fig. 21, 5; Oare, *Devizes Mus. Cat.*² pl. xli, e); for Essex see *C.M. Report*, 1909, pl. II, Billericay; 1926, pls. III and IV, Creeksea; fragments in lathe-turned shale have been found at Colchester (*C.M.* 1654.08) and Gt. Chesterford (*Arch. Journ.* xiv, 87, with woodcut), which confirm the probability that this and the following form were initially turned in wood, as their appearance suggests.

Form 211. Carinated bowl with concave, cordoned wall (pl. LXXV).

Not so large-bodied as 210, but larger and usually thicker than 212-16; under-part may be flattish or bulged, base with or without footring. Type-figures A and B give the range of shape:

the two or three cordons may be small, and the lip-moulding is usually smaller than in 212-16. Fine native ware, 'soapy' and often highly polished; thinner examples, Lexden, Kelvedon, *Swarling*, pl. xi, 3, 9; fine one with conical lid, Lexden, *C.M. Report*, 1913, pl. vi. Rarely lacks cordons, *Antiq. Journ.* ii, 259 (Abbot's Langley). The more angular Verulamium version approaches form 212 (*Verulamium*, fig. 15, 35a-c): a Gaulish example (*Belgae*, fig. 14, 32) is flatter walled. Total 17: range I (r-s to IV).

Forms 212-16. Carinated bowls with constricted wall.

This group is often difficult to distribute between its half-dozen main component types, which form an almost continuous series, though each is in the main standardized: cf. the comparable forms *Verulamium*, fig. 15, 35, 37-8, 41, 43; fig. 22, 6.

Form 212. Type-figure 212A shows the usual native form of the type with angular constriction marked by a single cordon: there were about a dozen, in periods I-IV. Cf. Creeksea, *C.M. Report*, 1926, pl. III, bottom right. One in romanized ware comes from the Colonia (Head St.): 212B is of like fabric (pit A1, period IV), though two similar (area Y) are native. c is a stray find and shows Roman degeneration.

Form 213, with relatively wide mouth, curved constriction, and pair of false cordons, occurs in romanizing black-polished thin ware; cf. Margidunum, *J.R.S.* xiii, pl. xi, 18. Total 5 + n: range III-IV (apparently).

Form 214A is standard, similar to 212, but not constricted, and with two small cordons; 214B is a variant with smooth wall of which two more are given pl. LXXIV, 214Bb-c.

Form 215A and *B*. In these the carination is rounded and the pronounced groove above it in 212 and 214 is scarcely recognizable. In A, commoner than B, the bulge is wider than the mouth, in B the reverse. The figures are from periods III-VI, but the fabric is native; cf. Hitchin, with forms 202, 252/3, 234, *Antiq. Journ.* vi, pl. xxx, 1. Total 12 + n: range I-III/IV?

Form 216 has the sharp carination of 214, but the constriction comes close under the rim, marked by one of two cordons with a slight bulge between; cf. form 218. The type-figure, from site Y1 (period I) is in thick 'soapy' native ware, but more are romanizing, and two (pit C13) grey Roman. Total 20 + n: range I-IV.

Form 217. Variants of 216 with rounded carination.

The cordons may be true (A) or 'false' (i.e. double grooves) (B). Both figures from pit Y29 (period IV) in romanizing ware. Cf. plain form from Danbury, *Antiq. Journ.* xiii, 61, fig. 2, 6. Total 17 + n: range I(?) - IV.

Form 218. Deep, carinated bowl, with bulge between cordons on shoulder.

This is by far the commonest of these native bowls, and perhaps the commonest form on the whole site. It was standardized from forms like the Verulamium type 51 (*Verulamium*, fig. 17) and the three-cordoned bowl from Gt. Wakering, *C.M. Report*, 1921, pl. II, bottom centre (similar rims are not uncommon on our site): on them was developed the typical bulged shoulder that at Wheathampstead (type 1, *Verulamium*, pl. XLIX) had just emerged in distinction from the early 'ribbed' type of shoulder, there prevalent (types 2, 11-13) and here surviving in our form 229. All 68 of the period I examples are of form 218A, often in thick soapy native 'fine' ware; with everted rim on short curved neck, boldly bulged shoulder, and blunt, rounded carination. The base has a low footring or a false one formed simply by a demarcating groove; horizontal tooled lines frequently cover the body. The type-figure is from pit D18; another (pl. LXXVII, 218Ab) is a little more angular: the bases of both these had been perforated. After the conquest, though thinner 'romanizing' ware becomes more common, the form (A) continues unchanged and was not very often made in Roman grey ware. The leading variant, 218c, lacks the shoulder cordons; it

THE FINDS

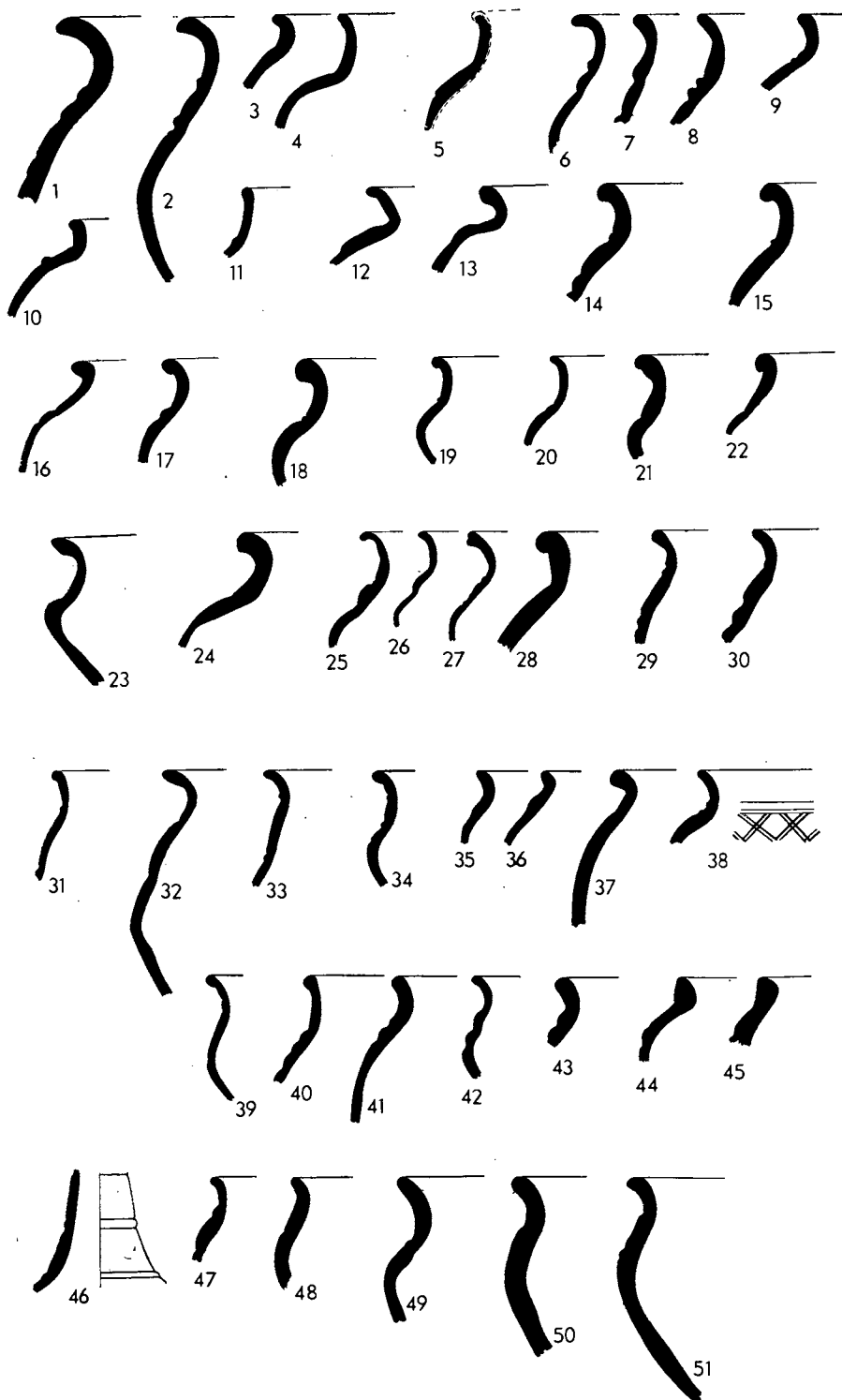


FIG. 54. Native bowls, &c., rim and shoulder profiles. Scale $\frac{1}{4}$.

is not frequent (about 10) in thick 'soapy' ware (ca), more often finer and thinner (cb, bottom of well 2), but is never common: Roman examples are scarce, but occur in the Colonia. A few are ornamented with scoring on the bulge. Total 1000 + N; range I-VI.

In 218B the carination is sharp and the shoulder flatter, allowing a taller neck and rim; this tendency, even when moderate (as 218Ab and c), is almost wholly post-conquest (periods II-IV, 9: VI, 8), and the proportion in Roman ware is high: the total is not one-twentieth of 218A.

A selection of profiles is given in fig. 54 to show the range of shape. Of these nos. 1, 2, 14, 15 are from massive large bowls like the Wakering bowl, in thick soapy native ware, 29 (with double zigzag scored on bulge) and 30 are less heavy; 6-8, 27, 31-4, 39, 47 continue the native variants, 31 and 33 being probably form 217, the latter romanizing. Nos. 25-6 are in hard Roman grey ware: other such in C.M. are May, pl. III, 19-22, and associate forms in Roman graves are 59, 94 (copy), 155 (twice), 266 (twice), May's 206, 273 (each twice), 277, 278, and Sigillata 18 stamped O FIRMONIS and COLLO F, which when taken together show continuance anyhow into the second century. The taller May pl. III, 24-5 fall quite late, and (e.g. pl. IV, 28) favour an ornamented bulge. Thus this native form, well attested in Essex also at Billericay (C.M. Report, 1909, pl. III, top left) and Braintree (C.M., Kenworthy Coll.), had a long Romano-British survival (cf. also C.M. Report, 1927, pl. IV, 5242, Gt. Bromley).

The following are unique related forms: pl. LXXVII, 5, site A1: grey-brown surface, almost T.R. 4, with bulge replaced by incurved hollow with scored ornament; 6, in thin hard biscuit-brownish ware with bands and rim-blobs of red-brown paint, from under the period VI road in area Z (region 5); 7, with mottled black surface, exaggerated profile, impressed chevrons on shoulder, three girth grooves, and beneath vertical groups of five deeply incised lines (cf. those of the Gallo-Belgic girth-beakers, forms 81 ff.), from area Y (region 5).

Form 219. Carinated bowl with bulged cordoned shoulder and wide mouth.

A variant of 218 with the upper cordon tucked into the neck and the lower close against the carination, always in native ware. One exactly similar from Braintree (C.M., Kenworthy Coll.). The upper cordon may be omitted (pl. LXXIV, rim, sooty black, site A2), the carination may have a groove. The form is not far from 216; 37 found in all, both large (as type-figure) and small. Total 37 + n: range I-III/IV (r-s to VI).

Form 220. Wide bowl with bold cordon on shoulder.

The type-figure, restored in drawing, is from area A. Thick native ware with dull black surface. The sides, incurved above the base, differentiate it from 218. With one cordon on the neck this form precedes 221 typologically, just as the multiple-cordoned neck (220B, pl. LXXVIII, also fig. 54, 6-8, 30, 40-3, 47, and possibly 51) precedes 218. This example (220B), with grooved and beaded base, is from site L2 (period I) and is overfired and distorted, an obvious waster, another, squatter example is shown pl. LXXIV, 220Bb. Total 37 + n: range I-III/IV (r-s to VI).

Form 221. Wide bowl with offset and rather tall, curved neck.

Here 220 is modified to suit a thinner 'romanizing' fabric: the cordons are suppressed or nearly so (one only), but a footring remains usual. The type-figures pl. LXXVI, 221A, 221B comprise numerous variants of shape (another pl. LXXVIII, 221Ab), all with general resemblance to our 266. 221B is from site F14, sandy grey with tarry black surface. 221Ab is from pit K1, brown, romanizing (period III). Cf. the Verulamium types 42, 70 figs. 15, 21; Welwyn, *Arch.* lxiii, pl. III, 6; Southchurch, *Antiq. Journ.* xi, 416, fig. 3, 2b, and the Claudian *Richborough I*, no. 16; numbers in C.M., e.g. May, pl. LXXVIII (Joslin grave 7). See next form.

Form 222. Wide bluntly carinated bowl, with or without one shoulder-cordon.

A more definitely standardized and commoner type, the carination being still wider than the mouth. There are good pre-conquest examples as type-figure (pit D14) in thick native ware, and these continue thereafter, with various renderings of romanization, but only a few are in Roman grey ware, as in the Colonia. A footring is optional. Examples of rims of 221 and 222 are fig. 54, 17-23, 48-50 (48 exceptional). 17 might be 220 (cf. *Swarling*, 12, and the pedestalled 3-4). 95 of 222 were recognized, but fragments often cannot be distinguished from 221. Combined total for 221 and 222, 129 + N: range I-VI.

Form 223. Small carinated bowl with fluted shoulder.

Type-figure from site F11 (period I), the body with tooled lattice: thick native ware. Total 3: range I (r-s to III/IV).

Form 224. Carinated bowl with short shoulder and everted rim.

One small example (type-figure) from site F13 (period III-IV) in soft black-faced native ware; another much larger from area A (region 3), fig. 55, 8. Range perhaps I only.

Form 225. Cordoned carinated bowl with concave neck-shoulder curve.

This is closely related to form 216 (cf. Verulamium type 43), but the cordoning is diversified and the profile evenly incurved above the carination. The type-figure in brown-black native ware is from ditch E4 filling (period III); the same shape occurred on site A4 (IV-VI). Total 2: true range perhaps I only.

Form 226. Tall biconical bowl with everted rim (pl. LXXVII).

Only one was found (site A4), with carination slightly overhung, foot turned out, and thickened lip, in blue-grey soft ware. The maker probably had in mind form 120; cf. one with a late version of that: *Antiq. Journ.* iv, 23, fig. 1A, from Thanet.

Note: There was, however, some second-century spread over site A4, to which this vessel may possibly belong.

Form 227. Plain carinated bowl with deep concave neck-shoulder curve.

This was rare: type-figure from over site A4 (see note above, but this appears stratified) and pl. LXXVII from pit C13 (period IV) are both in Roman grey, but less romanized examples also occur. The form, a typically Roman simplification, is thus here Neronian, and numerous finds in the Colonia continue it well into the second century (cf. May, pl. iv, 32-7). Total 7+: range IV-VI and later.

Form 228. Deep bowl with continuously S-shaped profile.

Generally resembles form 218, but the whole contour has been smoothed out into a simple S-curve, scarcely broken by the one small cordon below the neck, and varying only from our type-figure when the shoulder is rather more sharply bent (cf. 219). It is as typically a Roman simplification as 227, and like it was here uncommon, usually in a brown-black romanizing fabric, with the upper part polished. Parallels are few. There are four in Colonia graves in C.M. and a fragment with cordon pressed out from inside. The graves seem Flavian, so possibly ours here are strays. Total 2+: range IV-VI (?) and later.

Form 229. Bowls with rippled or corrugated shoulder.

This rippling, a distinctive outgrowth of the groove-and-cordon style (cf. the continental *Belgae*, fig. 12, 17; fig. 16, 54), appears on the earlier Kentish pottery (Aylesford, *Arch.* lii, pl. VIII, 6;

Swarling, type 31), and is fairly frequent at Wheathampstead (*Verulamium*, pl. I, types 11-13). Later at Verulamium it became rare (*ibid.* fig. 9, 3), but though thus typologically an early feature, it survived in Essex (cf. also *Swarling*, types 8, 19), and on our site appears in deposits of all periods, chiefly in region 1 (area F) and always in thick 'soapy' ware of pure native fabric. The bowls are broadly speaking biconical, but vary infinitely: none could be restored, save 229c from site L₄ (period I), and a series of profiles only can be given, fig. 54, 35-6; cf. 42-3. 229A, the tall form, is from Billericay (*C.M. Report*, 1909, pl. III, bottom right): cf. urns from Heybridge (*ibid.* 1913, pl. II); our 229B is reconstructed after one found at Braintree. A 229A from Southminster is in *C.M. Richborough III*, no. 254 is a probably Claudian example. Total 34 + N: range I-III/IV (r-s to VI).

Form 230. Simple wide-mouthed bowls with or without cordoned shoulder.

These range from well-formed vessels like 230A (pit G10) with cordoned shoulder, essentially native (linked by heavy rims like fig. 54, 48-51 to form 221) to 230Ba (thick native: period I deposit) and 230Bb (similar, polished all over, groove under foot: area L), which are simplifications, approximating to 221 and 222. 230Ba has several holes drilled through the cordon.

These look back to Hallstatt shouldered bowls abroad (*Belgae*, fig. 2, 6, 3), and occur in the earliest Belgic cemeteries of N. Gaul (*ibid.* fig. 12, 21; fig. 15, 45; fig. 16, 50). Their simplicity is therefore archaic, and they occur normally in rather crude native fabric. Their incidence covers periods I (fig. 54, 48, site Y1), II (50, ditch I), III (like type-figure A, area B), and IV (49, site A1). Total 8 + : range I-III (?) (r-s to VI).

Narrow-Mouthed Flask, of La Tène Type (pls. LXXVIII-LXXX)

Form 231. Large flask with high, flattened shoulder, cordoned.

The tendency to a narrow mouth and high shoulder is seen on some pear-shaped pedestal-urns in the first century B.C. (abroad, *Belgae*, fig. 8, 6; fig. 12, 14-15; fig. 14, 38; fig. 15, 47; Kent, Aylesford, *Arch.* lii, pl. ix, 4; *Swarling*, type 4), and is prominent in the Verulamium flask types 45a-b, 46a-b, but the high shoulder flattened and set at an angle, which is absolutely standardized at Colchester, is so rare elsewhere in Britain that foreign influence would appear responsible for our form of the type. The Haltern type 83, in black polished romanized ware, has precisely this as a standard feature (*Haltern*, abb. 41), and this continental version (Andernach, Urmitz, Koblenz-Neuendorf) can hardly be unconnected with ours. Thus the type begins but is not common before the conquest (only 5 dated periods I and II) and the more native sort, our 231A (type-figure from over well 1, p. 61) with bulged neck cordon and good footring, is rarer as well as generally earlier than 231B, with its weak 'false' cordoning, little or no footring, groove at the shoulder-angle, and taller body, in more romanized or even Roman ware (231B and c). The bulk of those from periods III-VI are B, and the total recognized is about six times that for A, though the form in general was so common that the figures have only a relative value. Very rarely the bulge between the cordons bears a tooled-line ornament.

231C, with flat multiple cordoning, is a concomitant variant and is not common. It occurs in ditch I silt (period I) in thick native ware, but is more usually later in romanizing or Roman ware. The number found is about 30. Cf. *Richborough I*, no. 5, &c. 231D (pl. LXXX) is an odd variant in polished grey ware from claypit III.

Total altogether 345 + N: range I-VI.

Form 232. Large flask with ovoid body, cordoned.

Here the shoulder of 231 is ignored or discarded, and the body takes an even ovoid profile, with a low bulge, normally decorated and between cordons, under the neck. The ware, rather

thick, is usually pure or romanizing native; 232Aa is the normal form (type-figure, with beaded foot and burnished body-bands: from hearth in area B, region 3), and though never so common as 231 its incidence is fairly even throughout. 232Ab is a Roman example from region 6. The shorter, wider-mouthed 232B, though strictly a variant, is actually commoner, its incidence increasing after the conquest (altogether about twice as plentiful as A). There is a native example from Billericay (C.M.) and cf. *C.M. Report*, 1927, pl. iv, 5428; Claudian specimens are well known, *Richborough I*, 4; Margidunum, *J.R.S.* xiii, pl. xi, 12; and examples like *Antiq. Journ.* xii, pl. xiv, 20, xv, 57 from Alchester introduce the Flavian (Newstead 38) and later forms of the Romano-British type Collingwood 71. 232c (pl. LXXX) is in thick native grey and stands alone. Total altogether 151 + : range I-VI.

Form 233. Small round-bodied flask with tall neck.

The neck is here heightened by tilting up the cordoned bulge to form part of it rather than of the shoulder. The type-figure is from near Dunmow (C.M.) and represents about a dozen or more fragments dated from periods I to V (true range I-III/IV), in native and also Roman ware. 232c may be regarded as a variant from this form.

Form 234. Small flask with mildly flattened shoulder.

These are smaller, weaker vessels under the influence of 231; the shoulder is never really set at an angle, and the cordoning is poor. Normally in thin romanizing native ware. Type-figure 234A is Roman, pit L6 (period IV); 234B, native ware, area D (region 4); like 231 they are rare outside this site (one from Harlow, *C.M. Report*, 1927, 5246.26). Total 51 + : range I/III-IV (r-s to VI).

Form 235. Small flask with flattened shoulder, cordon, and tall tapered neck.

The shoulder is set at more of an angle even than form 231, but the neck is quite different. One bold cordon. The clay is fine native black polished, with groove under the foot. One only, found intact at bottom of well II (p. 107).

Carinated Bowls (pl. LXXX)

Some light may here be thrown on the origins of the well-known types Collingwood 17-20. We would distinguish biconical forms of La Tène tradition (here forms 241-2), from more or less hemispherical bowls which appear to be purely Roman (here forms 243-6). The pronounced carination familiar on the Romano-British bowls of the second half of the first century seems due to the influence of the former upon the latter, as in the analogous Sigillata form 29 (Oswald and Pryce, 67-8). Our series is sufficiently early to enable the two groups to be distinguished.

Forms 241 and 242. Biconical carinated bowls with everted rim.

These vessels embody the same element of carination which runs through the more decorative forms 210-28, and present that La Tène tradition in a simplified form. Though made in rather coarse brown-grey ware, romanizing native in fabric but with a rough and knobbly surface, they are wholly absent before the conquest, and imply a Continental-Roman La Tène derivation introduced at that time (earliest stratified in ditch I period II filling, p. 31). Carinated bowls recalling our forms 215A, 218B, 225-6-7, are in evidence at Mt. Beuvray, of which two (Bulliot, *Album*, pl. xviii, 1; xxxi, 18) are figured by Oswald and Pryce, pl. xxiii, 9-10, in connexion with Sigillata form 29. Such appear also at Vertault, in similar native Gaulish ware, and were rendered in Gallo-Belgic ware at Lavoye (*Bull. soc. arch. champenoise*, xxii, 24, fig. 8, A): other romanizing

versions closely similar to our two forms are found in the Lebach cemetery (*Saar*, iii, taf. 6, 96; iv, taf. iv, 119e; taf. ix, 153b), in the period Augustus–Claudius, and one may recall our forms 47 and 120 (cf. also analogies in Namur Mus. from the St. Gérard cemetery). This simplified Belgic-Gaulish sort of biconical carinated bowl appears on our site at the conquest with period II in form 242: it becomes common in periods III–IV and runs through to VI (total 243: and in Colonia). In both, rim-variants are many, as on form 119. A modified Claudian version is *Richborough III*, no. 268, and *ibid.* I, no. 20 is Collingwood's type 17, which is simply a conflation of our 241–2 with 243.

Form 243. Large, straightish-walled bowl with rounded carination grooved above, and flat everted rim (Haltern 56).

This is the earliest relevant form of the Roman series. It has relatives at Mt. Beuvray (Bulliot, pls. xxx, 22; xxx, 32; xxvi, 4), but they are themselves a product of romanization there. At Haltern (abb. 31) the only base was rounded, and one such was found here (area G), but the form only arrives after the conquest, and all bases are flat, as in the analogous Hofheim type 91B, with which cf. *Nimègue*, pl. x, 68–78. The ware is a thick sandy red, sometimes with matt red wash. Rims are often massive (e.g. fig. 55, 9, 10), and more often plain than reeded. Commonest in VI, especially in area G pits (region 5). Total 125+: range II–VI.

Form 244. Nearly hemispherical bowl with everted rim (Hofheim 91A).

At Hofheim the few found were in Flavian levels (*Hofheim*, 323), but their globular form is unparalleled so late, and they are best taken as Claudian strays, though the form's date here is rather Claudius–Nero, since they were made in the kiln in region 4 (late in period IV: p. 106). The ware is thin bright sandy-red. Girth-grooving may be present (as type-figure, period VI), and the rim may be horizontal or drooping. The beginnings of carination (*Wroxeter 1912*, no. 10) link this hemispherical type with form 246 and the Flavian series. Total 136: range IV–VI.

Form 245. Small carinated bowl with reeded everted rim mica-gilt.

These are a specialized variety, small, neatly made, with finely moulded reeded rims, in fine reddish or creamy buff, with thin mica gilding. Carination is present (fig. 55, 2 excepted), but never very pronounced. Though exact parallels are lacking the type was probably imported. Type-figure found complete in pit F15 (period VI). Total 25: range I–VI.

Form 246. Small shallow bowls, rounded or mildly carinated, with everted reeded rim.

Regularly made in coarse but dense Roman dark grey ware (as in Colonia); their manufacture had just begun in Claudian times, but they were still rare in period VI (10), and four-fifths of the total were topsoil strays. The rims are either up-slanting (A) or drooping (B). The exterior wall grooving is regular, and the profile is more noticeably round than carinated. Fig. 55, nos. 1 (pit D10) and 3 are rims of copies in native grey-black ware; on pl. LII is shown an odd carinated variant, white-gritted. These bowls are common in the Colonia, and the development of carination in and after Flavian times ensues as in Collingwood types 18–20 (and their sequels elsewhere, but not at Colchester). Total 127: range III/IV–VI.

Round-shouldered Bowls (pls. LII, LXXXI)

Form 249. Bead-rim vessels of polished ware (pl. LII).

The material is not yet sufficient to differentiate all the forms represented. A: rim of large vessel, thick almost 'soapy' native ware, hollowed for lid, site L2 (period I); B: native brown-black, pit G2 (period VI); C: black ware, had one or more handles pushed through wall, School site,

region 1; D: soapy brown native, area G; E: brown-grey, site L4 (period I); F: native brown, *ibid.*
Total 24: range I (?)–VI.

Form 250. Wide bowl with short projecting rim hollowed above.

The rim-hollowing is for a lid: cf. Verulamium types 53–4, and the type recalls large native bowls in the graves at Andernach and Urmitz. Only 5 were found: type-figure (mottled brown-black, burnished) from ditch I filling (period II) fig. 55, 4, pit D18; 5, ditch I bottom (period I); 6, and the variant 7. All in native ware: range II–IV (true range perhaps only I).

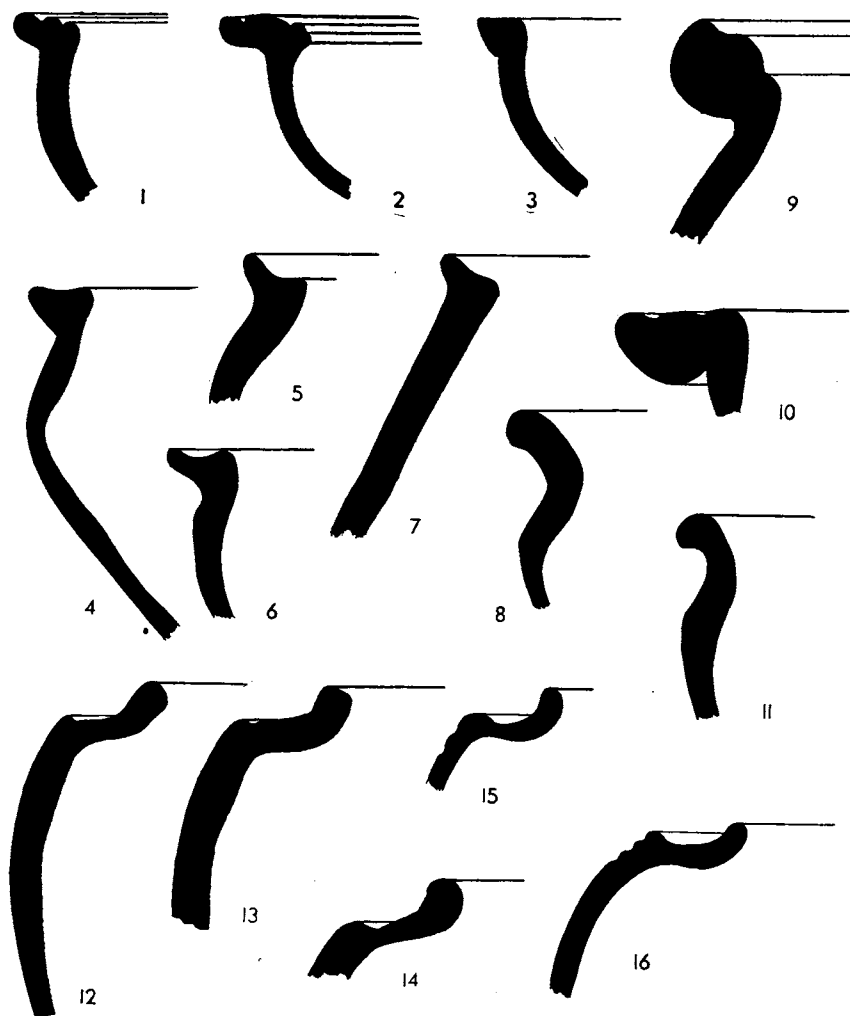


FIG. 55. Native bowls, &c., rim and shoulder profiles. Scale $\frac{1}{2}$.

Form 251. Wide open bowl with thickened inbent lip.

One of the commonest late La Tène forms abroad (Déchelette, *Manuel*, iv, 988–9, fig. 677, 9–12), lasting to perhaps A.D. 50 in Germany (Urmitz, Trier, Köln, Nijmegen type 24), but scarcely attested in Britain. Here there are only fragments, in pitted native grey ware. The shoulder-groove is regular. Bases could not be recognized. Total 10: range III–IV.

Bowls with Inbent Rim fitted with Lid (pl. LXXXI)

Form 252. Cordoned bowl with oblately globular body and cordoned lid.

Such vessels are a speciality in the sepulchral pottery of this period in Essex (Lexden: *C.M. Report*, 1909, pl. vi, bottom centre; Braintree: *ibid.* 1905, frontispiece, left, our type-figure; Creeksea: *ibid.* 1926, pl. III, top right, rimmed variant; Southminster: *C.M.* 165.00, and Lexden: *C.M.* 4409.23, unpublished; cf. also Danbury, *Antiq. Journ.* xiii, 61, fig. 2, 5), but not many fragments were found here. All are in pure native ware: fig. 54, 45 is from the bottom, 44 from the filling of ditch I (periods I, II): these have lip-moulding; a rim (like type-figure) occurred in site F5 (period III-IV); there are also several lids as pl. LXXXV, 15 (and possibly 1). Total 15: range perhaps I only, but r-s to IV/VI.

Form 253. Deep bulging bowl with inbent rim flattened for tall bead-rimmed lid.

This form of bowl and lid is extremely common in the Augustan-Tiberian graves of the Rhine-land (Koenen, *Gefässkunde*, 71, taf. ix, 3), made in the local native ware, and though foreign to pre-Augustan Gaul and Britain, the type was adopted in our south-eastern districts in the early first century A.D., where it may be diversified with rippling (Swarling type 33) or cordons (*Verulamium*, fig. 22, 3-4). Such ornament occurs here half a dozen times (fig. 55, 15-16), in superior polished native ware (periods II-IV), but the majority are plain, like the complete examples from Hitchin (*Antiq. Journ.* vi, pl. xxx, 2) and Sandy (with exaggerated hollow and ridge: *P.S.A.* xx, 349, fig. 6). Fig. 55, 12-14 show the normal profiles. The ware is a thick grey-black, rather coarse and without the 'soapy' finish. Total 56: range I-IV (r-s to VI).

Pieces of lids for this form or 252 (doubtless in use for others also), always in thick native ware, surface smoothed or 'soapy' on exterior only, occurred from periods I-IV (ditch I, bottom; ditch E4; pit D7; ditch F3; pits F3, F8, D1A; well II). See pl. LXXXV, 1-3, 15, and possibly 18.

Cooking-pots

If only for their great abundance, these deserve no less careful classification than the finer vessels. In general, they may be divided into (i) local products, either native forms or copies of (ii), and (ii) mass-produced Roman wares. Recognition of the different forms is even more often difficult than usual, owing to their simplicity, so that once more the figures given will have a relative rather than an absolute value.

Neckless and Bead-rim Cooking-pots (pls. LXXXII-LXXXIII)

Form 254. Saucepan-shaped cooking-pot with rim thickened internally.

These vessels are the simplest imaginable, short and broad, with thick rather bulging sides and flat base. The only distinctive feature is the internal thickening of the rim; the faint suggestion of an external lip never gets beyond a slight hollow just below the rounded lip. All are hand-made, the body crudely so, the mouth more regularly and sometimes appearing wheel-turned. The ware is very coarse and friable, often mixed with crushed shell, weathering to a pitted black-brown surface, rather corky in the break.

Hand-made saucepan-shaped pots, though usually of better fabric, are often typical of the later pre-Belgic Iron Age in south Britain, and it is natural to suggest that these crude pots represent a simple pre-Belgic tradition among the Trinovantes here surviving. But so little is known of the pre-Belgic pottery of the Essex district that certainty is difficult: pots of exactly this form are common in Germany in Augustan and post-Augustan times, as Haltern, 91A (also Köln, Koblenz-Lohrstrasse, Nijmegen type 104 (cf. *Nimègue*, pl. xi, 33), and while earlier tradition may well have produced similar results there and here, this very close parallel cannot be overlooked (cf.

Haltern, abb. 48). The type-figure and fig. 56, 2-3 are from ditch I, period I: 4 is almost identical with *Haltern* abb. 48, 4b. One or two are rilled like form 260A: cf. *Richborough I*, no. 21; the rest quite plain like the London examples *Arch.* lxvi, 247, figs. 12-14. The wheel-made *Haltern* 91B is absent, but its very inbent rim is recalled by the anomalous fig. 56, 1, in dark-brown coarse ware. Total 238: range I-VI.

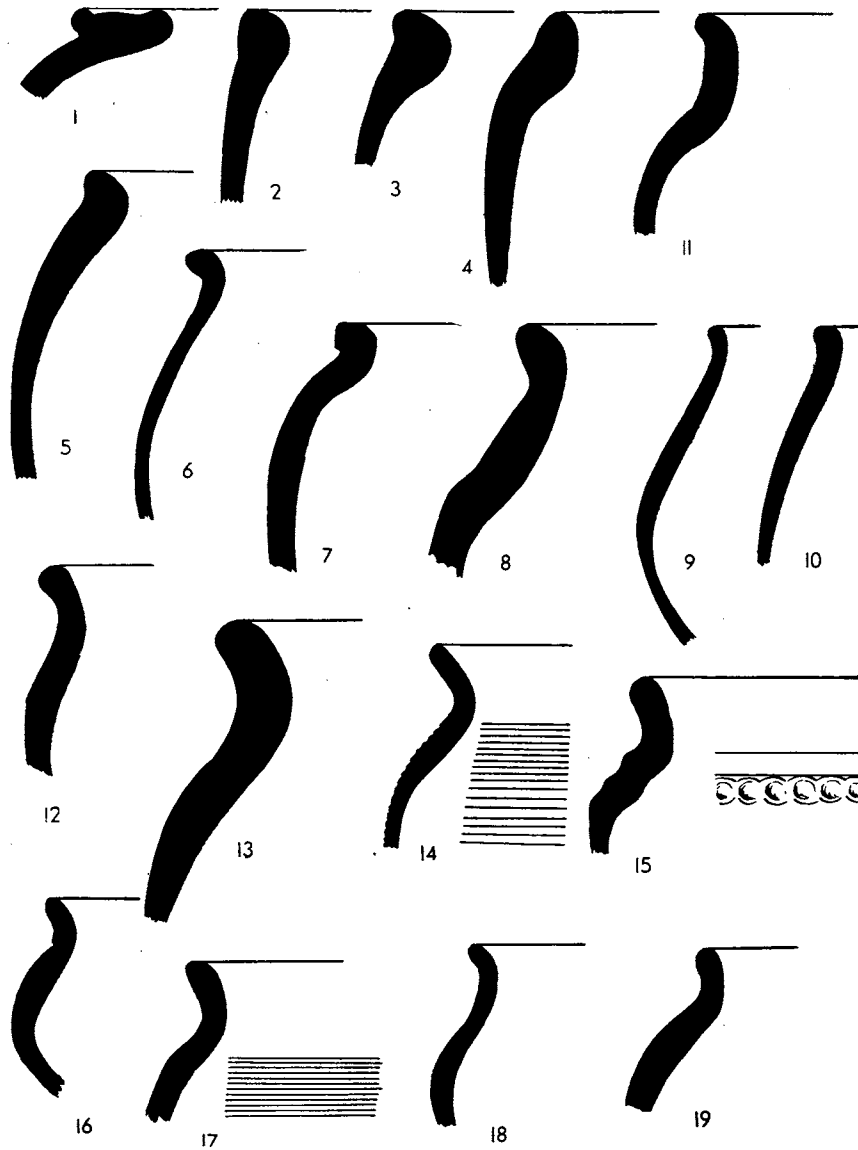


FIG. 56. Native bowls, &c., rim and shoulder profiles. Scale $\frac{1}{2}$.

Form 255. Round-shouldered cooking-pot with plain rim.

These are much rarer (255A), and are hand-made in rough or knobby brown-black coarse ware, occasionally with horizontal combing. The rim is rather inbent and usually finished square, recalling the archaic rim-form of Iron Age A, to which the form may well go directly back, here as abroad: if this lasted to the Belgic period in Essex as perhaps in Kent (*Antiq. Journ.* xiv, 296-7),

the origin of this form would agree with that of 254, to which it is anyhow closely related. Cf. *Verulamium*, fig. 21, 67. The equally rare answering form at Haltern (294 ff.: abb. 48, 4-4a) is a variant of Loeschcke's type 91, the standard versions of which (ibid. 1-3, 5) have rounded inbent bead-rims and grooved shoulders. To these only one rim here approximates (255B, pl. LXXXIII), in brown native ware, from pit A1 (periods IV-VI), slashed diagonally between the shoulder-grooves. Total 33: range I-IV/VI.

Form 256. Ovoid cooking-pot with simple everted lip-rim.

These were commoner than 255, but are wheel-made in harder fabric. The ovoid body is quite elegant, and the rim may be short and thickened, approaching bead-rim form (256A), or longer and thinner (B, from pit A8, period IV), this going with a taller form perhaps owing something to form 118. Period I produced 19 examples, and though the incidence continues to VI it lessens after III; thus whatever the type's origin it was prominent in British Camulodunum, in marked contrast to the rare type 66b at *Verulamium* and to the paucity of such in the south-east generally. The closest parallels come among the wheel-made Belgic bead-rims of Wessex, e.g. *Hengistbury*, pl. XXIII, 8-10 (class J), and there is probably a yet undiscovered explanation here that deserves attention. Total 140: range I-III (r-s to VI).

Form 257. Large round-shouldered bead-rim cooking-pot.

This is the predominantly Roman type of bead-rim pot best known from its occurrence at Richborough, where it is regularly furrowed all over (*Richborough II*, 97-9: pl. xxix and nos. 235-6; cf. *Belgae*, 290). Such furrowing is here found on a few pieces only, but the form is unmistakable: large, clumsy, and squat in coarse blackish-brown ware, roughly wheel-made. Fig. 56, 7 is a normal rim, 8 very abnormal, in 'corky' ware like 254. Total 22: range III-VI.

Form 258. Round-shouldered cooking-pot with concavity dividing bead-rim from ornamented shoulder.

Though this has general affinities with 254-6 and 259 (and with Swarling type 21), and though many examples are hand-made, in coarse ware with fine white grit (often dissolved out), it is yet rare before the conquest and is commonest in period IV. Its history thus rather resembles that of 253, to which form the distinctive concavity below its rim may well be partly due. It is anyhow best paralleled at Richborough (*I*, nos. 17-19, Claudian; *III*, 240, 243-4, 246, pre-Flavian), and thus ranks as a mainly Roman type, with 257. The body may be broad (258A) or smaller (B-C): the bead-rim is not prominent, and the concavity is a plain band (rarely fluted as B), scarcely a neck. On the shoulder directly below it there is always a band of ornament, generally of close-set, long, incised lines, often of several rows of small impressed chevrons, sometimes two or three rows of short strokes. Total 58: range I-IV (r-s to VI).

Form 259. Small, rather ovoid bead-rim cooking-pot.

In contrast to the Roman 257, this is a native type, of overwhelming abundance. Though rare at *Verulamium* (type 66a), it is the form of bead-rim vessel most at home in our south-eastern Belgic culture, as seen in Swarling types 28-9 (cf. 21), and never exactly resembles either the Wessex bead-rims or the distinctively Roman series (cf. *Belgae*, figs. 26, 28). The ware is the local native grey-cored brown or black, with knobby surface, normally wheel-made but not smoothly finished. The rim may be somewhat upstanding, as in form 260 (about 20 per cent. are so), and a few (only 12) are similarly rilled on the body, but these vessels never become pure Roman. Rarely (7 times) the rim is hollowed for a lid, as later on taller vessels, not pre-Flavian, like that in Taylor grave 3 in C.M. (May, pl. xci). These little pots were extremely abundant. Total 648: range I-VI. (Height of type-figure not quite certain.)

Form 260A. Broad ovoid cooking-pot with prominent bead-rim and rilled body.

In this form the bead-rim cooking-pot is finally assimilated to the regular Roman olla, as found e.g. in London (as *Belgae*, fig. 28, 1-2). Both the dated examples were rilled, and of period III; cf. one at Margidunum hollowed for lid, *J.R.S.* xiii, pl. x, 4.

Form 260B. Similar cooking-pot with everted rim.

Rilled Roman ollae with no neck but an everted rim were being made in the Xanten potteries as early as Augustan times (*Haltern*, 43A, abb. 22, 2), and our 260B corresponds to continental forms dated Claudian, e.g. by coin and Sigillata stamp OFI MACCA at Weisenau (*M.Z.* viii, 43). It begins in close imitation of these, in brown-black soft romanizing ware, rather before the conquest (cf. the rather divergent Verulamium types 64a-b), but is common only from period III onwards. Cf. the Margidunum examples *J.R.S.* xiii, pl. x, 9-11, pl. xi, 20. It is the first really frequent representative here of the Roman kitchen olla series, and some examples in hard grey Roman ware (as in the Colonia) complete the parentage of the well-known later group represented by *Wroxeter 1912*, nos. 25-7.

Combined total for 260, 174: range I-VI.

Form 262. Cooking-pot with hollow rim, micaceous.

Not very common. Clay very rough brown, with lumpy surface, heavily charged with large flakes of mica and some grit. Body hand-made. Paralleled by a small one in the same clay at Trier, this, with the unusual material and tall form, suggests a continental source. Total 28: range I-IV (or possibly VI).

Necked Cooking-pots (pl. LXXXIII)

At first, as in our forms 263 and 264, there is lack of decision whether to offset the neck or not, and certain rims can scarcely be classified. Such are fig. 56, 6, 9-19 (9 exceptional, being polished all over), all in native fabric and borrowing profile from almost any of our standardized forms. (So too in finer ware: e.g. fig. 54, 9, 12-13, 16, 24, 28, 37-8). The following clear forms emerge:

Form 263. Cooking-pots with simple rim, more or less offset at shoulder.

Hand-made, in hard grey or brown native ware, the body very rough, the rim smoothed, upright, simple, not thickened, and slightly outcurved. Where the profile breaks at the shoulder there is a band of finger-tip impressions (A) or the like (B; and fig. 56, 15). The few fragments are very varied and incomplete. Very similar to some Iron Age A rims, but the edge is never waved. Cf. *Richborough III*, 241; Casterley Camp, *Devizes Mus. Cat.*, pl. LXV, 12; for decoration *Haltern*, abb. 48, 5a. Total 10 (mostly in region 1, area F): range perhaps only I.

Form 264. Cooking-pot with simple rim.

The simplest form of the great family of necked pots and jars of the Romano-British period. The lip not beaded and the neck often scarcely offset. Here mostly very small (as type-figures a-c), but a few very large. Native black ware, some entirely hand-made (a), others with turned rim. Cf. *Richborough I*, 13, and *Malton*, pl. II, fig. 1, 14; and cf. our fig. 56, 11-13, &c. Total 36; range I-III/IV.

Form 265. Cooking-pot with beaded rim.

Lip of the rim now thickened or beaded, but not intentionally undercut. Size larger than 264, but still rounded and thick-walled, while the neck is offset, slightly to clearly, from the shoulder. The ware is thick and black. Not very numerous: at first thought to be native precursors of 266, but are actually local copies, for 266 is of continental origin. Total 217: range I-VI.

Form 266. Cooking-pot with offset neck and beaded, ultimately undercut rim (Haltern 57).

This is probably the commonest form on the site, which is a very important point, for it is exactly Haltern 57, yet occurs in huge numbers in purely native technique. The outline is very globularly ovoid, with little variation. There is a slight incurve of the side to the base, but there is evidence for an entirely bulged outline in the second half of the first century. The average size is about 6 in. high by 6 or more inches wide, but some very large examples occur. The ware is the local brown with grey core with black flecks in it. The native product has knobby surface, apparently stained black (and sooted in addition), with the rim highly polished and the base also either polished or smoothed for about one inch up the side. This romanizes gradually, the same paste being better levigated and becoming more and more grey, finally bluish or slate-grey, the polished portions now merely smoothed.

One of the commonest forms at Haltern (57), especially in the 'great camp'. Occurs at Nijmegen (type 113); but Ritterling's type 87 at Hofheim, though it may include some of these, seems mostly our form 267.

Only two, perhaps three, fragments show decoration: both are native and have impressed circles and irregular comb or brush marks on the body (site F8, period VI).

The form reached as far north as Malton (*Malton*, pl. II, fig. 16, 4) and apparently to period Ib in Appletree Turret on Hadrian's Wall (*Tr. Cumbd. & Westmd. A.S.* n.s. xiii, pl. xvii, 68). Here it continues in the Colonia, almost unchanged in form, but improving in ware and finish, probably well into the second century (May, 238, developing to 237, cf. the grave-groups *passim*).

The total is beyond computation, the numbers being equally great throughout our periods.

Form 267A. Cooking-pot with grooved shoulder.

All purely Roman. Tile-red, sandy, with rim in one continuous S-curve (of varying profile), with several grooves on the neck. No complete section recovered. Not numerous, 21 in all, the earliest in ditch E4 (period III), most in period VI pits in area G (region 5).

Form 267B. Roman grey ware, or (accidentally) red. Thin, lumpy, and rough. Rims very variable, with tall or short neck, sometimes very sharply everted so as to be almost flat, with rectangular edge. The rim may be grooved or thickened (*Richborough I*, 28; *III*, 264) and see *R.C.H.M. Roman London*, figs. 64, 19; 69, 61.

This was the cooking-pot of Newstead I (Curle type 36), but of 47 examples at Nijmegen (Vermeulen, types 97-8) most were attributed to the Claudian period; so at Hofheim, type 87. Numerous references to later British sites could be quoted.

Total 59: range III (just)-VI.

Form 267c. A few rims as our figure are all of the same red ware as 266A. The small cordon is unexpected, but the square lip is a feature of 267B. Probably period VI.

Form 268. Cooking-pot with sharply everted, undercut rim and groove on shoulder (May, types 240 and 241).

These are local forms extremely common in Colchester and district but only just emerging at the end of the occupation on the Sheepen site. Only May 240 was found, never 241; none were really well stratified.

Large Storage Vessels (pl. LXXXIV)

Very large, olla-shaped store-vessels are a feature of the period of transition from native British culture to Roman. They are not at all usual on purely La Tène sites, but extraordinarily numerous on this site and its contemporaries.

Often, as at Silchester and in south Essex, they are charged with white grit (not so here), and the earliest rims are probably those comparable in outline to our forms 264 and 265 (e.g. Braughing) to which we come nearest with our 270A.

Form 270A. Large store-vessel with simple everted lip.

These were comparatively scarce. Detailed analysis of their incidence was not made. One which could be restored provides our figure. All are soft native brown or black; and the description of 270B applies, except to the rim-outline.

Form 270B. Large store-vessel with hooked rim.

Almost the commonest form on the site. Rim very large, tall and overhung so that the section is hooked. Usually a cordon at the shoulder-offset. Ware local, dirty and ill-leveled, brown, brown-black to red and grey, the rim wheel-turned and generally polished, frequently with black coating. The body-form seems to vary as any of our figures on pl. LXXXIV (which are all that could be restored). The base is flat, only very rarely bulged and beaded as 270AA. In one case a big, massive base (site F16, periods I-III) had a big and clumsy footing.

The total numbers are beyond computation in all periods. Roman grey fragments first appear late in period IV or in period VI and are then very rare.

Form 271. Large store-vessel with beaded rim.

This form is really a monstrous-sized form 266. The rim is never hooked, otherwise the description of 270 applies again exactly. On both 270 and 271 certain forms of decoration are very common (p. 206). Whether there is a cordon at the shoulder or not there is generally a line of stabbing or finger-tipping; impressed rosettes or half-rosettes; impressed circles, or part-circles; or maggot-like impressions. Incised chevrons are rare. Finally the body is very frequently combed or rilled all over, the combing usually done as on our 270A.

Parallels are usually rims only, but there is a complete section at Wroxeter (1914, 72).

Incidence, common throughout as 270.

Form 272. Storage jar, globular with notched shoulder.

A very common local type, not yet well illustrated. Our figure is native brown ware with rim like a small 270. The round curves of neck and body are features which stiffen later when the whole becomes taller and more ovoid. Shoulder may have cordon or not, but always a row of finger-tipping. Common in the Colonia in Roman grey ware. Total 14: range II-VI (and later).

Form 273. Very large storage-vessels with rim of oval section.

These were rare and belong more to the subsequent period. A complete example (Colonia) in C.M. has a body like our fig. 271. The neck is taken inwards as 271 and the rim may be set on it in three ways: (a) sloping inwards in same line as the neck, (b) quite upright, (c) abruptly everted, always preserving its oval section. All seem to be Roman. The band of finger-tipping is usually retained but not the cordon. Total 37: range IV-VI.

Form 275. Large storage vessels with flat, inturned rim (Haltern 65; Hofheim 68 and 78; Nijmegen 105).

Common at Haltern in native ware and also as Roman copies. The lip and shoulder, especially in the former, were black-coated (cf. 270 above). All Roman at Hofheim and not so common, none with black coating. Here we have four rims only: fig. 57, 1, thick native brown ware stabbed with numerous holes to let out the steam while firing; 2, native brown ware: both sand-pit (region 3); 3, rough native grey, full of pebbles and grit, ditch II in region 3 (period V); 4, thick

soft brown ware, sand pit (region 3); also a small fragment in yellow-white (Roman) ware, ditch F6 filling (period VI). Average diameter about 22 in.

There are three examples in fine Roman buff ware, in form like no. 4, in C.M. (Colonia).

Parallels: Weisenau, *M.Z.* viii, 43; Holwerda, *Arentsburg*, pl. LXII, 338-43; smaller, later examples: *Tr. Jahresber.* i (1908), 22, taf. v, 1; *Newstead*, 245, figs. 23 and 24.

Lids (pl. LXXXV)

Lids in native grey-black ware, thick, with brown-black 'soapy' surface, were numerous. They are characterized by the hollow knob which is often so marked that the lid reversed forms a pedestal-bowl (e.g. 2-3 and fig. on left of 210b (pl. LXXIV)). There is an early tendency to be tall and conical or boldly domed (1-5, 11, 15, 19, and pl. LXXXI, 252, 253).

Lids of the most striking form are those of 252 and 253, which are well represented, always in good, thick native ware, with other examples, already quoted, of which no. 11 is a Roman copy in white ware. Nos. 1 and 18 are more elaborate and finely finished, the latter decorated with two bands of oblique scored strokes.

Lids in the finer, thinner native ware with black polish (romanizing) were very rare. No. 16a is the most notable, the form of its broken handle is shown by 16b. No. 16c is the nearest parallel obtainable, a lid in hard blue-grey ware in the Fremersdorf Coll. at Mainz.

Thinner ware of the coarse class was particularly abundant. Such are nos. 5-7, in the same ware as the native vessels of forms 259 and 266. Roman lids are nos. 8-11 and 17, in the same ware as the Roman form 266, but sometimes of red ware. They reject the hollow knob.

Nos. 12-14 are lids of a Roman type which seems, so far, to be limited to our (Claudius-Nero) period. They are always very small, simple-rimmed, and provided with a small, pinched-up finger-grip in the centre. The ware is generally coloured, white to buff, or red, sometimes white coated.

No. 19, of micaceous grey ware, is probably for form 45.

No. 20 is an additional example of the lid for form 17 (q.v.).

Miscellaneous

The foregoing account has been many years in preparation and has been rewritten and condensed many times. Of the inevitable residue of fragments not amenable to classification, the following deals only with outstanding specimens.

Pl. LII, A, part of a biconical vessel of thin grey ware, having much in common with form 120, but an everted, beaded rim and the upper part decorated with multiple horizontal grooves and vertical scored lines. Only one was found, unstratified, so possibly later than our period. The only parallel in C.M. (P.C. 731) is very similar, but with rouletting instead of scoring, and simple lip. It also is undated.

Pl. LII, B, part of a colander-bowl of thick, 'soapy' native brown-black ware. The outline, not far removed from our fig. 55, 8 and 11, must have lasted a long while, for a complete section recovered from the underground chamber in the Holly Trees meadow in the Colonia (with early fourth-century coins) was of the same outline, though with two grooves on the shoulder. The base was finely perforated. Site L4 (period I).

Fig. 50, 7 (p. 233). See under Plain Sigillata form s25 (p. 188).

Fig. 50, 8 (p. 233). Several fragments of wide, biconical bowls with strainer-spout were found. They fall into three groups. (a) Rim turned inwards almost horizontally. The three examples are in thick brown-black native ware with 'soapy' surface, possibly copies of the following, but very fragmentary (no spout preserved); one stratified, period III-IV. (b) Rim everted = form 241. Only one found, in a period III-IV deposit in region 1, area H. Fine black ware with buff surface

(very like *Malton II*, fig. 15, 2), finely finished. 8a shows the plan view of the part-cover, decorated with cabled beading and impressed rosettes, 8b the side view showing scored triangular pattern and notching round the base of the spout, 8c a front view detail of the notching and the first three holes of the strainer for the spout. 8d is the completed profile.

(c) A larger group, well represented in the Colonia. In it there is a great tendency for the spout to be modelled as a pig (Wheeler, *London in Roman Times*, 55, 2), mostly in an impressionistic manner, only the eyes being indicated above the conical spout (snout). There is ornamental scoring on the upper wall, especially near the spout. See on fig. 57, 12 below.

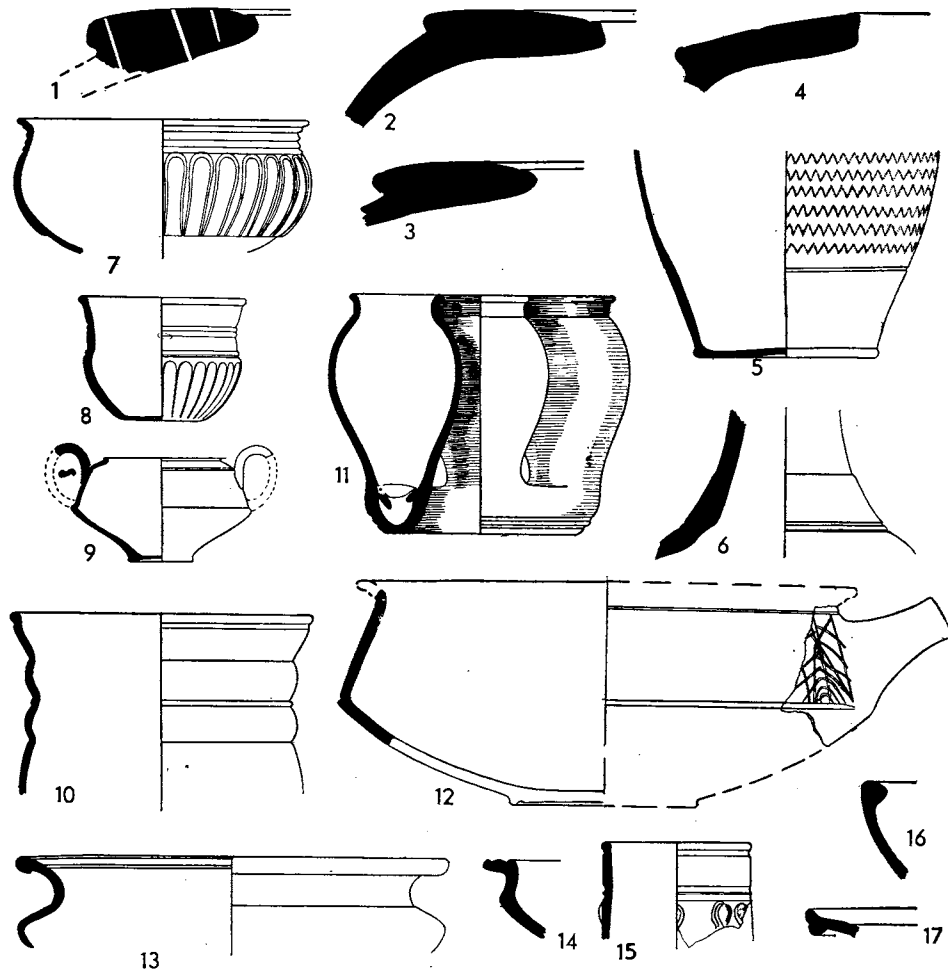


FIG. 57. Unglazed pottery, miscellaneous. Scale $\frac{1}{4}$. 1-4, form 275 (p. 272); 5, form 111 (p. 238); 6-17, various (p. 275).

Fig. 50, 9. Part of a bowl of approximately our form 69B, brown-grey romanizing ware, with dark grey surface, decorated with comb as form 108. Ditch II in region 6 (period V). A similar sherd in the Colonia is pure Roman, the side sloped in a little.

Pl. LXXVI, A. A single rim, period I deposit on site L4. Thick, 'soapy', native ware. The profile is at once reminiscent of wood-turning and of the tendency to build the mouldings high which is shown in *Verulamium*, pl. XLIX, 1 and fig. 17, 52. Probably one of our earliest pieces.

Fig. 54, 46. Flask-neck, thick native ware, 'soapy' surface, three cordons. Site D1, unstratified.

Pl. LXXXI, A. Tall cordoned beaker in very fine light grey ware with fumed, polished surface. Found unstratified (pit Y42) and undated so far. The careful footring should not be of late date.

Fig. 57, 6. Two fragments of a tall, finely made neck in thick T.R. 3, site D1 (periods IV–VI). Unparalleled, but cf. *Hengistbury*, pl. xxiv, 23.

Fig. 57, 7. Fragments of a bowl in thin, hard red ware, well smoothed, partly polished, with impressed gadroons. Pit G4, period uncertain. A similar rim from site F13 is period IV.

Fig. 57, 8. Fragment of a small cup or bowl in peculiar buff ware of native character, perhaps bad T.R. 4. The lower part appears to be finely *moulded*, the upper is finely cordoned. Pit F8 (period IV).

Fig. 57, 9. See form 70, p. 229.

Fig. 57, 10. Fragments of the upper half of a beaker in finest T.R. 3, bright red. Almost certainly a member of the pedestalled beaker series 71–9, perhaps a variant of form 76.

Fig. 57, 11. Remains of several tall cups on a hollow ring-base. Though such are usually triple the present example seems to have been quadruple, but the spacing may have been uneven. Fine native ware with brown-black 'soapy' surface. Over well H2 at 3 feet. Another, romanizing, fragment, pit L15 (period IV).

Fig. 57, 12. Spout of a large biconical bowl (see fig. 50, 8 above), grey-black ware with 'soapy' black surface (region 3, sand-pit). Two more (one site F2), and a fragment (site A4). Part of a strainer also from ditch F6.

Fig. 57, 13–14 and 16–17. Rims of bowls carefully finished in polished T.R. 4. No. 13, site A4, period IV/VI: cf. *Richborough III*, no. 218. No. 14, diam. $9\frac{3}{4}$ in., site A1, hearth. No. 15, with another similar, area D and site A4. No. 16, diam. 11 in., area G (period IV or VI). A period VI date would appear to cover them all.

Fig. 57, 15. Fragment of a beaker, pale grey, with fine fumed and polished surface decorated with barbotine stems and leaves. The shape was cylindrical, evidently copying Decorated *Sigillata* form Dr. 30. Site A4 (period VI, unless a second-century stray).

(iv) CHRONOLOGY BY STRATIFICATION

The chronological table which follows records the number of examples of each form found in the stratified deposits, its final columns those found otherwise and the total for the site. A plus sign indicates that there is no doubt that more fragments were actually found but could not be recognized. A small *n* indicates a small number (unknown) to be added, a capital *N* stands for a large number beyond computation. Capital *C* shows that the form occurs in the Colonia. These signs have been used to make the table, as a whole, a more satisfactory comparison of the occurrence of the forms. The method is necessarily only approximate, but it does help to level out the inequalities of the bare catalogue of fragments, which has certain inherent shortcomings. One of the greatest has already been mentioned frequently in the description of the native vessels: fragments of these cannot be classified so readily as the others; consequently, the representation of the typically 'Belgic Iron Age' forms in the bare figures is reduced to a serious degree. It is hoped by this system to restore the proportion, or at least indicate where adjustment is necessary. Forms are so marked where the necessity for it is certain; but it will be realized that other forms may have been in more general use than the list would signify. In some cases (e.g. forms 270 and 187) where *N* is used, the fragments were literally innumerable.

In contrast to the native vessels, the more standardized and easily recognized forms are

readily counted. Such are 17, 51, 52, 56, 58, 62, 63, 94, 95, 113, 114, 161, 165, 166, 168, 187, 189, 191, 226; but of these some of the more fragile, especially 113 and 161, are found in so many small fragments that their count is probably much out of proportion. Here no fragment is unidentified, while several may belong to one vessel. With these exceptions (and 74 and 76: see below), the total figures are minima.

Plus signs have had to be used on some other groups, e.g. fragments of platters 1-16 are very numerous, but without the rim cannot be assigned; the same is true of fragments of forms 71 to 91 and 112, most of which, being from the base, cannot be assigned. Forms 74 and 76, however, are probably recorded in excess, because all rims like theirs have been assigned to them. Unassignable fragments of buff jugs and flagons were of course enormous, especially of form 140 and its variants. All forms of amphorae are in the same case.

The pottery found in the kiln or around it has not been included: see below, p. 281.

It would be too much to hope that every deposit which we have assigned to this or that period has been correctly dated. The table is a résumé of the general results, and it is realized that a certain percentage of the fragments will inevitably have been placed out of their true horizon. Partly this may be due to error in dating deposits, but the greatest universal error is covered by the 'unstratified' (right-hand) column where every piece which lacked evidence for dating is recorded: it should be understood that perhaps little more than half of these were found in top- or disturbed soil. The remainder were found in trial-trenches which were not selected for further work, so that their stratification was never determined. The majority of such pieces are typologically of periods III or IV, and an increment should be allowed to the columns for those periods accordingly.

The remainder of the 'unstratified' column consists of fragments loose above the top-most stratum. These are genuinely unstratified. At the same time, and quite apart from occasional 'heirloom-' or use-survivals, it is important to remember that every deposit may contain a quantity of sherds which are rubbish-survivals from preceding periods. This is the more true of any level representing a period of great activity, in which much excavating, levelling, or the like occurred. Now in any intensively and continuously occupied site rubbish-survival is considerable, but on our site every period has historical claims to be one of exceptional activity, and the evidence is that rubbish-survival under such conditions is remarkably great (with equivalent loss to the earlier remains). And here it does not end with the abandonment of the site, but is still involved in later phases. Two of these can be definitely named. The first was the Flavian levelling noticed on p. 102, certainly to be reckoned a major activity, perhaps under Agricola; the second is that of the Antonine kilns (p. 121), the debris-levels of which still include quite a number of rubbish-survivals from the Claudian-Nero occupation.

Some of our survivals may seem extreme, and there may be others extreme but unrecognized. They are no new thing: one still wonders how a sherd of perfectly good second-century Sigillata could be found in the fourth-century Signal-Station at Scarborough. But our statistical treatment at least serves to direct attention to the phenomena of rubbish-survival in general, and gives some guidance towards their proper assessment.

UNGLAZED POTTERY: CHRONOLOGICAL TABLE OF INCIDENCE BY FORMS

Period	I	II	I-III	III	III-IV	IV	V	IV-VI	VI	+	Total
<i>Form</i>											(Symbols, p. 275)
I	I	..	4	I	6	12	..	8	3	40	75
2	19	7	22	29	35	66	..	7	10	139	334+
3	14	I	15	2	9	14	..	2	I	74	132+
4A	I	..	4	3	2	5	..	..	2	12	29
5	19	15	15	20	25	60	..	18	14	190	376+
6	2	I	I	2	2	4	..	5	..	19	36
7	13	8	2	27	13	29	..	20	9	76	197+
8	9	6	12	34	71	51	..	37	19	163	393+
9	..	..	I	..	I	I	..	..	2	9	14
10	..	..	..	..	..	..	..	I	..	3	4
11	2	I	I	..	2	5	..	I	3	4	19
12	17	15	17	48	44	58	..	33	20	174	409+
13	..	3	6	16	19	39	..	15	4	49	151+
14 (a)	3	I	5	14	45	40	I	28	6	114	257+
14 (b, c)	I	..	..	..	4	9	..	3	5	64	85 C
15	..	..	4	7	3	6	I	9	I	26	57
16A	3	..	..	5	13	24	..	15	8	74	142+
16B	..	..	..	I	8	12	..	16	66	32	135 C
17A	3	I	3	I	11	16	..	8	12	53	104
17B	..	..	I	I	3	I	..	13	4	14	37 C
17C	..	..	..	..	7	3	..	7	..	19	36 C
17D	..	..	..	..	3	2	..	I	5	7	18 C
17 (lids)	..	..	I	..	6	6	..	12	13	37	75 C
21 & 22	6	10	14	11	13	21	..	5	12	69	161
23	..	..	..	..	I	5	..	..	2	15	23
24	..	..	..	..	4	2	..	..	16	32	54
26	..	..	I	..	2	7	..	9	..	21	40
27	..	..	..	I	I	8	..	9	..	19	42
28	..	..	I	..	6	15	2	3	4	73	124
29	..	..	..	..	..	..	..	..	..	..	} see pp. 222 223
30	..	..	..	..	..	..	..	..	..	..
31	..	..	I	..	I	I	I	I	2	6	13
32	I	..	..	I	5	I	..	2	..	8	18
33	..	..	..	..	I	I	..	I	..	2	5
41	..	..	..	..	..	2	..	I	I	8	12 C
42	..	..	2	..	3	6	..	I	2	7	21
43 & 44	..	..	I	..	..	3	..	I	..	2?	7+
45A & B	..	..	..	..	..	2	..	I	I	2	6
46	..	..	I	..	..	..	..	..	..	3	4 C
47	2	..	..	..	I	2	..	..	I	3	9
48	..	..	..	I	..	7	I	2	3	21	35
49	..	..	..	..	..	..	..	..	I	3	4
50	..	..	..	2	..	2	..	..	2	9?	15 (?)
51A	..	..	..	..	2	9	..	3	..	4	18
51B	..	..	..	..	..	..	..	..	..	9	9
51C	I	..	3	..	4	12	..	4	2	39	65
52A	..	..	..	..	..	I	..	..	..	..	I
52B	..	I	I	..	I	4	..	..	I	8	16
53	2	I	2	I	8	2	..	..	I	13	30
54	..	..	I	..	5	I	..	I	..	14	22
55	..	..	..	..	..	..	..	..	..	I	I
56	24	13	22	75	69	123	4	12	29	304	675+
57	I	..	..	..	..	5	..	I	I	2	10

THE FINDS

<i>Period</i>	<i>I</i>	<i>II</i>	<i>I-III</i>	<i>III</i>	<i>III-IV</i>	<i>IV</i>	<i>V</i>	<i>IV-VI</i>	<i>VI</i>	<i>+</i>	<i>Total</i>
<i>Form</i>											
58	..	..	..	4	4	16	..	..	7	36	67
59	..	..	..	..	I	I	..	..	II	14	27 C
60	..	..	..	..	..	2	..	I	..	5	8
61	I	..	..	..	..	..	..	4	I	3	9
62A	..	..	..	..	I	16	I	24	..	4I	83+C
62B	..	..	..	..	..	I	I ?	2	4	10	18
63	..	..	..	..	..	3	2	..	II	3	19
64	..	..	..	..	2	2	..	100	3	12	119
65	..	..	..	..	I	..	..	..	..	..	I
66	..	..	..	..	..	..	..	..	..	I	I
67	..	..	..	..	..	..	..	..	I	..	I
68	..	..	..	..	..	I	..	..	..	I ?	2 C
69A	I	..	..	..	..	..	..	..	..	..	I
69B	..	..	..	..	I	..	..	I	I	..	3
70	..	..	..	..	..	..	..	I	..	..	I
71	Continental										
72	Continental										
73	..	..	..	..	..	..	..	I	..	2	3+
74	I	..	3	2	4	6	..	..	4	18	38
75	..	..	..	..	..	3	..	..	..	4	7+
76	2 ?	..	12	5	20	20	..	..	3	42	104
77	..	..	..	..	I	..	..	..	..	3	4+
78	Continental. Possibly occurs										n ?
79A	I	I	I	..	2	2	..	..	..	12	19+
80	Continental										
81	Continental										
82	..	..	I	..	2	I	..	I	..	3	8
83	..	..	..	..	..	I	..	..	..	..	I
84	12	5	12	17	29	28	6	2	6	158	275+
85B	5	2	4	2	5	8	2	3	3	23	57
86	Continental. Possibly occurs										
87	Possibly occurs										
88	..	..	..	..	..	..	..	..	I	..	I
91	2	2	2	3	2	7	2	I	2	30	53+
91D	..	..	..	..	..	..	..	..	..	4	4
92	6	..	2	2	7	I	..	7	6	29	60
93	6 ?	..	I	..	2	I	..	2	4	4	20
94	..	..	2	I	9	35	..	109	32	146	334+C
94B	..	..	I	..	2	I	..	I	..	I	6
95	..	..	..	..	..	..	..	I	..	I	2
96	..	..	..	I	..	I	..	I	I	I	5
97	..	..	..	..	..	2	..	..	..	2	4
98	..	..	..	..	..	..	..	..	..	4	4
99	..	..	..	..	..	2	..	..	..	3	5
100	..	..	..	..	I ?	..	..	2	..	2	5 C
101	..	..	..	..	..	I ?	..	..	2	10	13 C
102	4	I	8	5	8	9	..	..	..	37	72
103	..	..	..	..	I	..	..	..	..	..	I
104	..	..	..	..	..	I ?	..	5	2	4	12 C
105	..	..	..	..	..	..	..	..	I	2	3
108	2	9	..	2	38	75	..	51	138	334	549+C
109	..	..	..	I	..	I	..	..	3	17	22
111	..	..	..	..	..	I	..	..	..	..	I
112	2I	..	52	52	5I	11I	..	9	27	258	597+
1120	..	18	I	..	I	2	..	5	..	3	12+

THE POTTERY

Period	I	II	I-III	III	III-IV	IV	V	IV-VI	VI	+	Total
<i>Form</i>											
I13	170	50	194	282	343	648	2	58	136	847	2,730+
I13B	..	..	I	..	2	5	..	4	6	2	20
I14A	13	7	30	19	30	34	..	I	10	72	216
I14B	2	..	..	..	8	8	..	5	..	25	46
I15 } I16 }	62	63	142	56	164	208	6	60	64	540	1,365+
I17	..	..	..	2	..	..	..	..	I	I	4
I18	I	..	..	..	..	..	..	..	..	3	4
I19	23	60	59	39	59	104	2	22	54	282	704+C
I20A	..	..	..	..	..	4	..	4	4	16	28 C
I20B	..	..	..	..	2	2	..	..	3	2	9
I31	(Lexden)										
I32	(Colchester district)										
I33	..	..	..	..	..	..	..	..	..	I	I
I34	..	..	..	I	I	..	..	..	I	..	3
I35	..	..	..	..	I ?	..	..	..	..	..	I
I36A	..	..	..	..	2	2	..	I	I	3	9+
I36B	..	..	..	..	2	I	..	..	..	6	9+
I36C	..	..	..	2	2	3	..	I	I	3	12+
I37	..	..	..	..	..	..	..	..	..	I	I
I39	..	I	..	I	..	3	..	3	..	3	11
I40A	..	..	I	..	..	I	..	2	..	5	9+C
I40B	..	..	..	..	..	I	..	..	..	8	9+C
I40C	..	..	..	..	..	2	..	2	..	5	9 C
I40D	I	I	I	I	..	10	..	9	2	7	32 C
I40	I	2	17	7	10	57	I	51	9	183	338+C
I41	..	..	..	..	I	I	I	I	I	3	8+C
I43	..	..	..	..	..	..	..	2	..	I	3+C
I44	..	..	..	2	..	6	..	2	3	27	40 C
I46	..	..	..	..	..	I	..	I	..	2	4 C
I47	..	..	I	..	..	4	I	6	8	25	45
I48	..	..	..	..	..	..	..	I	I	..	2+
I49	..	..	..	..	..	I	..	..	..	2	3+C
I50	..	..	..	..	..	..	..	..	I	I	2+C
I53	..	..	2	2	2	I	..	I	..	5	14
I54	..	..	..	I	4	17	..	I	7	38	67+C
I55	..	..	..	..	2	7	..	7	..	16	32+C
I57	..	..	..	..	..	..	..	..	I	3	4
I58	..	..	..	..	..	..	..	..	3	3	6
I59	..	..	..	..	..	..	..	2	5	6	13 C
I61	27	2	21	22	106	238	..	13	141	310	880+C
I62	2	..	..	..	I	5	..	I	..	..	9+
I63	4	..	11	..	13	26	..	12	3	54	123+
I65	11	7	24	26	31	62	..	3	7	114	284
I66	..	..	5	..	4	2	..	..	..	7	18+
I67	..	..	..	..	6	7	..	6	26	22	68+C
I68	..	..	..	I	I	4	I	I	..	4	12
I69	Colonia West Cemetery										
I70	I	..	..	..	3	7	..	I	I	8	21+
I71	..	..	..	..	..	..	..	..	I	..	I+n
I72	..	I	..	2	..	6	..	2	6	34	51 C
I73	..	..	..	..	..	..	..	..	I	3	4
I74A	..	..	..	..	I	..	..	..	..	..	I
I74B	..	..	..	..	..	I	..	..	..	..	I
I75	2	..	..	4	4	13	..	2	3	29	57 C

THE FINDS

<i>Period</i>	<i>I</i>	<i>II</i>	<i>I-III</i>	<i>III</i>	<i>III-IV</i>	<i>IV</i>	<i>V</i>	<i>IV-VI</i>	<i>VI</i>	<i>+</i>	<i>Total</i>
<i>Form</i>											
176	..	..	..	..	I	..	..	3	I	10	15
177	..	..	..	2	I	3	..	3	3	27	39
181	5	..	I	I	4	7	..	2	I	25	46
182	2	3	8	3	II	10	..	5	II	43	96+C
183	I	2	I	I	4	5	..	3	6	54	77
184	I	..	..	I	I	3	..	2	3	21	31+C
185A	I	2	I	4	5	5	..	4	4	20	46+
185B	..	..	..	..	I	I	..	..	3	8	13
186A	..	I	4	..	..	I	..	2	..	I	9+nC
186B	I	..	..	..	..	I	..	..	I	4	7+nC
186 sp.	..	..	..	5	7	21	..	6	8	75	122+
187	2	5	3	9	9	23 <i>N</i>	..	127 <i>N</i>	20 <i>N</i>	209 <i>N</i>	NNN
188	..	..	..	..	..	..	..	..	..	3	3
189	..	..	..	..	I	12	..	125	3	12	153+C
191A	9	4	4	6	7	28	..	I	10	56	125+
191B	I	..	3	9	II	18	..	..	3	42	87+
191C	..	..	..	4	I	12	I	2	24	63	108+
192	..	2	..	I	I	20	3	3	17	94	140+
193A	..	..	..	..	I	4	3	..	9 ⁿ	21	38
193B	..	..	..	..	..	3	..	4	4	8	19
194	..	..	..	..	5	7	..	3	7	51	73
195	..	..	..	..	..	7	..	6	9	46	68+C
196	..	..	..	2	..	I	..	I	..	2	6
197	..	..	..	..	..	3?	..	I?	..	3	7
198	..	..	..	..	2	7	I	..	I	14	25 C
199	..	..	..	..	..	..	..	I	..	6	7 C
201	I	..	..	..	..	I	..	..	..	..	2
202 & 203	6	5	3	3	..	I	..	I	I	10	30
204	II	8	12	13	32	30	4	9	21	131	271
205	..	..	..	..	..	..	..	..	..	I	I
206	..	..	..	..	..	I?	..	..	..	I	2?
210	2	..	..	I	I	..	..	..	..	3	7
211	3	..	..	..	I	2	..	..	..	11	17
212	I	I	I	..	2	3	..	..	3	8	19+n
213	..	..	..	..	I	I	..	I	..	2	5+n
214	..	..	..	3	3	8	I	..	I	15	31+n
214B	..	2	7	4	10	4	3	..	9	29	68+n
215	..	I	I	..	2	..	..	2	I	5	12+n
216	I	..	..	..	I	12	..	..	..	6	20+n
217	..	..	5	..	I	6	..	..	..	5	17+n
218	68	30	20	109	165	157	3	17	73	358	1,000 NC
219	4	I	..	3	6	4	I	I	2	15	37+n
220	..	4	I	4	I	2	..	I	I	23	37+n
221 & 222	5	5	2	4	18	23	3	4	II	54	129+NC
223	I	..	..	..	I	..	..	..	..	I	3+
224	..	..	..	..	I	..	..	..	..	I	2+
225	..	..	I	..	..	..	..	..	..	I	2+
226	..	..	..	..	..	..	..	..	I	..	1+
227	..	..	..	..	..	I	..	..	3	3	7+C
228	..	..	..	..	..	..	..	I	..	I	2+C
229	4	I	..	..	3	I	..	3	8	14	34+N
230	I	I	..	I	I	I	..	..	I	2	8
231	2	3	10	2	17	92	3	12	39	165	345+N
232	3	9	3	10	19	23	..	3	15	66	151+
233	2	..	..	I	2	..	I	..	..	6	12+

<i>Period</i>	<i>I</i>	<i>II</i>	<i>I-III</i>	<i>III</i>	<i>III-IV</i>	<i>IV</i>	<i>V</i>	<i>IV-VI</i>	<i>VI</i>	<i>+</i>	<i>Total</i>
<i>Form</i>											
234	..	I	..	2	3	15	..	..	8	22	51+
235	..	..	..	..	..	..	..	..	1?	..	1?
241	..	..	..	..	..	7	..	..	..	8	15 C
242	..	6	4	6	34	41	2	10	6	114	243 C
243	..	..	I	2	10	7	2	11	24	67	125+
244	..	..	..	..	..	2	I	..	12	21	36
245	I	I	I	I	2	4	..	..	2	13	25
246	..	..	I	I	2	11	..	9	10	93	127 C
250	I	I	..	..	I	..	..	..	..	2	5
251	..	..	..	I	3	2	..	..	..	4	10
252	I	..	2	..	I	3	..	2	..	6	15
253	I	I	11	4	5	10	..	2	2	20	56
254	16	6	16	8	24	27	I	3	8	129	238
255	2	..	..	3	2	3	..	4	..	19	33
256	19	2	6	15	7	9	4	2	6	70	140
257	..	..	3	2	5	3	..	I	2	6	22
258	3	4	..	I	3	17	I	..	I	28	58
259	23	11	73	32	64	90	4	14	29	308	648
260	5	I	I	21	17	28	..	3	12	96	174 C
262	3	I	..	5	4	4	..	..	2	9	28
263	..	I	I	..	..	..	..	..	..	8	10
264	I	..	3	2	8	..	..	..	..	22	36
265	12	..	13	14	29	18	2	7	17	105	217
266	18	12	96	59	220	420	6	64	N	N	NC
267A	..	..	..	I	I	3	..	..	7	9	21
267B	..	..	..	..	6	10	..	12	12	19	59 C
267C	Occurs										
268	Occurs doubtfully										
270	N	N	N	N	N	N	n	N	N	N	N
271	N	N	N	N	N	N	n	N	N	N	N
272	..	I	..	I	I	I	..	..	2	8	14 C
273	..	..	..	..	..	7	..	..	2	28	37 C
274	I	..	..	..	..	..	..	..	..	I	2
275	..	..	..	..	..	..	I	..	I	2	4 C

(v) MANUFACTURE ON THE SITE: THE KILN

The pottery-kiln found in region 4 and described above (p. 106) dates from the end of period IV, by which time the industry it represents must have been extensive. However, pottery must have been manufactured at Camulodunum from the very beginning of the occupation, on a scale commensurate with the demand created by so important a site, and it is regrettable that we discovered no earlier kilns, in particular none of pre-conquest date. The industry must have exploited the London Clay which skirts the south side of the Colne valley west of Sheepen, and this exploitation was naturally continued and intensified in Roman times. In fact, in constructing the By-pass road it was revealed that there had been continuous ancient working of this clay from the west end of our region 2 for nearly half a mile westward. The limit of the workings is marked by a lynchet-like scarp, and across the whole area worked was found a litter of Roman tile. A number of iron horseshoes also occurred, similar to fig. 64, 2-3 (p. 342): they would easily have been sucked off in the sticky bottom of the clay-field. The southward extremity

of these workings is marked by the three clay-pits encountered high up the slope in our region 5 (p. 121); how early these were first worked is not certain, but they were certainly in use in periods III–IV, and even if clay was not dug earlier at these points, the exploitation as a whole will probably go back to pre-conquest times. Its great extension in the Roman period will have served, in part, at least, the late second-century pottery-kilns farther east in region 5 and those excavated by Joslin farther west (p. 22); with the latter was a tile-kiln, and we have already seen that the manufacture of brick and tile began when the Colonia was first built in period IV, and is well represented by the tile-kiln found in our region 2 near the east edge of the clay-field. The Roman tile and pottery industries together will then have so enlarged the area dug for clay that considerable remains of pre-conquest pottery-making may well have been dug away in all this quarter. Kiln-wasters of native ware were not often found on the Sheepen site itself: a notable one from site L2 (period I) has been described under form 220 (p. 261) and figured pl. LXXVIII, Ba. Clay fragments apparently of kiln-supports or saggars were found loose on the site occasionally—one in region 5, area Y(C); two in region 3, over ditch I and on site C3 (periods III–IV); and one in region 4 deep in site D1 (period IV), vitrified by heat.

Whether clay was also dug in pre-conquest times on the east of the site in region 4, where the period IV pottery-kiln was found, is not certain; but this kiln is beyond doubt the survivor of quite a number in that quarter. We have seen that pit L19 was the unfinished emplacement for another such kiln, in course of construction when the whole site was wrecked in A.D. 61 (p. 105). The many whole (or nearly whole) vessels used to fill this pit cannot all have been products of the same industry, for they are too varied and include South Gaulish Sigillata. But the pottery found in the adjacent kiln itself, apart from a few intrusive sherds of native and Roman grey wares, certainly for the most part represents its last loading, abandoned when the site went down in 61 before the rebels.

It consists to a large extent of flagon bodies (p. 106): their tops had been shaved off subsequently by the plough and only a few could be restored. The forms are our 149 or 150, 154, and 171. A few sherds of other forms may be assumed to be relics of previous loadings. All the ware made in the kiln seems to be of the same clay, though varying in colour from soft yellow or brownish buff to nearly white. Certain white blemishes suggest that that source here was a chalky Boulder-clay—in any case the same source as later furnished the material for the structure of the second-century kilns in region 5. The forms are shown in fig. 58 and their description is as follows:

Fig. 58, nos. 1–3 (form 154). No. 1. Soft ware, nearly white. No. 2. Soft buff. No. 3. Soft brown-buff. These three are typical of a mass of flagons too numerous for computation. The fragments are, however, chiefly of bodies, so that many may have belonged to form 171. In form 154 the only variations noted were one neck with four rings instead of five and one with only three. The lip may be sharp, rounded, or flattened on top. All handles are alike.

One neck was found of a puzzle jug. Its form is indicated by broken lines on no. 1. The principle is the same as that of the unspillable inkwell: little more than half the contents could be poured out in the normal way. The secret lay in the handle (no. 1a, with section) which was of special form (giving the game away) and hollow down the centre, so that the vessel could be drained by holding the handle downwards.

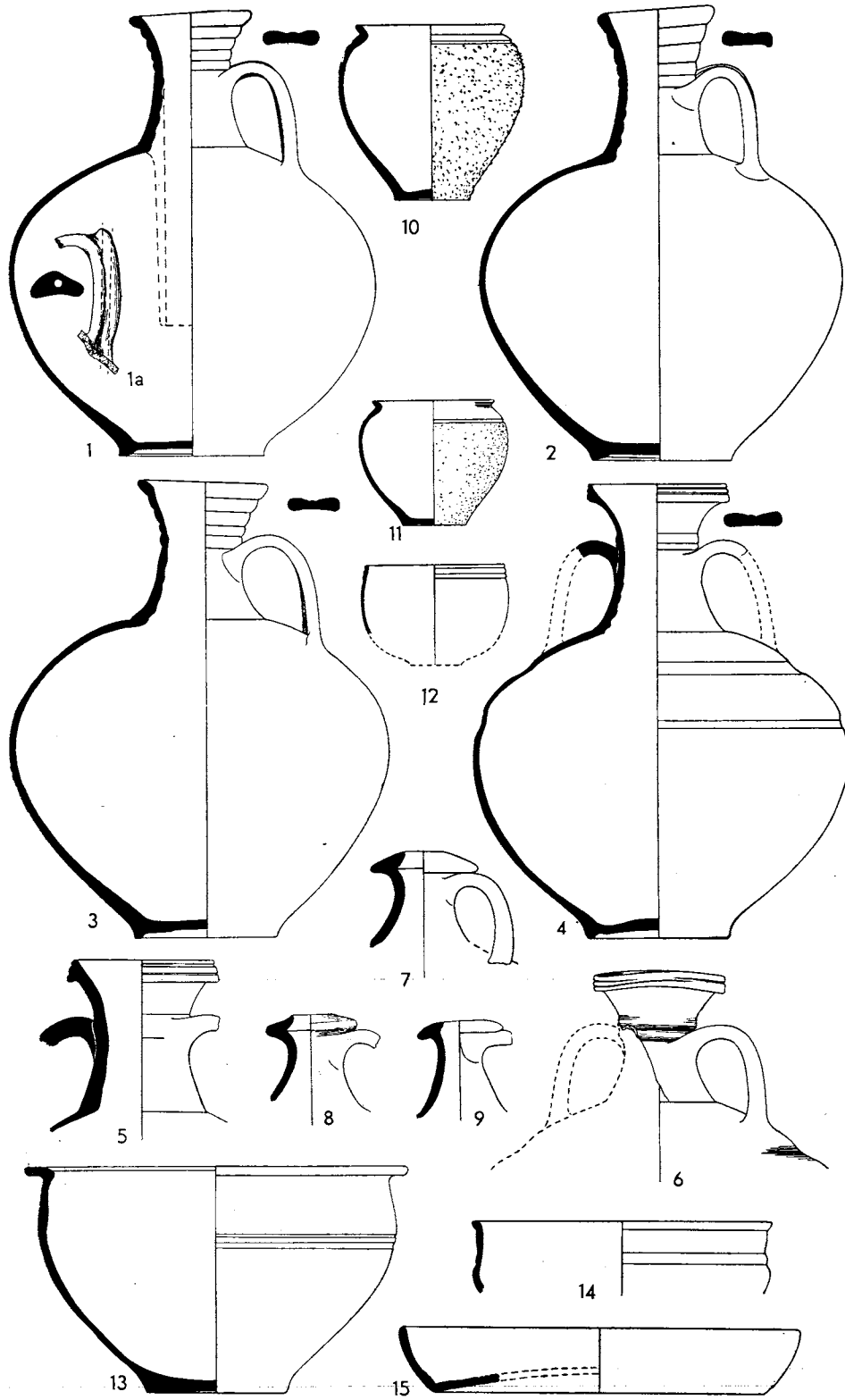


FIG. 58. Unglazed pottery from the kiln in region 4. Scale $\frac{1}{4}$.

No. 4. There were remains of several flagons of this form (171), but only one could be restored. Two more necks are shown, nos. 5 and 6. The ware is the same as before and the handles are the same as form 154. The fluting of the body may have varied, but at least one fluting on the shoulder seems to have been standard. The cordons on the neck are usually double, though single on no. 5.

Nos. 7-9. Three necks and some fragments, in the same ware, are of form 149 or 150. Handles as above. Bases not identified.

It should be noted that nearly all necks are somewhat distorted in preparation or in firing.

No. 10. Form 94B represented by two complete drawings and a number of rims. Ware the same as the preceding, lightly rough-cast, and with a very poor red coating, mostly washed off or evanescent. Rims may be sharply demarcated and outbent like no. 10 or smoothly curved like no. 11. All are identical with our form 94B, which is thus proved of local manufacture.

No. 12 represents a few fragments of form 62, rather deeper than the standard of that form. They are of pale, creamy buff ware, very thin and soft. All the rim fragments are alike. There was apparently no attempt at decoration and no red coating.

No. 13. One bowl form 244 could be restored, and there were a few more rims exactly similar. The clay is more reddish than usual, with much sandy grit in it (same as that of an almost identical bowl from pit D10, our type-figure 244, pl. LXXX).

No. 14. Two rim-fragments of an unusual bowl in brown-buff ware, not smoothed. Form not known.

No. 15. Fragments of three or more platters of form 17 in its latest and poorest form. The clay is the usual (for this kiln), overfired in some cases almost to a grey. There has been an attempt to produce a red surface, and a few concentric circles are on the base. All rims have the notable, kicked offset at junction of wall and base. The work is poor.

There were also a few fragments of lids, reddish-buff, in the usual Roman pattern; several show a grooved edge.

Possibly the red powder contained in the iron box found in the flue of the kiln (p. 344) had something to do with the red colouring of such forms as 17 and 94.

F. GRAFFITI ON POTTERY

Fifty-nine examples of words, letters, or symbols scratched on pottery after baking, by owners, users, or others, were found. List and comments are as follows:—

(a) *On Arretine Sigillata* (12).

No.	Reading	Form	Site	Region	Period, if stratified
1	AR (<i>Ar</i>)	s11 (L8)	Ditch I silt	I	I
2	M	" (stamp 3, Cn Atei)	"	I	I
3	SEV II (<i>Severi</i> ?)	" (stamp 35, Hilari/ OfPAtt ?)	Site F11	I	I
4a	λ λ }	?	Site F15	I	I-III/IV
4b	λλ }			I	
5	*X (<i>Ex</i>)	cup	" (low level)	I	
6	M	cup (stamp 21, MPS)	"	I	
7	∇Λ	?	"	I	
8	VAT (<i>Vat</i>)	cup (provincial-looking)	"	I	
9	VE (<i>Vé</i>)	s14A (L11)	Sealing over Pit F4	I	III
10	SI (<i>Si</i>)	s4 (L2) (stamp 22, Romulus)	Site F17	I	III-IV
11	A	s11 (L8)	Site A4	3	VI
12	VIŠI (<i>Visi</i> . .)	"	Area G	5	..

Of these 12, epigraphy and readings are alike acceptable as Latin, though some might stand for native names. Ten of them come from region 1, area F, thus agreeing with the general Arretine distribution (p. 191), which dates in the main from period I. Of these, three were stratified in deposits of period I, five on a site (F15) initially occupied in period I, and one in the immediate sealing over a period I pit (F4). Most if not all of these graffiti, then, were executed in period I, and are notable as probably the only alphabetic graffiti yet known from pre-conquest Britain. However, graffiti of period I were nowhere recognized on wares other than Arretine. This suggests that the need for owners' marks or the like was only felt in connexion with this choice foreign fabric, and probably that the necessary literacy only existed within its circulation-range, namely, no doubt (p. 49), the wealthier classes and the trading community, whether native or foreign. The graffiti cannot indeed be proved to be the work of natives. But their presence is an interesting sign of romanization in pre-conquest times.

(b) *On South Gaulish Sigillata (30).*

No.	Reading	Form	Site	Region	Period, if stratified
13	NL	s15 (Dr.24/25)	Sealing over pit F4	1	III
14	SI (SI)	cup	Site F17	1	III-IV
15	DIYIRI (<i>Severi</i>)	s8 (Dr.18)	Pit F1	1	IV
16	NA/ (?)	"	"	1	IV
17	ATIK (? for <i>Attici</i>)	s14 (Dr.27)	Over pit F7	1	? IV
18	IM	?	Ditch F6	1	VI
19	/TRV	s6 (Dr.15/17)	Area F	1	..
20	VV(?)X	s8 (Dr.18)	"	1	..
21	+	?	"	1	..
22	A	s15 (Dr.24/25)	Gravel-pit	3	} IV } IV } IV } VI } All } certainly } or } probably } IV where } not VI
23	ATTIC (<i>Attici</i>)	s8 (Dr.18) (stamp 67, Cennat)	Site A1	3	
24	D	s14 (Dr.27) (stamp 108, Licin)	Pit A3	3	
25	MM (<i>Em</i> ?)	" (stamp 84, OfInge)	"	3	
26	MM (<i>Em</i> ?)	s8 (Dr.18)	Site A4	3	
27	IXI	platter (early)	Area A	3	
28	NA	s19 (Ritt.12)	"	3	
29	SIIN (<i>Sen</i>)	s14 (Dr.27) (stamp 132, Mode)	"	3	
30	AI (?) phi)	s15 (Dr.24/25) (stamp 144, OPasên)	"	3	
31	++	s15 (Dr.24/25)	Gravel-pit	3	
32	++	"	"	3	
33	+	s14 (Dr.27)	Area A	3	
34	+	s4 (Dr.17)	"	3	
35	DIIA (<i>dea</i>)	s6 (Dr.15/17) (stamp 178, Tertiusf)	Site A3	3	VI
36	A	s8 (Dr.18)	Site A4	3	VI
37	AI	s4 (Dr.17)	Area D	4	
38	ΛΥΜΠΙ (<i>Lampiti</i>)	s15 (Dr.24/25) (stamp 80, OfFirmo)	"	4	
39	W	s8 (Dr.18)	Pit D1a	4	IV-VI
40	SII (<i>Se</i>)	s6 (Dr.15/17)	Clay-pit III	5	III/IV-VI
41	* (broken across)	?	Strat. over ditch I, sect. 68	5	IV
42	/NI	?	Area K	6	..

(c) *On Gallo-Belgic ware (3).*

No.	Reading	Form	Site	Region	Period, if stratified
43	AJ... ..	T.N. platter	Area B	3	..
44	BASSVS (<i>Bassus</i>)	"	Site A4	3	VI
45	NICIN (<i>. . nicini</i>)	" form 16c	Site A3	3	VI

(d) *On Native or Romanizing Native wares (14).*

46	N	form 265 (prob.)	Pit F4	1	III
47	XIII (XIII)	f. 272	Area F	1	..
48	∞	f. 119 (?)	Site A3	3	VI
49	FTI ...	f. 119	Site A4	3	VI
50	PIN (<i>Pin</i>)	?	Area L	4	..
51	BEAIV (<i>Belin..</i>)	?	Area G	5	..
52	> CAI (? <i>Y Cai</i>)	platter	Area Y	5	..
53	INPIAS (<i>impius</i>)	f. 270	"	5	..
54	M ...	jar	"	5	..
55	..NAW .. (<i>. . namu..</i>)	"	Area Z	5	..
56	∆PII (<i>. . opii</i>)	f. 270	Pit G2	5	VI
57	PIC/ (<i>Pic..</i>)	"	"	5	VI
58	SACIN .. (<i>. . sacin..</i>)	beaker	Area Y	5	..
59	□	f. 119 (red)	Area G	5	..

(e) *On Amphora (1).*

60	MAS ... (<i>Mas ...</i>)	f. 183	Sand-pit	3	(<i>J.R.S.</i> xxiv, 90, no. 22)
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Of these 48 graffiti, none need be pre-conquest and all those stratified are of periods III, IV, or VI, where such evidence of romanization is to be expected. Their distribution by regions is as follows:

Region	1	2	3	4	5	6	Total
Sigillata + Gallo-Belgic + Amphora	9	0	14 + 3 + 1	4	2	1	30 + 3 + 1
Native	1	0	2	1	9	0	14

On Sigillata they are therefore commonest in the concentrated Roman occupation of region 3, area A (with amphora), and next commonest in region 1, area F, where the South Gaulish distribution thus follows on the Arretine, already accounted for. Elsewhere it is sparse. On native ware they are commonest in region 5, but twice as rare altogether, the need for owners' marks, &c., being less strongly felt here (as also on Gallo-Belgic) than on Sigillata vessels. Apart from mere symbols, the epigraphy is throughout acceptable as Latin, except for no. 30 which looks like Greek ϕ . No. 47 should be the numeral XIII. Names where recognizable are manifestly Latin, in either genitive or nominative (e.g. 15, 17, 38, 44, 45, 51, 52). No. 52 may give the military γ for *centuria*, followed by centurion's name in genitive, but this cannot be proved. Lastly, no. 53 seems certainly to intend the adjective *impius*, and no. 35, from the well-romanized native occupation-site A3 of period VI (p. 95), can best be read as *dea*, 'goddess'. But these suggestions of imprecation and dedication stand alone.

III. THE GLASS

(Pls. LXXXVI–LXXXVIII)

By D. B. HARDEN, F.S.A.

The discoveries at Colchester described in this report¹ include a most interesting series of glass fragments covering the years 10 to 65 of the first century A.D., and it has seemed worth while to deal with them *in extenso*, not only because of their intrinsic merit, but also because most excavation-reports pay scant heed to glass fragments, and such a well-documented series is therefore of cardinal importance for glass-historians.

The only comparable first-century series published is that from Hofheim (Ritterling, *Hofheim*, 363 ff.), and the Colchester finds bear out and supplement in a very satisfactory manner the evidence from that site about the varieties of glass normally current at the time. Further evidence for mid-first-century types comes from Vetera (Xanten), though the finds there have been published only cursorily (*B. J.* cxix, 280; cxxii, 398 f.; *et al.*), and from Weisenau near Mainz (*M. Z.* viii/ix, 37 ff.; xx/xxi, 63). A good contrast to these mid-first-century finds are the earlier ones from Haltern (*Mitt. Alt. f. Westfalen*, ii, 171 ff.; *Haltern* (ib. v), 371 ff.) and Vindonissa (Hauser, *Vindonissa*).² Unfortunately neither publication is very full, but it is reasonably clear that the current glass fabrics underwent a marked change during the thirties and forties of the first century. At Haltern and Vindonissa millefiori and other polychrome and opaque monochrome mould-pressed glass predominated; at Hofheim and Colchester these wares, though still frequent, were in the minority, and bluish-green and blue blown glass had come into its own. It is, indeed, as well to point this out at the outset, for superficial inspection of the list of picked pieces might give a different impression.

In actual fact plain bluish-green ware greatly predominates over all others at Colchester, with plain dark blue taking second place, but a long way behind. The following table is based on a rough count of all the fragments submitted to me, and though complete accuracy is not claimed for the figures, the story it tells is undoubtedly essentially correct, and, since it is based on the glass found over ten years, including seven seasons of concentrated digging, it is reasonable to claim that it gives a true picture of the glass styles current in contemporary Colchester, in the main from the Roman Conquest of A.D. 43 to c. A.D. 65:

¹ Explanations of the main technical terms used in this report may be found in Harden, *Roman Glass from Karanis* (Univ. of Mich. Hum. Ser., vol. xli), pp. xviii, 6 ff. Only one requires special mention here, viz. 'marvered' = pressed into place by rolling the vessel, warm, on the marver (flat slab or

surface employed for the purpose). See also, in general, *Antiquity*, vii (1933), 419–28.

² More recent publications of Vindonissa material (mainly in Brugg Mus.) have not been available to me for consultation.

	<i>Common green</i>	<i>Dark blue</i>	<i>Buff, brown, yellow</i>	<i>Wine-coloured</i>	<i>Colourless</i>	<i>Millefiori</i>	<i>Marvered threads</i>	<i>Marvered blobs</i>	<i>Painted</i>	<i>Layered</i>	<i>Opaque monochrome</i>	<i>Mould-blown</i>	<i>Clear emerald green</i>	<i>Total</i>
Pillar-moulded bowls	83	13	8	..	..	17	..	..	..	..	2	..	..	123
Other bowls	23	5	5	2	3	14	7	..	1	5	8	5	18	96
Beakers and cups	24	..	2	..	3	..	..	..	..	..	2	..	..	31
Dishes	5	..	..	..	..	1	..	..	..	..	..	..	..	6
Flasks	32	23	20	..	2	..	1	13	..	2	5	..	..	98
Handles (bottles, flasks)	30	10	4	..	..	..	..	..	..	..	..	..	..	44
Bottles and jugs	52	13	12	1	..	..	..	..	..	..	..	..	..	78
Unguentaria	51	3	4	..	..	1	..	2	..	..	..	..	..	61
Ollae	5	4	..	..	..	..	..	..	..	..	..	..	..	9
Window-glass	21	..	..	..	..	..	..	..	..	..	..	..	..	21
Misc. and indeterminate	passim	35	6	2	3	..	..	..	..	..	3	..	..	49
Total	326+	106	61	5	11	33	8	15	1	7	20	5	18	616+

It is to be noted that of all the individual shapes the pillar-moulded bowl seems to have been the commonest; the figures, however, may be deceptive, because even very small fragments of pillar-moulded bowls are easily recognized as such, while at the same time the ware is heavy and more likely to be preserved and recorded.

I have no doubt that all this glass, even the bluish-green, was imported into Britain. There is some evidence that bluish-green glass may have been made at Colchester during the later second century on this very Sheepen site, in the neighbourhood of the Sigillata and other kilns in the south-east of region 5.¹ But it would be too much to postulate that glass-workers from Gaul or Italy had migrated to Britain before A.D. 65. The millefiori is no doubt of Italian fabric, and so, too, the bowls with marvered threads, and flasks with marvered blobs, and the opaque monochrome glasses. There is no evidence yet that any one of these varieties was being manufactured north of the Alps at this date; perhaps the glass-houses which produced them were in Venetia or Histria. The plain blown ware and the mould-blown gladiator cups were more probably made in Gaul, perhaps in the Lyons or Marseilles districts; unless, which is improbable, the Seine-Rhine glass-houses had been opened up so early in the century.

Consideration of the more closely dated deposits gives interesting indications about the history of the individual types and fabrics through the six periods into which the occupation dealt with in the present report is divided (period I, A.D. 10-43; II, A.D. 43/4; III, 43/4-48; IV, 49-61; V, 61; VI, 61-5).

Period I. Pre-conquest

To judge from the finds in dated deposits of period I very little glass seems to have entered Colchester before the Claudian invasion. It was not to be expected that ordinary

¹ To be published in Second Report.

blue and green blown glass should have done so in any great quantity, for it does not become common on Gallic and Rhineland sites until the Claudian period, but better-class wares, especially mould-pressed bowls and millefiori, might well have come into the country along with pre-conquest Terra Sigillata and Gallo-Belgic pottery. Indeed, Strabo (iv, 6, 3) tells us that the Britons imported ὑαλᾶ σκεύη, i.e. glass utensils. Only two better-class pieces, however, can be ascribed to the pre-conquest period, the colourless and pink layered fragment no. 37 (pl. LXXXVII) and the fragment of a bowl (no. 46) of opaque pale blue metal. Of common green and blue glass only one catalogued piece can be dated before the invasion, the bluish-green bowl with wheel-incisions, no. 74*a*. It is, however, possible that some small proportion of finds from later deposits may be rubbish-survivals from pre-conquest times.

Periods II and III. Early Claudian

The invasion seems to have brought a change, and in early Claudian deposits (A.D. 43–8) glass is found rather more frequently, ordinary green and bluish-green blown glass included. Only one piece of glass can definitely be ascribed to period II, the ribbed bowl-fragment, no. 21*a* (pl. LXXXVII), which came from the filling beneath period III occupation over ditch I, region 3 (see below), and is of amber glass with opaque white marvered threads. In period III, pits K14 and Z17 each gave a fragment of emerald-green bowl, nos. 60 and 75 (both pl. LXXXVIII), and pit K14 also produced a fragment of a rectangular bottle, no. 98*E*, as well as other plain wares. Pit K1 contained the brown olla or jug, no. 93 (pl. LXXXVIII). Fine monochrome ware is represented by the opaque sky-blue fragment, no. 43, from site L5. Of polychrome ware there is the fragment of a marbled dish, no. 9, from site F2 (period III level), and the small fragment, no. 32 (pl. LXXXVII), probably from the neck of a flask, greenish with unmarvered blobs of various colours, which came from the occupation over ditch I in region 3 with a fragment of millefiori pillar-moulded bowl of dark blue metal with white and yellow dappling (not listed).

Period III–IV

Several clear monochrome fragments may be of either period. They are nos. 54 and 55, bowl-fragments, the latter good dark greenish-blue, a rare tint; nos. 61 (pl. LXXXVIII) and 62*a*, of green pillar-moulded bowls; no. 69*c*, from a plain greenish wheel-cut bowl; and nos. 53*c* and 75*d*, from clear emerald-green bowls. There is also no. 39*a*, a lid (?) of opaque dull-brown glass, appearing black, like those noticed below under period VI. Lastly, from a low level in clay-pit II, perhaps of this age, came no. 27, a portion of a wine-coloured flask, decorated with opaque white marvered blobs.

Period IV. Claudius–Nero

The glass of this period, essentially of the fifties (actually A.D. 49–61) makes a contrast with the purely Claudian glass of the forties in several respects. It is, first, very much greater in amount, with 58 stratified pieces listed as against only 8 of periods II and III. Allowing for its covering a span of time rather over twice as long, the figures suggest that

at least three times the amount of glass was in use on the site. Secondly, a number of new types appear, e.g. unguentaria, and perhaps also (though two are of uncertain attribution between this period and period III) monochrome pillar-moulded bowls. Thirdly, there is a greater frequency of ordinary bluish-green ware, and at the same time a considerably greater diversity of fine fabrics, especially millefiori: flowered millefiori in particular, i.e. true mosaic glass, is unrepresented on the site before this period.

The gravel of this period over ditch I in region 1 contained a noteworthy collection of fragments of plain ware, including the bowl with horizontal cuts, no. 68 (pl. LXXXVIII), the goblet, no. 77 (pl. LXXXVIII), and the dropper (?), no. 79 (pl. LXXXVIII), as well as unlisted fragments of unguentaria, flasks, &c., all of greenish ware; the bowl-fragment, no. 73 (pl. LXXXVIII), of almost colourless metal; and other unlisted dark blue and wine-coloured pieces and the rim of a mould-pressed emerald-green bowl (cf. no. 53, pl. LXXXVIII). Among other greenish glass belonging to the period were the pillar-moulded bowls, nos. 61*a*, *b* and 62 (pl. LXXXVIII), a bowl with wheel-cuts, no. 72 (pl. LXXXVIII), the goblet, no. 78 (pl. LXXXVIII), the flask, no. 83 (pl. LXXXVIII), unguentaria, nos. 85, 87 (both pl. LXXXVIII), and 88, ollae, nos. 89-90 (both pl. LXXXVIII), and a bottle no. 98*A* (nos. 78, 87, 88, and 90 all being found together in region 1, west of the temple enclosure). Of plain ware of other colours there are the blue bowls, nos. 54 and 81 (pl. LXXXVIII) and olla, no. 91*a*; the amber pillar-moulded bowl, no. 66, and wheel-cut bowl, no. 70; the yellowish unguentarium, no. 86 (pl. LXXXVIII); and the emerald-green bowl, no. 80 (pl. LXXXVIII).

Fine monochrome wares of the period include two fragments of an opaque white pillar-moulded bowl from pit A3, no. 40 (pl. LXXXVII), an unusual colour, of which the site produced two other examples, nos. 40*a* and 41; an opaque sky-blue fragment, no. 44; two others of opaque pale blue, nos. 45*a* and 46*a*; two fragments of a bowl of opaque dull brown, appearing black, from site F2, no. 38; and an interesting fragment of a vessel of opaque jade green, no. 47 (pl. LXXXVIII), which, had it not been found in a stratified deposit of this period (region 1, area H at 2 ft.), would have run the risk of being discarded as a modern piece 'after the Chinese' (but see further p. 298).

The mould-blown gladiator bowls, nos. 50 (pl. LXXXVI) and 51, found in pit D2, were also stratified in this period, along with no. 23 (pl. LXXXVII), a fragment of amber jug or flask with opaque white marvered blobs.

Of polychrome glass site A1 yielded seven interesting pieces, namely the striped mosaic bowl-rim, no. 2 (pl. LXXXVII), the floral and spiral mosaic fragments, nos. 3 and 5 (pl. LXXXVII), the marbled pillar-moulded bowl, no. 12, the amber bowl with marvered threads, no. 21*b*, a tiny fragment of clear emerald-green with opaque white marvered blobs, no. 25, and a layered blue and opaque white fragment no. 34*a*. Pit F11 contained the laced bowl-fragment, no. 1 (pl. LXXXVII). Other millefiori glass of the period included the fragments with green, yellow, and red flowers, nos. 4 (pl. LXXXVII) and 4*a*; the marbled pillar-moulded bowl-fragments, nos. 8 (pl. LXXXVII) from pit F7, 11 (pl. LXXXVII) from pit L13, and 13*a*, and several unlisted pieces of pillar-moulded bowls of dark blue metal with white and yellow or yellow and green dappling found in deposits

over ditch 1 in region 3 (area A). Of glasses with opaque white marvered threads there were nos. 20 (pl. LXXXVIII) and 20*a* (both bluish-green) and 21*c* (amber) as well as 21*b* from site A1, already mentioned. To the parallel group of glasses with marvered blobs belong nos. 26 (pl. LXXXVII) from pit A5 and 26*c* from site L1. Finally, there were two more layered fragments besides the one mentioned above from site A1, a blue and white piece, no. 34*b*, and an amber and white, no. 35*a* (pl. LXXXVII).

The glass from pit L7 (including the dappled bowl, no. 17, pl. LXXXVII) and pit L19, of the very end of this period, will be mentioned in the next section.

Periods V (with end of IV) and VI. Neronian

By the end of the fifties a certain change in the current glass fabrics becomes noticeable. Plain wares, green, dark blue, wine-coloured, and yellow now predominate, and polychrome and fine monochrome wares are rarer than they were before. The group of fragments found together in the filling of site A4, dated period IV/VI (p. 85), included, of polychrome glass, a fragment of a pillar-moulded bowl, blue with white marbling (not listed); another marbled bowl-fragment, no. 15; a layered fragment, blue and opaque white, no. 34 (pl. LXXXVII); a fragment of a pillar-moulded bowl, wine-coloured with white and yellow dappling, no. 17*a*; a fragment of a ribbed bowl, amber with opaque white marvered threads, no. 21 (pl. LXXXVII); and a fragment of a flask, wine-coloured with opaque white marvered blobs, no. 28 (pl. LXXXVII). In this group there were also two pieces of fine monochrome ware, no. 42 (sky-blue) and no. 45 (pale blue) together with the emerald-green fragment, no. 53*b*, the bluish-green wheel-incised bowl-fragment, no. 74 (pl. LXXXVIII), and numerous fragments of plain greenish and dark blue wares, mostly unlisted, but including the blue olla, no. 91 (pl. LXXXVIII), and the bottle, no. 98*c*. A second Neronian group is that from the deposit of period VI (including destruction-rubbish of the end of period IV, p. 99) over road II in region 4 (area L). Here were a flowered millefiori bowl, no. 6 (pl. LXXXVII); a bowl of layered glass, amber and opaque white, no. 36; two opaque white bowls, no. 40*a* (pillar-moulded) and no. 41; a yellowish-green cup with mould-blown floral design, probably made in the north Italian factory of the glass-maker Ennion, no. 49 (pls. LXXXVI-LXXXVII); and four clear emerald-green bowls, nos. 56, 58 (pl. LXXXVIII, rotary-polished), and 75*a-b* (wheel-cut); as well as a dark blue pillar-moulded bowl and numerous other pieces of plain dark blue, green, and yellow metal (none listed). A third group consists of pieces found in the filling of pit L7, of the end of period IV, at various levels. They included the dappled pillar-moulded bowl, no. 17 (pl. LXXXVII); fragments of three bluish-green bowls with wheel-cuts, nos. 69*a-b* and another unlisted; and the handle of a bluish-green jug, no. 95; the bottle-handle, no. 98*B*, was stratified near by. The pit also contained three pillar-moulded bowls and numerous other unlisted pieces, mostly plain greenish or yellow glass. The amber jug-fragment, no. 96, is also of the end of period IV, being found in the unfinished kiln-pit L19, with pottery (pl. XII, 2) of that date.

Other Neronian glass of note included the fragment of a gladiator bowl, no. 52, from pit F15, a dappled bowl, no. 19, from ditch II of period V, and the yellowish-green

painted fragment, no. 33 (pl. LXXXVII) from pit G7; the opaque monochrome lids (?) of dark brown glass (appearing black), no. 39 (pl. LXXXVII); and seven examples of plain wares: three bluish-green flasks, nos. 83*a*, 84 (pl. LXXXVIII), 84*a*; a yellow jug, no. 97 (pl. LXXXVIII); a greenish-brown jug, no. 94; an emerald-green bowl, no. 75*c*; and a bluish-green wheel-cut bowl, no. 69 (pl. LXXXVIII).

Unstratified

Some important fragments were found in undated deposits. No. 22 (pl. LXXXVII) is part of a jug (?) of dark blue glass with opaque white marvered festoons, belonging to the type best known from a fine example from Hausweiler in Bonn Mus. (p. 295). Nos. 29 and 30 (both pl. LXXXVII) are specially interesting instances of glass with marvered blobs, in that the blobs on them are of more than one colour, while no. 31 (pl. LXXXVII) is decorated with unmarvered blobs. No. 48 (pls. LXXXVI-LXXXVII), of yellow metal, is a fragment of a mould-blown bowl made in the north Italian workshop of Ennion.

INDEX TO THE GLASS BY PERIODS

<i>Period</i>	<i>Catalogue Nos.</i>	<i>Total</i>
I	37, 46, 74 <i>a</i>	3
II	21 <i>a</i>	1
III	9, 32, 43, 60, 75, 93, 98 <i>E</i>	7
III-IV	27 (?), 39 <i>a</i> , 53 <i>c</i> , 54, 55, 61, 62 <i>a</i> , 69 <i>c</i> , 75 <i>d</i>	9
IV	1, 2, 3, 4, 4 <i>a</i> , 5, 8, 11, 12, 13 <i>a</i> , 17, 20, 20 <i>a</i> , 21 <i>b</i> , 21 <i>c</i> , 23, 25, 26, 26 <i>c</i> , 34 <i>a</i> , 34 <i>b</i> , 35 <i>a</i> , 38, 40, 44, 45 <i>a</i> , 46 <i>a</i> , 47, 50, 51, 61 <i>a</i> , 61 <i>b</i> , 62, 66, 68, 69 <i>a</i> , 69 <i>b</i> , 70, 72, 73, 77, 78, 79, 80, 81, 83, 85, 86, 87, 88, 89, 90, 91 <i>a</i> , 95, 96, 98 <i>A</i> , 98 <i>B</i>	57
V	19	1
IV-VI	15, 17 <i>a</i> , 21, 28, 34, 42, 45, 53 <i>b</i> , 74, 91 (all site A4); 98 <i>c</i>	11
VI	6, 33, 36, 39, 40 <i>a</i> , 41, 49, 52, 56, 58, 69, 75 <i>a</i> , 75 <i>b</i> , 75 <i>c</i> , 83 <i>a</i> , 84, 84 <i>a</i> , 94, 97	19
Unstratified	7, 10, 10 <i>a</i> , 13, 14, 16, 18, 22, 23 <i>a</i> , 24, 26 <i>a</i> , 26 <i>b</i> , 28 <i>a</i> , 29, 30, 31, 35, 38 <i>a</i> , 43 <i>a</i> , 47 <i>a</i> , 48, 53, 53 <i>a</i> , 56 <i>a</i> , 57, 59, 61 <i>c</i> , 63, 63 <i>a</i> , 64, 65, 66 <i>a</i> , 67, 71, 76, 81 <i>a</i> , 82, 89 <i>a</i> , 92, 98 <i>D</i> , 98 <i>F</i>	41
	Total	149

THE CATALOGUE (*pls.* LXXXVI-LXXXVIII)

[*Note:* All glass is transparent unless the contrary is stated. Fr., Frr. = Fragment(s) of. Op. = opaque. Ex., Exx. = Example(s).]

POLYCHROME WARES: Nos. 1-37

Millefiori glass, nos. 1-19

The millefiori glass from Colchester falls into five groups:

- A. Laced (no. 1)
- B. Strip mosaic (no. 2)
- C. Floral and spiral mosaic (nos. 3-7)
- D. Marbled (nos. 8-15)
- E. Dappled (nos. 16-19)

The fragments in groups A-C belong to plain bowls, except no. 7, which is a flask or

unguentarium; groups D–E, apart from nos. 9, 15, and 19, are all from pillar-moulded bowls. At Hofheim, according to Ritterling (op. cit. 364), only marbled and dappled pillar-moulded bowls occurred, while at Haltern laced, striped, and mosaic millefiori was found (*Haltern*, 373, taf. xxxviii), and so too at Neuss (*B. J.* cxi/cxii, 314), likewise an initially earlier site. One would have expected, therefore, to find that groups A–C at Colchester came predominantly from Claudian or earlier levels and groups D–E from Neronian; in fact, whether because of rubbish-survival or of use-survival, almost all the stratified pieces came from period IV levels.

In Britain the millefiori fragments from Colchester are paralleled by a similar collection from Silchester (Reading Mus.), e.g. two fragments of a patella with green, red, and yellow flowers in a dark brown ground; the base of a box, the same but in a green ground; fragments of a shallow bowl, green with yellow circlets; a deep pillar-moulded bowl, dappled blue, yellow, and opaque white (Thorpe, *Engl. Glass*, pl. 1, b); and numerous other fragments, mainly marbled and dappled. Compare also the blue and white marbled bowl in the B.M. from Radnage, Bucks., found in a grave with late-first-century Sigillata (*Antiq. Journ.* iii, 334, pl. xxxv; Thorpe, op. cit. pl. 1, c), and an example from Richborough, green, yellow, and red in a green ground (*Richborough III*, 84 f., no. 59, pls. xv–xvi). Fragments have, of course, been found on numerous other sites in Britain.

The exact dating of millefiori is not easy, as the pieces were costly and tended to be kept as heirlooms. It seems clear, however, despite the apparent evidence to the contrary from Colchester (see above), that the more elaborate types of floral design were made from the first century B.C.¹ to c. A.D. 40, and were succeeded during the later first century A.D. by the marbled and dappled types of groups D–E. During the second century the fabric lost popularity, but probably never ceased to be manufactured, at least in the East, down to medieval times, when it was reintroduced into the West at Venice.

- A. *Laced* bowls; cf. *Haltern*, 373, taf. xxxviii, 8; Kisa, 514, taf. iv, 2 (= *Niessen Cat.*, taf. v, XLII, no. 14, Severinstrasse, Köln); Eisen, pl. xxxv, d; *Sangiorgi Cat.*, nos. 221–2, tav. XLII, XLIV (Agro Adriese and Canosa).
1. Fr. bowl, mould-pressed and rotary-polished:² entwined spiral threads of op. yellow in colourless ground. Pit F11 (period IV). Pl. LXXXVII.
- B. *Strip mosaic* bowls; cf. Kisa, 511, 523, 527, &c., abb. 205 (Trier), 213 (Hellange, Luxembg.), &c.; Eisen, 193, 198, pls. xxxiv–xxxv.
2. Fr. bowl-rim, technique as no. 1: below a laced border of op. yellow spiral threads are stripes and spots of green, blue, op. yellow, op. wine-coloured, op. red and op. white in colourless ground. Site A1 (period IV). Pl. LXXXVII.
- C. *Floral and spiral mosaic* bowls; cf. *Niessen Cat.*, taf. II–III, *passim*; Kisa, 254, 511, 523, 528, abb. 197, 203.
3. Fr. bowl, as no. 2: flowers with op. yellow petals and red centres in op. dark brown ground; on exterior, near base, three horizontal wheel-cuts. Site A1 (period IV).

¹ Examples from Alexandria (late levels at Sciatbi; Breccia, *Musée Égyptien*, iii, 25, pl. xiii), Mont Beuvray (St. Germain Mus.), and Haltern. See also Fossing, *Glass Vessels before Glass-blowing*, 103 ff.; Thorpe, *Engl. Glass*, 2 f., and id.,

Trans. Soc. Glass Techn. xxii, 11, for recent views on date. For good coloured plates of Roman millefiori see the Gréau and Niessen catalogues.

² On this technique see p. 300.

4. Fr. bowl-rim, as no. 2: flowers as no. 3 in dark green ground. D. $5\frac{1}{2}$ in. Region 3, area A, occup. over ditch I (period IV). Pl. LXXXVII.
 - a. Fr., similar. Pit A5, bottom (period IV).
 5. Fr. shallow bowl, as no. 2: op. yellow spirals with red centres in dark green ground. Site A1 (period IV). Pl. LXXXVII.
 6. Fr. bowl (?) -base, as no. 2: circles, op. blue ringed with op. yellow, in green ground. Region 4, over road II ditch (period VI). Pl. LXXXVII.
 7. Fr. flask or unguentarium, moulded and blown (?): (a) flowers with op. yellow petals and op. white centres, (b) spirals of green and op. yellow, (c) spirals of op. white, the whole in wine-coloured ground. Region 5, area G. Pl. LXXXVII.
- D. *Marbled* bowls; cf. *Niessen Cat.*, taf. II-III, nos. 11 d, j, k, &c.; Kisa, 510-11, 523, 527, abb. 211-12, 214-16; and 904, abb. 374 (Fünen, Denmark); *Antiq. Journ.* iii, 334, pl. xxxv and Thorpe, *Engl. Glass*, pl. 1, b, c (Radnage and Silchester); Eisen, 193, 198, pl. xxxiii.
8. Fr. pillar-moulded shallow bowl,¹ mould-pressed, fire- and rotary-polished: amber, op. white, light blue, and light green. Pit F7 (period IV). Pl. LXXXVII.
 9. Fr. dish, mould-pressed and rotary-polished: op. white and op. blue in amber ground; on under side one wheel-cut. Site F2, low level (period III).
 10. Two fr. rim and side pillar-moulded shallow bowl, as no. 8: op. white in amber ground. D. c. 7 in. Region 6.
 - a. Fr., similar. Region 5.
 11. Two fr. rim and side pillar-moulded deep bowl, as no. 8: pattern as no. 10. D. c. $3\frac{1}{2}$ in. Pit L13 (period IV). Pl. LXXXVII.
 12. Fr. rim pillar-moulded shallow bowl, as no. 8: green and op. yellow in dark blue ground. Site A1 (period IV).
 13. Fr. pillar-moulded deep bowl, as no. 8: op. white and op. yellow in blue ground. Region 4, area L.
 - a. Fr., similar. Site A1 (period IV).
 14. Fr. pillar-moulded shallow bowl, as no. 8: op. yellow in dark green ground. Region 4, area L.
 15. Two fr. bowl-rim and fr. base, mould-pressed, fire-polished outside, rotary-polished within: op. white and occasional op. yellow in purple ground. D. c. 4 in. Site A4 (period IV-VI), and near by.
- E. *Dappled* bowls; cf. *B. J.* cxxii, 398, taf. LVI, 5 (Vetera); Hauser, *Vindonissa*, taf. LXI; *Niessen Cat.*, taf. II, 9 g, o, s; Eisen, 197, pl. xxix (3 exx.).
16. Fr. pillar-moulded shallow bowl, as no. 8: op. white and op. yellow spots in dark blue ground. Region 1, area F.
 17. Fr. rim and side pillar-moulded shallow bowl, as no. 8: op. white and op. yellow spots in wine-coloured ground. D. c. $10\frac{1}{4}$ in. Pit L7 (period IV, late). Pl. LXXXVII.
 - a. Fr., similar. Site A4 (period IV-VI).
 18. Two fr. pillar-moulded shallow bowl, as no. 8: op. white spots in wine-coloured ground. Pit D17.
 19. Fr. bowl-rim, as no. 15: op. yellow and occasional op. red spots in dark green ground. D. c. $6\frac{1}{4}$ in. Region 5, ditch II in area Z (period V).

Glass with marvered threads, nos. 20-2

Two shapes occurred: (a) ribbed bowls (not uncommon), and (b) a flask or jug (one ex. only). Type (a) is well known and frequently illustrated from other first-century

¹ On pillar-moulded bowls see p. 301.

sites, cf. Kisa, 410 ff., 818 f., taf. IV and abb. 217-18 (all Köln); Fremersdorf, *R.G. aus Köln*, 2nd ed. (1939), frontispiece (Severinstrasse, grave no. 917); *Niessen Cat.*, nos. 19-20, taf. v (Severinstr., no. 19 with dark blue pillar-moulded bowl, no. 155); Morin-Jean, 123, fig. 153 (who dates them too late); *Hofheim*, 368, abb. 93, 5 and taf. xxxviii (form 5); *Vindonissa*, taf. lx-lxi (blue, amber, and wine-coloured exx.); Lehner, *Bonn Führer*, 2nd ed. (1924), 73, 76, taf. xvi, abb. 1, 1 and 3; *Slade Cat.*, no. 205 (with two Arretine bowls); *Trier. Jahresb.* ii, 21 (S. Matthias, Trier, grave 18, c. A.D. 50, and grave 662); *Charvet Cat.*, 73, 78, pls. vii (no. 39), xxix (nos. 120-1) (Arles, Turin, Vaison); *Bachstitz Cat.*, 47, no. 108, pl. xlii; Eisen, 211, pl. xxxvii (5 exx., mostly Syria); *Amtliche Berichte*, xxix, 59, abb. 41, 2 (S. Russia); Ekholm, *Tidskrift for Konstvetenskap*, 20 Aug. 1936, fig. 3 (two from tomb, Juellinge, Denmark, dated by Müller c. A.D. 150).

Kisa and Ritterling (l.c.) have wrongly described the threads as painted and burnt in, and most recently Fossing, *Glass Vessels before Glass-blowing*, 130, has repeated the error; Eisen (l.c.) describes the technique correctly.¹

The type was not found at Haltern, and this and its frequency both at Hofheim and Colchester makes it clear that its *floruit* was mid first century. There is nothing inherently unlikely in Müller's dating of the Danish tomb, as the glasses may have been heirlooms, but Kisa's dating (third century) and Morin-Jean's are clearly erroneous, and both writers were probably misled by the existence of similar patterns, both painted and marvered, on fourth-century and later glasses, mostly flasks and jugs. The marvered thread, however, is one of the most ancient of all glass decorations and appears frequently at all periods.

For type (b) the *locus classicus* is the dark blue Hausweiler jug in Bonn; Lehner, *Bonn Führer*, 2nd ed. (1924), 76, taf. xvi, fig. 1, 2, and Kisa, 410, abb. 201, taf. xi. Another, dark olive-green, comes from Köln (Luxemburgerstrasse); *Niessen Cat.*, no. 18, taf. v and Fremersdorf, *R.G. aus Köln*, 2nd ed. (1939), abb. 7. This first-century type is rare, though well authenticated, but is the forerunner of a far more common group in the later Roman period.

20. Fr. rim, deep bowl, bluish-green, free-blown with pinched-out vertical ribs: on neck and body op. white marvered threads wound spirally and blown with bowl. H. c. 2½ in. Max. D. 3½ in. Pit D1A, bottom (period IV). Pl. LXXXVIII.
 - a. Fr., similar. Pit A31 (period IV).
21. Fr. deep bowl, amber, as no. 20. Site A4 (period IV-VI). Pl. LXXXVII.
 - a. Fr., similar. Area A, ditch I filling (period II). Pl. LXXXVII.
 - b. Fr., similar. Site A1 (period IV).
 - c. Fr., similar. Region 1, area H (period IV occup.).
22. Fr. flask or jug (?), deep blue, free-blown: thick op. white festoons, marvered and blown with vase. Region 4, area L. Pl. LXXXVII.

Glass with marvered blobs, nos. 23-30

All the fragments from Colchester probably belonged to flasks, jugs, or unguentaria;

¹ The threads were applied to the paraison and marvered before the final blowing. The ribs, if any, were tooled on the vase after blowing.

elsewhere other shapes, e.g. chalices and beakers, are known. Fremersdorf, *Oxé-Festschrift* (1938), 116 ff., has described and listed the examples known to him, and on the strength of a beaker-handle in this technique in the Niessen collection, stamped ARTAS SIDO and ΑΡΤΑC CEΙΔΩ, ascribes them to Syrian workers who had set up a factory in Rome, or more likely in Carniola or Histria, during the earlier half of the first century A.D. To judge from Fremersdorf's list these glasses were apparently more common in Italy than in the northern or eastern provinces. To his list we may add *Slade Cat.*, 16, no. 85, fig. 28 (Aegean area); *Sangiorgi Cat.*, 29, no. 91, tav. XIII; *B. J.* cxxii, 399, no. 8 (Vetera); *Amtliche Berichte*, xxix (1907), no. 3, 59, abb. 41 (South Russia); Eisen, 154, pl. xiv (Syria, a cantharus), and 293 f., 313, pl. LXVII, fig. 139; *B.M. Quarterly*, vii, 11, pl. x, 1 (Richborough, a dolphin-flask, in grave with Sigillata cup, Dr. 27, of c. A.D. 80-90); Berlin, Präh. Mus. (Kerch, shallow bowl); and Reading Mus. (Silchester, 3 exx.). These additions give no cause for revising Fremersdorf's thesis that the centre of fabrication was in Italy during the early first century.

The technique is the same as for marvered-thread vases. The blobs are applied to the paraison before the final blowing, during which they attain their elongated form.

It is to be noted that the famous Weisenau grave-group contained two examples (*M.Z.* iii, 137 and xx/xxi, 63, abb. 1, nos. 1-8, with Claudian pottery) and others are recorded from Vetera, though Ritterling cites none from Hofheim.

23. Fr. neck, flask or jug, amber, free-blown: op. white marvered blobs blown with vase. Pit D2, bottom (period IV). Pl. LXXXVII.
 - a. Fr. unguentarium, similar. Region 3, area A.
24. Fr. body and base, flask or jug, amber, as no. 23. Max. D. c. 4½ in. Region 4, area D. Pl. LXXXVIII.
25. Fr. flask or jug, clear emerald-green, as no. 23. Site A1 (period IV).
26. Four fr. flask or jug, pale blue, as no. 23. Pit A5, bottom (period IV). Pl. LXXXVII.
 - a. Two fr. jug-handle, similar. Region 3, area A.
 - b. Two fr. unguentarium, similar. Region 3, area A.
 - c. Fr. flask, similar. Site L1 (period IV).
27. Jug-handle and part of neck, wine-coloured: handle drawn, plain; neck as no. 23. Region 5, claypit II (period III-IV?).
28. Fr. shoulder, flask or jug, wine-coloured, as no. 23. Site A4 (period IV-VI). Pl. LXXXVII.
 - a. Fr., similar. Found near site A.
29. Fr. base, flask or jug, pale bluish-green, as no. 23, but op. purple and op. white blobs. Region 1, area H. Pl. LXXXVII.
30. Fr. flask or jug, pale greenish, free-blown: blue, op. white, and op. yellow blobs marvered, but not, apparently, blown with vase. Region 1, area H. Pl. LXXXVII.

Glass with unmarvered blobs, nos. 31-2

Two fragments belong to a rare type in which the blobs have not been marvered. Fremersdorf, op. cit., 118, note 5, lists nine examples, mainly from north Italy and the Rhineland, and I know of no others apart from the present two and one from Vindonissa (Hauser, taf. LXI).

31. Fr. flask or jug, dark blue, free-blown: op. white blobs, applied but not marvered and not blown with vase. Region 3, area A. Pl. LXXXVII.

32. Fr. flask or jug, pale greenish, as no. 31, but op. white, wine-coloured, pale greenish, pale blue, and yellow blobs. Region 3, area A, occup. over ditch I (period III). Pl. LXXXVII.

Glass with painted designs, no. 33

There is a clearly distinguishable group of mid-first-century bowls and amphorisks with painted designs which has been described by Kisa, 813 ff., by Morin-Jean, 248 f., and most recently by Silvestrini, *Bollettino d'Arte*, xxxi, 430 ff. Silvestrini analyses the technique in detail and concludes that the colours were applied free-hand, without incised guide-lines, and then fired on, thus diverging from the view of earlier writers, e.g. Kisa, that the outlines had been incised first. The present fragment bears out Silvestrini's view.

The distribution of known specimens is: Nîmes (pygmies and cranes); Algiers (gladiators); Khamissa (Algeria), Muralto (nr. Locarno), Turin, Fraillicourt (nr. Reims), Puy-de-Dôme, Kerch (2 ex.), Olbia and Cyprus (all with birds and vegetation). The decoration is akin to the mould-blown designs of Ennion and the Sidonian school, and probably these pieces were made, like the mould-blown vases (p. 299), both in Syria and Italy. Their date would therefore be early rather than late first century. Amphorisks are so far known only from Cyprus and Kerch. Similarly all the jugs and amphorae of Ennion (cf. p. 299, and *Connoisseur*, cvi, 102) have been found in the East.

33. Fr. bowl (?), yellowish-green, free-blown: on exterior a floral spray in fired paint, reddish-brown and yellow. Pit G7 (period VI). Pl. LXXXVII.

Layered, flashed, or cased glass, nos. 34-7

Glasses of two layers of different coloured metal were not uncommon during the first century and in their most elaborate form are represented by the cameo glasses, e.g. the Portland and Auldjo vases. The fragments here listed belong, as far as can be told, to undecorated vases, and were made by blowing a second paraison, normally of opaque white, within an outside 'case' of another colour. Similar pieces are recorded from Hofheim (Ritterling, 364, 366, bowls of form 1) and Vetera (*B. J.* cxxii, 399, no. 18, blue and opaque white), and examples are also illustrated in *Gréau Cat.*, pl. XLIX and Eisen, 212, pl. XXXVIII (a chalice from Alexandria).

34. Fr. bowl, layered, blown: exterior dark blue, $\frac{3}{32}$ in. thick, interior op. white, paper-thin. Site A4 (period IV-VI). Pl. LXXXVII.
a, b. Two fr., similar. Site A1 (period IV).
35. Fr. jug or handled chalice, as no. 34: exterior amber, $\frac{3}{32}$ in. thick, interior op. white, very thin; drawn handle, amber. Region 1, area H. Pl. LXXXVII.
a. Fr. body, similar. Region 3, occup. over ditch I in area A (period IV). Pl. LXXXVII.
36. Fr. outplayed bowl-rim, as no. 34: exterior amber, $\frac{1}{16}$ in. thick, interior op. white, very thin. D. $5\frac{1}{2}$ in. Region 5, over road II ditch in section 58 (period VI).
37. Fr. bowl, as no. 34: exterior pink, $\frac{1}{32}$ in. thick, interior colourless, $\frac{3}{32}$ in. thick. Region 1, ditch I silt (period I). Pl. LXXXVII.

OPAQUE MONOCHROME WARES: Nos. 38-47

Opaque monochrome glasses were made in various colours during the first century A.D. and possibly also in the previous century. At Colchester examples of brown (appearing black), white, sky and pale blue, and jade-green occurred. Red, which is frequent elsewhere, and amethyst, which is not so frequent, were absent. The brown (appearing black) is Pliny's *obsianum*, obsidian glass (Pliny, *Nat. Hist.* xxxvi, 198; see Thorpe, *Trans. Soc. Glass Techn.* xxii, 11). I know of no other examples. The white is Pliny's *album*, which, as Thorpe (op. cit. 8) rightly points out, means opaque white as distinct from *candidum*, transparent crystal or colourless glass. It is rare, but there are examples from Vindonissa (Hauser, taf. LXI) and Syria (Eisen, 210, pl. xxxvi, a and e, plain, and 212, pl. xxxvii a, ribbed bowl, opaque white with opaque blue marvered threads); and also an unprovenanced piece (*Schiller Cat.*, no. 191, pl. iv). The sky and pale blue are probably Pliny's *hyacinthos* (pace Thorpe, who identifies this as amethyst) *sapphirosque imitatum*, and are frequent in collections; cf. Hauser, taf. LXI; *Slade Cat.*, 30, no. 179, pl. v, 2 (Aegean); *Sangiorgi Cat.*, no. 127, pl. xxv (pyxis); *B. J.* cxix, 208 (Vetera), &c. The jade-green pieces are a rarity, seemingly hitherto unknown, and the colour does not appear in Pliny's list. Thorpe has suggested to me that the opacity may be due to a transmutation of transparent green glass in the soil, and that the pieces are freaks; they are listed here, however, in case others should turn up elsewhere.

38. Two fr. bowl, op. dull brown, appearing black, mould-pressed and rotary-polished: outside, near base, three horizontal wheel-cuts. Shape as no. 56 below. Site F2, upper level (period IV).

a. Fr., similar. Region 5, area G.

39. Fr. at least two flat lids (?), colour and technique as no. 38: edges ground and V-bevelled; on one fr. a small knob or grip, $\frac{1}{4}$ in. high, near the centre(?) of one side. Av. Th. $\frac{3}{16}$ to $\frac{1}{4}$ in. Pit G2 (period VI). Pl. LXXXVII.

a. Fr. similar lid (?). Period III-IV occup. in region 1, area H.

These are most probably sliding lids for boxes. The knob or grip does not seem to be near enough to the corner to be a foot. Boxes with sliding lids were common in wood in Roman times (cf. e.g. from Hawara (Egypt): Petrie, *Hawara, Biahmu, & Arsinoe*, pls. xix, xxi; id., *Roman Portraits & Memphis (IV)*, pl. xiv). I know, however, of no instance in glass, and Froehner, *Gréau Cat.*, pl. XLII, 1, no. 388, publishes a fragmentary, rectangular flat object of dark green glass which has knobs or feet quite close to the only two extant corners, and so is more likely to be a stand than a lid.

40. Fr. rim and side, pillar-moulded shallow bowl,¹ op. white: at least one wheel-cut circle inside at bottom of side. D. c. 8 in. Pit A3 (period IV). Pl. LXXXVII.

a. Fr., similar, two wheel-cut circles inside. Over road II in region 5, section 57 (period VI).

41. Fr. bowl, convex sides, op. white, mould-pressed and rotary-polished: no decoration. Region 5, over road II ditch in section 58 (period VI).

42. Fr. cylindrical neck, flask or unguentarium, op. sky-blue, mould-pressed and rotary-polished on outside: no decoration. Site A4 (period IV-VI).

43. Fr. side, beaker or goblet, op. sky-blue, free-blown: band of horizontal wheel-incisions near bottom of side. Th. $\frac{3}{8}$ in. Site L5 (period III).

a. Fr., similar. Th. $\frac{1}{16}$ in. Region 4, area D.

¹ On the technique of pillar-moulded bowls see p. 301 f.

44. Fr. tubular base-ring, bowl or beaker, op. sky-blue, free-blown: no decoration. D. c. 2 in. Region 3, occup. over ditch I in area A (period IV).
45. Fr. base, bowl or box, op. pale blue, mould-pressed and rotary-polished: on under side a lathe-mark of two concentric incised circles with central dot. Site A₄ (period IV-VI).
a. Fr., similar. Found near by (period IV).
46. Two frr., bowl or flask (?), op. pale blue, free-blown: no decoration. Th. $\frac{1}{32}$ in. Pit D14 (period I).
a. Fr., similar. Same area (period IV).
47. Fr. body, squat flask or jug, op. jade-green, free-blown, rotary-polished on outside: no decoration. D body 4 in. Period IV occup. S. of larger temple in region 1, area H. Pl. LXXXVIII.
a. Neck-fr., similar. Same area.

CLEAR MONOCHROME WARES: Nos. 48-98

Mould-blown wares with patterns, nos. 48-52

The mould-blown pattern was developed by the Syrian and north(?) Italian factories of Ennion and his fellows during the Augustan and Tiberian periods (*J.R.S.* xxv, 163 ff.; *Connoisseur*, cvi (1940), 102 ff.). These houses produced glasses with motto and floral and geometric designs, and their technique was soon copied by others, probably somewhere in Gaul (*Connoisseur*, l.c.), which made bowls with gladiator and charioteer scenes.

Happily examples of both the Syro-Italian and Gallic varieties have been found in mid-first-century levels at Colchester, thus providing one of the best pieces of evidence (though not the only one) on which the dating of these groups depends.

Of the Syro-Italian group we have two examples (nos. 48-9). The one is a piece of a spherical bowl on which the only pattern preserved consists of vertical and horizontal ribs; its exact affinities cannot be judged, but a near parallel is the lowest frieze on the glasses of group G of *J.R.S.* xxv, 173 ff. The other also belongs to a spherical bowl and bears a wreath of ivy-sprays above an ovolo; this corresponds exactly with Nesbitt's illustration of the Roussel bowl (*Slade Cat.*, 34, no. 202), but unfortunately his illustration is in this particular incorrect!¹

Of the Gallic group there is one nearly complete bowl and a tiny fragment of another from the same mould (nos. 50-1), also badly fused fragments of a third bowl from a different mould (no. 52). All depict pairs of gladiators fighting. On this class see Schuermans, *Verres à courses de char* (Namur, 1893; reprinted from *Annales Soc. Arch. Namur*, xx), Kisa, 726 ff., and Morin-Jean, 188 ff. Among the 24 glasses bearing gladiators only (four others bear both gladiators and chariots; *Proc. Devon Arch. Expl. Soc.* iii, 18 ff.) are 9 which apparently come from the same mould as nos. 50-1;² I can

¹ See my remarks in *J.R.S.* xxv, 186, no. vi. Owing to the war I have not been able to compare the present fragment directly with the Roussel bowl in the B.M.

² The nine parallels are (numbering the present examples 1, 2):

3. Chavagnes, Vendée (complete): Kisa, 735 f., fig. 284A
Morin-Jean, 190, no. 1; Schuermans, no. 13.
4. Heimersheim, Rheinhessen (nearly complete): Kisa,

736 f.; Morin-Jean, 191, no. 6; Schuermans, 26, no. 16; *M.Z.* xx/xxi, 64, abb. 4.

5. Trier (fragment): Kisa, 737 f., abb. 283; Morin-Jean, 191, no. 5, fig. 251.
6. Köln (fragment): Niessen 6173, unpublished, information and photo from Dr. Fremersdorf.
7. Leicester (fragment): Kisa, 738; Schuermans, 27, no. 17; Haverfield, *Arch. Journ.* lxxv, 25, pl. 1v.

instance no mould-parallel for no. 52, and indeed among the other 13 identity of mould can only be suggested for two pairs—a B.M. fragment (60, 9–28, 15) with Niessen 6174 (now in Köln), and *Sangiorgi Cat.* no. 106 with the Oedenburg bowl (*Arch. Értésítő*, xiv, 293)—and in neither instance is the identity certain.

Supplementary evidence for the date of the Syro-Italian group comes from the recent excavations of the British School at Athens in Siphnos, where examples¹ of groups F and G of the Syrian motto-glasses were found in a cemetery probably of Flavian date. The mid-first-century date of the Gallic group is corroborated by two fragments of cups bearing both gladiators and chariots found in a first-century context at Topsham, Devon (*Proc. Devon Arch. Expl. Soc.*, l.c.), by the Vetera gladiator fragment (p. 299, n. 2, no. 8), and by the Couvin and Rottweil chariot bowls, both found with later first-century pottery (Schuermans, 3 ff. and 19, nos. 1 and 4; Kisa, 727, 731).

48. Fr. deep bowl, yellow: vertical and horizontal ribs. Region 4, area D. Pls. LXXXVI–LXXXVII.
49. Fr. bowl, yellowish-green: ivy-sprays with berries, below which vertical flutes with rounded ends, and below again two horizontal ribs. D. c. 4 in. Region 4, over road II ditch in section 58 (period VI). Pls. LXXXVI–LXXXVII.
50. Deep bowl,² bluish-green, parts of side and almost all of base missing; poor, bubbly glass, bipartite mould, impressions rather indistinct. Rim knocked off and ground, vertical side, flat base with one or more raised rings. On body two friezes in relief: (a) inscription |SPI[CVLVS C]QLVMBVS CALAMVS HOLES||PET[RAITES PRV]DES PROCVLVS COCVMBVS|: (b) gladiators in pairs, fighting; Spiculus standing, Columbus on ground; Calamus and Holes fighting; Petraits and Prudens fighting (Prudens loses his shield); Proculus defeats Cocumbus and holds palm. Below each frieze a horizontal raised ridge. H. 2½ in. Max. D. 3¼ in. Pit D2 (period IV). Pl. LXXXVI.
51. Fr. bowl, colour and mould as no. 50, inscribed COCV]MBVS and showing part of mould-mark. Pit D2 (period IV).
52. Frr. deep bowl, bluish-green, fused in fire; gladiators fighting with names above; shape and design similar to nos. 50–1, but not from same mould; the letters, of which only !ORV decipherable, are larger and the design seems different. Pit F15 (period VI).

Pressed and rotary-polished wares, nos. 53–60

This technique has been described recently by Köster (*Amtliche Berichte*, xlii, 104 ff.) and Thorpe (*Trans. Soc. Glass Techn.* xxii, 10 ff.). The glass was pressed into a one-piece mould, probably wooden, and after delivery both surfaces were polished on a wheel. Köster and Thorpe rightly identify these glasses as those referred to by Pliny's words *aliud torno teritur* (*Nat. Hist.* xxxvi, 192), correcting Kisa's interpretation of the phrase as a reference to cut patterns. Examples of the technique have been listed under millefiori

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| <p>8. Vetera (fragment): <i>B. J.</i> cxxiv, 165 ff. Found in Legate's house in Claudio-Neronian fortress.</p> <p>9. Vindonissa (fragment): Brugg Mus., no. 1191, unpublished, information and photograph from Dr. Simonetti.</p> <p>10. Vindonissa (fragment): Brugg Mus., no. 18.294, unpublished, information and photograph from Dr. Simonetti.</p> | <p>11. Prov. unknown (fragment): Brussels Mus., no. A. 2692, unpublished, information and photograph from Dr. Capart.</p> <p>¹ I owe this information to the kindness of Mr. Gerard Young, Director of the British School at Athens.</p> <p>² Previously published in <i>Antiq. Journ.</i> xi, 277, pl. xxxviii; <i>Antiquity</i>, v, 239, pl. 11.</p> |
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and opaque monochrome glass (pp. 293 f., 298 f.). Among clear monochrome ware the predominant colour is emerald-green, not only at Colchester but everywhere. The shapes are mainly bowls or boxes imitated from stone vessels and Arretine and other pottery, but occasionally more elaborate shapes with excrescences (e.g. the boat-shaped dish on feet, Thorpe, *op. cit.*, fig. 2) occur. Though possibly initially earlier, they are predominantly of the earlier first century A.D.

It is needless to cite the pottery parallels. For one in green marbled stone cf. *M.Z.* xxvii, 86, abb. 8, 1 (Mainz Mus., (?) from Italy). For emerald-green glass examples cf. *Trierer Zeit.* iii, 69 ff., taf. III, 16 (hemispherical, as no. 58, Trier Mus. 16.12); *ibid.* taf. III, 14 (cylindrical, Trier Mus. 04.894 g); Fremersdorf, *Denkmäler*, taf. III and *R.G. aus Köln* (1st ed.), abb. 2 (splayed, as nos. 59–60, Severinstrasse, no. 25.27); *Vindonissa*, pl. LXI; and Thorpe, *op. cit.* 12 (examples in B.M. and V. & A.M.).

53. Fr. shallow bowl, emerald-green: no decoration. H. c. 1 $\frac{3}{8}$ in. D. c. 6 $\frac{3}{4}$ in. Region 5, area G. Pl. LXXXVIII.
 a. Fr., similar, no decoration. Area A.
 b. Fr., similar, two wheel-cuts inside. Site A₄ (period IV–VI).
 c. Fr., similar, but three wheel-cuts. Pit D23 (period III–IV).
54. Fr. side, bowl, dark blue, as no. 53. Region 3, over ditch I in area A (period III–IV occup.).
55. Two fr. shallow bowl, deep greenish-blue, as no. 53. Region 1, occup. in N. of area H (period III–IV).
56. Fr. rim and side, shallow bowl, emerald-green: inside, near rim, one wheel-cut groove; outside, at base of side, three others. D. 7 $\frac{3}{4}$ in. Region 4, over road II in section 53 (period VI). Pl. LXXXVIII.
 a. Fr., similar. Area A.
57. Fr. rim and side, bowl, emerald-green: shape as Sigillata Dr. 27, no decoration. D. 5 in. Region 6. Pl. LXXXVIII.
58. Fr. rim and side, bowl, emerald-green: outcurved rim, vertical, convex sides, no decoration. D. 5 in. Region 5, over road II in section 58 (period VI). Pl. LXXXVIII.
59. Fr. rim and side, bowl, as no. 58, but sloping side. D. 5 in. Region 3, over ditch I in area A. Pl. LXXXVIII.
60. Fr. rim and side, bowl, as nos. 58–9, but more sloping sides. D. c. 7 in. Pit K14 (period III). Pl. LXXXVIII.

Pillar-moulded bowls, nos. 61–7

These bowls, with thick ribs at times on the sides only but more frequently reaching to the centre of the base, are a most common and distinctive type on earlier first-century sites. They become rarer in later first-century levels, and only stray examples occur after the turn of the century, e.g. *O.R.L. Pfünz* (no. 73), 60, glass 3, taf. xx, 93 (second century). The term 'pillar-moulded', though technically meaningless, is retained here in preference to Thorpe's term 'ribbed', having become consecrated through usage since the time of Roach Smith, and being also more distinctive.

The technique has been much discussed. Most probably the bowls were mould-pressed in a ribbed mould, after which the ribbed portion was fire-polished (having first,

at least in some instances, been worked with a reamer) and the remainder of the bowl rotary-polished; cf. Thorpe, *Trans. Soc. Glass Techn.* xxii, 11; Schuermans, op. cit. 7 f., 62 f.; Roach Smith, *Illus. Roman London*, 121 f.; Pellatt, *Curiosities of Glass-making*, 10, 105; Kisa, 513, 785 f., abb. 41-3, 219; Morin-Jean, 122 f., figs. 151 f.; Eisen, 212 f., pls. XL-XLI.

The type was frequent at Hofheim (Ritterling, 371 f. (form 9), abb. 95, taf. xxxviii), where the range of plain and polychrome pieces was similar to that from Colchester; cf. also Haltern, *Mitt. Alt. f. Westfalen*, ii, 173, 5, and *Haltern*, 373 ff., taf. xxxviii, 3, 4, 6, 7; Roach Smith, op. cit. 123 (Takeley, Essex with 2 coins of Vespasian and Domitian; *Arch. Journ.* xii, 197 f.); *M.Z.* xx/xxi, 63, abb. 1, 10-11 (Weisenau, mid-first-century); *Germania*, xiii, 16 f. (Unterkirchberg, Württ., dated Nero-Vespasian); Fremersdorf, *R.G. aus Köln* (1st ed.), abb. 3 = *R.G. aus Köln* (2nd ed.), abb. 5 (no. 913, Bonnerstrasse); *Gesellschaft pro Vindonissa Jahreshb.* 1928-9, 10 and taf.; *Antiq. Journ.* iii, 334, pl. xxxv (Radnage, Bucks.); *Richborough III*, 84 f., pls. xv-xvi, nos. 58-9 (with parallels cited *ad loc.*); and numerous fragments from Silchester (Reading Mus.) and York (Yorkshire Mus.). Among others from outlying sites are two from a tomb at Hore Dul, Norway (Ekholm, *Tidskrift for Konstvetenskap*, 20 Aug. 1936, fig. 3), and examples from Citania de Briteiros and other Portuguese sites in the Citania Museum, Guimarães (information from the curator through H. N. Savory).

61. Fr. rim and side, shallow bowl, greenish: ribs on side only; within, near rim, one horizontal wheel-cut. H. c. 2 in. D. $7\frac{1}{8}$ in. Pit D18 (period III-IV). Pl. LXXXVIII.
a. Fr., similar. Pit F13 (period IV).
b. Fr., similar, without wheel-cut. Period IV occup. in area H.
c. Fr., as *b.* Region 4, area L.
62. Fr. rim and side and base, shallow bowl, greenish: ribs reaching to centre of base; within, a central lathe-mark and, 1 in. from centre, three concentric wheel-cuts. H. $1\frac{3}{4}$ in. D. $6\frac{3}{8}$ in. Pit A10 (period IV). Pl. LXXXVIII.
a. Fr., similar. Period III-IV occup. over ditch I in area A.
63. Fr. rim, deep bowl, greenish: heavy ribs, no decoration. D. c. 7 in. Region 4, area L.
a. Fr., similar. Region 6.
64. Fr. rim, as no. 63, but lighter and more widely spaced ribs. D. c. $5\frac{1}{2}$ in. Region 1, area H.
65. Fr. rim, as no. 63, but dark blue. D. c. $6\frac{3}{8}$ in. Region 6.
66. Fr. rim, as no. 63, but brown. D. c. 7 in. Under large stone in metal-working area N. of road II, region 4 (period IV).
a. Fr., similar. Over ditch I in region 3 (area A).
67. Fr. base, shallow bowl, deep yellow: slight central knob at ends of ribs; within, a central lathe-mark and, 1 in. from centre, two concentric wheel-cuts. Region 1, area H. Pl. LXXXVII.

Vessels with wheel-cut or incised lines, nos. 68-79

These were predominantly bluish-green (more rarely blue or amber) bowls of roughly hemispherical form of a type found also in some quantities at Hofheim (Ritterling, 365 f. (forms 1-2), abb. 93, 2 and 4, taf. xxxviii), and clearly therefore mid first century. Other evidence is provided by two examples from Weisenau, *M.Z.* xx/xxi, 63, abb. 1, 9 (from a mid-first-century rubbish-pit) and *ibid.* xxii, 47 ff. (= *Germania*, xi, 44 ff.),

from a grave with three early-first-century coins; other examples are from Vetera, *B. J.* cxxiv, 165 ff., taf. xxv, 23; and Köln, Fremersdorf, *Denkmäler*, taf. VIII (2 exx.). Nos. 68–72 belong to a particularly distinct and common shape which cannot be confused with later types; but bowls like nos. 73–6, plain or with facet-decoration, occur at later dates also.

Of the goblet form, nos. 77–8, only the two examples listed were recognizable. The shape is commoner from the second century onwards (Harden, *R.G. from Karanis*, 136 ff., class VB). The solid base of no. 77 is rare at any date, the only other example known to me being an unprovenienced piece of blue glass in the Victoria and Albert Museum (no. 1024.1868). The dropper (?), no. 79, is, so far as my knowledge goes, unique.

68. Deep bowl, bluish-green, free-blown: rim knocked off and ground; one broad and one narrow horizontal wheel-cut near rim, single wheel-incision at carination. H. $2\frac{1}{2}$ in. Max. D. $3\frac{1}{4}$ in. Region 1, gravel over ditch I (period IV). Pl. LXXXVIII.
69. Fragmentary deep bowl, as no. 68, but wheel-cut at carination. H. 3 in. Max. D. $4\frac{1}{8}$ in. Pit A6 (period VI?). Pl. LXXXVIII.
- a. Fr., similar. Pit L7 (late period IV).
- b. Another do., same provenience.
- c. Fr., similar, but greenish. Region 2, over ditch E4 (period III–IV).
70. Fr. side, deep bowl, as no. 69, but amber. Max. D. $3\frac{1}{2}$ in. Region 1, area H (period IV?).
71. Fr. side, deep bowl, as no. 69, but dark blue. Max. D. $4\frac{3}{8}$ in. Same area.
72. Fr. rim and side, deep bowl, bluish-green, free-blown: rim knocked off and ground, one narrow wheel-cut near rim, one broad wheel-cut in middle of side. H. $2\frac{1}{2}$ in. Max. D. 4 in. Region 5, area C (period IV?). Pl. LXXXVIII.
73. Fr. rim and side, deep bowl, colourless with greenish tinge, as no. 72, but both wheel-cuts narrow. H. c. 2 in. Max. D. $3\frac{5}{8}$ in. Region 1, gravel over ditch I (period IV). Pl. LXXXVIII.
74. Fr. rim and side, deep bowl, bluish-green, free-blown: rim knocked off and ground, band of wheel-incisions near rim. H. c. 2 in. Max. D. $3\frac{1}{2}$ in. Site A4 (period IV–VI). Pl. LXXXVIII.
- a. Fr., similar. Pit K19A–B (period I).
75. Fr. rim and side, deep bowl, emerald-green, as no. 74, but a second band of wheel-incisions near bottom of side. H. c. $2\frac{1}{2}$ in. Max. D. $3\frac{1}{2}$ in. Pit Z17 (period III). Pl. LXXXVIII.
- a, b. Frr. two similar bowls. Region 4, over road II ditch in section 58 (period VI).
- c. Fr. side, similar. Ditch F6, pit C (period VI).
- d. Fr., similar. Over ditch I in area A (period III–IV).
76. Fr. deep bowl, deep greenish-blue, as no. 74. H. c. $2\frac{3}{8}$ in. Max. D. 4 in. Over ditch F5. Pl. LXXXVIII.
77. Goblet, bluish-green, free-blown: rim knocked off and ground, band of wheel-incisions near rim; broad wheel-cut flanked by bands of wheel-incisions at maximum diameter; another band of wheel-incisions lower down. H. $5\frac{1}{2}$ in. Max. D. $2\frac{3}{4}$ in. Region 1, gravel over ditch I (period IV). Pl. LXXXVIII.
78. Fr. rim and side, goblet, bluish-green, as no. 77, but some rotary polish outside. D. rim $2\frac{3}{4}$ in. Region 1, W. of temple enclosure, with other glass (including nos. 87–8, 90) below period VI gravel (period IV). Pl. LXXXVIII.
79. Dropper (?), bluish-green, free-blown: rim knocked off and ground, alternate double and single bands of wheel-incisions. H. $15\frac{7}{8}$ in. Max. D. $1\frac{3}{4}$ in. Region 1, gravel over ditch I (period IV). Pl. LXXXVIII.

Plain wares, nos. 80-99

The plain wares, bottles, unguentaria, ollae, flasks, and jugs, were predominantly bluish-green, and this bluish-green glass represents probably 80 per cent. of the glass discovered. There is evidence (p. 288) that at a later date this common glass was actually made on the spot, but no doubt these first-century specimens were, together with all the other glass, imported from the Continent. Some deep blue glass, principally ollae and jugs, and brown and amber glass, principally jugs and unguentaria, was also found, but was by no means so common as the green.

Bowls. The plain bowl with folded rim and base-ring is rare at this early date, its place being taken by the decorated bowls of various sorts described already. For the type at a later date see Harden, *R.G. from Karanis*, 95 ff., class IIIA; *Richborough III*, 85, no. 63, pl. xvi (green).

80. Fr. rim and side, shallow bowl, emerald-green, free-blown: rim folded outward and downward, side vertical, bottom sloping to base-ring. D. 7 in. Region 1, period IV occup. W. of larger temple. Pl. LXXXVIII.
81. Fr. rim, deep bowl, dark blue, as no. 80. D. $5\frac{1}{2}$ in. Region 5, area G, over ditch I (period IV). Pl. LXXXVIII.
- a. Fr., similar. Region 4, area L.
82. Fr. bowl-base, golden brown, free-blown: base-ring added by post-technique (for this term see Harden, *op. cit.*, 18). D. $2\frac{3}{4}$ in. Region 3, area A, near ditch I.

Flasks. The flask is a very common first-century form, which lasts, with variations, throughout the Roman period, being the simplest and most natural type of vessel to blow. For first-century examples cf. a complete piece from Colchester in grave-group 10 (May, 264, no. 48 with Centurion (Favonius) tomb-stone: p. 18 (pottery form 64) above); *Hofheim*, 375, taf. xxxviii, type 16; *M.Z.* viii/ix, 37 ff. (Weisenau, graves 17 and 40, first century); *ibid.* xx/xxi, 67, abb. 6 (Planig, with two Vespasian coins); *B. J.* cxxxviii, 22 ff. (Köln, Severinskirche, grave 78, early second century); *ibid.* cxl/cxli, 342, abb. 2 (Bregenz, grave 522, with 20 La Graufesenque Sigillata dishes, c. A.D. 35).

83. Fragmentary flask, bluish-green, free-blown: rim folded outward, upward, and inward, cylindrical neck, inverted ovoid body, flattened and slightly concave base. H. $6\frac{1}{4}$ in. Max. D. 4 in. Pit L6 (period IV). Pl. LXXXVIII.
- a. Fr. rim, similar. Pit D10 (period VI).
84. Rim, flask, bluish-green, free-blown: rim bent outward horizontally. D. 2 in. Ditch F6, pit C (period VI). Pl. LXXXVIII.
- a. Fr., similar. Ditch Z1 (period VI).

Unguentaria. This form, the smaller counterpart of the preceding, also lasts, with variations, throughout the Roman period, but the first-century type is easily recognizable, as it has a plain, fire-smoothed rim. For other first-century examples cf. *Hofheim*, 376, taf. xxxviii, type 18; *M.Z.* viii/ix, 37 ff. (Weisenau); *ibid.* xxiii, 67 (Mainz Kastell, graves 1 and 2, mid first century); Hauser, *Vindonissa*, taf. XLII; *B. J.* cxiv/cxv, 379 ff.

(Köln, graves 4-10, 16-19); *ibid.* cxxxviii, 22 ff. (Köln, graves 16, 28, 92, with Flavian coins).

85. Fragmentary unguentarium, bluish-green, free-blown: outplayed rim, knocked off and fire-smoothed, cylindrical neck, elongated body, base missing. H. as extant, $3\frac{1}{8}$ in. D. rim $\frac{7}{8}$ in. Region 1, period IV occup. in W. of temple enclosure. Pl. LXXXVIII.
86. Fragmentary unguentarium, as no. 85, but yellowish. H. as extant, $2\frac{3}{4}$ in. Pit L41 (period IV). Pl. LXXXVIII.
87. Rim and neck of unguentarium, bluish-green, as no. 85, but rim bent outwards horizontally. D. rim $\frac{3}{4}$ in. With no. 78 (period IV). Pl. LXXXVIII.
88. Body and base of unguentarium, bluish-green, as no. 85, slight flattening on base. D. body $1\frac{1}{8}$ in. With no. 78 (period IV).


Ollae. This short-necked, spherical form is copied from the typical globular beakers of unglazed pottery locally represented by forms 91-108 (pp. 235-7). It has a folded rim, and either a plain concave base or a cut-out base-ring, and is fairly frequent on first- and early second-century sites: cf. Thorpe, *Engl. Glass*, pl. IIIb (Colchester); *Hofheim*, 376, taf. xxxviii, type 19 and abb. 93, 1 and 3; *Richborough III*, 84, no. 57 (A.D. 80-120); *M.Z.* viii/ix, 37 ff. (Weisenau, graves 6 and 37, mid first century); *Illust. London News*, 2 April 1938, 588 (Kretz, Eifel, in grave with coin of Titus). Nos. 91-3, which are body-fragments only, might equally well belong to jugs.

89. Rim, olla, bluish-green, free-blown: rim folded outward and downward. D. $2\frac{3}{4}$ in. Near no. 85 (period IV). Pl. LXXXVIII.
- a. Fr., similar. Region 4, area D.
90. Rim, large heavy olla, as no. 89 but folded outward, downward, and inward. D. $5\frac{1}{2}$ in. With no. 78 (period IV). Pl. LXXXVIII.
91. Base, olla or jug, dark blue, free-blown: ovoid body, concave base with cut-out ring. D. base $3\frac{1}{4}$ in. Site A4 (period IV-VI). Pl. LXXXVIII.
- a. Fr., similar. Period IV occup. adjoining road II in section 57, region 4.
92. Base, olla or jug, as no. 91, but yellowish-colourless. D. base $2\frac{3}{4}$ in. Region 6.
93. Frr. body and base, olla or jug, brown: as no. 91, but inverted piriform body. D. base $2\frac{3}{4}$ in. Pit KI (period III). Pl. LXXXVIII.

Jugs. The typical first-century jug has an angular handle, usually ribbed, and with or without a tail-piece, a piriform or spherical body, and a concave base or cut-out base-ring. Nos. 94-6 may be paralleled by Thorpe, *Engl. Glass*, pl. IIIa (Colchester: cf. no. 95) and ivd (Turriff, Aberdeenshire: ascribed to a later date by Thorpe in *P.S.A.Scot.*, lxviii, 439 ff.; but cf. no. 94); *Antiq. Journ.* iii, 334, pl. xxxv (Radnage, Bucks., late first century); *Hofheim*, 374, taf. xxxviii, type 13; Fremersdorf, *Denkmäler*, taf. 5, 6; *M.Z.* viii/ix, 37 ff. (Weisenau, grave 36). No. 97 is a base of uncertain type, probably from a jug.

94. Frr. handle and body of jug, greenish-brown, free-blown, with drawn handle: tall angular handle with central applied rib ending in a nicked tail, inverted piriform body, concave base with cut-out ring. Region 1, period VI (?) occup. in area H.
95. Handle, jug, bluish-green, drawn: two pinched-out ribs ending in short tail-pieces; body of jug inverted piriform. Pit L7 (late period IV).

96. Neck and part of handle, jug, amber, free-blown with drawn handle: rim folded outward, upward, and inward, cylindrical neck, handle from rim to shoulder. H. neck $3\frac{3}{4}$ in. Pit L19 (end of period IV).
97. Base, flask or jug, yellow, free-blown: base-ring applied as pad. D. ring $1\frac{1}{4}$ in. Pit D3 (period VI). Pl. LXXXVIII.

Bottles. Cylindrical and rectangular bottles of heavy, bluish-green glass are other typical first-century types, which, with minor variations in shape, continued throughout the Roman period. The six listed are representative of the numerous fragments found. For first-century pieces from other sites cf. *Hofheim*, 373 f., taf. xxxviii, type 12 (Ritterling gives the cylindrical as the main form and only lists the rectangular as secondary, without illustrating it; this is not in accord with the Colchester evidence); *Germania*, xvii, 266 ff., taf. xxiii (Köln-Lindenthal, three rectangular, from a grave, c. A.D. 50-75); *M.Z.* xx/xxi, 66, abb. 5 (Weisenau, three rectangular, stamped ); *B. J.* cxxii, 256 ff., taf. xxii, 4 (Remagen, grave 152, rectangular, with coin of Titus); Fremersdorf, *R.G. aus Köln*, 1st ed., abb. 16 (Köln-Bickendorf, rectangular); id., *R.G. aus Köln*, 2nd ed., abb. 16 (Köln, cylindrical).

98. Six fr., bottles, bluish-green, blown into a cylindrical or rectangular body-mould:
- A. Part of rim, neck, and handle, small. Region 1, period IV occup. W. of larger temple.
 - B. Part of heavy, three-ribbed, drawn handle. Region 4, period IV destruction-rubbish S. of road II in section 58.
 - C. Fr. cylindrical neck of large cylindrical bottle. Region 1, period IV or VI occup. in area H.
 - D. Fr. shoulder and body of heavy rectangular bottle. Same area as C.
 - E. Fr. body of heavy rectangular bottle. Pit K14 (period III).
 - F. Base of large rectangular bottle, $2\frac{3}{4}$ in. square, very thick glass: on under side a relief-moulded stamp of four right-angles outside a concave-sided square. Region 4, area D. Pl. LXXXVIII.

WINDOW-GLASS

Window-glass first appears on the site in period IV. Site F2 produced a piece, and others were found in period VI deposits containing period IV destruction-rubbish, e.g. pits G6 and 7, and that over road II in region 4. It is not very common—21 fragments in all—and was perhaps brought to the site mainly for use in the Colonia (pp. 37-8, 53-4), though oddly enough no pieces are recorded from region 3.

Such glass is common on mid-first-century continental sites, cf. *B. J.* cxxii, 400 (Vetera), and *Hofheim*, 365, 377.

BEADS AND OTHER OBJECTS OF GLASS AND GLAZED WARE

The site only produced a few objects of glass and glazed ware, of no particular interest. They comprised:

1. Six *beads*, small, plain glass (2 blue, 2 red, 1 greenish, 1 black). All unstratified.
2. Fr. *bead*, large, blue glass, bearing knobs decorated with white marvered spirals and connected by yellow marvered wavy bands. Site F5 (periods III-IV).

This type is pre-Roman, and abroad dates from La Tène II (Déchelette, *Manuel*, iv, 821, 825-6, fig. 573, 14-18), but very similar beads, though without the wavy bands, occurred at Glastonbury, in the main contemporary with our period I occupation; *Glast. L.-V.* ii, 354 ff., pl. LIX, G5, G9, G20.

3. Five *melon beads*, blue glazed ware. Site A1 (period IV), site F7 (period III-IV), and three unstratified.
4. Sixteen circular *gaming-counters*, glass, of plano-convex form, D. $\frac{1}{2}$ in. to $\frac{3}{4}$ in.:
 - a. Eight opaque white, of which two from site D1 and two from pit D2, bottom (all period IV).
 - b. Seven black, of which three from site D1 (period IV-VI), and one from pit A12 (period IV).
 - c. One marbled, blue and white, region 3.

The type is very common on Roman sites (Harden, *R.G. from Karanis*, 291 ff.); for examples of Claudian date cf. *Germania*, xiii, 45, abb. 8, 1-8, from Hüfingen; for other British examples cf. *Newstead*, pl. xciii. A similar type appears in pre-Roman Celtic connexions abroad, cf. Déchelette, *Manuel*, iv, 902 f., fig. 623, 16. A gaming-board made on a roofing-tile is in Mainz Museum (*M.Z.* vii, 107, abb. 17; Harden, l.c.).

5. Two *ring-bezels*, circular, blue glass. Region 3 and site D1 (both probably period IV).

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IV. THE BROOCHES

In all, 400 first-century brooches, complete or fragmentary, were found; 195 (including a few others from the neighbourhood) are here figured (pls. LXXXIX–xcviii and fig. 59). For the list that follows, a division into types has been made, comprising all save 25 uncertain fragments, with brief notes indicating the main known facts on each, and the contribution made by these excavations to its chronology. All brooches are of bronze unless otherwise stated, and where no find-spot is given with the description of a brooch, it is unstratified.

Plate LXXXIX

Type I. The La Tène II brooch, conveniently dated abroad between 250 and about 100 B.C., has been studied for Britain by Mr. G. C. Dunning (*Lydney Report*, 69–71); our type is his class B, with bilateral spring, usually internal chord, and simple, plain, arched bow with angular foot returned to be wrapped round, or attached by a collar to, the bow. He dates this after c. 150 B.C. and shows by his list that it may occur on sites of the first centuries B.C. and A.D. Continuance through La Tène III times is also attested on the Continent, not only in iron, to which this 'wiry' form was particularly suited (Almgren, *Montelius*, 243 (fig. 4, Alesia); Behrens, *Wangionen*, 51), but also in bronze (ibid. 50; *M.Z.* xxvi, 117–18; Déchelette, *Manuel*, iv, 764–6), of which there are plenty of examples from Roman sites as late as Claudius (*Hofheim*, 124–5, abb. 22); Aislingen; Mainz legionary fortress (*M.Z.* vii/ix, 67, abb. 1, 1–2); Neuss (*Novaesium*, 388, taf. xxiv, 1); Weisenau (Déchelette, loc. cit., fig. 538, 2); Vindonissa; Autun. Examples on this site, therefore, like that from Verulamium (*Verulamium*, 203 fig. 42) need not be earlier than our main period of occupation.

Pl. LXXXIX, 1. Distorted.

2. C.M., Acton Coll. 1065, Colchester, unspecified site (Dunning, loc. cit., B, no. 3).

3. Site L2 (period I): hybrid with type III.

Type II. Iron brooches of modified La Tène III ('safety-pin') form. At Swarling a specimen may be of the late first century B.C. (*Swarling*, pl. xii, 1); part of one occurred at Oare, Wilts. (*Devizes Mus. Cat.*, pl. xlvi, B) in pre-conquest associations, and further specimens at other Wessex sites dating from the first century A.D. (Knap Hill, ibid., pl. lxi, 4; *Woodcuts*, pl. xi, 2; *Rotherley*, pl. ci, 6, 8, 9); early Roman contexts are Alchester (*Antiq. Journ.* xii, 65, pl. xviii, 4) and the Harlow temple (ibid. viii, 307–8, fig. 4, 1). The last example has a bow in the Roman manner, as has one from our pit Z5 (period IV); open catch-plates are found on at least two others in C.M. (Joslin Coll.) of unspecified local provenience.

4. Imperfect, corroded: catch-plate seems solid. Pit C2 (period III?).

Spring of another, area A. Another, pit K 2 (period III).

5. Flat reeded bow, flat spring. Top of pit K1 (period III).

See also under Type IV, no. 40.

Plates LXXXIX–xci

Type III. The La Tène III brooch, in which the returned foot has become a triangular catch-plate, is found in NW. Europe in a number of distinct forms whose history and relationships, though in part much studied, yet await further attention. Its earliest inception, conventionally dated about 100 B.C., is certainly Gaulish. Thereafter, from Central Gaul to the Rhine and beyond, a simple 'safety-pin' type (e.g. *B.M.G.* 53, fig. 52) appears to make a break with the past, whence

flattening of the bow led to the 'Nauheim' form and its derivatives (our type VII). However, more purely native traditions maintained a bow with a 'vestigial' knob or moulding on it recalling the La Tène II foot-attachment, and often perpetuated the old external chord. Brooches of this sort may be dated 100–50 B.C. in Belgic Gaul (*Belgae*, 187, fig. 11, 4, 7), and in Britain are notable in the Belgic invaders' first settling-ground in Kent (e.g. *Swarling*, pl. xv, 16 (Deal), and in B.M. Faversham, Folkestone, Walmer). Where an internal chord occurs, as at Aylesford (*B.M.G.*, fig. 138; cf. *Belgae*, loc. cit.), it could be secured by a thickened 'trumpet' head, but an unattached external chord (*B.M.G.*, figs. 100–1) required instead a hook to keep it fast. This device, adopted in Central Gaul and elsewhere together with the ailette form of 'vestigial' bow-moulding, is found in the Belgic districts farther north (Pommiers, Déchelette, *Manuel*, iv, 473, fig. 403, 1–2; Marne and Étapes (*Cat. Bronzes* 2113, fig. 41) in B.M.) with a bow left plain (sometimes flat), and soon became general in Belgic Britain. With it went that of a pair of side-wings on the head to keep down the projecting turns of the spring; for, while the earlier continental and Kentish brooches have only two or four of these, the developed type never has less than six.

Ornamental piercing of the catch-plate, sporadic and often hesitant in the first century B.C., becomes a distinctive feature, and though Kent has a few flat bows (*Swarling*, pl. XII, 2, 5; XIII, 7), this British series is unaffected by any of the various developments known on the Continent from the later first century B.C. onwards (e.g. pl. xci, 34–5). It became an insular type, from which the parallel continental series derived from the same source is easily distinguished by its normally flatter, broader, and straighter bow, thick heavy catch-plate with flanged inner edge, and difference of ornament when present (e.g. Quilling, *Nauheimer Funde*, 101, no. 17; *Kat. Bingen*, 275, abb. 132, 1; *Hofheim*, taf. VIII, 21, &c.).

Our series shows the type's developed stages (pls. LXXXIX–XC, nos. 6–24): made in one piece (Collingwood group F), the brooches are normally quite large, the length varying from 2 to 5 in. The long, curved bow is usually of D section, sometimes faceted, joining the head with a sharp 'kick'; a band down its centre may bear ornament in low relief, normally zigzag (6–11). The spring has from 6 to 10 turns; the small side-wings protecting it are of corresponding length, and may receive corrugations to match (7, 16, 17, 20). The hook retaining the invariably external chord is largest on simpler (6, 10, 16, 20), and may shrink on more evolved specimens (7, 16). On the latter the ornamental piercing of the catch-plate, here at best degenerate (6, 7, 9, 13, 17, 18) compared with some Kentish examples (*Swarling*, pl. XIII), is more often omitted altogether.

These differences of detail leave the type essentially consistent, even stereotyped: all earlier 'vestiges' have been discarded, and full development is only succeeded by degeneration. It is the universal La Tène III (bronze) form at Colchester, whence 104 examples are recorded, 72 certainly from our site, and it is proposed to call it for convenience the 'Colchester' brooch.

Chronologically the foregoing has shown that no specimen here need be dated before the early years of the first century A.D.; it is further worth noting that the type is virtually limited to the Belgic area of Britain. The south-eastern examples from Kent, Essex, and e.g. Verulamium (*Verulamium*, fig. 24, 1; fig. 44, 20–1) are exactly paralleled in Belgic Wessex (e.g. Silchester (Reading Mus.); *Woodcuts*, pl. XIII, 11; pl. XIV, 10; *Rotherley*, pl. xcvi, 3; Stockton Earthworks, *W.A.M.* xliii, 390, pl. 1, H; *Maiden Castle*, fig. 83, 14–15; Hod Hill, B.M.), while the quite different Glastonbury series (*Glastonbury Lake-Village*, 1, 190 ff.) points the contrast with the non-Belgic 'Iron Age B' farther west.

The incidence of stratified examples here shows the type to have persisted in use until the Boudiccan revolt. It is as follows:

Period	I	II	I–III	III	III–IV	IV	V	IV–VI & VI	Unstratified	Total
	7	1	2	1	5	21	0	3	32	72

The figured examples are as follows:

- Pl. LXXXIX, 6, 8. Unspecified Colchester sites (B.M.; C.M., Joslin Coll.).
 7, 9-10. Sheepen, unstratified (7 from region 3 sand-pit, C.M. 142.31).
 11. Pit A 20 } period IV.
 12, 13. Pit A 12 }
- Pl. xc, 14-15, 17-18. Sheepen, unstratified (14, 18 from region 3 sand-pit, C.M. 143-4.31).
 16. Region 3, occupation over ditch I, period IV.
 19. Pit Z₄, period VI (similar example from ditch Ib bottom, period I).
 20. Over the period IV pit Y₂₉.
 21. Pit F8, period IV.
 22. Pit A 6, periods IV-VI.
 23. Pit D16, periods III-IV.
 24. Site A1, in revetment post-hole, period IV.
 25. Pit C11, periods III-IV.

Variant IIIa. Six small brooches (length 1-1½ in.) may be so classed: the five figured (26-30) may have a groove along the bow, and three (27, 28, 30) have semi-cylindrical side-wings on which corrugations are replaced by knurled ornament no longer matching the turns of the spring beneath: the latter are 10 in number (two others had 12, and grooved bows with poor transverse mouldings).

- Pl. xc, 26. Bow almost round in section, corroded. Region 1 (school).
 27. Catch-plate was probably solid. A similar but much damaged brooch from ditch Ib upper filling (probably period III) had one round perforation in the catch-plate, and possibly a plain bow.
 28. Corrugated wings, decorated with rows of punch-marks, catch-plate perforated, spring of 10 turns. Pit K₉ (period IV).
 Pl. xci, 29. Side-wings faintly corrugated only: catch-plate not certainly perforated.
 30. Catch-plate apparently solid.
 Fig. 59, 9. A similar brooch, even worse corroded, but illustrated for the 'eyes' on each side of the head, consisting of a bead of enamel in a deep setting (one lost). Spring was of 12 or more turns. Pit F1 (period IV).

Variant IIIb. Three abnormally small brooches should belong to the last years of the occupation: cf. *Novaesium*, taf. xxiv, 17-18, dated after A.D. 70.

- Pl. xci, 31. This example in fact connects type III with type IV, for the spring is still in one piece with the bow and the side-wings are undeveloped, though the hook is solid-cast and merged in the broad bow-ridge.
 32. Bow of D section with 'trumpet' head, convex side-wings transversely scored. Spring of 8 turns. Pit D1 (period VI).
 33. Spring of six turns, side-wings with mere transverse scoring. Site A₄ (period VI). Of two others, similar, one had foot probably pierced.

Type III, Continental form. Two specimens of continental form may be readily distinguished. They are characterized by the flat bow, with slightly reversed curve near the foot, and the long catch-plate, usually with one triangular perforation. The spring is of six turns.

Pl. xci, 34. Small, short hook, bow of very flat V section.

35. Broad, short hook, groove down the bow, knurled in the bottom. Found in debris over road II ditch in region 4 (periods IV-VI).

Type IV. Here, by evolution from type III, the brooch is made in two pieces (Collingwood group E and part H). The wire spring of the pin is held to the head of the cast bow by an axial

bar passed along the coil and through a central lug projecting from the head; the hook retaining the chord is cast solid with the bow, and becomes (36-41) simply an extension of the same lug. The spring has not less than 8 turns, of which any ornament on the side-wings is now practically independent; these are large and semi-cylindrical, and may have their ends closed (42, 43) in disc-terminals pierced to hold the axial bar (the 'Polden Hill' type). The solid, cast hook emerges as a decorative feature with the ridge normally present along the polygonal bow, which may be ornamented in various ways. The catch-plate is thick and may be either pierced or solid; in 36, 37, 39, 40 it is slotted for the pin. Examples have been dated to the late first century (*Richborough II*, pl. xvi, 3-4; *III*, pl. ix, 10; Wheeler, *London in R. Times*, fig. 27, 19-20), but our stratified examples, like *Verulamium*, fig. 44, 22, take the type back to c. A.D. 50-65, well overlapping the life of the parent type III.

- Pl. xci, 36. Wavy-line relief ornament on bow ridge. Catch-plate pierced for a small pin projecting on both sides. Area F, gravel over ditch I (period IV). Another has catch-plate unpierced.
37. Roughly incised chevron pattern on bow. Clay-pit II (periods III-IV?).
38. Incised hatching on bow: pierced catch-plate. Pit G7 (period VI).
39. Bow grooved below 'hook'-ridge: filed pin slot on catch-plate. Pit F15 (period VI).
40. Similar, spring missing. Another (corroded) example is of iron.
41. Clumsily-pierced ornamental catch-plate, 'Polden Hill' type.
42. Knurled ornament representing hook. Sheepen Road, found 1905.
43. Elaborate brooch with moulded and knurled ornament on side-wings and bow, pierced catch-plate, and engraved pin-holder. Pit D24 (period IV or VI). A similar example was found on site A1 (period IV).

Plates xci-xcii

Type V. The 'dolphin' brooch (Collingwood group H) with humped-up bow, a form already attained by some of our type IV (42, 43), is here mainly represented by the type in which not only—unless as a mere ornamental 'vestige' (46)—the old chord-hook, but also the lug for holding the spring axis, is abandoned. Instead, the spring is retained by a small rearward-facing hook over the chord, the inadequacy of which is revealed by the almost invariable loss of spring and pin. The side-wings are expanded to a long ornamental cross-bar, forming a semi-cylindrical cover to the numerous turns of the spring; the humped bow is stout, generally (45, 47, 49) of D section, and variously decorated, tapering down over a small and usually (cf. 46) solid catch-plate. The type seems to be Romano-British: cf. *Rotherley*, pl. xcvi, 4; *Woodcuts*, pl. xii, 9; it is probably not earlier than A.D. 50, but was in use before the end of period IV. The hinged version of this form is later, and not represented here.

44. Imperfect: zigzag ornament in relief, and cross-hatched bands between grooves on side of bow, which is nearly circular in section. Site A1, over road (period IV).
45. Partly corroded: wavy-line ornament in high relief. Gravel over site A1 (period VI). Another is similar but with knurled ornament; another wholly corroded.
46. Grooved bow of nearly square section: 'vestige' hook forms a crest; real hook broken; pierced catch-plate. Ditch IB, topmost filling in section 75 (period IV).
- Pl. xcii, 47. Grooved bow, cross-bar plain save at ends. Area D.
48. Knurled ridge, wings with knurled mouldings, no lateral mouldings on bow. Region 1 (school).
49. Knurled ridge and bow lateral mouldings.
50. Grooved bow with marginal ridges. Hook scarcely recognizable. Sheepen Road, found 1905.

51. Bow with knurled central ridge; spring of 12 turns present, on axial bar (hook broken). Site A1 (period IV).

Type VIA

52. A single brooch must be separated from the foregoing derivatives of the 'Colchester' type, since, despite its appearance and thickly perforated catch-plate, the head of its flat bow curls broadening over to grasp not a spring but a hinged pin (now missing). Ditch E4, with pottery all of period I; but the only parallels are German (*Bingen*, 275, abb. 132, 8; *Birkenfeld*, 64, abb. 1) and unless it came over in A.D. 43 and so should be dated period II, it should be a pre-conquest import. A similar brooch, but with spring not hinge (Dortmund Mus.), was found in the Augustan camp at Oberaden.

Type VIB

54. Another hinged brooch of similar outline to VIA, but the bow is cast, with two transverse mouldings near the head and a ridge down the bow. The catch-plate was probably not perforated.
53. Another imperfect brooch clearly represents a fairly well-known approximation to the 'strip-bow' type. The flat bow bears two raised wavy lines between flutings. Another very similar was found over the larger temple in region 1, and the head of another, with central fluting down bow and broad knurled band on either side, on site D1.

Type VII. The Nauheim brooch, as noticed above (p. 309), appeared as a continental La Tène type in the first century B.C. The probable prototype, A (*Déchelette*, *Mt. Beuvray*, pl. xxiii, 9), is absent here, and the examples of the main type, B (*Quilling*, *Nauheimer Funde*, 101, nos. 20 ff.), are not numerous. They have the invariable four-turn spring with internal chord, and their flat bows and solid catch-plates mark them as typologically late, approximating to the so-called 'poor man's' brooch often found in the second half of the first century A.D. in Britain (*Verulamium*, 204-25, fig. 43, 1-2; Wheeler, *London in R. Times*, fig. 24, 1-2). There are two in the C.M. of unspecified local provenience (Acton Coll. 1067, Joslin Coll.) and one from the early Roman site at Fingringhoe (p. 19); the excavations produced 5 fragments, a corroded specimen from ditch Ib upper filling (period III), and the following:

- Fig. 59, 11. Iron brooch, much corroded, with flat bow, only slightly curved. Bilateral spring of four turns with interior chord. Small, solid catch-plate, pit K2 (period III).
- Pl. xcii, 55. Bow of very flat D section: fine condition. Pit G2 (period VI). Another, exactly similar.
56. Flat bow, foot imperfect but fine condition. Lip of pit C13 (probably period IV). Another is exactly similar, and a third rather longer.
57. Another, with catch-plate fully preserved.
58. Imperfect example, rather more slender. Clay-pit III (not pre-Claudian).

Thus despite earlier kindred brooches at Wheathampstead and Prae Wood (*Verulamium*, 150, pl. lii, 1; 176, fig. 24, 2; cf. *Glastonbury Lake-Village*, 190), the type is here only proved for the period Claudius-Nero. The same is true of the more developed form C, in which the bow rises sharply from the head: this is common at Neuss in the Flavian period (*Novaesium*, taf. xxiv, 13-15), and there are two in C.M. (82.31 from the Union site (p. 19); Joslin Coll.). Fragments occurred in region 5 and the period III layer over ditch I in region 3, and the following is similar:

- Pl. xcii, 59. Flat bow with straight leg. Pit A12 (period IV). Another is similar but has round bow.

The companion form D, with stout angular bow of round section (*Novaesium*, taf. xxiv, 13, 41), is represented in C.M. (409.30, Union site (p. 19); Gen. Coll. 234; Acton Coll. 1066), as is its

outcome, E (*Novaesium*, taf. xxiv, 39) with long knobbed catch-plate (Acton Coll. 1030-1; Joslin Coll. 36); on our site both D and E were absent.

Variants

- Pl. xcii, 60. Bow only, sharply angular: foot missing. Site A1, ditch of road II (period IV).
61. Flattish curved bow and small solid catch-plate, but hinged, with head recalling type VI (44).
 62. Very corroded: perhaps had hook and side-wings allying it to type IV (p. 310). Down front of bow runs a narrow flat plate of silver. Clay-pit I (periods III-IV?).
 63. Corroded but, despite form of bow, has a spring of 13 turns with external chord, hook, and hatched side-wings allying it to type IV. Two round perforations in catch-plate. Clay-pit III (not pre-Claudian).
 64. Closer to Nauheim type, but the flat bow, with incised ornament, is bent sharply down and then out to form a foot nearly as broad, with deep quadrangular catch-plate. Sheepen Road, found 1905. Cf. *Arch.* lxi, pt. 2, 345, fig. 13, found in same field as the (Northants.) Desborough Mirror.

Type VIII. Among the Gaulish La Tène III predecessors of our type III (p. 308) the flat-bowed variety might be embellished with a disk threaded on the bow, which required its humping into P shape. Perhaps the earliest recorded example is that from Pommiers (Déchelette, *Manuel*, iv, 473, figs. 403-4), with pierced catch-plate and without hook for the chord or side-wings; the disk is here fairly plain, but two from the Oppidum of Tronoën, St. Jean-Trolimon, have disk, bow, and foot elaborately ornamented (P. Du Chatellier, *Époques préhistoriques dans le Finistère*, 324, pl. xvi), one (no. 12) with plain side-wings, the other (no. 2) with a convex spring-cover as on our type XI (p. 316).

There is another in Trier Museum. Three have been found at Colchester:

- Pl. xcii, 65. B.M., Pollexfen Coll., perhaps (cf. p. 22) from Sheepen area; crushed, most of the foot missing (see restoration). Spring of 8 turns on axial bar, external chord held by flat splayed hook: row of notches on head: flattish, P-shaped bow with low bevelling. Thin disk with bossed centre; flat foot with long catch-plate.
66. Crushed foot maimed like 65 (see restoration). Spring of 8 turns on axial bar, semi-cylindrical spring-cover, no hook; flattish, P-shaped bow, slightly convex. Thick, moulded, cast disk: flat reeded foot as on the Pommiers example cited above (cf. type XI). Section 73, dirty sand fill over ditch Ib (probably period IV).
- Fig. 59, 10. Remains of a very elegant example, more developed towards type X than the preceding. The short, broad bow, bears a raised zigzag pattern between ridges. The $\frac{3}{4}$ cylinder is lightly grooved. The disk is cast and moulded, in one with bow and foot, the latter (imperfect) bearing a raised zigzag in a central fluting.

Plate xciii

Type IX. This, the German *Kragenfibel*, is developed from type VIII by a broad expansion of the bow, while the foot remains narrow. This expansion may be triangular, as early as Pommiers (Déchelette, *Manuel*, iv, 473, fig. 403, 5) and later commonly in the Rhineland with lateral knobs (e.g. Bosenheim: Behrens, *Wangionen*, 10, abb. 13; cf. *Prunay I*, pl. 11, 1). The usual dating there is Augustus-Tiberius (Reise, *Heddernheim-Mitteilungen*, ii, 32), and the bow expansion may also (perhaps more typically) be spade-shaped, as in this Colchester example, the only complete one yet recorded in Britain.

- Pl. xciii, 67. C.M. Joslin Coll. Spring of 8 turns, engraved chord-hook: bow expansion panelled by grooving. Plain cast disk: solid foot and catch-plate.

An imperfect example of small size, with triangular expansion, was found at a low level on the E. of the larger temple in region 1.

This spade-shaped form occurs early at Alesia (Almgren, *Montelius*, 245), in early graves at Niederolm (Behrens, *Wangionen*, 8-9, abb. 9, 1-2) and Kernscheid (*Trier. Jahresber.* vii-viii, 1, 22, taf. 11, 3), and with coins no later than Augustus in grave 2 at Andernach (*B. J.* lxxxvi, 160: taf. v, 2-3). But in grave 29 there (*ibid.* 171, 220) two were associated with pottery of Claudian character, and another from Zugmantel should be Claudian also (*O.R.L. Zugmantel*, taf. ix, 8). Our brooch then need not be a pre-conquest import. Almost identical are *Heddernheim*, taf. 11, 3; *Novaesium*, taf. xxiv, 2; and the fine silver pair from a grave at Bonn (*M.Z.* xxii, 54, abb. 7, 1). For the Marne, cf. *Prunay I*, pls. 11, 6; 111, 12; *Prunay II*, pl. 111, 4.

Type X. The combination of the Gaulish disk-threaded type VIII with flat reeded bow and tubular spring-cover of type XII (p. 317) produced the so-called 'thistle'-brooch (Collingwood group W, 89-90).

In the simple *Class A* there is either (i) a separate disk threaded on at the angle between humped bow and flat foot (69), or else (ii) the whole is in one piece with a disk-like plate at the point, cast solid with the rest (68).

(i) The former is exemplified at Mt. Beuvray (St. Germain Mus.: the 'disk' actually a diamond, looking like that of no. 72), but lived on through the half-century A.D. 1-50 (see Wheeler, *London in R. Times*, 90, on figs. 24-5, from that city, regarded as early Claudian); there are others from Woodbridge, Suffolk (B.M.), and from Silchester (Reading Mus.), and pre-conquest importation is not impossible.

Pl. xciii, 69. Damaged and corroded: rosette on disk (as in Class B) almost vanished. Foot scarcely fan-tailed. Cf. *Prunay I*, pl. 11, 9. Clay-pit III (not pre-Claudian).

77. Similar example with pierced catch-plate and engraved cylinder. Over the period I site L2.

(ii) The earliest dated solid-cast specimen, at Haltern, is late Augustan (*Haltern*, 337, no. 6: taf. xxiv, 3); only one was found at Neuss (*Novaesium*, 388, taf. xxiv, 3), and the Claudian grave 37 at Nijmegen contained a distinctly more evolved example together with two of type XI (Vermeulen, *Nijmegen*, 131, 163-5: pl. xiv). This form is then Augusto-Tiberian, and as one of our specimens comes from a period I deposit it must be reckoned among pre-conquest imports. Another such was found at Silchester (Reading Mus.), another at Faversham (B.M.).

68. Foot and spring-cover imperfect; groove and wavy-line ornament on bow, foot, and ends of spring-cover: irregular engraving on disk. Pit D14 (with no. 78 and one each of types III and XII: certainly period I). Fragments of another among period IV rubbish in pit F10.

Class B is more elaborate. There is a big tubular spring-cover, contracting slightly towards closed ends and usually engraved, and the bow, short and humped into a semicircle, descends on to a large disk or rhomboid plate. This plate carries a showy ornamental rosette, cut in openwork from sheet bronze and pressed into relief. The foot, slightly fan-tailed, flat, and reeded (often to match the bow), projects below the plate: in the type (i) of our 70, 71, fully described by Viollier (*Anz. f. Schw. Alt.* n.f. xvii, 103-5), it is continued right across its under surface, but foot, plate, and bow are united as a single casting. Typologically later specimens (ii) like 72 and 74, never so large, are cast in one with foot merging straight into the plate; 73 is similar save that the bow and head form a separate casting riveted on to the plate. Nos. 75-6 represent a variant (iii) in which the bow is a curved bar moulded in relief, to which rosetted plate and separate cast foot are united by a single rivet, square-headed beneath. In (i) and sometimes (ii) a short stout bolt, with moulded end-knobs, is inserted under the bow to hold it out, loosely secured by an iron wire

spring (70, 71; but often missing: rarely (Bonn and Trier museums) more than one). Alternate grooves on the reeded bow and foot may be filled with red (?) enamel. Catch-plates are long and usually pierced (but cf. 76).

The Gaulish maker often signed his name, generally on the side of the catch-plate, to the larger masterpieces of type (i): see *B. J.* xcv, 81 ff.; *C.J.L.* xiii, 10027, 111, 129, 132, and perhaps 125, 130, &c. (all from Rhine or Moselle districts except 127 = *B.M. Cat. Bronzes* 2089, figs. 38-9, ? Lyon). As a whole (i) is dated in grave-groups from Augustus to Claudius, e.g. at Trier (pairs, St. Matthias cemetery), Andernach (pair, e.g. in grave 2: *B. J.* lxxxvi, 160, taf. iv, 11), Bechingen (*Saar* iii, taf. xiv, 12d), Lebach (*ibid.*, taf. 973, g; taf. 11, 88e, 93h; one stamped ROVII(?), *M.Z.* xxvii, 85, abb. 9). At Autun and Vertault 70, 71 are paralleled, and also 72, 74. Type (ii) likewise occurs as early as Augustus in a coin-dated grave at Urmitz (like 74: Bonn Mus.), while pairs in graves at Trier (St. Matthias) are dated 'mid first century A.D.' (cf. *Birkenfeld*, taf. xvi, 1, 3-5).

The moulded bow of (iii) seems derived from one of lion form represented at Alesia (Almgren, *Montelius*, 244, fig. 3) and rather later at Minden am Sauer (*Trier. Jahresber.* vi, taf. iv, c, 8). The debased beast is still recognizable on 76 (two similar, one with circular plate, in Bonn Mus.; and at Vindonissa).

The dating Augustus-Claudius thus stands for the whole class B. In Britain none need be pre-conquest imports: those in the Santon hoard are dated c. A.D. 50 (*Proc. Camb. Ant. Soc.* xiii, 159-60 (figs. 9-10), 163), and the Hauxton Mill example (Fox, *Arch. Camb. Reg.* 91, pl. XIII, 1A, top) need be no earlier, with our butt-beaker form 119A (*ibid.* 1B); nor need that from Cold Kitchen Hill (*Devizes Mus. Cat.*, pl. XLIII, 8). The remainder are all from Claudian Roman sites: Richborough (B.M.), the Murston cemetery (B.M.), London (Wheeler, *London in R. Times*, fig. 24, 6), near St. Albans (*Arch. Journ.* vii, 399), and one of form (iii) from Lincoln (B.M., *R.B.G.* 52, fig. 66); also four from the Lexden grave 7 noted above, p. 13, n. 5 (Early Claudian): *Antiq. Journ.* xxii, 59-61, fig. 1, 1-4.

Our stratified examples are similarly not earlier than period III.

(i) 70, 71. One example from each of two splendid pairs, in C.M. (Joslin grave 9), found in a decayed casket, in what is now St. Clare Road (i.e. in same cemetery (cf. pl. 1) as the Lexden grave 7 just cited). This grave-group (May, *C.M. Cat.*, 255, and pl. LXXVI) must be of Claudian date. All four were enamelled red (?) in alternate grooves on bow and foot. In their size, radial engraving on spring-covers, perfect bolts beneath the bows, and elaborate rosettes, they are approached in this country only by the pair from the Lexden grave 7 near by: *Antiq. Journ.* xxii, 60, fig. 1, 1-2. Cf. *Kat. Bingen*, abb. 55, 16; abb. 75, 1, signed BIBI on catch-plate; another signed CON (Trier Mus.); others in Bonn Mus.; cf. also *Prunay I*, pl. II, 5; *Prunay II*, pl. III, 1, 3. A smaller example (2 $\frac{3}{8}$ in.), now lacking bolt and rosette, was found in Pope's Lane near the Union site in 1912 (C.M.).

(ii) 72. Imperfect, diamond-shaped plate, with engraved border. Area A, beside road II in period IV deposit.

73. Bow riveted to plate: solid cast, notched centre to rosette, finely hatched. Traces of red (?) enamel in grooves of bow. Pit C2 (period III?).

74. Complete; solid cast round centre to rosette, engraved. Site A4 (period VI).

The corroded head and disk of a specimen was found in the period III occupation-layer over ditch I in section 31, and a tail fragment over the period IV layer in section 32; a damaged example occurred on site F9 (periods III-IV). A corroded specimen in C.M. (Joslin Coll.) has a spring with semi-cylindrical cover and axial bar, plain bow, and disk only concentrically grooved.

(iii) 75. Plate damaged: moulded bow simplified from the form of 76. Foot perhaps once

enamelled. Period IV layer over ditch I in section 31. A small imperfect parallel from site F15 need be no earlier.

76. Bow of debased lion form (see above): foot perhaps once enamelled: peculiar, square solid catch-plate. Site A3 (period VI). Two similar from the Lexden grave 7 above cited: *Antiq. Journ.* xxii, 60, fig. 1, 3-4.

Class C has an almost triangular profile: the sharply curved bow is set high on a broad spring-cover; disk and foot slant downwards. But for the rosette, seldom present (78), the whole is cast in one. In the earlier variety (i) the upper edge of the disk touches the inside of the head: in (ii) it is solid-cast in union with it. Examples of (i) occurred at Mont Beuvray, and its pre-conquest importation into Britain is attested at Hurstbourne Tarrant tumulus, Hants (*Belgae*, 305, fig. 31, 1). Of (ii), absent from Mont Beuvray, there are specimens from Autun, and in Bonn Museum from the Rhineland; it was likewise a pre-conquest import into Britain, as our 78 shows, though it occurs also as late as period IV. It is present at Silchester (Reading Mus.) and Hod Hill (B.M.). 79 is a variant with hinge instead of spring.

78. Imperfect: tubular spring-cover engraved with three ridges corresponding to those of reeded bow. Remains of rosette on disk: reeded foot. Pit D14 (with no. 68 and one each of types III and XII: certainly period I).

Fragment of another stratified at edge of pit F3 (periods I-III).

79. Colchester, site uncertain (B.M.). Ridged bow and concentrically grooved disk like another in B.M. with locality (Ransom Coll., ? Beds. or Herts.). Spring-cover adapted as box for hinge instead of spring.

Plate xciv

Type XI, also classed as a 'thistle'-brooch (Collingwood group W, 91), is a simplification of type X with the bow suppressed, so that from head to foot the brooch is merely a flat 'thistle'—or keyhole-shaped plate. The applied rosette often remains, and may have a central boss of red enamel (80, 81), but it has often been lost. The pin frequently has a hinge instead of spring, but the tubular cover persists, now usually plain. The foot may still bear reeding (80) or an ornamental border (84): the catch-plate has a single perforation or (83) none. There are examples like our 81 (without enamel boss), 82, 83, and 84 at Autun, like 82 also at Vertault and at Vindonissa; one like 81 was found in the late Augustan grave 20 at Andernach (*B. J.* lxxxvi, 169, 220, taf. iv, 18), two others in an early grave at Urmitz (Bonn Mus.), and the 'early Tiberian' grave 9 at Nijmegen contained two hinged examples, one with diamond-shaped centre; cf. also *Birkenfeld*, taf. xvi, 2; (larger) *Prunay I*, pl. II, 4.

In Britain a Claudian date is established by those in the Santon (Downham) hoard (Fox, *Arch. Camb. Reg.* 106, 'simpler form'; one *ibid.*, pl. xviii, 8, with conical boss); the Cambridge Museum has two others from Haslingfield and Eriswell, the Guildhall two from London (*Guildhall Cat.* 25, 9-10). There are two in Colchester Museum (Joslin Coll.), one large, with no rosette but a median chevron-engraved groove: on our site no stratified examples are certainly earlier than period III.

Pl. xciv, 80. Pierced rosette with red enamel boss in centre, reeded fan-tail.

81. Rosette with red enamel centre. Period IV occupation floor over ditch I in section 32.

A damaged specimen, with central rivet for rosette, and hinged pin, came with no. 75 from the corresponding layer in section 31.

82. Engraved spring-cover: rosette lost.

83. Rosette lost: traces of its fixing-solder. Period III layer over ditch I S. of section 31.

84. Concentric dot, ring, and wavy-line pattern embossed direct on disk, similar margin on foot.

A damaged specimen was found N. of site A₁, another in clay-pit I, and two in clay-pit III (not pre-Claudian).

Plates xciv-xcv

Type XII has become familiar as the 'Langton Down' type since Dr. Wheeler's pioneer study in the ninth of these Reports (*Lydney*, pp. 70 ff.). With its distinctive flattened reeded bow and cylindrical or semi-cylindrical spring-cover, he ascribes it 'to that partial fertilization of native talent which accompanied the Roman settlement of Gallia Comata' in the period 50-1 B.C. This is certainly correct: to flatten the bow was a favourite treatment of the La Tène III brooch at that time, as in the development of the 'Nauheim' series (our type VII, p. 312), and the importance of the spring-cover as a kindred element of romanization has been pointed out by Morin-Jean (*Congr. préhist. France*, Tours, 1910, p. 807). But in virtually limiting the type's continental distribution to central and northern Gaul Dr. Wheeler overlooked many examples from the Moselle and the Rhineland, and the type's survival into Claudian times is no mere phase of 'décadence', such as he suspected in those from the British post-conquest sites of Pulborough and Lincoln. For there are no less than 50 specimens, whole and fragmentary, from Colchester, representing all the main forms of the type, and of those found stratified, while some are pre-conquest as at Lydney, most are of periods III and IV. Not only then did the type spread in the first century A.D. from Gaul to Germany, and reach south-eastern as much as mid-southern Britain by pre-conquest trade, but it came over in distinctly greater abundance with the Claudian armies. A British distribution-map can therefore only show the combined result of both these processes. Typologically, it seems hardly yet possible to distinguish earlier or later varieties: the 'weak' angular formation of the head of the bow, for instance, occurs not only at Pulborough and Lincoln but at Mont Beuvray and the native Breton oppidum of Tronoën. Of the three main distinguishable classes, A (86-9) is large, over 2 in. in length with cylindrical spring-cover, often engraved, and wide reeded bow (occasionally plain, e.g. 87), flat but not always straight: a downward bend between head and foot (e.g. 86) can scarcely be consistently accidental. The long, narrow catch-plate, with its ornamental piercings, is a La Tène feature which cannot be late; indeed this class may well be taken as the boldest and earliest in typology, and in seniority as at least the equal of the others. The bow-head may be either convex-curved (86, 87) or angular (89). Class B (92-104) is that of the Langton Down and Lydney specimens: it is smaller, the spring-cover cylindrical or (97-9, 104) semi-cylindrical, the bow-head usually convex, sometimes (97-103) angular, the bow straight and usually (cf. 97) reeded, the catch-plate rather short and with only one triangular piercing. Class C has the same head and foot, but a bow narrower and with low flanking bevels, curved to approximate to the 'dolphin' type IV. The spring-cover may bear a peculiar ornament in relief (106-7), and the catch-plate a low marginal rib. No. 106 is the example from the Tiberian grave 30 at Andernach (Wheeler's no. 25), now correctly drawn from the original in Bonn Museum.

The following are notes and additions to Dr. Wheeler's list:

France

1. Toulouse: A (2: cf. 92, 103); C (cf. 107). Toulouse Mus.
2. Autun (Saône-et-Loire): A (3: cf. 86-7, 89); B (8: cf. 92, 98-104); C (cf. 107). Autun Mus.
3. Mont Beuvray has in all at least 8, all B; cf. 97, 100 (2), 101, 103, 104 (3). Autun and St. Germain Mus.
4. Vertault has in all over a dozen: A (cf. 86-7, 89); B (cf. 89, 98-104); C (cf. 107). Châtillon-sur-Seine and St. Germain Mus.

5. Oppidum of Tronoën, St. Jean-Trolimon (Finistère); A (cf. 88), B. P. du Chatellier, *Les Époques préhist. dans le Finistère*, 324, pl. xvi, 1, 9.
6. St. Martin-du-Tilleul (Eure), C (cf. 106-7). St. Germain Mus.
7. Prunay I (gr. 36), B. *Prunay I*, pl. II, 8.

Germany

8. Trier: A (distinctive angular-headed series with flat decorated bow, doubtless local: cf. 88-9); C (one like 107, but larger, head plain; one like 108, but larger). Trier Mus.
9. Budenheim, nr. Trier: A (same local type: cf. 88-9). Trier Mus.
10. Maar, nr. Trier: A (same local type). Trier Mus.
11. Lebach (Saar): C (2 like 107, but plain head, in early graves). *Saar*, ii, taf. IX; 21; iv, taf. II, 1176.
12. Neuss: A (cf. 86). *Novaesium*, taf. xxiv, 59. Bonn Mus.
13. Bonn Museum: C (2 like 107, but larger, with maker's stamp).
14. Urmitz: B (one like 89, from early grave). Bonn Mus. 17850.
15. Bingen: B (cf. 89): C (cf. 107, 108, but larger and differing in detail). *Bingen*, 107, abb. 55, 6-7-8, 160, abb. 75, 1-2-3.
16. Birkenfeld; B (cf. 92). Incomplete. *Birkenfeld*, taf. xvi, 9.

Switzerland

17. Vindonissa: B (cf. 89, 100 but bow plain, 103). Windisch Mus.

Britain

18. Silchester: the seven examples include A (cf. 89) and B (cf. 89, 97, 102, 104). Reading Mus.
19. Woodcuts (Dorset): plain-bowed variant of B. *Woodcuts*, 44, pl. xi, 10.
20. Stanfordbury (Beds.): the second 'vault'-burial. *Arch.* lxiii, 9 ff. Fox, *Arch. Camb. Reg.* 99-100, 105.
21. Maldon (Essex). B: as no. 87 here; angular head, reeded bow, bent as in A; has traces of (?) gilding. C.M.
22. Colchester, Lexden, grave 7 (p. 13, n. 5), Early Claudian: B (three). *Antiq. Journ.* xxii, 59-61, fig. 1, 5-6.

The incidence of those from our site is as follows:

Period:	I	I-III	III	III-IV	IV	IV-VI
	3 (all B)	1 (C)	2 (B)	5 (A, 1; B, 4)	14 (A, 3; B, 10; C, 1)	2 (B)

Unstratified: 23. Total, 50.

Figured examples.

- A: Pl. xciv, 85. A most important brooch, which clearly represents the prototype of this Class. The spring is simple, bilateral, and the bow straight, very slightly convex longitudinally, with two marginal mouldings. The foot had one large piercing.
86. Groove-bordered spring-cover, bow reeded and knurled.
 87. Spring-cover with slanting, grooved ends, bow plain.
 88. Part of bow only, reeded, with zigzag-punched bands. Another, similar.
 89. Of the distinctive angular-headed Trier class (see list above): bow with knurled reeding between flutings. Pit F8 (period IV).

Fig. 59, 12. Another, very similar.

90. Smaller cylinder, grooved at ends.
- B. 91. Variant with reeded bow carried over spring-cover. Traced from coloured drawing in Wire's Album: apparently found by Ball in 1846 (pp. 21-2) at Sheepen.
92. Grooved spring-cover ends, moulding behind head.
93. Cylinder with rectangular engraving.
94. Similar: bow only reeded. Site Y1 (period I).
95. Engraved spring-cover, bow reeded and knurled. Region 5, over ditch I.
96. Grooved bordered spring-cover: bow reeded and knurled. Site Y1 (period I).
97. Plain bow (perhaps once with applied ornament).
98. Knurled moulding behind head. Site F16, in pit (periods III-IV).
99. Sharp head without moulding. Site A1 (period IV).
100. Spring-cover corroded, bow with edge-mouldings and broad central moulding partly flanked by others.
- Pl. xcv, 101. Transverse groove on spring-cover, bow with traces of red enamel in alternate reedings. Period IV occupation over ditch I, section 32.
102. Groove-ended spring-cover, moulding behind head. Pit C10 (periods III-IV).
103. Maldon, Essex (no. 21 in list above), figured to illustrate an imperfect example from region 3.
104. Corroded: sharp head, laterally bevelled bow with central moulding. Pit D1a (periods IV-VI).
105. Plain cylinder and narrow reeded bow.
- C. 106. Andernach, grave 30, figured for accurate comparison (see above, p. 317: Wheeler's no. 25).
107. Relief ornament on spring-cover plain, beaded moulding behind head, bow with lateral bevels, notched crest, and hatched grooves.
108. Tinned: plain, but with bow inlaid with double row of triangles in silver. Site A1 (period IV).
109. Grooved-bordered spring-cover, plain convex bow: unusually like B.
110. Sharp head, bow with central groove only.
111. Variant with moulded bow in style resembling type IV.
Another very corroded example.

Variant

112. A heavy brooch with deep, end-moulded, semi-cylindrical spring-cover, big head-moulding, and thick, convex bow with broad edge-mouldings and punched chequer decoration. The foot ends in a (corroded) knob; the massive, cast catch-plate has seven large punch-marks near the bow on one side, and three still larger near the catch on the other. Clay-pit III (not pre-Claudian).

Type XIII is a rare relative of the foregoing, with the upper part of the bow divided by a moulding from the broad, flat foot. Of Class A, with flat bow-head, a fragment was found on site A1 (period IV) and the following complete example:

- Pl. xcv, 113. Corroded: cylindrical spring-cover with traces of ornament in relief, broad bow-head divided by moulded waist from foot (both had grooved margins). Site A3 (period VI).
114. Grave 1 at Andernach (*B. J.* lxxxvi, 155, taf. v, 4), here more correctly drawn from the original at Bonn. Only recently found in Britain, in Lexden grave 7 (see Type XII list above, no. 22): *Antiq. Journ.* xxii, 60, fig. 1, 7. This forms the link with the next type.

Type XIV. This is smaller, also with moulded waist, but has a triangular foot. A class A with straight head occurs at Mont Beuvray, Wiesbaden, Harmignies (Brussels Mus.), and Nijmegen, but our specimen (115) belongs to the trumpet-headed class B. Similar examples of this type were found with other early brooches (types IX, XII_B, XVI) in graves at Bosenheim, Rheinessen, dated c. A.D. 50 (Behrens, *Wangionen*, 9–10, abb. 11, 1–2, abb. 13), another in the Lebach cemetery (*Saar*, iv, taf. III, 116h), another at Neuss (*Novaesium*, taf. xxiv, 61); see also *Bingen*, 257, abb. 132, 4 (cf. abb. 75, 4), Wiesbaden Mus., Bonn Mus. (2), Nijmegen (Kam Mus.). It is thus mainly a Rhineland type, though there is an example from Vertault and also Autun. As an import to Britain it may be considered Claudian; one was found at Silchester (Reading Mus.).

115. Fragmentary, tinned: spring-cover has been cylindrical; slender 'trumpet' bow-head, double waist-moulding, triangular foot missing. Site A₁ (period IV).

Variant

116. Fragment with cylindrical spring-cover and flat expanding bow, now broken across small central perforation.

Type XV may stand as the intermediate forerunner of the whole 'P-shaped' family of brooches (Collingwood group T). It is really a La Tène III form, with more or less round bow bent to a semicircle and divided, by a slight moulding reminiscent of La Tène II foot-attachment, from a long sharply returned foot, flattened above and tapering to a terminal knob. Its emergence from the regular La Tène III series may be illustrated by the examples from the hoard found at Pymont, near the middle Weser (Frischbier, 'Germanische Fibeln', *Mannusbibl.* xxviii (1922), taf. XII–XIV, nos. 18–25; cf. also 1, 3–5), but the earliest known example, as being probably before 50 B.C., should be the incomplete Aylesford brooch, *Arch.* lii, pt. 2, 380–1, fig. 17, with four-turn spring and internal chord. This doubtless came from Belgic Gaul, but though one like our no. 118 was found at Vertault, the ensuing development is mainly Germanic. The Pymont series is of Augustan age. Haltern produced four imperfect specimens, and at Nijmegen there were two others in the Tiberian grave 16, and one in the probably Claudian grave 25 (Vermeulen, *Nijmegen*, 129, 151–2, 156, 246). Here the spring is external, held by a knobbed hook, and the bow is decorated. The series ends in Claudian times with weak examples lacking the bow-angle moulding like our no. 119, of which there was just one at Hofheim (*Hofheim*, taf. VIII, 91) and another in grave 12 at Swarling (*Swarling*, 42, pl. XII, 5; cf. the flat-bowed fragment, pl. XII, 6, with good knobbed hook). The knobless no. 117 has a notch-ended catch-plate (as in some Claudian 'Nauheim' varieties), matched at Neuss (*Novaesium*, 393, taf. xxiv, 40), Mainz legionary fortress (*M.Z.* vii, 105, abb. 5, 24, 35), and the Main bridge (*Hanau*, taf. 20, A 329 b).

Pl. xcvi, 117. Imperfect: apparently no hook, no knob, notch-ended catch-plate. C.M., probably old find from Sheepen area.

118. Spring of six turns under side-wings, bow with slightly sunk median band, cross-hatched, solid catch-plate. Sheepen Road, found 1905.

119. Imperfect; corroded: flat head almost suggests a hinge as in type XVII. Two similar fragmentary bows, one in pit D₂ (periods IV–VI).

Plate xcvi

Type XVI, the 'eye' brooch (*Augenfibel*), is rare in Britain, being a distinctively German type (see Schutz in *Germania*, x, 110–12 with bibliography). The bow is short and humped, broad and slightly convex, or bevelled, and through a simple transverse moulding passes into the long, slightly splayed foot to form what is an S-curve rather than a true P-shape. The spring has 6–12 turns, often below lateral knobs or side-wings, with external chord held by a broad hook, and the type first attested under Augustus is obviously a direct La Tène III derivative. It gets its name from the pair of distinctive 'eyes' slit, hollowed, or pierced in the head. It was the common type II

at Hofheim, and Ritterling, following Almgren, has recognized four sub-groups (*Hofheim*, 120 ff.); we would distinguish five: the earliest A, normally pre-Claudian (his no. 92), with slit eyes and 6-turn spring; the next, B (rest of his group IIa), with round, hollowed or pierced eyes, 8-10 spring-turns, and decorative detail; C (his IIb) with smallish pierced eyes surrounded by engraved or stamped circles, side-wings seldom knobbed, small hook, and usually beaded on bow and engraved lines on foot; D (his IIc), with small stamped hollow eyes (often vague), side-wings and bow-moulding often weak, ornament as in C; and E (his IId) with no eyes at all, rudimentary side-wings, 6-turn spring, tiny hook, shrunken bow-moulding, bow often plain, and engraved foot ending square. E had become the commonest form by Claudian times, which it did not outlive (40 exx. at Hofheim, against 5 of D, 8 of C, 5 of B, 1 of A), and save for a fine stray specimen of C from Northumberland (*B.M.: R.B. Guide*, fig. 65) D and E alone are represented in Britain, always on Roman sites: in London, D has occurred thrice (Guildhall Mus., *Cat.* no. 23 and 1932.337: Wheeler, *London in R. Times*, fig. 26, 10), E once (*ibid.*, fig. 26, 11), once at Cambridge (*B.M.*) and once at the Harlow temple (*Antiq. Journ.* viii, 309, fig. 4, 2).

Our examples should all be Claudian.

E. Pl. xcvi, 120. Typical form, band on bow knurled. Site A1 (period IV).

121. Similar, but slighter. Site A1 (period IV).

122. Similar, corroded.

D. 123. Stamped concentric circles for eyes: corroded bow with usual lines on foot. Pit A7 (period IV).

124. Hollowed eyes partly beneath broad hook, 12-turn spring, bow and foot bevelled but plain. Site A1 (period IV).

Plates xcvi-xcvii

Type XVII. The well-known 'Aucissa' type, so called from the maker's name sometimes found inscribed across the head, has long been recognized as datable broadly speaking from Augustus to Nero. Since Haverfield assembled the evidence in 1903-5 (*Arch. Journ.* lx, 236 ff.; lxii, 265) the increased number of dated finds has only confirmed this position, though it is still no easier to be sure where and how it first appeared. The bow tends to be broad and flat, with decorative moulding along it, and is arched to a semicircle; the head, broader, is quite flat and squared, with transverse mouldings (often decorated), frequently a pair of lateral notches, and sometimes stamped 'eyes'. The pin is always hinged, on an axis, often of iron, held in the folded-over end of the head, with small iron or bronze end-knobs (126, 129; but usually missing). The short foot, returned sharply from the bow, with or without a transverse junction-moulding, tapers to end in a bold ornamental knob. The arched semicircular bow is that of our La Tène III type XV, altered by the flattening which we have already noticed under types VII and XII (pp. 312, 317) as popular in Gaul in the first century B.C. But the knobbed foot is distinctive; the hinge makes the sharpest possible break with La Tène tradition; and Haverfield (*Arch. Journ.* lx, 246) was not convinced that the type was necessarily Gaulish. The Italian origin suggested by (e.g.) Tischler remains unproved, but the knobbed foot inevitably recalls the old fifth-century Certosa form, and Haverfield's fig. 10 from Chiusi has this along with the flat, arched bow of the Alesia brooches claimed by Almgren (*Montelius*, 242-3, fig. 1) as 'Aucissa' prototypes. Further, there are round-bowed knob-footed brooches at Ensérune in Southern Gaul, and from Drusus' fort of 13 B.C. at Urmitz on the Rhine, whose Certosa-like profile might bring them also into the story. In any case, this is a type established by innovation more than by evolution in the Gaulish provinces. There are early examples from Mont Beuvray and Vertault, one was found with coarse La Tène III pottery at Amiens (*Bull. Soc. ant. Picardie*, 1915, 2-3), and many on early Roman sites such as Nîmes, Ensérune, Narbonne, Toulouse, Autun, Reims, Prunay (*Prunay I*, pl. II, 11); they are quite common on the Rhine, and e.g. at Vindonissa. They are also imported into inner Germany, and Schulz

(*Germania* x, 110–12) has argued that the Germanic 'eye' brooch (our type XVI) was influenced by their lateral head-notches: these are indeed 'eye'-like on early examples, and actual stamped 'eyes' (our 128, 137) are likewise apt to be early, occurring e.g. at Haltern but not at Hofheim. Here Ritterling recognized two classes (*Hofheim* 126–7, Va and b): a has a broad, flat bow, with beaded or notched longitudinal mouldings or flutings, usually with raised edges, b a narrower bow, nearly always boldly ridged down the middle. There is an example of each from Augustan Oberaden (Dortmund Mus.): a occurs at Haltern often with 'eyes', and there are 19 at Hofheim, none inscribed (*Haltern*, 335–6; *Hofheim*, 126); also 2 at Neuss (*Novaesium*, 391, (b), taf. xxiv, 20), and 2 with a coin of Augustus in grave 15 at Andernach (*B. J.* lxxxvi, 167, taf. v, 39), but in Germany b is the commoner. It is frequent at Haltern (loc. cit.), sometimes in iron: Andernach grave 8 had one with Tiberian pottery (*B. J.* lxxxvi, 163, 220, taf. iv, 4), there were 18 at Neuss (loc. cit., taf. xxiv, 19, 21) and several at Vetera (Bonn Mus.) and Mainz legionary fortress (*M. Z.* viii/xi, 67, abb. 1, 4, 6; cf. one like our 133 from Dautenheim, *ibid.* xvii/xix, 98, abb. 9, 1–1a).

To Britain it seems the type came first at the conquest, and most of the examples are from Roman sites occupied under Claudius and Nero: Richborough, with coin of Claudius (b: *Richborough III*, 76, pl. viii, 1); London (a, inscribed: Wheeler, *London in R. Times*, 90–2, fig. 25; in B.M. two (b) and three in iron, two from bed of Walbrook); Verulamium (b: *Verulamium*, 205–6, fig. 43, 12, 13); Lincoln (b: Lincoln Mus. and B.M.); Silchester (b: 5 in Reading Mus.); Hod Hill (7, a and b: B.M.); *Maiden Castle*, 262, fig. 85, 31 (b, inscribed); Cirencester; Alchester (*Antiq. Journ.* xii, 64, pl. xii, 8 d). The Rotherley 'village' had two (b: *Rotherley*, pl. c, 2, 8; cf. variants, pl. xcix, 10–11), and B.M. has one from Lancing (a) and from Sutton Courtenay (b). The Flavian specimen from Wroxeter is certainly a survival (*Wroxeter 1912*, 24–6, fig. 9, 5; cf. *Richborough III*, 76), as is doubtless that from Aldborough (*Arch. Journ.* lx, 243), but one with red enamel foot-knob from the native Yorkshire site of Thornton-le-Dale (*Yorks. Arch. Journ.* xxx, 2, 166, fig. 3, 5–5A) should be pre-Flavian like the rest. Of the 32 from Colchester, all uninscribed, 3 without precise locality are in B.M. (one a, two b), and the rest come from our site: all those stratified are of periods III–IV save 133 and 137 of period II.

Pl. xcvi, 125. Bow-margins reeded triply and knurled: knob missing. Pit C10 (periods III–IV).

Fragment of another from ditch A3 (period IV?).

126. Bow fluting flanked by zigzag lines between knurled ridges. Site A1 (period IV).

127. Bow-margins with zigzag ornament.

Another, corroded, has zigzag down the central fluting and the margins plain.

128. Head with oblique engraved design and two stamped 'eyes'; bow raised between two flutings, marginal mouldings knurled. Ditch II in section 68 (period V).

129. Bow-margins and median ridge knurled. Ditch Ib filling just below period IV gravel layer in section 76 (period III).

130. Similar: head corroded, knob missing. Site C4 (period IV?).

131. Similar, but no head-notches: corroded. Pit Z9 (period VI).

132. Corroded, but bow seems plain, with double fluting.

133. Half of elegant slender brooch, with narrow head and fluted bow; punch-dotted marginal ridges. Low in ditch Ib filling in section 75 (period II).

134. Narrow ribbed bow: head corroded. Pit Y23 (periods III–IV).

135. Four small stamped 'eyes' and row of punch-dots on head: bow surface corroded.

136. Corroded fragment with well notched head. Sheepen Road, found 1905.

Pl. xcvi, 137. Corroded and fragmentary, but pair of stamped 'eyes' on head. Ditch Ib filling in section 80 (period II).

138. Bow-ribbed, with knurled median ridge, head with faintly hatched margin.

Imperfect specimens occurred in region 3 (five: one on site A₁ (period IV), one in the period IV layer over ditch I in section 32) and in region 5 (two: one in the period VI, pit Z₄).

139. A particularly fine and elaborate specimen of heavy bronze. The bow broad and flat, fluted and knurled, bearing nine small knobs riveted upon it. The back edge of the catch-plate has a triangular plate cast on it at right angles. Pit K₁₄ (period III).

Another, very small (under 1½ in.) and very corroded (too much so to illustrate), had bow divided longitudinally into three, with two very small iron crossbars passing through the central rib to unite them (or to carry knobs; cf. note on 159 below).

Another, very small (1⅓ in.) and equally corroded, had head very small, quite plain and with one round central hole.

Plates xcviI-xcviII

Type XVIII. The class of hinged brooches usually called the 'Hod Hill' type (Collingwood group P) is varied and numerous; and must be closely connected with the Aucissa type. They have the same flat head and hinged pin on a normally iron axis with knobbed ends, the same triangular catch-plate, often with one or more round perforations, and as a rule also a terminal knob. The bow, too, is related, but much less arched, and varied with many kinds of moulding or ornament. The majority are, or were, silvered, or more often tinned in imitation of silver. The type has been discussed by Radford (*Richborough III*, 76-7); it is Roman and seems to have had a life of about half a century lasting to the end of Nero's reign, with occasional survivals, normally early Flavian. At Hofheim it is Ritterling's type VI (*Hofheim*, 127-30, pl. x, 226-51), subdivided by him according to the ornamental bow forms. A shorter classification will suffice here. The type is foreshadowed in spring brooches from Mont Beuvray (*Déchelette, Mt. Beuvray*, pl. xxiii, 8) and Nauheim (Quilling, *Nauheimer Funde*, 101, no. 16). The simplest group, class A, well shows the affinity with the Aucissa type, to which more strongly arched variants stand still closer: e.g. from Hod Hill (2, B.M.) and Verulamium (*Verulamium*, 205-6, fig. 43, 14-16); the normal bow is weakly curved, thin and flat, with edges parallel or nearly so, and decorated with longitudinal ridges and flutings, often knurled. The best (141) have below it a cross-moulding, below which a flat, often plain foot tapers to a terminal moulding or knob. This class is scarcely post-Claudian as a rule, despite some later strays, e.g. at Heddernheim (Frankfurt Mus.: cf. *O.R.L. Zugmantel* 70). A parallel to our 140, 141 comes from grave 6 at Weisenau, dated by coins of Caligula: also grave 37a (*M.Z.* xx/xxi, 65, abb. 2; vii/ix, 37 ff.; cf. *Hanau*, taf. 20A, 32b, from the Main Bridge). Brooches like 141 are common at Trier (and cf. *Saar*, iv, taf. v, 1251, from early grave at Lebach; one from Neuss, *Novaesium*, taf. xxiv, 36). In Gaul it seems rare (e.g. Autun, one). In Britain, where Hod Hill itself produced a number (B.M.), Radford's list (loc. cit.) may be augmented by specimens of this class from London (*Guildhall Cat.*, pl. xxiv, 14-15, and two in B.M., one (not tinned) with elliptical foot, from bed of Walbrook); Alchester (*Antiq. Journ.* xiii, pl. xvii, 8a); Verulamium (*Verulamium*, 205-6, fig. 43, 10-11); Lincoln (B.M., rather like our 142); Cold Kitchen Hill (*Wilts. Arch. Mag.* xliiii, 328, pl. III, c.); and Kingsdown Camp (*Arch.* lxxx, 83, fig. 5, E15, E23). From Colchester there is one in B.M. and these three from our site.

Pl. xcviI, 140. Slender, rather weak, no transverse moulding. Site A₄ (period VI).

141. Bold cross-moulding with notched zigzag. Over site A₄.

142. Bow with two bold knurled ridges, grooved foot-margins.

Class B may comprise the many varieties, usually heavily cast, with broad, often short bow decorated with longitudinal or, less often (152), transverse mouldings, the sides, if not parallel, slanting inwards (143-6) or outwards (151-7) towards the foot, and embellished with one or more pairs of projecting knobs. The cross-moulding below is usually multiple, and may be extended all

down the foot (145-8, 151, 156). Since Radford's list, examples have been found at Verulamium, some, as at Richborough (loc. cit.) in Claudian or Neronian deposits (*Verulamium*, 204-6, fig. 43, 4-9); at Kingsdown Camp (cf. our 156: *Arch.* lxxx, 83, fig. 5, E21); Margidunum (*Marg.*, pl. xii); and in London in the Walbrook bed (B.M., not tinned, 4 knobs): others in B.M. come from Stowting, Kent (several), Great Chesterford, and Lincoln (like our 162, but with diamond-shaped centre). For other London examples, see *Guildhall Cat.*, pl. xxiv, 20; Wheeler, *London in R. Times*, fig. 26, 14; two others in B.M. The importation seems to have been mainly from the Trier region, where all varieties are very common (Trier Mus.), some dated before A.D. 50, e.g. *Trierer Jahresberichte*, iii, 21, taf. iv, 1; vi, taf. v, 3, u; another early dating for one like our 148, 149, 152 comes from Nijmegen (Vermeulen, *Nijmegen*, 131, 9a, 'early Tiberian'), and for one completing our 153 see *Bingen*, 163, abb. 77, 5. In Gaul they are rarer, but there are six from Autun and one like our 146 from Vertault.

From Colchester there are four in B.M.: one transversely moulded, one rather like 145, one like 154 but nielloed (*Arch.* xxxiv, 508), and one with parallel sides and well-moulded knobs and foot which comes from Wire's collection, and so probably from our site: pp. 21, 22, n. 1.

The excavations have produced 26: of the fragmentary specimens not figured three are from period IV deposits, and the stratified pieces illustrated cover periods III-IV. The normal British dating, Claudius-Nero, is thus confirmed.

- B. 143. Big transverse moulding recalling the disk of type IX: pointed toe also similar.
144. Curious example, tinned, deep groove down bow, two knurled mouldings and line of punch-marks on foot.
145. Foot broken. Clay-pit I (periods III-IV ?), high level.
146. Imperfect: numerous shallow cross-mouldings with wavy-line ornament: foot-knob missing.
147. Bow broad, knobbed, short: cross-moulded foot. Traces of foot-knob.
148. Head imperfect, cross-moulded foot. Site A4 (period VI).
149. Very corroded: short ridge-moulded bow (cf. 147). Site A1 (period IV).
150. Corroded, rather narrow bow. Site F18 (periods I-III).
151. Fine specimen, with knobbed, iron spring-axis preserved: well moulded, knobbed bow and elaborately shaped foot. Pit B9 (period IV).
152. Corroded: shallow mouldings all transverse, long arms for knobs.
153. Fragment only: see on Bingen specimen above. Site F15, high level (probably period III or IV).
154. Large fragment with raised zigzag between double grooves along bow. Site A1 (period IV).
155. Knurled bow ridges and abnormally expanding flat foot.
156. Similar but well preserved: outer bow-ridge knurled, central fluting marginally hatched.
157. Simpler form, somewhat damaged.

In class C the bow is left narrow, straight, and often plain between separated cross-mouldings: these brooches are small and seem degenerate in their lack of ornament and unpierced catch-plate. Though they may descend into Flavian times, there are Claudian examples: e.g. *Richborough III*, 76, pl. VIII, 4 (bottom of Claudian ditch); Fox, *Arch. Cambr. Reg.* 106-7, pl. xviii, 7, from the Santon (Downham) hoard (c. A.D. 50); thus Wheeler, *London in R. Times*, fig. 26, 16, need not be so much later (cf. *London Guildhall Cat.*, pl. xxiv, 12; Kingsdown Camp, *Arch.* lxxx, 83, fig. 5, E38; one like our specimen Silchester (Reading Mus.) and another at Toulouse).

Pl. xcvi, 161. As described: bevelled foot with weak knob. Site A4 (period VI).

162. Very corroded. Circular centre on bow, with raised boss and lateral knobs. Bow longitudinally ridged at head, transversely below. Foot knobbed, with solid catch-plate.

Class D is simply a variant of B with openwork side-wings usually bearing knobs. The dating is the same as for B: e.g. *Richborough III*, 76 (cf. 171, pl. VIII, 3). One like our specimen from East Farleigh, Kent, is reported in Wright, *Uriconium*, 281; one with curved bars to the side-wings from Hod Hill is figured (with two of Class B) in B.M., *R.B. Guide*, 52, fig. 56, and another similar in B.M. comes from Colchester.

158. Ridged bow, between transverse mouldings, two ridges knurled. Open, triangular wings, knobbed. Pit A12 (period IV).
 159. Enormous example, with broad bow, the centre inlaid with niello, the sides ridged and knurled. Wings open, rounded, with large knobs. While this was in the press, Mr. L. H. Rawson has shown us another example nearly as large, found at Upchurch, Kent. It has had four iron (?) pins through the foot, ending in bronze knobs; ours has had the same (and cf. 139 above).
 160. Corroded: side-wings and foot-knob broken off. Period IV layer over ditch Ib, section

74.

Fig. 59, 13. Similar to no. 158, but with rounded, open wings and broader foot; solid catch-plate.

An unusual example, heavily tinned, has a plain tapering bow, with only two transverse mouldings at head.

PLATE BROOCHES

In view of the frequency of plate brooches in Roman Britain from about the beginning of the second century onwards, when polychrome enamelling came prominently into fashion, it is well to recall the fact of their use throughout the first century. They are probably even pre-Augustan in origin, as one from Alesia suggests (Almgren, *Montelius*, 242, fig. 2). The forms vary, and a selection of the 25 found on our site will illustrate their range, at dates from periods III to VI.

163. Hinged pin: ornamental disk with central socket, prolonged in openwork to foot: tinned.
 164. Similar, simpler, corroded: central boss with sunk surround, perhaps for enamel: tinned or silvered. Low in ditch II in region 5 (period V).
 165. Hinged pin: flat plate, rhomboidal with incurved sides, the corner knobs double at head and foot, with dividing grooves; circular, notched moulding surrounds a central cup filled with enamel, now stained green, doubtless once red. Pit A12 (period IV). Two others, from sites A3 and A4 (period VI). Exactly parallel to *Bingen*, 163, abb. 77, 13, tinned; one from Mainz legionary fortress may have been gilt (*M.Z.* vi, 105, abb. 24, 16); another from the ditch of Wor Barrow, Handley Down, is silvered (Pitt-Rivers, *Excavations*, iv, 89, pl. CCLVIII, 14). Others at Vindonissa and Autun; cf. also *Hofheim*, taf. x, 261.
 166. Hinged: flat oval, with fan-tail, faced in white metal with flat bronze plate set in from behind; ornament of two moulded circles, formerly with appliqué centres and beaded surrounds, and moulded margins. Pit A12 (period IV).

One of similar shape was found at Vertault.

167. Cruciform with openwork design: tinned. Site D1 (periods IV-VI).
 168. Remains of flat brooch like a buckle of constricted H-shape: tinned. Pit D2 (period IV).
 169. Hinged: knobbed cruciform plate, narrow foot broken: tinned. Pit D1 (period IV).
 170. Hinged, pelta-shape brooch, with double-knobbed points, flat end-knobs, pair of lunate openings, and ornamental boss: tinned. Region 3, periods III-IV deposit W. of W. entrance.
 171. Similar, simpler. Over the period VI site A3. Cf. two without openings at Autun. These connect later polychrome-enamelled versions like Wheeler, *London in R. Times*, fig. 29, 23-5, with the following earlier form.

172. Hinged, crescent-shape brooch, imperfect, with ornamental end-knobs and sunk disk for enamel. Site A₄, period IV–VI (p. 85).
 173. Half of another, with different knobs and boss. Site A₁ (period IV). Other fragments from site A₁, *ibid.* in ditch of road II, and pit Y₃₁: all period IV.

The form occurs in a grave at Weisenau with early pottery, &c., and coins of Augustus and Tiberius (*M.Z.* xxii, 50, abb. 5, 6); again at Hofheim, tinned (*Hofheim*, pl. x, 262); at Köln (Wallraf–Richartz Mus.) with red enamel in sunk disk; at Trier (two, Trier Mus.), and at Vindonissa (like 172; Hauser, *Vindonissa*, taf. XXI, top r.: *Kat. Samml. d. ant. Ges. Zürich*, ii, taf. 92s, 98g).

174. Fragmentary, moulded disk-brooch with central stud holding paste ornament: simple hinged pin. Site A₁, revetment post-holes (period IV).
 175. Part of another with central stud-hole. Pit F₇ (period IV).
 Another has clawed setting for central stone or paste. Another, damaged.
 176. Flat wheel-shaped plate with projecting nave, bold marginal ribs.
 177. Hinged pin: flat wheel-shaped plate with central knob in stamped disk. Ditch I upper filling in region 5 (period III).
 178. Remains of a flat disk-brooch with concentric grooving or fluting, and with seven holes in the middle.
 179. Disk-brooch, large and flat, with six small flat lugs. Marginal groove and moulded and beaded recess in centre, which possibly once held a stone. Pit K₁₄ (period III).
 180. Hinged, tinned brooch in form of dove. Over site A₃. Cf. one from Nassenfels, *VII Ber. Röm.-Germ. Komm.* 42; a fan-tailed example was found at Hod Hill (B.M.).
 181. Hinged, with nearly square catch-plate: body half-way between plate and bow form, with broad triangular foot, constricted middle, with flat moulding, and knob head with pair of impressed 'eyes' and side-wings: tinned.
 182. Flat, rhomboidal brooch, one corner curled back to form hinge for pin. The flat surface probably had an ornamental overlay. Over the period IV pit L₄.

PENANNULAR BROOCHES (*Fig. 59*)

The long life of the penannular brooch in Roman Britain gives interest to the examples dated on our site to the middle of the first century. For pre-Roman forms see Gray in *Glast. L.-V*, i, 203–8; Cunnington, *All Cannings Cross*, 116; Wheeler, *Maiden Castle*, 264–5.

Class A. The ends of the ring are turned upwards and rolled back on themselves. This was facilitated by flattening them slightly (183), or more definitely into ribbon form (184–7). The ring is round in section (183–4), flattened (185), or angular (187). The class is not only early Roman (B.M., *R.B. Guide*, 56, fig. 64*b*) but pre-Roman in Britain, e.g. two from Prae Wood (*Verulamium*, 176, fig. 24, 3–4), and chance alone has deprived us of dated period I examples. Abroad it seems rare (e.g. only two in Trier Mus.).

Fig. 59, 1. Area C (S).

2. Very small. Area A.
3. Flat ring grooved on face. Pit A₁₂ (period IV).
4. Large, flat, grooved on face. T.H. 7.
5. Ring of square section, ribbon ends tightly rolled. Area C (S).

One like 1 was found at the bottom of ditch Ia at its termination in area W, thus probably of period II.

Three examples occurred unstratified, and one in the undated pit Y₁₇; there are five others of unspecified local provenance in C.M.

A specimen (ring only: bent) with terminals rolled back spirally, though not themselves

flattened, came from ditch III upper filling in section 81 (period III). This form leads logically to the next class.

Class B. Here the terminals, in form simply folded over, are in fact cast in this position along with the ring: they are seldom left plain, but show the marks of a clinching-tool which are gradually turned into a purely decorative convention (Wheeler, *Lydney*, 79, fig. 14, 28-38). This process had already advanced far by Flavian times (e.g. *Wroxeter 1914*, 26, pl. xvi, 14) and is in fact well represented earlier at Hod Hill (B.M.) and in two unpublished specimens from the Polden Hill hoard (B.M.). A related brooch altered into a finger-ring was found at Margidunum on the skeleton of a probable victim of the Boudiccan rebellion (*P.S.A. Scot.* lxx, 125-7, fig. 3, 9).

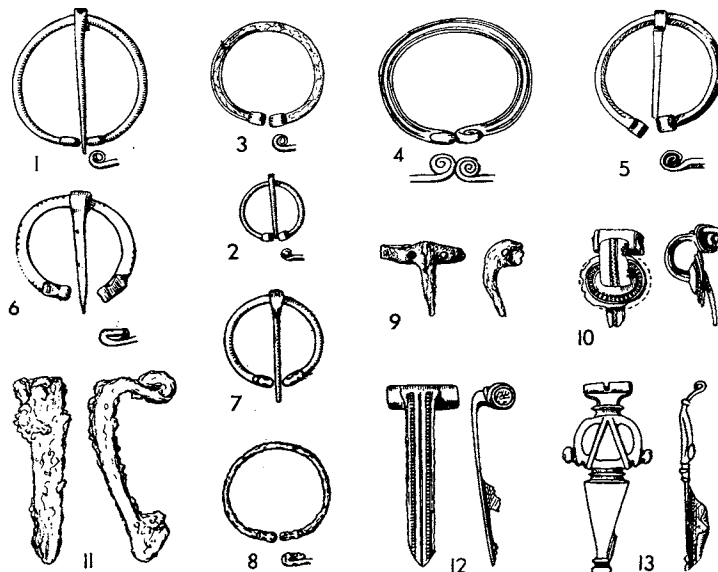


FIG. 59. Penannular and other bronze brooches. Scale $\frac{1}{2}$.
9, type IIIa; 10, type VIII; 11, type VII; 12, type XII;
13, type XVIII.

Our examples are thus normal for the period Claudius-Nero. The flat-bowed no. 6 actually occurred in a period I deposit, nearly at the bottom of pit D9; though there are no other certain pre-conquest specimens, one very like it recently published (*ibid.* fig. 3, 10) comes from Hauxton, Cambs., where there was a native Iron Age settlement (Fox, *Arch. Cambr. Reg.* 111).

6. Flat bow with notched edges, double-folded terminals, notched and bevelled so as to suggest zoomorphic form. Pit D9 at 5 ft. 6 in. (period I).
7. Ring of round section, terminals moulded in form developed from preceding. Pit G7 (period IV).
8. Similar example, corroded. Four other unstratified specimens.

SUMMARY: BROOCHES NATIVE AND ROMAN

No brooch-types necessarily earlier than the first century A.D. are known from the site: type I is a La Tène II survival attested as late as Claudius, and type II is a generalized La Tène III form that easily survived the Roman Conquest. The only native type characteristic of the site in the pre-conquest period I is type III, the La Tène III

'Colchester' brooch. This form is typical of the Belgic area in Britain in the first half of the first century A.D. It persisted in use unchanged after the conquest, accompanied by a few small variants. The simpler La Tène III Nauheim form, type VII, is not yet attested here before the conquest. None of the other types occurring in period I can be shown to have been made in Britain. Proved pre-conquest imports of continental Roman types comprise the rare hinged type VI (apparently); the 'thistle' type X, class C; and the Langton Down type XII. None of the remaining Roman types certainly antedate the conquest, though two specimens of the 'Aucissa' type XVII come from period II. It will be noted that these types VI, X, and XII all differ radically from the pre-Roman La Tène III model, either by being hinged or by an elaborated bow-form: it was as continental novelties that they must have been marketable among the natives.

While the first twenty years of the Roman occupation are mainly characterized by a mass of imported Roman types side by side with pure native survivals, the effect of the Roman influence in producing improved derivatives of the native 'Colchester' brooch is apparent fairly soon after the conquest. The two-piece type IV, with its 'vestigial' solid-cast chord-hook, dates from period IV onwards, and the further modified 'dolphin' type V was in use before the end of period IV. Hinged versions of the latter, however, do not seem to have been devised early enough to appear on the site, and these two types represent no more than initial stages in the specifically Romano-British evolution of the Flavian and subsequent periods.

The penannular brooches serve to suggest that at the time of the Roman Conquest, side by side with class A, class B with its tool-marked terminals was in Britain already beginning to show that slight decorative convention, which foreshadowed the well-known major developments of later centuries.

V. NATIVE AND ROMAN BRONZEWORX

A. NATIVE (figs. 60-1 and pl. xcix)

Fig. 60, 1-2, fig. 61, and pl. xcix, 1-3 are typologically pre-conquest; pl. xcix, 4-8 post-conquest and probably Icenian horse-gear brought to the site by the Boudiccan insurgents of A.D. 61: the same explanation fits fig. 60, 3, and pl. c, 5-6.

Fig. 60. 1. Tankard-handle, of double-hoop form with cordon-mouldings in the Belgic manner and expanded out-turned feet, with pin-holes. Site A1 (period IV), but manufacture should belong to period I: cf. the handles of the Thames (prob. Kew: Layton Coll.) tankard and others listed in *Arch.* lxix, 22-4, with fig. 23.

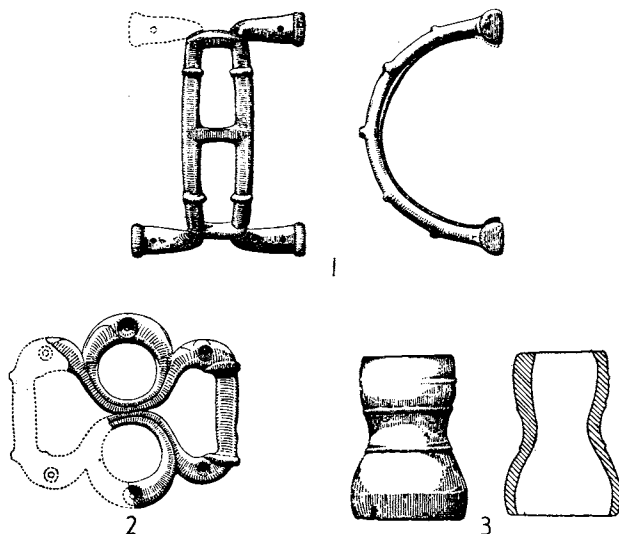


FIG. 60. Native bronzes. 1, tankard-handle; 2, belt-link; 3, linch-pin head (?). Scale $\frac{1}{2}$.

2. Belt-link (broken): a double-8 version, flat behind and with cupped enamel-sockets and faintly graven curved lines on the moulded face, of a well-known native type of the first centuries B.C. and A.D. Region 3, period IV occupation over ditch I in section 50, but stylistically of period I. Others are from Letchworth, Herts. (with pedestal-urn: *P.S.A.* xxvi, 239-40, fig. 3); Charleston Brow and Arundel Park, Sussex (*S.A.C.* lxxiv, 168; lxiv, 201 and *Antiq. Journ.* iii, 142-4); Bury Hill Camp, Andover (*ibid.* xx, 121; *Proc. Hants F.C.* xiv, 3, 331-2); *Maiden Castle*, 271-2, fig. 88, 4; Glastonbury (*Glast. L.-V.* i, 228-9, pl. XLIV, E262, and 190); Hunsbury (*Arch. Journ.* xciii, 64-5, pl. II, B); Caythorpe, Lincs. (*Arch. Journ.* xci, 107, pl. xxII, B): contrast the post-conquest Santon piece *C.A.S.* xiii, 151-2, pl. xv, 3.

Fig. 61. 1-2. Pair of plain wire ear-rings, each with a pierced flint pebble, one with also a silver bead. Pit G7 (period VI). Bead-strung rings were a favourite form of Celtic personal ornament (cf. Déchelette, *Manuel*, iv, 800-3, 828-9).

- Pl. xcix. 1. Spiral finger-ring of 6 coils, the middle three twisted. Ditch 1B bottom in section 80 (period I). Six others (one similar), W. entrance area of region 3 (III-IV). Native type: cf. *Glast. L.-V.* i, 209 ff.; Déchelette, *Manuel*, iv, 773-4, fig. 545, 3-6; *Maiden Castle*, 265-7, fig. 86, 10-17.
2. Terret: ring oval, swelling below to flattened vertical attachment-strip, and of ovoid section with exterior rib flanked by small notches, an evident degeneration of the zig-zag rib on the similar Suffolk (Fenton Coll.) terret (*Arch. Journ.* xcvi, 70-1; Leeds, *Celtic Ornt.*, 27) described *Antiq. Journ.* xx, 347, n. 6: cf. *Richborough I*, pl. XIII, 16. General form like the small plain Polden Hill terrets (*Préhistoire*, ii, 1, 96, fig. 16, 5), and can be of period I. Chance find, region 1.
3. Terret: oval ring of thick round section, rising from a pair of flat basal attachment-flanges (one now bent); through it above run two transverse round holes filled with red enamel,



FIG. 61. Bronze ear-rings with flint pebbles and silver bead. Scale of inches. (p. 329.)

making two bold spots on each face, which are spaced midway between three spheroid knobs projecting at the top and sides. These, above a low cup-like base, bear deep concentric-cable hatching, a version of a well-known Celtic device for the affixing of red enamel, which, masking the hatched surface, will have given the knobs a showy cabochon effect. Unstratified in region 5 (area D); but this method of affixing enamel comes from the first century B.C., being typical, e.g., at Mont Beuvray (Déchelette, *Manuel*, iv, 1057 ff.), and in Britain had already been improved upon before the conquest (Leeds, *op. cit.* 44-5), though it could survive, e.g., among the earlier pieces in the Neronian 'Seven Sisters' hoard from Neath (*Préhistoire*, ii, 1, 81, fig. 8, 6; Grimes, *Guide Prehist. Wales*, fig. 40, 9). Post-conquest terrets embellished with knobs instead of the older lips regularly have them enamelled in the superior *champlevé* technique (*ibid.* 3; Leeds, *op. cit.*, pl. II, 2; 121-2, classes *d-e*; 125 and fig. 33, 5-6). Our terret's unique use of the older method, and also its unique attachment-flanges, should make it the prototype of the knobbed series, assignable to period I, perhaps shortly before the conquest, after which the type developed on improved lines elsewhere.

4. Terret (lower half only): above two large basal disk-mouldings flanking the horizontally expanded attachment-strip, the ring contracts to D section, grooved along the angles, the flat outside bearing a row of close-set round holes filled with red enamel, the three lowest true sockets, the fourth (at the break: enamel lost) pierced right through. Pit A26 at 5 ft. (period VI). The Neronian date is confirmed by the close-set spots of enamel (Leeds,

- op. cit. 102), which verge on the 'jewelled' enamel-style seen in the 'Seven Sisters' and Saham Toney hoards and, e.g., the only other enamelled terret known from Colchester (ibid. 103-4 and pl. II, 1),¹ and by the D section, unparalleled earlier but verging on the squared section of the Saham Toney terrets (ibid. and 121). The latter (Icenian from Norfolk) are of the time of Boudicca's revolt, which no doubt brought to Colchester the terret just mentioned and also this one, only slightly earlier in style.
5. Terret (portion of): ring of rounded section with two of a series of low flat-topped rectangular knobs ornamented with a diamond pattern in champlevé enamel, blue with another colour now corroded (? red). Unstratified near pit K20; but the closest parallel is again Saham Toney (Leeds, op. cit. 103), and this should be another Boudiccan relic.
 6. Terret: a heavy casting in the round, with square-sectioned attachment-shank (broken ?) below, and ring passing above into the form of two confronted dolphin-heads, with engraved eyes and crests, joined between their open mouths. Region 5, in E. road-ditch cutting period V entrance (fig. 34, p. 120) in area Z (period VI). The shank (cf. that of the Santon disk-ornament *C.A.S.* xiii, 149-50, fig. 3) is unparalleled on British terrets, but occurs in France (St. Germain Mus.), e.g. one from Mont Chyprés, Forêt de Compiègne (iron shank with plain bronze ring):² Celtic terrets were sometimes (at least when of Roman age) mounted not on leather harness but on the pole or forepart of the vehicle or on yokes surmounting the horses' collars (cf. the Pannonian evidence in *Serta Hoffilleriana* (Zagreb, 1940), 309 ff., where taf. xxvi, 1-3 have similar (bronze) shanks). The dolphin-heads are in the same zoomorphic style as no. 7, and the period VI dating may imply again a Boudiccan context.
 7. Linch-pin: the iron shank broken off at the root. Of the 'South-eastern type' distinguished by Ward Perkins (*Antiq. Journ.* xx, 358 ff., 361-7), with shank at least 4 in. long to transfix the whole diameter of the vehicle's axle, to the curve of which fits the crescentic head, with flat back bearing against the wheel-hub and frontal projection normally pierced for a fastening. The type is mainly Belgic in distribution, but lasted well into Roman times, being often wholly of iron (as here, p. 341). The head-form, being functional, is properly plain, but is in this case rendered zoomorphically, the side terminals moulded in front as heavily-collared dogs' heads, the frontal projection in the round as a boar's head. See *Verulamium*, 217-18, pl. LXII (1), with (2-3) later vestiges of this zoomorphic treatment. Region 3 near W. entrance, unstratified at N. end of section 37: probably from Boudiccan destruction-rubbish, with which the style would agree. For the heads, like those of no. 6, display neither the pre-conquest native convention (*Arch.* lxi, 332, fig. 2, Birdlip; *Antiq. Journ.* viii, 520, pls. LXXXII-LXXXIII, Harpenden) nor the romanizing naturalism of the Lexden Tumulus bronzes (*Arch.* lxxvi, pl. LVIII, 3-4), but a blend of both. The same is true of the ram-headed B.M. specimen (ibid. xx, 362, 367), and of the bird- or seabeast-headed Hassocks one (ibid. and vii, 69-71) from the Sussex 'native state' of Cogidubnus: ours may be from the analogous Icenian kingdom, and brought here by the Boudiccan insurgents. However, the type is properly Romano-Belgic, in contrast with that of no. 8.
 8. Linch-pin: the ribbed iron shank broken off. A decorative version of Ward Perkins's 'Yorkshire type' (*Antiq. Journ.* xx, 358 ff., 365 (d); xxi, 64 ff.), which had a bronze-footed iron shank 2-2 $\frac{3}{4}$ in. long, not to transfix the whole axle but to lock a retaining-cap on to its tip (cf. prototype at Somme-Bionne, B.M. *I.A. Guide*, pl. III: in Britain mainly pre- and non-Belgic).³ The head was thus clear of the wheel and normally of round section, pierced through for a fastening, but late specimens may be unpierced

¹ *C.M. Report*, 1926, 25 (5233-26).

² Kindly communicated by Mr. J. B. Ward Perkins.

³ But note the Lexden Tumulus linch-pin, *Arch.* lxxvi, pl. LIII, 1.

and of developed shape. This one, between its round-moulded top and bottom, has two lateral lobes faced with roundels of champlevé enamel, a fat blue S-scroll on a red ground. This wholly bi-colour treatment is an advance on the Westhall or Polden Hill 'reserved-metal' scrolls (Leeds, *op. cit.*, pl. 1), and the date should again be Neronian. Region 3, over road II; so probably from Boudiccan destruction-rubbish and an Icenian relic of the same school as no. 5.

Fig. 60, 3 appears to be a linch-pin head of the baluster-moulded form normal to the same 'Yorkshire type' (Ward Perkins, *loc. cit.*), but is unpierced and without trace of shank. Region 3, site A1, in same destruction-rubbish. The same may be said of

Pl. c, 5, from same deposit, and 6, from pit F7 (associations period IV), with a taller, clumsier one from site A4 (period VI) found filled with cement (? to fix top of shank): *loc. cit.* 365 (a-c). But none of these have the square shank-socket which marks out the otherwise similar Westhall examples (*ibid.* 366), and like the Santon pair (*C.A.S.* xiii, 151, fig. 4) they are not quite certainly distinguishable from ferrules or the like (see below).

B. ROMAN (pls. xcix-ci)

Of the many hundred pieces of bronze found, large numbers were mere fragments, and those illustrated have been chosen mainly as a representative series, with a few unusual pieces added.

The remainder included eight finger-rings, all poorly preserved, a great variety of plain rings and loops, a small bell, a few needles, many plain pins, studs, and rivets, pieces of tubing and sheeting, fragments of mirrors (round and rectangular), lengths of chain and wire, and the wire loop of a steelyard-weight, like that of *Richborough III*, pl. xiv, 44.

Plate xcix

9. Large handle pivoted in a massive moulded block (side view, 9a) for attaching (at uncertain angle) to rim of vessel of unknown form: cf. Déchelette, *Mont Beuvray*, pl. vii, 26. Region 1.
10. Smaller handle, similar but simpler. Region 5.
11. Large handle, with deeply cut and moulded embellishment, of bucket-like vessel. Site A1; whence also a simple bucket-handle in road II ditch (period IV).
12. Ewer-lid, beaked type (thin, flat, one perforation). Site A4 (period VI). Of two others, one retains projection above hinge for raising.
13. Another, slightly convex, no beak but fore end upcurved (? accidentally), strongly hinged to moulded top of handle above arms half encircling rim of vessel. Near pit A26 (period VI).
14. Ewer-handle of corresponding type, with hinge-attachment for lid but arms broken. Same area (probably also period VI).
- 15, 16. Handles of wide shallow bowls like that found in the 'doctor's grave' at Bingen: *Germania*, ix, 154, abb. 1, 1-6 (more elaborate, and c. A.D. 100-150, but attesting attachment as sketched). Two others found: all period VI.
17. Figure of duck, surmounting (broken) rivet. Pit A21 (periods IV-VI), with helmet-remains (p. 336). The closest parallels are the two duck-rivets on the unexplained Roman bronze fragment from the contemporary Santon hoard: *C.A.S.* xiii, 155, fig. 8.

Plate c

- 1-2. Weights, of the ordinary cheese-shaped Roman type: no. 1 has two punch-marks on the top, no. 2 five. Whereas two Roman ounces should weigh 864 grains and five

- 2,160 grains, no. 1 weighs 596 and no. 2 1,957 grains. Since these values cannot well be reconciled with the standard represented by the native currency-bars and the Neath ('Seven Sisters') weight of 4,770 grains (*P.S.A.* xx, 184-90), they are best regarded as 'short' weights for two and five Roman ounces respectively. 1, site A4 filling; 2, burnt layer E. of this: both evidently from the period IV occupation. Part of another, and 3 small rough cubes, possibly weights, were found in the same area.
3. Casket-handle: hoop of hexagonal section with (unusual) central moulding and bud-shaped terminals, engaging in split pins. Region 3, sand-pit. Three others were found, of rhomboidal section, with conical, astragaloid, and acorn-shaped terminals respectively. Pieces of sheet-bronze casket-mountings and hinges also occurred, and part of a lock: pl. cii, 7 may be a lock-hasp, and there were also several (corroded) finger-ring-keys; suitable for such caskets or cash-boxes.
 4. Sheet-bronze mounting of ornamental convex form, unparalleled. Region 3.
 - 5, 6. See above on fig. 60, 3: if not linch-pin heads, will be ferrules, of which there were other (poorer) examples.
 7. Enamelled seal-box lid, with central ornament in bold relief: the peripheral squares enamelled blue, the V below red. Region 3, sand-pit; where was also a plain circular seal-box complete: other possible lids were tinned. See on no. 8.
 8. Enamelled pendant with star design in wreath: enamel now green, ? originally red. Site A1 (period IV). Cf. *Hofheim*, taf. xvi, 54, 57; xii, 22, 23, 25-8. This, with no. 7, is important as showing the contemporary Roman inspiration of the post-conquest native 'jewelled' enamel-style (pp. 330-1, on pl. xcix, 4-5).
 9. Pin, short, with cupped head holding boss of red enamel. Site A4: eighteen others (or fragments) were found, all in region 3, of periods III to IV/VI. Provincial-Roman type (cf. *M.Z.* vi, abb. 26, 150), but here seems of local make, suggesting the continuation of native enamel-working under Roman rule.
 - 10-12. Keys, representing a number from the Roman occupation (and see under no. 3).
 13. Stout hook or catch, of D section: round perforation. Pit F8A (period IV).
 - 14-15. Loop handles with iron rivets for attaching probably to large bowls or buckets. Region 3.
 16. Brooch-like casting, bow of D, foot of V section: head broken. Ditch F6, pit D filling (period VI).
 17. Angle-mount with rivet-holed flange and oblong strap-loop: purpose uncertain. Region 5.
 18. Boat-shaped object of shallow U section between knobbed ends, with flat loop on convex side. Region 3, sand-pit. No. 6 in list *C.M. Report*, 1930, 41-3, where these objects are discussed: on the evidence of two with ox-head terminals (*ibid.*, fig. 5 and pl. 1, 2), the convex side was the under side, so that if the loops were for suspension, these 'amulets' must have hung upside down; and the derivation from horses' noseband-barnacles, suggested by R. A. Smith, *P.S.A.* xxx, 54-63, seems far from easy. Cf. *Arch. Journ.* xciii, 65, no. 8 (pl. 1, 2), from Hunsbury.
 19. Pendant (loop broken), type as *Newstead*, pl. lxxx1, 1: has had a circular ornament cemented to the centre. Region 4.
 20. Phallic amulet (loop worn through). Over pit D4.
 21. Figure of cock, surmounting (broken) square shaft. Site L3 (period IV).
 - 22-5. Ligula (22), with handle of rectangular section; spatula (23, top broken); spatula-probe (24); and another (25, blade broken): representing a number of surgical instruments from the Roman occupation.
 - 26-8. Hair-pins (28 with lunette head: shaft broken) from the same.
 29. Bracelet, with two notched grooves between shallow mouldings. Pit B1 (period IV).

THE FINDS

30. Part of another, with stamped circle between knurled mouldings. Over site A₃.
31. Hexagonal tube of very thin bronze, slightly tapered, the smaller end just everted: finely engraved as shown. From end of a staff? Site A₁ (period IV: but possibly a Cromwellian intruder).
32. Penannular loop with recurved knob-ends. Site A₄ (several), and period IV occupation E. of it (one).
33. Lamp-hook. Site D₁ (periods IV-VI): one of two found.
- 34-6. Toilet-sets were represented by several nail-cleaners, tweezers, and earpicks, mostly from region 3: two sets were complete.
37. Trefoil pendant (suspension broken) of flat concave lobes with knob terminal: cf. *Newstead*, pl. LXXV, 11. Region 5.
38. Fragment of flat openwork attachment. Region 3.

Plate CI

1. Patera, complete: the body cast and lathe-turned with shallow shoulder-grooves and deep concentric bottom-mouldings, the handle cast flat with a trefoil perforation and stamped above P·CIP1·POLYB1. Edge of pit A₅ (period IV), in Boudiccan destruction-layer (section 47: p. 43). Part of a similar base was found in ditch F₆, pit C filling (period VI), and on site D₁ (IV-VI) a handle-end of the more normal disk form with circular perforation: cf. *Hofheim*, 181, abb. 40, stamped P CIP1 PO. The firm of P. Cippius Polybius played a leading part about and after the middle of the first century A.D. in the bronze industry of Capua, which was under the family domination of the Cippi and Ansii, and manufactured these and other vessels in quantity for the Italian, provincial, and barbarian markets (his stamps: *C.I.L.* x, 8071-2; xiii, 3, 10027, 17; vii, 1293 (Britain), with, e.g., *Arch.* lxi, 326 (Castle Howard) and (Scotland) *P.S.A. Scot.* lxvi, 298). On the whole subject see Bosanquet in Wheeler's *Roman Fort near Brecon*, 107-11, with further references (add now *J.R.S.* xxvi, 207); cf. also *Arch. Camb.* 1944, 129-32 (Llanberis).

VI. ROMAN MILITARY EQUIPMENT

(Pls. c-civ and figs. 62-3)

The standard work of Ritterling (*Hofheim*, 141 ff.) gives a fairly complete picture of the arms and accoutrements of the mid-first-century Roman soldier. Compared with that of Augustan times (*Haltern*, 337 ff.), the equipment of this period shows a certain development of types and their ornamentation. Sometimes this made for economy in manufacture and repair, e.g. the attachment of metal fittings to leather by studs and stud-holes instead of fixed rivets; sometimes for cheapening of quality: e.g. the heavy tin or silver plating of the better-class bronze fittings at Haltern is largely replaced at Hofheim—and Colchester—by a tin wash coating. But both the multiplicity of types and the enhancement of their decorative character (in actual design and, e.g., by the introduction of niello ornament on many of the tin-washed fittings) emphasize to the full the taste for glittering effect combined with meticulous detail which throughout governed the martial splendour of the early Empire. With the Flavian emperors different notions began to set in, and of all the varied paraphernalia met with on sites antedating their permanent forts, hardly a single component type in the bronze equipment of man or beast survived the turn of the century. In Britain, where archaeology has had so little to show for the pre-Flavian armies,¹ the regulation patterns of Claudius' and Nero's days from our site are particularly welcome, and give historical perspective to the later series headed by the Flavian assemblage from Newstead.

Typologically, our series is quite homogeneous. But stratification shows that two different military episodes are represented.

The Roman Conquest of A.D. 43, or its close sequels, left on the site a sparse scatter of bronze fragments, of which the following seven are identifiable by stratification:

Pl. cii, 22. Hinge. Filling of the period I pit D14: equivalent to period II.

Fig. 63, cf. 2. Shield-binding, fragment. Ditch 1B, low-level filling in section 75, period II.

Binding, 2 other fragments. Ditch 1B, near section 75, period II.

Pl. cii, 25. Apron-mount. Ditch 1B, in section 80, period II.

Pl. cii, cf. 30. Apron-stud. Ditch 1B, middle filling near section 74, period II/III.

Pl. cii, cf. 9. Buckle, D-piece of. Ditch 1A, upper filling in section 70, period III.

These indicate the presence of Roman troops on the site at the conquest or shortly afterwards when the defences, &c., were being filled in. All except the first are from region 5, and a few unstratified finds of the same sort there may have the same origin. A few more there or elsewhere may be rubbish-survivals, but cannot be distinguished in origin from the second group of relics, under which all the types represented will be described.

The Boudiccan revolt of A.D. 61 was responsible for the second group, which comprises

¹ Particularly since the rich collection from Hod Hill, unpublished: cf. *R.B. Guide*, 82-3, 84, fig. 105, with our Dorset, in the British Museum has remained so largely pls. cii-ciii.

the great bulk of the material. Most of it was concentrated in the W. entrance area of region 3, together with masses of sheet-scrap and shapeless lumps of bronze and some of iron, with slag, and above all in the filling of site A4. This has been described above (pp. 85, 91-3) and explained (p. 40 and *ibid.*) as the site of a desperate effort at rearmament by the colonists, with their handful of serving soldiers, on the approach of the rebels. The explanation probably accounts for all such remains found in the area. Where no provenience is specified in the following description, the remains have come from this area, to which pit A21 with its helmets, and the other pits noticed on pp. 86, 93, 95, also belong. The whole assemblage is then of the very end of period IV, though in part redeposited in the clear-up of period VI, and historically will represent the doings of A.D. 61 exclusively. Elsewhere, military relics assignable to the same episode are much fewer. The rest of region 3 had a certain scatter, as had region 5, with also the swords from pit G4 (pp. 112, 121). The scatter was sparser in region 4, more so in region 1, and virtually non-existent in regions 2 and 6. The entire series will here be described as a single whole, with the various types of defensive and offensive arms taken successively. Nearly all appear to be of legionary pattern. Separate account cannot be taken of the mass of fragments from the site A4 area, which included numberless sheet bronze clip-pings (chiefly, it appears, from the trimming-up of large disks or ovals of the metal, about the size of a shield), and hundreds of pieces of bronze of every variety, including ear-pieces of helmets, binding from helmets and shields, rings and D-pieces from buckles, and studs, nails, and pins of all kinds.

Helmets. Remains of these have probably never been found in such numbers. The bagful of them that had been thrown into pit A21 (p. 86) is especially noteworthy: it contained the fragments of several iron helmets of infantry pattern, corresponding closely to the two types illustrated by the Mainz helmets of *Germania Romana*, v, taf. 33, left (more elaborate) and right (plainer). Some cannot certainly be assigned to one rather than the other, but at least two of the helmets must have been almost identical with the more elaborate Mainz example. Nearly all the remains found belong to versions of the same legionary pattern. Cf. also the Marx Collection helmet at Mainz (Behn, *Kat. W.-u. SW.-deutscher Altertumssammlungen*, no. 2, taf. 11). Fig. 62 is a composite restoration of the more elaborate type: contrast the late first-century type *Newstead*, pl. xxvi, 1. The helmet is of iron, with the neck-guard and hinged cheek-pieces edged with bronze binding, and the forehead edged with a repoussé bronze strip. (The plainer type lacks all repoussé bronze embellishment, and also the large repoussé designs hammered in the iron of the helmet itself which were normal (though not identifiable here) in the more elaborate type: cf. *Newstead*, 165, fig. 14.) On the crown is riveted a bronze strip raised down the middle to form an open-ended slot for the mounting of a crest. These were numerous (pl. cii, 4), and varied a good deal in shape and size: some had never been pierced for rivets. Another type of crest-holder, apparently unparalleled elsewhere, is pl. cii, 1 (pit A6: fragments of another, site F2), a bronze casting with a vertical tube $\frac{3}{4}$ in. in diameter, to hold the stem of the crest, between two projecting peaks, under the larger of which the broad slanting base is cut away: this was presumably in front, to receive the edge of a fully raised visor or mask, and the type should thus belong to a helmet of cavalry pattern. The hollow-cast bronze knobs 2 and 3 belong again to the legionary pattern: the form of 3, with slot and transverse peg-hole for affixing another type of crest, is exactly paralleled by the hammered-out apex of the helmet from the Rhine at Weisenau, *M.Z.* xii/xiii, 174, abb. 5, and an almost identical knob comes from Roman Lincoln (A. Smith, *Lincoln Mus. Publs.* no. 14, 4

and pl. 1, 1, from Westgate water-tower site); with 2 (region 3, sand-pit), for a helmet without crest, cf. *Newstead*, pl. xxxv, 8. The bronze guards riveted over each ear were represented in various sizes, but uniformly shaped as on the Mainz helmets: some had been badly damaged in use, others had never been used at all. The iron cheek-pieces resemble in general those from Hofheim (146, abb. 26, 4-5) and Haltern (350-1; taf. xxxix, 3), but normally have bronze binding and often ornamental bronze bosses, as also may the neck-guard. Bronze cheek-pieces were also represented, like that shown in *B.M. R.B. Guide*, pl. iv, left, attached to the Ely (Wit-

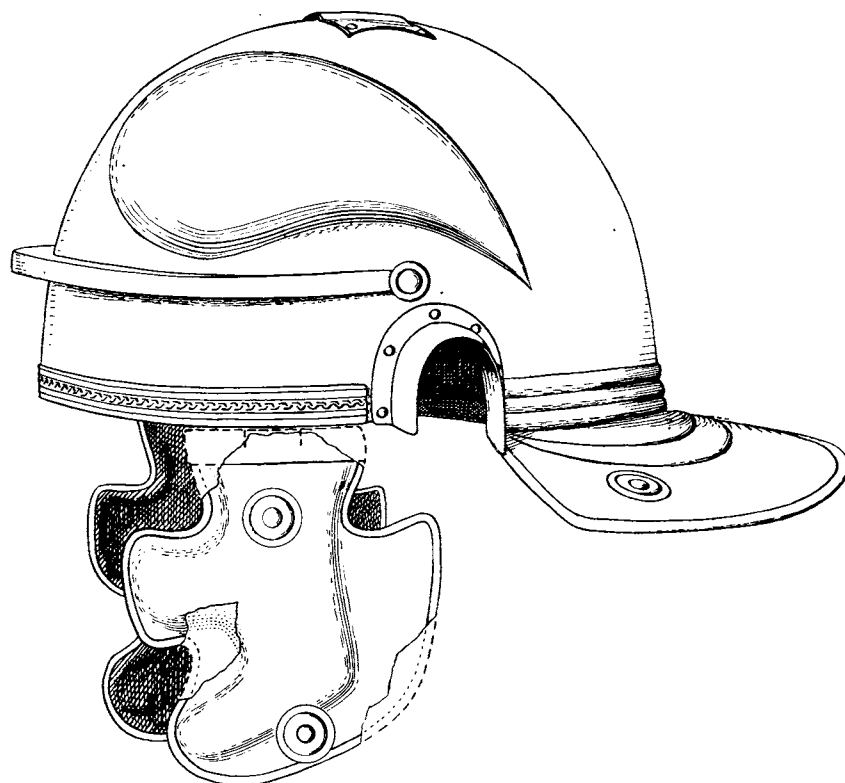


FIG. 62. Roman legionary helmet (reconstructed drawing). Scale c. $\frac{1}{3}$.

cham Gravel) bronze helmet, but not really part of it: cf. also *O.R.L.* 71a (Theilenhofen), taf. iv, 29. Of the iron frontal bar only one recognizable example was found. The suspension-handle sometimes fixed at the back edge of the neck-guard (*Hofheim*, 146) was nowhere identified. On the whole subject see further Lindenschmidt in *Alterthümer uns. heidnischen Vorzeit* v, 114 f., 186.

Shields. The only recognizable remains of shields were pieces of the bronze edge-binding, identifiable from the projecting lugs in which the securing rivets were set to prevent them splitting the wood of the shield. Examples are fig. 63, 1-2, 1 being a corner-piece showing an obtuse angle and referable accordingly to the hexagonal form of cavalry shield (*Hofheim*, 143, with n. 174). Pl. cii, 5 might be a piece of such binding not yet bent into shape, but is more probably of a strip-mounting from the face of a shield.

Body-armor. Remains of the normal legionary cuirass were plentiful, though mainly fragmentary. It is impossible to say how many of the numerous fragments of thin iron plate come from its iron bands. Buckles, often hinged, from the front of the cuirass are illustrated by pl. cii, 6, 8-9, and there were also hooks from the front fastening, as *Hofheim*, taf. xi, 1-3. Hinges of

ornamental shape, and plain hinges from the back of the cuirass, were also represented (pl. cii, 11-12, 13-15): some have remains of the iron bands still adhering; cf. the buckles and hinges, dated A.D. 55-75, *Richborough III*, 82, pl. xii, 39*d-l*, with 40. See further *Hofheim*, 146-8; *Röm. Limes in Österreich*, ii, 96 ff. (Carnuntum).¹

Small iron plates perhaps from scale-armour were not uncommon, and in one case several were found corroded together, having bronze rivets to attach them to the leather corselet (fig. 63, 3-6); others were of bronze, some (fragmentary) with one end semicircular like the brass armour-scales



FIG. 63. Roman shield-binding (1-2, bronze) and armour (3-6, iron with bronze studs; 7, iron chain-mail). Scale $\frac{1}{2}$.

of *Newstead*, pl. xxiv. What looks like a piece of bronze chain-armour (very fragmentary) from pit L12 consists of very small neat rings, some even and apparently welded, others with flattened ends riveted together. One very rusted piece of iron chain-mail (fig. 63, 7) is exactly like those from the Lexden Tumulus (*Arch.* lxxvi, pl. LIII, 3; LIV-LV), and may be native, not Roman. Bronze plate epaulettes like those of *Newstead*, pl. xxxii (177-8: pieces also at Neuss and Haltern) are represented by two pairs of pieces, pl. ci, 2, *a-b* from the region 3 gravel-pit, *c-d* from W. of

¹ Pl. cii, 7 might be some sort of armour-fastening if not a lock-hasp: see p. 333.

site A4. Each pair consists of a large part of the epaulette proper, with a portion of the depending peak or breast-piece; the edges have small holes for sewing to fabric or leather, and show the mark of a marginal band of some substance now decayed, about $\frac{3}{8}$ in. wide and set just inside the holes.

Belt, apron, and baldric fittings. The military belt was of leather with decorative plates riveted to it, and fastened by a large ornamental buckle, hinged to the last plate. The plates are represented by one plain example and three (pl. cii, 16, 17; c, 39) tinned and with niello ornament: the last (region 1, school site) shows the buckle-hinge. Pl. c, 40 is probably also a belt-hinge of some kind. The buckles are well represented: pl. cii, 18-21; all are plain bronze except 18, tinned and engraved. 22 and 23 are too small for a belt of this pattern: cf. *Newstead*, pl. lxxvi, 3, 17.

The apron which hung from the belt consisted of leather straps, each with an ornamental terminal (pl. cii, 24-7), some of which (24) were tinned and nielloed. Along each also were affixed long (28) or square (29) plates, which might also be tinned: 29 is heavily tin-plated; others are plain.

The frogs for sword and dagger were attached to the belt by tinned bronze disks, which were often nielloed: pl. cii, 30, 31.

The baldric by which cavalry and others carried the sword was worn over the left shoulder, and fastened by a large hook, with a small crossbar to prevent this slipping out. Pl. ciii, 8 (partly restored after the Hofheim specimens) shows the normal pattern: less usual are 2 and 3 (cf. *M.Z.* vii, 87, from Mainz legionary fortress). The hook engaged in a (tinned) loop (4), hinged to the other terminal of the baldric (5).

Harness-fittings and trappings. The Roman cavalry horse wore a breast-band and breech-band linked on his withers and quarters to shorter straps made fast to the saddle. The links were large bronze rings engaging the necessary two strap-ends and also a third for a short hanging strap. Of the three main forms of these strap-ends found at Hofheim (taf. xiii), pl. ciii, 7 illustrates one, with plain flat plate covering the strap front and back, and moulded hook to grip the ring (cf. *Antiq. Journ.* xii, 65, pl. xviii, 8, Alchester; Wheeler, *R. Fort nr. Brecon*, 113, fig. 57). The second form is not certainly attested here, but the third is exactly similar, only smaller, and this is illustrated by the complete link pl. ciii, 9. This small form of link may really have belonged to the bridle. The type of normal size but with a fourth strap-end, for an extra saddle-strap, is generally later (*Newstead*, pl. lxxiv, 6).

On these straps and often elsewhere were usually hung trappings in the form of pendants. The commonest form at Hofheim (taf. xiv, 2, 4, 7, 9, 10) was heart-shaped, and our varieties of this are pl. ciii, 10-16, 12 having a zoomorphic suspension-hook; most are plain bronze (not silvered as at Hofheim), but 10 is tinned and elaborately engraved (for the shape plain, cf. *Newstead*, pl. lxxv, 10). With 13, cf. *Germania*, xiii, 15, abb. 5, 25 (Unter-Kirchberg). The alternative half-moon form is represented by 17, from pit Z4, a phallic rendering like *Hofheim*, taf. xiv, 1 and (Mainz) abb. 38, 1; also another, corroded. The less usual 18 has rivets behind its almost phallic stem for fixing direct to the strap, and (originally) two pendent bronze leaves: cf. *M.Z.* vii, 87, abb. 3, 24 (Mainz legionary fortress). No. 19 is a small bell-pendant, perhaps from the bridle. Nos. 20-1 are ornaments to rivet on to straps: 20, with central perforation, resembles *Hofheim*, taf. xii, 21 and xv, 94, but is of tinned iron; the disks of 21 (bronze) are cupped for enamel, like those of *Newstead*, pl. lxxv, 11.

Phalerae and other ornaments. Bronze disk-ornaments identifiable as phalerae, whether worn by man or horse (*Newstead*, 174 ff., 298 ff.) were scarce. Two like *Newstead*, pl. lxxvii, 11 were too damaged for illustration. Pl. ciii, 22 is a small horse-phalera with engraved pendant but only the backing-disk of the phalera itself: complete Claudian examples from Hüfingen, *Germania*, xiii, 40-1, abb. 2, 5-7. The heavy phalera 23 has a cabled border and a corroded central rosette: it was apparently gilt. The convex rosette-shaped 24, with central perforation, could possibly be Cromwellian; 25 is convex within a flat border, and is damaged in the centre; 26-7 are smaller

disks, 27 similar, 26 convex with cupped centre. The square mount 28, with stamped pattern, could again be Cromwellian. The shaft-head ring 29 may be a Roman shanked terret (see on pl. xcix, 6), but is very small.

Sheath- and scabbard-fittings. Pl. ciii, 30 is the hooked end of the bronze binding of the sheath of a pioneer's (iron) axe or dolabra: *Newstead*, 279, fig. 39. The pelta-shaped 31-2 may be scabbard-fitting ornaments: cf. *Arch. Camb.* 1932, 87-8, fig. 36, 2-3, 8-9 (Caerleon). Pl. ciii, 1 seems to be a cupped scabbard-mouth, in bronze: cf. *O.R.L.* 8 (Zugmantel), 64, 17. Of a number of fragments of the half-round bronze binding of scabbards, the best is pl. ciii, 6, which shows the terminal knob or chape. Cf. *Hofheim*, 157, abb. 31; and contrast the simpler native type *Arch. Journ.* xcv, 65-6 (Bredon, with refs.); xcvi, 119-20 (Spettisbury).

Swords. Remains of four iron swords were found in pit G4 (p. 121): pl. civ, 3-4, 5-6. All were bent and none perfect. No. 4 has its square-sectioned hilt-tang, 5 in. long, fully preserved, and a straight bronze guard, groove-edged and $1\frac{3}{4}$ in. wide, across the shoulders of the blade, the greatest width of which is now just over $1\frac{1}{2}$ in.: despite its damaged state, it has kept part of its median groove, and a length of just under $19\frac{1}{2}$ in. No. 3 (blade only) is about the same length, which answers well to that of the legionary *gladius*, as *Newstead*, pl. xxxiv, 11; that, however, is $\frac{1}{4}$ in. wider. No. 6 preserves not only its bronze guard but part of its bone grip: with its tang flattening out to meet the shoulders of a blade just under $1\frac{1}{2}$ in. wide, it suggests rather the *spatha*, or long auxiliary sword (*Newstead*, *ibid.* 6-7); for the complete grip, see *ibid.* 13, an incomplete *spatha* with blade $1\frac{3}{16}$ in. wide like our no. 5, which, however, has a squared hilt-tang (broken) like the *gladius* no. 4, though with a narrower bronze guard.

Daggers. The leaf-shaped type of dagger (Collingwood, *Arch. R. Britain*, fig. 65, *c*) is illustrated by pl. civ, 1, with rusted remains of grip and pommel, iron guard, and midrib down what is left of the blade (found in region 5, area C). To the straighter-edged type (*ibid.*, *d*) belong 2, preserving part of bone grip with pommel, and 7, with rusted remains of the same and iron guard (2, region 4; 7, clay-pit II, region 5). On nos. 8 and 9 see next section (p. 343).

Missile weapons. Pl. civ, 10 is an open-socketed javelin-head, from region 4 (Collingwood, *ibid.*, *j*: cf. *Arch. Journ.* xcvi, 123, pl. v, 2-4, Spettisbury; *Maiden Castle*, 281-2, fig. 93); 11 has a four-sided tapering head and not a socket but a tang-like shaft: it is therefore not a bolt-head, and can be matched by examples of the head of the legionary *pilum* (e.g. *Arch. Camb.* 1932, 70-1, figs. 20-1, from Caerleon). Three were found, one in region 3, area A; the long iron shaft of these weapons may also be represented by a number of slender rod fragments from the same area.

VII. NATIVE AND ROMAN IRON AND OTHER METAL-WORK

A. IRON (*fig. 64 and pls. civ-cv*)

The great quantity of iron slag as well as of iron objects found in region 3, mainly round sites A1 and A4 (whence came the Roman smith's tongs, pl. cv, 23), shows that iron was worked not far away, evidently in period IV and especially in the 'rearmament drive' of A.D. 61 noticed above (p. 336). However, no definite remains of iron-furnaces or forges were found here or elsewhere on the site where this activity was to be suspected (e.g. in regions 1 and 4: pp. 37, 53, 69, 91, 99, 104).

Most of the tools and other objects found have survived in a very corroded state, so that as a rule only the larger were recognizable. Roman nails (either flat- or convex-headed) were, however, found in very great numbers, especially on site A1, where many had presumably been used in the structure of the timber building: see also pl. cv, 26 (hold-fast).

The outstanding native piece is the firedog-head, pl. cv, 1, shown restored in fig. 64, 1; the poker-blades, pl. civ, 8-9, and the pot-hook, pl. cv, 19, further represent the native hearth; the tool-types, pl. cv, 7, 8, 11-13, and 27, are also native, as are the chain and shackles 14 and 21-2, from the well-known gang-chains for captives, lately discussed by Sir Cyril Fox (*A Find of the Early Iron Age from Llyn Cerrig Bach, Anglesey* (1945), 30-2, 64-5). A Roman type may be represented by the chain 33. Native charioteering is represented by 2 and perhaps 9, 10, and 25, while the horseshoes fig. 64, 2-3 result probably from pre-conquest influence from Roman Gaul. Lastly, either a pre-conquest or a Roman date may be assigned to a heavy iron linch-pin, of the 'South-eastern' type already illustrated by pl. xcix, 7 (p. 331), found E. of site A4 on top of ditch I filling (period III or IV), plain and closely resembling the type-figure *Antiq. Journ.* xx, 364, fig. 5.¹ A simple hook-headed linch-pin was also found in region 3.

Tools like pl. cv, 3-6, 8, 20, 24, awls and other less easily identifiable types may be either native or Roman: cf. e.g. *Glaston. L.-V.* ii, ch. xi and Déchelette, *Manuel*, iv, ch. x with Newstead ch. xiii, and for Roman provincial tool-types in general *Cat. St. Germain Mus.* i, 257 ff., figs. 271 ff. For locks and keys, see on pl. cv, 15-18; three 'Celtic' keys or latch-lifters (*Glaston. L.-V.* ii, 375-8) came respectively from site L2 (period I), over ditch I N. of W. entrance near section 33 (III-IV), and site A3 (VI), all habitation-sites of native character; two others from Pit F10 (IV) and region 1 (area H).

Fig. 64. 1 (= pl. cv, 1). Firedog, represented by the upper part of one end, terminating in an ox head, the muzzle and one horn badly corroded, the other horn missing. Site E1 (period I). As restored, with knobbed horns, resembles (on slightly smaller scale) that

¹ Cf. also *Maiden Castle*, 275, fig. 90, 10; also *Arch. Camb.* 1944, 141-2 (Llandoverly, Silchester).

THE FINDS

surviving in C.M. from the Mt. Bures vault-burial (*Arch.* lxiii, 8-9; figured *Arch. Camb.* 1912, 104; see also *Arch. Journ.* lxxxix, 110 f., and Fox in *Antiq. Journ.* xix, 447); cf. *Cat. St. Germain Mus.* i, 277, fig. 281, 16104 (Camp d'Attila, Marne).

- 2, 3. Horseshoe, and part of another. Both also site E1, the period I date of which is given by the associated pottery and sealed by the overlying upcast of ditch E3 (period III), so that the immediate morrow of the conquest is the latest possible date for their deposit

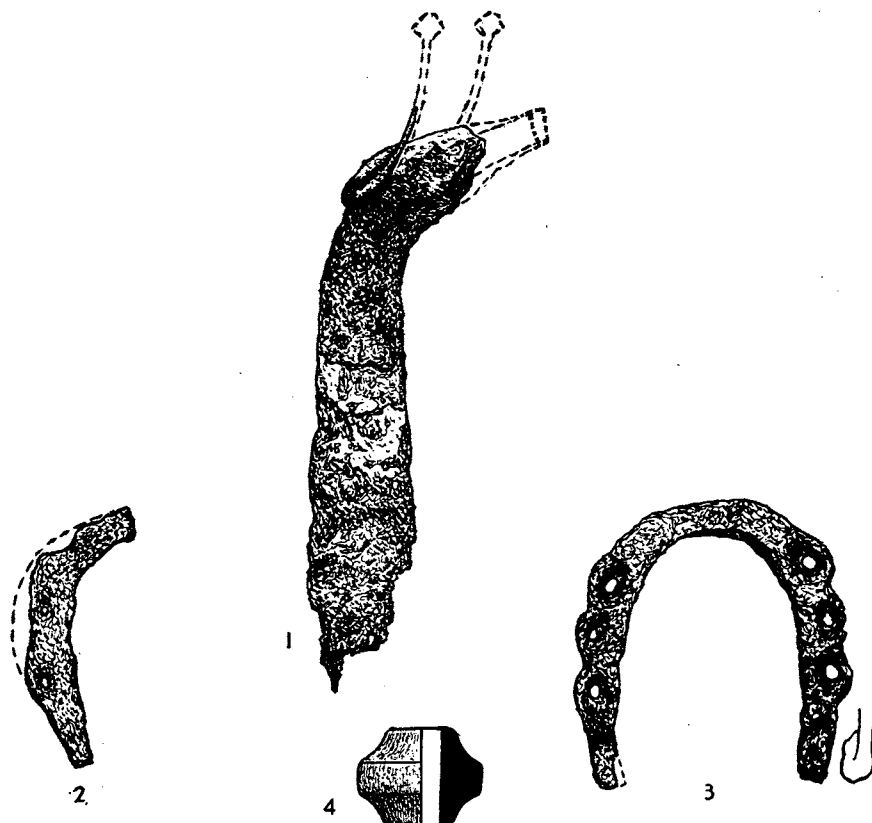


FIG. 64. Native iron firedog-head (1) and horseshoes (2, 3); and lead spindle-whorl. Scale $\frac{1}{2}$.

(p. 73). Gordon Ward, *Trans. Lancs. & Chesh. Antiq. Soc.* liii (1938) = *Hull Mus. Pubs.* no. 205 (1939), 149, pl. xxv, 65 (both drawn); *Antiq. Journ.* xxi, 11-12, 13-14, fig. 1, 3 (no. 3 drawn and described only); Ward Perkins, *ibid.* 144-9. No. 3 has had small hammered-over calkins, and has three nail-holes a side, countersunk for the nail-heads and each answered by a bulge in the outer edge. This is Gordon Ward's 'Iron Age' type, best explained by Ward Perkins as developed in early Roman Gaul in response to the Romans' metallised roads, and derivative (with road-metalling) in contemporary Belgic Britain. So too H. Jacobi, *Germania*, vi, 89 (though Espérandieu 293 is dubious evidence: *Cat. St. Germain Mus.* i, 252), thus explaining certain Roman-German finds, which Winkelmann (*ibid.* xii, 137-8) took as medieval strays only by dint of special pleading. No. 2 probably had similar nail-holes, but seems to be of the broader smooth-edged type also first known from Roman-German sites (*Haltarn*, 360, taf. xxxix, 9), and late Roman at Maiden Castle (Ward Perkins, *loc. cit.* 149;

Maiden Castle, 290-1, pl. xxx, B). Another like no. 3, and at least two like no. 2, occurred among the 7 or 8 horseshoes found unstratified: others were found in the Roman clay-diggings on the By-pass line W. of region 2 (p. 70).

- Pl. CIV, 8-9. Blades, one with part of twisted stem, apparently of the native type identified by Déchelette, *Manuel*, iv, 933, as pokers: see his fig. 639, 2-6, and for Hunsbury (n. 3) *Arch. Journ.* xciii, 67, no. 25 and pl. iv B, 1-3. No. 8, pit K14 (period III): 9, site A4 (IV/VI).
- Pl. cv, 2. Bridle-cheekpiece of the native type more usual in bronze, B.M. *I.A. Guide*, 144, fig. 163. Region 1, area H.
- 3-6. Chisels, various types, none certainly pre-conquest. Remains of gouges were also found, and a socketed chisel from the period VI metalling in the NE. of region 4.
7. Pair of shears, native type: Déchelette, op. cit. 786 ff., figs. 554-5. Site L4 (period I).
8. Wedge. Region 3, area A.
- 9, 10. Small chariot-fitting, native ?
- 11, 12. Sickles, native type with rolled-over socket. Site A1 (period IV).
13. Sickle of similar type, tanged.
14. Chain of 8-shaped links. Part of native gang-chain; cf. those on the shackles quoted under 21-2 below, and contrast 33.
- 15, 16-18. Lock-mechanism (part of) and keys. Various post-conquest deposits. Roman types; but keys like 16 at least may be pre-conquest: Déchelette, op. cit. 898-9, fig. 619, 5-6.
19. Pot-hook (only one prong remaining), native type as *ibid.* 928-33, figs. 637-8. Region 3, SE. corner, in area C(N).
20. Field anvil. Near site A4.
- 21, 22. Shackles (21 fragmentary), as *ibid.* 898-9, fig. 620, apparently from gang-chains (cf. 14) of native type: *Arch. Journ.* lxxxix, 108-10, pl. 11 (Bigberry and Lord's Bridge); Fox, *Llyn Cerrig Bach* (*supra*), pls. xv, xxxiv-v. 21, pit L13 (period IV); 22, region 3 gravel-pit. Note that Roman shackles are also comparable: eight, with two padlocks, accompanied the Great Chesterford chains quoted under 33 below (*loc. cit.*, pl. 11, 21-2); five neck-shackles and a pair of ankle-shackles were found in a fourth-century deposit in the Colonia in 1929 (C.M.), and two more neck-shackles found by Duncan in 1852 (C.M.) are probably from the same deposit. All those in general resemble Bigberry, op. cit., pl. 11, A.
23. Tongs, smith's, Roman type. Site A4 (period IV-VI). Very corroded: when found, the jaws met and ran forward for some way parallel.
24. Knife, tanged. Region 3, area A. Many smaller knives were found, one with bronze-plated handle in pit A1 (period IV).
25. Ring on split staple, ? from native chariot.
26. Holdfast. T-shaped. A number found: Roman, from site A1 building (period IV).
27. Axe, with rolled-over socket, native type. Site A1 (period IV). Déchelette, op. cit. 865-7, fig. 595.
- 28-9. Blades or shoes for wooden spades. Site A1 (period IV). The type is apparently not pre-Roman: cf. *Verulamium*, pl. LXV A, 10-20; Corder, *Arch. Journ.* c, 224 ff., 228 (fig. 3, 21), 230.
30. Blade or shoe, heavier, for wooden spade of different type, divided laterally and riveted through for attachment. Ditch I, period II-III filling in section 30.
- 31-2. Bill-hooks, of the developed type which seems not pre-Roman. Region 3, area A.
33. Chain with long oval links and swivel-end; total length as found, about 2 ft. Not of the native type quoted above (14, 21-2), and seems more probably Roman. A similar

chain in C.M., of about the same length but with narrower links and small instead of large end-loop engaging the swivel, is likely to be a Roman prisoners' chain, having been found in a guard-room of the Colonia Balkerne Gate. See *Arch. Journ.* lxxxix, 110, where however this and also two chains from Great Chesterford, Essex, neither resembling it or ours (*ibid.* xiii, 1 ff., pl. III, 31-2), are alternatively suggested to be chain harness-traces. But a poled vehicle's trace would hardly be so long as Chesterford 31 ('over 14 ft.') or so heavy, while the only adducible type of a shafted vehicle, that shown on the Igel Monument,¹ has the horses not chained to the shafts, but yoked; nor would any chain-trace be swivel-ended, like the Balkerne chain or ours, nor, at all, of the type of Chesterford 32; nor is there other evidence, apparently, to commend any chain-trace theory. Our specimen is then most probably from a Roman gang-chain, made of such 2-ft.(?) lengths, each necessarily thus swivel-ended.

Description of the remarkable iron box found in the mouth of the pottery-kiln in region 4 (p. 106) is best reserved pending its submission to full laboratory treatment. The same applies to an iron dagger from region 4 (area L), of a native type with expanded grip-centre and pommel.

B. LEAD

Fig. 64, 4, apparently a heavy lead spindle-whorl, is from region 1, area F. Remains of other lead objects were found sporadically in various regions.

C. SILVER AND GOLD

Corroded traces of silver objects occurred once or twice in region 3. For silver bead on bronze wire ear-ring, see pp. 329-30, fig. 61, 1. A gold ring, of circular cross-section, bent rather out of shape but 0.9 in. in average diameter, was found in region 6.

¹ Espérandieu v, 5268, p. 451; Dragendorff-Krüger, *Das Grabmal von Igel* (1924), 79-80, abb. 49, taf. 12; cf. the Arlon relief, Espérandieu v, 4035.

VIII. OBJECTS OF CLAY, STONE AND FLINT, WOOD, AND BONE

A. CLAY (*figs. 65-6*)

Crucibles and other metallurgical remains. The metallurgical remains that may be assigned to a British mint in region 6 have been described above (pp. 129 ff.). Among the bulk of these in pit K1 were some fragments of crucibles, which accordingly may be properly of period I, but the great majority of the crucibles found belonged to post-conquest industrial activity. In period IV this extended along road II and east of it in region 4, whence four specimens are illustrated in fig. 65, and north of it in region 1. In the latter (area H) it may have begun in pre-conquest times,¹ but the main dated group of remains is that of period IV concentrated in the region outside the SW. corner of the later temple-enclosure, that is, on the west side of the northward continuation-line of road II. The remains here included, as well as unrestorable fragments of moulds, a number of small crucibles of the spouted-saucer type of fig. 65, 1-2, some very small and fine: two were only $1\frac{1}{2}$ in. in mouth diameter, and the smallest was little bigger than a thimble. One, found in pit H21, contained the leavings of a fusion of lead (spectrographically determined by Dr. A. A. Moss), probably used in the composition of the bronze which the abundant slag showed was here the chief industrial product. *Enamelling* was probably also carried on here: some of the smaller crucibles may have been used for this, and a number of pieces were found of a blue vitreous substance, determined by Dr. Moss as blue frit, the colour due to the presence of copper silicate. This may be taken as evidence of the romanization of the native enamel industry in Claudian times, known hitherto only from its products (pp. 330-2, 333). A lump of the more usual red frit was also found near the other end of the industrial area, in site A1. The intervening stretch along road II in region 4 also yielded some pieces of the blue frit, but was most remarkable for the abundance and variety of its remains of period IV metal-working. These included much vitrified clay, unrestorable fragments of moulds, and many crucibles, among which fig. 65, 1-2 represent the spouted-saucer type, and 3 an unspouted shallow bowl form. The remains extended eastward into the neighbourhood of site D1, and here in the period IV pit D1 at 4 ft. was found the large crucible of deep bowl form, complete but for the rim, shown in fig. 65, 4 (cf. Déchelette, *Manuel*, iv, 1050, fig. 713, Mont Beuvray). This Dr. Moss reports to have been used apparently in the preparation of an alloy from a mixture of ores, the fusible slag from which has overflowed and solidified around the crucible. He found some metallic alloy still adhering to the inside, consisting essentially of copper, tin, lead, and zinc. This was evidently a standard composition for bronze, for crucible fragments with the same alloy adhering are reported by him from site L5 and elsewhere in the zone along road II. However, the vitrified clay rubbish here

¹ In the adjoining area F one piece of slag was found in the pre-conquest pit F4 (p. 67).

included also green-glazed fragments which he explains as apparently due to the presence of ferrous iron, and he further noted a fragment of ferruginous aggregate, possibly specular iron. The bulk of the slag is bronze, with iron slag therewith becoming more abundant westward on sites A₁ and A₄ (pp. 91, 93). In the latter, already described in connexion with the rearmament activity of A.D. 61 (pp. 85-6, 91-3, 336), there were five pieces of crucibles, and in pit A₂₁ (p. 95), two pieces; two more, of the saucer type, came from the adjacent period IV layer over ditch I. The other area notable for these

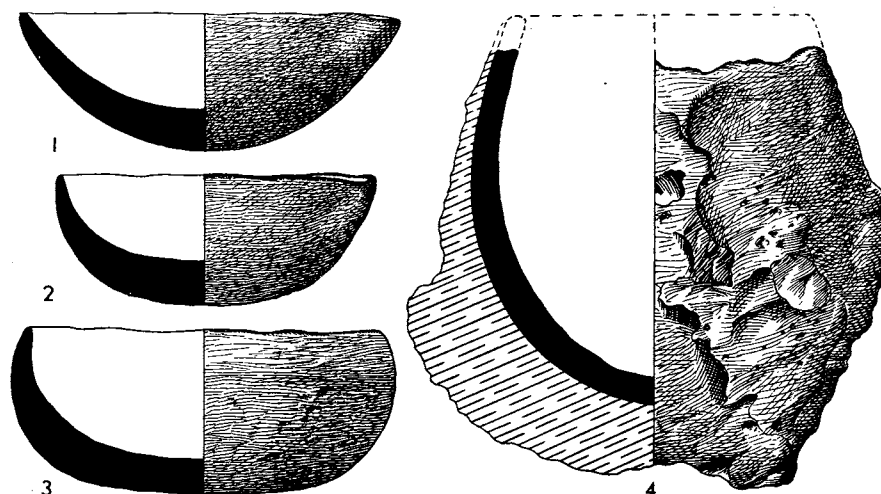


FIG. 65. Clay crucibles. Scale $\frac{1}{2}$.

remains was in the SE. of region 4 round pits D₃ and D₄ (p. 107), where metallurgical activity seems to have lasted to the end of the first century; here there were crucibles in great quantity, and from the number of bronze brooches found also it may be guessed that they were among the objects manufactured. The only at all recognizable fragments of moulds, however, suggest the casting of ferrules or the like, comparable to pl. c, 5-6. One crucible on analysis gave the reaction for iron. Regions 2 and 5 (pit Y₁₂, period III-IV) yielded only one crucible fragment each.

In general it is clear that while pre-conquest metal-working remains mainly inferential, being possibly in region 1 but most strongly indicated by the 'mint' remains from region 6 above noticed, period IV saw a great increase in this activity all along the line of road II, where bronze and iron working, and also some enamelling, were carried on intensively until the Boudiccan destruction. In the SE. of region 4 metal continued to be worked until the end of the first century.

Briquetage of 'Red Hills' type. The 'Red Hills' of the Essex coast—mounds consisting largely of red burnt earth interspersed with the broken remains of troughs, pillars, bars, &c., of coarse reddish ill-baked clay—were explored by a Committee of this Society over thirty years ago¹ and subsequently explained by Mr. Reginald Smith, with a wealth of

¹ *P.S.A.* xxii, 164 ff.; xxiii, 66 ff.

comparative material, as the remains of a mainly Iron Age industry for the production of salt by the vaporization of brine.¹ Further evidence of the same kind has since been published from the Lincolnshire coast,² the margin of the Fens near King's Lynn,³ and Canvey Island in the Thames estuary.⁴ It is possible⁵ that this activity also included the curing and salting down of fish. Its extreme duration was from the pre-Belgic Iron Age into Roman times, but in Essex at least its peak seems to have lain in the Belgic period. This is borne out by the occurrence of the characteristic soft straw-streaked briquetage in a number of places in the low-lying northerly portions of our site towards the river Colne, stratified in both pre- and post-conquest deposits. Thus in region 4 there were many such at the bottom of the period I pit D9, others in pits D7 and D13 (I-III), and in pit D1 and site D1 (IV). In region 1 the evidence is similar, particularly large quantities occurring in the period IV pit F10, and others, covering periods III-IV, in ditches F3 and F5, site F7, and pits F8 and F13. Region 2 produced pieces from site E2 (period III), and the evidence for period I is reinforced by a number from site E1 here, and in region 3 by one from near the bottom of ditch I in section 39. Elsewhere scraps were very rare. Though contemporary fire-bars and the like are known (*Verulamium*, 178, fig. 26, 2), which cannot be associated with salt-production, the fire-clay from kilns and furnaces on the site is readily distinguishable from the briquetage, which is identical in character with that of the Red Hills; moreover, were it referable to ovens like those of Prae Wood or Tilbury (*ibid.* 44, n. 1), its distribution on the site would scarcely be so restricted to the neighbourhood of the river. Salt-production thus seems the best explanation. And unless the industry was served with brine brought from lower down the estuary, its location here would seem to indicate (pp. 4, 48) that in the first century the Colne was brackish, and therefore tidal, as far up its course as Sheepen.

Brick, Tile, and Terracotta. Native brick like that of Prae Wood (*Verulamium*, 178-81) was very rare and nowhere demonstrably structural. No stratified pieces were of period I, and of the half-dozen or so assignable to periods III-IV all were probably from ovens or kilns (one from pit F10 was vitrified along one edge); the thickness was from 1¾ to 2½ in. Of two thinner tile-like pieces from over site F7 one bore a moulded boss; another such piece from here was of whitish gritty ware like a loom-weight.

Roman brick and tile were almost everywhere extremely plentiful from the beginning of period IV onwards. Tiles were then manufactured in several parts of the site (region 2, kiln, p. 71; region 4, p. 107; region 5, p. 115), and the innumerable fragments found indicate the widespread use above all of the standard Roman *tegula* and *imbrex*. Moreover, an exhaustive analysis of the stratified pieces shows that virtually none occurred anywhere where associated pottery or other evidence required a date earlier than period IV.⁶ If any fragment of Roman brick or tile was brought to the site in period III (or even II), it should be explained by a Roman use of tiles or tile-sherds as ballast or packing for goods in transport. This explanation seems the only satisfactory one for the odd

¹ *Ibid.* xxx, 36 ff.

² *Antiq. Journ.* xii, 239 ff.

³ Runcton Holme: *P.S.E.A.* vii, ii, 258-60.

⁴ E. Linder in *Essex Naturalist*, xxvi, 136-60.

⁵ *Op. cit.* 147 (suggestion by M.R.H.).

⁶ The best-attested exception is a fragment of flue-tile from 5 ft. in pit D7, where nothing else demands a date later than period III (pp. 103-4).

scraps which were all that was found at camps like Haltern¹ and Hofheim,² for the negative evidence there and at other such sites as, e.g., Hüfingen³ and Margidunum⁴ makes it certain that in pre-Flavian times Roman military buildings made no use of brick or roofing-tile away from permanent fortresses, e.g. Mainz.⁵ In the years of military occupation at Colchester before A.D. 49, therefore, it is not to be expected. On the other hand, the building of the Colonia begun in that year would necessitate brick and tile, and the overwhelming preponderance of period IV associations for the brick and tile found on our site is thus one of the strongest grounds for the dating of that period accordingly (p. 37). The building-brick found is well represented by that used for the mouth of the tile-kiln in region 2 (p. 71), and the abundance of *tegula* and *imbrex* roofing-tiles permits one to infer their use for some at least of the period IV buildings on the site. This is certainly true of the site A1 building (p. 90), and a great multitude of these tiles was also produced by site D1 (p. 105). However, most of the native-type huts (e.g. certainly those in region 3) were apparently not so roofed (p. 46), and it seems that many



FIG. 66. Fragments of terracotta plaques: 1, from Sheepen, region 3; 2, from Temple-precinct in Colonia. Scale of inches.

of the ubiquitous fragments come from stacks or dumps of bricks or tiles, for the most part probably manufactured on the site but not intended for use there. Some in fact are of types incompatible with the buildings found: a complete voussoir-brick was found near site D1, and on site A1 several pieces of box flue-tiles, giving measurements of $6\frac{1}{2}$ in. across the side and 10 in. across the face, which is deeply comb-scored for keying to mortar. A piece of an antefix, with a tree in moulded relief, from site D1, is again out of character with the site, and from the lip of pit A5 and elsewhere on site A1 and in Pit L19 come pieces of semicircular bricks, like those used in the W. gateway of Insula XVI at Verulamium (*Antiq. Journ.* xvii, 31, 34 (pl. xxiii, 2; fig. 1), late first century: for the type, see *Arch. Journ.* xcvi, 33-5). All this suggests building material for the Colonia, and in fact when in 1931 excavation there disclosed part of an entrance into the forum, or precinct of the temple of Claudius,⁶ identically similar semicircular bricks were found used in the angle-pilaster. Stone had also been used, and the whole structure is best regarded as the rebuild *in situ* of a Claudian original ruined in the Boudiccan sack (p. 39). Built into it as re-used material was the moulded fragment of an ornamental terracotta plaque (fig. 66, 2), a type of architectural embellishment well suited to the original temple, to

¹ *Mitt. d. Altertums-Komm. f. Westfalen*, ii, 171; iii, 89-90.

² *Hofheim*, 93, n. 121.

³ Reports *Germania*, x-xvii: no tiles.

⁴ Pre-Flavian absence of tile confirmed *in litt.* by the

excavator, Dr. F. Oswald, F.S.A.: Claudian hutments must, he thinks, have been thatched. See now *J.R.S.* xxxi, 38.

⁵ Tile Augustan: Schumacher, *Siedelungs- u. Kulturgesch. d. Rheinlande*, ii, 259.

⁶ *J.R.S.* xxii, 212.

the date of which moreover it may reasonably be assigned. For stratified with the quadrant brick fragments by the lip of pit A 5 (section 47; p. 93) was found another piece of such a plaque (fig. 66, 1), of identical fine buff terracotta and apparently identical foliate-scroll design. It may then be inferred that one of our site's uses in period IV was as a depot for Colonia building material.

Loomweights. Fragments of bulky objects in coarse whitish or darker ware, of soft but gritty consistency, could in certain cases be identified as of triangular loomweights (as B.M. *I.A. Guide*, fig. 179), the half-dozen stratified pieces being all in deposits of periods IV or VI.

Spindle-whorls. Fewer than 20 were found, nearly all cut from potsherds, mostly of coarse ware of native type; all those stratified were in post-conquest deposits (one of lead, fig. 64, 4, pp. 342, 344).

Roundels. Six, crudely made of native ware, were found in the post-conquest filling of ditch IB S. of pit Z 11, and another, made from a lid, in region 1. They were perhaps game-pieces.

B. STONE AND FLINT

Stone. Sandstone and other pebble rubbers require no special mention. A few small whetstones, of rectangular section, were also of sandstone. A worn piece of a grinding-palette of pale-coloured slate came from region 4. Two quern fragments of conglomerate came from region 3, and another of lava. Building-stone, perhaps from dumps for the Colonia, is represented by part of a slab of Purbeck marble from pit A 2 (period IV) and some pieces of imported marble slabs from the sand-pit and gravel-pit in region 3. Sporadic finds of septaria may be similarly explained: for those from ditch II see p. 42.

Flint. The few flint artifacts found may probably be referred to earlier prehistoric occupation (p. 4). Of the more numerous flakes, however, some few were stratified in period I or post-conquest deposits. Calcined hearth-flints¹ were particularly numerous in regions 1 and 4, and among pre- and post-conquest stratified examples three were found on the bottom of the period I pit D 14; their strongest connexion is thus with the period I occupation.

C. WOOD

The only small wooden object of note was a little peg-handled wedge from the period I silt of ditch I in region 1.

D. BONE

There were a few fragments of knife-handles and of pins or needles, none definitely pre-conquest. From the post-conquest rubbish in ditch I in section 36 came a round bone spindle, 11 cm. long and tapering (with a slight inward hollow) between ends 6.5 and 4.5 mm. in diameter, both cut off square. Of twelve scapulae of ox from the bottom of ditch I in region 1, two are noted by Dr. Jackson below (p. 351) as having had the spine cut away for use as shovels, presumably by the diggers of the ditch at the beginning of period I. For what was apparently a chopping-block made of a whale (or elephant?) vertebra, see Dr. Jackson below.

¹ For this explanation of these miscalled 'potboilers' see Bersu, *Proc. Prehist. Soc.* vi, 62.

IX. ANIMAL REMAINS

The creature most plentifully represented on the site was beyond all question the common oyster (*Ostrea edulis*, Linn.), the valves of which were found in virtually every deposit where there was refuse of any kind, often in immense profusion. Their relative abundance was greatest in deposits of period I, but those of post-conquest date included many large accumulations, and oysters were clearly a universally popular food. Their supply from the well-known beds of the Colne estuary must in fact have engaged a regular industry in these as in later times. Specimen oyster valves, and a shell of the buckie (*Buccinum undatum*, Linn.) from site A 1, were included in the collection of animal remains submitted to Dr. J. Wilfrid Jackson, F.S.A., F.G.S., which consisted otherwise of mammalian bones from the stratified deposits. Help in the preliminary sorting of those from region 1 was rendered in 1930 by Miss Dorothea Bate, who has also kindly reported on the bones of birds.

A. MAMMALIAN REMAINS

By J. WILFRID JACKSON, D.Sc., F.S.A., F.G.S. (Manchester Museum)

A selection of the mammalian remains obtained during the excavations at Colchester, from the principal stratified deposits, has been submitted to me by Messrs. C. F. C. Hawkes and M. R. Hull for examination and report.

Most of the bigger bones have been broken in the usual manner in order to extract the marrow for food purposes, but several bones and some skulls are in a fairly perfect condition, and this has enabled comparisons to be made with remains from other well-known habitation-sites.

The remains are separable into three groups, viz. from the pre-Roman (Belgic) key-deposits of period I (c. A.D. 10 to 43); from the key-deposits of period II, immediately following the Roman Conquest of A.D. 43; and from key and other deposits of the post-conquest periods III-VI, to about A.D. 65. They are described below under these headings, attention being directed to items of special interest only.

Period I (Pre-Roman), key-deposits

From these come the remains of horse, small ox, dog, fox, and cat. Remains of sheep and pig were also identified by Miss Bate, all in fragmentary condition, but similar to those from the succeeding periods. She also identified *red deer* from pit F2, which animal was absent from the key-deposits and evidently rare.

Notes

Horse. From ditch I silt in region 1 are two scapulae, of absolute lengths 280 and 327 mm. Similar remains were found at the Glastonbury Lake-Village,¹ and at All Cannings Cross.²

From the same deposit is a fairly perfect and narrow skull without the lower jaws: it has the

¹ *Glaston. L.-V.* ii, 649-51.

² Cunnington, *All Cannings Cross* (1924), 44.

following dimensions. Length of vertex (P.R. 1-2),¹ 505; length of cranium (P.R. 1-3), 175; length of face, 330; basilar length (P.R. 2-5), 455; frontal width (P.R. 8-8), 206; zygomatic width (P.R. 7-7), 193; post-orbital width (P.R. 6-6), 86; inter-orbital width (P.R. 9-9), 142; height of occiput (P.R. 1-5), 101.5; length of six cheek-teeth (P.R. 11-11), 163; least width behind incisors (P.R. 10-10), 60 mm. Both canines are present, and on the left side there is also a very small P.M. 1, but no trace of this tooth on the right side. The skull is narrow with a slightly dished face, the deflexion of the latter on the cranium being slight. In both these features, as well as in the dentition, the Colchester specimen agrees closely with a skull from the Roman fort of Newstead, figured by Ewart in 1910.² The latter is known as the 'Plateau' type (*Equus agilis*). A skull from the Glastonbury Lake-Village also agrees with the above, as well as with the skull of the New Forest pony.

From the same deposit are several limb-bones, a right maxilla, a pair of lower jaws, and a right lower jaw. Among the limb-bones are three humeri (lengths over all 250, 250, 260 mm.); one radius (length over all 280 mm.); two femora (lengths over all 325 and 270 mm.); three metacarpals (lengths 198, 195, 195 mm.: mid-shaft diameters 31, 28, 28 mm.); and three metatarsals (lengths 260, 255, 244 mm.; mid-shaft diameters 29, 30, 27 mm.). Two of the humeri (a pair) agree with Glastonbury specimens, but all three are somewhat smaller than examples from All Cannings Cross. The radius is exact to one from Glastonbury, but shorter than in the Exmoor pony and much smaller than an example from All Cannings Cross. The shorter femur agrees with one from Glastonbury which is less than in the Exmoor pony: the longer femur is larger than in the Exmoor and smaller than in the New Forest pony. The three metacarpals are in length between those of the Exmoor and New Forest ponies. The length to mid-shaft index in the longest is 6.4 (cf. Exmoor), and in the two others 7 (as in the New Forest). All three agree closely with others from Early Iron Age sites, as All Cannings Cross, Swallowcliffe Down,³ and Glastonbury, and belong to small animals, 11.7 to 12 hands high, of the 'Plateau' (*Equus agilis*) or 'Celtic pony' type. The three metatarsals confirm the above conclusion. The right maxilla has six cheek-teeth with short pillars, as in the skulls previously mentioned. The length of the tooth-row is 158 mm., near to that in the 'Plateau' type and the New Forest pony. The lower jaws are small and agree with others from Glastonbury and other places.

From the above it is seen that the pre-Roman inhabitants of Colchester possessed small, slender-limbed ponies of a similar type to those of various Early Iron Age sites and such Roman stations as Newstead. They were doubtless used for drawing wheeled vehicles. Caesar speaks of small horses in his well-known description of the British war-chariots of the time of his invasions, when, while the war-chariot had been superseded on the Continent by cavalry, the rarity of horses of rideable size left the Belgic tribes of Britain trusting almost entirely to their charioteers.⁴ From the evidence available this still remained true in the time of Cunobelin.

Ox. Twelve scapulae belonging to small 'Celtic oxen' come from ditch I bottom in region 1; two of them have had the spine cut away for use as shovels (pp. 59, 349). From ditch I silt in region 3 are some teeth and fragments of limb-bones.

Dog. From ditch I silt in region 1 are four skulls, a right lower jaw, and some limb-bones, belonging to dogs. Of the skulls three are capable of being measured; the fourth is small and too imperfect. A selection of measurements is given below with those of skulls of comparative interest from elsewhere.

¹ These P.R. figures denote Pitt-Rivers' points of measurement. See his *Excavations in Cranborne Chase*, vols. i and ii (1887-8).

² *Proc. Zoological Soc.* 1910, figs. 15, 17, and 22 of his

paper.

³ *Wilts. Arch. & Nat. Hist. Mag.* xliii, 33.

⁴ Cf. Ewart, *Trans. Roy. Soc. Edinburgh*, xlv (1907), 569.

Skulls of Dogs: dimensions in millimetres

	Colchester			Easton Down ¹ (Early Bronze Age)	All Cannings Cross ² (Iron Age A)	Maiden Castle ³ (Iron Age B)		Camerton ⁴ 1 (Romano- British)	Recent Foxhound
	1	2	3			D3	D4		
Total length	177	168	136	167	170	190	187	174	181
Zygomatic breadth . .	100	97	70	89	97	113	102	99	104
Tooth-row	63	57	47	58	65	67	60	64	61
Length of snout . . .	76	68	57	72	77	81	81	74	78
Breadth over canines .	34	36	27	35	36	42	39	33	37

From these measurements it will be seen that skull no. 1 is somewhat larger than the Easton Down and All Cannings Cross specimens (Wilts.: Early Bronze Age and Iron Age A), but smaller than two from Maiden Castle (Dorset: Iron Age B). It is near to one from Camerton (Somerset: Romano-British), and slightly smaller and a little narrower in the snout than a recent foxhound in the Manchester Museum. Skull no. 2 is near to those from Easton Down and All Cannings Cross, except for longer snout in the latter; it is much smaller than those from Maiden Castle, and smaller than that of the same recent foxhound. Skull no. 3 is smaller than that of the recent fox-terrier used as a test-animal by Pitt-Rivers.

Also from ditch I silt in region 1 is a right lower jaw measuring 123 mm. in length, with a tooth-row of 65 mm. It may belong to skull no. 2. This jaw is smaller than nine jaws from the Glastonbury Lake-Village and two from Maiden Castle, but agrees with five from All Cannings Cross and is near to a pair from Easton Down. It is smaller than those of the recent foxhound in the Manchester Museum.

The lengths of the few limb-bones from this same deposit are given below with those of others from the same comparative sites.

Limb-bones of Dogs: dimensions in millimetres

	Colchester	Easton Down	All Cannings Cross	Maiden Castle		Glastonbury Lake-Village (Iron Age B)	Camerton	
				D3	D4		1 (Romano- British)	2 (Iron Age B) ⁵
Humerus	145	133	148	153	158	149	146	149
Radius	146.5	133	..	145	156	148	150	151
Ulna	169.5	160	..	173	182	..	177	176
Femur	160	145	..	163	170	179	160	166
„	157	143	..	..	..	165	..	..

In addition to the humerus mentioned in this table there is another bone of the right side which has been fractured in life and reset.

All the above belong to small dogs, less than 2 feet high at the shoulders.

Fox. A brain-case and left maxilla from ditch I silt in region 1 belong to fox.

Cat. There is an imperfect left ulna of this animal from the same deposit.

¹ *Wilts. Arch. & Nat. Hist. Mag.* xvii, 76-8 and pl. iv.

² Cunington, op. cit., 49.

³ Wheeler, *Maiden Castle*, 369-70.

⁴ Unpublished at present.

⁵ *Proc. Somerset Arch. & N.H. Soc.*, lxxxiii (1937), 164.

Period II (Roman Conquest), key-deposits

The period II infilling of ditch I yielded remains of the following: horse, small ox, sheep, pig, and dog. All are similar in type to those of period I.

Notes

Horse. An imperfect lower jaw was found at this level in section 31 (region 3). The length of the six teeth is 172 mm. It agrees very closely with the period I pair of lower jaws noted above.

Ox. An immature lower jaw of small ox comes from the same location.

Sheep. A fragment of lower jaw of sheep comes from the same place.

Pig. The foreparts of two lower jaws, and fragments of others, come from the same place.

Dog. From the same infilling in region 1 are two left lower jaws. One is imperfect; the other measures 122 mm. long with a tooth-row of 64.5 mm., and agrees with the period I example from the silt below.

Periods III-VI (Post-conquest), key- and other deposits

From these deposits are the remains of horse, small ox, small sheep, and pig. There were also two fragments of very large bones, of some much bigger mammal, found at 2 ft. 6 in. in the period III-IV dark earth stratum near the N. verge of the Roman roads in region 3, 60 ft. within the W. entrance (p. 83): both are most imperfect, but the larger appears to be part of the centrum of a vertebra, and shows on one face ancient cut-marks suggesting use as a chopping-block. Dr. F. C. Fraser of the British Museum (Natural History), has kindly examined it, and, after comparison with his collections, and bearing in mind my own first suggestion that it might be the vertebra of an *elephant*, thought that it was more probably that of a *whale*. It is stated by Dio (lx, 21, 2) that elephants were included in the war-train assembled by Claudius for his personal contribution to the conquest campaign of A.D. 43, and it is thus possible that one of these may have died during or soon after the Emperor's brief visit to Colchester at the beginning of period II, and its bones utilized here thereafter. However, the use of a whale's vertebra as a chopping-block is attested on the Iron Age and Romano-British site at Kingston Buci, near the Sussex coast (*S.A.C.* lxxii (1931), 214-15), and the stranding of a whale on the Essex coast near Colchester appears on the whole the more probable explanation of these fragments. But the elephant possibility remains conceivable.

Notes

Horse. A slender metatarsal, damaged at both ends, comes from site A3 (period VI); a broken-up skull and both upper jaws with teeth from ditch II in region 3 (period V). Owing to the imperfect condition of the skull, little can be said about it. The width between the occipital condyles is 82 mm., and the total length of the six cheek-teeth is 165 mm., a little longer than in the New Forest pony but equal to the jaws of a skull from Glastonbury and one from the Roman fort at Newstead. All three belong to the 'Plateau' type (*Equus agilis*) of Ewart, the teeth having short pillars.

Ox. Broken and split bones and fragmentary jaws belong to small oxen. They come from various deposits. A horn-core from the occupation E. of site A4, and one from pit A5 (both period IV), may be quoted as typical, of the small 'Celtic shorthorn' (*Bos brachyceros* Owen).

Sheep. Fragmentary jaws and broken bones from various locations belong to a small breed of sheep.

Pig. This animal also is represented by broken bones and fragmentary jaws.

The rarity of *deer* is worthy of note. If the red deer was hunted in the neighbourhood at the

period of the occupation, its flesh does not seem to have been frequently eaten by the ordinary inhabitants of the site.

In general, the types of animals represented in the pre-Roman period I continue likewise after the Roman Conquest. Larger horses, perhaps introduced by the Romans, are only attested from the later Roman well V in the SE. of region 5 (p. 128), in which were remains of horse as follows. At bottom: a metatarsal of large type minus the distal end; a very large left radius with a length over all of 347 mm.; and part of a very large tibia. At 5 feet: back part of skull; part of fairly large right femur; and part of large tibia. These remains suggest larger animals than the small, slender-limbed type mentioned above. They perhaps belong to horses of imported Roman type.

B. BIRD REMAINS

By DOROTHEA M. A. BATE, Hon. M.B.O.U., C.F.A.O.U.

The collection of bird remains from the excavations at Colchester is quite a small one, and consists mostly of the bones of the Raven (*Corvus corax* Linn.). Twenty specimens of these have been identified from the primary silt of ditch I in region 1, belonging to the pre-Roman period I (c. A.D. 10-43), and two more from the period II infilling above this (c. A.D. 43/4) are probably contemporary in origin. The same primary silt produced two bones of the Heron (*Ardea cinerea* Linn.), and one each of the Common Buzzard (*Buteo buteo* Linn.) and the Domestic Fowl (*Gallus* sp.). From the filling of pit F I of period IV (A.D. 49-61) comes one of the Swan, almost certainly Bewick's Swan (*Cygnus bewicki* Yarrell). These remains are of distinct value owing to their definite dating.

It is not surprising to find that birds did not form an important article of diet among the inhabitants of the Colchester site, for the settlement was situated on ground not likely to attract wild fowl in great numbers. Other reasons for the small number of bird bones would be the possession of domesticated animals to supply a staple diet, and the fact that, except in the neighbourhood of extensive marshes such as surrounded the Glastonbury Lake-Village, birds would probably be more difficult to obtain for food than other wild animals.

The high proportion of bones of ravens seems to suggest that these birds were present in considerable numbers, and probably acted as scavengers. They would naturally be attracted by such masses of animal refuse as were shot throughout period I into the sodden unsealed silt of ditch I in region 1. Ravens are no longer found in this part of Britain. In Essex and Suffolk this species gradually became extinct during the last century, the latest record for Suffolk being 1884, while 1890 is the last definite nesting date for Essex (Glegg, *A History of the Birds of Essex*, 1929). In Essex at the present day Bewick's Swan and the Common Buzzard are irregular winter visitors, while the Heron is a common resident.

The most interesting and important specimen in the collection is the anterior half of a sternum of a Domestic Fowl obtained from the primary silt of ditch I. The only other gallinaceous birds in this country the sternum of which might be confused with this are Pheasant and Blackgame. The Pheasant is not yet definitely known as a pre-Roman inhabitant of Britain. Very careful comparison has been made of the sternum of these three birds, and it was found that each differed in a number of characters from the others. As a result of this study the bone in the present collection is considered to be that of a Domestic Fowl (*Gallus*). It represents a bird of medium size. A detailed description and comparison of this specimen was published in *The Ibis*, April 1934, 390-5.

There have been many theories on the subject of the time and manner of introduction of the Fowl into this country. The belief that this bird was first brought to Britain by the Romans is still commonly expressed, even though Boyd Dawkins as long ago as 1874 stated that 'the domestic fowl is to be recognized on Gallic coins before the Roman invasion, and therefore was probably

known at the very dawn of Gallic history'.¹ This evidence does not appear to have been supported by osteological specimens from the Early Iron Age of Gaul.

So far as I am aware this specimen from Colchester is a definitely dated pre-Roman record of *Gallus* in Britain which seems at present to stand almost alone, the only other such occurrence being at Kingsdown Camp, near Mellis, Somerset, where Dr. Jackson has pointed out that a few bones of a small fowl were found in the pre-Roman silting of the inner ditch,² approximately contemporary with that of ditch I at the Colchester site. The British Museum (Natural History) collections include a coracoid of *Gallus* from Hanging Langford Camp, Wylve, Wilts., where pre-Roman Iron Age occupation, largely Belgic of the first century A.D., has been attested, though Romano-British remains have also been found.³ Specimens have been obtained from a number of caves in this country, such as Ravencliffe Cave, Derbyshire, Heathery Burn Cave, Durham, Gough's Cave (Cheddar), Somerset, and the Chudleigh Fissure deposit, Devon, but apparently nowhere with any definite evidence of pre-Roman date.⁴ On the other hand, remains of *Gallus* are commonly found in excavations of Roman sites, such as London, Silchester, Caerleon, &c.; some of these bones attain a large size, while the tarso-metatarsi may have highly developed spurs, the species having been bred for cock-fighting.

In the late pre-Roman period represented by the Colchester and Kingsdown specimens, and possibly also by that from Hanging Langford Camp, southern Britain was already in contact with the Roman Empire, whence the Domestic Fowl would seem to have been introduced, probably in the first century B.C., since Caesar (*B.G.* v, 12, 6) states that the Britons would not eat fowls—nor hares nor geese—but kept them as pets. Our evidence accords with this observation: the fowl in this period was evidently still an exotic novelty.⁵

¹ *Cave Hunting*, p. 80.

² *Arch.* lxxx, 96, 97.

³ Crawford and Keiller, *Wessex from the Air*, 116-18.

⁴ Bell in his very useful review of the British Pleistocene and later bird fauna (*The Zoologist*, 4th ser., xix (1915), 401 ff., 408) mentions 'Glastonbury' as a 'Celtic' locality for the Domestic Fowl. But in neither of his two reports (*The Ibis*, July 1899, 351; *Glaston. L.-V.* ii, 633) on the bird remains from the Glastonbury Lake-Village does Dr. Andrews refer to *Gallus*.

⁵ In *St. Catharine's Hill, Winchester* (Hants Field Club,

1930), 180-1, Mr. Hawkes drew attention to five human contracted burials found in 1885 beneath the Star Inn, 83 High St., Winchester, in two of which the skeleton of a fowl was reported between the legs of the corpse. Apart from this seemingly unique occurrence, he was for ascribing the burials to the Early Bronze Age, but he is no longer satisfied with this dating: the analogy of the huddled skeletons in the 'War Cemetery' at Maiden Castle (Wheeler, *Maiden Castle*, 118-19, 351 ff.), two holding joints of lamb, suggests that they should be assigned to the period of the Roman Conquest.

X. VEGETABLE REMAINS

A. WOOD AND WOOD CHARCOAL

A large number of specimens was submitted to Miss F. L. Stephens, Dept. of Botany, British Museum (Natural History). *Oak* and *hazel* were the only species identified, oak occurring in every location represented. All the seven samples from the primary silt of ditch I (period I) contained oak, and six of them also hazel, and both species were obtained also from the overlying strata of periods II and III, from sites F2 and F3 and other deposits of periods III and IV, and from the filling of ditch F5 (periods V/VI). The piece of wood in the period I pit F2 (p. 62) was also oak, as was the lining timber of pit F4 (p. 65; also period I) and all the wells. Oak was also recognized, e.g., in the period IV occupation areas along road II, and was evidently the main structural timber employed throughout the occupation, while hazel rods will have been used for wattle-work.

B. BRACKEN

A quantity of bracken (*Pteris aquilina*) was found preserved in the damp filling of the period IV pit F10 (p. 69), and was identified by Dr. J. Ramsbottom, Keeper of Botany, British Museum (Natural History).

INDEX OF STRATIFIED DEPOSITS

In the second column, capital figures indicate Key-deposits (see p. 27), small figures other deposits.

<i>Deposit</i>	<i>Period</i>	<i>Region</i>	<i>Pages</i>	<i>Deposit</i>	<i>Period</i>	<i>Region</i>	<i>Pages</i>
Clay-pits I-III	IV-VI	5	121	Pit A25-7	VI	3	85
Ditch I	I-IV	1	58-60	" A28	(modern)	3	85
"	"	2	71 f.	" A29	VI	3	85
"	"	3	77 f.	" A30-I, 34	iv	3	88, 93
"	"	5	108 f.	" B1-3	iv	3	93
Ditch I A	I-IV	5	111 f., 118	" B4	iii (?)	3	81
" I B	I-IV	5	112 ff., 118	" B6	III	3	81
" II (and palisade-trench)	V	2	73	" B7	IV	3	81, 93
Ditch II (and palisade-trench)	V	3	81, 83, 85, 94	" B8-11	iv	3	93
Ditch II (and palisade-trench)	V	5	110, 116, 120	" C1-2	iii	3	88
Ditch II (and palisade-trench)	V	6	125	" C4	iii-iv	5	119, 120
Ditch II A = F6 (and palisade-trench = F5)	v	1	64, 70	" C5-9A	iv	5	120
Ditch A3	iv	3	93	" C10-11	iii-iv	5	119, 120
" A4	iv (?)	3	88, 93	" C12	iv	5	120
" B3	iv (?) - vi	3	93	" C15-16, 20-1	vi	5	121
" B4	iv (?)	3	93	" D1-1a	iv-vi	4	105
" E1	iv	2	77	" D1b-c	iii	4	101, 104-5
" E3 (aqueduct)	III	2	73, 76	" D2	iv-vi	4	102, 105
" E4	I	2	73	" D3-4	vi	4	107
" E5	i	2	75	" D6	iv	4	105
" F2	iv-vi	1	68-70	" D7	i-iii (?)	4	103
" F3-4	iv	1	69	" D8	iii-iv (?)	4	104
" F5 and 6, <i>see</i> above, Ditch II A				" D9	i	4	100
" H1	iii-iv	1	68-9	" D10	vi	4	103, 107
" Z1-4	VI	5	115, 116-21	" D11-12	i	4	100
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I



2

1. Region 1: section of ditch 1 (from W.), filled by deposits of periods I-IV. (pp. 58-60.) 2. Region 1: oblique section of ditch 1 (from SE.), showing stake of NW. entrance causeway (period I), and deposits of periods I-IV cut by ditch F6 or IIA (period V). (pp. 60, 70.)

PLATE III



1



2



3

- 1, 2. Region 1: sections (seen from E.) respectively of ditches F6 and F5, or ditch IIA and palisade-trench (period V, filled VI). (p. 70.)
3. Region 1: well I (period III), with site FI (periods III and IV) behind, seen from E. (pp. 68 and 126, with pl. xv.)



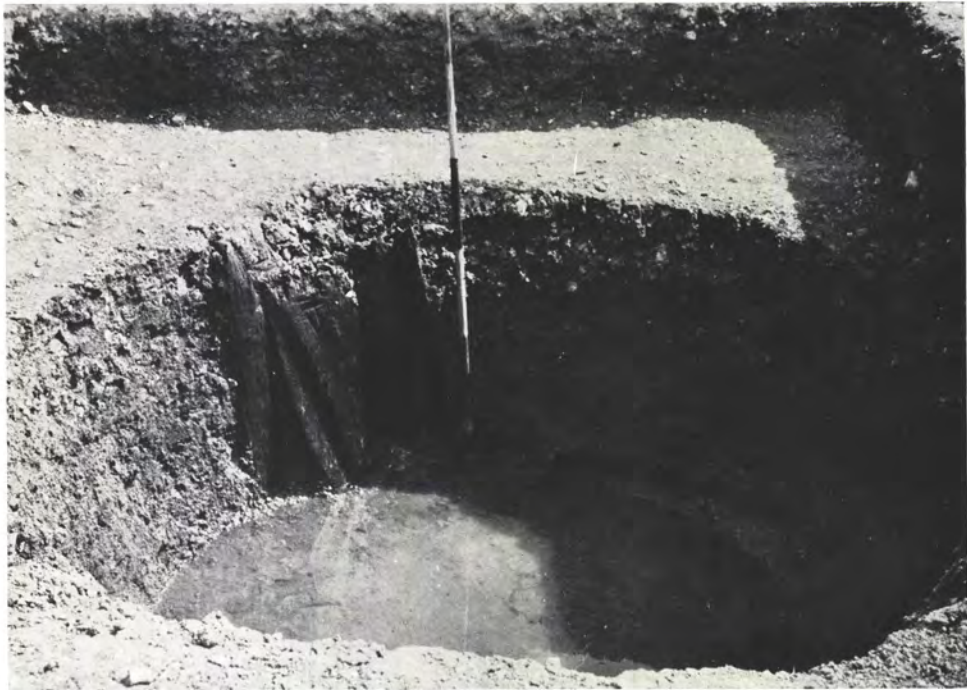
I



2

1. Region 1: ditch I edge (in foreground) and remains of rampart (period I), with site F3 (periods III and IV) thereon, seen from W. (pp. 60, 68.)
2. Region 1: site F15 (periods I-IV) partly excavated, seen from W. (pp. 66-8.)

PLATE V



1



2

1. Region 1: pit F4 (period I), with timber lining, seen from S. (p. 67.)
2. Region 2: mouth of tile-kiln (period IV): stokehole in foreground, seen from E. (p. 71.)



I



2

1, 2. Region 2: views of ditch E3 (aqueduct of period III): 1 from SW., 2 from E. (pp. 73 ff.)



I



2

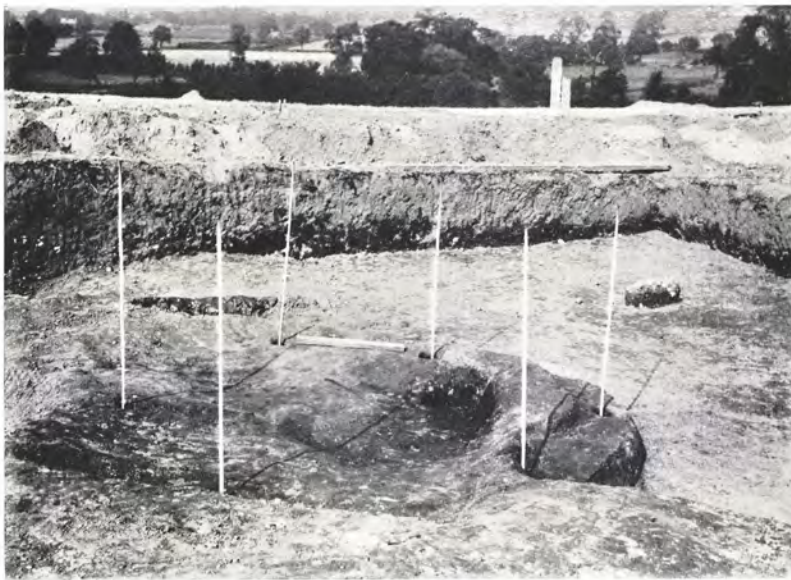


3

1. Region 3: section of ditch I, filled by deposits of periods I-IV, seen from N. (p. 77.)
2, 3. Region 3: site A2, with remains of period I turf and period III (-IV) timber revetments: 2 from E., 3 from W. (pp. 85, 87.)



1



2

1. Region 3: site A1 (period IV), emplacement of revetment along S. side of road II, seen from W. (pp. 86-90.)
2. Region 3: site A5 (occupation-site of period IV), with wands standing in stake-holes round wall-bank, seen from S. (p. 91.)

PLATE IX



1



2

1, 2. Region 3: site A1 (period IV), emplacement of timber building; 1, W. end, seen from E., with contemporary pits in background; 2, E. end in foreground, from NE. (pp. 86-90.)



I



2

1. Region 3: site A4 (period IV, destroyed V), seen from NE., cleared of period VI filling.
2. Region 3: site A4 timber-emplacements in foreground, seen from SW.; behind, ditch II and clavicula (period V) and pits A26-7 (VI). (pp. 85, 91 f.)



1



2



3

- 1 Region 3: ditch II and clavicula (period V), seen from SW., passing respectively behind and in front of the period VI pits A26-7. (p. 95.)
- 2 Region 3: junction of ditch II and clavicula, from SW. (p. 94.)
- 3 Region 3: ditch II (period V), seen from SW., overlain by the period VI occupation-site A3. (pp. 94, 95.)



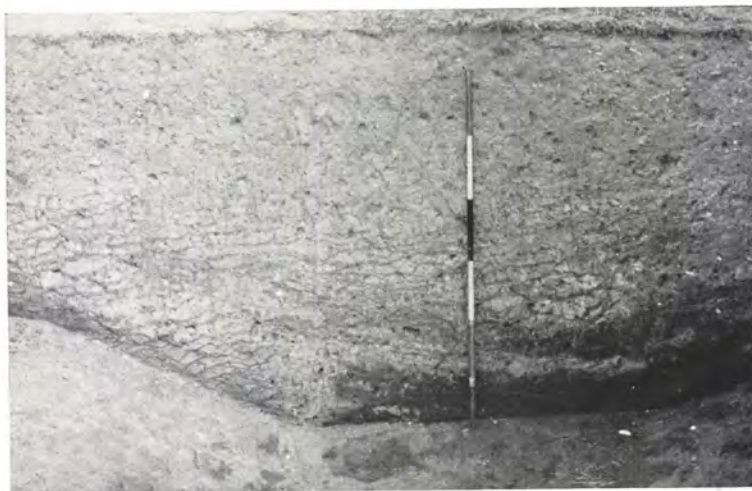
I



2

1. Region 4: pottery-kiln, of period IV, destroyed V. (pp. 105 ff., 281 f.)
2. Region 4: group of pottery (restored) found in pit L19, of end of period IV. (pp. 281 f.)

PLATE XIII



1



2

1. Region 5: section 77 of ditch I_B (period I, filled periods II onwards), seen from NW. (p. 114, with fig. 28.)
2. Region 5: ditch I filling seen from SE. in section 69, cut by the period V ditch II. (pp. 108 f., with fig. 27.)



1



2

1. Region 5: ditch II (right) and palisade-trench (period V) in area G, seen from NW. (p. 120.)
2. Region 5: pit G4 (period VI), with iron swords (pl. civ) and pottery as found, probably debris of period V. (pp. 112, 114.)



1



2

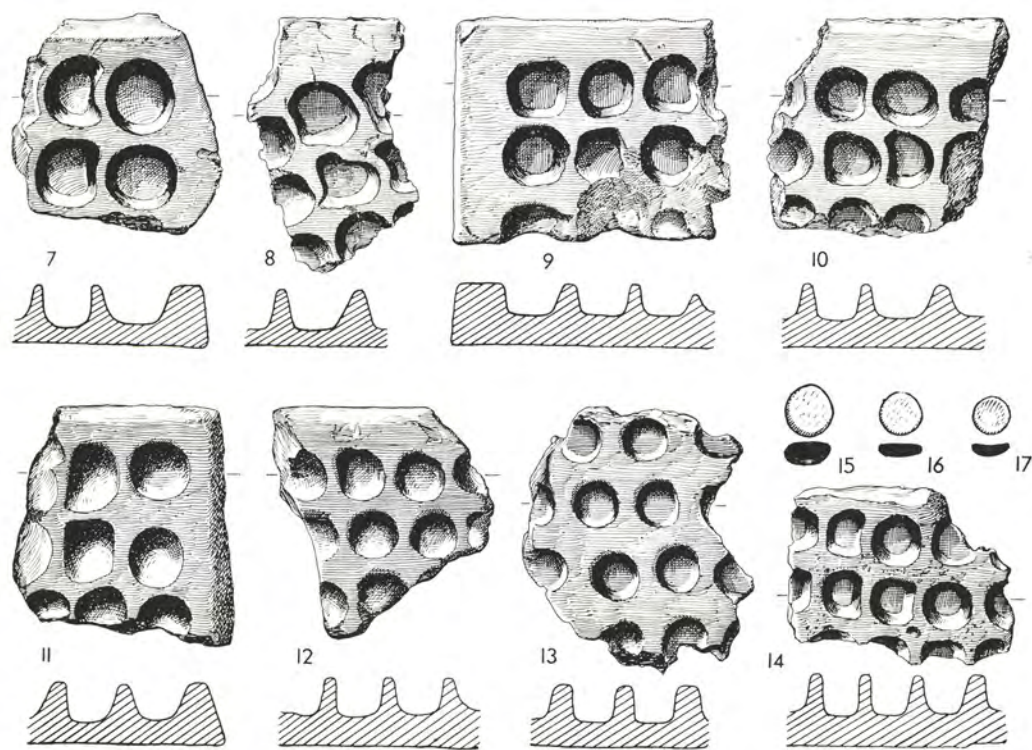
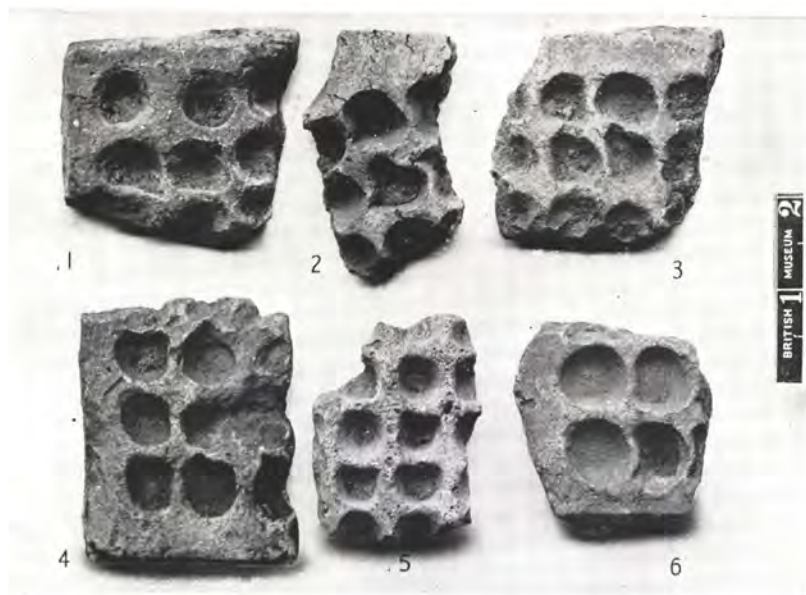


3



4

1. Well I (region 1). (pp. 68, 126, with figs. 8, 37, and pl. III, 3.)
2. Well II (region 4). (pp. 107, 126, with fig. 38.)
3. Well III (region 4). (pp. 107, 126, with fig. 39.)
4. Well IV (region 2). (pp. 76, 126, with fig. 40.)



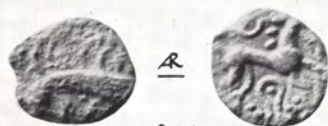
British coin-mould fragments (1-14) and unstruck bronze coin-flans (15-17). (pp. 129 f.)
 Scale $\frac{1}{2}$. (1 = 11, 2 = 8, 3 = 10, 4 = 9, 5 = 14, 6 = 7.)



1(1)



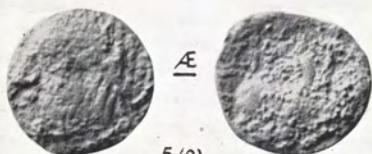
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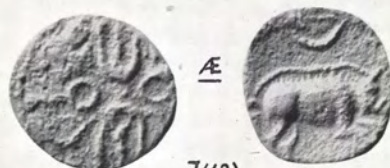
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5(8)



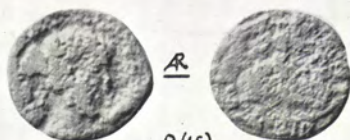
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8(13)



9(15)



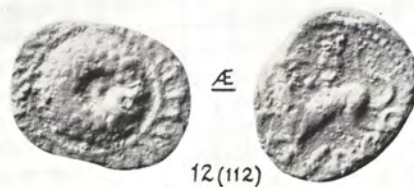
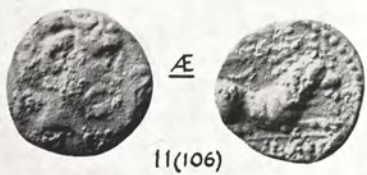
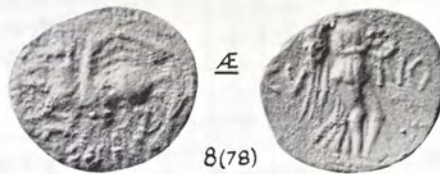
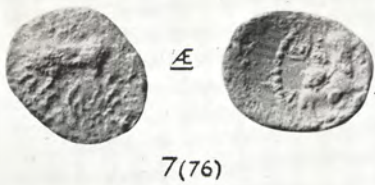
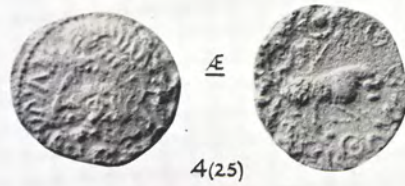
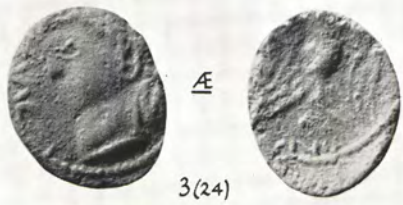
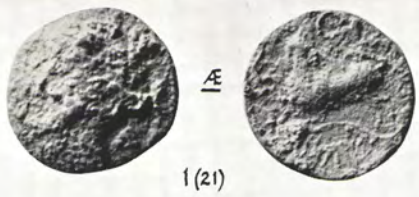
10(16)



11(17)

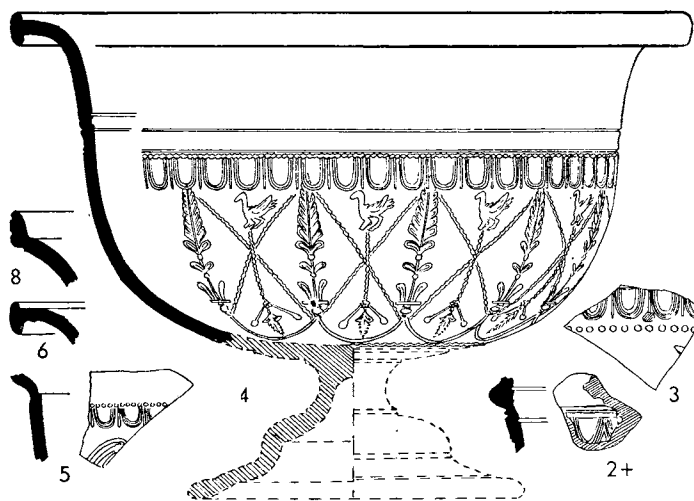
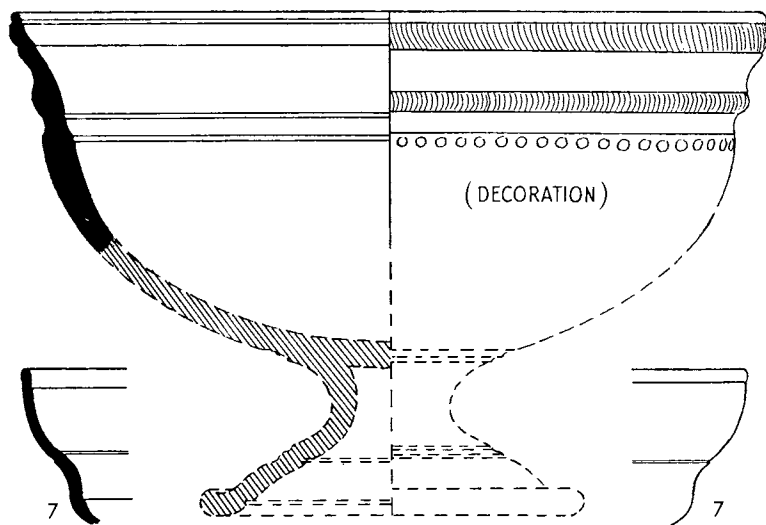


12(20)

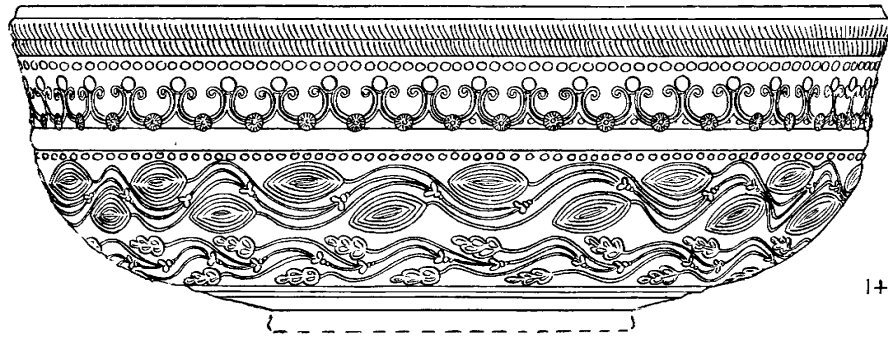




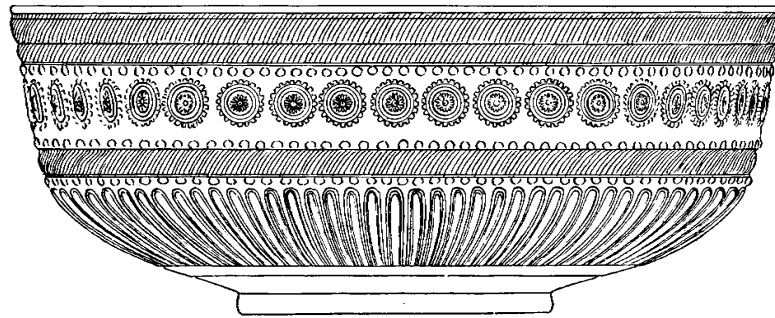
Roman bronze coins. Scale $\frac{1}{4}$. (pp. 142 ff.; key, p. 160.) 1-3, from group III; 4, group I no. 104; 5, group I no. 107; 6-7, from group III; 8, group I no. 142; 9, group I no. 151; 10-14, from group III.



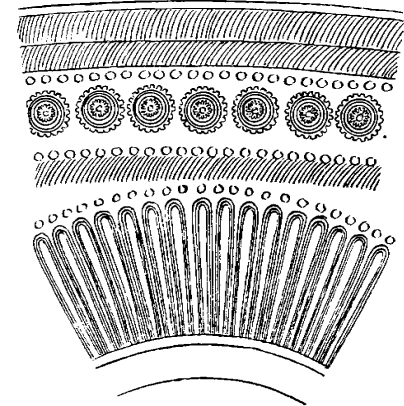
Decorated Terra Sigillata, form Dr. 11, &c. Scale $\frac{1}{2}$.
 (pp. 168-9, 177-9.) + = unstratified.



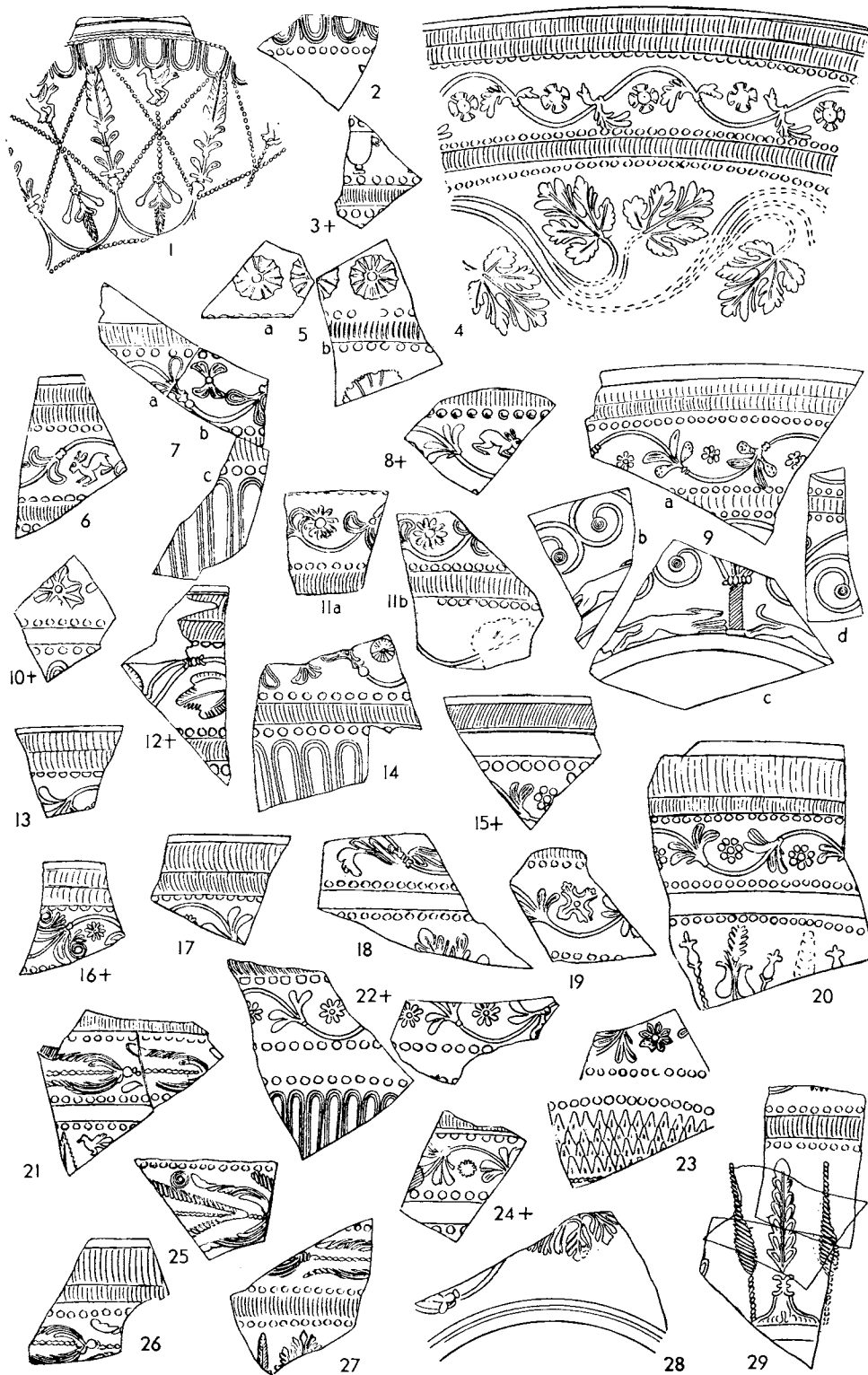
1+



2

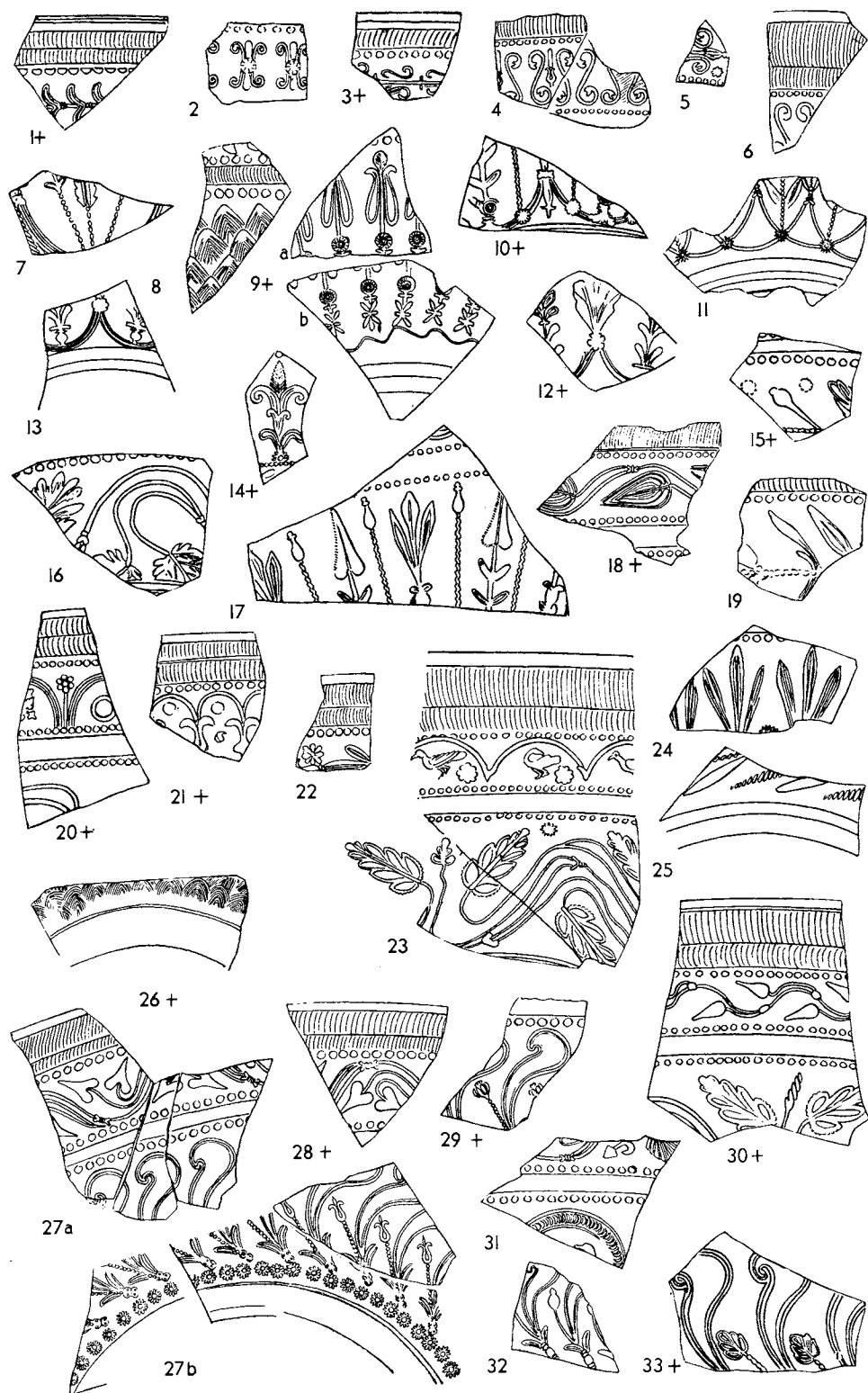


Decorated Terra Sigillata, form Dr. 29, Tiberian. Scale $\frac{1}{2}$. (p. 170.) + = unstratified.

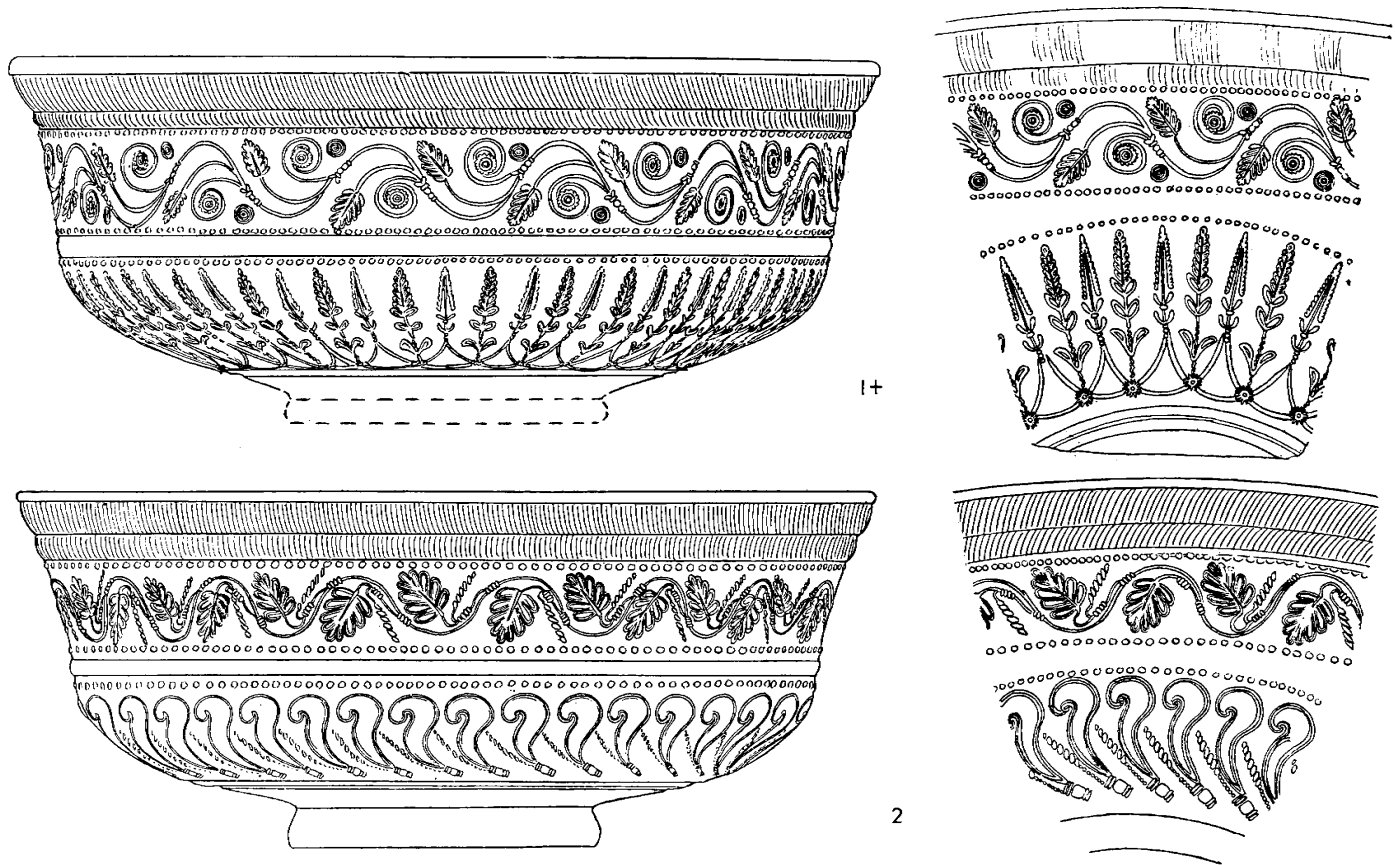


Decorated Terra Sigillata, form Dr. 29, Tiberian to Early Claudian. Scale $\frac{1}{2}$.
 (pp. 170, 177-8.) + = unstratified.

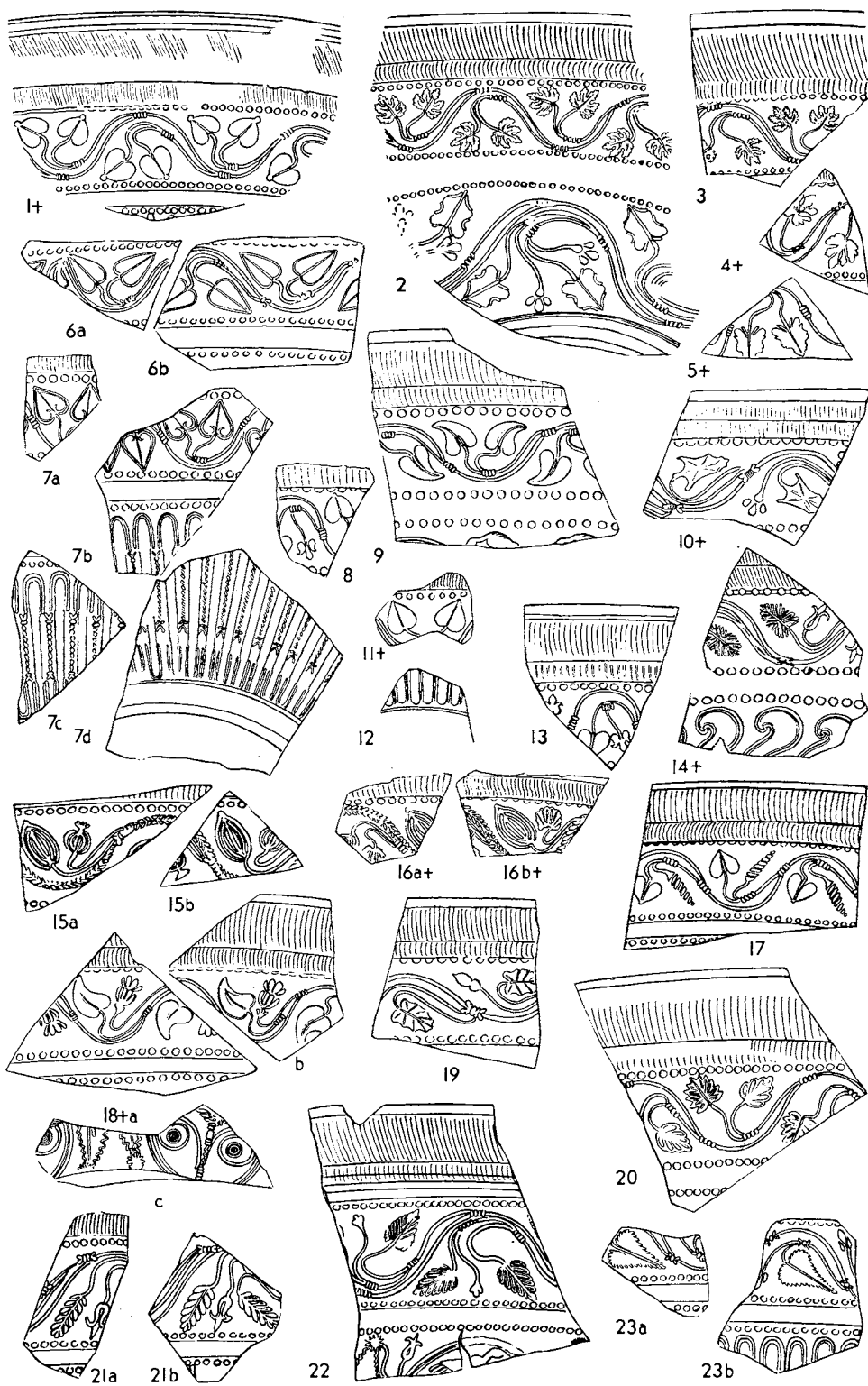
PLATE XXIII



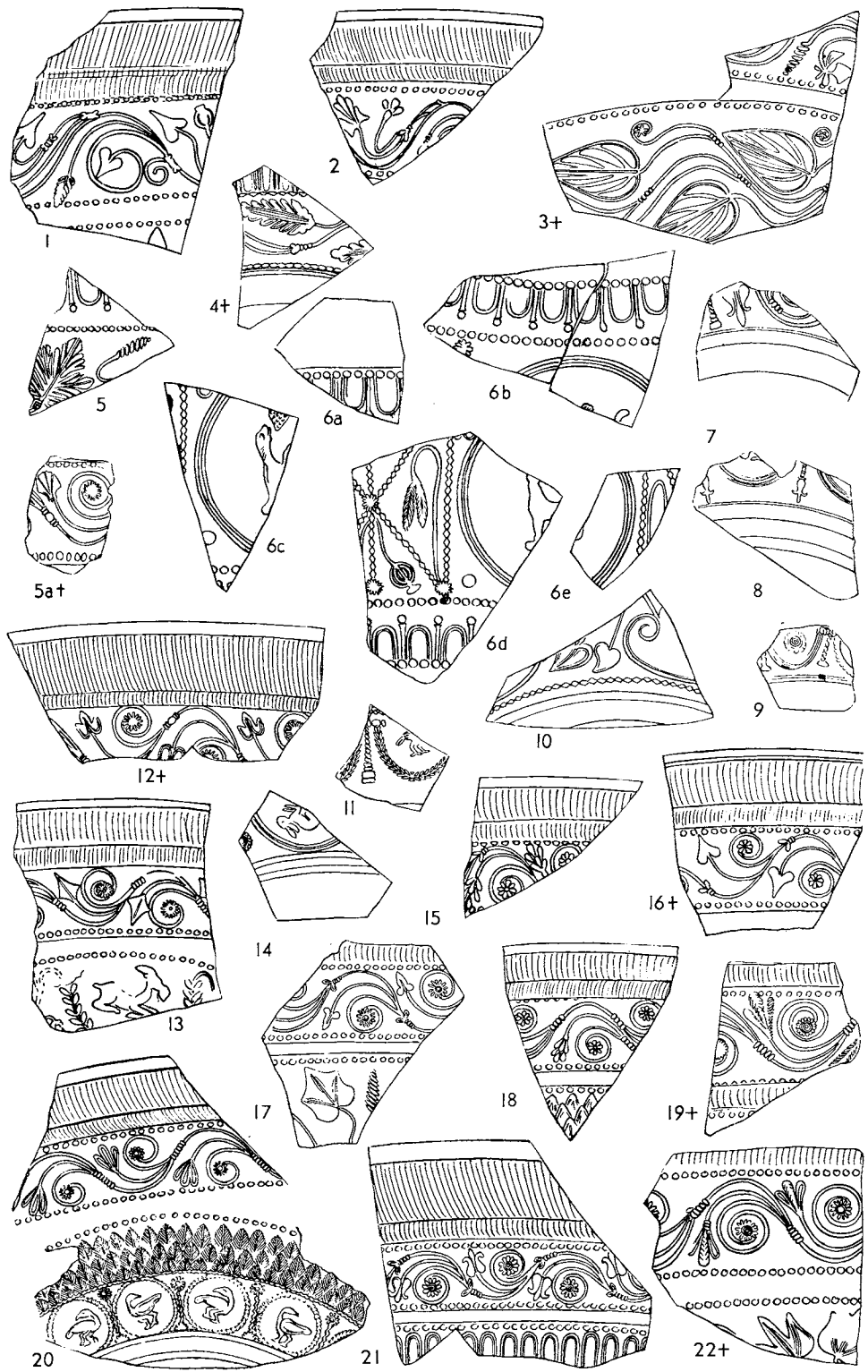
Decorated Terra Sigillata, form Dr. 29, Early Claudian. Scale $\frac{1}{2}$. (pp. 170, 177-8.)
 + = unstratified.



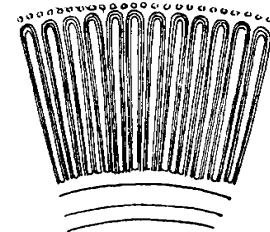
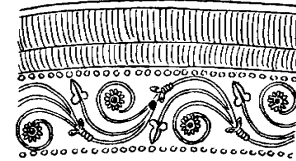
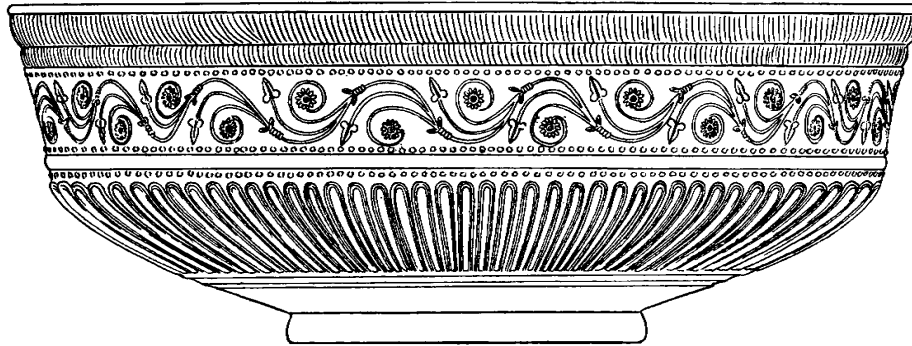
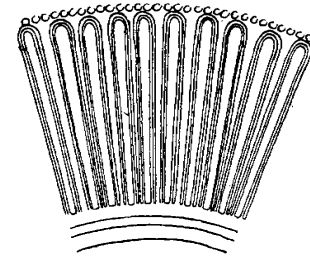
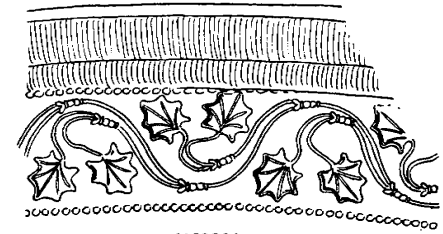
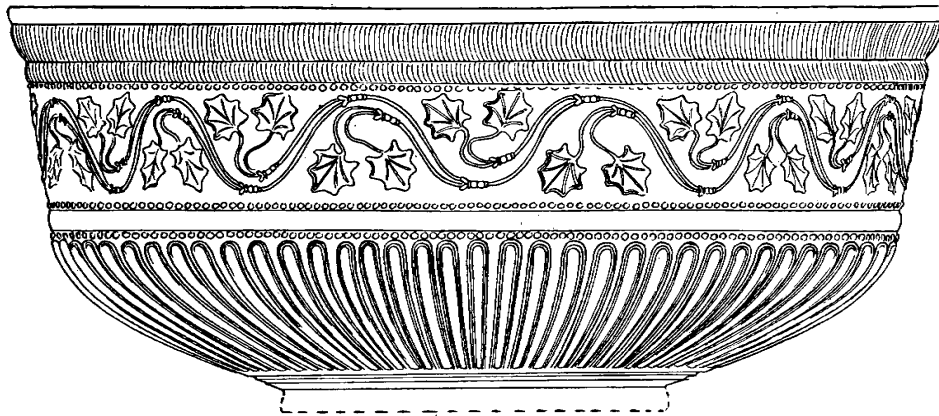
Decorated Terra Sigillata, form Dr. 29: 1, Claudian; 2, Pre-Claudian. Scale $\frac{1}{2}$. (pp. 171, 177.) + = unstratified.



Decorated Terra Sigillata, form Dr. 29, Claudian. Scale $\frac{1}{2}$. (pp. 171, 177-8.)
 + = unstratified.

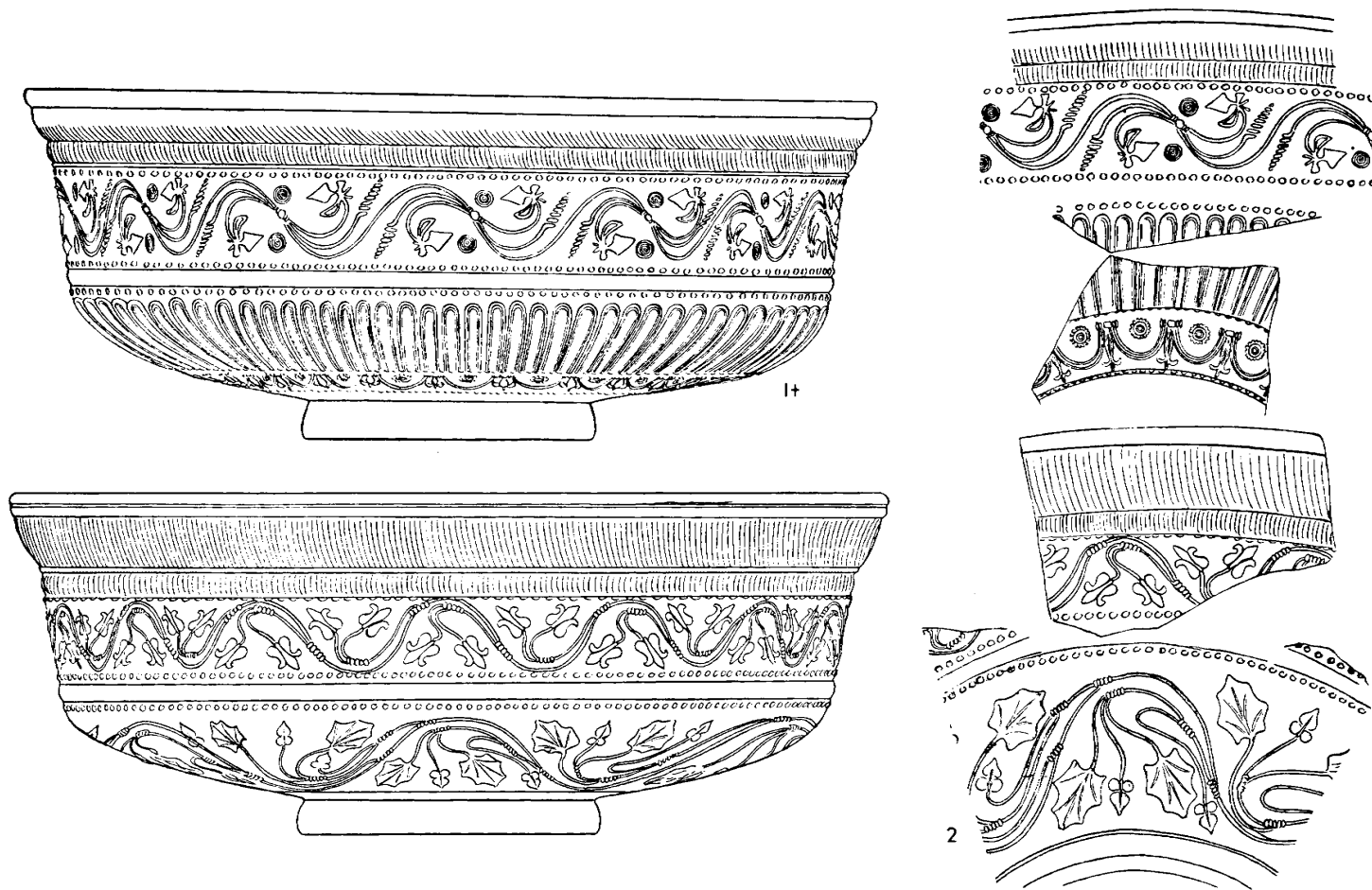


Decorated Terra Sigillata, form Dr. 29 and (5, 6) from flagons, Claudian.
 Scale $\frac{1}{2}$. (pp. 171, 177-8.) + = unstratified.

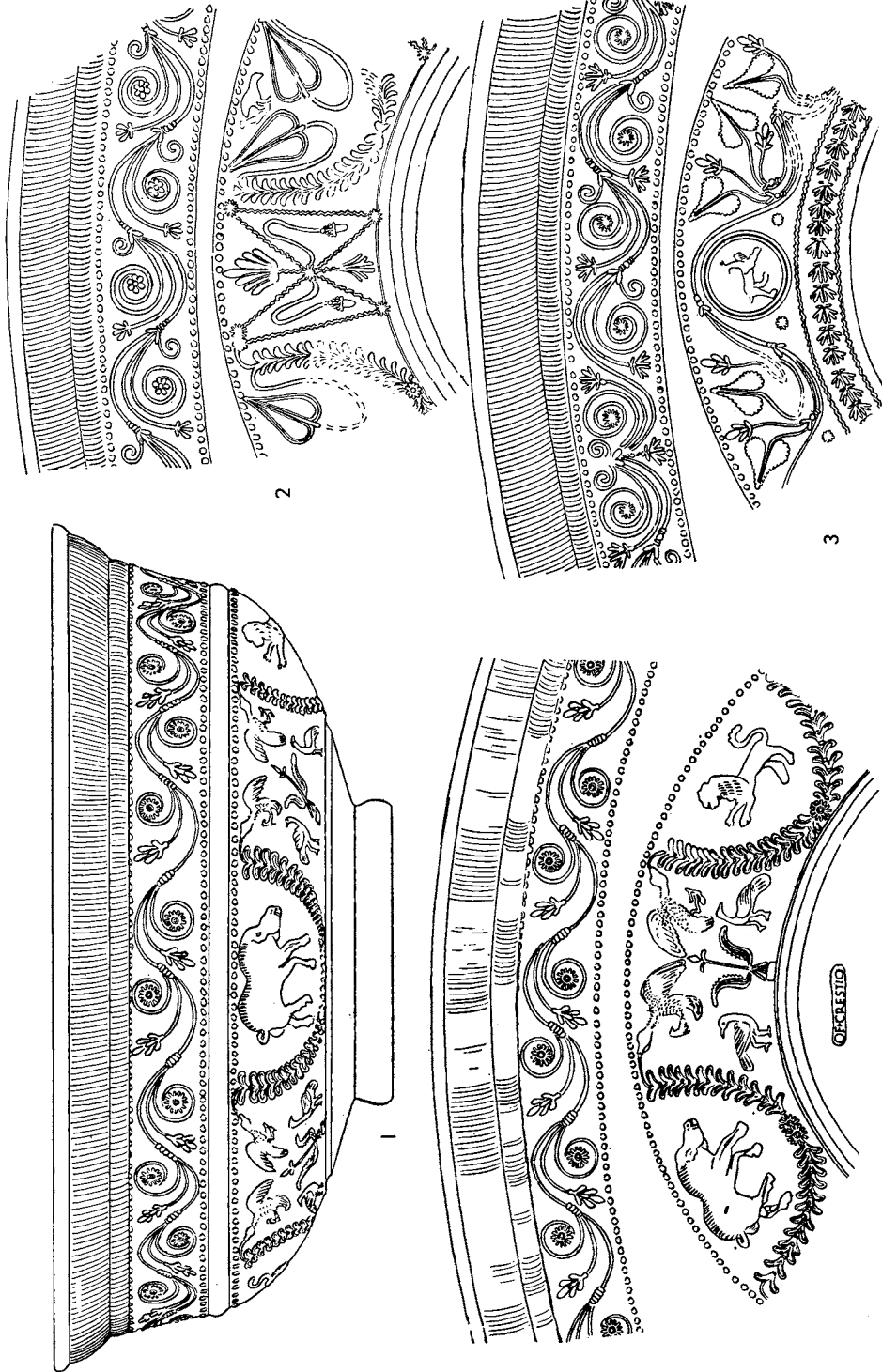


2

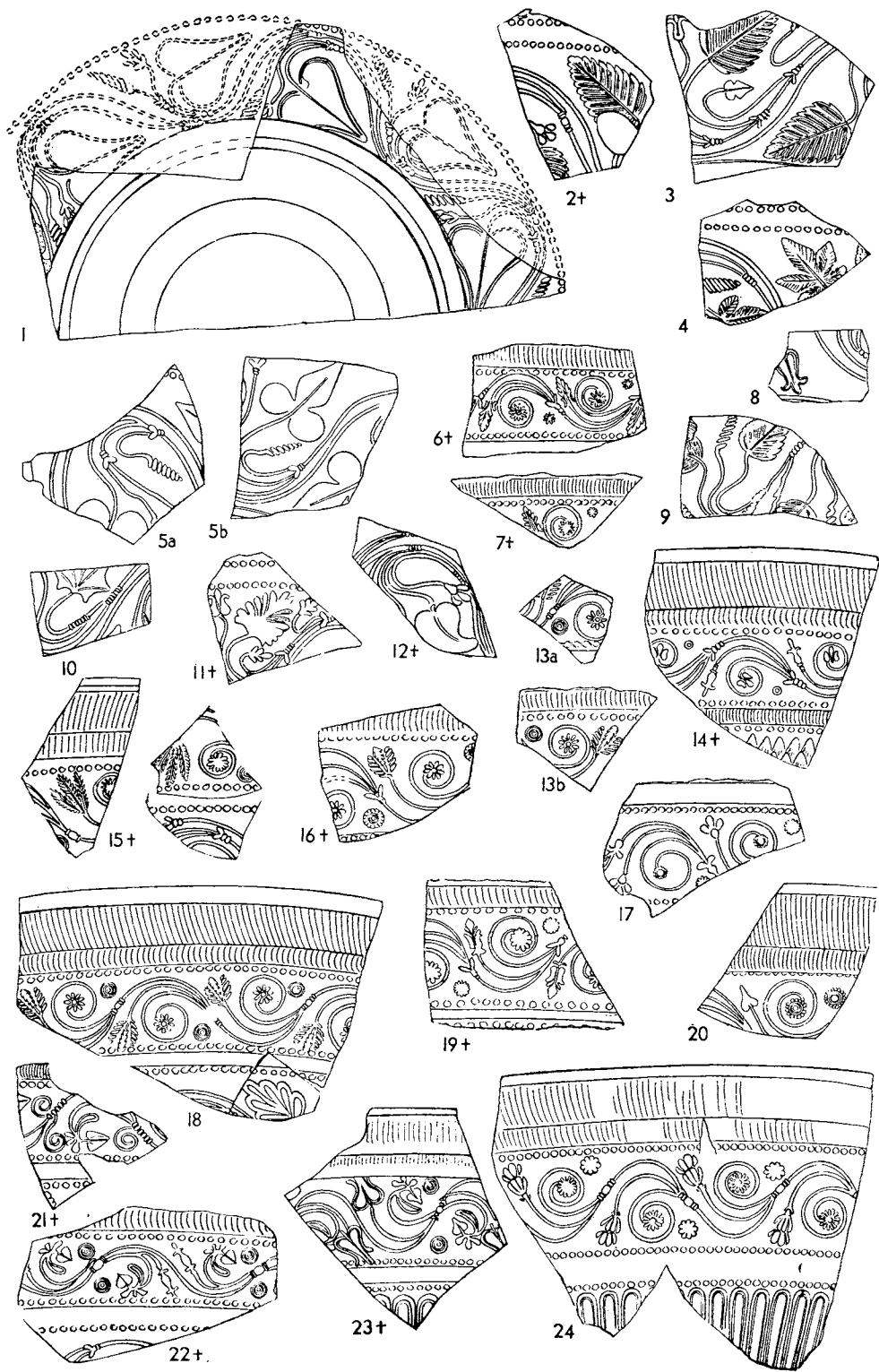
Decorated Terra Sigillata, form Dr. 29, Claudian. Scale $\frac{1}{2}$. (pp. 171, 178.)



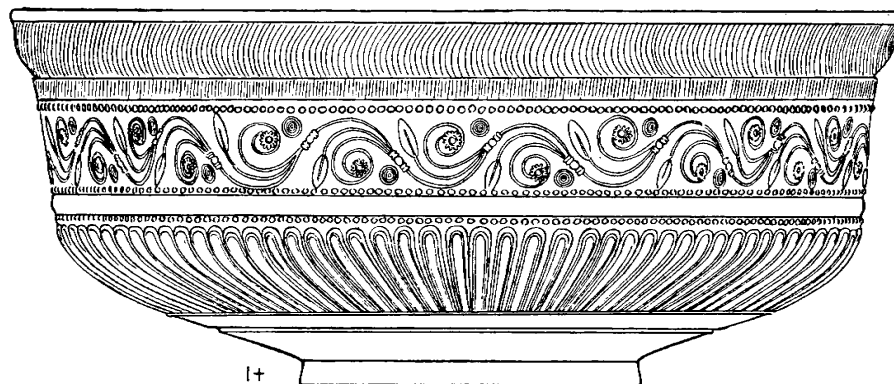
Decorated Terra Sigillata, form Dr. 29, Claudian: no. 1 stamped OF·AQVITANI; no. 2 stamped OF·CRESTIO
 Scale $\frac{1}{2}$. (p. 172.) + = unstratified.



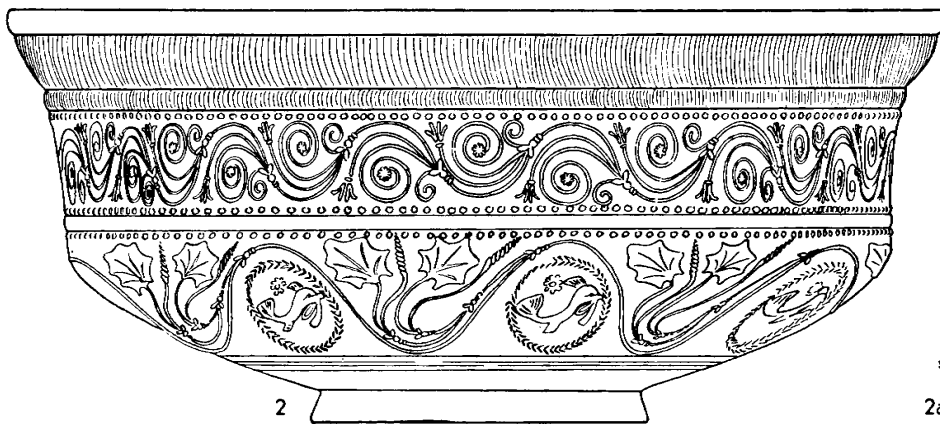
Decorated Terra Sigillata, form Dr. 29, Neronian. Scale $\frac{1}{2}$ (pp. 172, 177.)



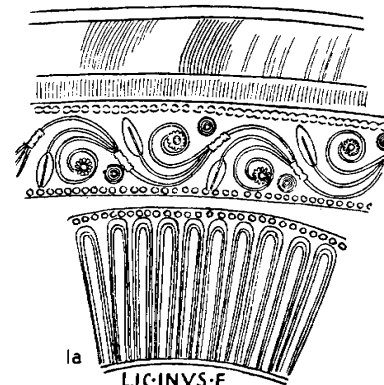
Decorated Terra Sigillata, form Dr. 29, Pre-Flavian. Scale $\frac{1}{2}$. (pp. 173, 177-8.)
 + = unstratified.



LIC·INVS·F

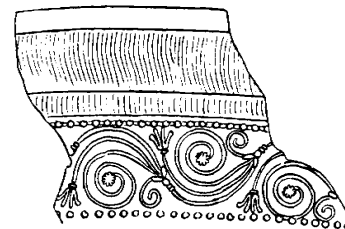


2



1a

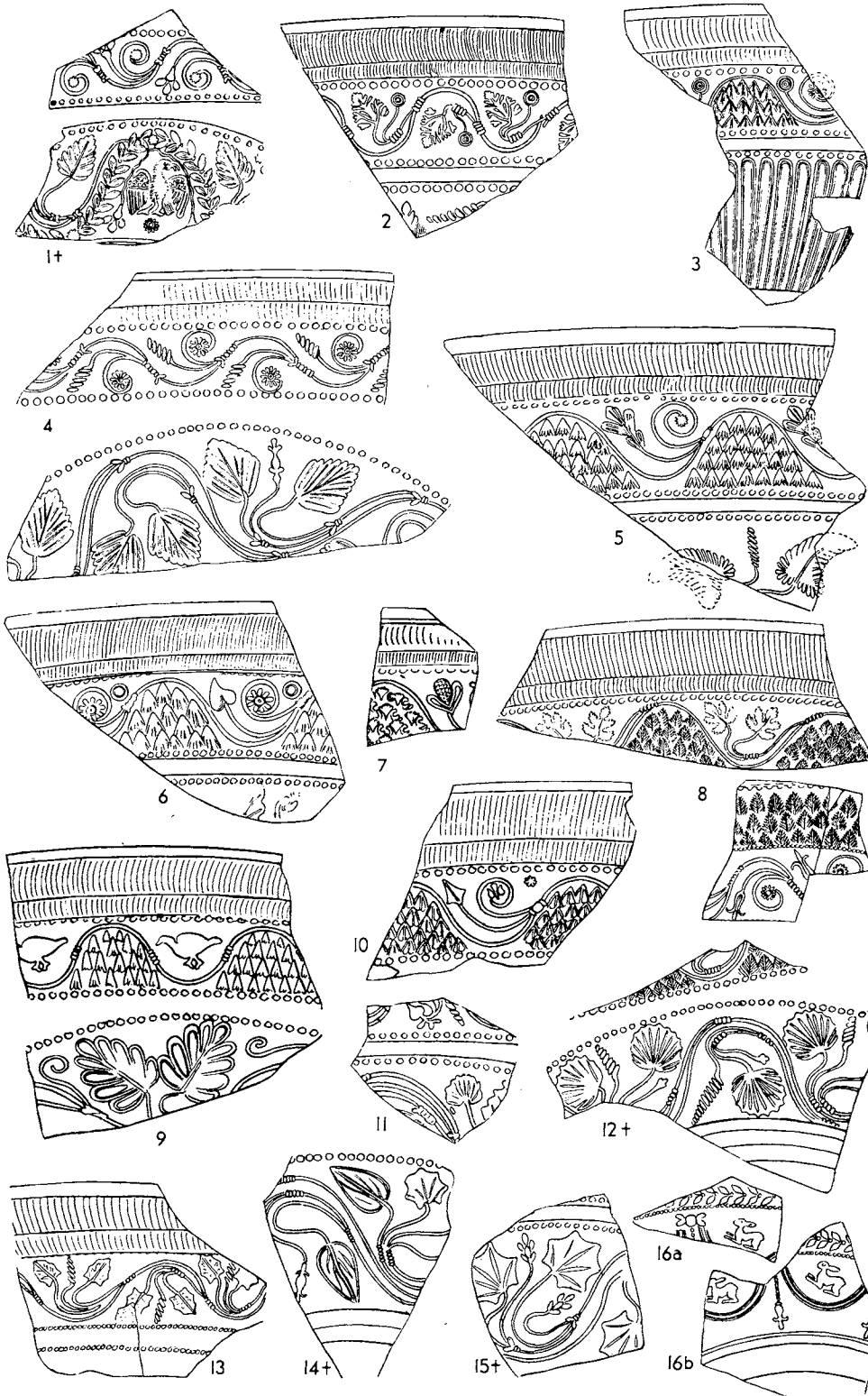
LIC·INVS·F



2a



Decorated Terra Sigillata, form Dr. 29, Claudius-Nero. Scale $\frac{1}{2}$. (pp. 173, 178.) + = unstratified.

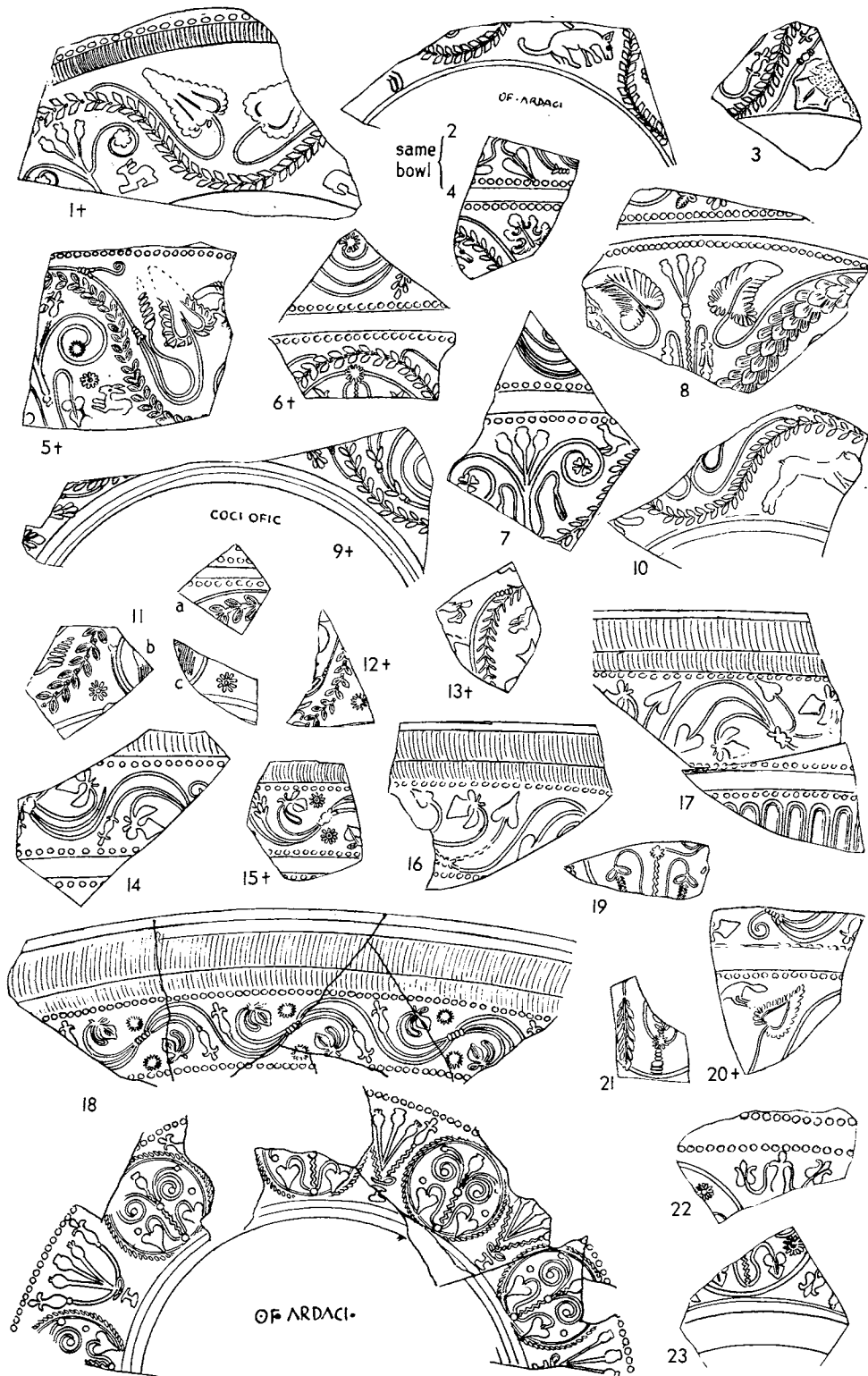


Decorated Terra Sigillata, form Dr. 29, Pre-Flavian. Scale $\frac{1}{2}$. (pp. 173, 176-8.)
 + = unstratified.

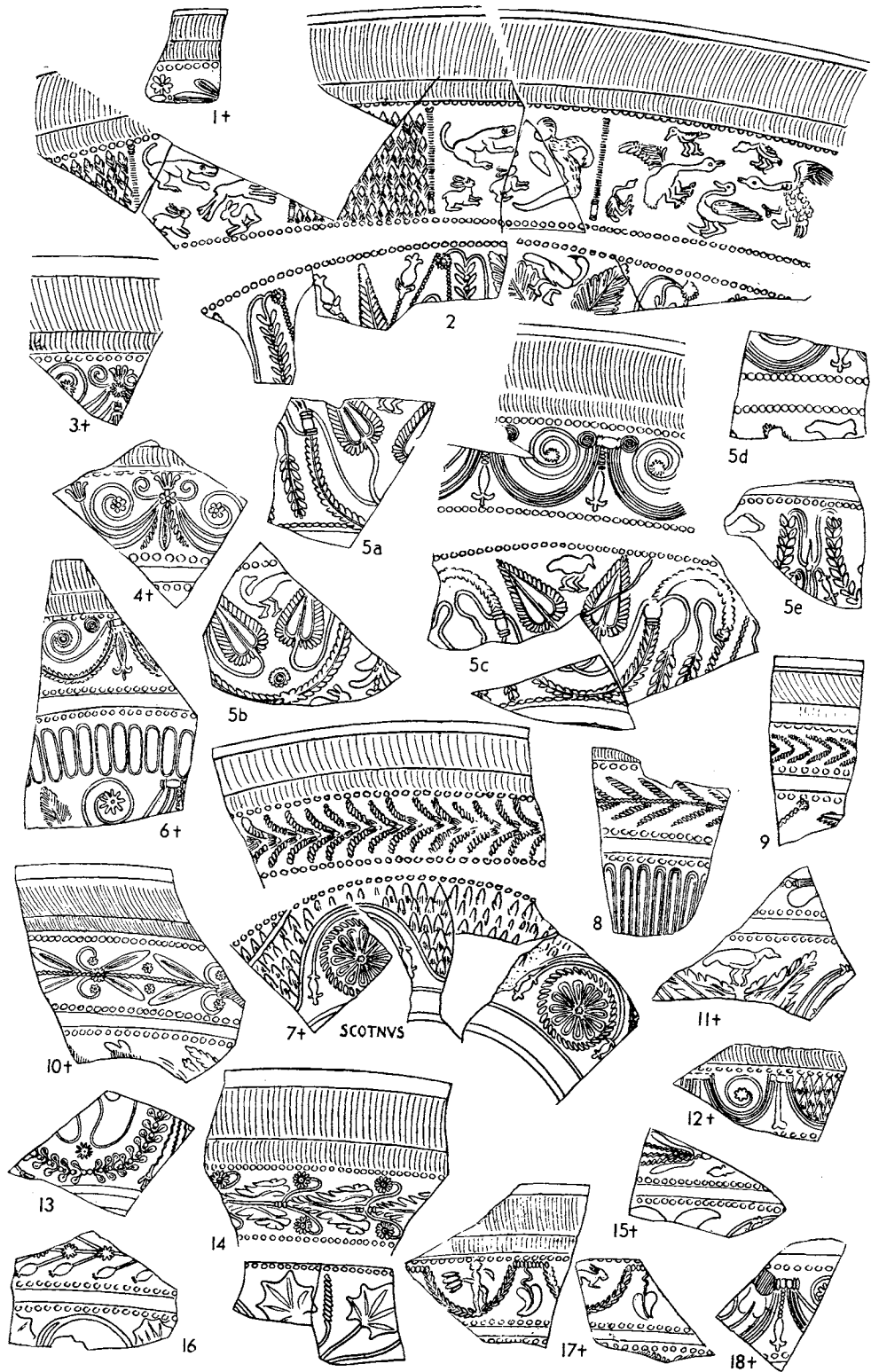
PLATE XXXIII



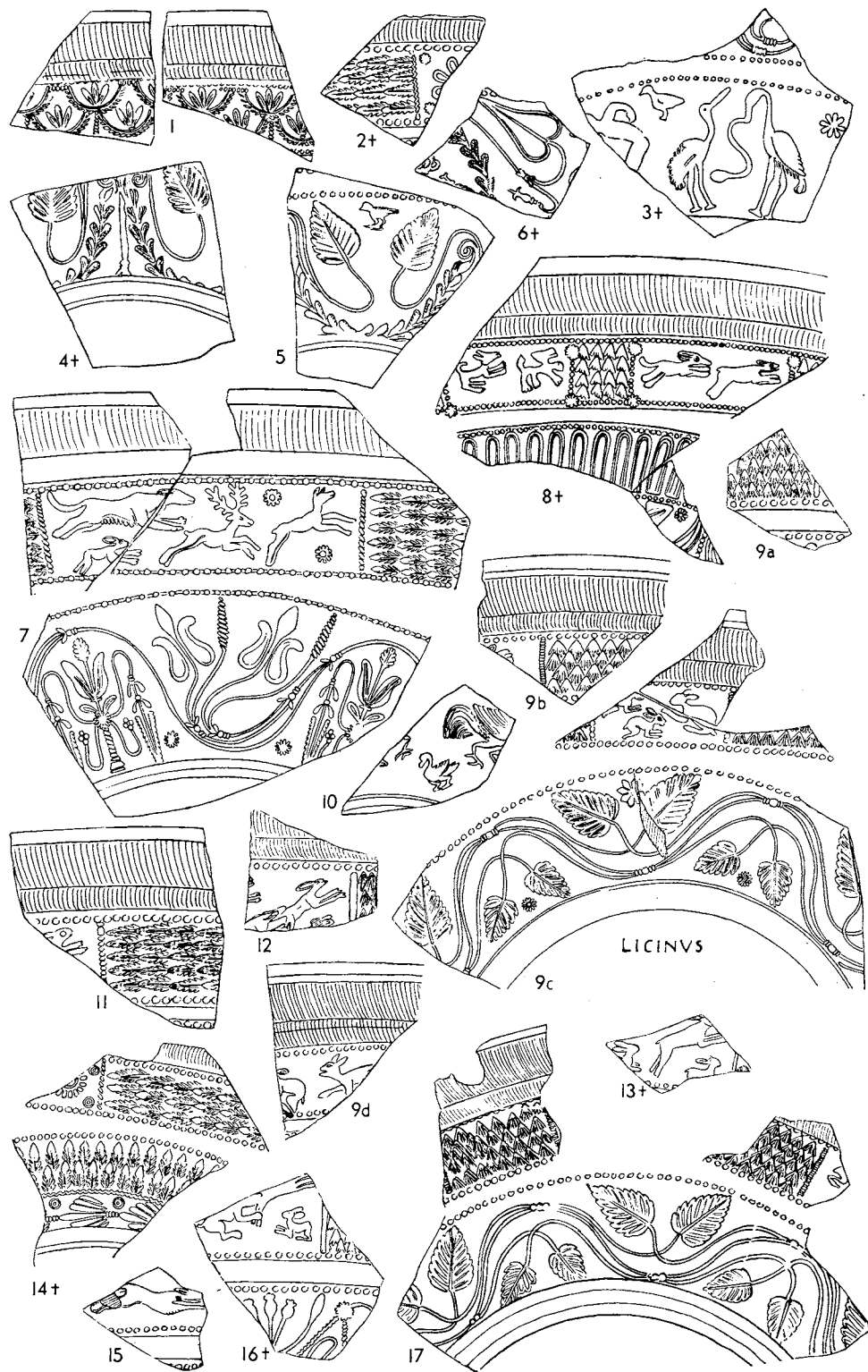
Decorated Terra Sigillata, form Dr. 29, Pre-Flavian to Early Flavian. Scale $\frac{1}{2}$.
 (pp. 173, 177.) + = unstratified.



Decorated Terra Sigillata, form Dr. 29, Pre-Flavian. Scale $\frac{1}{2}$. (pp. 173, 177-8.)
 + = unstratified.



Decorated Terra Sigillata, form Dr. 29, Pre-Flavian. Scale $\frac{1}{2}$. (pp. 174, 177-8.)
 + = unstratified.



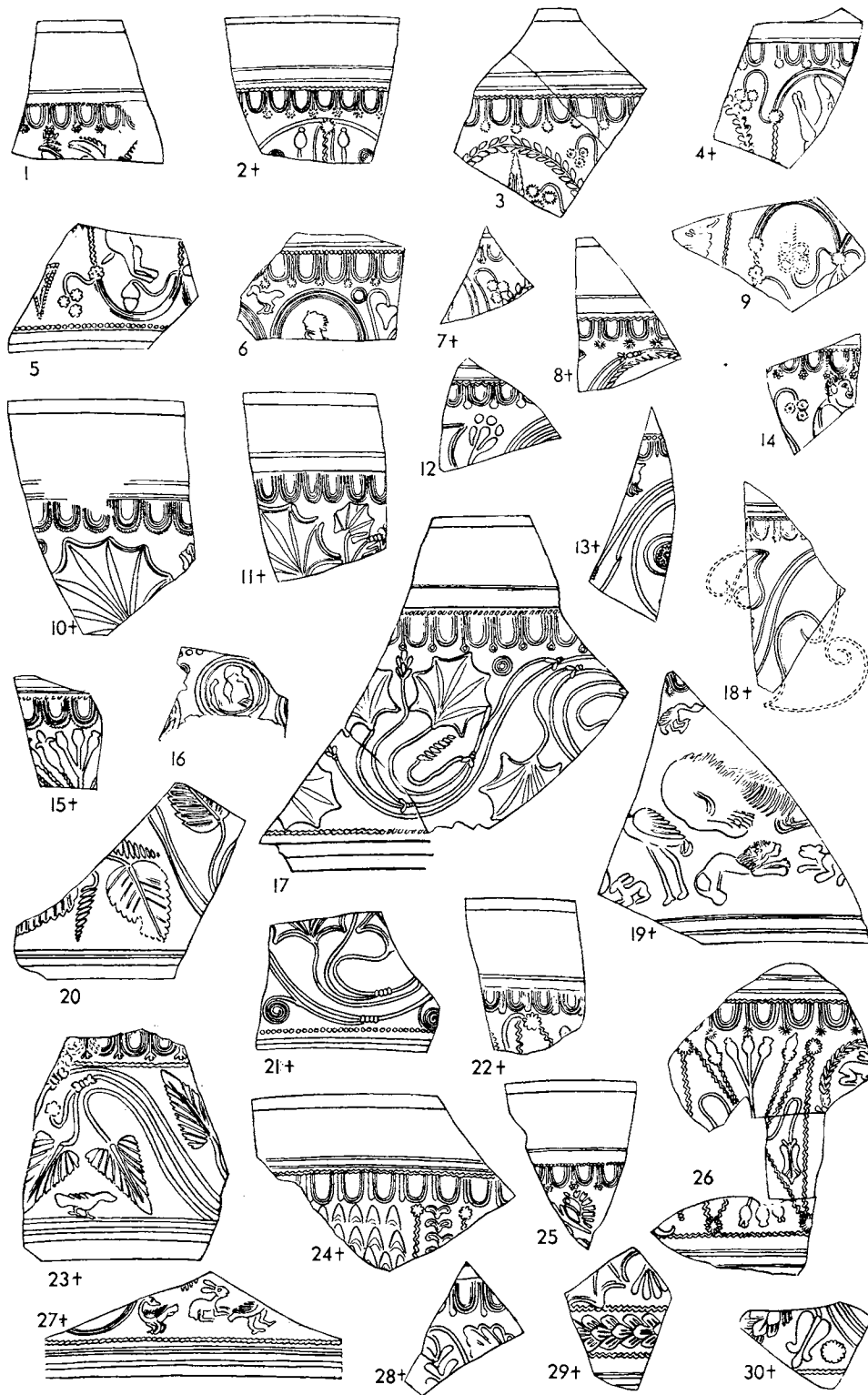
Decorated Terra Sigillata, form Dr. 29, Pre-Flavian. Scale $\frac{1}{2}$. (pp. 174, 177-8.)

+ = unstratified.

PLATE XXXVII

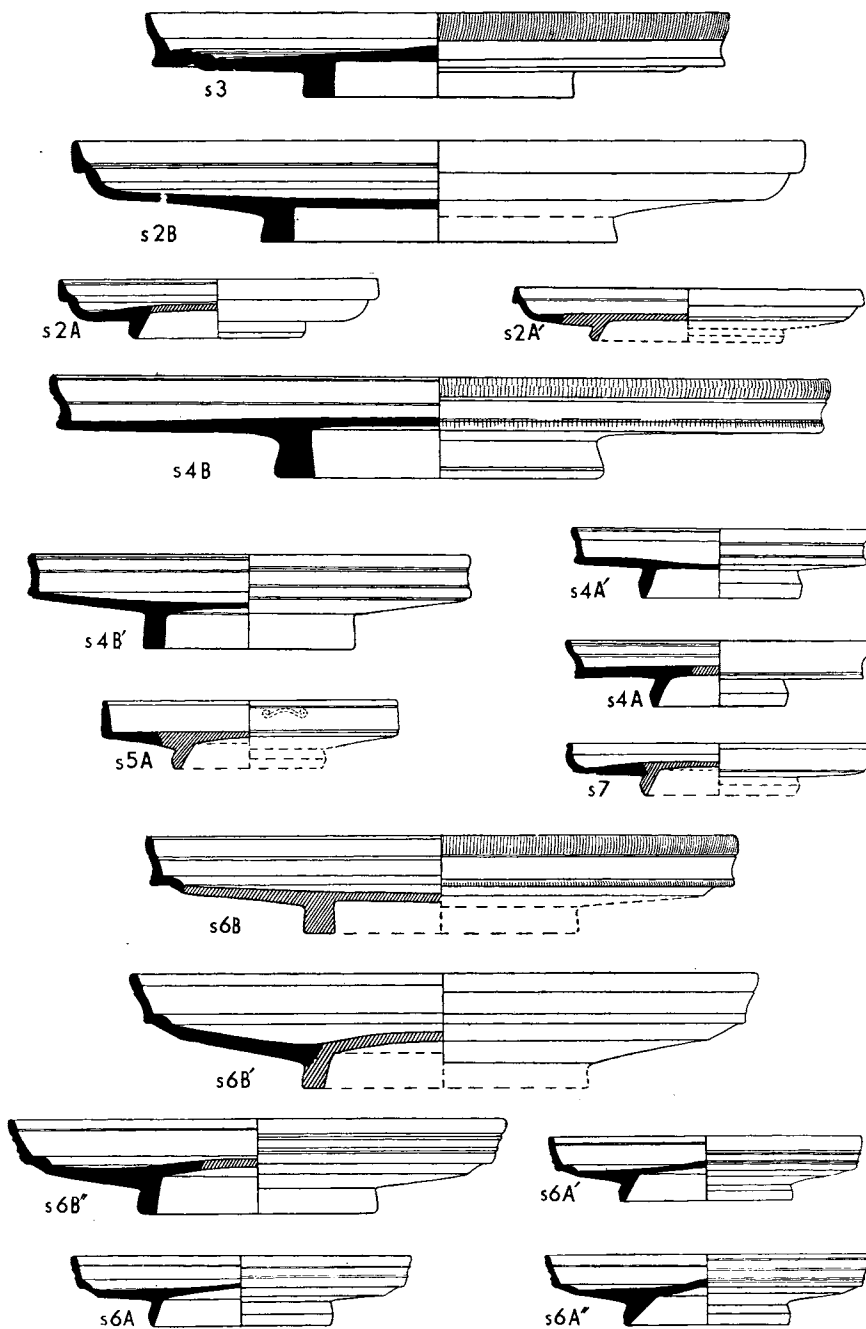


Decorated Terra Sigillata, form Dr. 29, Pre-Flavian to Flavian. Scale $\frac{1}{2}$.
 (pp. 174, 177-8.) + = unstratified.

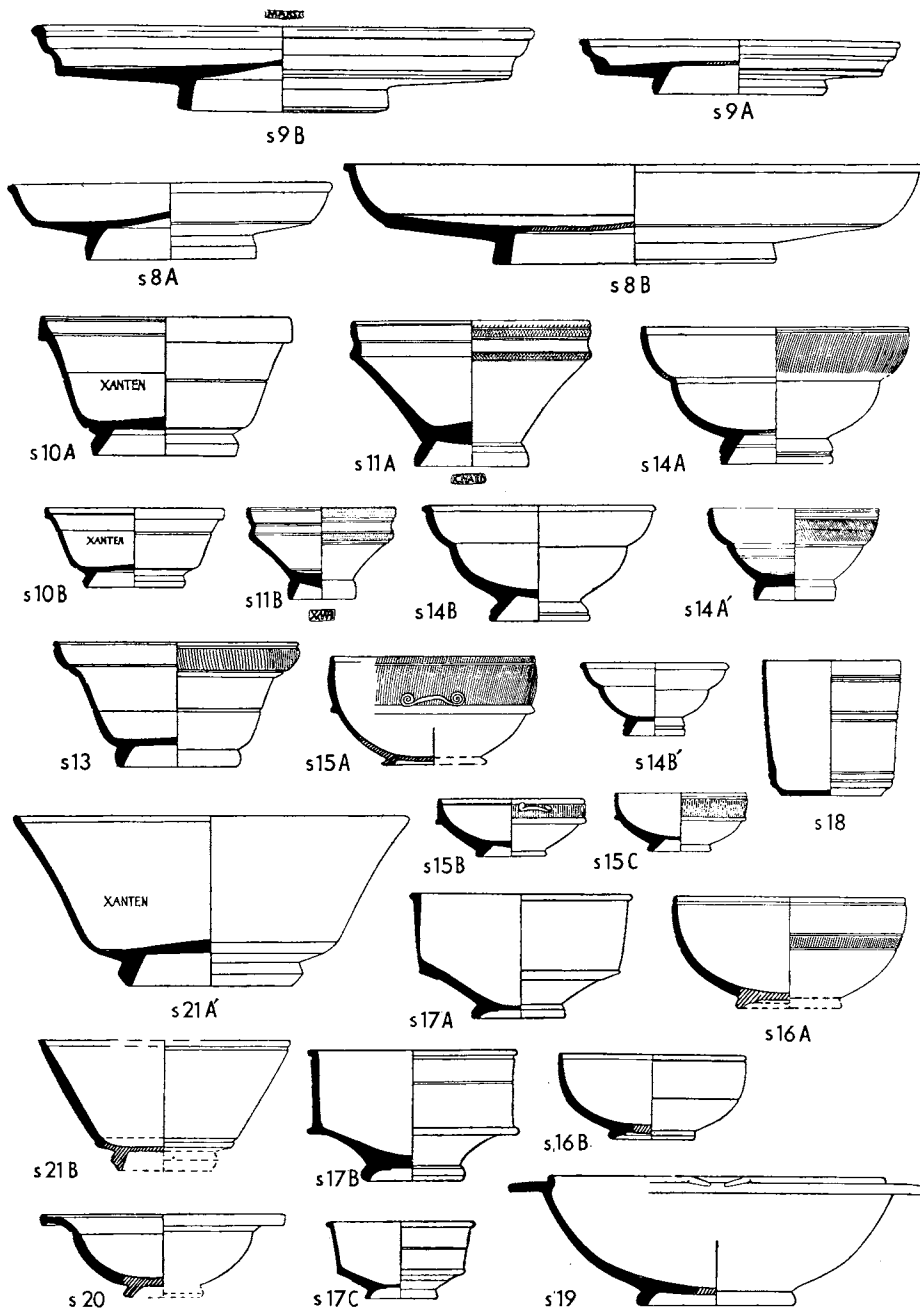


Decorated Terra Sigillata, form Dr. 30 (no. 16, Dr. 29), Pre-Flavian.
 Scale $\frac{1}{2}$. (pp. 174, 177-8.) + = unstratified.

PLATE XXXIX

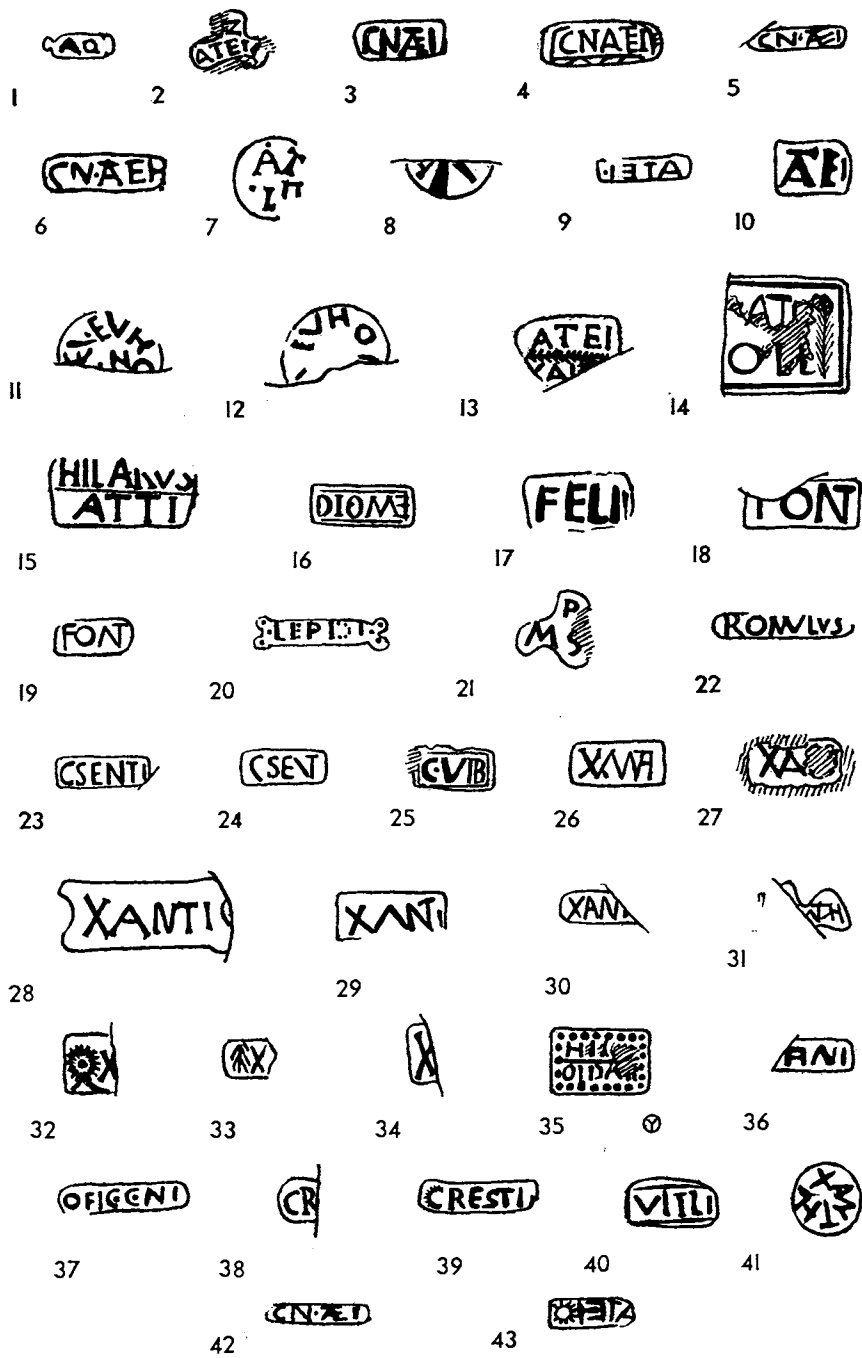


Plain Terra Sigillata, forms s2-s7. Scale $\frac{1}{4}$. (pp. 181-3.)

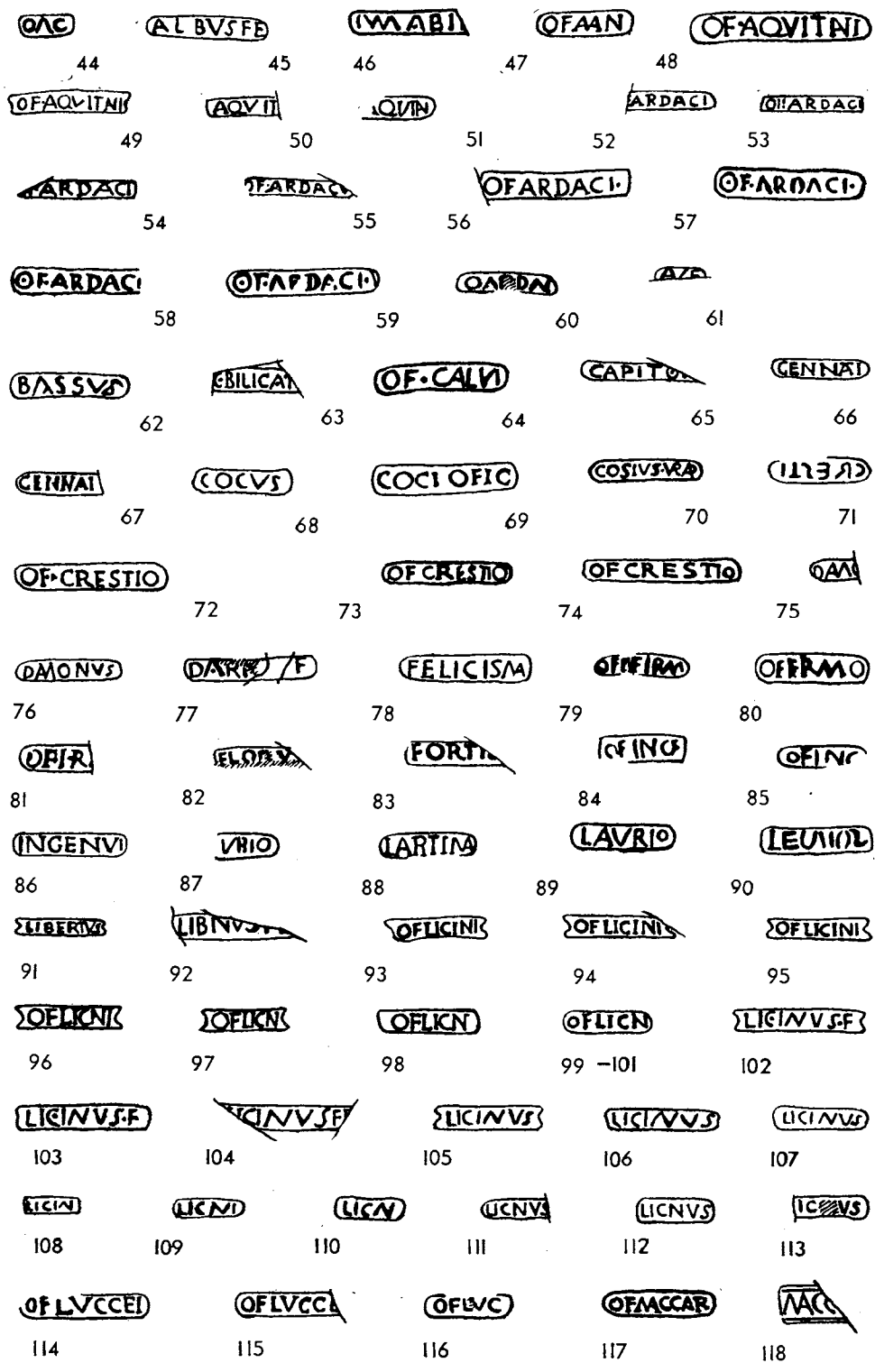


Plain Terra Sigillata, forms s8-s21. Scale $\frac{1}{4}$. (pp. 184-8.)

PLATE XLI






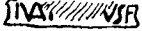


























































Potters' Stamps on Terra Sigillata: Arretine ware. Scale $\frac{1}{2}$. (p. 191.)



Potters' Stamps on Terra Sigillata: South Gaulish ware. Scale $\frac{1}{2}$. (pp. 195-201.)

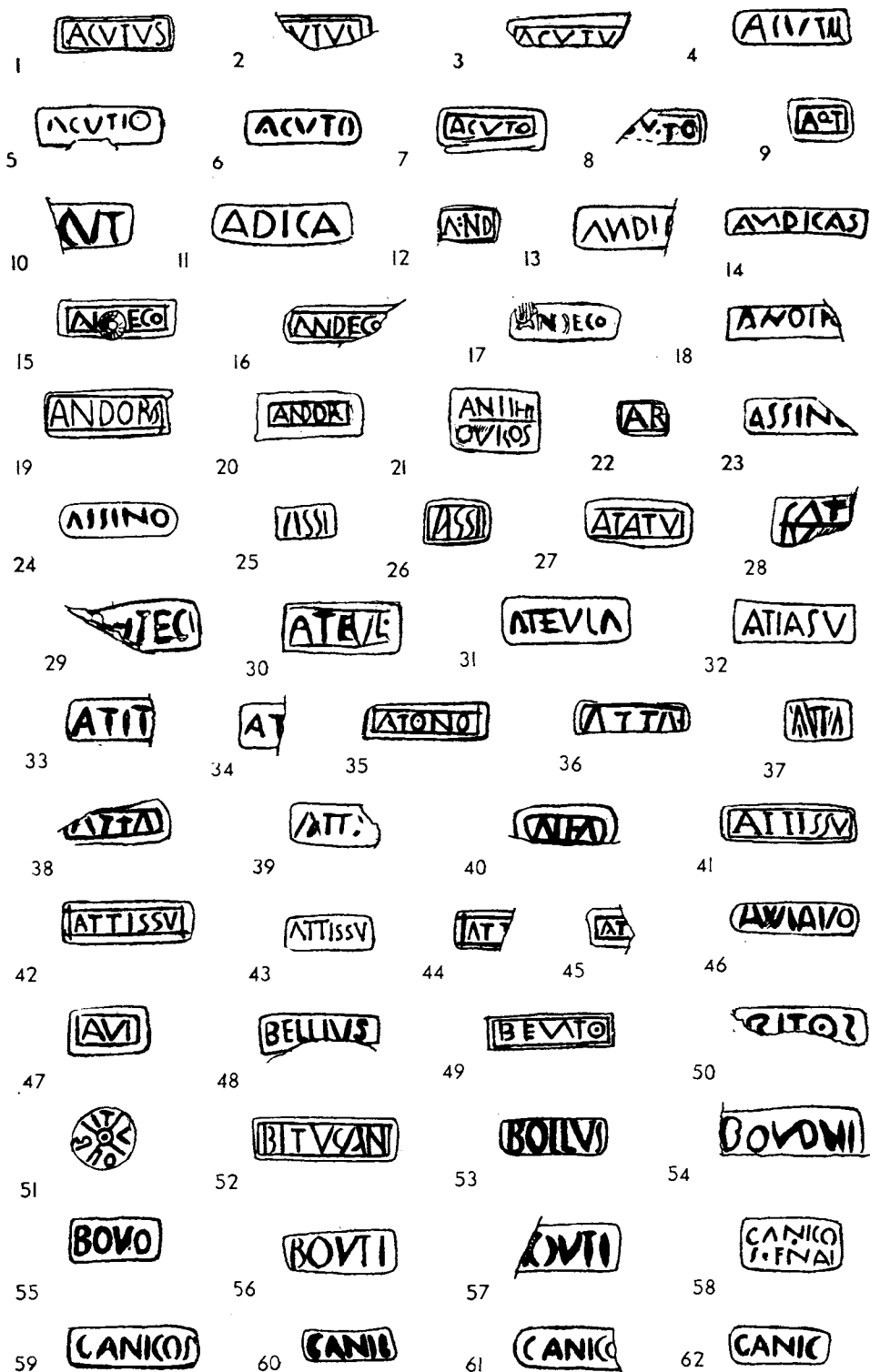
PLATE XLIII

				
119	120	121	122	123
				
124	125	126	127	128
				
129	130	131	132	133
				
135	136	137	138	139
				
140	141	142	143	144
				
146	147	148	149	
				
150	151	152	153	
				
154	155	156	157	
				
159	160	161	162	
				
163	164	165	166	
				
168	169	170	171	
				
173	174	175	176	
				
178	179	180	181	
				
182	183	184	185	
				
			186	

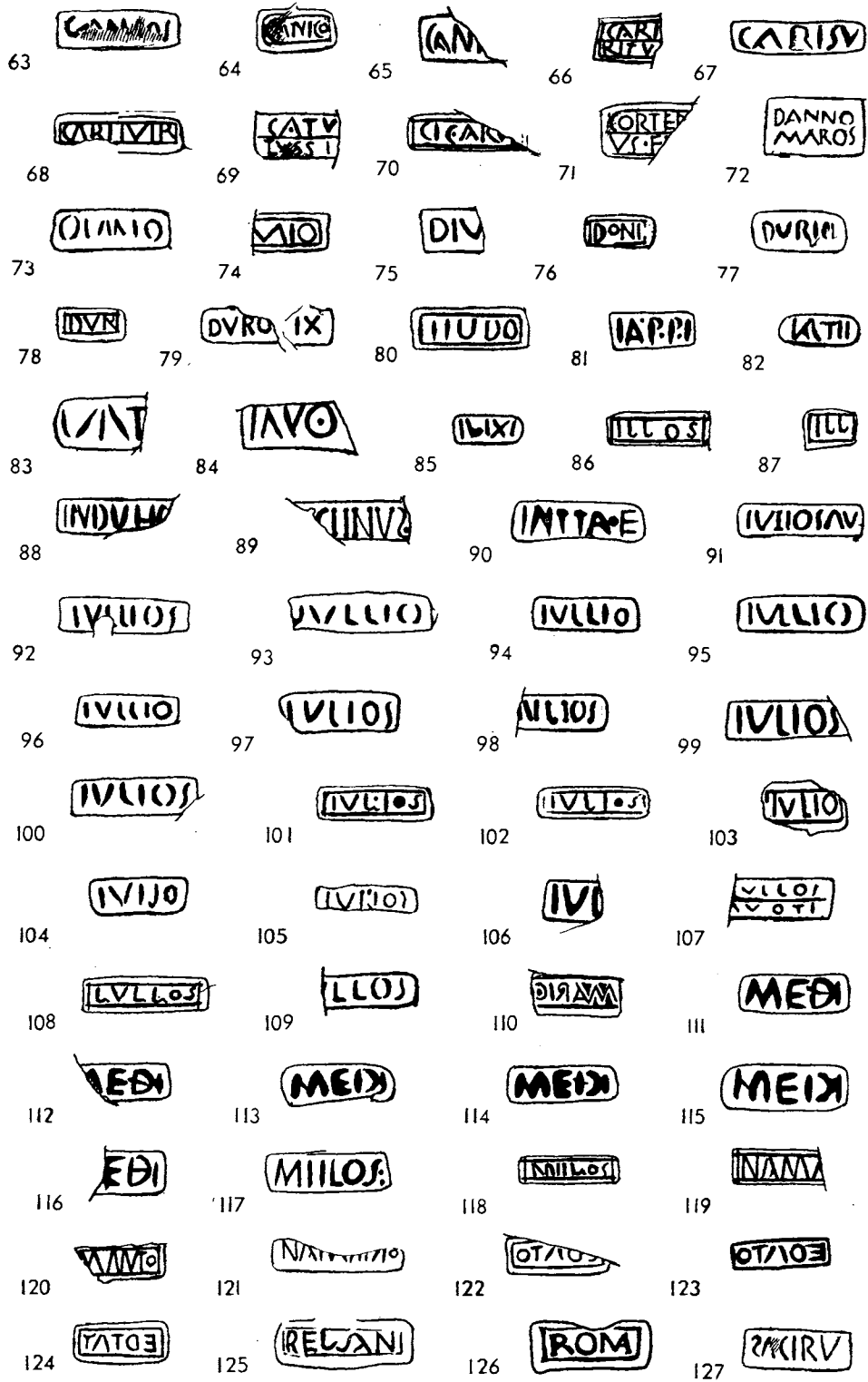
Potters' Stamps on Terra Sigillata: South Gaulish ware. Scale $\frac{1}{4}$. (pp. 195-201.)



Fragments of Roman lamps, of glazed pottery. Scale of inches and centimetres.
(p. 201.)



Potters' Stamps on Gallo-Belgic ware. Scale $\frac{1}{2}$. (pp. 207-13)

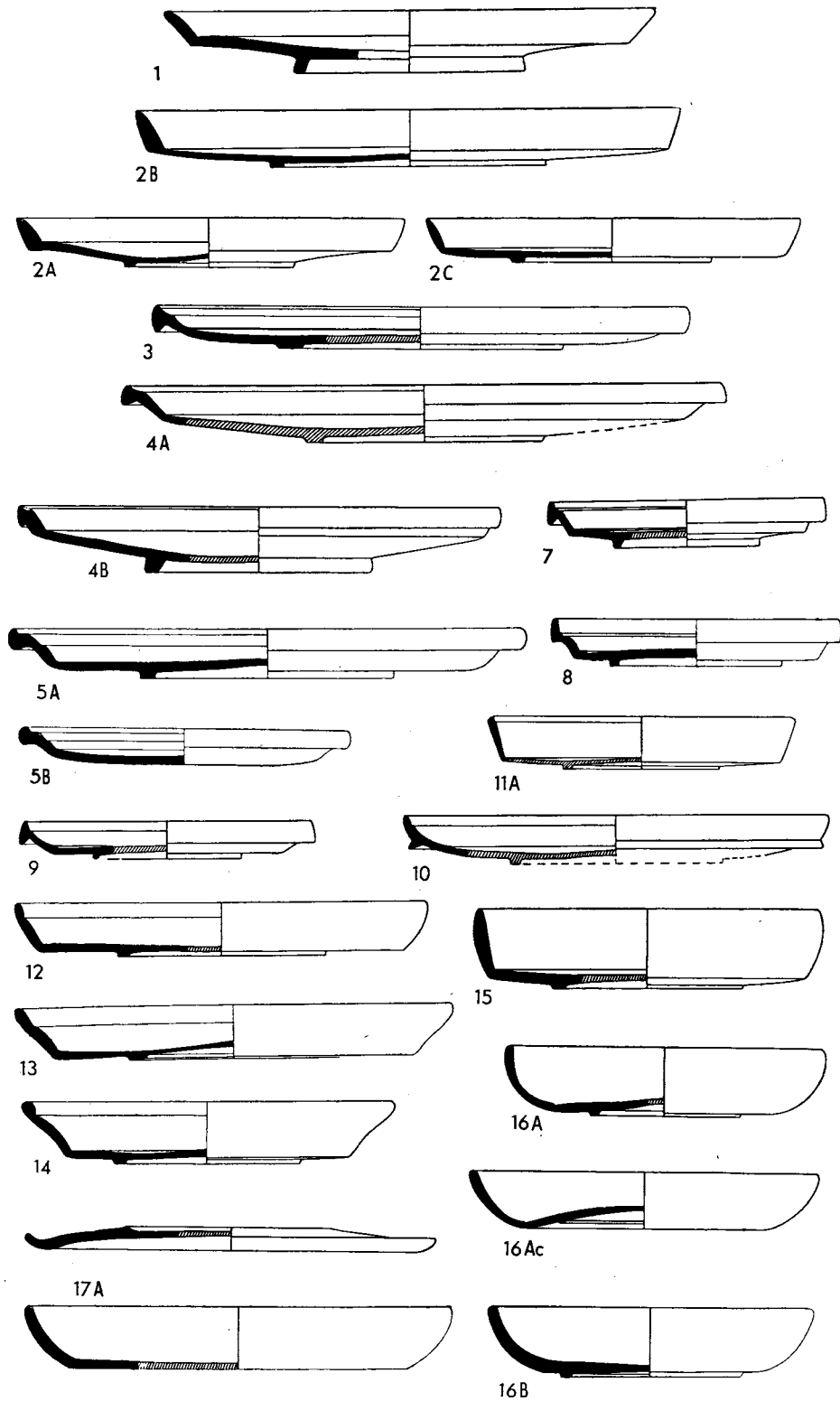


Potters' Stamps on Gallo-Belgic ware. Scale $\frac{1}{4}$. (pp. 207-13.)



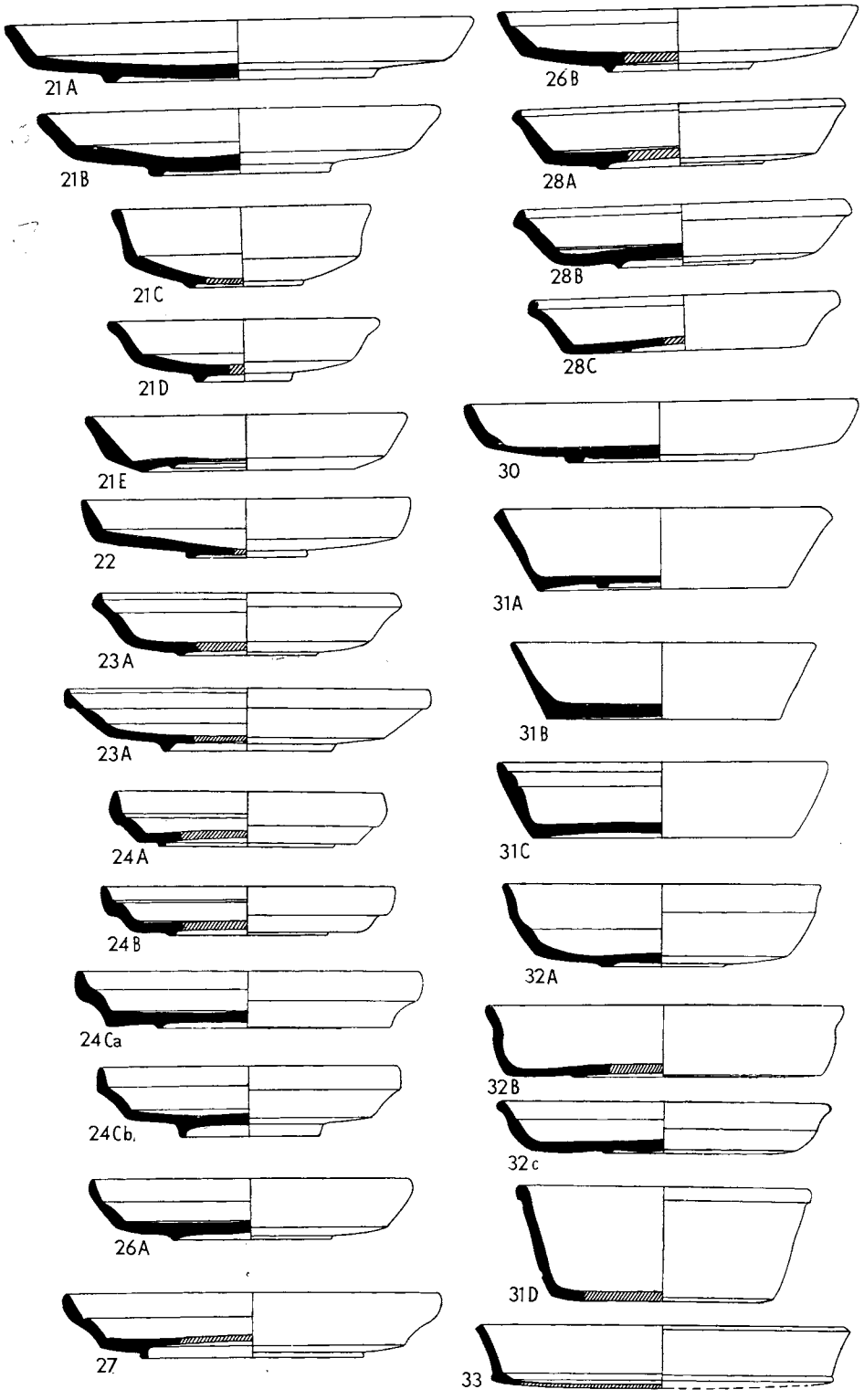
Potters' Stamps on Gallo-Belgic ware. Scale $\frac{1}{4}$. (pp. 207-13.)

PLATE XLIX



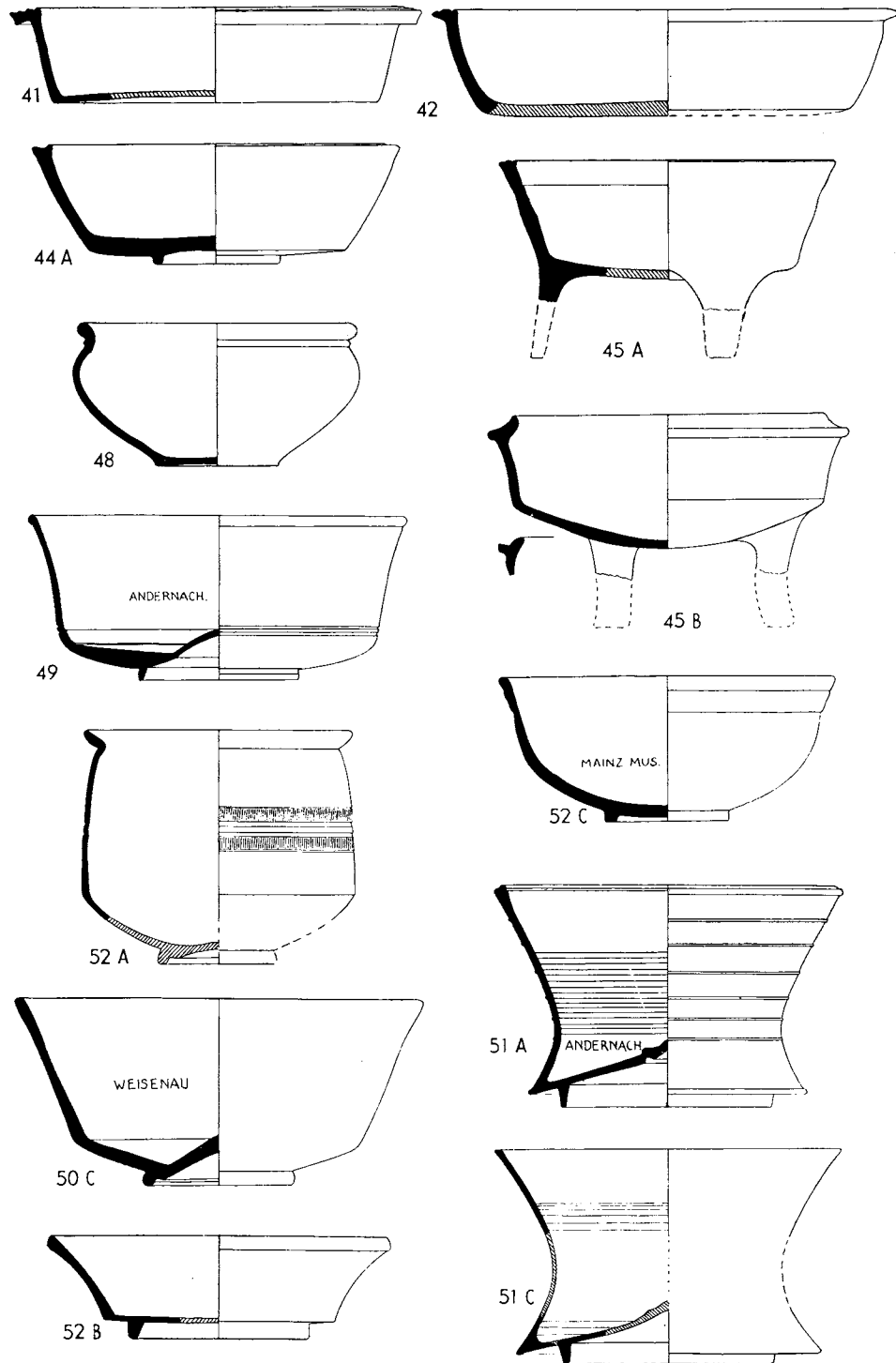
Unglazed pottery: Gallo-Belgic (and related) platters, forms 1-17. Scale $\frac{1}{4}$.
(pp. 215-21.)

12.4, 12.5
12.6
12.7

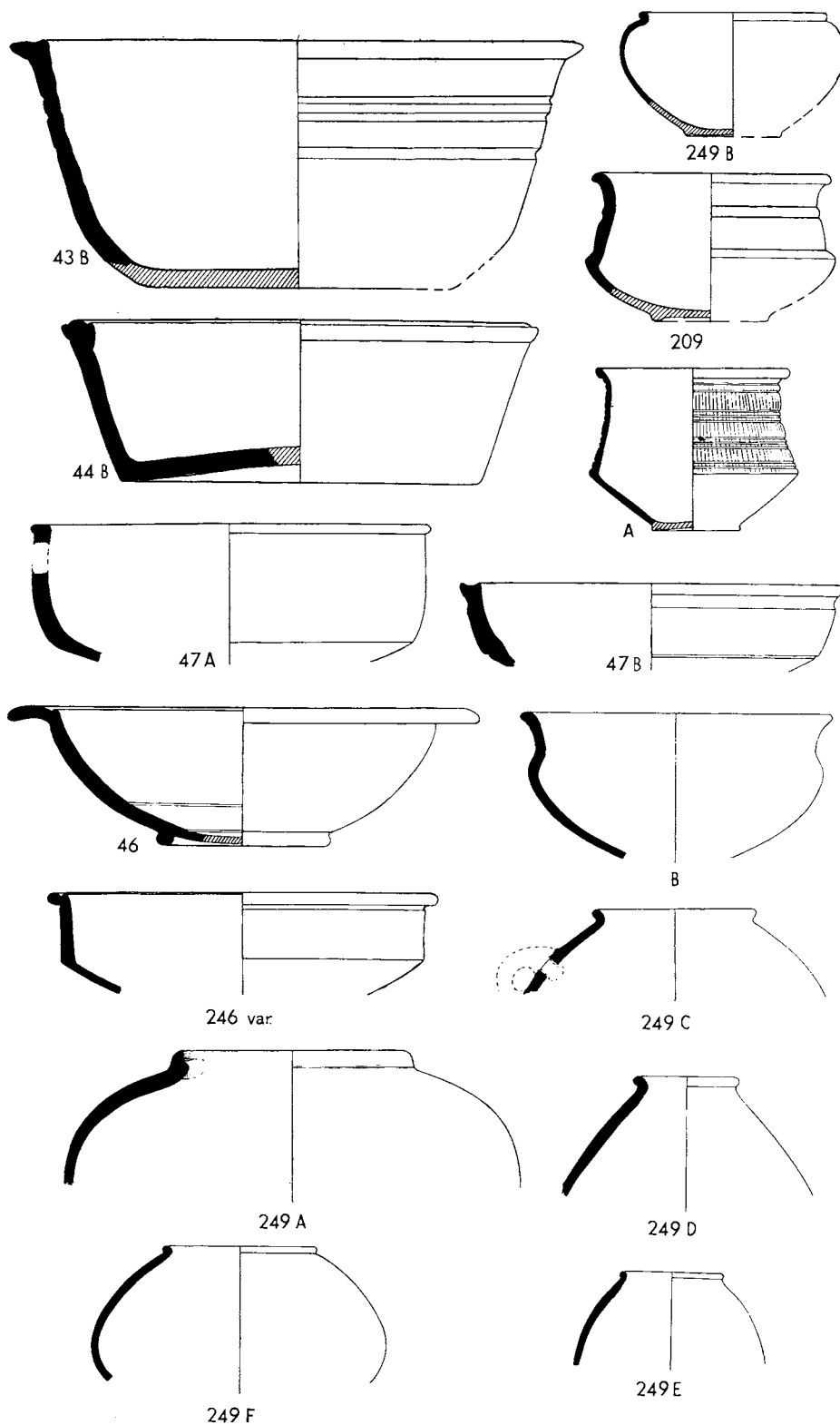


Unglazed pottery: 'Sub-Belgic' (Native) platters, forms 21-33. Scale 1/4.
(pp. 221-3.)

PLATE LI

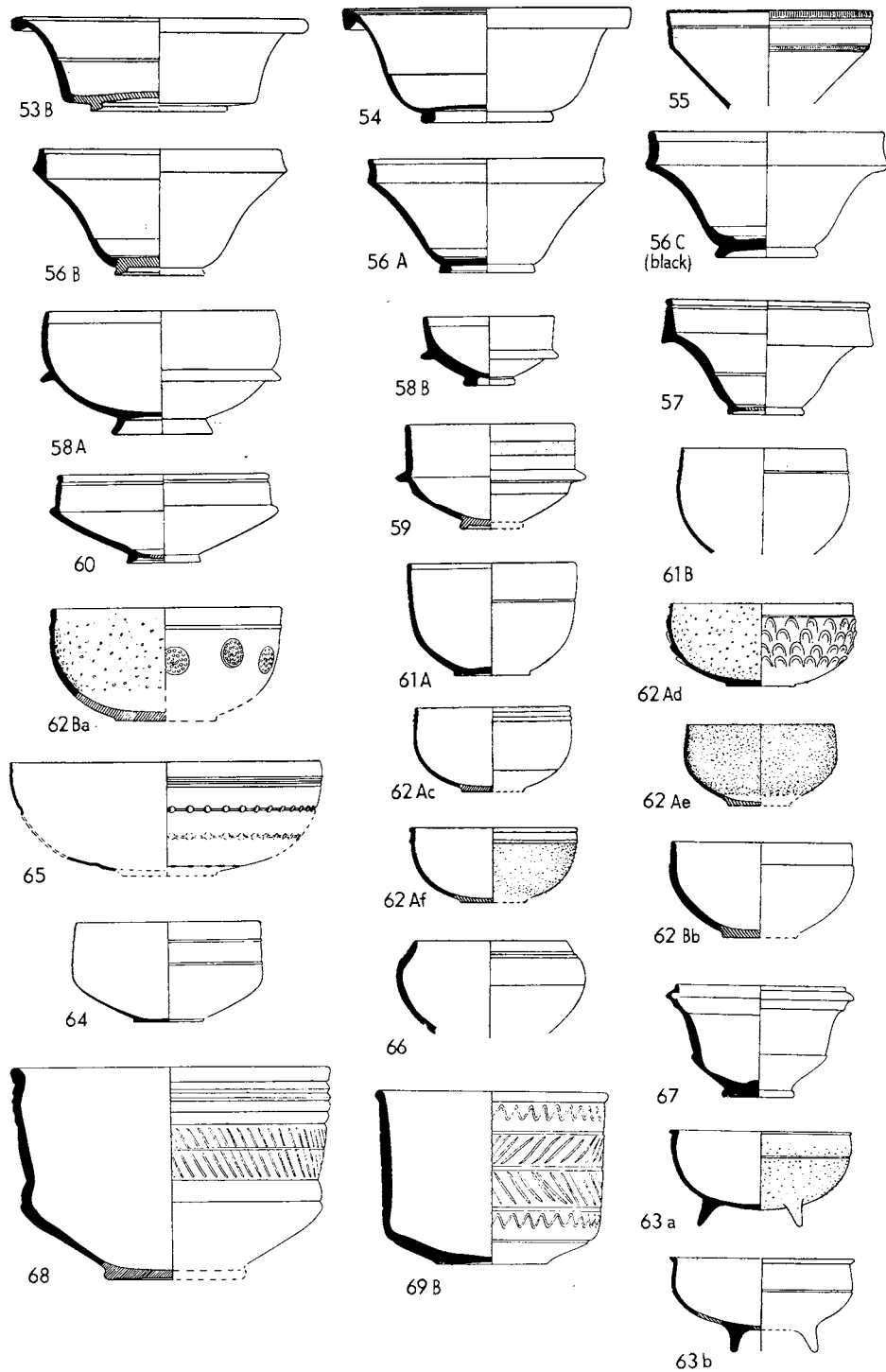


Unglazed pottery: Native, Gallo-Belgic, and Roman bowls, forms 41-2
44-5, 48-52. Scale $\frac{1}{4}$. (pp. 223-6.)

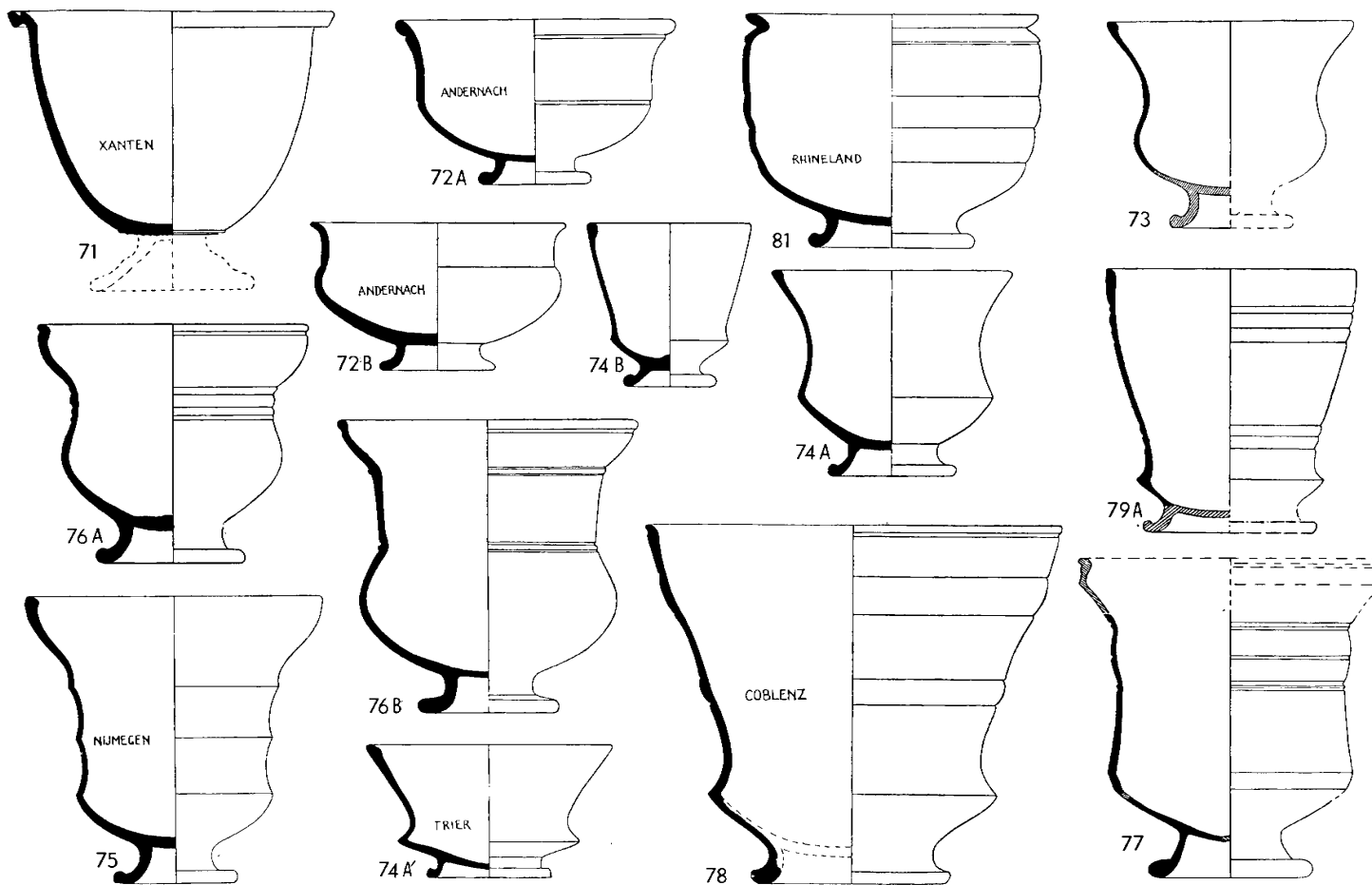


Unglazed pottery: Native and Roman bowls, forms 43-4, 46-7, 209, 246, 249.
 Scale $\frac{1}{4}$. (pp. 223, 225, 258, 265: A, p. 273.)

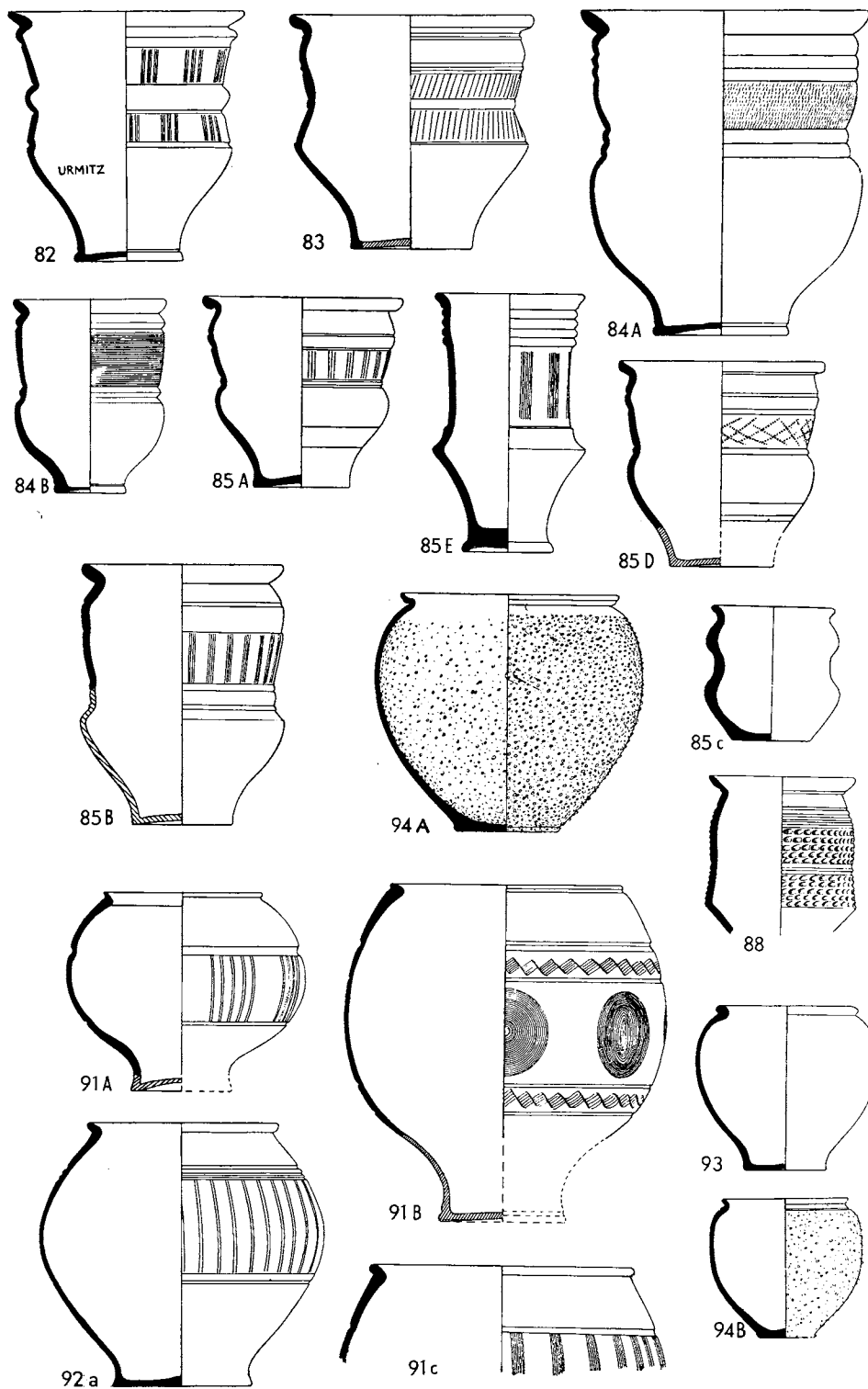
PLATE LIII



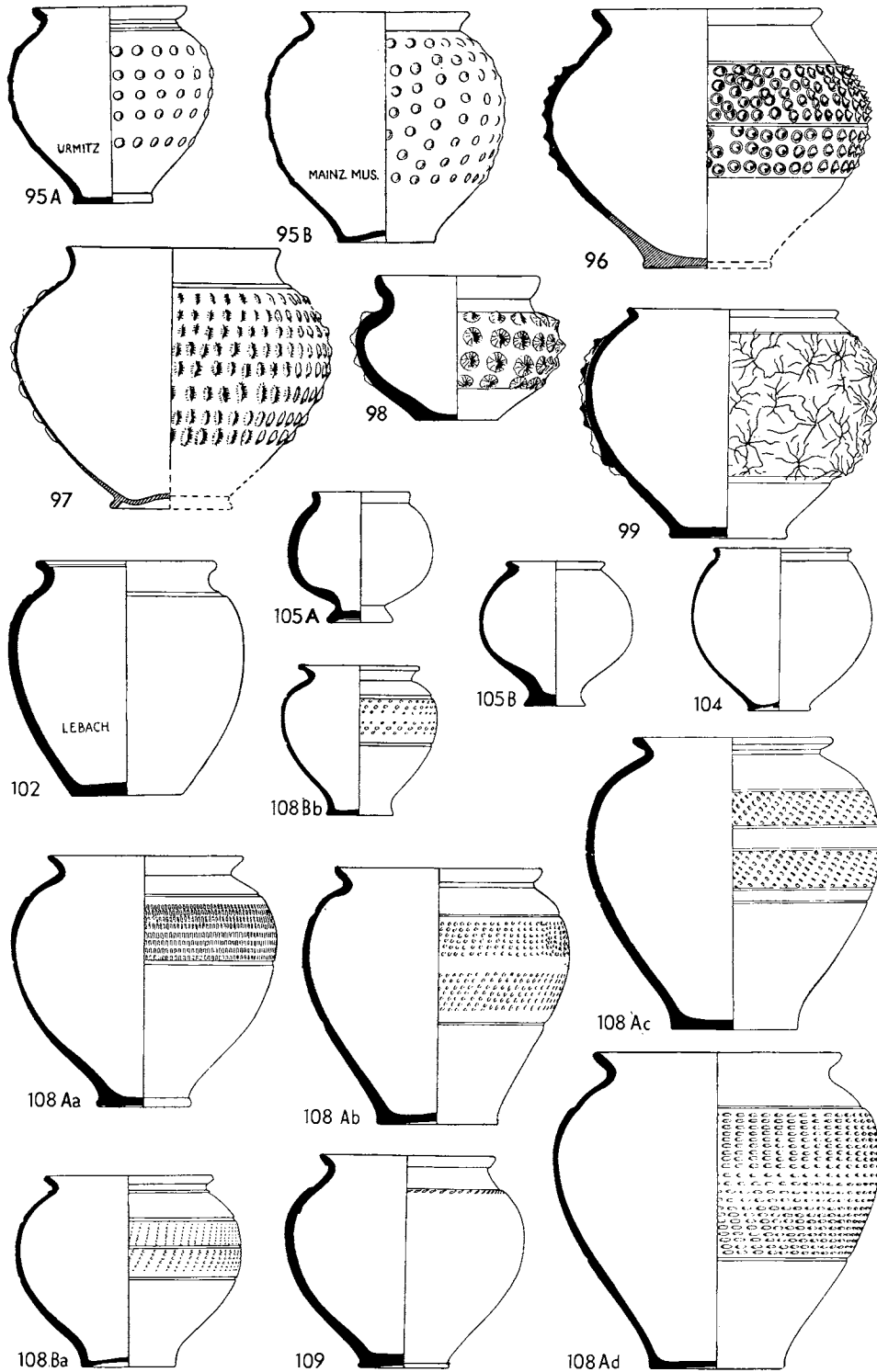
Unglazed pottery: Gallo-Belgic cups, Roman bowls, and their Native imitations, forms 53-69. Scale $\frac{1}{2}$. (pp. 226-9.)



Unglazed pottery: Gallo-Belgic pedestal-beakers, forms 71-81. Scale $\frac{1}{4}$. (pp. 229-32.)



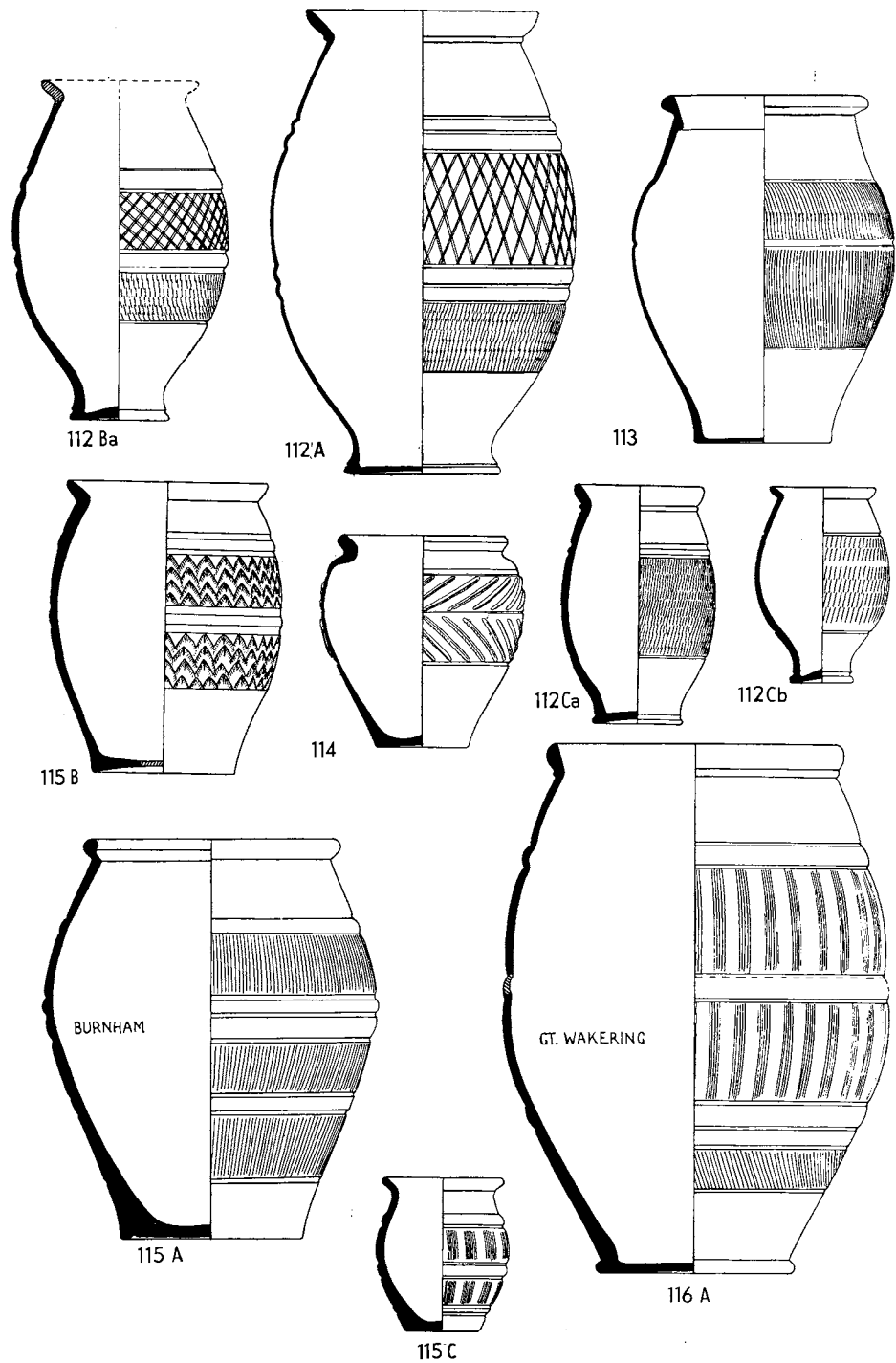
Unglazed pottery: Gallo-Belgic girth-beakers, globular and ovoid beakers, and their imitations, forms 82-94. Scale $\frac{1}{4}$. (pp. 232-5.)



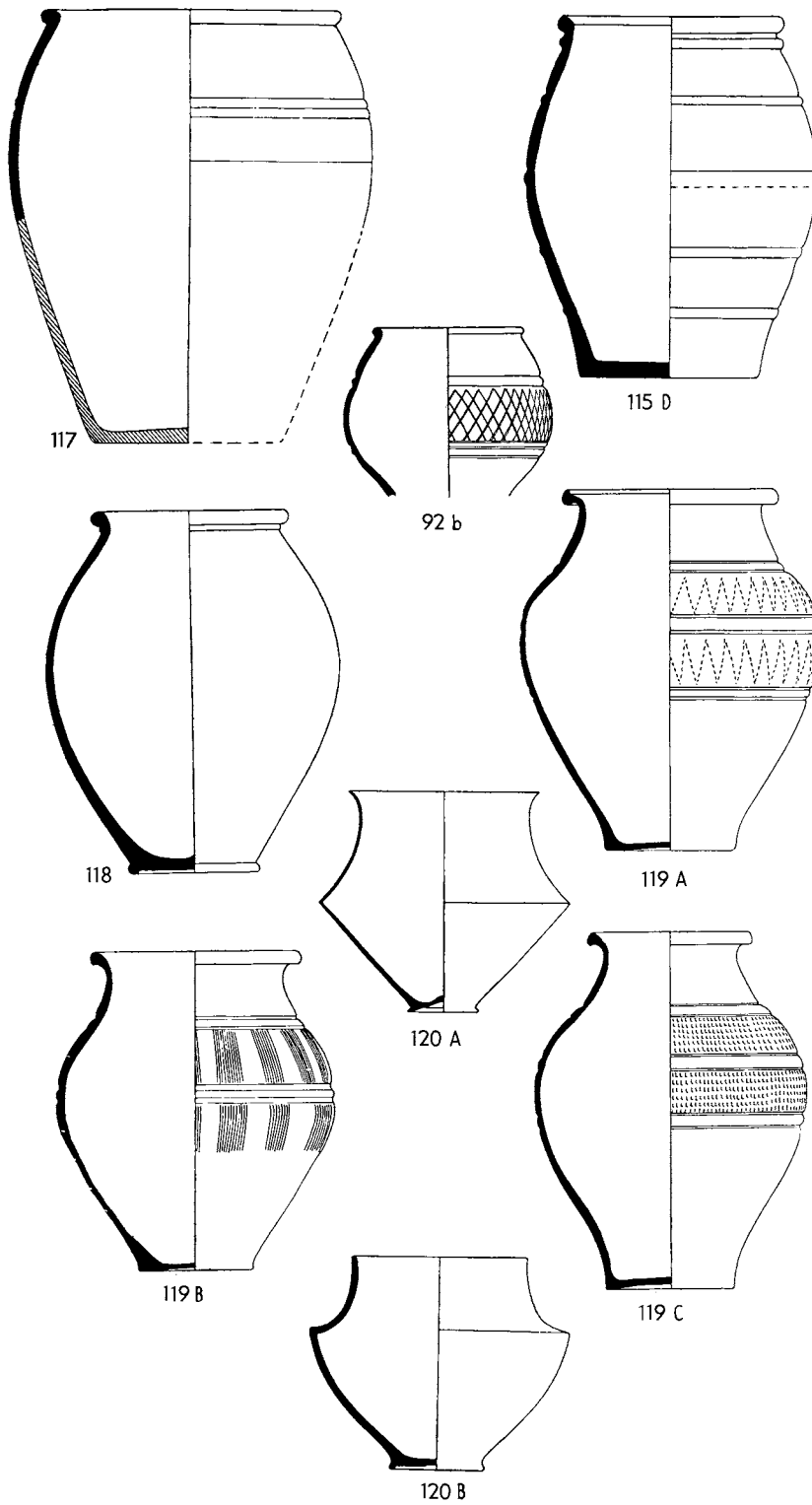
Unglazed pottery: Roman globular and ovoid beakers, forms 95-108.

Scale $\frac{1}{4}$. (pp. 235-7.)

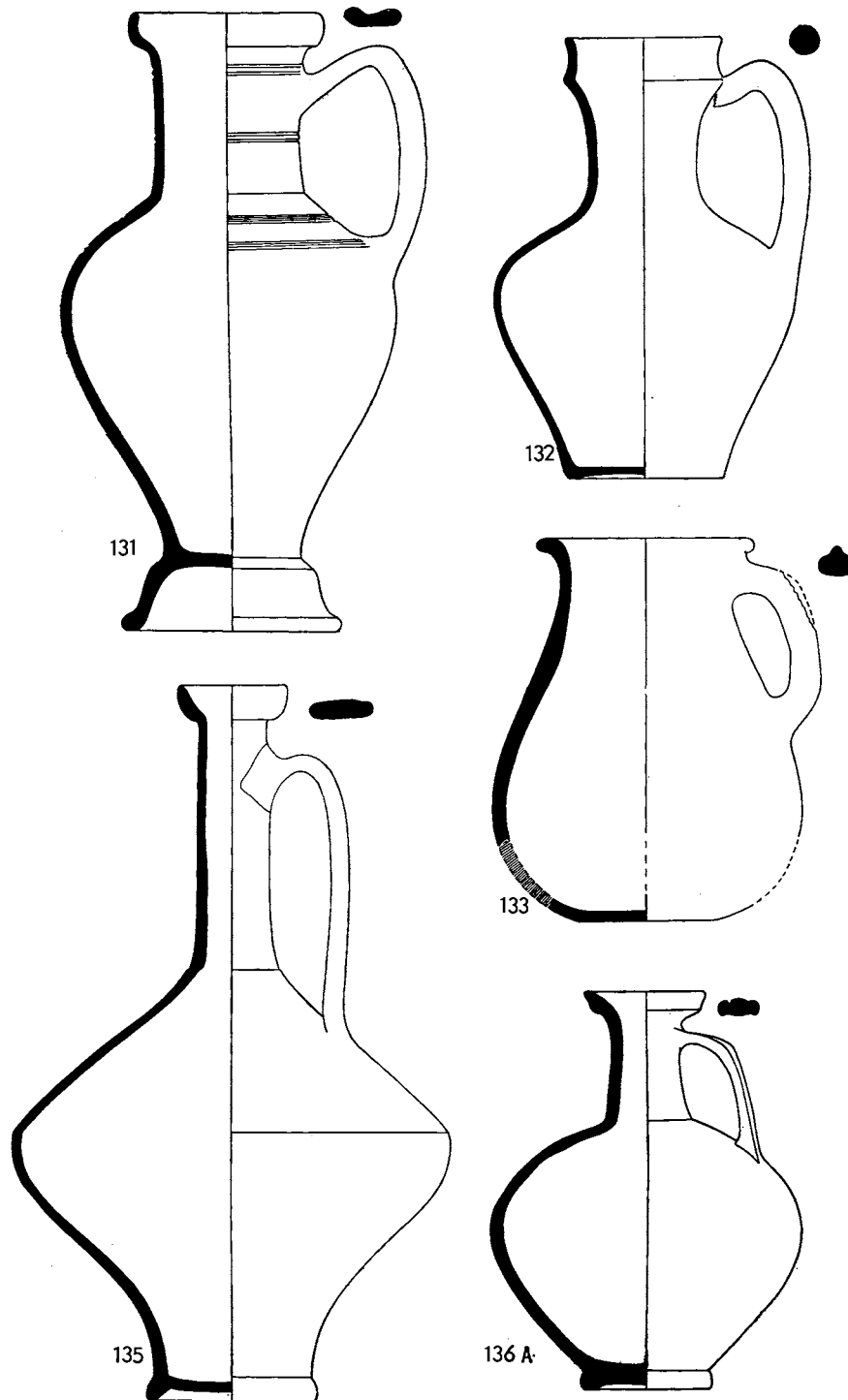
PLATE LVII



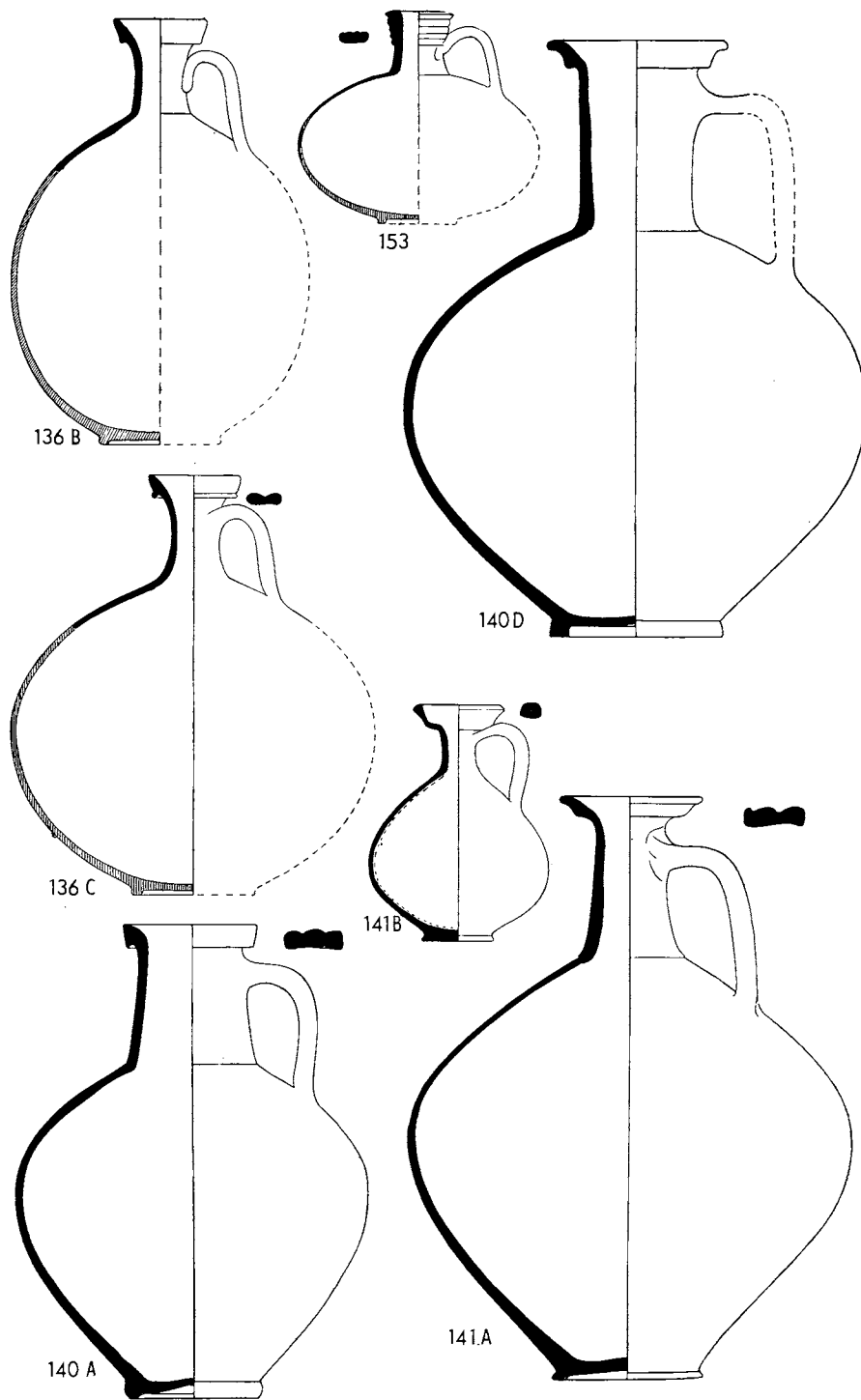
Unglazed pottery: Gallo-Belgic and Native butt-beakers, forms 112-16. Scale $\frac{1}{4}$.
(pp. 237-40.)



Unglazed pottery: Native and Roman butt-beakers, globular and carinated beakers, forms 115, 117-19, 92, 120. Scale $\frac{1}{4}$. (pp. 235, 239-41.)

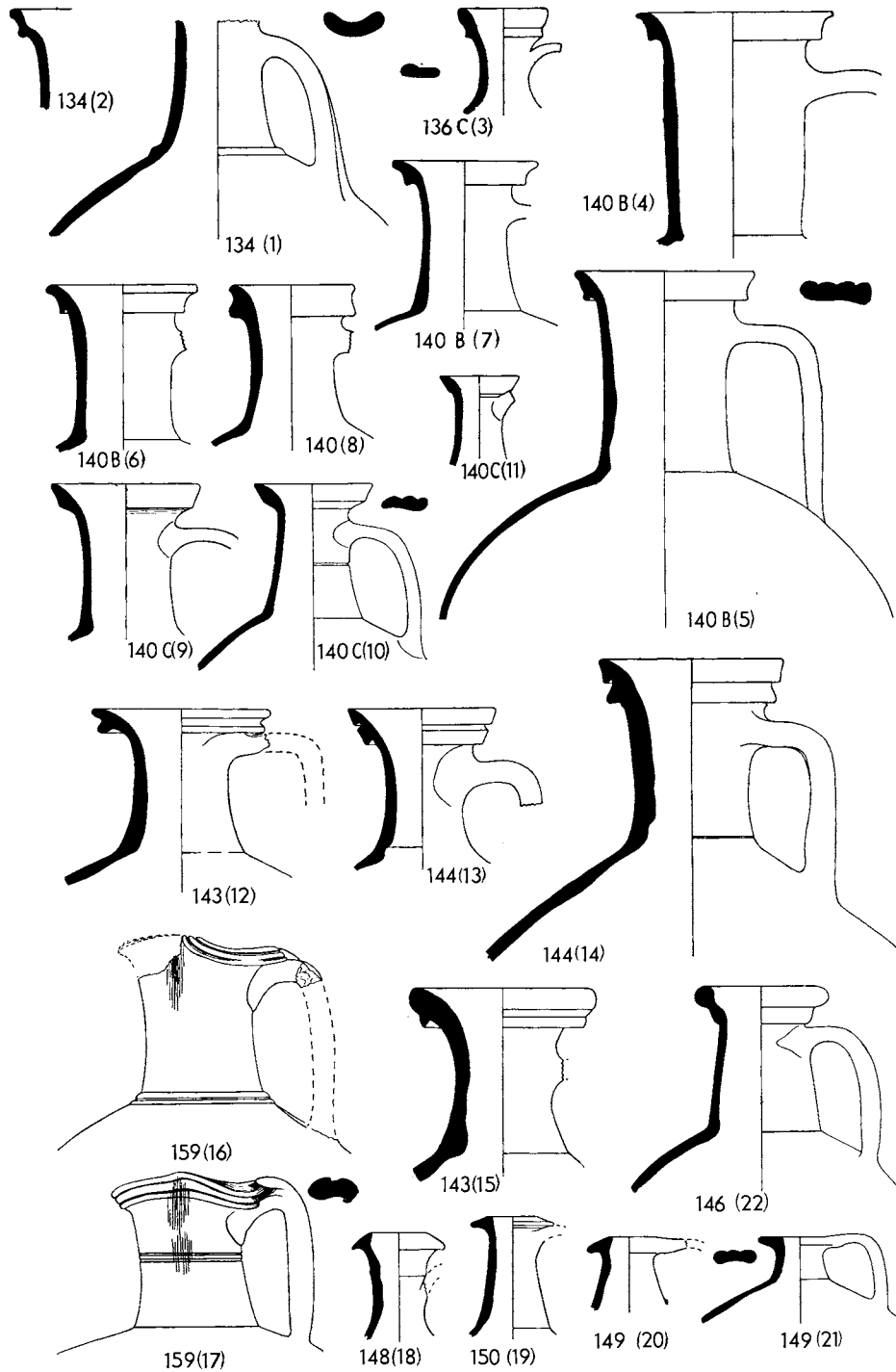


Unglazed pottery: Native, Gallo-Belgic, and Roman flacons, forms 131-6. Scale $\frac{1}{4}$. (pp. 241-2.)

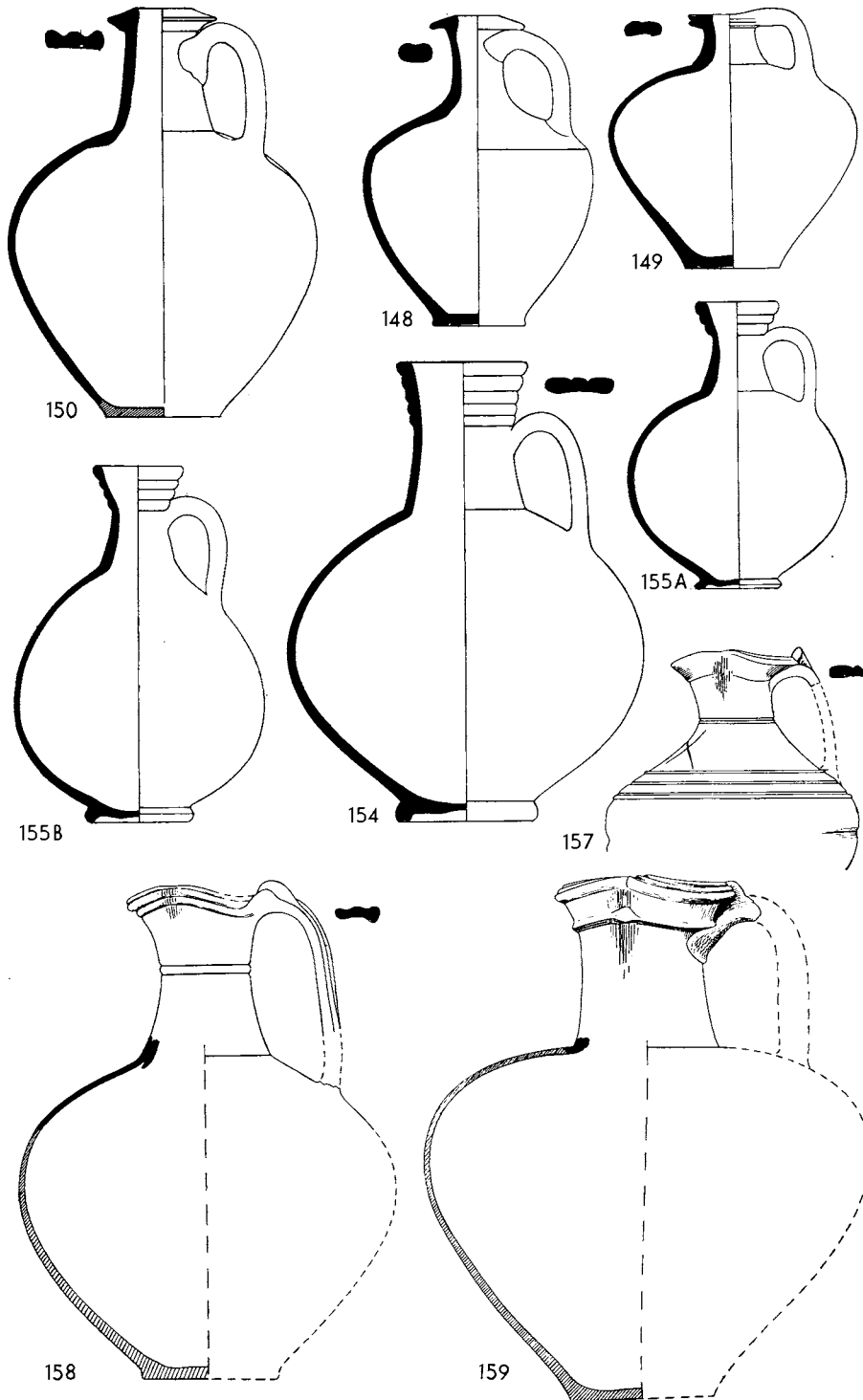


Unglazed pottery: Roman flagons, forms 136, 140-1, 153. Scale $\frac{1}{4}$.
(pp. 145, 242-4.)

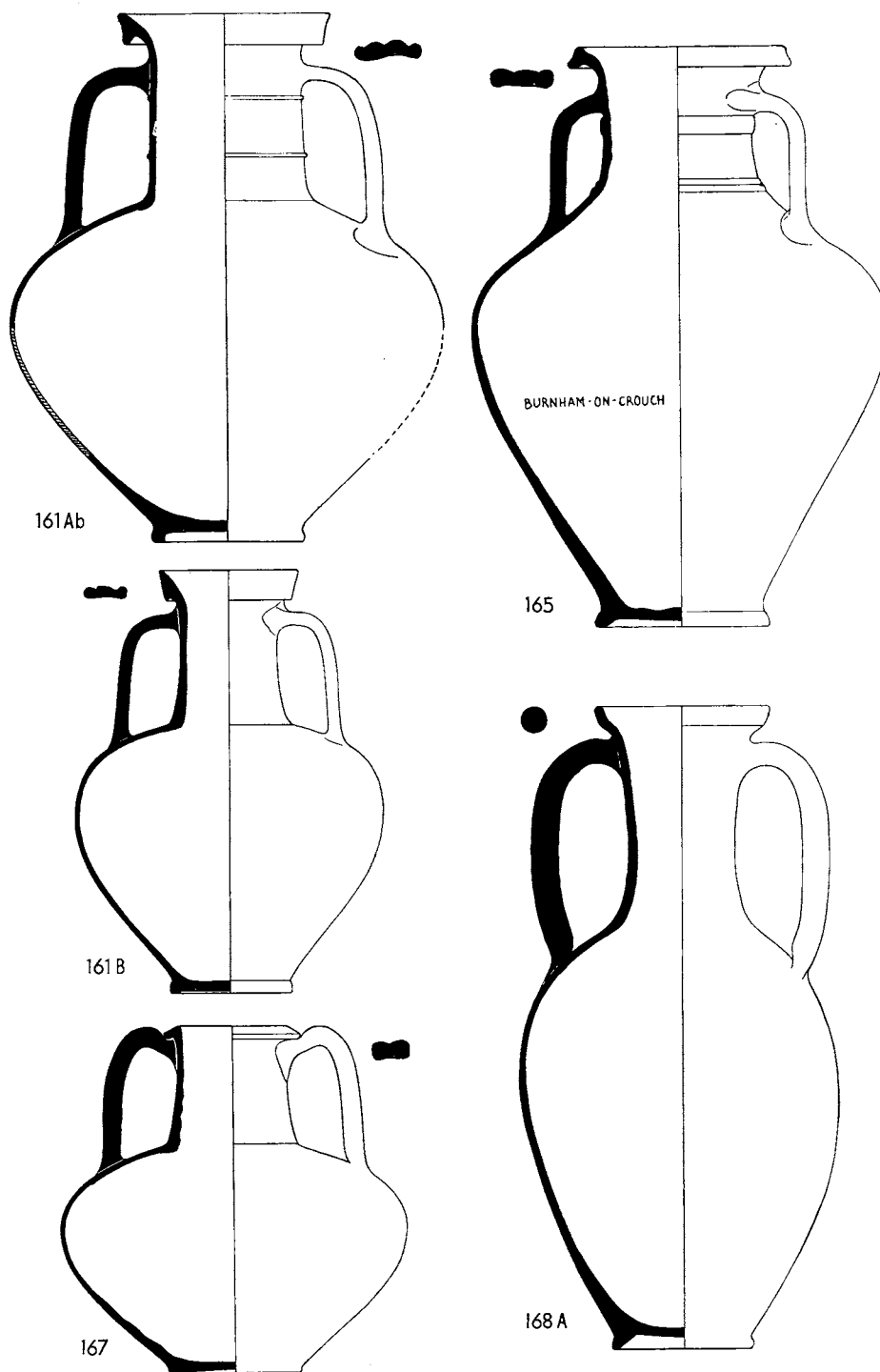
PLATE LXI



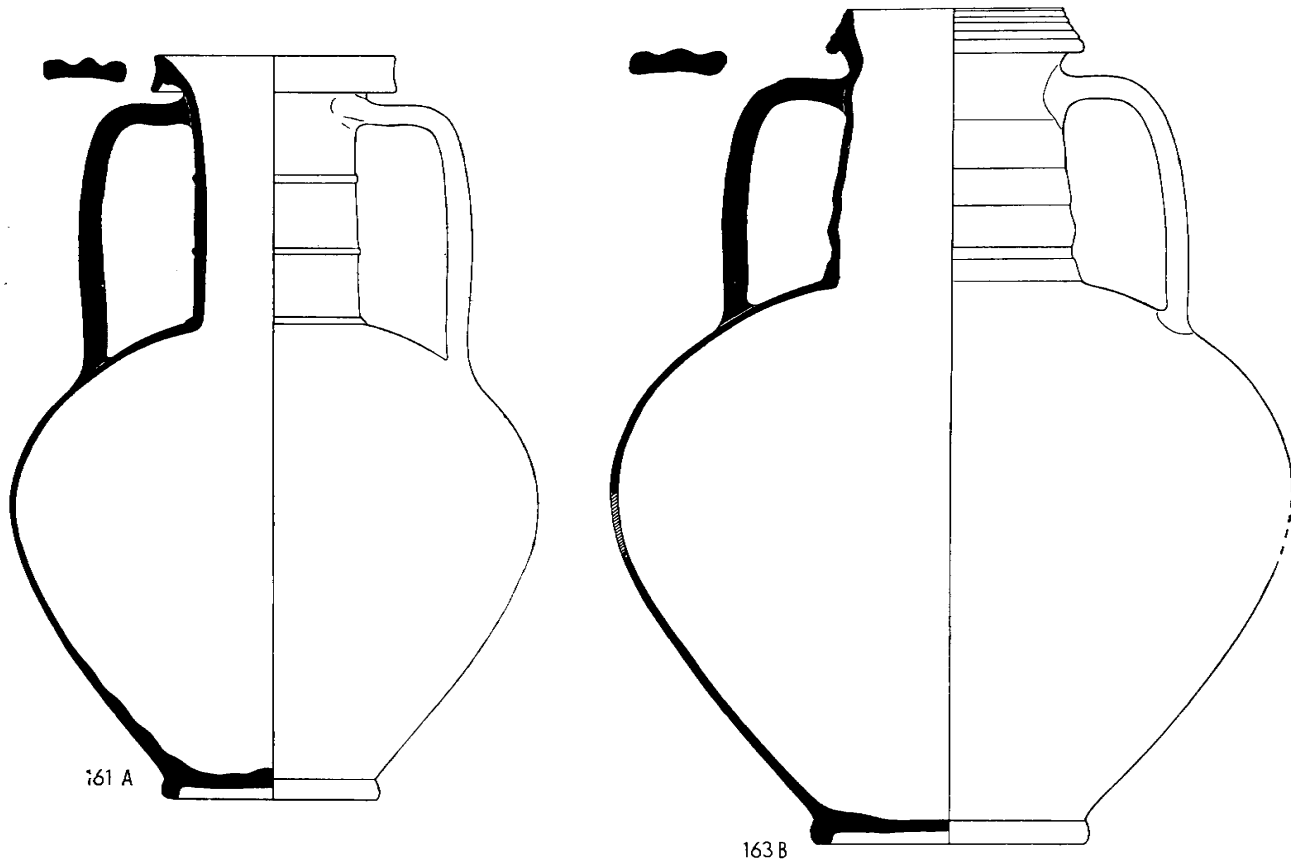
Unglazed pottery: Native (1-2) and Roman flagons, forms 134 (1-2), 136 (3), 140 (4-11), 143 (12, 15), 144 (13-14), 146 (22), 148 (18), 149 (20-1), 150 (19), 159 (16-17). Scale $\frac{1}{4}$. (pp. 242-6.)



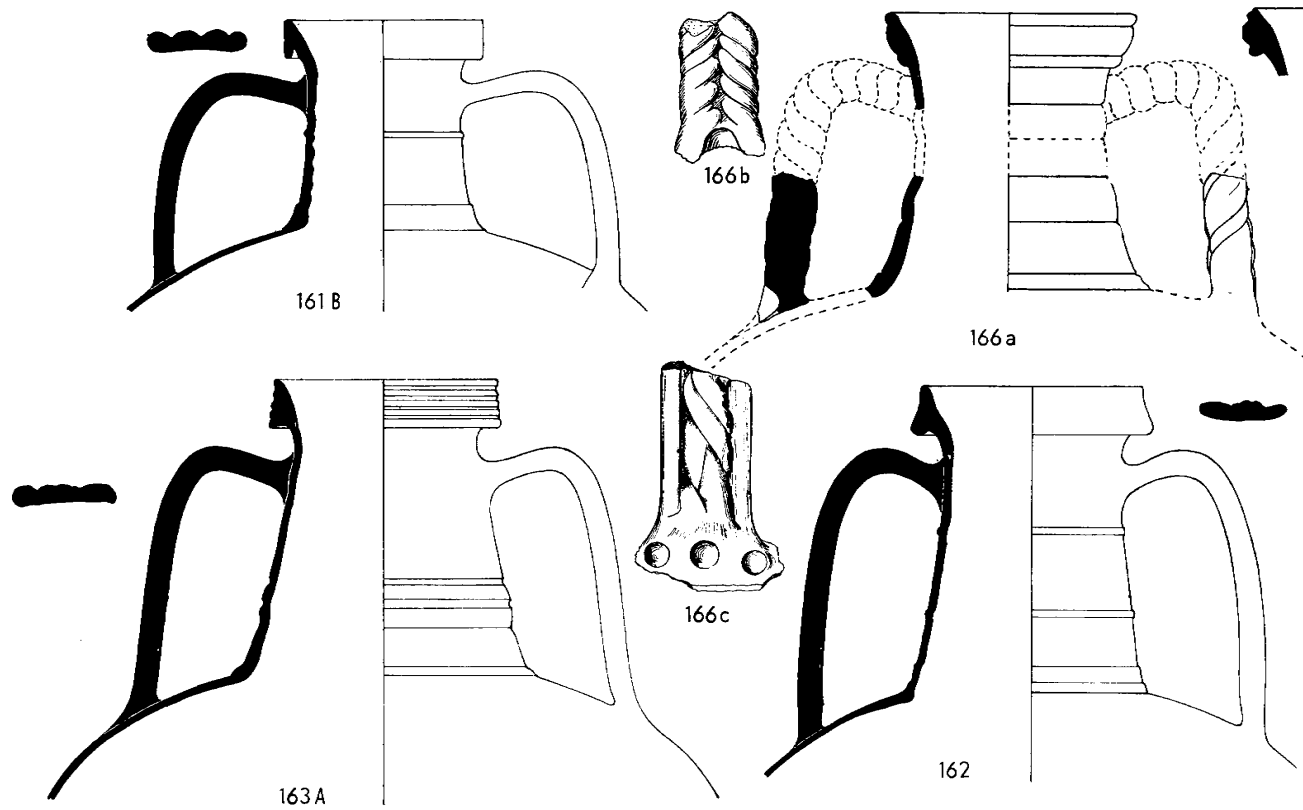
Unglazed pottery: Roman flagons, forms 148-50, 154-9. Scale $\frac{1}{4}$.
(pp. 245-6.)



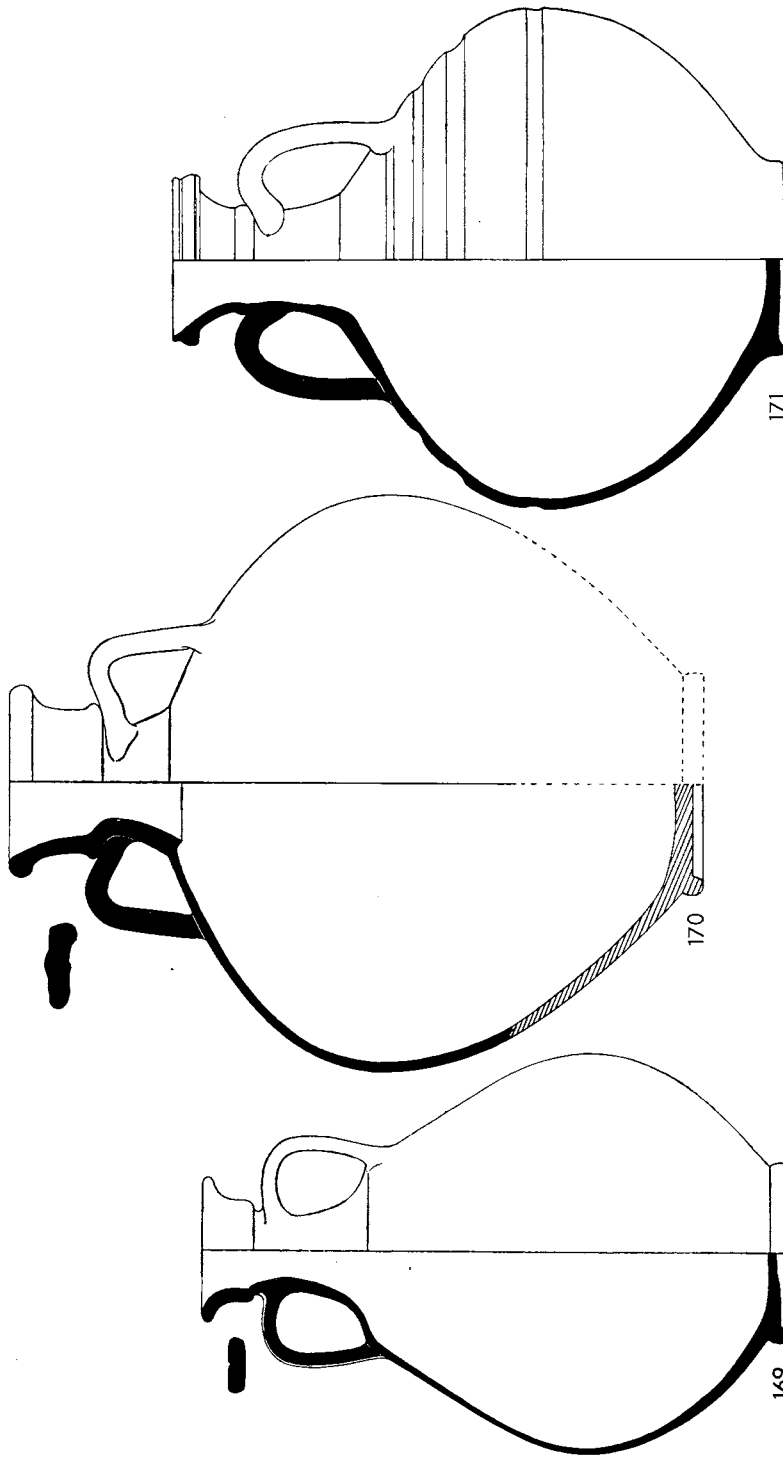
Unglazed pottery: Roman jugs, forms 161, 167-8, and Native jug, form 165.
Scale $\frac{1}{4}$. (pp. 246-9.)



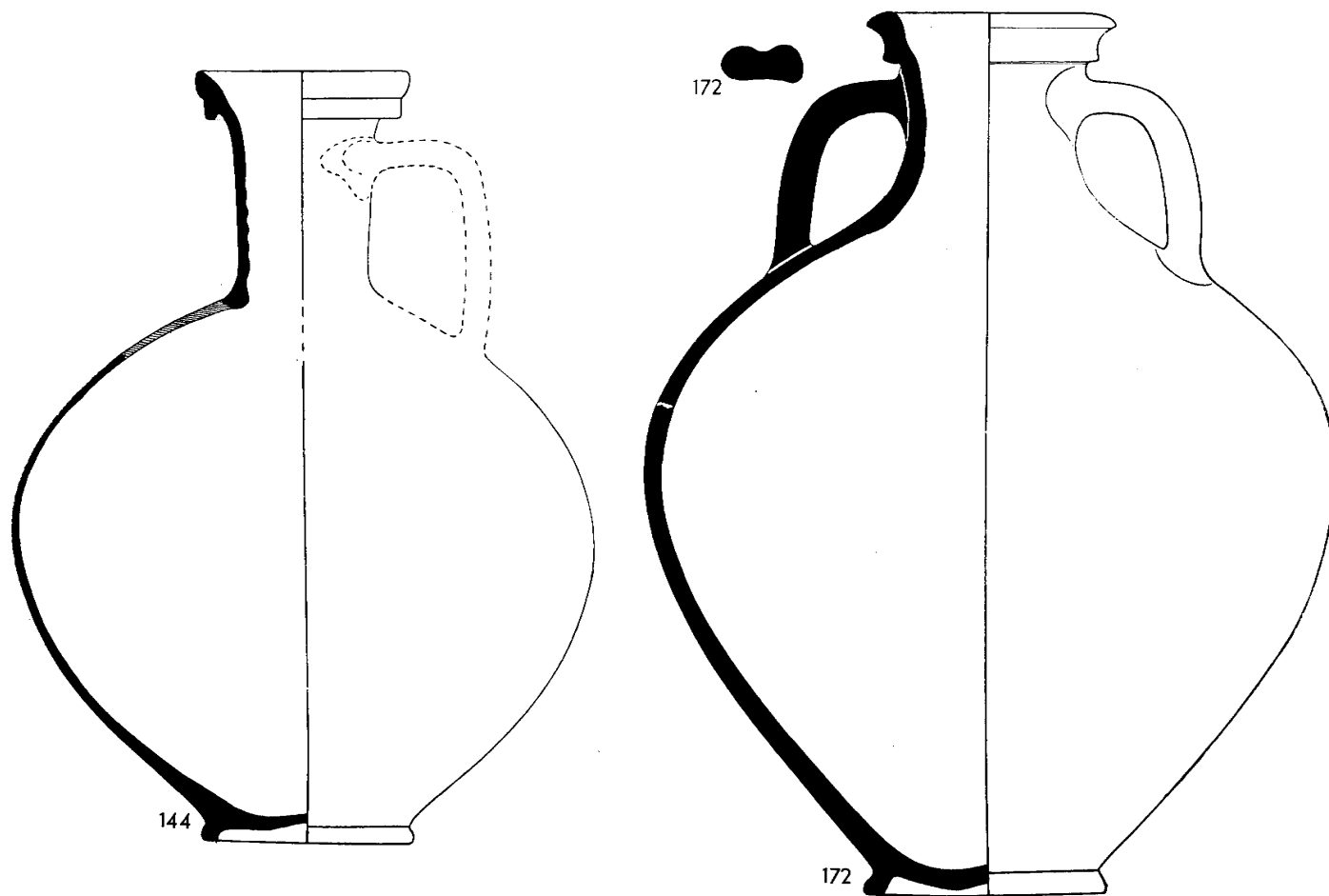
Unglazed pottery: Roman jugs, forms 161, 163. Scale $\frac{1}{4}$. (pp. 246, 248.)



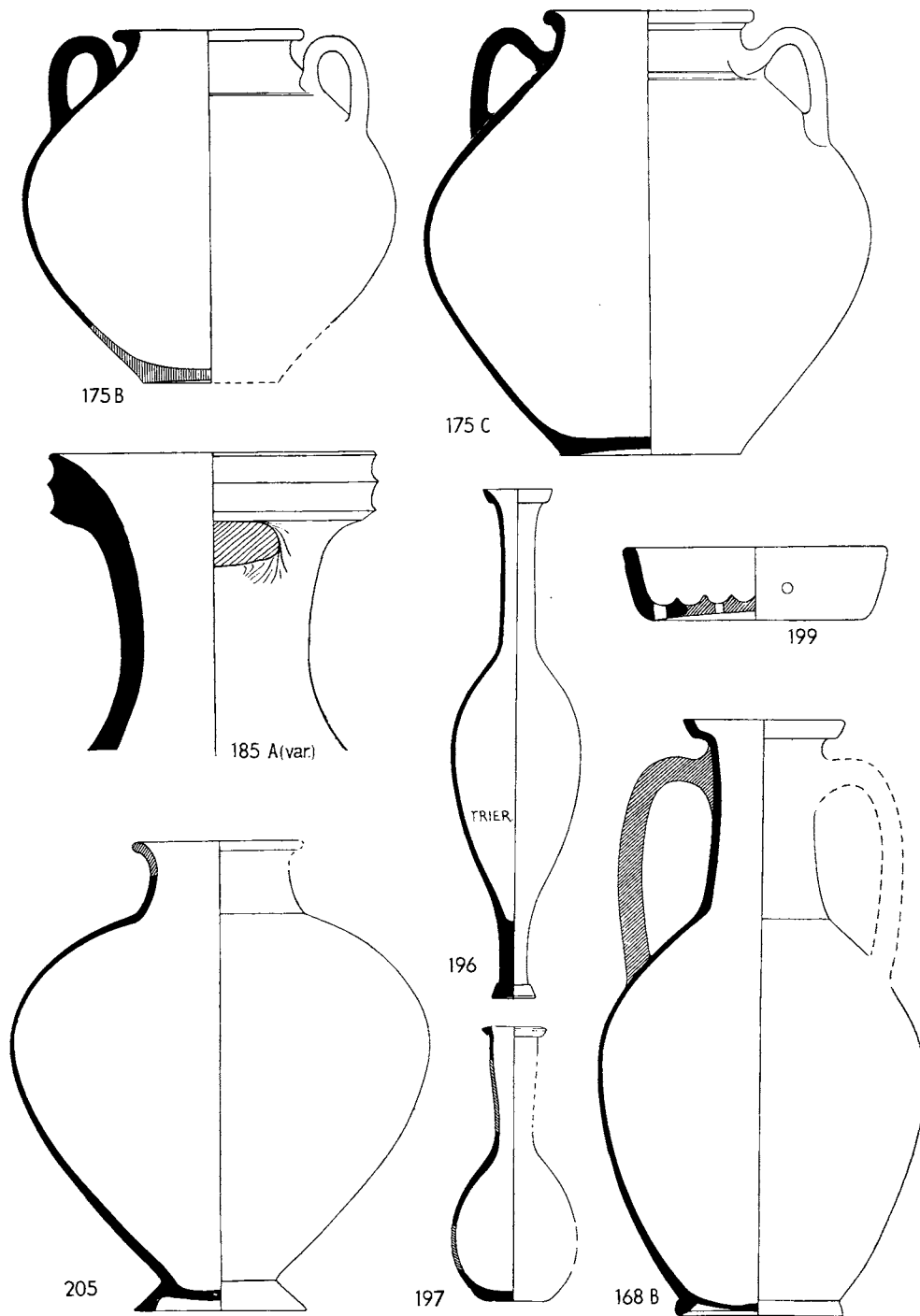
Unglazed pottery: Roman jugs, forms 161-3, 166. Scale $\frac{1}{4}$. (pp. 246, 248.)



Unglazed pottery: Roman jugs, forms 169-71. Scale $\frac{1}{4}$. (p. 249.)

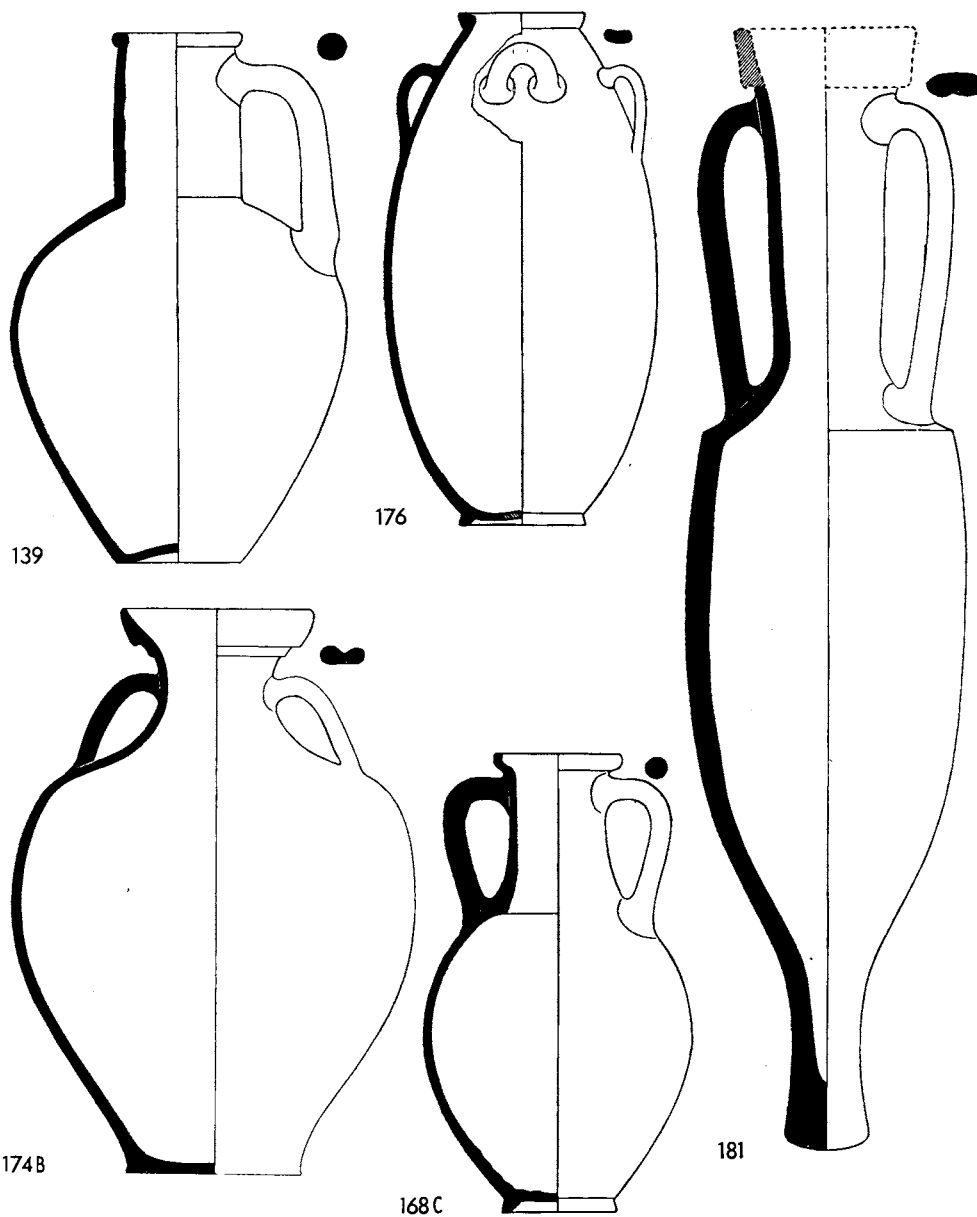


Unglazed pottery: Roman jugs, forms 144, 172. Scale $\frac{1}{4}$. (pp. 244, 250.)

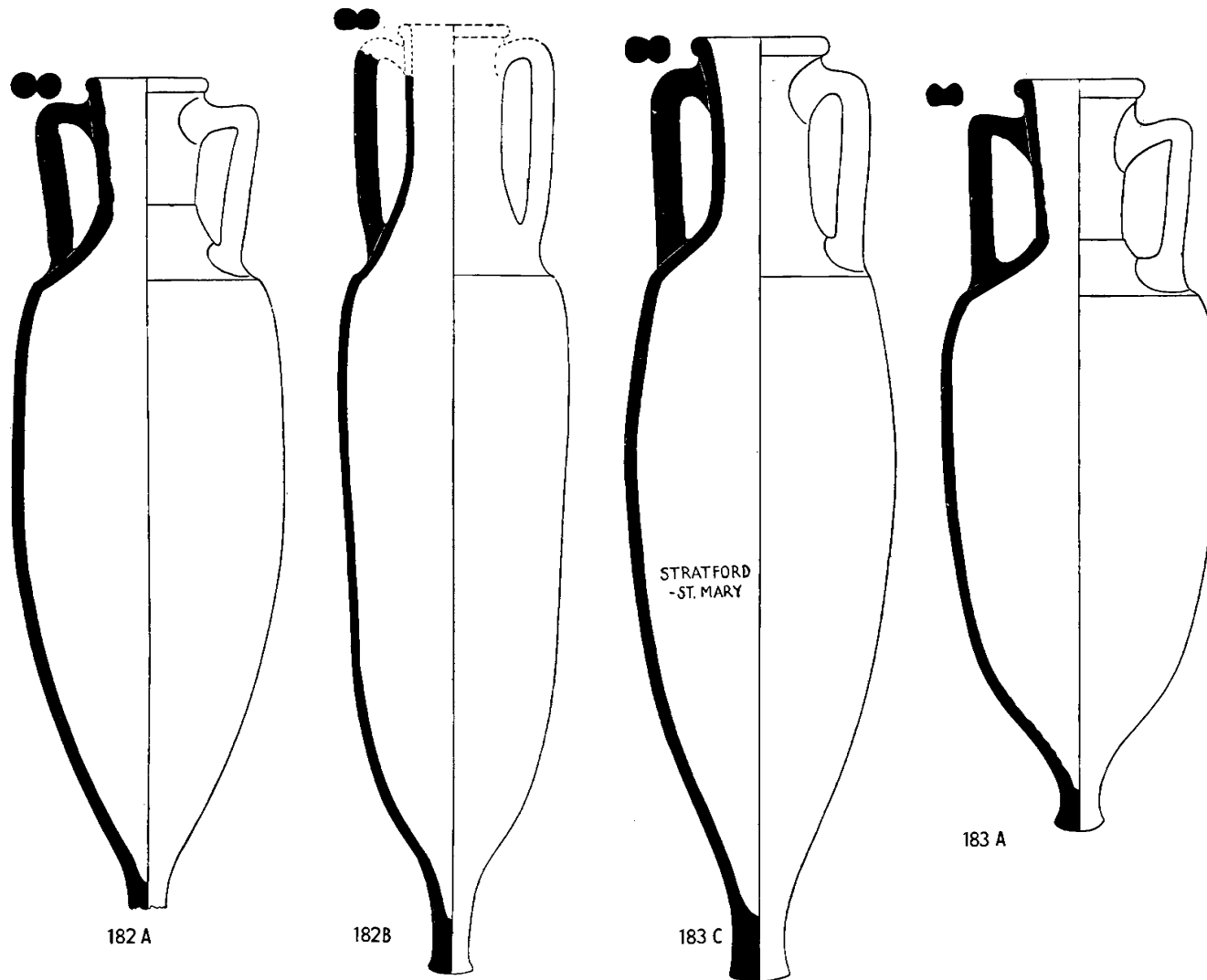


Unglazed pottery: Roman two-handled vessels, forms 168, 175, 185; flasks, forms 196-7; cheese-press, form 199; and pedestal-urn, form 205. Scale $\frac{1}{4}$. (pp. 249-50, 252, 256, 258.)

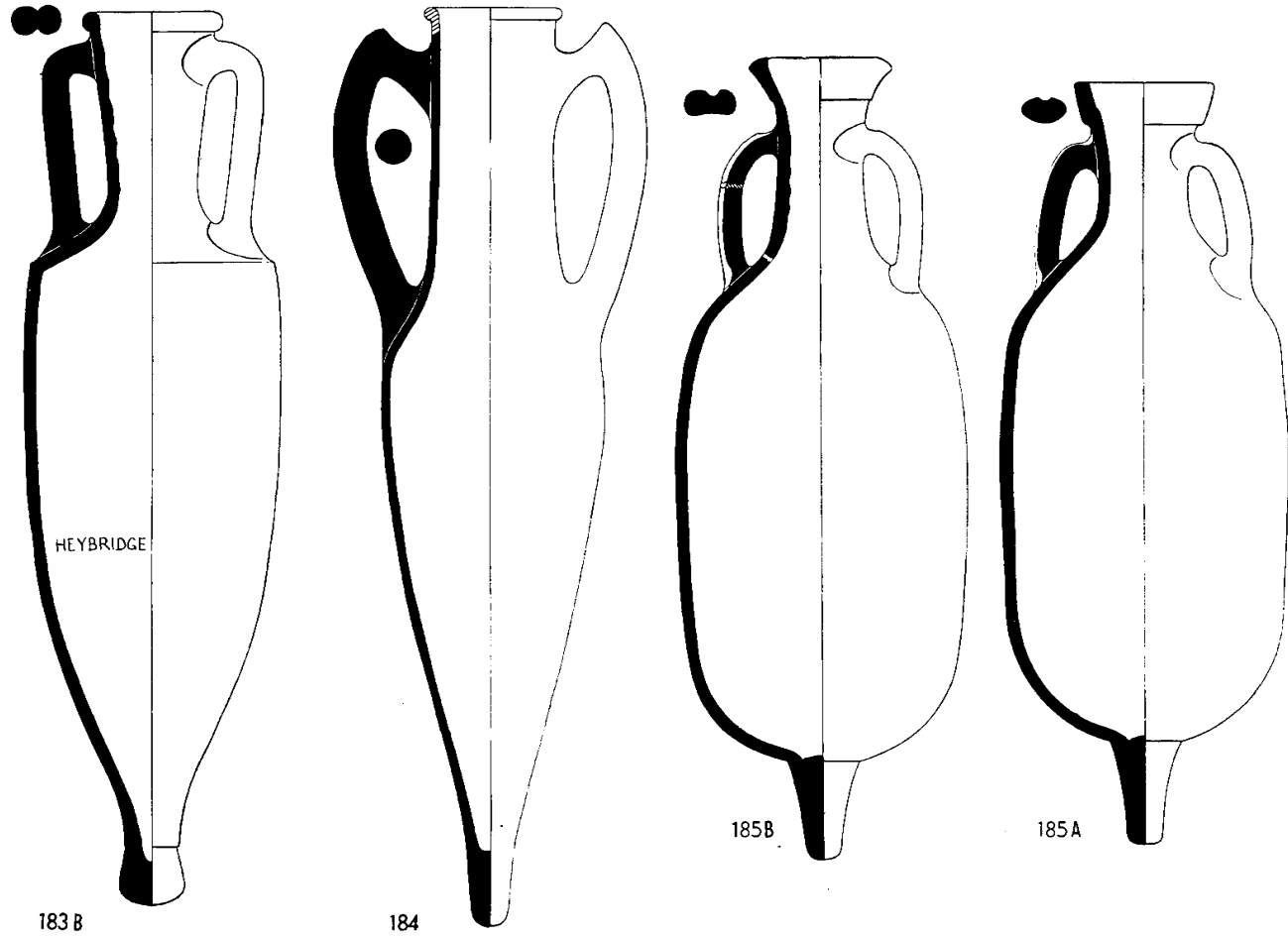
PLATE LXIX



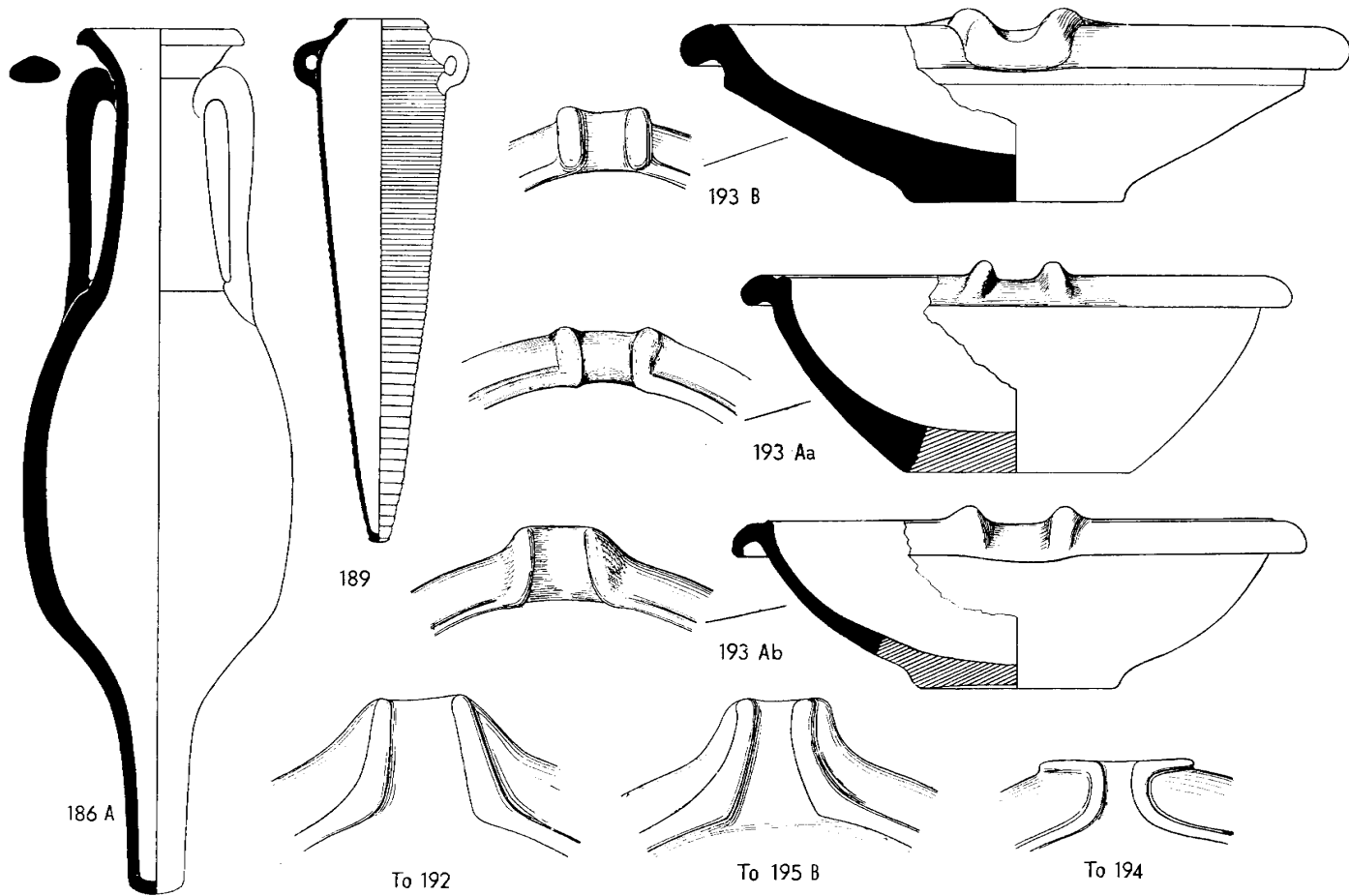
Unglazed pottery: Roman flagon, form 139; jugs, forms 168, 174; four-handled jar, form 176; and amphora, form 181. Scale $\frac{1}{8}$. (pp. 243, 249-51.)



Unglazed pottery: Roman amphorae, forms 182-3. Scale $\frac{1}{8}$. (pp. 251 ff.)

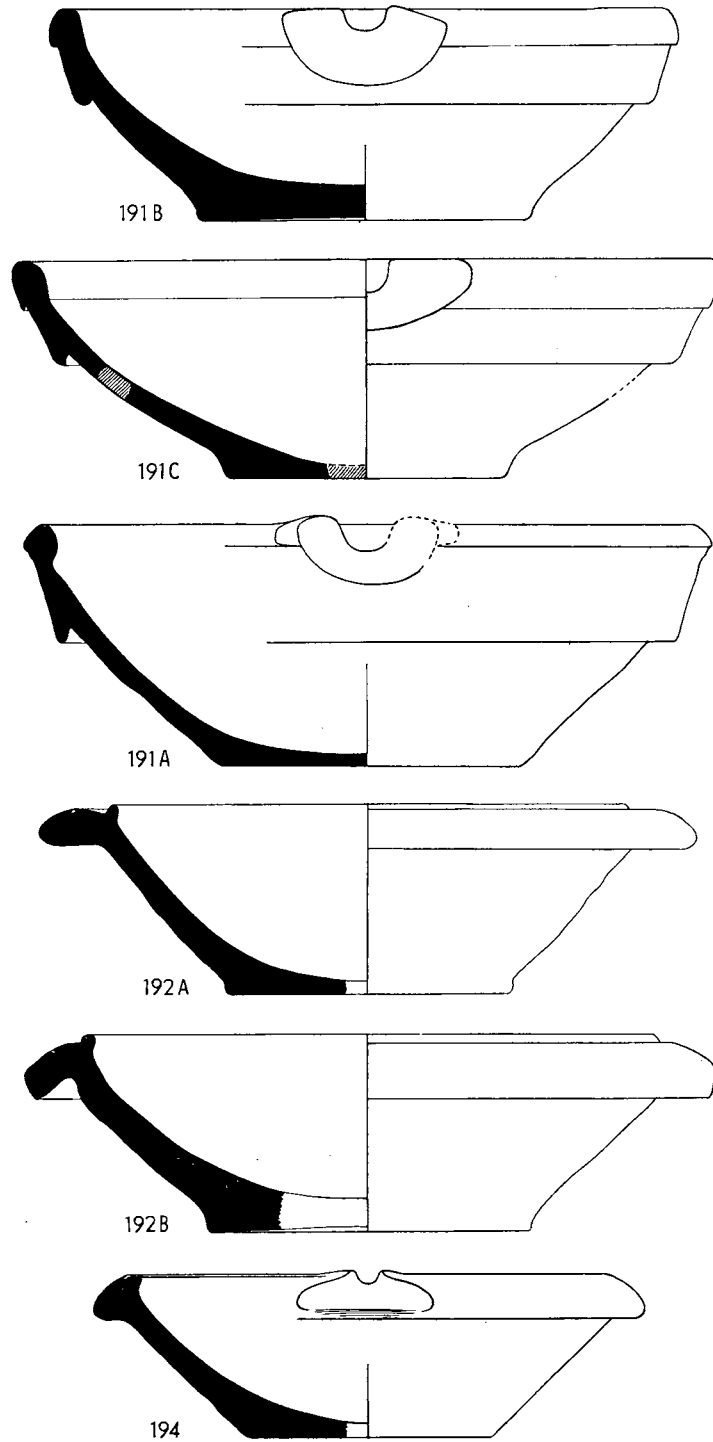


Unglazed pottery: Roman amphorae, forms 183-5. Scale $\frac{1}{8}$. (pp. 251 ff.)

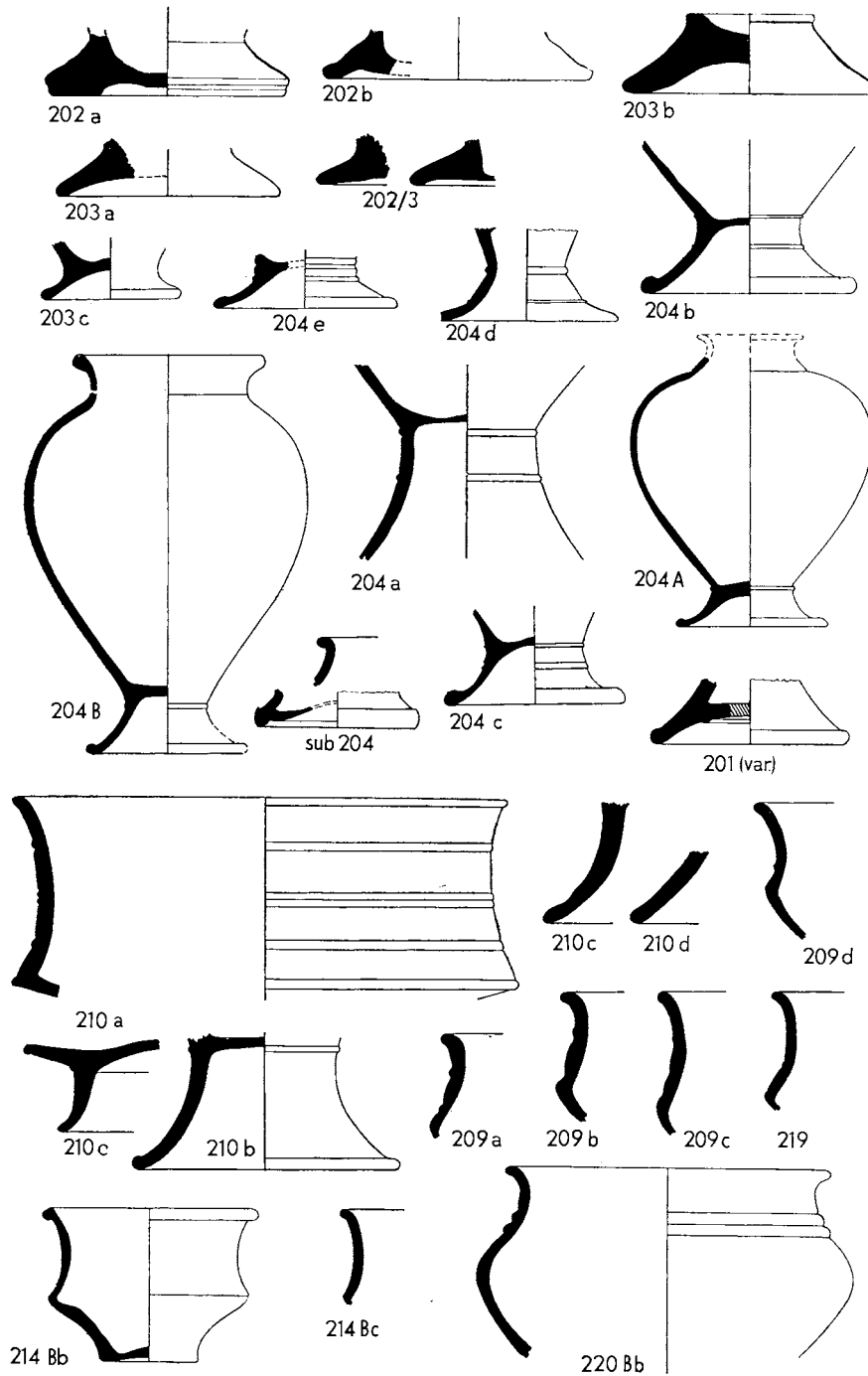


Unglazed pottery: Roman amphorae, forms 186, 189, and mortaria, forms 192-5. Scale $\frac{1}{4}$; except 186, 189, $\frac{1}{8}$. (pp. 252-6.)

PLATE LXXIII

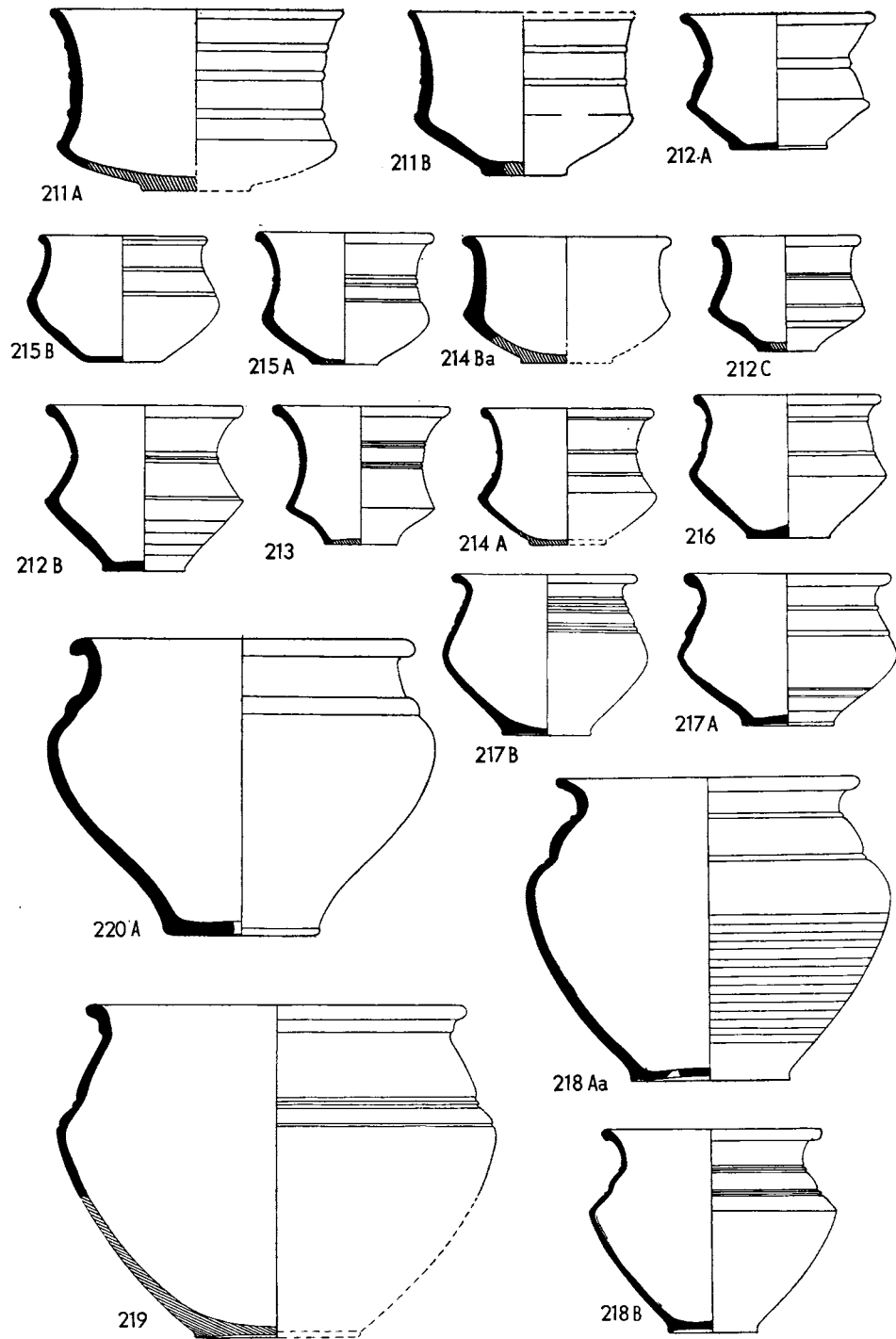


Unglazed pottery: mortaria, forms 191-2, 194. Scale $\frac{1}{2}$.
(p. 254 f.)

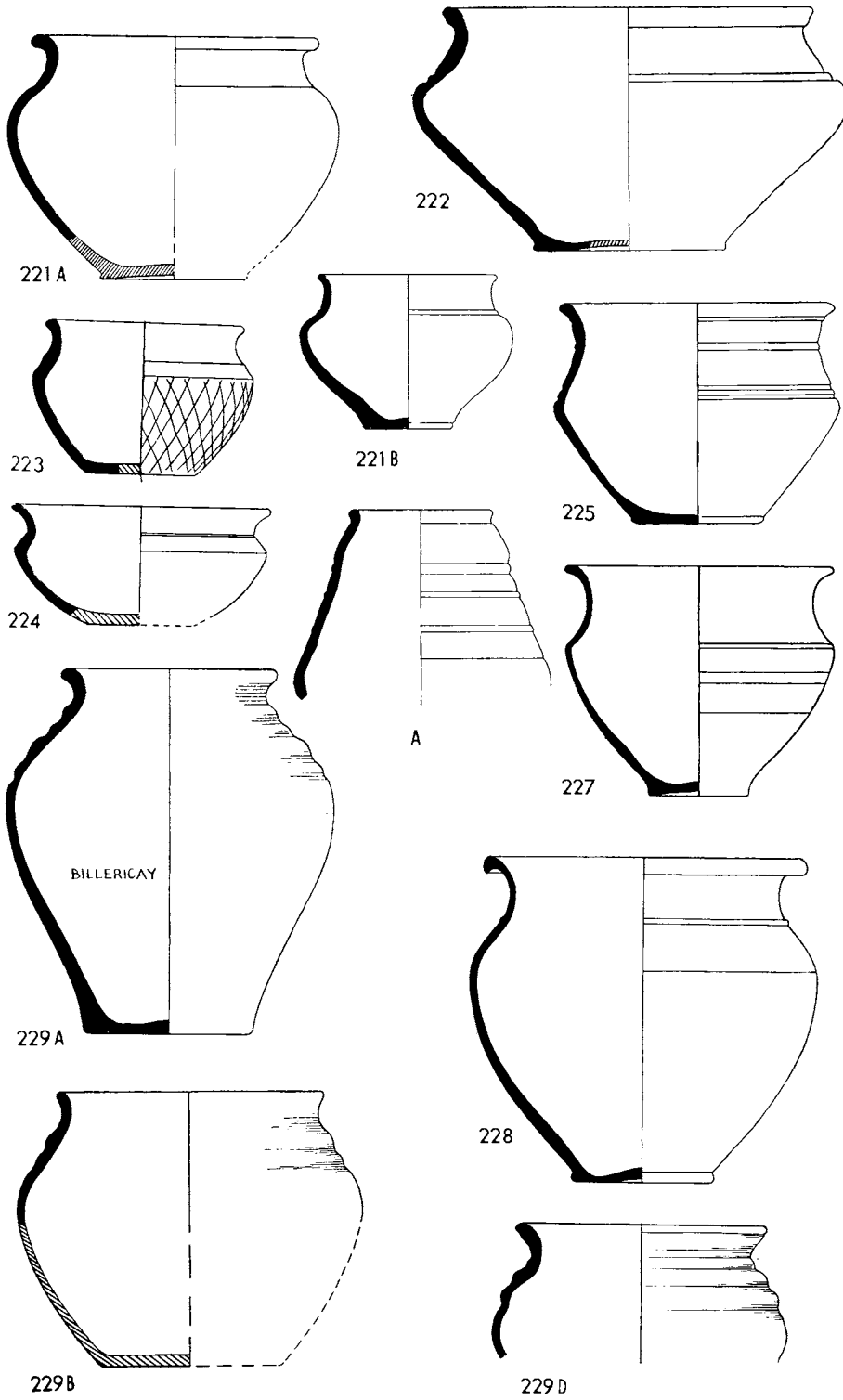


Unglazed pottery: Native pedestal-urns, forms 201-4, tazze and bowls, forms 209-10, 214, 220. Scale $\frac{1}{4}$. (pp. 257 ff.)

PLATE LXXV

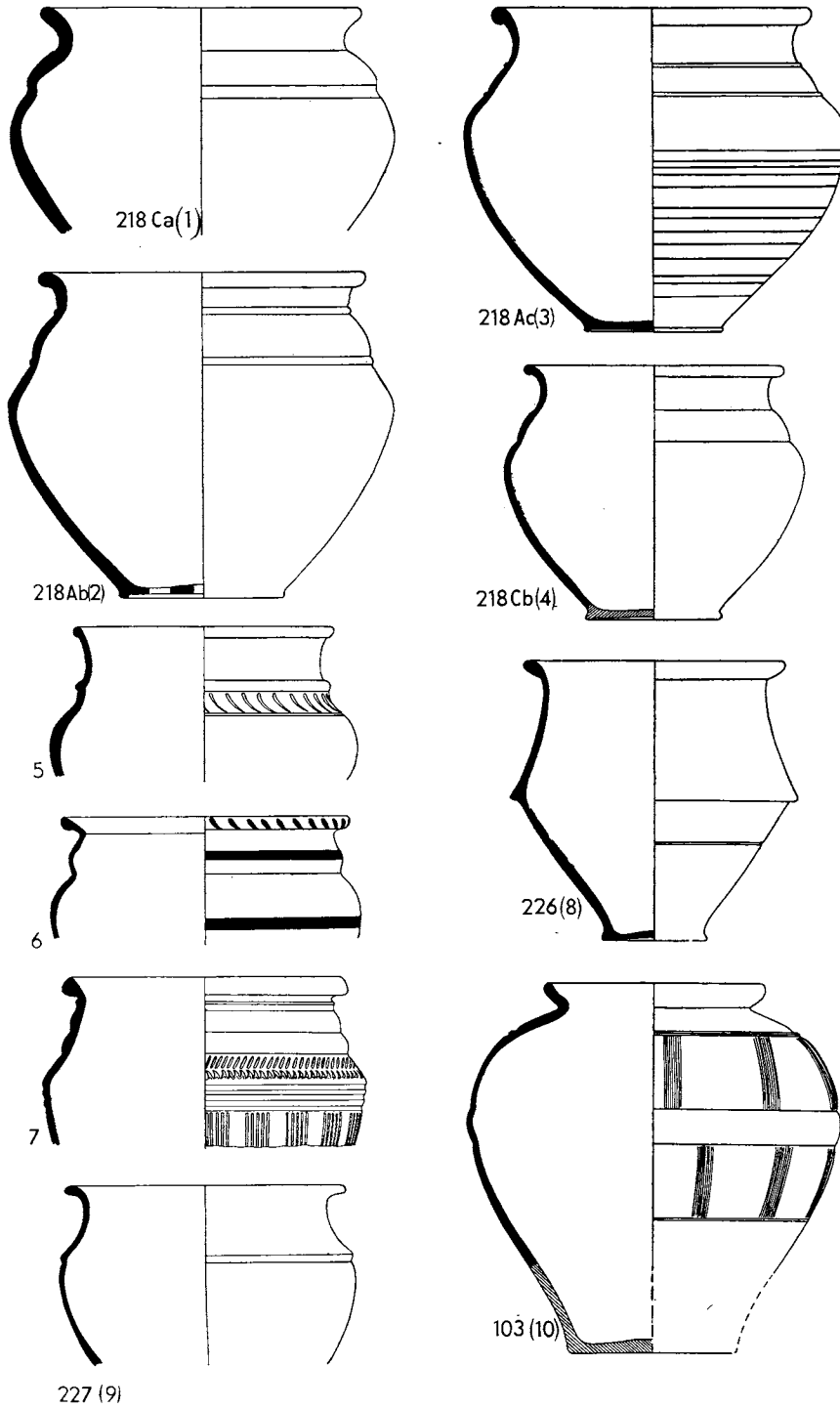


Unglazed pottery: Native and Roman cups and bowls, forms 211-20. Scale $\frac{1}{4}$.
(pp. 258 ff.)

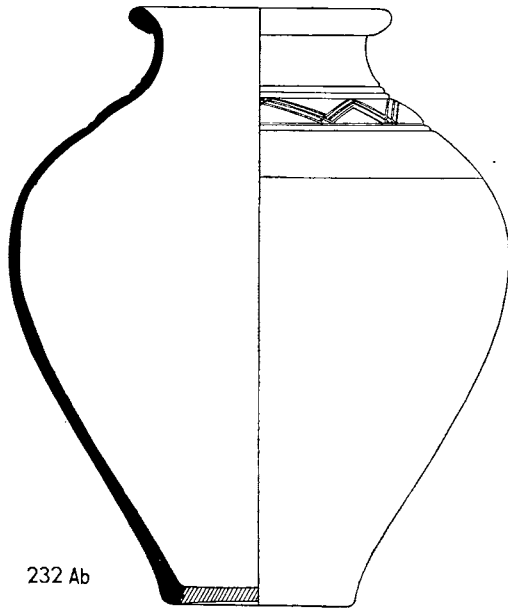


Unglazed pottery: Native and Roman bowls, forms 221-9. Scale $\frac{1}{4}$.
(pp. 261 ff.; A, p. 274.)

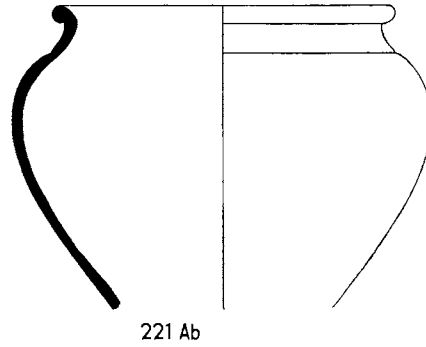
PLATE LXXVII



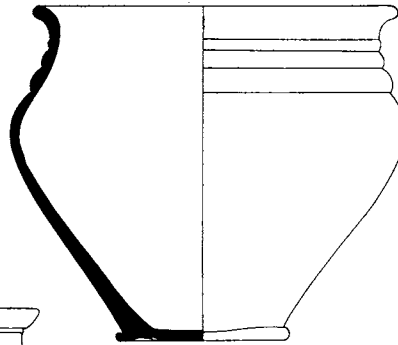
Unglazed pottery: Native and Roman bowls, forms 218, 226-7, &c., and globular beaker, form 103. Scale $\frac{1}{4}$. (Nos. 1-4, pp. 259-61; 5-7, p. 261; 8-9, p. 262; 10, p. 236.)



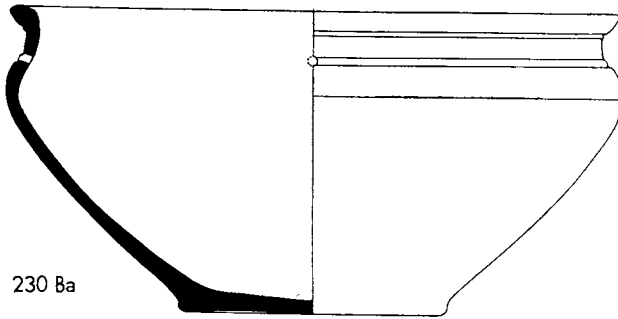
232 Ab



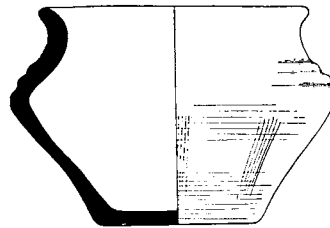
221 Ab



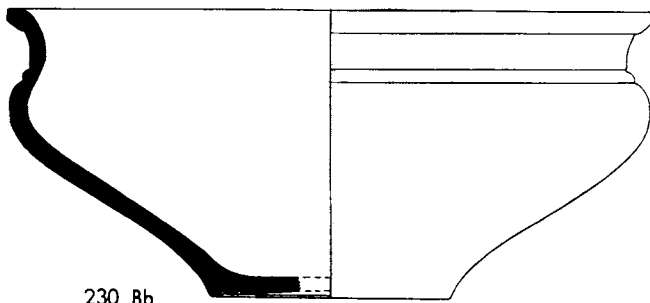
220 Ba



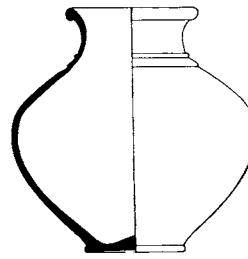
230 Ba



229 C



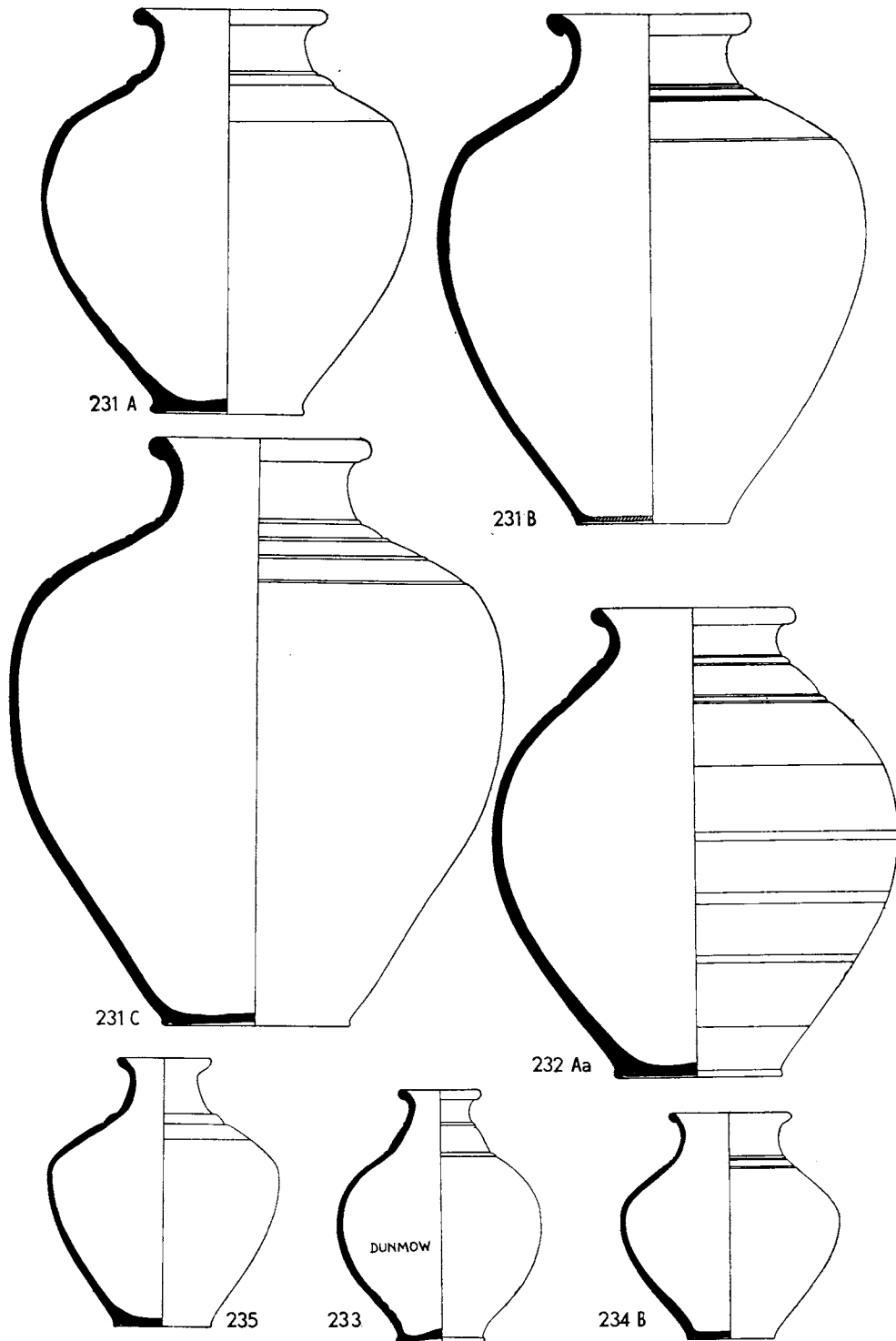
230 Bb



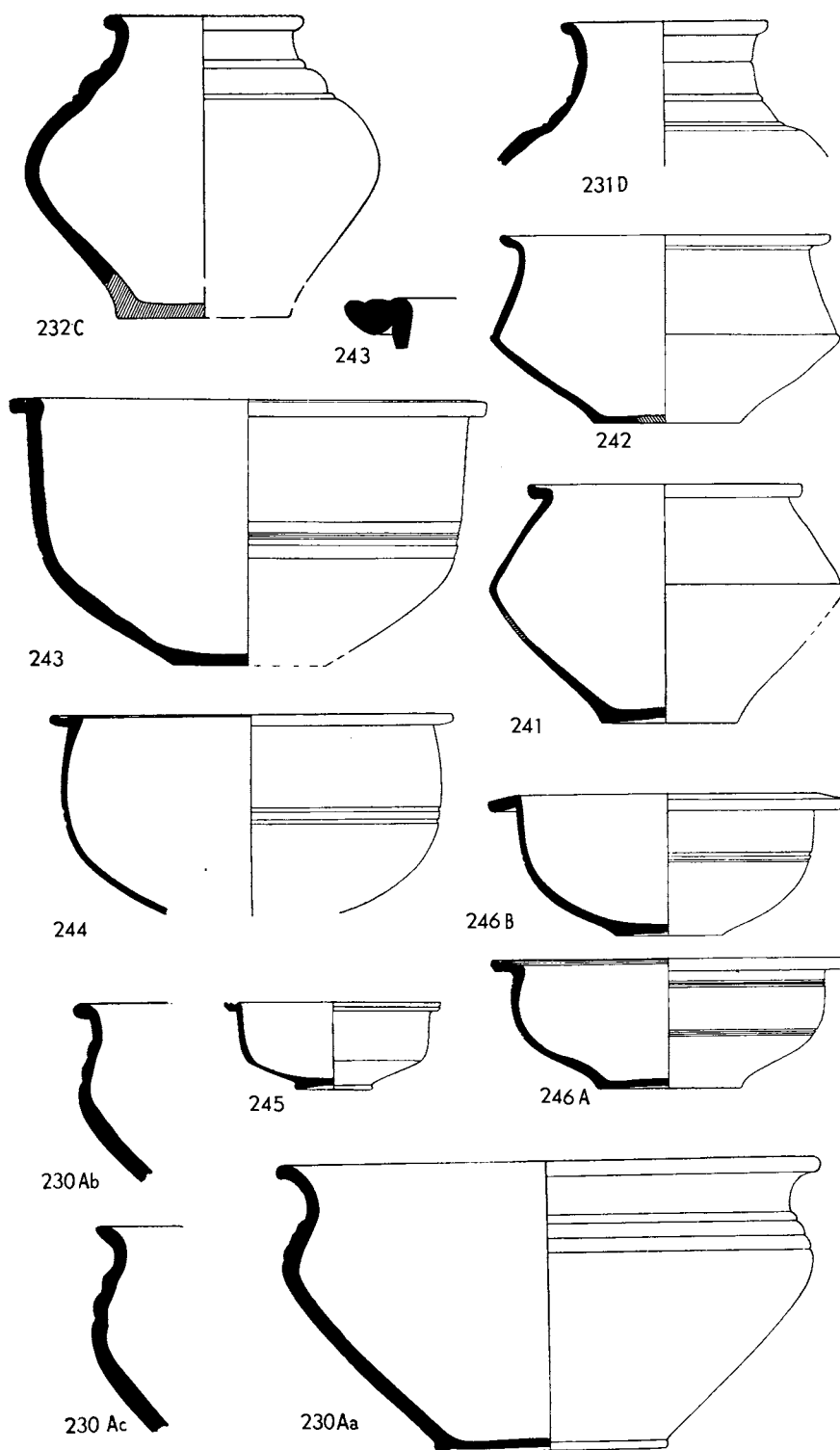
234 A

Unglazed pottery: Native and Roman bowls, forms 220-1, 229-30, and flasks, forms 232, 234. Scale $\frac{1}{4}$. (pp. 261, 263-4.)

PLATE LXXIX

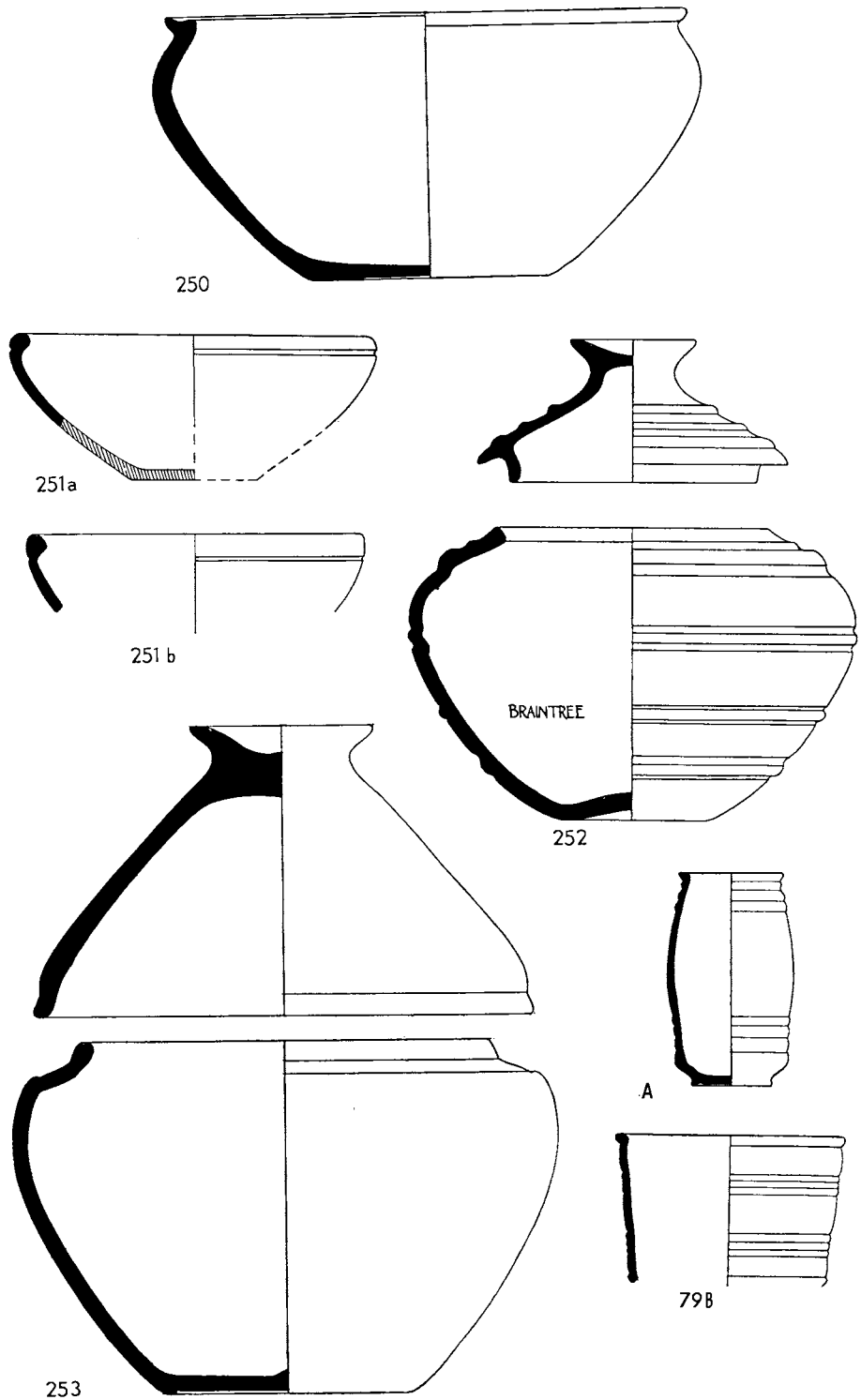


Unglazed pottery: Native and Roman flasks, forms 231-5. Scale $\frac{1}{4}$. (pp. 263-4.)

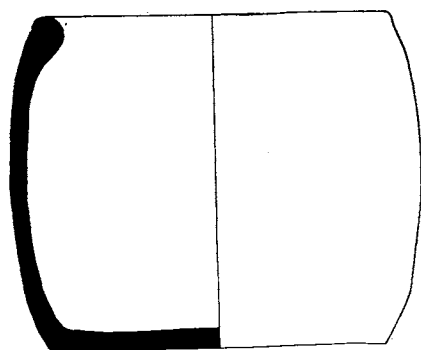


Unglazed pottery: Native and Roman flasks, forms 231-2, and bowls, forms 230, 241-6. Scale $\frac{1}{4}$. (pp. 263-5.)

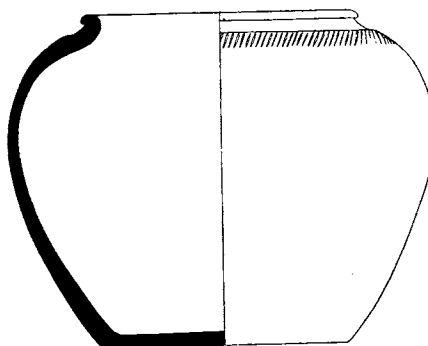
PLATE LXXXI



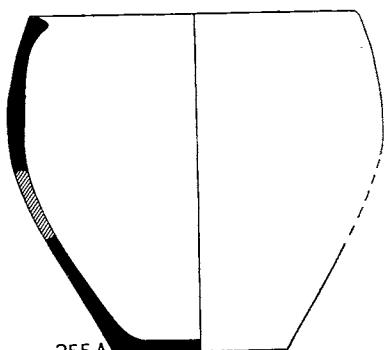
Unglazed pottery: Native bowls, forms 250-3, and Gallo-Belgic cylindrical beaker, form 79. Scale $\frac{1}{4}$. (pp. 232, 266; A, p. 275.)



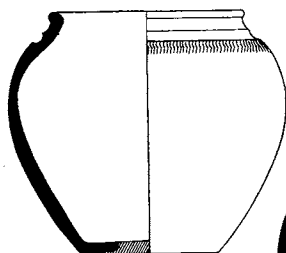
254



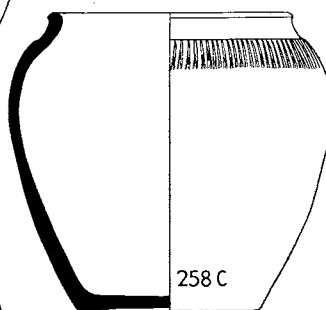
258 A



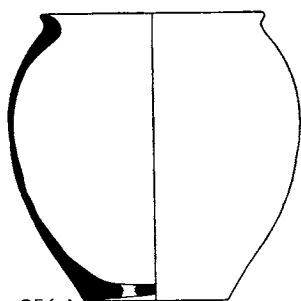
255 A



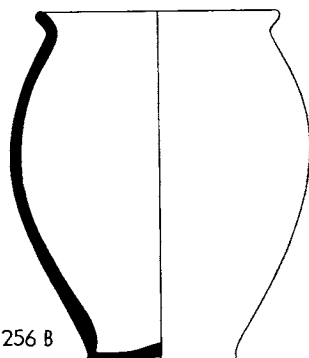
258 B



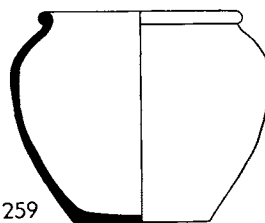
258 C



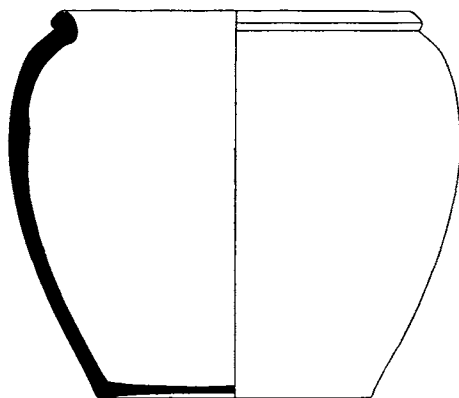
256 A



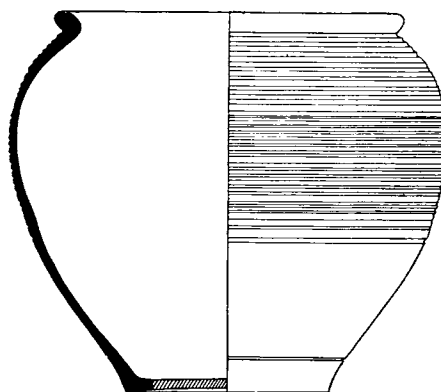
256 B



259



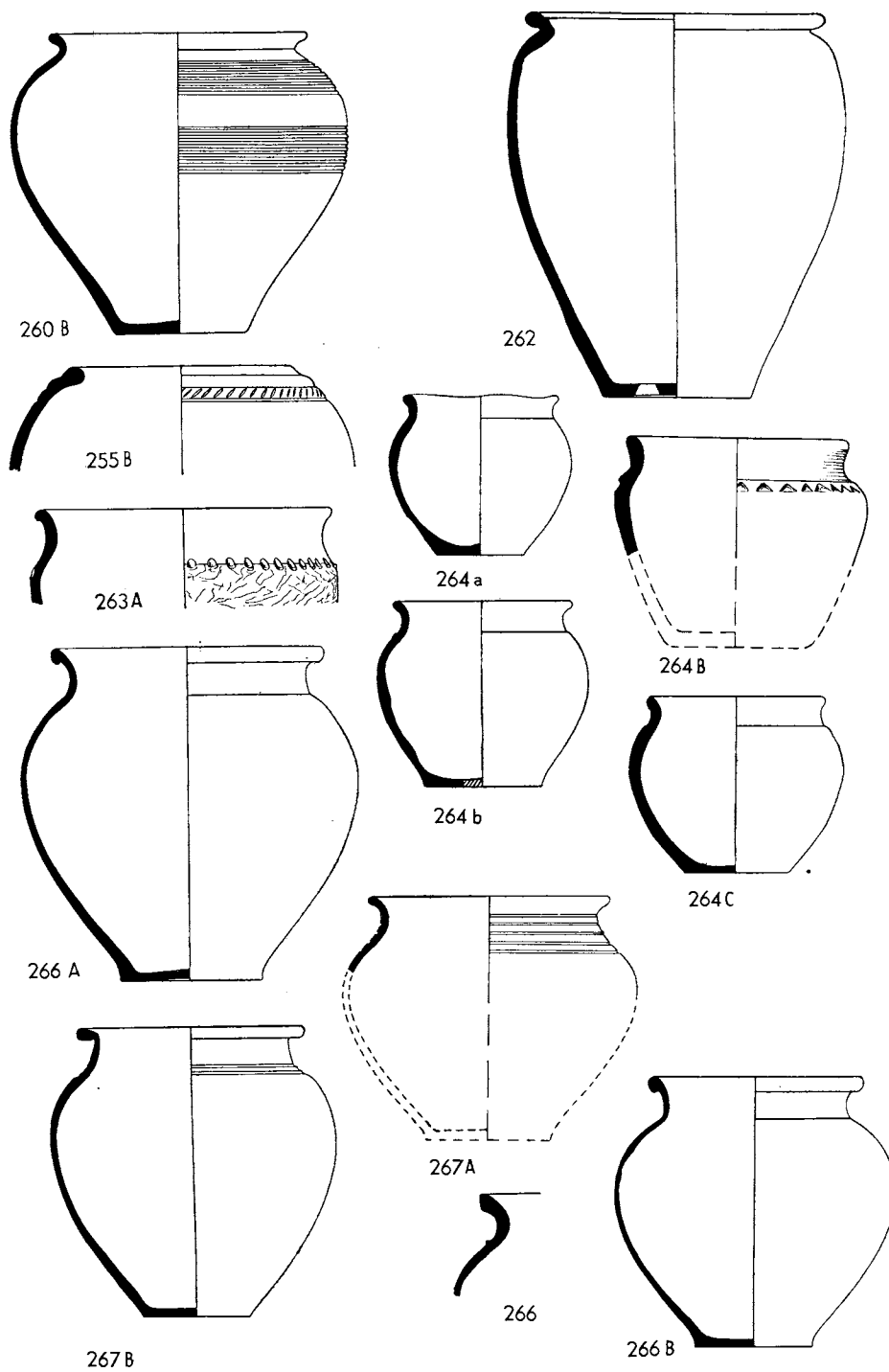
257



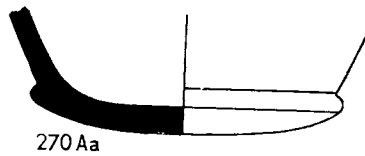
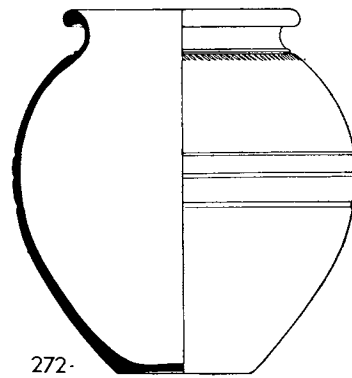
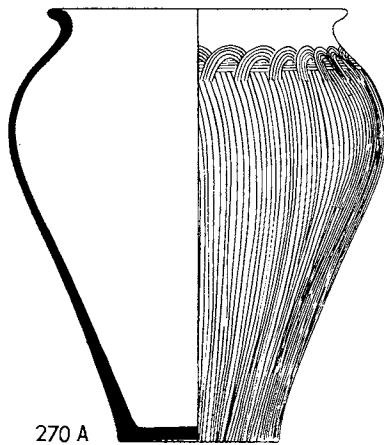
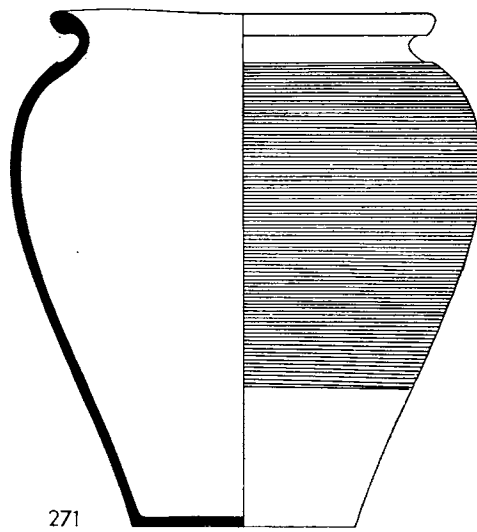
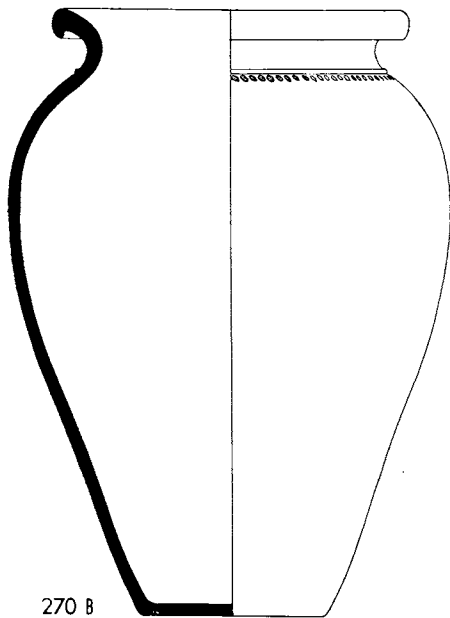
260 A

Unglazed pottery: Native and Roman cooking-pots, neckless and bead-rim, forms 254-60. Scale $\frac{1}{4}$. (pp. 267 ff.)

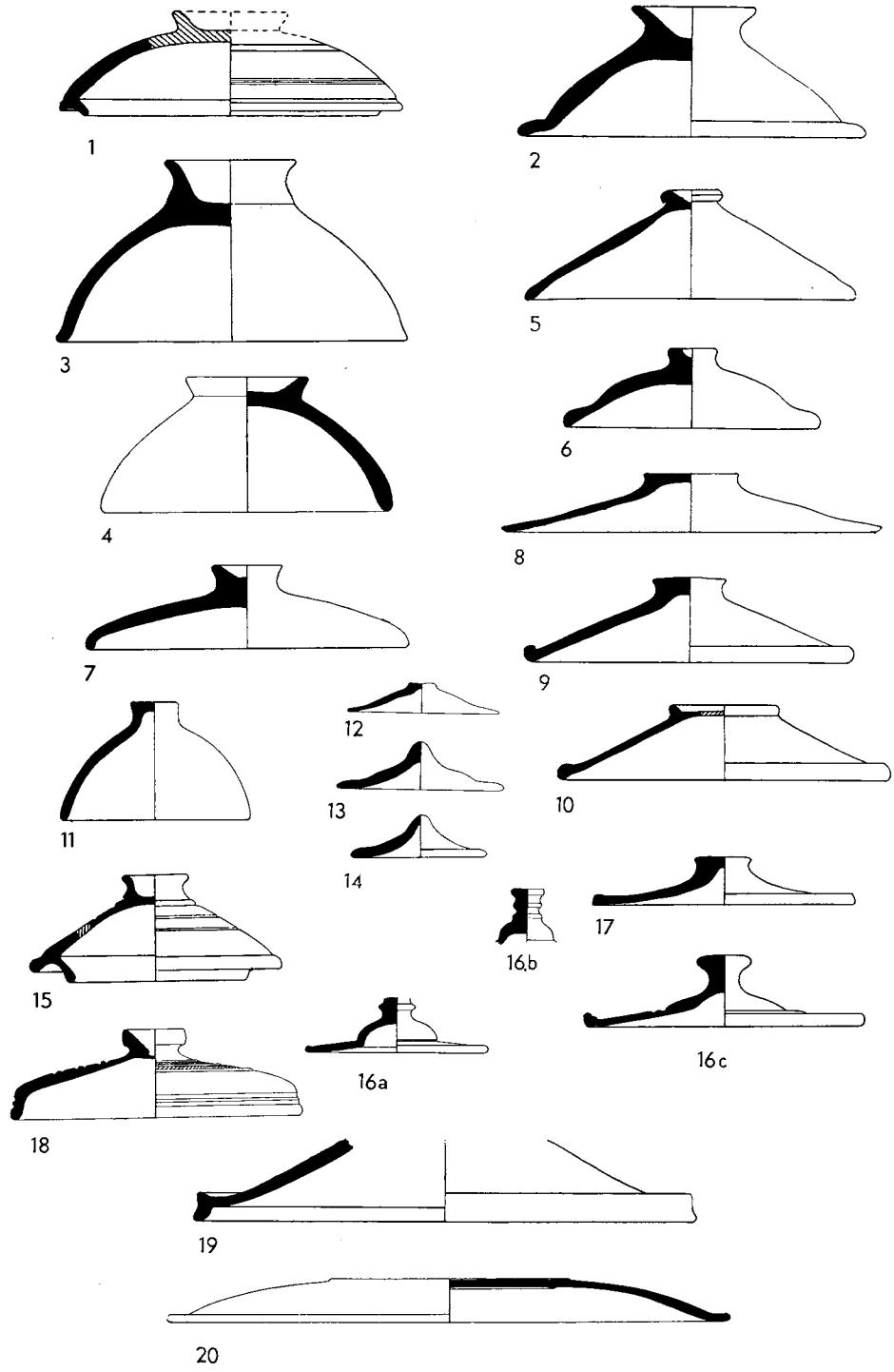
PLATE LXXXIII



Unglazed pottery: Native and Roman cooking-pots, necked and various, forms 255, 260, 262-7. Scale $\frac{1}{4}$. (pp. 268, 270 f.)



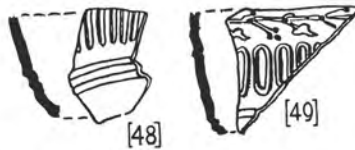
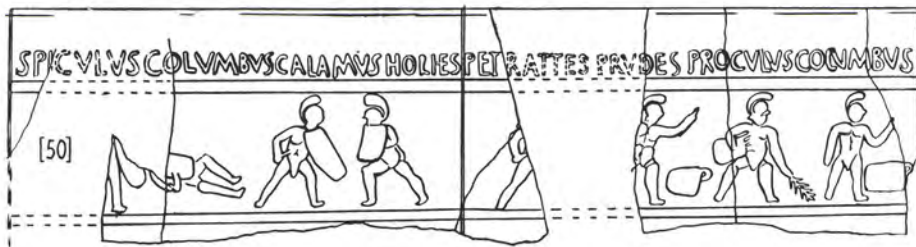
Unglazed pottery: large storage-vessels, Native and Roman, forms 270-2. Scale $\frac{1}{8}$; except 270 Aa, $\frac{1}{4}$. (p. 272.)



Unglazed pottery: Native and Roman lids. Scale $\frac{1}{4}$. (p. 273.)



I

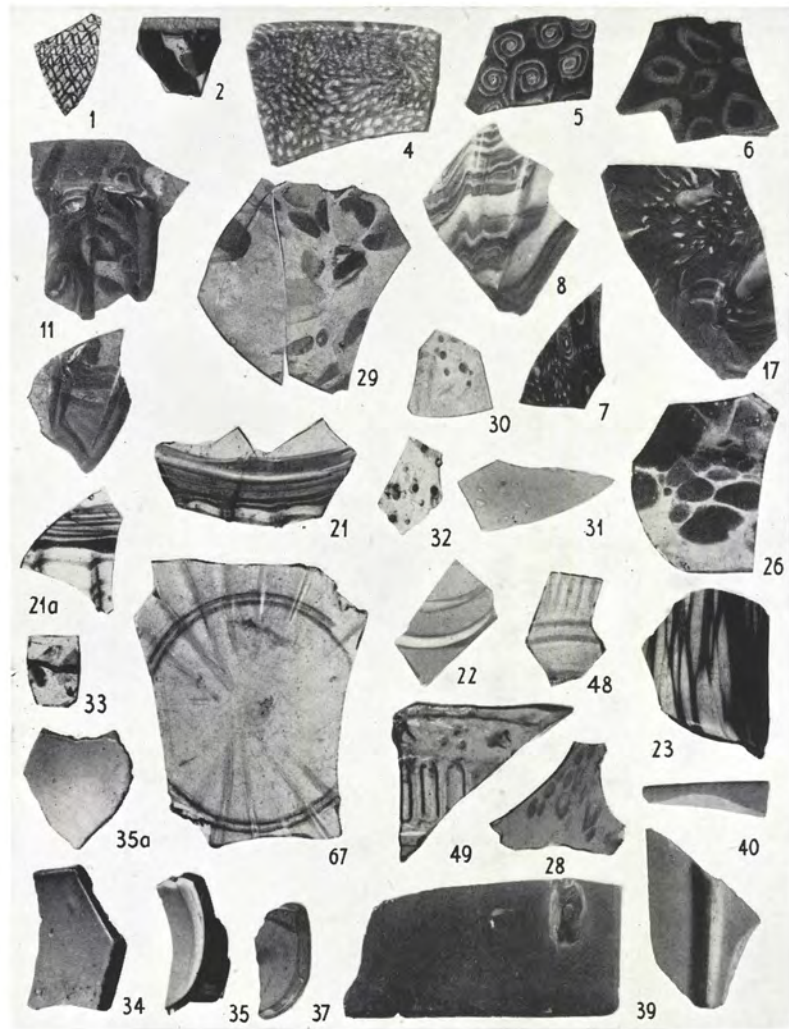


2

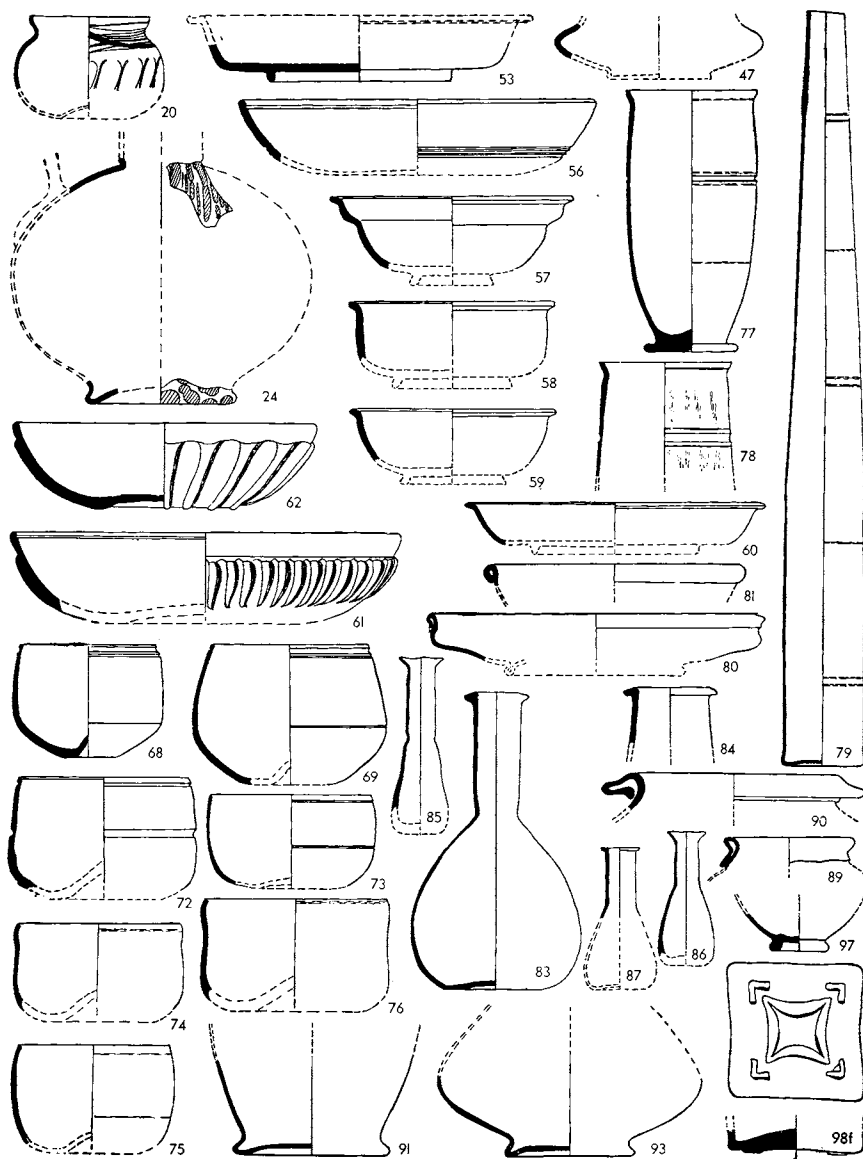
3

Glass: fragments of mould-blown bowls (p. 299): 1, 'Gladiator' bowl, Catalogue no. 50. 2, 3, other fragments, Catalogue nos. 48-9. Scale $\frac{1}{2}$.

PLATE LXXXVII

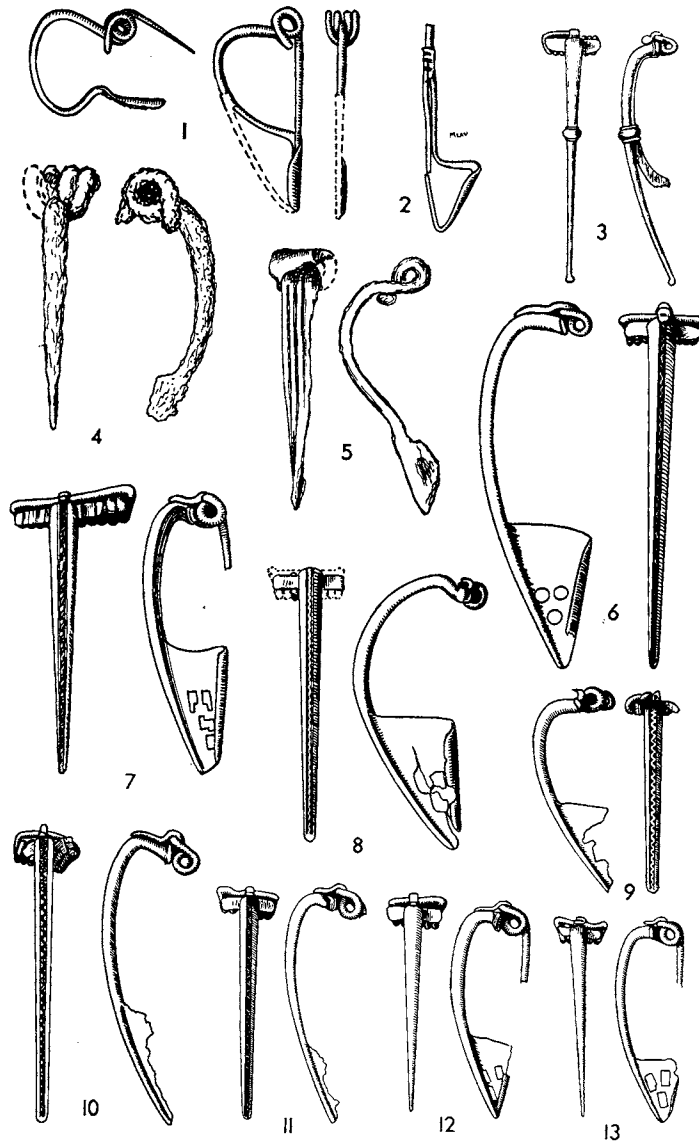


Glass: polychrome and other fine wares (numbered as in Catalogue, pp. 292 ff.). Scale $\frac{1}{2}$.

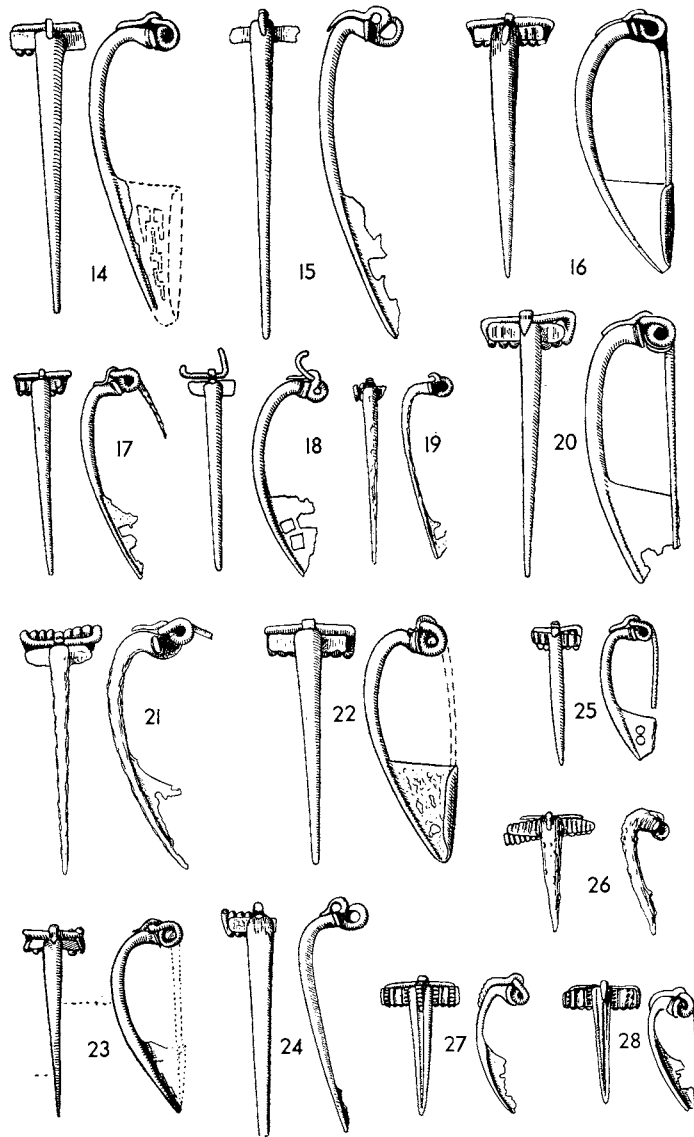


Glass: various (numbered as in Catalogue, pp. 292 ff.). Scale $\frac{1}{4}$.

PLATE LXXXIX

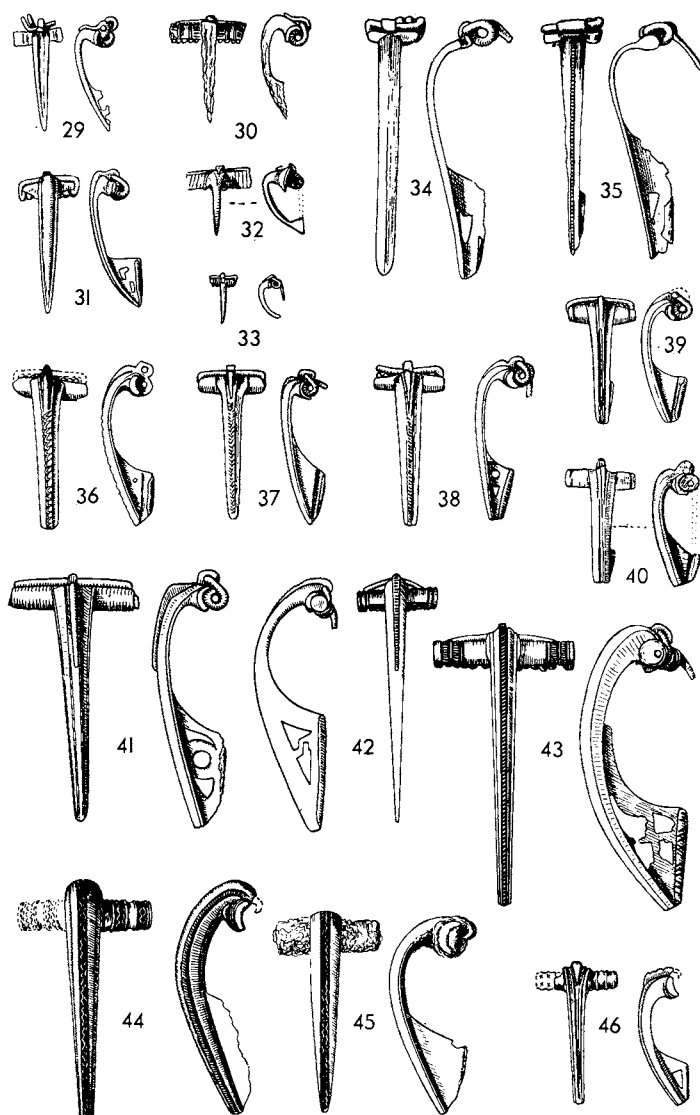


Bronze brooches (pp. 308-10). Scale $\frac{1}{2}$. 1-3, Type I; 4-5, Type II; 6-13, Type III.

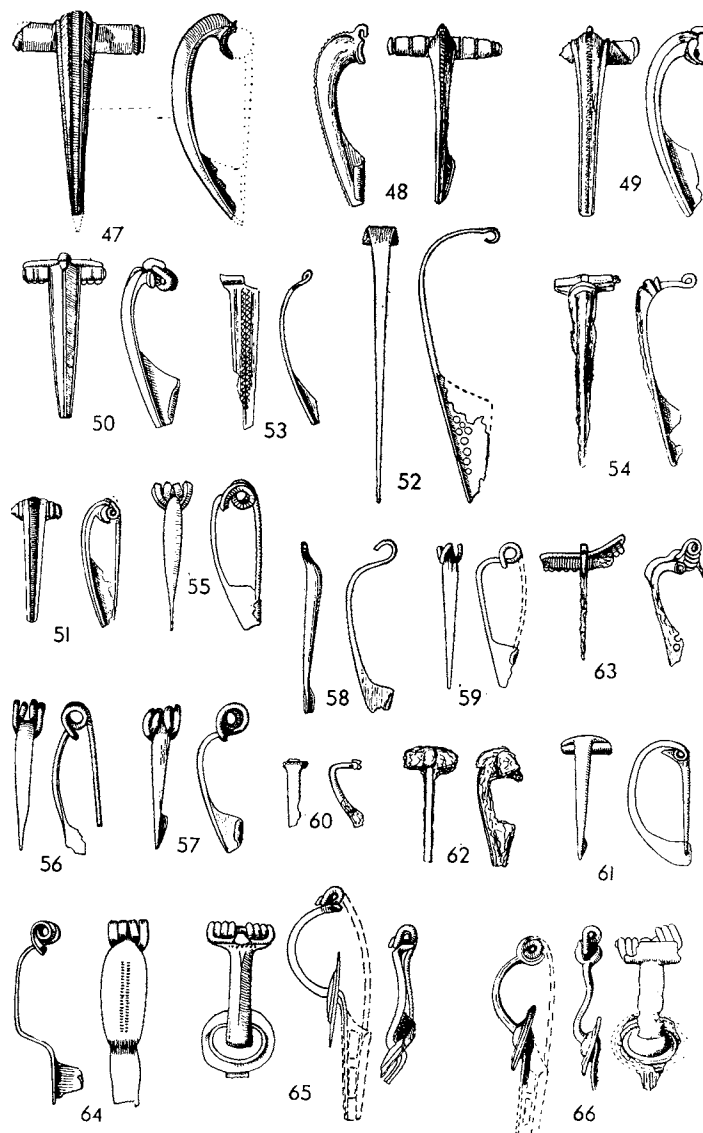


Bronze brooches (p. 310). Scale $\frac{1}{2}$. 14-25,
Type III; 26-8, Type IIIA.

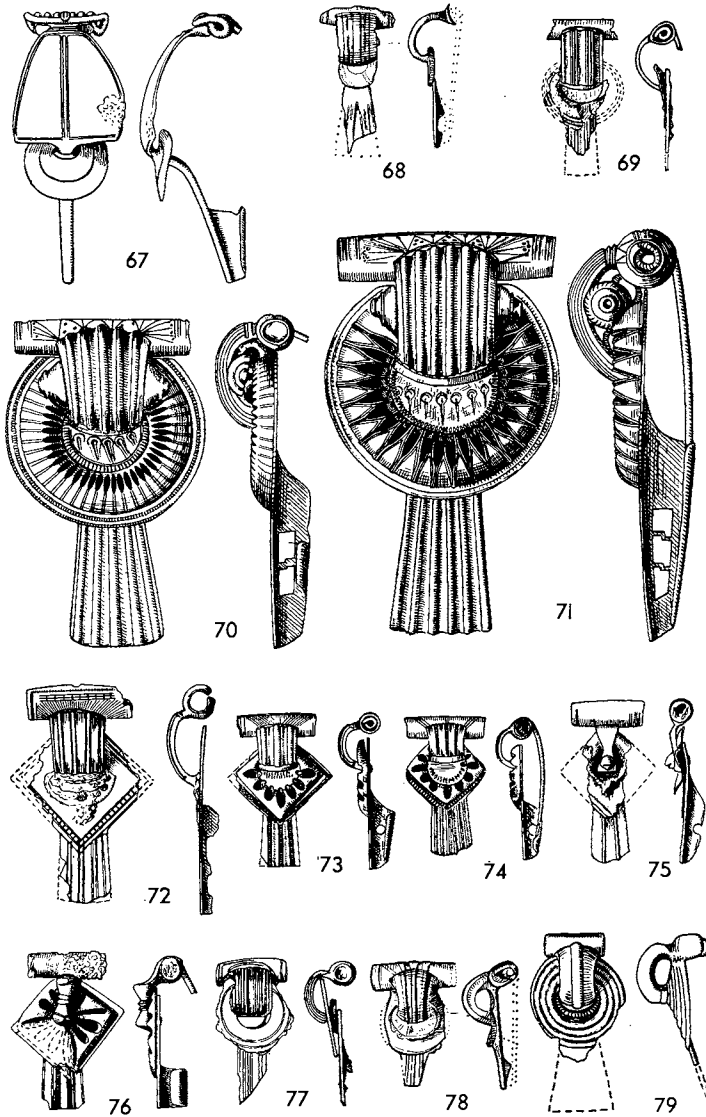
PLATE XCI



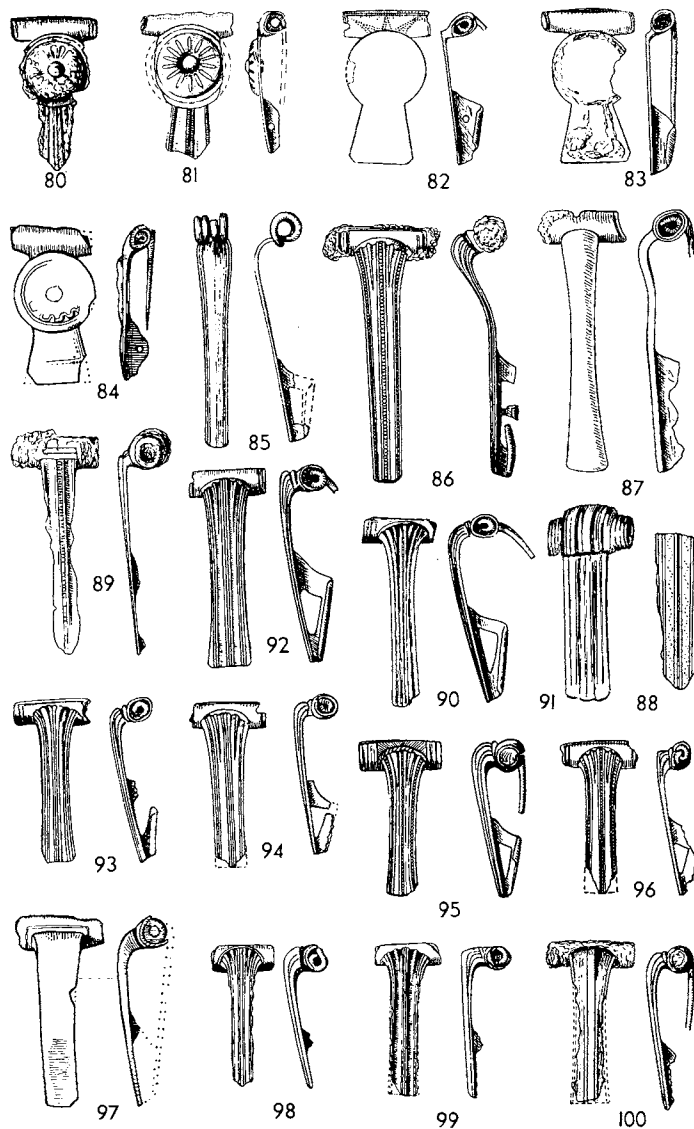
Bronze brooches (pp. 310-11). Scale $\frac{1}{2}$. 29-30, Type IIIA; 31-5, Type IIIB; 36-46, Type IV.



Bronze brooches (pp. 311-13). Scale $\frac{1}{2}$. 47-51, Type V;
 52, Type VIA; 53-4, Type VIB; 55-64, Type VII;
 65-6, Type VIII.



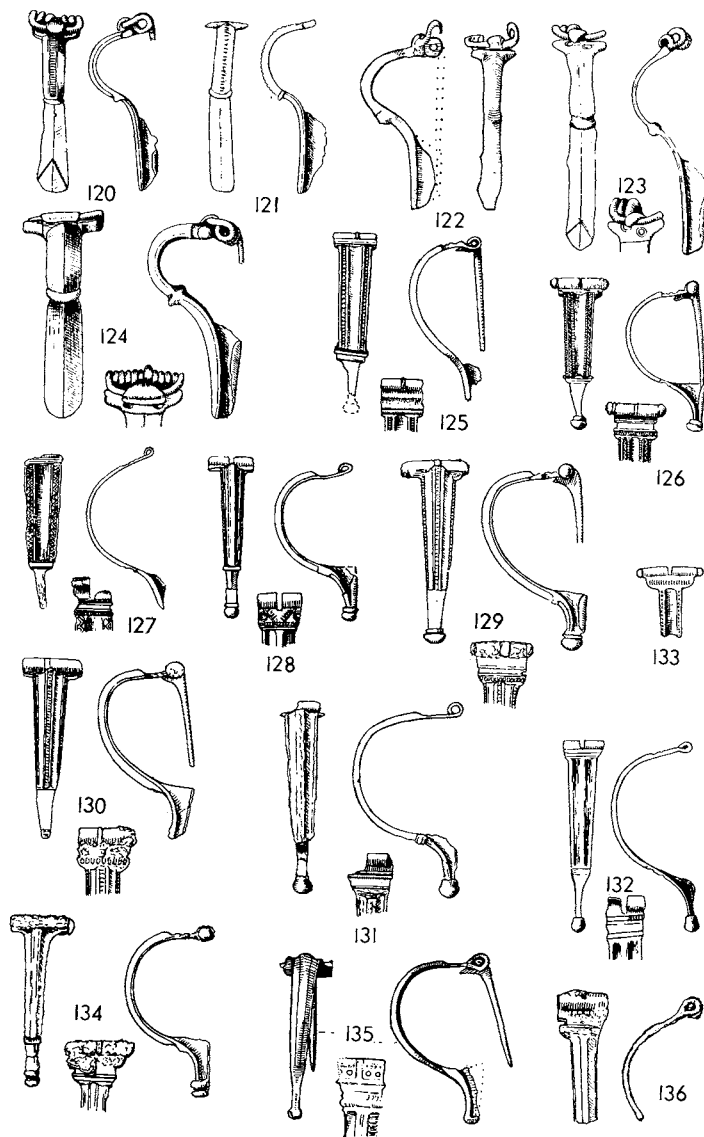
Bronze brooches (pp. 313-16). Scale $\frac{1}{2}$. 67, Type IX;
68-79, Type X.



Bronze brooches (pp. 316 f). Scale $\frac{1}{2}$. 80-4, Type XI;
85-100, Type XII.

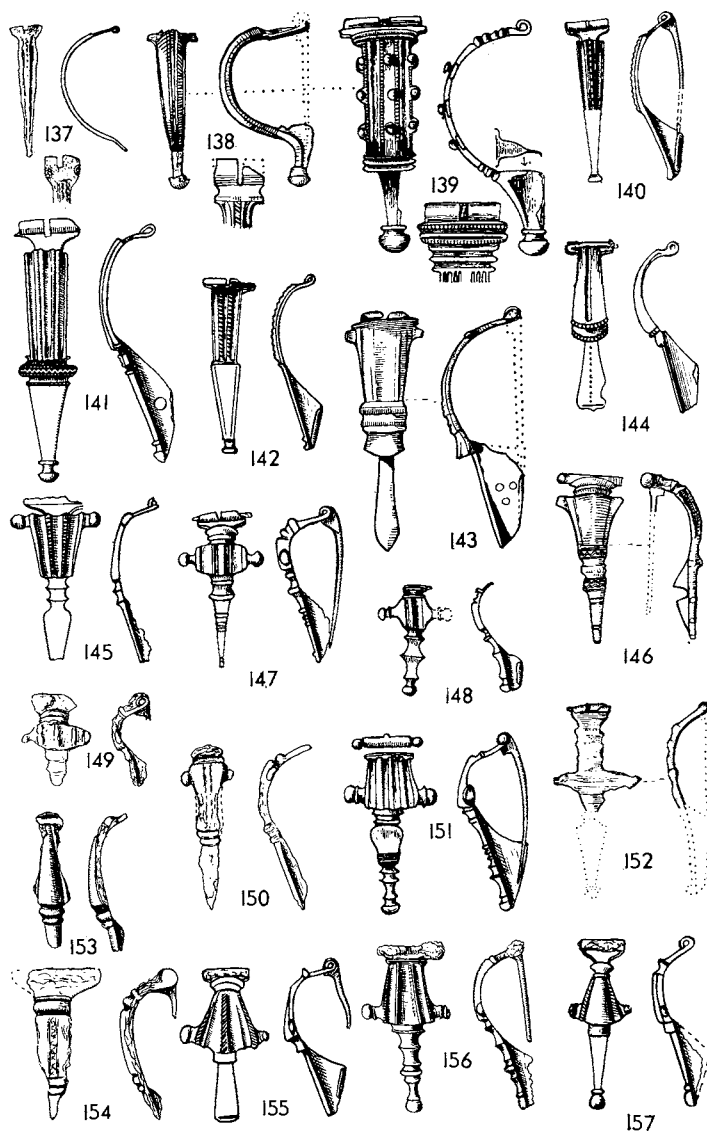


Bronze brooches (pp. 319 f). Scale $\frac{1}{2}$. 101-12, Type XII; 113-14, Type XIII; 115-16, Type XIV; 117-19, Type XV.

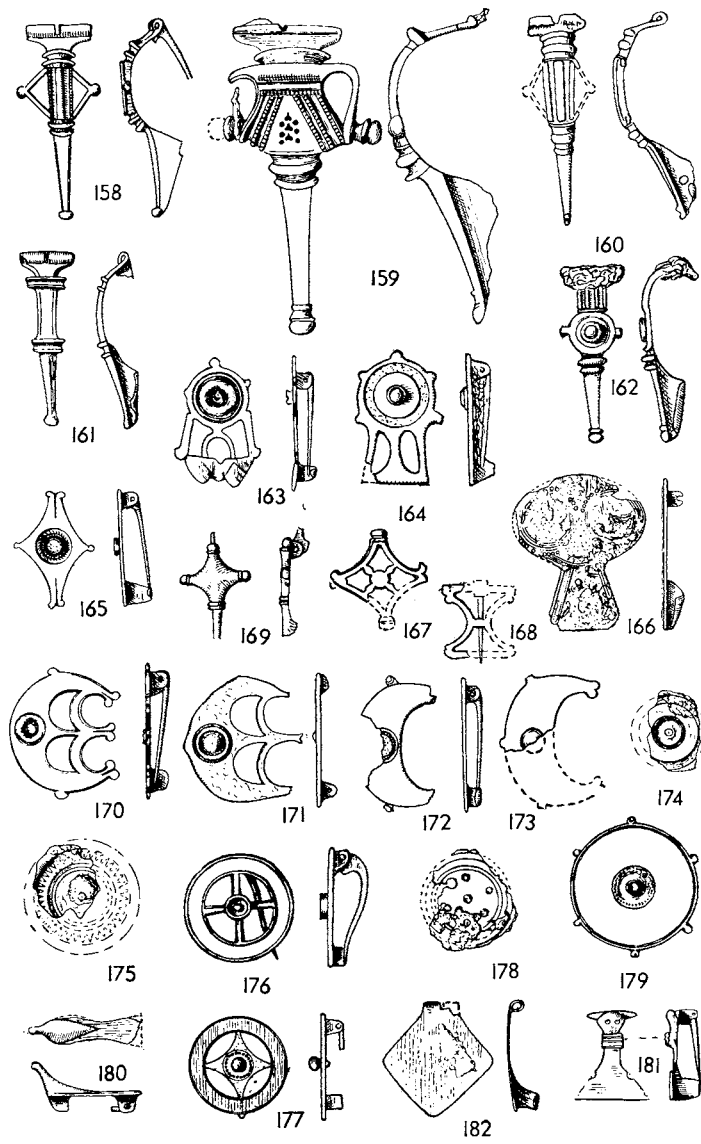


Bronze brooches (pp. 321 f.). Scale $\frac{1}{2}$. 120-4, Type XVI;
125-36, Type XVII.

PLATE XCVII

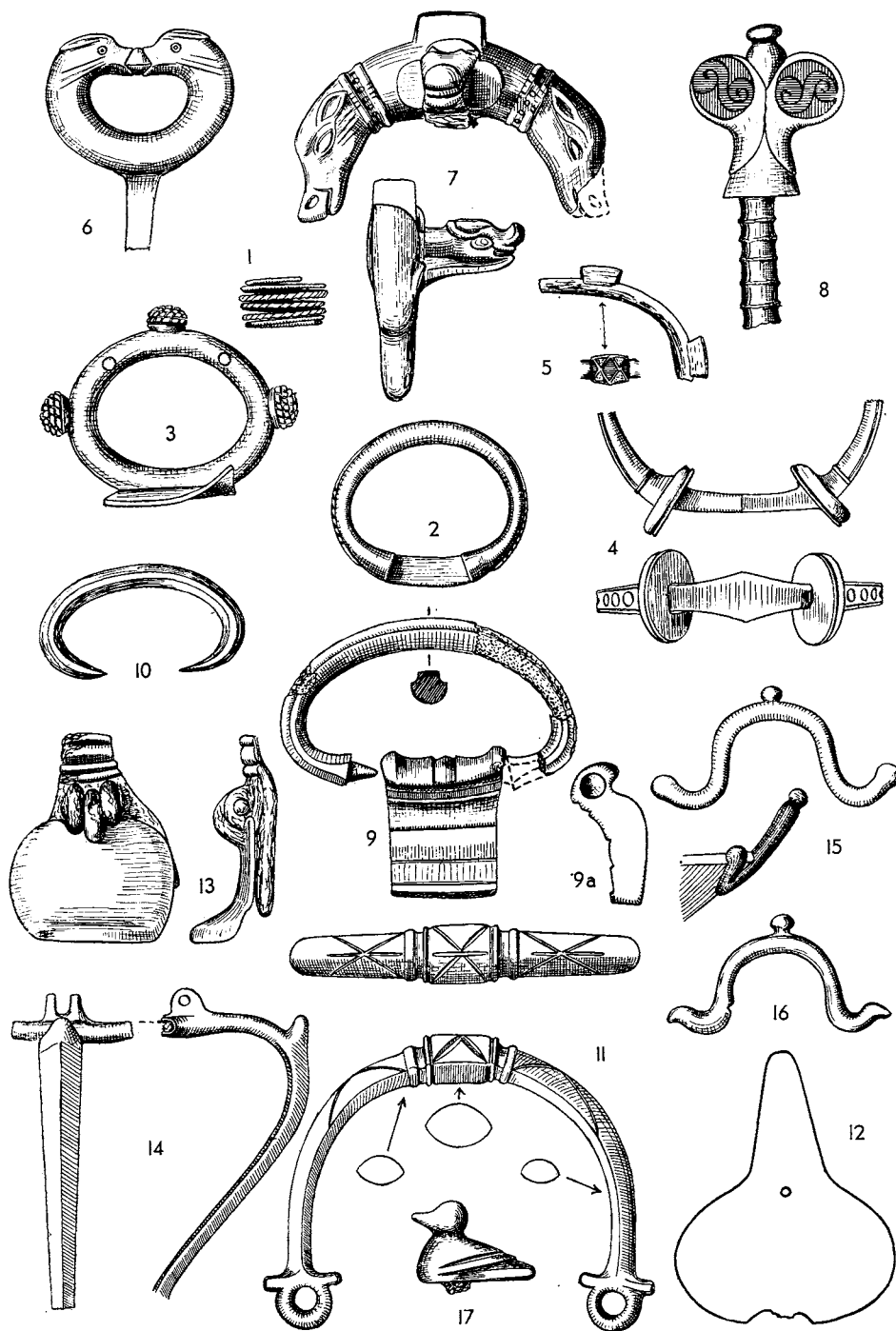


Bronze brooches (pp. 322 f.). Scale $\frac{1}{2}$. 137-9, Type XVII;
140-57, Type XVIII.

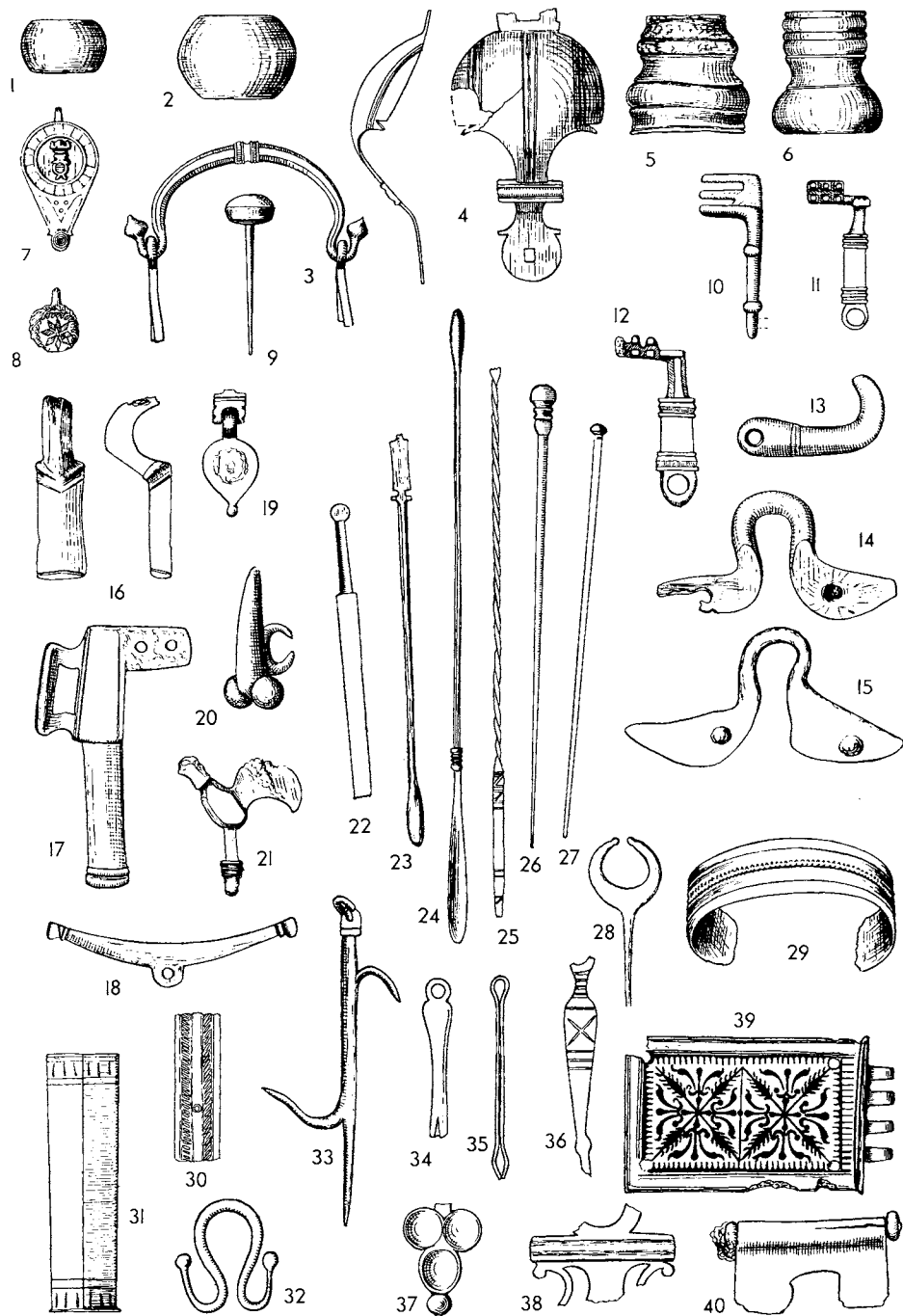


Bronze brooches (pp. 325 f.). Scale $\frac{1}{2}$. 158-62, Type XVIII;
163-82, plate brooches, &c.

PLATE XCIX



Native and Roman bronzework. Scale $\frac{1}{2}$. Native: 1, finger-ring; 2-6, terrets; 7-8, lynch-pins (pp. 330-32). Roman, various: 9-15 (p. 332).

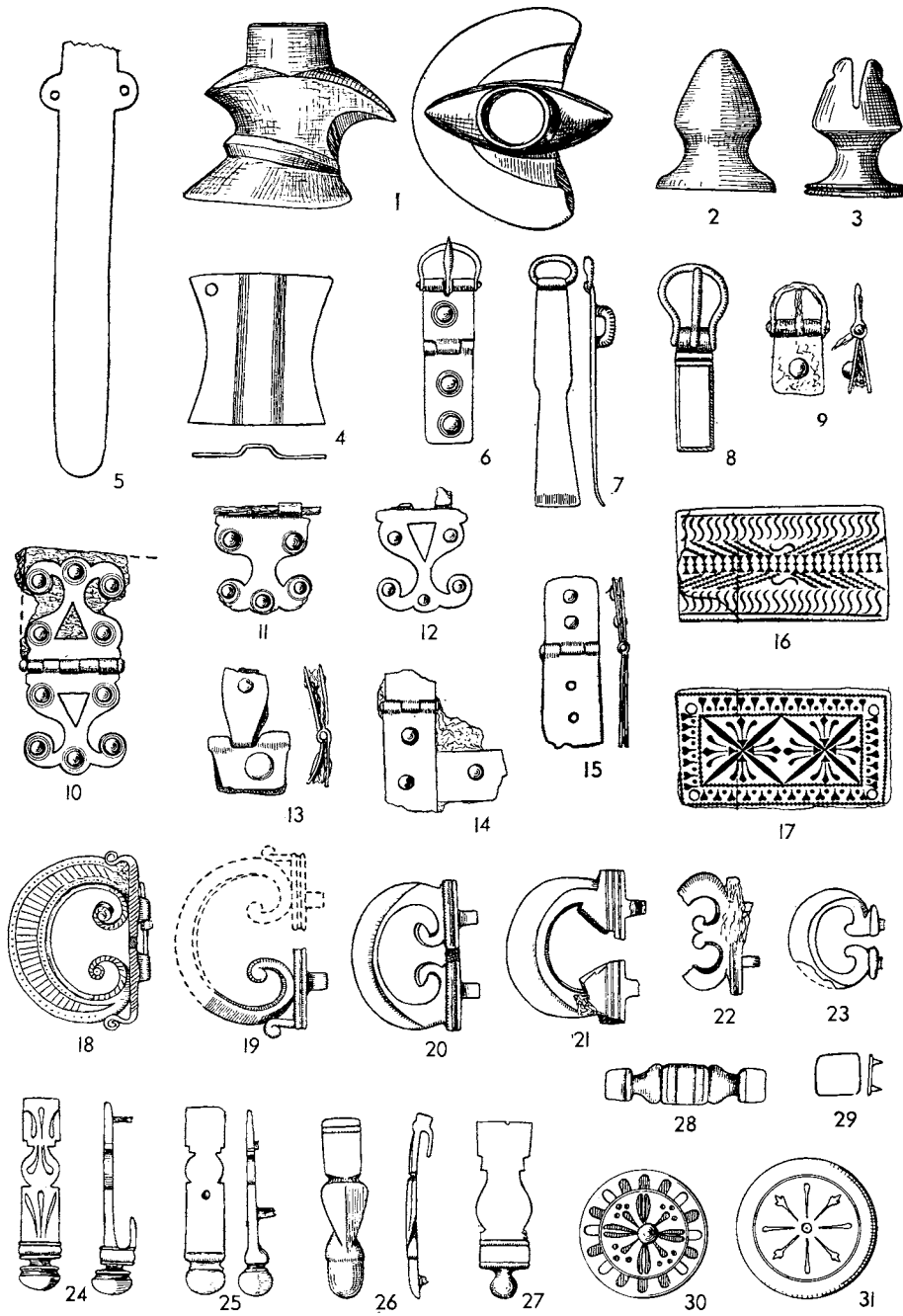


Roman bronzework, various (pp. 332 f.). Scale $\frac{1}{2}$.

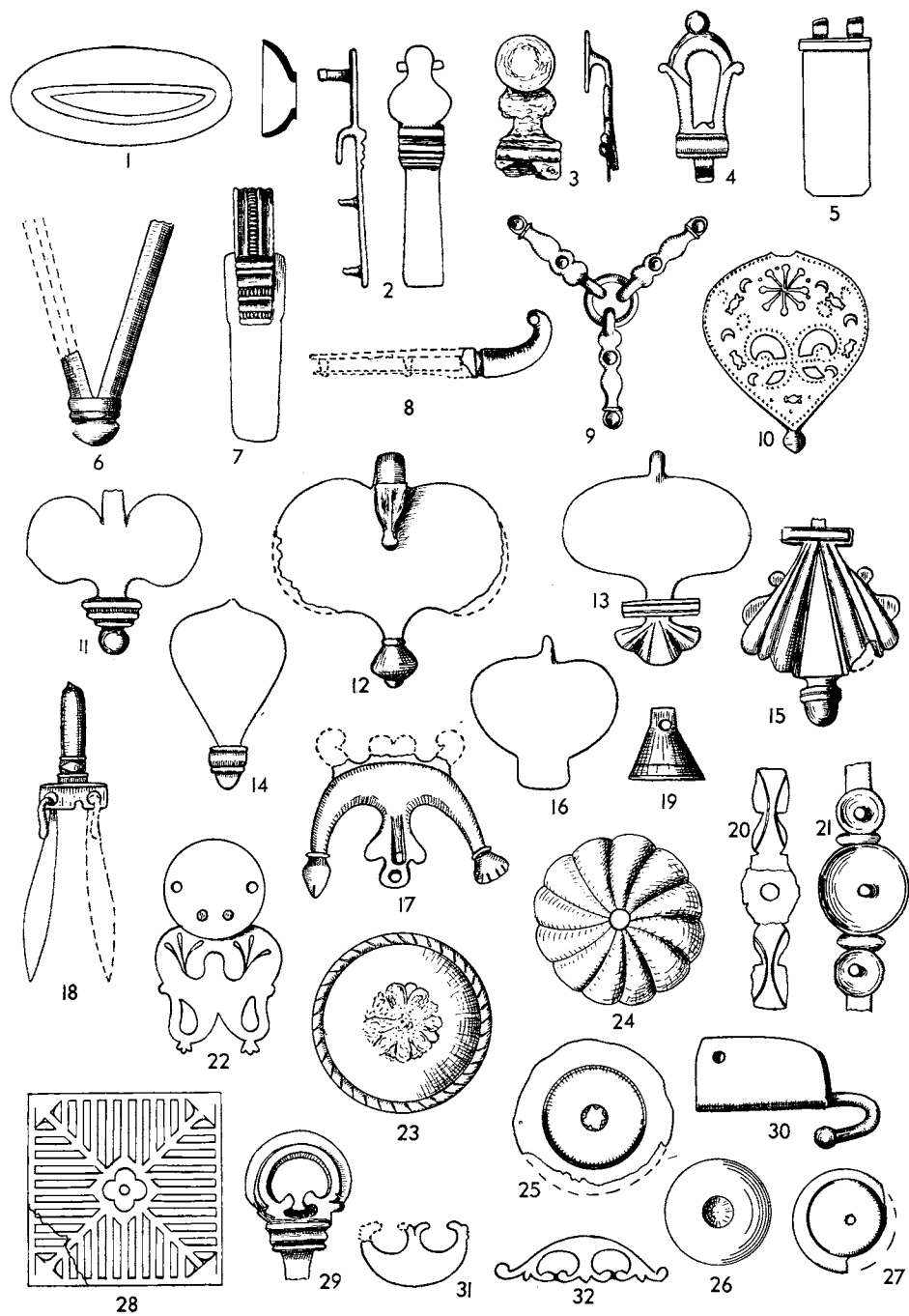
PLATE CI



1, Roman bronze patera (p. 334). Scale of inches. 2, Pieces of Roman bronze plate-armour (p. 338). Scale of inches and centimetres.



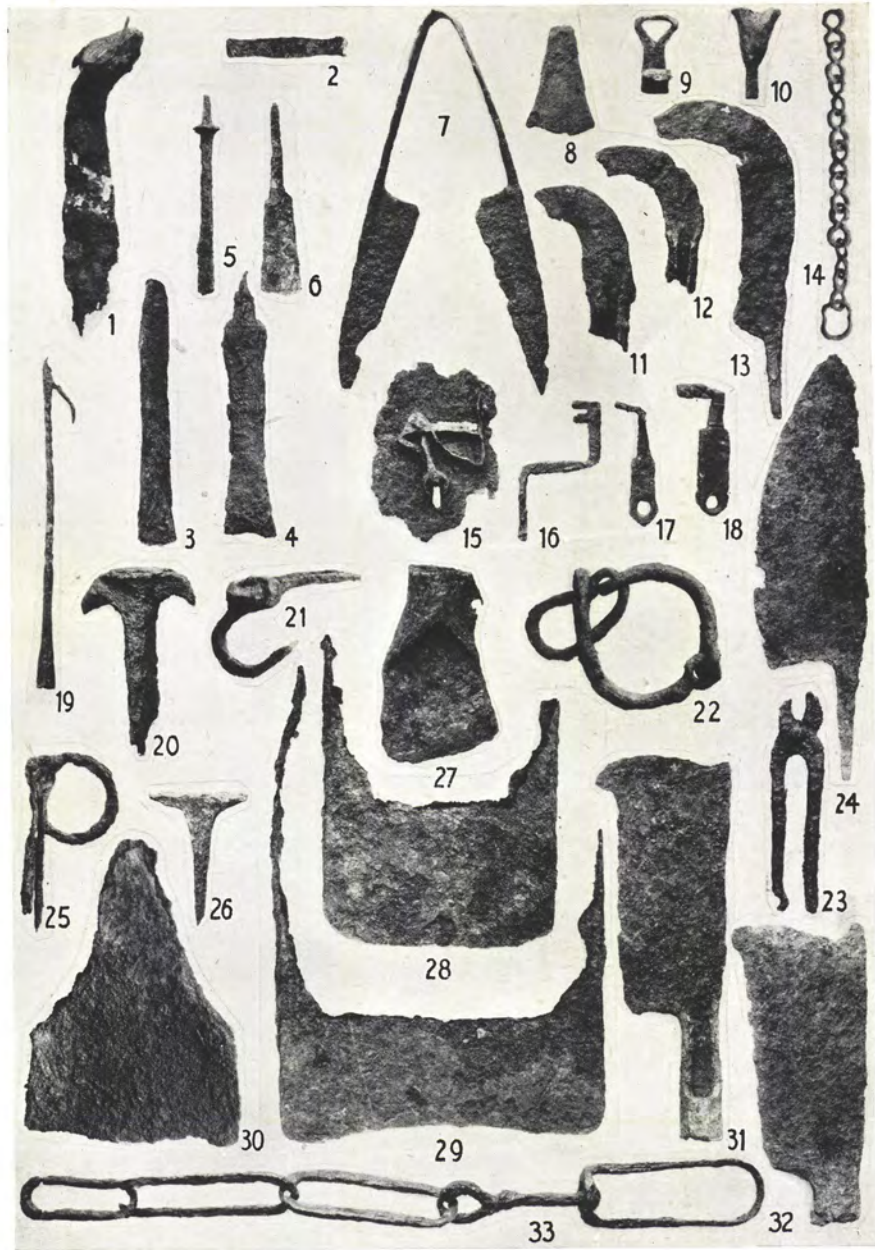
Roman military equipment, bronze (pp. 335 f.). Scale $\frac{1}{2}$.



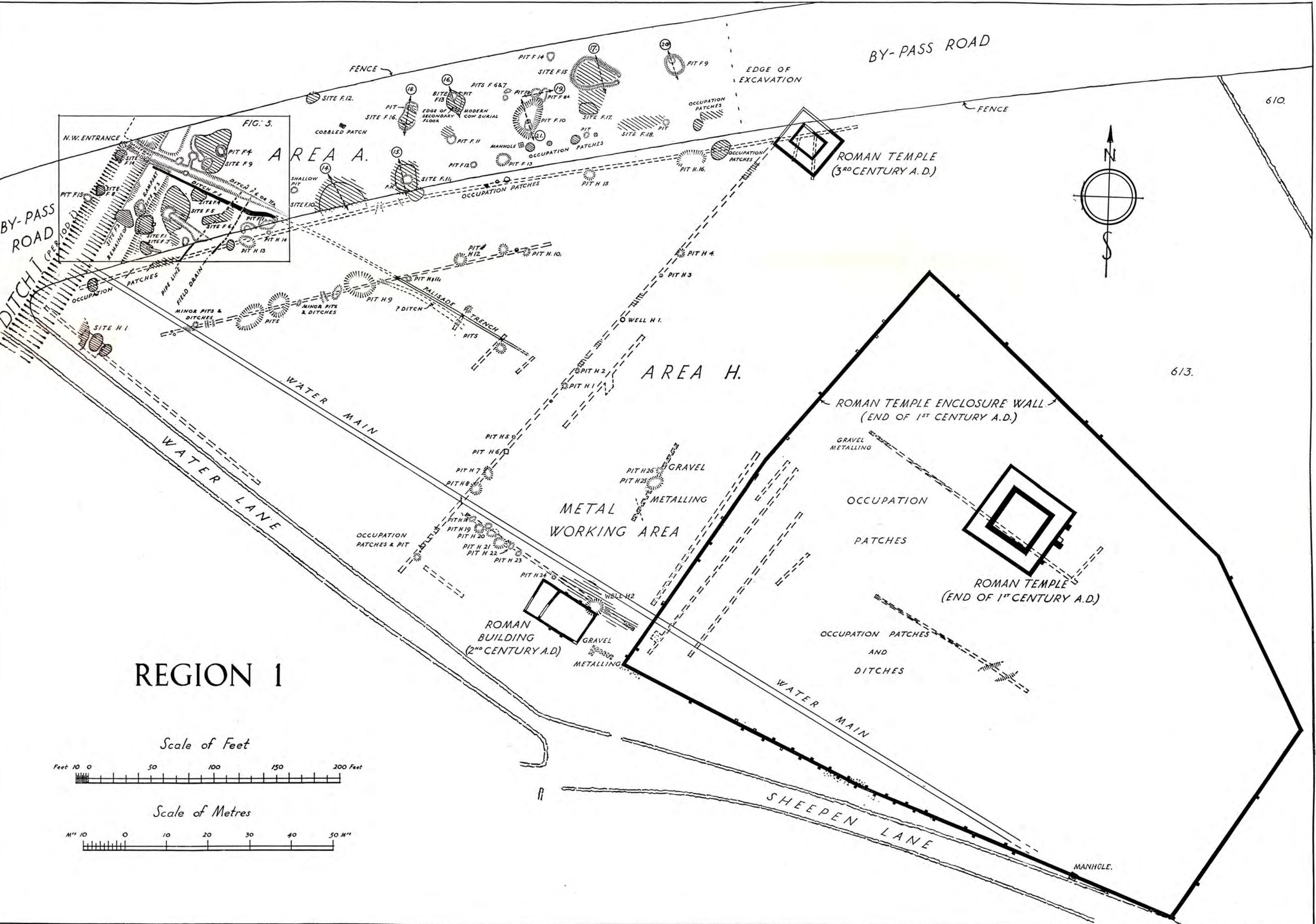
Roman military equipment, bronze (pp. 339-40). Scale $\frac{1}{2}$.



Roman iron weapons: 1-2, daggers; 3-5, swords; 6-7, daggers; 10, catapult-arrow head; 11, pilum head (p. 340). Native iron poker-heads: 8-9 (p. 343). Scale of inches and centimetres.

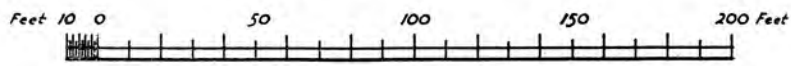


Native and Roman ironwork, miscellaneous. (pp. 343-4.) Scale $\frac{1}{4}$.

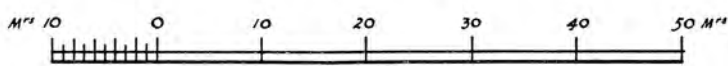


REGION I

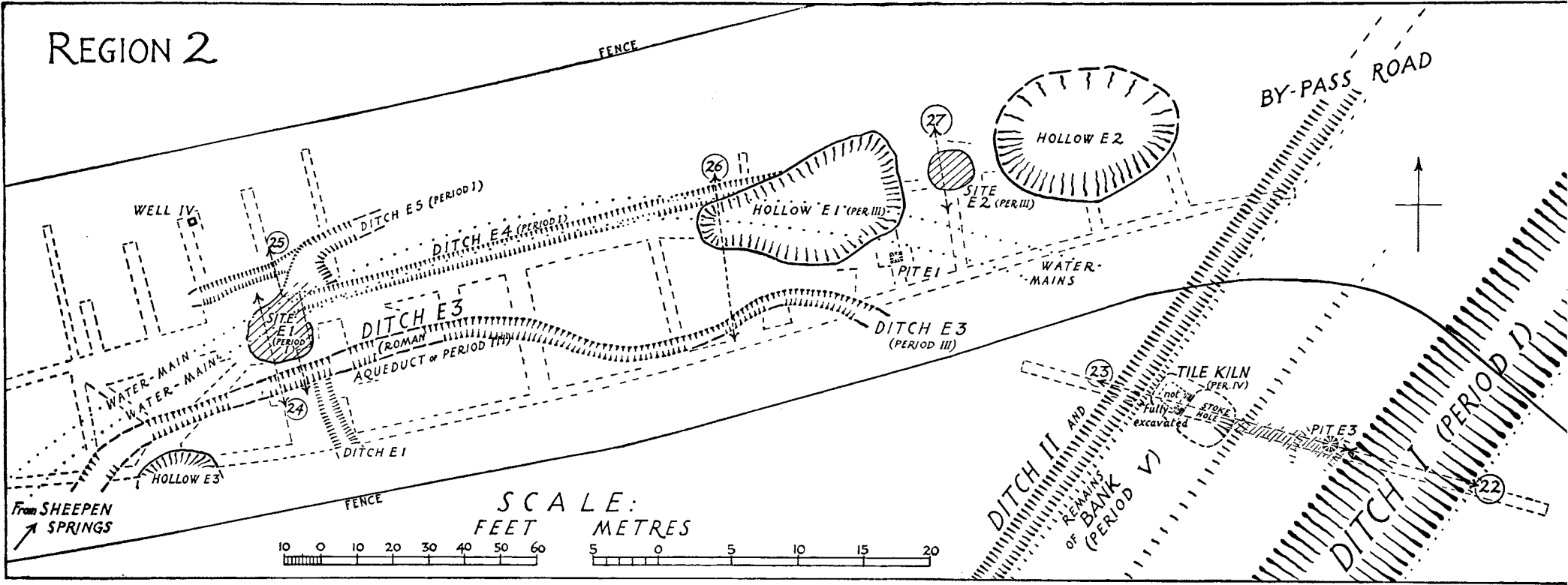
Scale of Feet



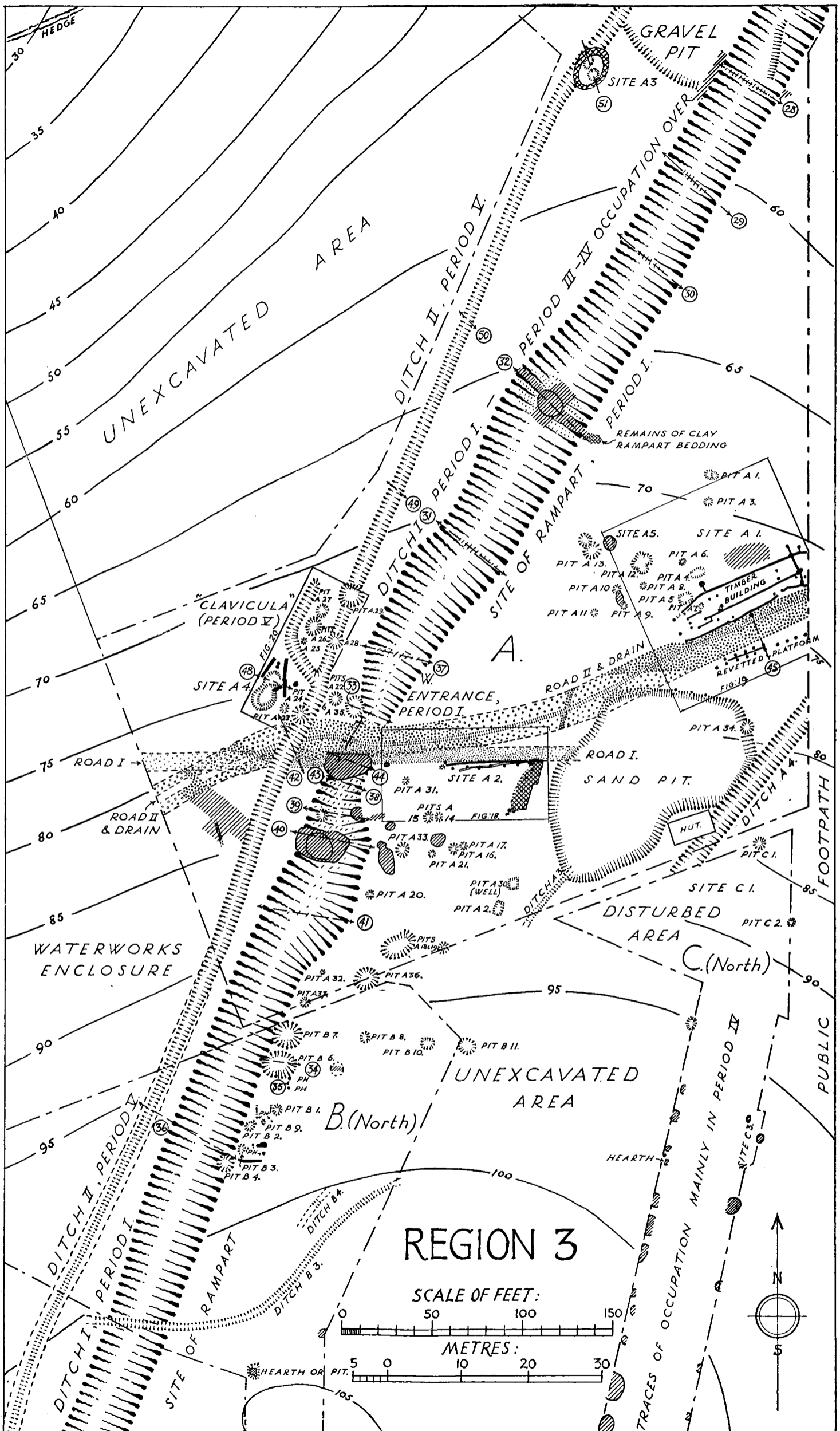
Scale of Metres



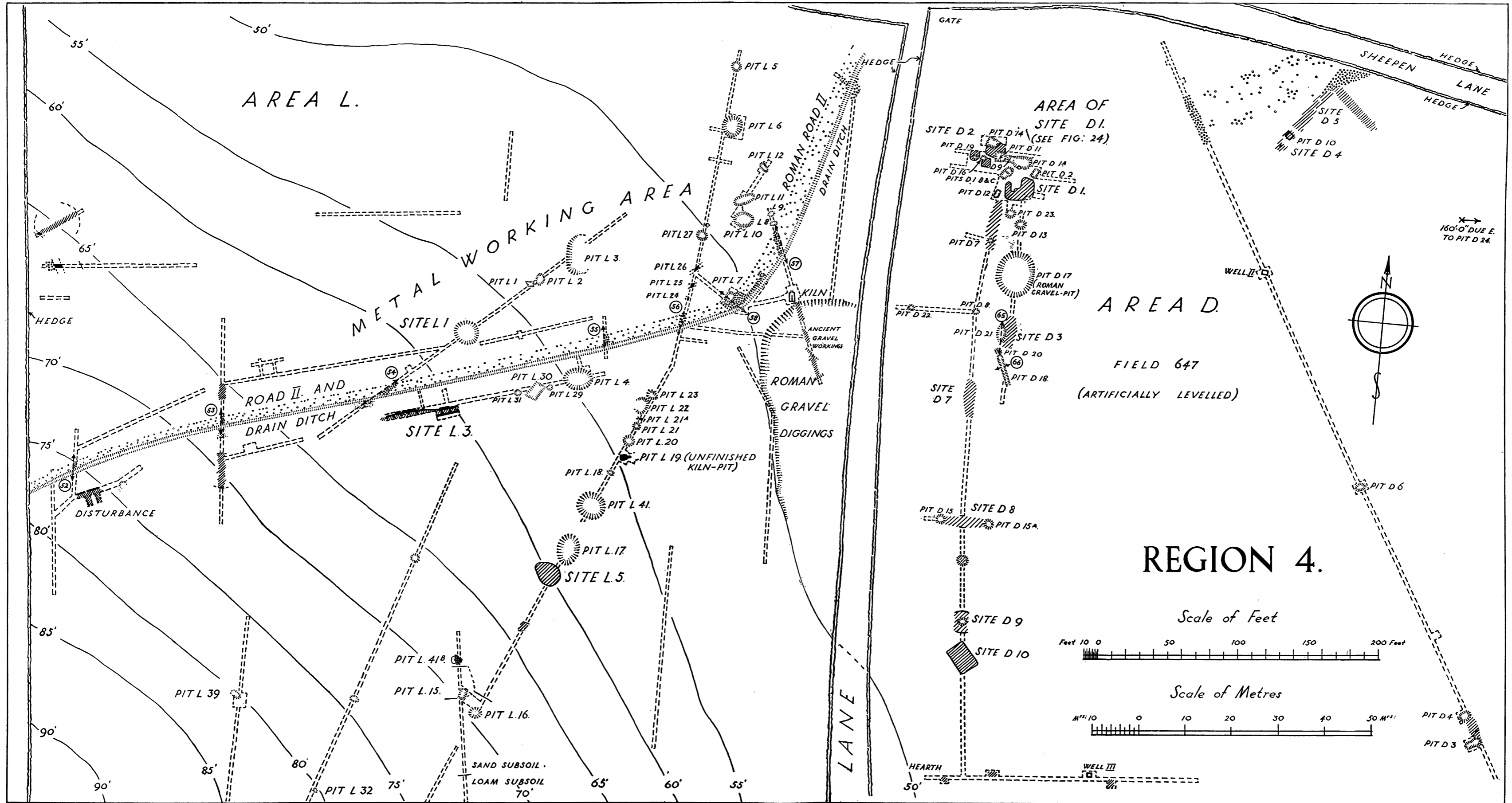
Plan of region I (pp. 57 ff.).



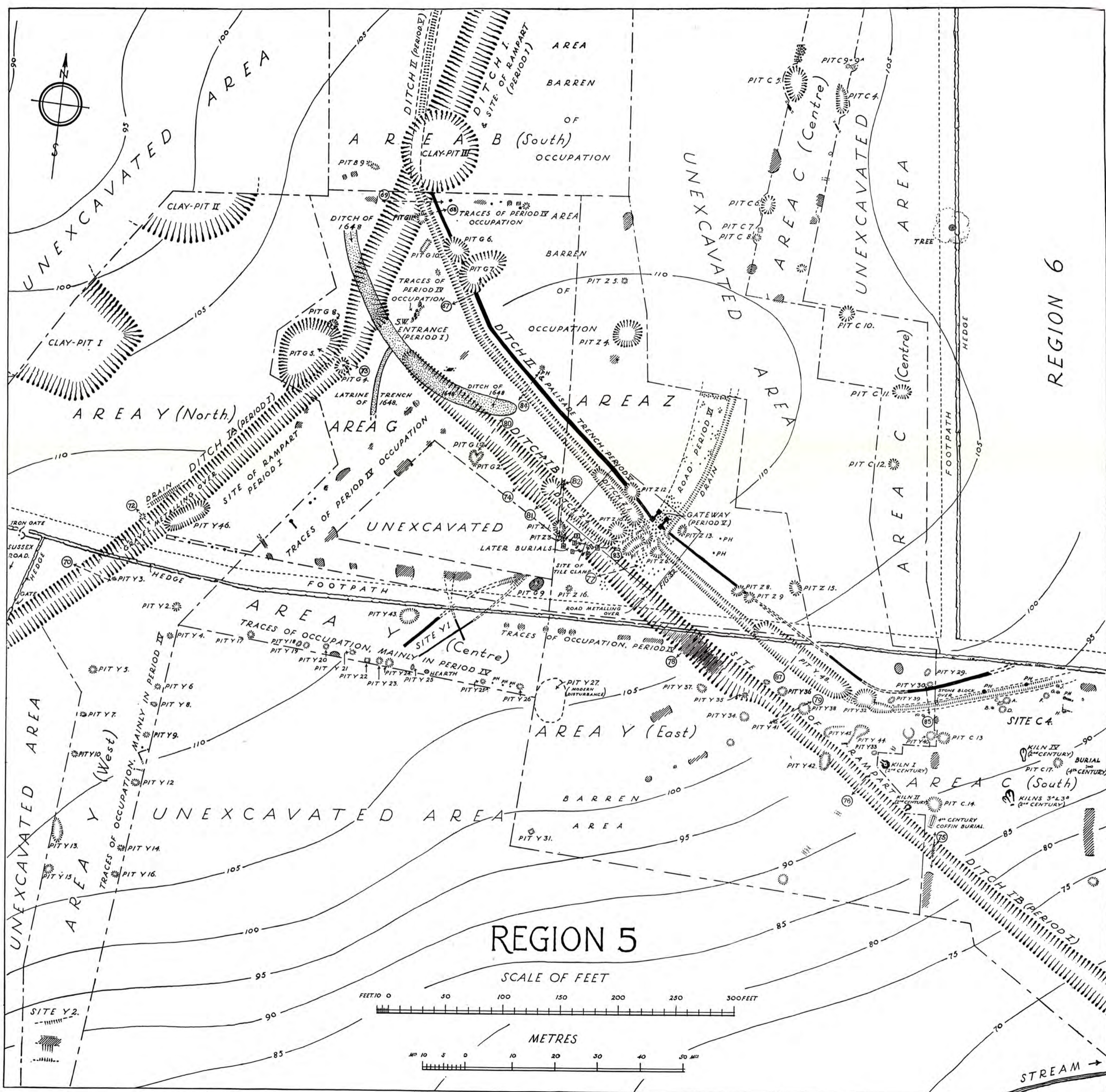
Plan of region 2 (pp. 70 ff.).



Plan of region 3 (pp. 77 ff.).

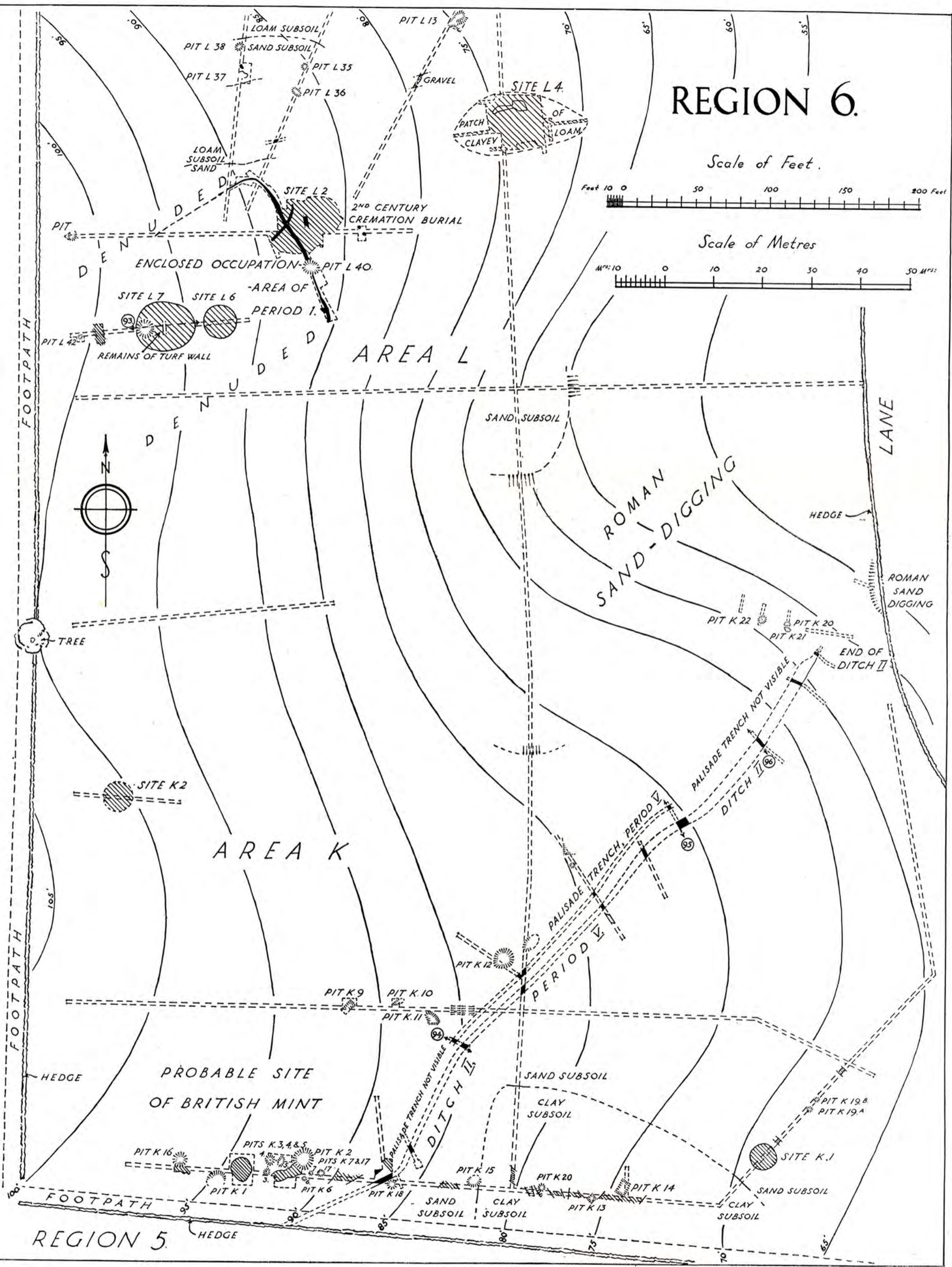


Plan of region 4 (pp. 96 ff.).

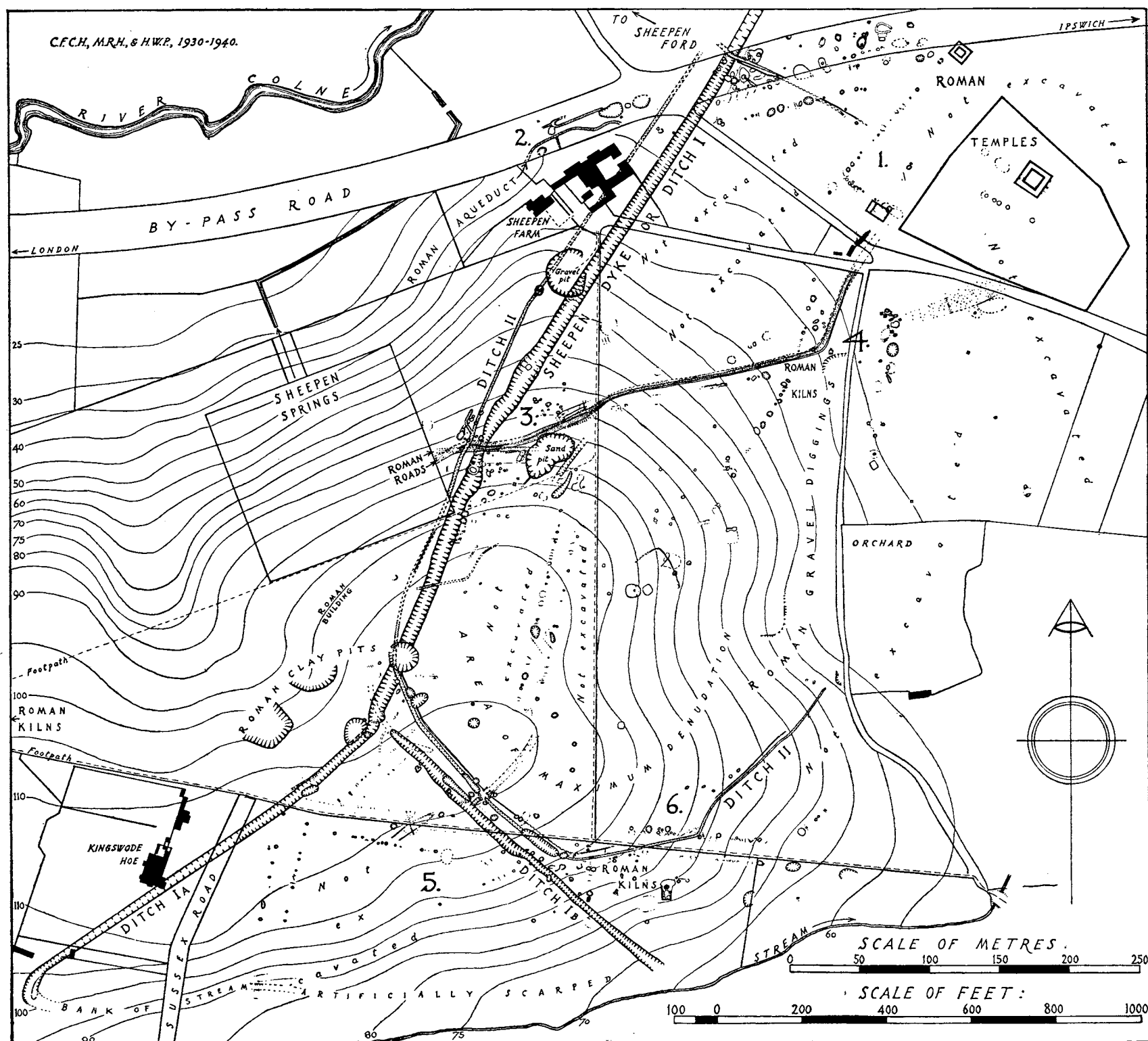


Plan of region 5 (pp. 108 ff.).

REGION 6.



Plan of region 6 (pp. 122 ff.).



General Plan of the Sheepen Site (pp. 21 ff.). The large numbers 1, 2, 3, 4, 5, 6 mark the positions of the six regions (plans, pls. cvi-cxi).