



The St. Michael's ford, from the east

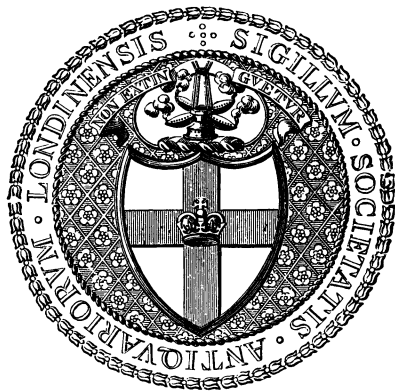
This ford was a determining factor in the original siting of Verulamium; and it may be identified with that across which St. Alban is recorded to have been led to execution. St. Michael's church, in the distance, stands upon a part of the Roman forum. (*See pp. 14, 21, 33, 40*)

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

No. XI

Verulamium
A Belgic and two Roman Cities

By
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and
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Oxford

Printed at the University Press by John Johnson for
The Society of Antiquaries
Burlington House, London
1936

PRINTED IN GREAT BRITAIN

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IN VEROLAMIUM, A FORGOTTEN CITIE,
SOMETIMES NEERE SAINT ALBONES

STAY thy foot that passest by,
Here is wonder to descry,
Churches that interr'd the dead,
Here themselves are sepulchred;
Houses, where men slept and wak't,
Here in ashes under-rak't.
In a word to allude;
Here is corne where once Troy stood;
Or more fully home to have,
Here 's a Citie in a grave.
Reader wonder thinke it then,
Cities thus would die like men:
And yet wonder thinke it none,
Many Cities thus are gone.

(*A Helpe to Discourse, or a Misselany of Seriousnesse with Merriment*: London, 1627; and J. Weever, *Ancient Funerall Monuments*, 1631).

SUMMARY

(Fig. 1)

Verulamium, west of *St. Albans* in *Hertfordshire*, was founded at the end of the first century B.C. as a successor, perhaps, to the more formidable and certainly earlier Belgic oppidum at *Wheathampstead*, nearly six miles to the north-east. It lay in a clearing on the wooded plateau above a ford across the *Ver*, and was demarcated from the valley by a lightly constructed dyke three-quarters of a mile long. Geologically its situation, partially on clay or loam sub-soils (p. 13, fig. 2), is paralleled elsewhere on Belgic sites but is otherwise an innovation in pre-Roman Britain. During the Belgic period, the tract of country between the valley of the *Ver* and *Wheathampstead* was wholly or partially delimited from the north by large boundary-dykes.

For a time, Belgic *Verulamium* contained a mint of the *Catuvellaunian* king *Tasciovanus* (c. 15 B.C.—A.D. 10); and the transference of the Belgic headquarters by that king's son, *Cunobelin*, to the vicinity of the coast at *Colchester* did not altogether rob the inland town of its civic prestige. Shortly after the Roman invasion of A.D. 43 (at about which time a part of Belgic *Verulamium* was structurally reinforced), the city received the high status of 'municipium' and remained, so far as is known, the only city of that rank in Britain. The advent of Roman civilization, with its effective control and its superior equipment, resulted in the transference of the city from the plateau to the slopes of the valley, extending indeed to the ford and its flanking marshes. The old earthwork was abandoned and partially obliterated, and the new town, nearly 150 acres in extent, was eventually enclosed by massive earthwork defences now partially known as 'The Fosse'. These defences are dated archaeologically to the third quarter of the first century A.D. and were presumably erected after the destruction of the unprotected town by *Boudicca* in A.D. 61.

Meantime, the Romanization of *Verulamium* was proceeding steadily but slowly. A fresh and decisive impetus was given to the process in the second quarter of the second century, when, under *Hadrian* and *Pius*, the city entered suddenly upon a half-century of intensive development. Its outline was replanned to enclose an area of 200 acres along the flanks of the *Watling Street*, and new composite defences were designed on an imperial scale. Its buildings were reconstructed in flint and brick, materials which had hitherto been sparingly used. The upper part of the earlier Roman site was now excluded from the main area of the town, and the process of valleyward movement was complete. Thus the three

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successive sites of Verulamium constitute an exceptionally clear and complete illustration of the evolutionary progress from upland to valley.

The plan of the new city allowed optimistically for a further expan-

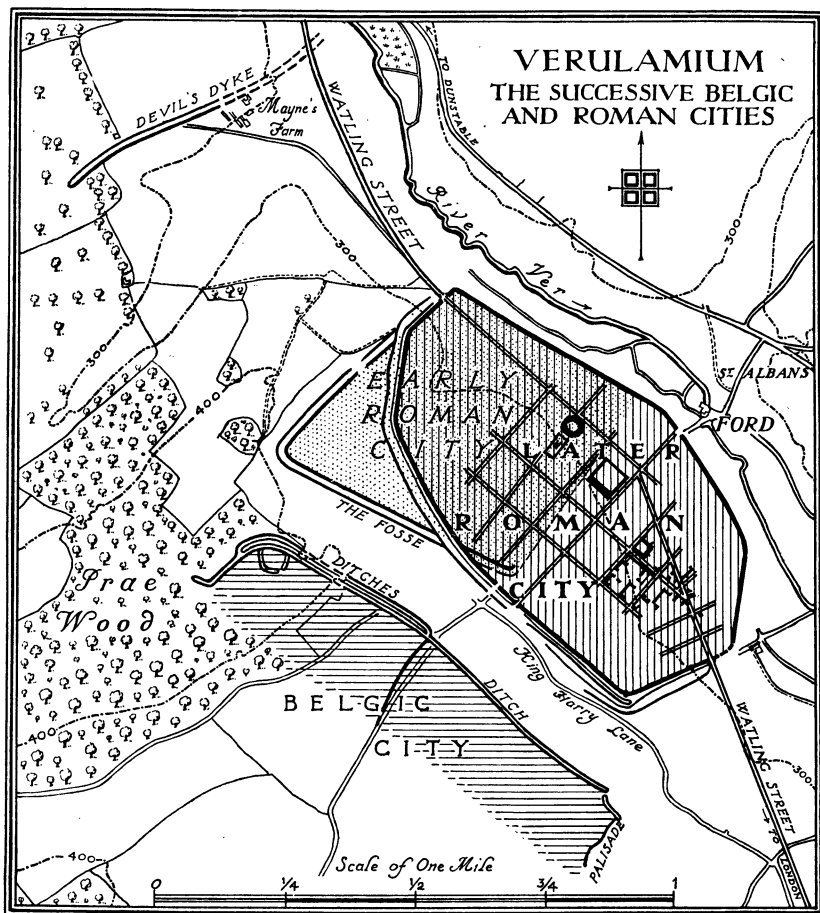


FIG. 1. (Based on the Ordnance Survey 6-inch map, Herts. xxiv, by permission of the Controller of H.M. Stationery Office)

sion which never wholly materialized. The third century was one of disillusionment and chaos. Verulamium decayed into ruin; and when, in 296, the long phase of anarchy was terminated by Constantius, the city had largely to be rebuilt. This 'Constantian renaissance' is a notable feature, comparable in its extensiveness with the second-century development above mentioned, though cruder in its details. A century later this renewed attempt to naturalize Roman urban life in Britain had failed in turn, and the city was once more languishing into decay.

All material evidence ceases at Verulamium by the end of the fourth century; and, when in 429 Germanus visited the city, he found, as his biographer indicates, a tradition of Roman citizenship but, as archaeology equally indicates, very little of the actuality of Roman culture.

In detail, special attention may be drawn to the extensive series of ceramic types from the Belgic city, the Roman coin-die, the Mithraic token, the series of approximately dated Roman mosaics, the 'triangular' temple with its votive deposits, the two triumphal arches and the theatre—the last three structures without analogy in Britain, and the temple of a plan which is apparently unique.

PREFATORY NOTE

The excavation of Verulamium in 1930 and the following years was a result of the acquisition of the southern part of the site in 1929 by the St. Albans Corporation for use as a public park. The City Council approached the Society of Antiquaries, with the result that a Verulamium Excavation Committee was constituted under the chairmanship of the President of the Society (Sir Charles Peers) and appeals for funds were issued. The list of those to whom the Committee is indebted for the initiation or furtherance of the project is a long one and cannot here be transcribed in full. Without invidiousness, however, special reference may be made to Alderman W. S. Green and Councillor I. H. Ironmonger (Mayor of St. Albans in 1929–30) who were largely instrumental in initiating the enterprise, to Mr. W. G. Marshall (Town Clerk) and Mr. F. T. Negus (City Surveyor) who have constantly assisted throughout the work, and to Mr. C. E. Jones, F.S.A., who, first as honorary secretary of the Committee and later also as its treasurer, was responsible for much of the essential administration. The Ancient Monuments Department and the architectural staff of H.M. Office of Works, now guardians of a part of the site, have also given much valuable assistance. Lastly, the Earl of Verulam and his tenants have accorded the excavators every possible facility in investigating the important sites on the Gorhambury Estate, culminating in a munificent donation which enabled the Committee, on behalf of the Estate, to clear and preserve the Roman theatre for permanent public inspection. In the administration of this donation, as in other matters, Mr. H. Asprey gave continuous practical help.

On the more technical side, the excavators owe much to the collaboration of many colleagues. Almost the whole of the difficult work on the Belgic site in and near Præ Wood was directed by Mr. D. A. Casey, F.S.A., without whose assistance this essential

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enterprise could scarcely have been undertaken. Mr. Casey was helped by Mr. Huntly S. Gordon, who prepared the first valid survey of the Prae Wood earthworks. Mr. P. K. Baillie Reynolds, F.S.A., was present for three seasons, and directed the excavation of the three gateways. Miss Kathleen Kenyon during four seasons supervised most of the laborious excavation of the 'Fosse', and later directed the clearing of the theatre, which has formed the subject of a separate report by her.¹ Mr. T. Davies Pryce, F.S.A., in addition to constant advice in regard to his special subject, was associated with the excavation itself from the outset and spent many weeks on the site. Mr. A. W. G. Lowther, F.S.A., A.R.I.B.A., supervised excavation and acted as excavation-architect during two of the four seasons—a task which was no sinecure, as the plans sufficiently indicate. Mr. B. H. St. J. O'Neil, F.S.A., has shouldered the almost overwhelming task of reporting on the coins. Miss M. V. Taylor, F.S.A., has helped from time to time, with her usual liberality; whilst Miss Delia Parker, Miss Thalassa Cruso, Miss Joan du Plat Taylor, Miss Margaret Clay, Miss Leslie Scott, Miss N. de Crespigny, Miss Rachel Clay, Miss Ione Gedye, Mr. H. J. W. Stone, Mr. J. E. Broad, Mr. F. G. Carruthers, Mr. C. D. P. Nicholson, Dr. Norman Davey, and many others combined to form the willing team which alone enabled the project to be carried through on the large scale which it assumed. The Society for the Promotion of Roman Studies, the Editors of *Antiquity*, and the St. Albans and Hertfordshire Architectural and Archaeological Society have kindly lent blocks for this report. Lastly, while the considerable funds required for the work were subscribed for the most part by the general public, a special acknowledgement must be made of generous grants from the Society of Antiquaries, the Haverfield Bequest Committee, the Craven and Ireland Funds of the University of Oxford, All Souls College, and New College.

Throughout the task the excavators kept one objective in view—the recovery of the historical framework of Belgic and Roman Verulamium. This objective, as will be seen, led them ultimately across six miles of country-side, and only a careful selectiveness rendered a reasonably comprehensive achievement possible within the limits of four long seasons. Similarly, in the present report, only a continued selectiveness has rendered publication feasible within the covers of a single volume. In the case of the pottery from the Belgic city the opportunity has indeed been taken to publish extensive groups which are substantially new to knowledge. For the rest, the masses of Roman pottery and other objects which

¹ *Archaeologia*, lxxxiv (1934), pp. 213-61.

have been rendered familiar by Mr. J. P. Bushe-Fox's work at Wroxeter and Richborough, by Mr. James Curle's work at Newstead, and by many other excavations on Romano-British sites in the last quarter-century are illustrated merely by a few samples. Samian pottery can now generally be described concisely where it demands notice as evidence of date; coins can mostly be referred by brief symbols to the new standard works of Messrs. Mattingly and Sydenham. In general, whilst there is admittedly still much to learn in regard to the chronology of individual Roman things, these can now be used safely in mass for the archaeological reconstruction of history. Thus the present report is designed to be, less a detailed illustration of the now familiar culture of a Romano-British city, than an attempted reconstruction of the social and economic evolution of a major civic unit during the four and a half critical centuries in which Britain passed from Belgic prehistory into Roman history and thence again into the darkness of Saxon 'protohistory'.

A. GENERAL SURVEY

I. VERULAMIUM AND TASCIOVANUS

Verulamium does not enter the formal pages of history until the time of Tacitus who, in the early years of the second century, described the destruction of the city in A.D. 61. Its record may now, however, be carried back without prolonged discussion to the end of the first century B.C. or the beginning of the first century A.D., when coins of gold, silver and copper bearing the letters VER, VIR, VERL, VIREL and VERLAMIO on the obverse and TASC or TASCIA on the reverse were circulating in the Hertfordshire-Buckinghamshire region. Coins of these types were known to antiquaries as long ago as the time of Camden, who illustrated one of them in the third edition of his *Britannia* (1590); but their true significance was first realized in 1845 by Samuel Birch,¹ whose researches have subsequently been amplified by Sir John Evans² and Dr. G. C. Brooke.³ One of the coins bears a reverse (a bull to left) copied from the Augustan coinage of 14-12 B.C., and this and other indications point to the end of the first century B.C. and the earliest years of the first century A.D. as the period of the inscribed series. Typologically, however, this series may be extended backwards to certain uninscribed coins, classified by Dr. Brooke as the 'Whaddon Chase' type and ascribed by him to the middle of the first century B.C. The geographical distribution of the Whaddon Chase coins coincides generally with that of the VER (etc.) series.

The TASC or TASCIA of this series was equated by Birch with the Tasciovanus whose name occurs as that of the father of Cunobelin on some of the latter's coins. Cunobelin, as is well known, reigned as 'King of the Britons' (Suetonius) at Colchester; and there is no evidence that he himself ever minted coins at Verulamium, or that Tasciovanus ever minted coins at Colchester. But the drastic change of headquarters from Verulamium to Colchester is unlikely to have occurred at the moment of accession, and there is much probability therefore in the suggestion propounded by Evans that Cunobelin was already established in Essex before his father's death.⁴ The date of that event is un-

¹ *Numismatic Chronicle*, vii (1845), p. 78.

² *Coins of the Ancient Britons*, p. 220.

³ *Numismatic Chronicle*, 5th series, xiii (1933), pp. 37 ff.; and *Antiquity*, vii (1933), pp. 277 ff. For the Belgic coinage of Verulamium, see below, p. 223.

⁴ J. Evans, *Coins of the Ancient Britons*, pp. 201, 223, and 287-9.

known, for our only certain information about Tasciovanus is derived from the coins;¹ but Evans postulated A.D. 5 as consistent with the available data. This estimate would make Cunobelin survive his father by over thirty-five years, with the possibility of a total reign of perhaps some forty or forty-five years—a long period under prehistoric conditions. Even under the relatively civilized conditions of Saxon Kent, where ‘expectation of life’ might legitimately be regarded as somewhat higher than in Belgic Britain, the average reign of a dozen kings was something under eighteen years. On general grounds, therefore, the allowance given by Evans to Cunobelin might fairly be curtailed. It is reasonable to infer a date not earlier than A.D. 10 for the death of Tasciovanus—a date which still leaves the space of a generation for the independent reign of his son. Moreover, it will be seen that this extension of the reign of Tasciovanus to the end of the first decade of the century is consistent with the archaeological evidence which now demands a relatively late date for the foundation of Belgic Verulamium.

The postulate of a date of about A.D. 10 for the death of Tasciovanus compels us, in our guess-work chronology, to bring the date of his accession down below the year 30 B.C., suggested by Evans. Indeed, a date as late as 20 or 15 B.C. would still give him a reign of a quarter of a century or more, and may perhaps be taken, if anything, as an estimate upon the liberal side.

The former tendency to ascribe the accession and death of Tasciovanus to dates as early as 30 B.C. and A.D. 5 respectively seems to have been influenced by the further assumption that that king was the successor and son of the Cassivellaunus who opposed Julius Caesar in 54 B.C.² In point of fact, this assumption is unfounded, but it has been sufficiently popularized to necessitate a brief categorical survey of the evidence.

¹ The traces of an early medieval Welsh tradition (Harleian Genealogies, MS. Harl. 3859) that the father of ‘Cinbeli’ and grandfather of ‘Caratauc’ was ‘Teuhant’ are not indeed negligible, although preserved in a confused context. Sir John Rhys’s derivation Teuhant < Teheuant or Techuant < Tacsivant seems to meet with general acceptance amongst philologists, and we appear therefore to be confronted with an authentic record of the Tasciovanus dynasty. Unfortunately, the record adds nothing to the more certain evidence of the coins, though it is of considerable interest as a historical curiosity. Together with the other evidence for Tasciovanus, it has been reviewed recently by Mr. Philip P. Graves (‘Tasciovanus of Verulam’, *Trans. St. Albans and Herts. Architectural and Archaeological Soc.*, 1934, pp. 143 ff.). Mr. Graves, whose paper appeared when the present Report was in proof, has arrived independently at a Belgic chronology generally similar to that here suggested.

² This is perhaps implied by the cautious Evans, and has since developed into an accomplished ‘fact’, e.g. Rice Holmes, *Ancient Britain* (1907), p. 361.

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1. Ptolemy, in the second century A.D., cites *Σαλίνας* and *Ὀυρολάσιον* as the cities of the *Κατοκελλανοί*.¹ This tribe is distinguished geographically from the Coritani who included Lincoln and Leicester, the Icenii who included Caistor-by-Norwich, the Trinovantes who included Colchester, the Atrebatii who included Silchester, and the Cantii who included London. The identification of Salinai is uncertain, but Ourolanion is obviously Verulamium.

2. Cassius Dio,² writing early in the third century, states that Caratacus and Togodumnus, the sons of Cunobelin, were Catuvellaunians; i.e. the Tasciovanus dynasty was Catuvellaunian.

3. Now let us turn to Cassivellaunus. His territory, Caesar tells us (*De Bell. Gall.* v, 11 and 18), was separated from the maritime states by the river Thames, and lay at a distance of about eighty miles from the sea (i.e. from the south-eastern coast). From the region which fulfils these conditions must be subtracted that of the Trinovantes or Trinobantes who are described by Caesar as having suffered injury at the hands of Cassivellaunus. In other words, the scope of our inquiry is restricted to western Middlesex and Hertfordshire, an area from which, for a good geological reason (the heavy clay subsoil), most of Middlesex may be omitted. It is clear, therefore, that when Caesar, ostensibly, though guardedly, taking the part of the Trinobantes, marched across the Thames in pursuit of Cassivellaunus, he was marching into the territory which Ptolemy allocates to the Catuvellauni. Caesar himself omits to mention the tribe—unless indeed a seceding section of it is disguised under the name of the Cassii who were amongst the tribes that surrendered to him after the crossing of the Thames and indicated to him the neighbouring *oppidum* of Cassivellaunus (*De Bell. Gall.* vi, 21).

Such are the bare facts. The only fair inferences from them are that Cassivellaunus was at home in the tribal area of the Catuvellauni, that he was a predecessor of Tasciovanus on the Catuvellaunian throne, and that, when Caesar arrived in 54 B.C., he was not merely a thorn in the side of his neighbours, the Trinovantes, but had acquired sufficient prestige amongst the tribes in southern Britain to receive from them the supreme command. This suggests a man in active middle-age and unlikely, therefore, to have been the grandfather of a man (Cunobelin) who died some ninety-five years later. It is far more probable that if Tasciovanus was, as he may well have been, a member of the Cassivellaunian line, he was the grandson rather than the son of Caesar's opponent.

¹ *Geographia*, Lib. ii, cap. 3, 11, ed. C. Müller, 1883, p. 100.

² Lib. lx, 20.

It is even possible, as Dr. Brooke has suggested,¹ that the name of the immediate predecessor of Tasciovanus on the Catuvellaunian throne is preserved in the 'Andoco-' (perhaps Andocos) of certain coins resembling the earlier types of Tasciovanus and the later types of the 'Whaddon Chase' (so-called Cassivellaunian) series. The Andoco-coins are few in number, but there is of course no reason to suppose that the king thus represented inscribed the whole of his coinage from the moment of his accession. It is just as likely that some of the 'Whaddon Chase' series were minted by Andoco- as by Cassivellaunus.

We may now, modifying Evans, suggest the following chronology as a rough guide to the Catuvellaunian succession.

1. *Cassivellaunus*, in his prime in 54 B.C.; may have died *c.* 40 or 35 B.C.
2. An unknown king, possibly *Andocos*, may have succeeded *c.* 40 or 35 B.C. and have died *c.* 20 or 15 B.C.
3. *Tasciovanus* may have succeeded *c.* 20 or 15 B.C. and have died *c.* A.D. 10. He was in any case reigning after 14-12 B.C.
4. *Cunobelin*, already perhaps king in Essex, may have succeeded to the whole or a part of the kingdom of Tasciovanus *c.* A.D. 10. He died between A.D. 40 and 43.²

Of these kings, only Tasciovanus is known to have minted at Verulamium, and the majority of his inscribed coins were minted there. It may thus be inferred, on grounds of historical probability, that Verulamium was the Catuvellaunian metropolis within the last decade B.C. and the first decade A.D. Beyond that point fair historical inference does not take us. Nevertheless, since the sixteenth century, historical writers have looked with favour upon a further inference which demands momentary attention.

II. WAS VERULAMIUM THE *OPPIDUM* OF CASSIVELLAUNUS IN 54 B.C.

Camden, in 1586, remarking that Verulamium was in great part surrounded by a marsh, added: 'whence was the conjecture that this had been the *oppidum* of Cassivellaunus, fortified by woods and marshes, which Caesar stormed, for there is, as far as I know, no other marsh in this district'.³ This identification was, on the evidence available, an eminently reasonable one, and

¹ G. C. Brooke, *Antiquity*, vii (1933), 285.

² He was alive in A.D. 40, when he expelled his son Adminius (Suetonius, *Vita Caii Caesaris*, xlv), but was dead at the time of the Claudian invasion of A.D. 43 (Cassius Dio, lx, 19-23).

³ *Britannia*, 1586, p. 219.

was adopted as certain or probable by a majority of later writers.¹ On far less substantial grounds, the unnamed *oppidum* has indeed been sought also near Wendover, on the site of London, in the Pinner district, and in Essex, but Camden's view held the field on the eve of the present excavations.² It may at once be said that, in the light of the excavations, that view is no longer tenable. Verulamium did not, it now seems, come into existence until several decades after Caesar's invasions.

In detail, the evidence for this subversive judgement will be found in a later section (pp. 44 ff.), but the main points will emerge in this introductory summary.

III. PRE-ROMAN (BELGIC) VERULAMIUM

In the absence of fuller knowledge, it has generally been assumed that the area enclosed by the existing Roman walls represented approximately the pre-Roman metropolis. A writer in the *Victoria County History* conjectured that the earthworks which form a part of the Roman system might in fact represent the pre-Roman *enceinte*.³ Other writers have looked farther afield and have preferred to identify the *oppidum* with the hill-top site of the present city of St. Albans.⁴ Conjecture apart, the question was an open one, to be solved only by trial and error.

Amongst the first functions of the excavators in 1930 was, therefore, clearly that of confirming or disproving the supposition that the Roman and pre-Roman sites were identical. Accordingly, deep pits were sunk to the natural surface within the southern half of the walled area and the earthworks associated with the walls were thoroughly tested. The pits showed that the earliest occupation of the area in question did not precede the Claudian invasion of A.D. 43, whilst the sections through the earthworks proved that the latter, with the associated masonry, were of the second century A.D. It remained to seek the prehistoric city elsewhere.

Whilst excavation proceeded steadily, therefore, during this and the following three years within the walled town, attention was simultaneously directed to an unexplained earthwork known

¹ e.g. Speed, *The History of Great Britaine* (2nd ed., 1627), p. 173; J. Horsley, *Britannia Romana* (1732), Book II, p. 258.

² Rice Holmes, *Ancient Britain and the Invasions of Julius Caesar* (1907), pp. 699-702, summarizes these miscellaneous views and concludes that, of all the places which will fill the necessary conditions, 'more can be said for Verulam than for any other; but its identity with the *oppidum* in question has not been proved.'

³ *V.C.H. Herts.* iv, 129.

⁴ *Arch. Journ.* xxii (1865), 299-301.

as 'The Fosse', which formed a projecting triangle on the western side of the circuit (see plan, pl. cxix). Here, in and under the rampart, was found a considerable quantity of Belgic pottery indicating the proximity of the pre-Roman site; but an admixture of early Roman material hinted—as was afterwards verified—that The Fosse was itself of the Roman period. It proved, in fact, to be a part of the defence of the earlier Roman city and will be considered in a later context (p. 49).

The early pottery recovered from the Fosse served at least as a pointer. The earthwork lay just below the brow of the plateau flanking the valley of the Ver towards the west, and the obvious next step carried the inquiry on to the plateau itself. Here, in a plantation known as Prae Wood (named from the nunnery of St. Mary de Pré which, in medieval times, stood beside the Watling Street in the valley below), Mr. O. G. S. Crawford had already noticed a complex group of unmapped earthworks. Many of these earthworks are small banks representing field- or woodland-boundaries of various dates; but amongst them is a nucleus which excavation in 1931 and the following years proved to be a vestige of the pre-Roman city.

A full account of these Belgic earthworks will be given below (p. 40). Here, it will suffice to note their main features and their chronological sequence.

In the first place, excavation has shown that the Prae Wood nucleus formed in reality only a small part of an extensive series of works which spread south-eastwards from the wood along the plateau. The primary element in the series was a simple dyke which, for a distance of three-quarters of a mile, marked the boundary of the settlement along the brow of the valley. This ditch, 10–14 ft. wide and 5 ft. deep, with a slight bank perhaps on both sides, can have had little or no military value and must be interpreted mainly, it seems, as an expression of the fact that the valley was regarded as 'out-of-bounds'. This aloof attitude towards the valley-land is emphasized by the form of the only original entrance identified along the course of this dyke, for the entrance is so twisted as to open *along* the plateau and not down the hill-side (see plan, pl. cxviii).

The plateau behind the dyke was divided into two regions by a central and a flanking timber palisade. The mass of pottery produced by the more northerly of these regions (Region I), coupled with the fact that this region alone was reinforced at a later date (p. 22), indicates that there was situated the main body of the Belgic city. The more southerly region (Region II) may provisionally be regarded, therefore, as enclosed tillage or

pasturage. The fact that, along the flank of the plateau to the south-east, this area was bounded by a palisade and not by a ditch suggests that the possibility of extension in this direction was envisaged in the lay-out.

At the north-western end of the dyke a two-acres enclosure with ditch and external bank was constructed at an early date, but for what purpose is not clear (below, p. 42). In the vicinity, the mixed and, on the whole, damp soil of the site was drained by numerous small gullies beside which the inhabitants set up their ovens and doubtless their huts. The latter must have been of the flimsiest construction. The variegated soil of the woodland, riddled also by tree- and bracken-roots and by vast numbers of burrowing animals, was not indeed suitable for the preservation of slight traces of timbering; but the careful and extensive search made by Mr. D. A. Casey and his assistants would certainly have revealed post-holes or sleeper-beams of any considerable size or regularity of plan had such ever been present. It would seem from the excavation of unencumbered Belgic sites at Colchester and at Bourton-on-the-Water in the Cotswolds, that the well-built circular huts to which excavators are accustomed on non-Belgic Iron-Age sites in the south-west of England were not characteristic of the Belgic invaders.

Archaeologically, the date of the foundation of Belgic Verulamium depends upon the associated pottery and, in particular, upon the presence or absence of certain distinctive ceramic types which reached the Belgae from classical or south Gaulish sources during the intensive Romanization of central and northern Gaul by Augustus in the last quarter of the first century B.C. In Belgic Verulamium, the pottery associated with the original boundary-dyke is, in fact, devoid of these southern elements, but it is small in quantity and is very closely succeeded by groups showing a classical admixture. In view of these circumstances, it is argued below (p. 44) that a date not earlier than the last ten or fifteen years of the first century B.C. is likely for the foundation of the city. With this conclusion the coin-evidence discussed above is consistent.

We may regard Belgic Verulamium, then, as a city built probably by Tasciovanus himself or, at any rate, not appreciably before his time. Its non-military character suggests a relatively peaceful environment. Its situation implies that the builders—unlike their Romanized successors—retained the characteristically prehistoric preference for the upland rather than for the valley. This primitive preference, however, is mitigated by two new factors.

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First, the forests of the lighter clays were now no longer avoided, as they had been in earlier times; for the variable pebbly clay and

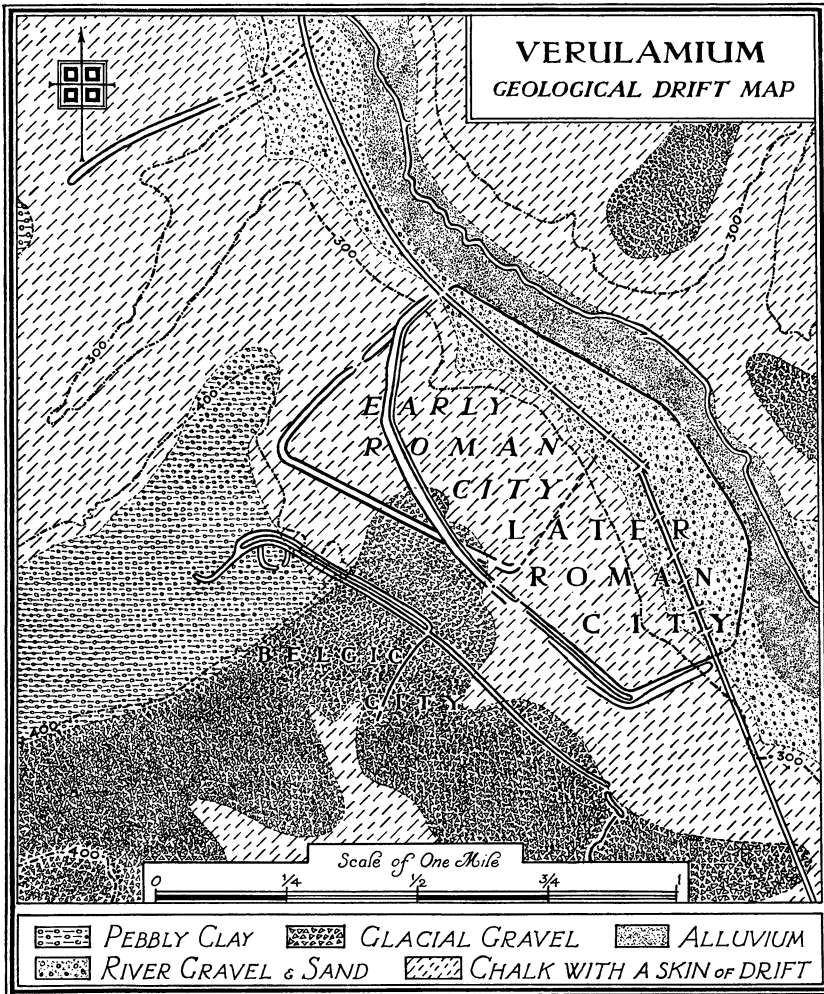


FIG. 2. (Compare Fig. I, p. 2)

NOTE: The *chalk* in the Verulamium district bears generally a thin covering of variable drift, constituting a loam terrain which would be expected to carry a somewhat denser vegetation than normal chalk downland. It was doubtless more open, however, than either of the adjacent subsoils. Of these, the *pebbly clay* on which a part of the Belgic city stood shows considerable variation, ranging from clay to gravel; whilst the *fluvio-glacial gravel* is also variable, and approximates in places to the pebbly clay. Both of these subsoils must have borne woodland with fairly close undergrowth; and the Belgic city must thus have originated as a woodland-clearing, with the uncleared forest presumably as its limit towards the south-west, and with the dyke-system as its boundary towards the more open hillside to the north-east.

fluvio-glacial gravel which overlies the chalk on the Verulamium plateau tend to constitute a damp and sticky subsoil (fig. 2). We

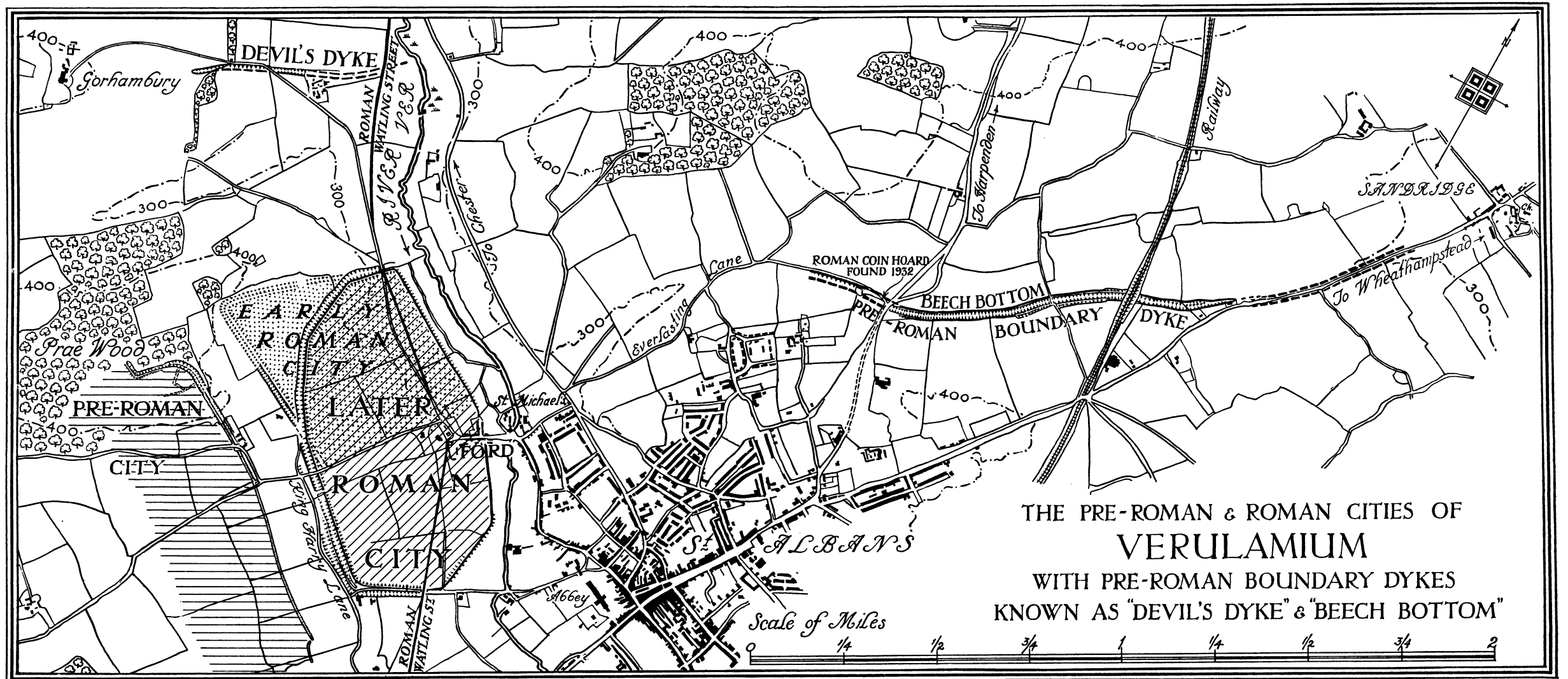
must, indeed, visualize Belgic Verulamium, in its situation, if not in its military aspect, as typical of those Belgic woodland *oppida* of which Caesar speaks (*B.G.* v, 21), and may find, incidentally, some support for the view that the Belgae brought with them a coulter-plough capable of turning the heavier soils.¹

Secondly, Belgic Verulamium, although in some sense an upland site, is accessible to a degree which differentiates it from a majority of our prehistoric hill-top towns. Indeed, accessibility was clearly one of the determining factors in the choice of position. Centrally below the prehistoric settlement, the Ver is to-day crossed at St. Michael's by one of the rare fords upon which traffic across this marshy valley has always converged. This ford carried the road from Verulamium to Colchester in Roman times and must have carried its predecessor in the Belgic era. The St. Michael's ford (pl. 1, frontispiece) is the key to Verulamium throughout its history, and, in this respect, can claim precedence over the Watling Street, which ultimately linked a later Verulamium with the Roman port of London.

We may turn now from the strategic factors which controlled the situation of Belgic Verulamium to the tactical methods whereby that situation was consolidated. Reference has already been made to the dyke which outlined the settlement itself on one side, delimiting plateau from valley. Were this the only work of its kind which could be associated with the Belgic city, there would be but little at Verulamium to compare with the elaborate system of cross-country dykes which appear to mark the territorial boundaries of Belgic Colchester, or those which may perhaps be associated with the equivalent phase at Silchester in Hampshire and Chichester in Sussex. At all these places, considerable tracts of country-side are marked off by long stretches of dyke which are sited across open country in such a manner as to supplement flanking obstacles of marsh or forest. It may have been the German strain in the Belgic blood that showed forth in this dyke-building habit: we are reminded, for example, of the oft-quoted words of Tacitus, who describes the German tribe of the Cherusci as assembling 'in a spot closed in by a river and by forests, within which was a narrow swampy plain. The woods, too, were surrounded by a bottomless morass, only on the one side of it the Angrivarii had raised a *broad earthwork as a boundary* between themselves and the Cherusci' (*Annals*, ii, 19), the 'one side' being evidently the side devoid of natural obstacles.

In point of fact, Verulamium proved in this respect to be true to type. Nearly a mile to the north of the Belgic city, in the low-

¹ J. B. P. Karslake, *Antiquaries Journal*, xiii (1933), 455.



(Based on the Ordnance Survey 6-inch maps, Herts. XXXIV N.W., N.E., and S.E., by permission of the Controller of H.M. Stationery Office)

Published by the Society of Antiquaries of London, 1936

land to the west of the Ver and in the immediate vicinity of Mayne's Farm, 160 yards of dyke are still visible running south-westwards at right angles to the river (pl. LXVIIA). This dyke, ascribed like many of its kind to the Devil, is 50 feet across and of unproved depth; on its south-eastern side, i.e. on the side towards Verulamium, is a low bank, making it sufficiently clear that the dyke faced originally away from Verulamium and up the valley. Slight surface indications hint that the dyke formerly extended eastwards to the water-meadows of the Ver, whilst a series of nine cuttings carried out in 1932 under the supervision of Mr. James E. Broad not only proved its south-westward extension into Gorhambury Park, but actually revealed its end in this direction, at the base of the hill-side 180 yards west of the Lodge gates and 80 yards south of the Park drive (see map, pl. II). A few small sherds of Belgic pottery (forms indeterminate) were found in the silt of the dyke, but otherwise we may best infer its period and function from its geological and geographical setting.

A drift-map of the district makes the whole matter clear. The Mayne's Farm (Devil's) dyke, as planned by excavation, almost straddles a tract of open chalky soil and ends close to the fringe of the (forest-bearing) Clay-with-flints of the Gorhambury hill-top (see plan, pl. x).¹ In other words, without unduly crowding the environs of the city, the dyke straddles that brief stretch of open and level valley which formed the only natural approach to Verulamium from the north and was later to carry the Roman Watling Street. Here, for all to see in a mapless age, was perhaps the official civic boundary—a boundary which, apart from the formal definition of territory, might incidentally help to mitigate the straying or driving of cattle, and would, generally, serve as a convenient barrier for the regulation of traffic. Whether this boundary, as is likely enough, formed a part of the original Belgic layout of the region or whether, as is far less probable, it was built by the Belgae as late as the beginning of the Roman occupation, for the local control of the new Watling Street, it is now impossible to say. Unfortunately, the spot at which the line of the dyke was crossed by the Watling Street has been hopelessly disturbed by flint-robbers in modern times, and the relationship of the two cannot now be recovered. But whatever the precise date of the

¹ The geological boundaries on the drift-map (as on fig. 2, p. 13) are necessarily somewhat arbitrary, and excavation showed that the clay of the Gorhambury hill-top actually extends farther towards the north-east than is shown on the geological survey. In any case, the limits of the clay should, as a general principle, be extended upwards of a hundred yards when used for the reconstruction of ancient forest, to allow for the intensive seeding on the fringe of the forest-nucleus.

Devil's Dyke, we may at least fit it into our Belgic scheme and say that, when Verulamium was still essentially a Belgic city, its frontier was on this side marked out in the proper Belgic fashion.

IV. THE BEECH BOTTOM DYKE AND THE WHEATHAMPSTEAD *OPPIDUM*

It was the examination of the Verulamium Devil's Dyke that induced the partial investigation of another and more formidable dyke in the vicinity, with results which have a vital bearing upon a reconstruction of the Belgic occupation.

About a mile north-east of Verulamium, a formidable tree-clad dyke, known as Beech Bottom, has long been familiar to antiquaries (pls. II, III, and VII). With their theories we are not here concerned, but the facts are of unusual interest. The dyke is no less than 100 ft. wide from lip to lip and, still in its partially filled condition, reaches a maximum vertical depth of 30 ft. The excavated earth was piled, by the constructors, partially on both margins, but on the whole the more southerly bank—still some 7 ft. high and 35 ft. broad where best preserved (near the St. Albans—Harpenden road)—is the larger; making it clear that, whilst the ditch rather than the bank was the main objective, the work was designed to face northwards rather than southwards. Independently of this indication, it would have been difficult to determine the frontage of the work, since it occupies impartially the floor of a valley running at right angles to the valley of the Ver and is, at one point or another, overlooked both from the north and from the south. It was clearly intended by its builders to serve as a boundary and a traffic-barrier rather than as a military work in the narrower sense of the term.

To-day, this dyke is still clearly visible for a distance of a mile from the St. Albans—Harpenden road to a point where, east of the L.M.S. railway-line, its course is picked up by the St. Albans—Wheathampstead road. For some distance north-eastwards of the latter point the Wheathampstead road is sunk and clearly overlies a former continuation of the dyke; whilst to the south-west of the Harpenden road, slight but definite superficial indications, combined with observations made by the writers during the cutting of deep sewerage-trenches in 1932, now make it possible to carry the dyke for a further quarter of a mile towards the Ver. Thus the total recoverable length of the earthwork on direct evidence is something over one and a half miles and its further course south-westwards to the Ver may be safely inferred from the sharply defined re-entrant contour which marks the junction



The 'Beech Bottom' boundary-dyke
Northern slope, with men marking respectively the foot, middle, and top.
Compare pl. vii



Obverses and reverses of part of the silver coin-hoard from the 'Beech Bottom' boundary-dyke. $\frac{3}{4}$ (See p. 17)

of the transverse and the main valley (see map, pl. II). On the other hand, the farther course, if any, of the dyke north-eastwards beyond Sandridge, where the contours flatten out on the plateau between the valleys of the Ver and the Lea, is not now recoverable superficially.

Geologically, the dyke occupies almost exactly a narrow strip of valley-gravel between slopes of chalky subsoil with a patchy covering of boulder-clay. In a wider view, however, it marks off approximately the chalky and gravelly subsoil of the St. Albans area from the large tracts of Clay-with-flints which cap the uplands to the north. In other words, the dyke defines the sinuous course of a valley which itself forms a sort of natural boundary between a relatively open tract of country to the southwards and the formerly (and still partially) wooded clay-lands to the north. On physiographical as on structural grounds, the dyke thus belongs to the south and confronts the north.

Beyond that point, geography and geology unaided could not be expected to carry us. But in 1932 a happy chance at once defined the issue. During the sewerage-operations already mentioned, a hoard of Roman *denarii*—a hundred, according to one account, two shovelfuls, according to another—was found at a depth of 14 ft. in the filling of the dyke, immediately west of the Harpenden road. The hoard itself was dispersed immediately by the labourers, but the evidence as to its finding was checked and cross-checked; the labourers were working at measured and known depths, and the exact position of the hoard in the ditch-filling was seen by the writers. The hoard could not have been deposited until the dyke at this point already contained some ten feet of filling. Ultimately, forty-one of the *denarii* were recovered for inspection and were as follows:

(a) *Illustrated* (pl. IV)

1. NATTA; 172–151 B.C. (H. A. Grueber, *Coins of the Roman Republic in the British Museum*, pl. xxiv, 13).
2. T.M. AP. CL. Q.VR; c. 91–89 B.C. (Grueber, pl. xxx, 23).
3. AP. CL. T.M. Q.VR; c. 91–89 B.C. (Grueber, pl. xxx, 22).
- 4 & 5. CRASSIPES; 85–82 B.C. (Grueber, pl. xxxix, 9).
6. C. SERVEILIVS; 75–50 B.C. (Grueber, pl. xlvii, 16).
7. C. VIBIVS PANSIA; 49–44 B.C. (Grueber, pl. I, 4).
8. L. PLAVTIVS PLANCVS; 49–44 B.C. (Grueber, pl. I, 15).
9. Octavian; c. 41–39 B.C. (Grueber, pl. civ, 1); reverse, ? Horseman.
10. Galba; A.D. 68–9 (Mattingly and Sydenham, *Roman Imperial Coinage*, i, p. 201, no. 20).

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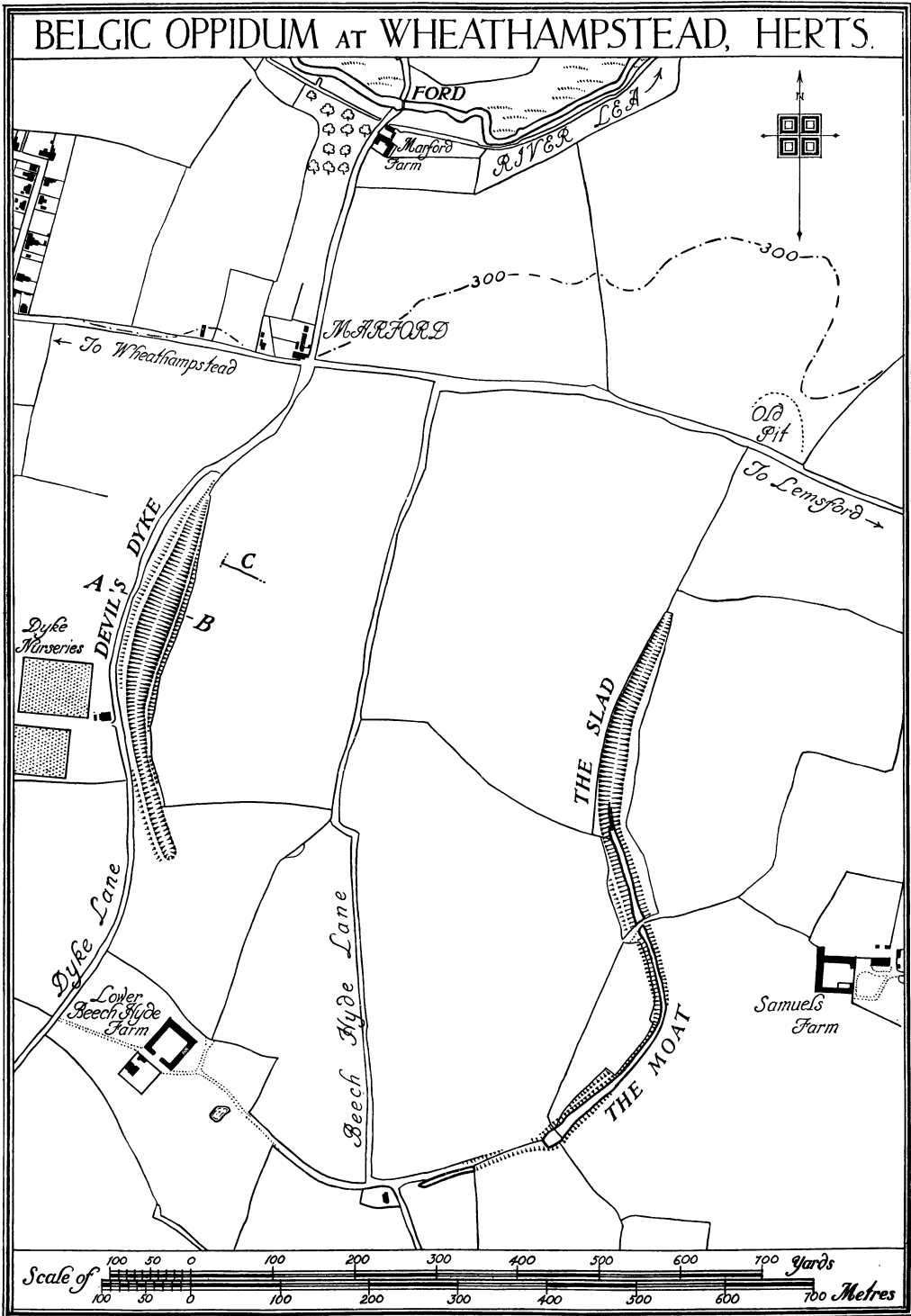
11. Vitellius; A.D. 69 (M. and S., i, p. 229, no. 6).
12. Vespasian; A.D. 69-71 (M. and S., i, p. 16, no. 10).
- 13 & 14. Vespasian; A.D. 70-72 (M. and S., ii, p. 18, no. 30).
15. Vespasian; A.D. 73 (M. and S., ii, p. 21, no. 65).
16. Vespasian; A.D. 75 (M. and S., ii, p. 24, no. 90).
17. Domitian; A.D. 76 (M. and S., ii, p. 42, no. 238).
18. Vespasian; A.D. 79 (M. and S., ii, p. 27, no. 110).
19. Titus; A.D. 80 (M. and S., ii, p. 119, no. 23*b*).
20. Titus; A.D. 80 (M. and S., ii, p. 119, no. 26).
21. Domitian; A.D. 92 (M. and S., ii, p. 173, no. 169).
22. Domitian; A.D. 92-3 (M. and S., ii, p. 174, no. 171).
- 23 & 24. Trajan; A.D. 101-2 (M. and S., ii, p. 248, no. 59).
25. Hadrian; A.D. 118 (M. and S., ii, p. 345, no. 42).

(b) *Not illustrated*

26. CARB; *c.* 145 B.C. (Grueber, pl. xcii, 2).
27. M. FOVRI. L.F. FILI; 93-2 B.C. (Grueber, pl. xciv, 5).
28. Denarius of Gaul; *c.* 82-4 B.C. (Grueber, pl. ciii, 5).
- 29 & 30. Denarii of Rome; 81-73 B.C. (probably Grueber, pl. xli, nos. 2 and 3).
31. Marc Antony; *c.* 32 B.C. (Grueber, pl. cxvi, 2).
32. Augustus; *c.* 19 B.C. (Grueber, pl. lxi, 5).
33. Vespasian; A.D. 69-71 (M. and S., p. 16, no. 15 or 16).
34. Vespasian; A.D. 75 (M. and S., ii, p. 24, no. 90).
- 35-41. Five republican denarii and two of Vespasian not closely identified.

The coin of Hadrian, lost when in good condition, may be taken as a fair indication of the date of the hoard. It was lost within a decade or so on either side of A.D. 130. In other words, by *c.* A.D. 130 the dyke was not merely in existence, but was also partially filled. From this a further inference follows. With its slavish adherence to the contours of the valley-bottom, the dyke is entirely foreign in conception to the practice of Roman engineering. True, the Roman Vallum, behind Hadrian's Wall, scorns command and often drops into lowly and obscure ground; but the abject dependence of the Beech Bottom dyke upon every whim of the local contour is a different matter. This dyke has nothing to do with Roman Britain of the first or second centuries A.D. And, since it is now proved to be not later than that period, we must conclude that it is earlier. It is pre-Roman.

In summary, then, the Beech Bottom dyke marked the northern boundary of a tract of relatively open country lying between the parallel valleys of the Ver and the Lea. Its immense size—in



(Based upon the Ordnance Survey 25-inch maps, Herts. XXVIII 5 and 9, by permission of the Controller of H.M. Stationery Office)

Published by the Society of Antiquaries of London, 1936



The Wheathampstead *oppidum*: drainage-ditch at Site C on plan, pl. v

sectional dimension it is the largest earthwork of its kind in Great Britain—implies an exceptional degree of wealth and discipline on the part of its builders. Before attempting further inference, it remains to consider yet another earthwork, built with a somewhat different function, but on a comparable scale.

As one examines the Beech Bottom dyke upon the map, the eye is carried inevitably by its line north-eastwards towards the river Lea where, in the environs of Wheathampstead, an earthwork, known in part as the Devil's Dyke (and not to be confused with the Verulamium or Mayne's Farm earthwork of the same name), has until recently received less attention than is its due. The Wheathampstead Devil's Dyke forms the western side of what appears to have been a large enclosure, 90 or a 100 acres in extent, situated on the brow of the plateau above the Lea. The eastern side of this enclosure is marked by another length of ditch, known as The Slad, but towards the south, the earthwork, if it was ever completed here, has been in part wiped out, although its course seems to be hinted at by the direction of a farm-lane. Whether there was a corresponding dyke on the northern, or river, side (possibly on the line of the Wheathampstead-Lemsford road) is less clear. The Devil's Dyke and, to some extent, The Slad represent the artificial deepening and shaping of shallow hill-side gullies, but are essentially artificial works and, as such, rank amongst the major examples of earthwork in Great Britain. The Devil's Dyke, at its maximum, is 130 ft. wide from lip to lip and is proved by excavation to have had the astonishing vertical depth of 40 ft. The earth was spread mainly on the inner lip, but also on the outer lip; and, indeed, the whole character of the work is so closely identical with that of the Beech Bottom dyke that no one could hesitate to attribute both to the same authorship.

With the ready consent of the late Lord Brocket, excavations were carried out here in 1932 by the Verulamium Excavation Committee. A section was cut through the dyke (pls. VII and IX) and, within the enclosure, two shallow drainage-ditches, similar to those in Prae Wood (above, p. 11), were identified and partially cleared (pl. VI). Again like the Prae Wood ditches, those behind the Devil's Dyke were found to be packed with potsherds and other debris, including fragments of triangular clay loom-weights, an iron knife, a clay spindle-whorl, a pair of bronze tweezers, and a bronze brooch (pl. LI). The brooch is a variant of the Continental 'Nauheim' type (probably of mid-Gaulish origin) which is found on sites of the Mont Beuvray period, in the first century B.C.

The sherds represented some 500 or 600 vessels of various

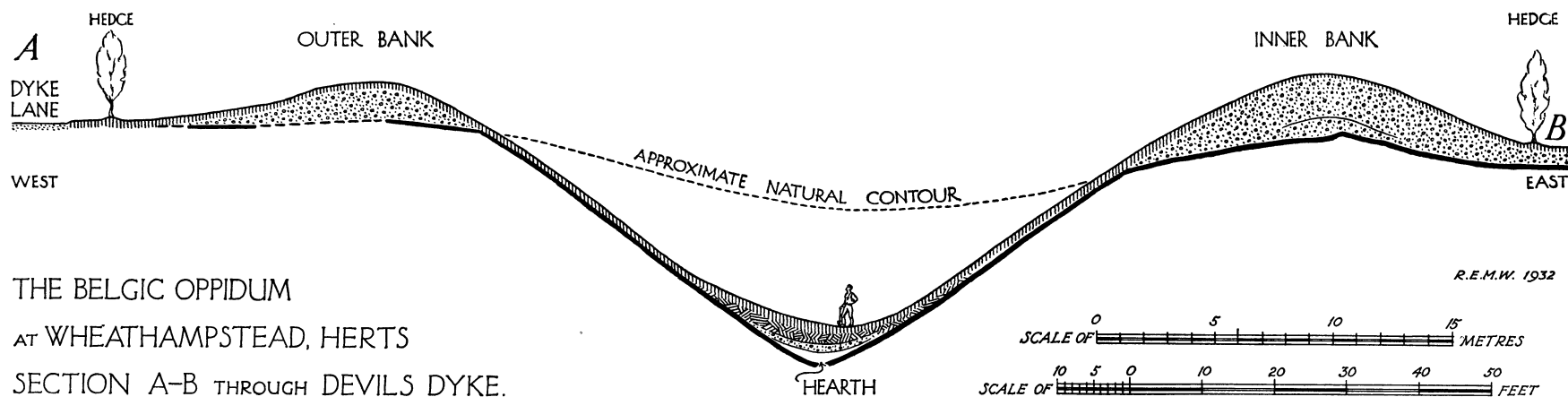
Belgic types (see below, p. 149), all wheel-turned and of a fabric varying from coarse, thick, gritty clay to smooth grey or black ware. By virtue of their quantity and character, they enable certain conclusions to be drawn with a considerable degree of assurance. In particular, they show no hint of the importation or influence of those classical forms and fabrics which began to penetrate the Belgic area within the last decade or two B.C. (see above, p. 12). Butt-beakers, amphorae, Arretine fabric or forms are not represented by a single sherd in the whole of the Wheathampstead complex. In other words, the Wheathampstead occupation, thus fairly sampled, antedates the period of Augustan expansion on the Continent and of Tasciovanus in Britain.

It may be added that, in the section through the defences, actually in the point of the ditch and underlying the rapid silt, was found a hearth, built doubtless by the constructors themselves, and containing a fragment of wheel-turned, i.e. Belgic, pottery. This well-stratified sherd enables us to associate the construction of the earthwork directly with the occupation within it.

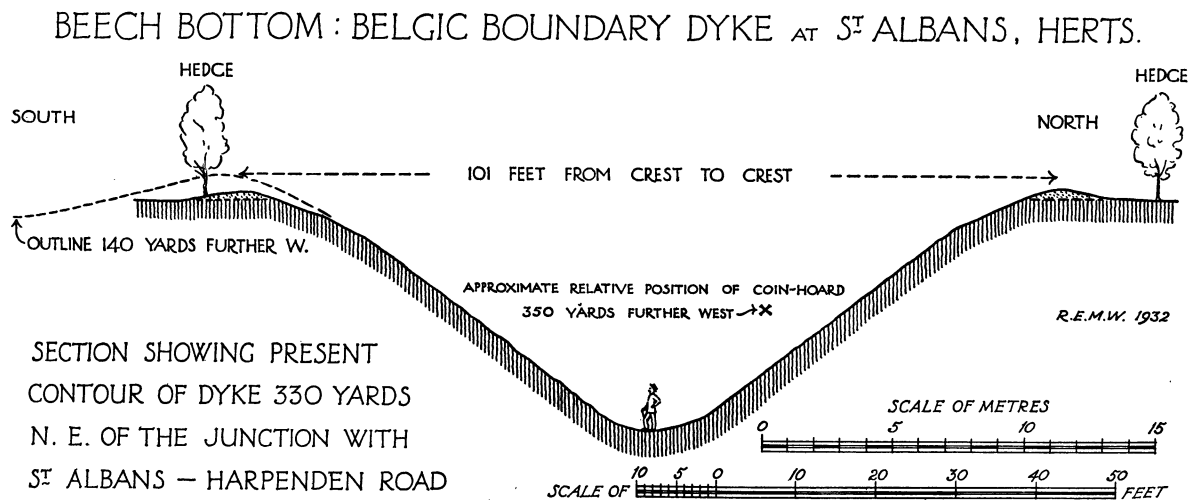
Wheathampstead thus, in two important directions, carries us back beyond the era of Verulamium towards the earliest phase of Belgic invasion. For to the early character of its pottery, just alluded to, must be added the remarkable display of strength exhibited by the Wheathampstead and Beech Bottom dykes—a display far exceeding anything at Belgic Verulamium itself. The builders of these monstrous earthworks were men of wealth and power, but they were also, we must imagine, men who were still uneasy in their adopted land. As we stand upon the site of the Wheathampstead *oppidum*, we are carried back beyond the comparatively peaceful world of the Romanizing Tasciovanus towards the unrestful epoch of Cassivellaunus and his kind. Indeed, if, as we presumably must, we seek the *oppidum* of Cassivellaunus in the midst of Hertfordshire—that *oppidum* to which Caesar marched his legions in 54 B.C.—there is, at present, no serious claimant other than the Wheathampstead site. Incidentally, Wheathampstead is over five miles nearer than Verulamium to the territory of the Trinovantes from whom Caesar, in his march against Cassivellaunus, exacted hostages and grain in return for immunity from injury at the hands of the legionaries; thus indicating, as Rice Holmes points out, that ‘the stronghold of Cassivellaunus . . . was near the common frontier of the Trinovantes and of Cassivellaunus’.¹

It is, however, unnecessary to insist upon this hypothetical identification in order to emphasize the interest of Wheat-

¹ *Ancient Britain, etc.*, p. 702.



THE BELGIC OPPIDUM
AT WHEATHAMPSTEAD, HERTS
SECTION A-B THROUGH DEVILS DYKE.



hampstead and its environment. The site itself is significant in that like the later Belgic Verulamium it is chosen in a definite relationship to one of the rare fords across a marshy valley, that of the Lea (see plan, pl. v). This relationship is, as already noted (above, p. 14), characteristically Belgic; for not only do we find it at Verulamium and Wheathampstead, but it occurs again at the famous Belgic site at Welwyn where, three miles north east of Wheathampstead, richly equipped Belgic burials have been found beside a ford across the little valley of the Mimram or Maran (pl. x). The insistence upon facilities for cross-valley traffic in relation to Belgic town-sites is sufficiently obvious, and points to an economic and administrative coherence of a kind which finds a proper place in the transitional phase between prehistoric and Roman Britain.

Again, the actual site of the *oppidum* between the Devil's Dyke and Slad earthworks consists mainly, like the soil of Belgic Verulamium, of the mixed and often damp and sticky loam or boulder-clay, which implies forest-clearing on the part of the town-builders to an extent without parallel in pre-Belgic Britain. Once more, we are confronted by settlers and agriculturists fitted by organization and equipment to develop lands which had hitherto lain beyond the scope of the British farmer.

This brings us, lastly, to the question of the significance of the Wheathampstead system in the human geography of pre-Roman Britain, a factor which has been discussed by one of the writers¹ and more recently and fully by Sir Cyril Fox.² Fox's maps show how the non-coastal, pre-Belgic distributions of East Anglia cease towards the south with the fringes of the chalk-belt, in the vicinity of Hitchin and Stevenage, north of the Lea watershed. Accordingly, the Belgic invaders, entering by the Thames estuary and its major northern tributary, the Lea, were confronted on arrival by an empty country-side. They were certainly the first to exploit the Lea valley; and it is a further point in favour of a primary position for the Wheathampstead *oppidum* in the processes of Belgic settlement that the site lies in the upper reaches of that valley and close, therefore, to the limit of easy ingress. Here, for the moment, was a natural halting-place. Here, we may suppose, the Belgic Catuvellauni, not yet perhaps very numerous, paused long enough to consolidate, develop, and delimit their new territory. Later, in a pacified country-side, open or lightly fenced towns and villages sprang up elsewhere near convenient river-fords. The old Wheathampstead *oppidum* for some reason seems to have receded in importance, and one of the newer foundations,

¹ *Antiquity*, vii (March 1933), 21 ff.

² *Proc. Prehist. Soc. East Anglia*, vii, pt. 2 (1933), pp. 159-60.

Verulamium, perhaps took its place. Whether this comparatively local change represented a mere dynastic whim or whether it was due to the more solid reason that the valley of the Ver (which later bore the Watling Street) was better adapted than the valley of the Lea for an extension of influence into the midlands is impossible to say. But such appears to have been the main sequence in the Belgic occupation of our region, and, with that provisional conclusion, we may turn once more to our main theme.

V. THE END OF BELGIC VERULAMIUM

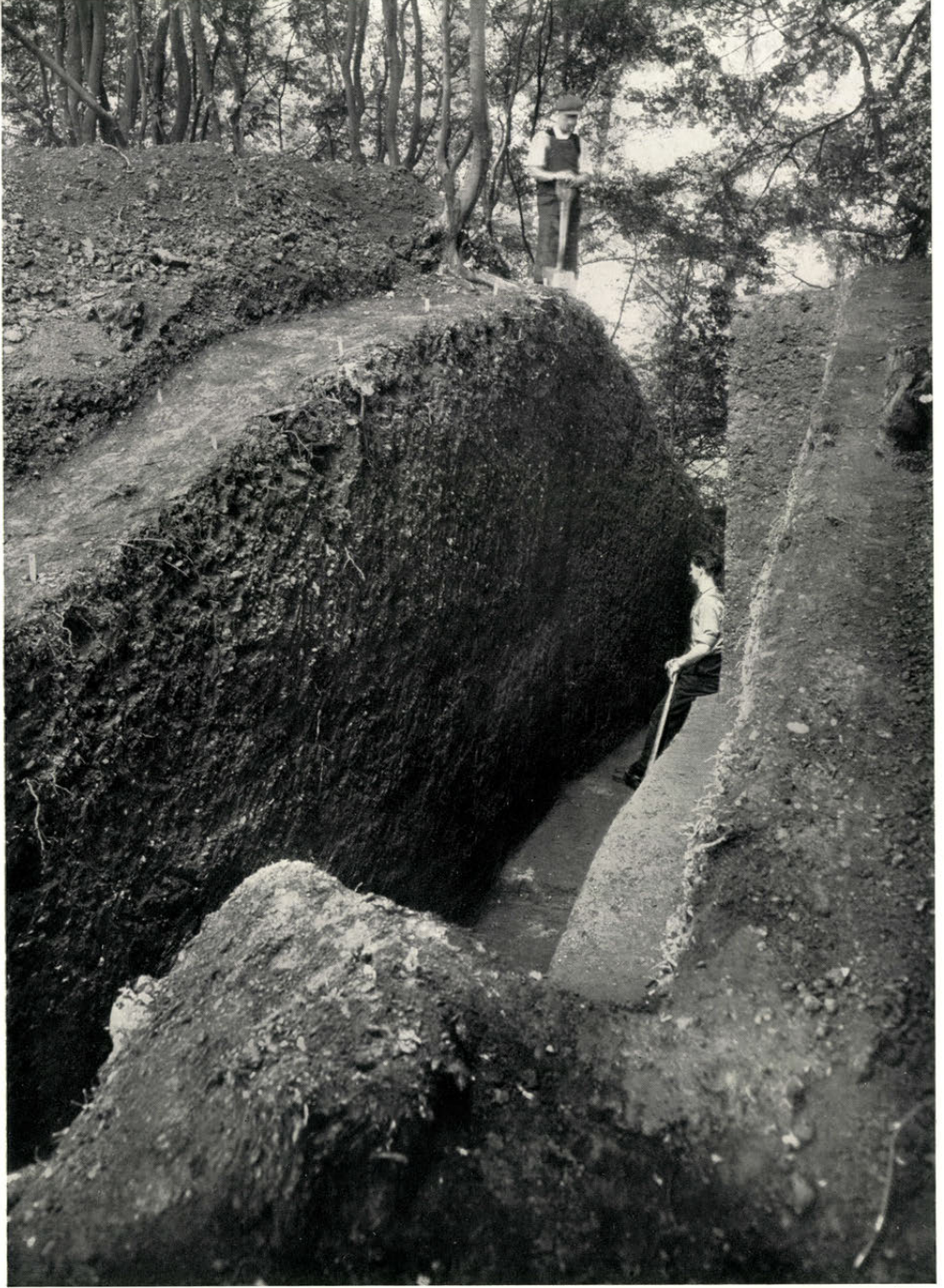
The last structural phase identified by excavation on the site of pre-Roman Verulamium is one of some significance. Attention has already been drawn to the unmilitary character of the earthwork associated with the site in its primary phase. That character was subsequently modified to meet the stress of some military emergency. The dyke where it bounded Region I—clearly the region which coincided with the main area of settlement—was partially re-cut, was reinforced by a palisade along its inner margin, and was supplemented by a new outer ditch. At the eastern angle of the Region, this outer ditch was hooked back to the line of the main dyke; at the north-western end it seems to have been used, for a short distance, as an extension of the original dyke and to have ended in a right-angled salient, designed, after the fashion of an elongated bastion, to command the frontage of the composite earthwork. Beyond that point, towards the westwards, the forest itself, assisted doubtless by artificial entanglement, was apparently regarded as a sufficient obstacle.

Reason will be given below (p. 47) for ascribing this work of fortification to the second quarter of the first century A.D. During that quarter-century, the administration of south-eastern Britain was controlled successively by the strong hands of Cunobelin at Colchester and of the Roman invader. Under neither of these régimes is the rather ramshackle defensive system above described likely perhaps to have been improvised; and it is difficult therefore to avoid the temptation of ascribing it to the moment of crisis which intervened between the two. In other words, we may conjecturally recognize in the secondary phase at Belgic Verulamium a direct reaction to the Roman invasion of A.D. 43, whilst admitting that such conjectures are of no great value.

After that invasion, the occupation of the ancient site did not entirely cease. Stray potsherds and coins, mostly in the super-



The Wheathampstead *oppidum*: inner or eastern slope of ditch ('Devil's Dyke'). The three men mark the foot, middle, and top of the slope. Compare pl. vii



The Wheathampstead *oppidum*: cutting through the inner bank of the 'Devil's Dyke'.
Compare pl. vii

ficial levels, bear witness to the use of the plateau by cottagers, farmers, and others into the third century or later. But soon after the invasion the ditch-system of the eastern corner of Region I was deliberately filled up to carry a road (p. 48). The Belgic earthworks were already obsolete; and by the middle of the second century the original Belgic dyke had been reduced to little more than the slight undulation which later farmers were to obliterate almost completely.

VI. BELGIC VERULAMIUM : SUMMARY

In tabular form, our present knowledge of Belgic Verulamium in its geographical and historical context may be stated as follows:

1. Before the latter part of the first century B.C., a large and heavily fortified *oppidum* was established beside a ford in the upper Lea Valley at Wheathampstead in Hertfordshire. Although certainty cannot be achieved in such matters, this *oppidum* is more likely than any other known site to have been the headquarters of Cassivellaunus at the time of Caesar's invasion in 54 B.C.

2. The adjacent tract of country between the Lea valley and a fordable point on the Ver valley, five miles away, was wholly or partly delimited towards the forest-lands of the north-west by a formidable dyke (Beech Bottom) which would constitute both a clear political boundary and a traffic-control.

3. Later, at the end of the first century B.C., began the great period of Belgic prosperity in south-eastern Britain, coincident with the conservative continental régimes of Augustus and Tiberius. To the north-east of Wheathampstead, an open settlement of some substance came into being three miles away, near the banks of the Mimram at Welwyn. More important, Verulamium was established as a lightly fenced city of considerable extent on the plateau above a ford of the river Ver, at the opposite end of the vicinal territory of Wheathampstead, and then or subsequently the frontier-dyke, on a smaller scale, was extended across the Ver (Devil's Dyke, north of Prae Wood). The ancient fortified city of Wheathampstead, under the changing conditions of a developing country-side, now lost its importance, and the new city above the Ver became the royal headquarters. During the first quarter of the first century A.D., the development of continental trade which accompanied the consolidation of Roman Gaul by Augustus and the consolidation of Belgic Britain by Tas-ciovanus and his sons necessitated the transference of the Belgic metropolis to the coastal site of Colchester, Verulamium remaining a flourishing Belgic city of secondary political importance.

4. Finally came the Roman invasion of A.D. 43. Colchester, now the native capital, was the primary objective of the legions. Verulamium must have submitted soon afterwards, but it may have been at this moment that its inhabitants, in a region where the craft of defensive earthwork had been in abeyance for two generations or more, added the rather improvised and ramshackle fortifications to their earlier boundary-dyke in and about Prae Wood. Thereafter, the whole earthwork-system on the plateau fell out of use, was mutilated by road-builders and gradually levelled by Roman and post-Roman farmers.

VII. THE FIRST ROMAN VERULAMIUM

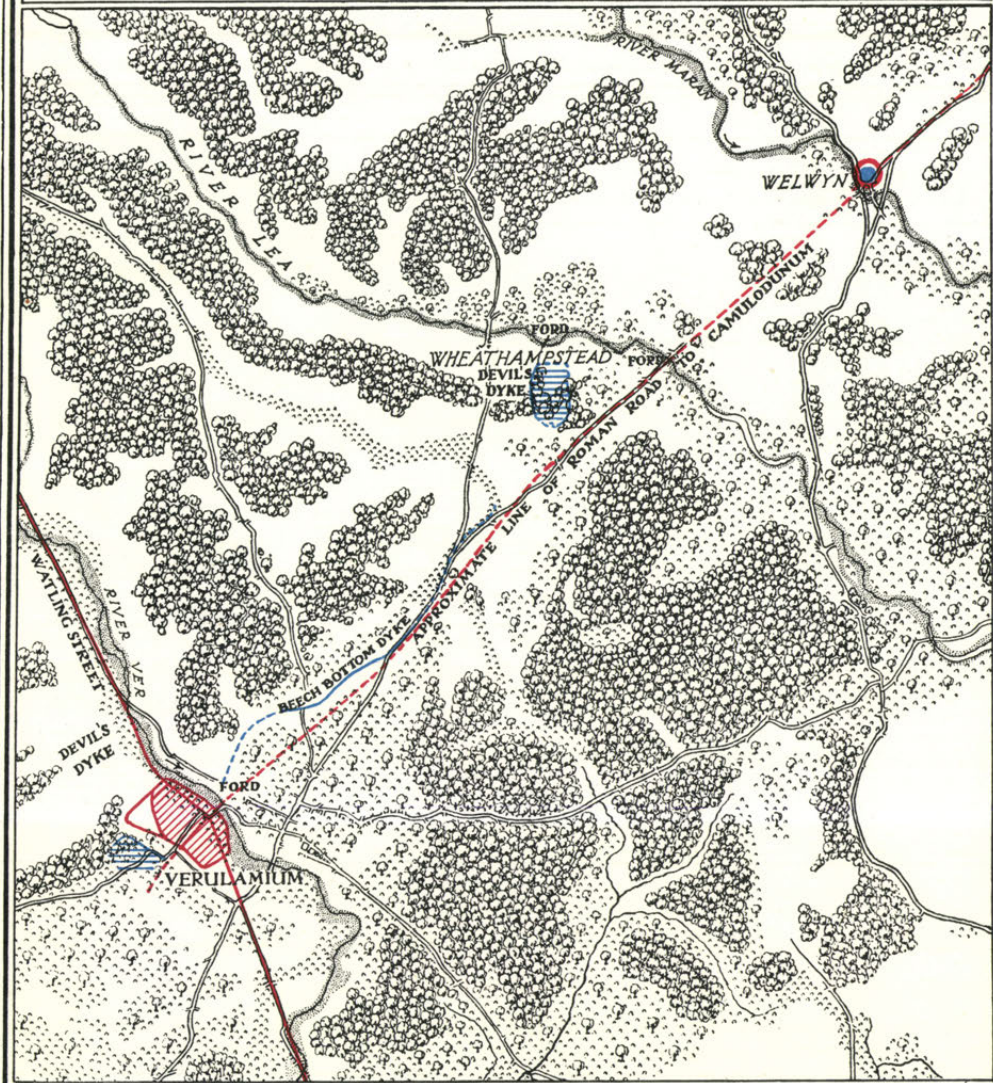
The passing of Belgic Verulamium represents something more than the landing of a few brigades of Roman soldiery in A.D. 43. It reflects, with unusual clarity, an economic change of vital importance in the historical structure of England. The partial development of forest-land and trans-valley traffic by the Belgic immigrants has been noticed above (p. 13). But it remained for the Roman government to engineer and maintain the approaches to well-watered and comfortable valley-sites, and to guarantee those sites the security lacking in their environment.



At Verulamium, the key to the change was the building of the Roman Watling Street along the floor of the valley below the Belgic city. The drainage-ditch alongside the street contained in its earliest silt sherds of Claudian pottery, and there can be no doubt that the street was laid down in the first years of the Roman occupation. From the direction of London, it proceeded straight towards the St. Michael's ford, where it bent north-westwards along the margin of the river-marsh. It was inevitable that this arterial highway should attract towards itself the population on the plateau above, and that the development of the city should provide an instance of that 'valleyward drift' of population which has been recognized as a definite phase in social evolution.

It was therefore downwards to the slopes of the valley, between the plateau and the ford, that the citizens of Verulamium began to move their habitations about the middle of the first century A.D. Here we may place that Romanizing city which, in less than eighteen years of the Claudian landing, received from Rome the title of *municipium*,¹ the highest rank which Rome could award to a native foundation. Of the character of this early municipality, little can be known without further excavation. Southwards along the Watling Street, within the limits of the later walled



¹ Tacitus, *Annals*, xiv, 33.

ST ALBANS AND WHEATHAMPSTEAD HERTS.
 WITH FORMER WOODLANDS RESTORED ON GEOLOGICAL BASIS
 PREHISTORIC WORKS, BLUE : ROMAN WORKS, RED.



-  THICKLY WOODED CLAY LAND
-  LIGHTLY WOODED GRAVELS ETC



-  OPEN CHALK LAND.
-  ALLUVIUM.

NOTE : the full extent of Belgic Verulamium is not indicated on this map

city, huts with clay floors, found in 1930 in association with Claudian pottery, coins, and brooches, represent its outskirts (pp. 75, 86). Whether the buildings in the main body of the city were at this period of a similarly humble type remains to be seen. It is not improbable indeed that such was the case, and that Verulamium, like other cities in Britain, had to wait until the Flavian period, or even later, for its full Roman equipment. It is significant perhaps that the pre-Flavian Roman pottery-groups examined during the excavations showed a very high percentage (about 75 per cent.) of purely Belgic fabrics, and that even in the Flavian period itself about 25 per cent. was still in the native tradition. Verulamium was slow to forget its pre-Roman origin.

The only visible vestige of the first Roman Verulamium is the fragmentary earthwork, known to-day as The Fosse, which forms a triangular projection to the west of the late walled city. This earthwork consists of a bank, upwards of 30 ft. wide, with traces of an inner revetment of turves and a ditch 40-50 ft. wide and 12-20 ft. deep. As recovered by excavation, one side of it is 2,750 ft. long, and another upwards of 1,900 ft. long. Its full extent is not yet known, but it must have enclosed upwards of 140 acres to the north-west of St. Michael's (plan, pl. cxix). It was largely obliterated when the later Roman city was laid out in the second century A.D.; whilst the period of its construction is limited in the other direction by the first of the major historical events associated with the city—the Boudiccan rebellion.

It is unnecessary here to recall in detail the familiar circumstances of the rebellion of the Iceni of East Anglia under their queen Boudicca in the year 61. The Iceni came from a cultural backwater which had never been extensively penetrated by the Belgic immigration of the first century B.C. They had accordingly not entered appreciably within the orbit of those continental and, in some sense, Romanizing influences which the Belgae had introduced into the south-east, and were proportionately less prepared to accept the Roman régime. On its own part, the Roman régime, in the preoccupation of a succession of military campaigns, had underrated this local spirit of intransigence to the extent of omitting to equip its newly established or re-constituted cities of the south-east with the usual formality of defences. The Icenian rebels found Colchester, as Tacitus tells us (*Annals*, xiv, 31), 'unfenced by any fortifications', and after describing the sack of that city and London, Tacitus relates that 'the same disastrous fate befel the municipality of Verulamium; for the rebels, avoiding fortifications and places under military protection, and eager for booty easily won, sought only what was

most worth the plundering and was unguarded by defenders' (*ib.* 33). It is clear from this passage that in the year 61 Verulamium, like Colchester, was an open city, and it follows that the massive Roman earthwork, to which reference has been made, is subsequent to that date.

Now, extensive excavation in the bank and primary silt of the earthwork has revealed a large quantity of pottery possibly earlier and unlikely to be later than *c.* A.D. 70 (pp. 50, ff.). On the combined historical and archaeological evidence, therefore, it is clear that Roman Verulamium received its first fortifications within the years immediately following the Boudiccan rebellion. The date is a useful one, less in its historical context (which is indeed sufficiently easy to visualize) than as a means of defining the intermediary stage in that process of urban evolution which was to culminate in the second Roman city.

VIII. THE SECOND ROMAN VERULAMIUM

In the second century A.D., Verulamium was drastically remodelled. No relevant inscription has yet appeared to confirm explicitly the date of this event, but a multiplicity of evidence in the form of coins and pottery enables us to ascribe it to the second quarter of the second century A.D. The period was one of consolidation and ambitious civic development throughout the Empire. At this time the Roman cities of Africa, Palmyra in Syria, far Ctesiphon on the Tigris, entered on their golden age. In ultimate Britain, the phase had been ushered in by a visit of the emperor himself and by the completion of the frontier-system which bears his name. In the year 130, one of the finest inscriptions known from the western provinces was set up upon the newly built forum of Wroxeter in Shropshire. Roads in England and Wales were put in order and towns such as Alchester in Oxfordshire and perhaps Caerwent in Monmouthshire received their walls. It is not surprising that, at Verulamium, the evidence combines to associate with this period the re-designing of the city and the construction or reconstruction of a majority of its buildings.

It has been observed above (p. 24) that the making of the Watling Street after the invasion of A.D. 43 was closely followed by the planting of huts—shops or bungalows—alongside it beyond the main limits of the city. That these early structures represent a purely roadside development was proved by the absence of pre-Flavian deposits in the suburban area, save in proximity to the Street. When the time came however, in the

reign of Hadrian, to lay out the city anew, this ribbon-development along the London highway had become an integral feature of the city. The process of valleyward development, already apparent in the siting of the first Roman defences on the hill-side, had been carried yet a further stage. Verulamium was now uncompromisingly a valley-town; clinging parasitically to the Watling Street, and no longer based primarily upon the old cross-country route to Colchester. The new city-walls, excluding the higher part of the earlier city and extending southwards along the valley towards London, are a clear expression of this fact.

These walls are some two miles in length and enclose upwards of 200 acres. The southern half of them, now the property of the City of St. Albans, is under the custody of the Office of Works and, as partially cleared, the defences are here the most impressive of their kind in Britain. Their position is determined not by military considerations but by the actual or potential requirements of a roadside and riverside population. On the other hand, their design and construction—typically an 80 ft. ditch fronting a wall 8 ft. thick, backed in turn by a 50ft. bank and armed with salient towers—represent Roman urban fortification on its most magnificent scale. At first sight, the raising of so impregnable a bulwark in the peaceful country-side of Hadrianic Britain may seem incongruous. But in a wider context the paradox finds an easy explanation. In an age of colonial enterprise unparalleled since the spacious days of Augustus, the dignity of a distinguished provincial municipality demanded expression. The extravagant parade of the Verulamium defences is an answer to that demand. They reflect an epoch when imperial and private speculators were investing their wealth in the British province to an extent which, in fact, the issue failed utterly to justify.

Within the new walls, this phase of optimism is no less clearly indicated. As early as the beginning of the second century, the southward extension of the town-plan had been anticipated by the building of a remarkable temple of triangular form at a road-junction on the Watling Street; and this building was from the outset of flint and brick. But for the rest, in an area of eleven acres explored within the southern half of the city, it was only in the second quarter of the century that flint buildings began to replace the earlier timber structures. Within twenty years on either side of A.D. 150, large and well-made houses, equipped with good mosaic floors, were everywhere a-building, and nearer the civic centre the theatre—the only example of its kind known at present in Britain—was likewise under construction. Whether the temple-like structures adjoining the forum similarly formed

a part of the monumental recasting of the city only further excavation, when feasible, can show, for our slight knowledge of them dates from the pre-scientific era of excavation.¹ It was apparently also in the second half of this century that a triumphal arch was set up across the Watling Street south of the triangular temple and adorned, it seems, with panels of Italian marble.

Thus was Verulamium in the hey-day of its prosperity, a city fully Romanized in all the details of its craftsmanship. Even its pottery retained only in a few modified and Romanized forms some reminiscence of a Belgic ancestry. To all appearances the city had achieved a uniform standard of prosperous provincialism. But almost from the outset something began to go wrong. The boom period came and went, leaving the work of reconstruction and expansion incomplete. Trenches cut in 1934 within the southern corner of the town, in anticipation of tree-planting, revealed scarcely any trace of occupation over a large area save for one small and apparently late building (below, p. 122). In the expansive lay-out of the second-century *enceinte*, imperial or municipal ambition had o'erleapt itself. It may be that this failure was not peculiar to Verulamium; for in London there is some evidence for a similar absence of civic development within the north-western corner of the city walls.²

If by the end of the second century it was already becoming apparent that more capital was being sunk in the British province than was likely to be recovered from it, the third century left no manner of doubt in the matter. It does not seem at present (though the evidence is still slight) that the military activities of the Severi reacted extensively upon the civil life of the province, and the generation following them is a dark one in the archaeology of Britain, largely through the reluctance of the contemporary coinage. In the chaotic second half of the century, on the other hand, an inflated and abundant currency comes to the rescue and tells a clear story. By about 273, when a hoard of coins was deposited amidst the ruins of one of the wall-towers, the defences of Verulamium were partially at least in a state of tumbling decay. Houses, the theatre, were in an equally ruinous condition, and, if the considerable sample already explored is typical of the whole, Verulamium must at this time have borne some resemblance to a bombarded city. Nothing constructive belongs to this age, and the drastic reconstruction everywhere manifest in the succeeding period emphasizes the desperate straits into which the city and province had fallen.

¹ *V.C.H. Herts.*, iv, 130.

² Royal Commission on Historical Monuments (Eng.), *Roman London* (1928), p. 35.

With the recovery of Britain for the legitimate administration by the Caesar Constantius in the year 296, all was for the moment changed. In civil as in military affairs the resumption of orthodox imperial control was marked by a renaissance which at Verulamium is abundantly represented. New floors were laid down in the gate-towers. Old and decrepit dwelling-houses were rebuilt or succeeded by fresh buildings. In one case, a large new house covering nearly three-quarters of an acre now arose for the first time. Here and there, new mosaic floors were laid down or old ones patched. The ruined theatre was largely rebuilt and its auditorium enlarged—perhaps a significant gesture at a time when the placation of the multitude must have been no small part of the task of civic administration. Beneath all these new works lay debris containing many coins down to, but not after, Allectus, the last of the usurpers, and it is evident, therefore, that the wholesale reconstruction of the town dates from immediately after the events of 296. The universality of the work emphasizes its historical significance; we are confronted once more with a phase of imperially inspired optimism and discipline. Only in a markedly cruder craftsmanship and in changed decorative modes does the new work differ from that of the second century.

But just as the expectations of the second-century town-builders had fallen short of fulfilment, so did those of their late third-century successors. The abundance of coinage upon almost any civilized Roman site occupied in the fourth century is notorious; and yet in an area of eleven acres excavated intensively over a period of more than four years in the southern part of Verulamium, only 196 coins dating from that century were brought to light amongst several hundreds of other periods. Nor can this disparity be explained away upon the score of accident. The area in question had indeed been ploughed for centuries; but whilst the plough may shatter walls and floors, and may displace soil locally, it cannot be accused of removing soil and its contents bodily from the scene. Those 196 fourth-century coins—of which no fewer than 67 came from a single road-side site, that of the 'triangular' temple—must be interpreted as literally representative of the scale of the fourth-century occupation of this area. Moreover, their significance is borne out, whether positively or negatively, by evidence of a structural kind. After the Constantian renaissance there is no evidence, throughout the eleven acres, of the building or rebuilding of a single wall. Only where the late third-century tessellated floors suffered damage through wear or subsidence were patches of clay inserted for levelling. This process of deterioration in constructional standards doubtless continued throughout the

fourth and into the fifth century, but the transience of the late third-century revival is emphasized by the fact that, in some instances, the rough patching contained only late third-century coins. Thus in the large house (building III, 2, below, p. 96), a tessellated floor which itself covered coins of Victorinus and Carausius, and formed part of a series that covered coins down to Allectus, apparently subsided almost immediately into an underlying pit; but the householder was content to make it good with a poor patchwork of earth and clay which in turn contained fifteen coins of precisely the same period.

In other words, the social and economic standards of the Verulamium citizens had fallen too far for more than a momentary redemption by purely administrative effort, however firm and optimistic; and the administration itself, we must suppose, lost heart before many years had passed. The spacious residential quarter in the southern part of the town decayed rapidly to slum-conditions or even to desolation. And this decline is both emphasized and perhaps explained by a contrast.

In 1933-4 excavations were carried out to the north of the site of the forum for the purpose of recovering the exact position and plan of the theatre (below, p. 123) which had been partially explored as long ago as 1847. The opportunity was taken to make trial-cuttings elsewhere in this region to ascertain something of the adjacent buildings and street-system and something also of the later Roman occupation hereabouts. In regard to the last, the evidence from every cutting was both consistent and striking. Coinage of the fourth century was as abundant here as it had been scarce in the southern part of the town. This coinage extended down to the end of the copper coinage in the west (*c.* A.D. 395) and included some of those minute barbaric Constantinian types which at Lydney¹ post-dated the fourth century, and belong at earliest to the last generation of Roman rule. It is clear that, in the vicinity of its central buildings, Verulamium was not lacking in citizens and trafficking during its latter days.

The character of this restricted occupation demands further investigation. But two highly significant pieces of evidence are already available. First, the theatre, rebuilt with so much confidence at the end of the third century, was a derelict rubbish-tip by the end of the fourth or the early part of the fifth. The orchestra and the stage were buried to a depth of 5 ft. or more in debris—ash, food-bones, oyster-shells, potsherds—containing

¹ *Lydney Report* (Soc. of Antiquaries), 1932, p. 120. The examples from these Verulamium cuttings included 3 of Lydney type C (average diameter 7.5 mm.), 7 of Lydney type D (av. diam. 6 mm.), and 4 of Lydney type E (av. diam. 3.5 mm.).

many hundreds of fourth-century coins. If summary evidence be required for the state of Verulamium in its last phase, the picture of one of its central public buildings thus degraded is sufficiently eloquent. Be it remembered that the theatre lay in the insula adjoining the forum and faced upon one of the great highways of Britain.

Secondly, and in some sense by way of contrast, the *temenos* of a 'Romano-Celtic' temple immediately west of the theatre was elaborately if clumsily remodelled at a date which cannot have been earlier, but may have been later, than A.D. 380. The probable implication that the temple, itself first built at a much earlier date, was still in active use at this late period is of no little interest. We are reminded that at Lydney in Gloucestershire and at Maiden Castle in Dorset¹ other temples were being built at precisely this time, whilst a well-known fourth-century inscription at Cirencester apparently records the restoration of a monument 'set up by a former [i.e. pagan] cult'.² Analogous evidence is available from northern Gaul and Germany,³ and it is evident that the reversion to paganism associated with the name of Julian (A.D. 360-3) was more prolonged and intensive in the north-western provinces than history would indicate. Indeed, it may be doubted whether Christianity, for all its official prestige, ever became as deeply rooted in the Celtic provinces as an essentially Christian historical tradition would imply.⁴ We have at least to suppose that there was a recrudescence of paganism during the last troubled phase of Roman rule—a partial reaction perhaps, under duress, towards the religions which had served well enough in the good old times.

This special problem apart, the economic picture presented by the two buildings—the one derelict, the other roughly rehabilitated, but both associated with a prodigious scatter of shabby late fourth-century coinage—is sufficiently consistent and comprehensive to justify certain general conclusions. Hereabouts lay fourth-century Verulamium, a Verulamium whose population had declined apparently in numbers and certainly in wealth and social standards, until it had dwindled to a sort of nucleated slum. The nucleus was the market-place and the buildings which lay around

¹ *Ant. Journ.* xv (1935), 271.

² F. J. Haverfield in *Arch.* lxix (1917-18), 188.

³ e.g. the temple at Moehn, near Trier, was apparently in use until the fifth century (F. Hettner, *Drei Tempelbezirke im Trevererlande*), as was the temple-group at Pesch (*Bonner Jahrbücher*, cxxv, 74).

⁴ The single tiny Christian church of Roman Silchester, for example, scarcely implies the whole-hearted conversion of the entire population of that place.

it. Beyond the nucleus stretched the old residential suburbs, now largely deserted and tumbling. The picture is one which is becoming increasingly familiar to students of the north-western provinces of the Empire. Thus, when the Gallic towns were walled or re-walled in the late third and fourth centuries; the new defences enclosed only a part of the area formerly covered by buildings. At Tours only 23 acres in the vicinity of the amphitheatre were protected at this time; at Périgueux—a substantial Roman city in its best days—a mere $13\frac{1}{2}$ acres, again beside the amphitheatre, were defended; at Sens, one of the most distinguished cities of Roman Gaul, only 47 acres were walled. It is abundantly clear that in fourth-century Gaul the urban populations whose safety was of any consequence had dwindled to a shadow of their former bulk. And in Britain itself, we have but to recall that at Wroxeter even the main forum of the town lay in ruins after the third century. The fate of Wroxeter, on the fringe of the highland zone, may not have been typical in every detail of the fate of the other cities of Britain. Nevertheless, the vicissitudes of Verulamium, if less sudden perhaps than those of the frontier-town, seem to have differed from them in degree rather than in kind. Roman Britain had failed.

But Verulamium was an unconscionable time in dying. It lingered on, indeed, well into the fifth century, to a period in which this city, alone of British cities, is vouched for by almost contemporary literary evidence. The historian can say of Verulamium, as he can say of no other town in Britain, that as late as the year 429 it was a substantially intact Romano-British city with a civic life which, however poor a thing, accorded with the provincial standards of the day. For in the year 429 the Gaulish bishop, Germanus of Auxerre, came to Britain to combat the Pelagian heresy and visited the shrine of the only historic citizen of Verulamium—St. Alban.

The date of the martyrdom of St. Alban is disputed and does not greatly concern us;¹ various dates between 208 and 305 have been suggested. The picturesque description of the scene by Bede, however, deserves a passing reference, since it tallies vividly with the topography of the site. On a June day, 'being led to execution, he [Alban] came to a river which with a most rapid course ran between the wall of the town and the arena where he was to be executed. He there saw a great multitude of persons of both sexes and divers ages and conditions who were doubtless assembled by divine inspiration to attend the blessed confessor and martyr, and had so filled the bridge over the river

¹ For a discussion of the date, see *V.C.H. Herts.* iv, 284-5.

that he could scarce pass over that evening. . . . St. Alban, therefore, urged by an ardent and devout wish to attain the sooner to martyrdom, drew near to the stream and lifted up his eyes to heaven, whereupon the channel was immediately dried up, and he perceived that the water had given place and made way for him to pass.' Thereafter 'the holy confessor, accompanied by the multitude, ascended a hill, about five hundred paces from the place, beautiful as was fitting and of most pleasing appearance, adorned or rather clothed with flowers of many colours, nowhere steep or precipitous or of sheer descent, but with a long smooth natural slope . . . a place altogether worthy, from its native beauty, to be consecrated by the blood of the blessed martyr.' On the hill-top the martyr was executed, and it was presumably on the site of the martyrdom that 'when peaceable Christian times were restored, a church of wonderful workmanship and altogether worthy to commemorate his martyrdom was erected'.¹

To-day, it is not difficult to reconstruct the scene: the procession emerging from the north-east gate of Verulamium—now buried beneath the gardens and cottages of the village of St. Michael's—and proceeding towards the river, still crossed at this point by a bridge and the ford (pl. 1, frontispiece) where the waters 'gave place' for the martyr; whilst beyond, capped by the city which later grew up about the place of martyrdom, is the gently sloping hill where Alban received 'the crown of life'. And if it be desired to stress the exactness of the scene, it may be added that St. Albans Abbey, lineal descendant of that 'church of wonderful workmanship', stands to-day five hundred paces from the St. Michael's ford.

Bede's description clearly represents a circumstantial historical tradition, which has indeed been traced back as far as the beginning of the sixth century.² The visit of Germanus, however, carries back the essence of the matter to about the year 480, when Constantius, a priest of Lyons, included an account of that episode in his *Vita Sancti Germani*.³ The account is in the rhetorical character of the age, but there is no reason to doubt its substantial accuracy; for Constantius, even if he lacked more direct sources of information, was a close friend of Sidonius Apollinaris, a close friend, in turn, of Bishop Lupus of Troyes who accompanied Germanus to Britain. When, therefore, Constantius tells us that

¹ *Historia Ecclesiae*, vii. Gildas summarizes the same incident, wrongly calling the river the Thames.

² W. Meyer, *Die Legende des H. Albanus des Protomartyrs Angliae in Texten vor Bede*. For a summary of the whole position, see *V.C.H. Herts.* iv, 281 ff.

³ *Acta Sanctorum* (Bolland), July, tome vii, 224-5.

the visit of Germanus to the tomb of St. Alban was immediately preceded by a synod at which a multitude of people, including a man of tribunician rank and wealthy magnates arrayed in splendid apparel, had been present, the implication that the incident occurred at Verulamium is almost unavoidable. So it seemed at least to Matthew Paris who, quoting Bede, adds a gloss to that effect.¹

We must infer then that in 429, nearly twenty years after the withdrawal of Roman control from Britain, there were still in the harassed island—which, incidentally, Constantius did not blush to describe as *opulentissima insula* as late as c. 480—Romano-British citizens with time and opportunity for religious controversy; and that the tomb of St. Alban outside Verulamium lay still within this Romano-British enclave. That some part of the country-side within measurable distance of Verulamium was already in the grip of invasion is made clear by the fact that Germanus had himself to hasten from his synod to repel a combined onset of Picts and Saxons. Nevertheless, some part of Roman Britain was still sufficiently intact as late as 447, when Germanus again visited the island, for renewed religious disputation. Unfortunately, no geographical details are vouchsafed in connexion with this second visit, but it is a possible inference that, at this time, the Romano-British tradition was still alive in south-eastern Britain, and that Verulamium still retained a handful of sub-Roman citizens.

So much for the historical record. Such as it is, it induced the hope that at Verulamium, if anywhere, careful excavation might establish a contact between fifth-century archaeology and fifth-century history. If this hope has, in one sense, failed of realization, in another sense it has been fulfilled. Everywhere, the latest traces of occupation were of that summary nature to which reference has already been made. The rough clay-patching of the floors of the Roman houses represents the ultimate occupation of them and denotes a return to a condition of barbarism far more complete and negative than that from which Verulamium had originally sprung. In one of the late clay-floors was embedded an urn of coarse, gritty ware formed vaguely in the Roman tradition but ill-made, without the use of the potter's wheel (below, p. 199). Upon it was a lid of ordinary Roman fabric, scarred by fire and clearly re-used. The clay-floor, the hand-made pot, the re-used lid may be taken as representative of the last phase of Verulamium: a city in which Roman mass-produced craftsmanship had long ago supplanted the traditional native crafts, and had then itself

¹ *Chronica Majora* (Rolls series), i, 186, 2.

perished with the economic system which it represented. At Verulamium, at Lydney in Gloucestershire, and on one or two other sites where a sub-Roman Dark-Age occupation may be postulated, the evidence is of the same sort. The culture of sub-Roman Britain was as nearly negative as any culture in these islands has ever been. The period was one of cultural disembodiment, when men's minds turned easily to the recollection of a golden past or the anticipation of future paradise and hell-fire, but found little enough of comfort in their environment.

IX. VERULAMIUM IN AND AFTER THE EIGHTH CENTURY

Of the ultimate fate of Verulamium little can be said. According to Geoffrey of Monmouth,¹ it was held by the Saxons at the end of the fifth century and was the scene of a battle between them and Uther Pendragon. Perhaps a little more substantial is the tradition current at St. Albans in the Middle Ages that, when in the year 793 Offa, King of Mercia, was induced by a vision 'to disinter Alban the saint of God and protomartyr of the English or Britains, and to place his relics in a shrine more worthy of them',² the king had to search for the forgotten tomb. The story at least implies a lapse in the Christian tradition at Verulamium between the fifth and the eighth centuries. As a civic entity, Verulamium had in effect vanished, to be replaced thereafter by the new town which was to grow up on the hill-top round the rehabilitated shrine.

In the eleventh century, if not earlier, the Roman city was a useful quarry for the Saxon abbots. The picturesque account, preserved by Matthew Paris,³ of the excavation and destruction of Roman buildings at this time is well known but may be quoted here for completeness.

'*Abbot Ealdred.* He searched through the ancient subterranean crypts of the ancient city which was called Werlamcestre, overturned everything and filled everything up. He even destroyed, filled up or blocked up tracks and ways with passages running below the ground and arched solidly and skilfully, of which some passed beneath the water of Warliamia that once flowed broadly about the town, for they were the hiding-places of robbers, body-snatchers and evil women. Nay, so far as he could he actually obliterated the ditches of the city and certain caves to which malefactors and fugitives from the dense woods in the vicinity resorted as to refuges. Moreover,

¹ *Historia Brittonum*, viii, 23-4.

² Roger of Wendover, *Flores Historiarum*.

³ *Vitae Abbatum*, ed. Wats (1684), p. 994.

setting aside the complete tiles and the stones which he found for building-purposes, he reserved them for the fabric of his church, for he intended, if opportunity offered, to pull down the old church and to build a new one. Wherefore he turned over the soil to a considerable depth that he might find masonry structures. And when the diggers had done this, they found beside the bank oak stakes with nails fixed in them covered with pitch after the manner of a ship; and there were also ship's-fittings such as anchors, red with rust, and oars of firwood in clear and certain evidence of the sea-water which once bore the shipping of Warlamcestre. And the manner in which, and the miracle by which, this water is to-day contracted into a little rivulet the history of St. Alban explains clearly. Further, they were surprised to find shells such as the sea-shore is wont to cultivate or to cast forth with the sands from the sea (which the citizens of Verulamia hastening on their unwonted path to the martyrdom of the new martyr once trod).¹ Whence the local inhabitants, seeing these things, either gave names to the places where they found such things or received names for them from their forbears, such as Oistrehulle, Sellefore, Ancrepol, Fispol, the name of a royal vivarium which represents the reduced remnant of the water. [Likewise, so far as he could, he filled up a vast cave, set deeply in a hillside, a cave which a mighty dragon had once made and inhabited in a place which is called Wurmenhurt, leaving nevertheless some traces for all time of the serpent's dwelling-place.] The same Ealdred, however, when he had brought together a great quantity not only of stones and tiles but also of timber-materials for the building of his church, was cut off by a premature death, and entered upon the way of all flesh without completing his undertaking.

Abbot Eadmar. He, pious and gentle and fully versed in sacred script, flourished in secular and religious probity. It was not indeed so pleasing to God and the martyr that he, like unto Solomon, should build and complete the house of the martyr himself for which his predecessor had so strongly and consistently striven. Nevertheless, he did not disperse or squander either the money or the material brought together for the construction of the church. While this abbot's diggers rooted up walls and other things hidden in the earth, they demolished the foundations of a certain great palace in the midst of the ancient city, and when they were examining with wonder the vestiges of such great buildings, they found, in a recess—a sort of aumbry—in one of the walls, along with a number of lesser books and rolls, a strange book-roll which had suffered but little in spite of its great age. Its script and language, by reason of its antiquity, were known to no one available at the moment, although its script was beautiful and clear to see and its principal letters gleamed with gold. The oak-rollers and the silken cords still retained in great part their former strength and elegance. And when they had searched diligently far and wide for someone with an understanding of this book, they found at length an old priest already far advanced in years, well versed in letters, Unwona by name, who, imbued with a knowledge of the idiom and form of many different languages, read clearly and easily the

¹ A reference, of course, to the parting of the waters when Alban crossed the river-bed to execution. Above, p. 33.

contents of the aforesaid book. Similarly, he read without hesitation and expounded clearly all that was written in other manuscripts which were found hidden in the same aumbry and in the same dwelling-house, for there was a script which was current at a time when citizens dwelt in Warlamcestre and a language of the ancient Britons which they then used. Some of the books, however, were in Latin but were of no special moment. On the other hand, in the first book, namely the larger, of which we first made mention, he found written the history of St. Alban, protomartyr of the English, which at the present day is read in the church. To this the Venerable Bede bears testimony without any manner of doubt. At the same time, in other books found here and there by the diggers, the aforesaid reader found invocations and rites of the idolatrous citizens of Warlamcestre. In them he found that these citizens specially invoked and worshipped Phoebus, god of the sun—a fact which can be comprehended through the history of St. Alban, if the sedulous reader understands it. And secondarily they worshipped Mercury, called in English Woden, after whom the fourth day of the week is named, the god specially of merchants, for the reason that the citizens and those who lived in the vicinity were almost all traders and traffickers by reason of the shipping of the city and the convenient position of the site, distant only one day's journey from London. The books in which the inventions of the devil were contained were thrown away and burnt, but that book in which the history of St. Alban was contained was placed with the utmost reverence in the treasury of the Abbey, and just as the aforesaid priest had read that writing in the old English or British language in which he was skilled, so did the Abbot Eadmar have it faithfully and carefully expounded in the convent through the wiser of the brethren, and more fully proclaimed and explained in public. But when he had had the history transcribed into Latin and had made it widely known, as has been said, the ancient and original text—an occurrence wonderful to relate—fell suddenly and irrevocably into dust and was utterly destroyed.

'And when the abbot in question diligently searched through the depths of the earth where vestiges of the city of Verulamium appeared, and found ancient stone floors with tiles and columns, reserving what were necessary for the building of the church which he proposed to raise to the holy martyr Alban, the diggers discovered, in the foundations of ancient buildings and underground hollows, jugs and amphorae of well-made pottery turned on the wheel, and glass vases containing the dust of the dead. For the ancients were wont to burn the bodies of their dead, whence the word *funus*, quasi *fumus*. And half-destroyed temples were brought to light, overturned altars and many kinds of coins which they used and idols which the ancient idolatrous citizens of Verolamium worshipped. All which things were broken to pieces by order of the abbot.'

This account does not call for comment in detail. It bears a considerable verisimilitude, in spite of its fantastic trimmings. The startling inference that Verulamium, like Bohemia, stood at one time on the sea-shore does not invalidate the facts upon which it is based, and it may even be that the specious discovery of a

roll containing a life of St. Alban is no more than a skilful monastic elaboration of an actual discovery of buried Roman manuscripts. The systematic tile-robbing is at least beyond dispute. The completeness with which most of the buildings at Verulamium had been robbed of their bricks and even their flints will be noted below in the description of the sites explored; but special attention may here be drawn to the scientific thoroughness with which the city-walls were found to have been robbed of their brick lacing-courses. Not only had these been attacked from the front to such an extent that scarcely a square foot of the original facing remains at any point, but everywhere a deep and narrow slot had been cut down the back of the wall, into the Roman bank, in order to remove tiles from this side also. Whether this organized robbing of the city-walls formed a part of the work of Ealdred and Eadmar or whether it should be ascribed rather to the period of the Norman abbey-builders is not indicated by direct evidence; but its consistent skill and thoroughness point perhaps to the latter alternative.

Since Norman times, intermittent destruction has proceeded down to the present day. In particular, the Roman walls and streets have suffered both before and since the time of Leland from road-builders who have used them as quarries. Leland, it may be recalled, states:

‘That noble street which is commonly called Watelystrete was discovered in the year 1531 within the ancient city of Verulamium, when sand was being sought for repairing the public roads. The track was eighteen feet wide and ten feet deep. In the basis of the street were very large flints, as were once probably also in the surface of it; but now no flints appear in its uppermost part. Moreover, the street is not now distinguishable from the fields through which it runs. The sand, which had been brought thither by waggons so many centuries earlier, remains even now quite firm, and is of a yellow colour just as though it had been dug out of sand-pits only a few months previously.

‘Near the Watlyngstrete in the ruins of Verulamium I found the pipes (as I imagine) of an aqueduct, made of baked tiles but rounded, of which each was inserted into the end of another. The tiles seemed to me as fresh as if they had been baked only a few days previously.

‘I saw also a place, now encumbered with fruit-trees, where, it is with probability conjectured, was the *palatium* of Verulamium.’¹

To-day, most of Leland’s remarks still hold good. Long stretches of the Watling Street in Verulamium are represented now by masses of yellow sand from which, both before and since Leland’s time, the harder metalling has been robbed; indeed,

¹ J. Leland, *Collectanea*, ed. T. Hearne (2nd ed., 1774), iv, 168.

when first uncovered in 1930 the Street was nicknamed by the excavators 'Sandy Lane'. And still the major buildings of the forum—probably Leland's *palatium*—lie beneath the garden and orchard of St. Michael's Vicarage.

Stukeley continues the story of spoliation. 'Three years ago good part of the wall was standing; but ever since, out of wretched ignorance . . . they have been pulling it up all around, to the very foundations, to mend the highway; and I met hundreds of cart-loads of Roman bricks, etc., carrying for that purpose, as I now rode through the old city.'¹ Stukeley also notes the presence of mosaic floors.

A further extensive denudation of the Roman streets took place in the earlier part of the nineteenth century, when the ancient metalling was systematically uprooted for the repair of the local roads. In his (largely conjectural) town-plan of Verulamium, published in 1870, J. W. Grover notes the spoliation of streets between 1800 and his day,² and at the present moment (1935) the process of destruction is likely to be continued in the building of a new arterial road through the centre of the city.

¹ W. Stukeley, *Itinerarium Curiosum* (ed. 1776), p. 116.

² *Journ. Brit. Arch. Assoc.* xxvi (1870), plan facing p. 45.

B. DESCRIPTION OF SITES

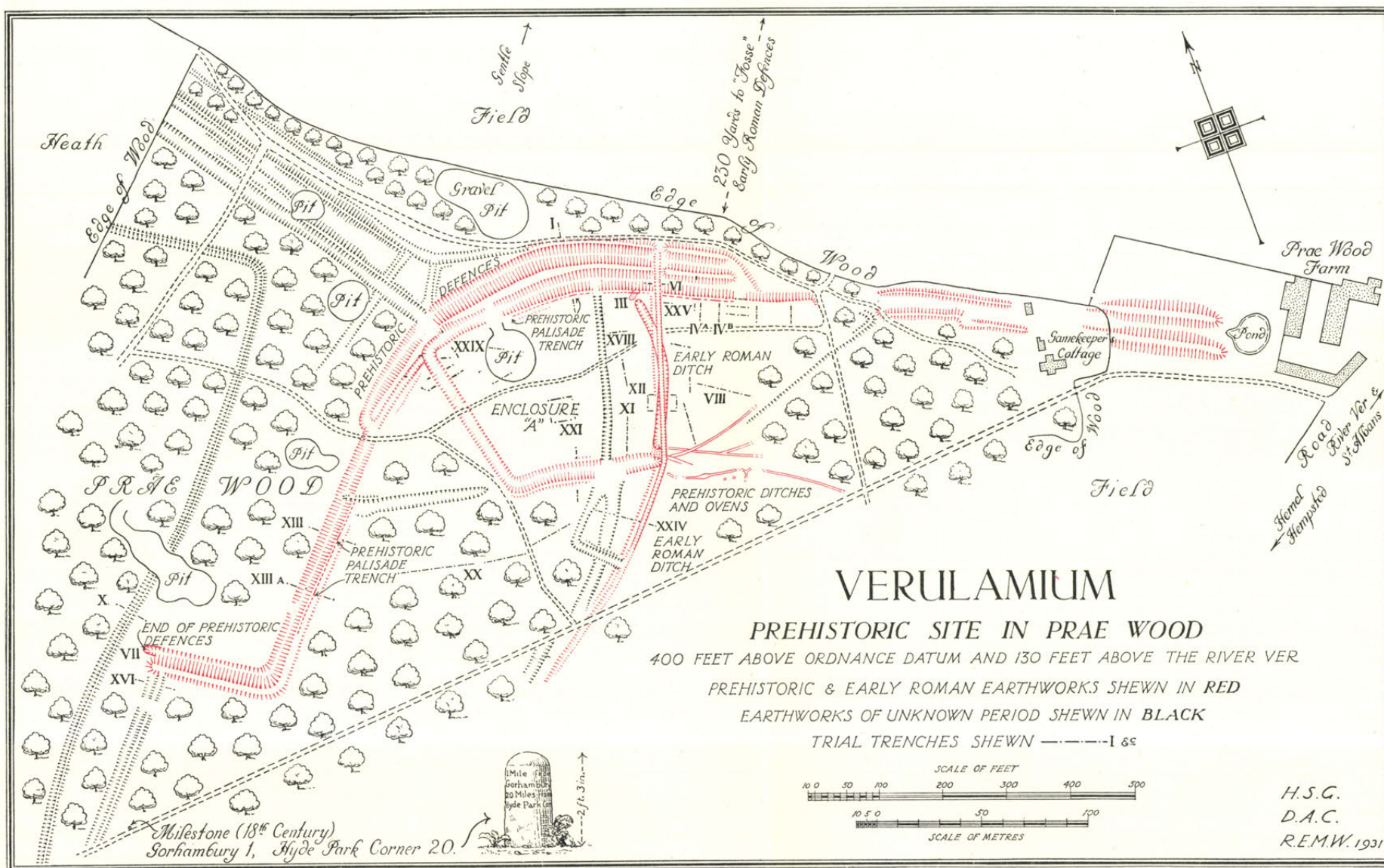
1. BELGIC VERULAMIUM (*General plan*, pl. cxviii)

Pre-Roman, or Belgic, Verulamium lay upon the plateau to the west of the valley of the Ver, at a height of 390 ft. above O.D. and 130 ft. above the river. Its site was, as we have seen, conditioned by two factors—the ford at St. Michael's and the desirability of a dominant and relatively well-drained position. In the very mixed subsoil of the district, the geological factor, normally determinate in the case of pre-Roman settlement, is here subordinate, and the Belgic city in fact covered a heterogeneous patchwork of clays, loams, sands, and gravels (p. 13, fig. 2).

To-day, the Belgic city is represented on the surface only by some hitherto uncharted banks and ditches in and immediately adjoining Prae Wood (pl. lxvii B and lxviii). The wood is, indeed, full of small banks and ditches of various kinds and dates. Many of these were explored during the course of the excavations, but, save in the instances hereafter described, yielded no evidence of date. In a majority of cases, they are doubtless connected with the development of this ancient plantation, or, in some cases, it may be, with Roman or post-Roman cultivation. On the plan (pl. xi) of Prae Wood, a number of these minor earthworks is indicated in black, whilst those known to be of the Belgic or Roman periods are shown in red. On the general plan of the Belgic city (pl. cxviii), only those earthworks which are known to be of Belgic origin are shown.

Excavation indicated that the earthworks of Prae Wood form little more than a quarter of the system of which they are the only visible fragment. The rectangular bend in the Hemel Hempstead road, immediately south-east of Prae Wood Farm, brings that road noticeably into alignment with the earthworks as they emerge from Prae Wood; and, with this hint, excavation in the adjacent Pond Field proved that the coincidence was a significant one. The inner or main ditch (pl. lxix A) was discovered on a line parallel with the road and was later traced by extensive trenching for half a mile towards the south-east (pl. cxviii). Throughout this distance, save for a tell-tale streak in the lucerne crop of 'Pale Field' in 1933, no trace of the earthwork could be detected on the ground, nor has repeated observation identified it from the air. It is now proposed to deal with the whole system, whether superficially visible or otherwise, as a single unit.

Excavation made it clear that three main phases are represented by the earthworks as now planned.



VERULAMIUM

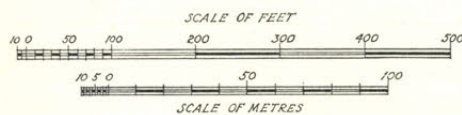
PREHISTORIC SITE IN PRAE WOOD

400 FEET ABOVE ORDNANCE DATUM AND 130 FEET ABOVE THE RIVER VER

PREHISTORIC & EARLY ROMAN EARTHWORKS SHEWN IN RED

EARTHWORKS OF UNKNOWN PERIOD SHEWN IN BLACK

TRIAL TRENCHES SHEWN - - - - I & c



H.S.G.
 D.A.C.
 R.E.M.W. 1931

PHASE I

To the first phase belongs the inner or main ditch or dyke with the enclosure A which formed its starting-point at its north-west end. Whether the enclosure was in fact exactly contemporary with the dyke was not capable of structural proof; but it certainly belonged to the same general scheme, and was shown definitely to be prior to Phase 2. The original dyke cannot have had a bank—at any rate a continuous one—on its inner side, since one of the cobbled causeways which opened into enclosure A lay close alongside the inner margin; whilst, near by, a hearth, later cut into by the palisade of Phase 2 and therefore prior to that phase, was found in a similar position. The dyke cannot in any case have been of much defensive value, since its maximum dimensions at the ground-level were 13 ft. in width and 5 ft. in depth. As a boundary and, less certainly, a partial deterrent to cattle-straying, it may have had its bank on the outer margin after the fashion of enclosure A, where an external bank is still partly visible (see plan, pl. XI).

The position of this earthwork was for the most part determined approximately by the contour which bounds the plateau on this side; thence the ground slopes generally if hesitantly towards the river. Towards the south-east, the ditch ends, in accordance with the same principle, at a point where the contour turns southwards. Only towards the north-west does the earthwork cease—presumably at the original end of the forest-clearing—before reaching the edge of the plateau which here extends over 200 yards beyond it.

The area bounded by the earthwork falls into two divisions, here named respectively Region I and Region II (pl. cxviii). These Regions were divided from each other by a timber palisade ('Palisade A') which joined the ditch at a point immediately within the angle of the present Potters Crouch and Hemel Hempstead roads. The palisade is now represented by a steep-sided trench in which the palisade had been packed with clay and gravel. The trench was from 6 to 7 ft. wide at the top, but narrowed sharply, as shown in the typical section in pl. XIII. In this section, the actual socket of the timbering, $1\frac{1}{2}$ ft. in breadth, is shown. The palisade-trench was traced back towards the south-west for a distance of 500 feet, at which point it ran under, and is seemingly followed by, the Potters Crouch road.

At the point of junction with the main ditch, the palisade was apparently anchored to an oblique T-end which straddled the ditch and is represented by slots on both sides of it (see plan, pl. XII, and pl. LXX.) The T-end thus, in addition to strengthening

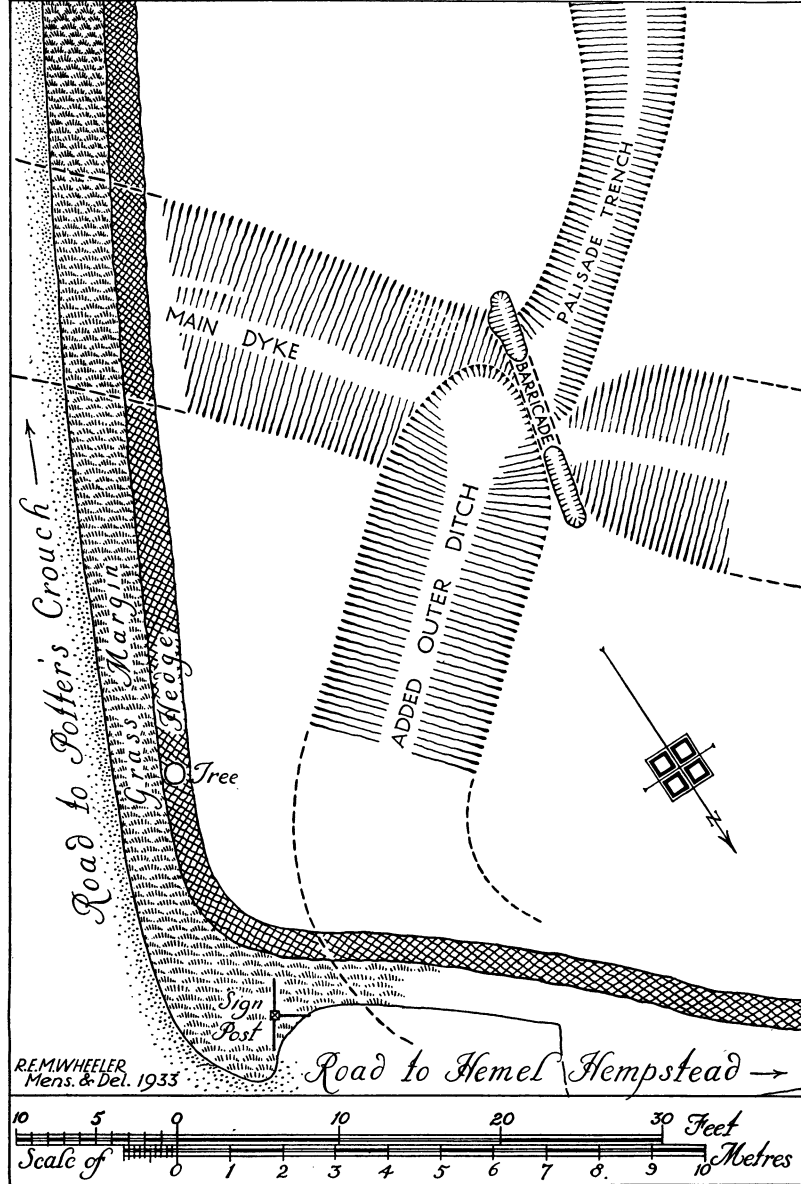
the palisade, must have formed a barrier across the ditch. This circumstance presumably indicates that the southward continuation of the ditch formed a part of the original scheme. A further factor is consistent with that inference: the relative straightness of the palisade seems to imply that at the time of its construction the clearing extended well beyond it, and is in marked contrast with the significantly circuitous course of the terminal palisade described below.

South-eastwards from this point the ditch proceeded without noticeable feature for 800 yards. It then ceased and extensive search ultimately revealed an inset-entrance (pl. xv) placed significantly in such a manner as to imply approach along the plateau rather than up the side of the valley. A partial clearance under difficult conditions failed to reveal any trace of timber-work at the entrance, and if such there was, it cannot have been placed in a normal position.

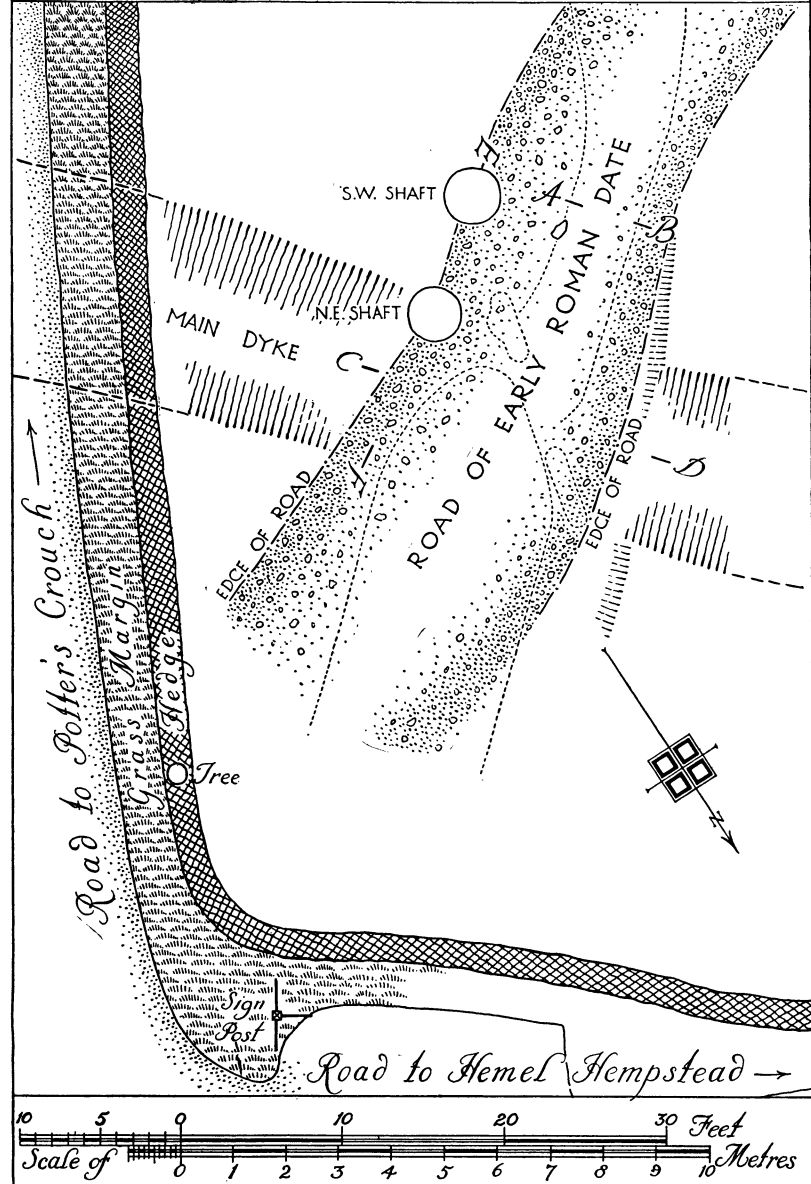
Shortly beyond the entrance, the ditch came to an end and extensive trenching in the vicinity proved without possibility of doubt that it was not resumed in any direction. The limit of the city-precincts towards the south-east was, however, indicated by a second palisade ('Palisade B') which impinged upon the ditch nearly at right-angles and then bent southwards in the general direction of the contour. For details, see pl. xv. It will be observed that this palisade was likewise anchored by a T-end of which the slots remain, but that in this case the T-piece did not straddle the main ditch. The palisade extended for a distance of 425 ft. towards the south and then came to an end, its resumption being disproved by extensive search in the vicinity. Its course was, as the plan shows (pl. cxviii), markedly erratic and raises a point of considerable interest. It was clearly adapted to the irregular fringe of the woodland-clearing and conformed closely with the major obstructions presented at the time by large surviving trees or tree-stumps. On a small scale, the curvilinear course of this palisade may be compared with the irregular course observed on certain of our cross-country dykes (e.g. Offa's Dyke) at points where there is special reason for postulating former woodland. Indeed, this 150 yards of fence contributes more to our picture of Belgic Verulamium, as a clearing amidst the woodlands, than any other single piece of evidence.

There remains to describe the 'Enclosure A' at the north-west end of this earthwork, together with vestiges of occupation in the vicinity. This earthwork, nearly square on plan, consists of a ditch 11½ ft. wide and nearly 5 ft. deep, with traces of a bank on the outer side and enclosing an area of nearly 2 acres. On its northern

VERULAMIUM: PRE-ROMAN DITCHES IN E. CORNER OF POND FIELD.



VERULAMIUM: ROMAN ROAD OVER PRE-ROMAN DITCHES IN POND FIELD.



side, its ditch equated with that of the main earthwork already described and was probably contemporary with it. At the eastern and southern corners, the ditches were interrupted by causeways, heavily metallated with large flints. The eastern causeway, 15 ft. wide, was obliterated in Phase 2 (see below, p. 47); whilst the southern causeway 14 ft. wide, was covered with Roman debris and was cut externally by a ditch which produced only Roman pottery and is probably, therefore, of Roman date (first or early second century). That the flint metallating of the entrance was contemporary with the construction of the earthwork was shown by the fact that, in both cases, a number of the flints had seeped down into the ends of the adjacent ditches and were there covered by the earliest silting.

Approaching the southern causeway from the south, two long ruts (pls. XVI and LXXI) were found in the natural sandy clay of the site. Where best preserved, they were parallel, 8 in. deep and 4 ft. 7 in. to 4 ft. 9 in. apart, centre to centre. A few feet before the flint paving of the causeway was reached, at a point where the surface slightly dipped, the soil between them had in ancient times been churned up and softened, and had subsequently attracted a forest of bracken roots. As they approached the causeway, the ruts had been cut by the ditch ascribed above to the Roman period and were therefore prior to it. Apart from this, the position of the ruts, pointing as they did towards the prehistoric causeway, compels the inference that they belong to the period when the earthwork was in use. They may thus rank amongst the oldest wheel-tracks yet found in Britain, and may perhaps be regarded incidentally as further evidence for the antiquity of the present standard-gauge.

The purpose of the earthwork remains obscure. Extensive trenching within it revealed no definite structural evidence. This deficiency is not quite determinate in the negative sense, since the whole of the loose soil hereabouts has been riddled for centuries by countless tree and bracken roots and by burrowing animals. Nevertheless, it suggests that the purpose of the earthwork was rather that of a small cattle-pound than of a dwelling-enclosure.

To the south of the enclosure, a considerable area was cleared (pl. XVI) and an erratic system of relatively shallow ditches was revealed. These ditches were doubtless intended to drain the adjacent soil for habitation. They were not all of identical date, but most of them had been used secondarily as rubbish-tips and contained pottery extending from the end of the first century B.C. to the eve of the Roman conquest. With the pottery were animal

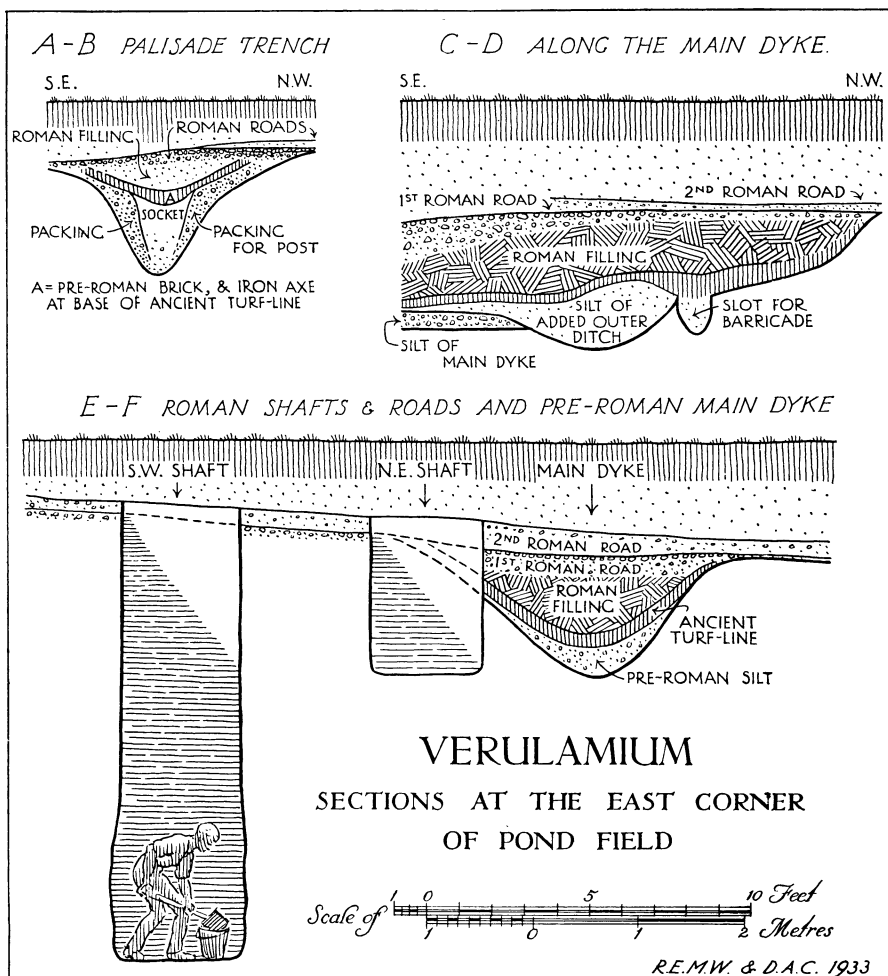
bones and ash which had been tipped or swept into them mostly from the south-western side. A careful search failed to discover in the root-ridden ground any certain traces of hutments, but the remains of two ovens (pl. LXXVI A), one of them showing evidence of reconstruction, with slight traces of perhaps two more, were found near one of the ditches. These ovens had been oval in plan with clay walls which had probably at one time been carried up to form a domed top. At one end of each oven, an extension of the burnt flooring indicated the position of the hob. Similar ovens have been uncovered on other prehistoric and Romano-British sites,¹ and were used probably for cooking food. The Verulamium ovens had been floored with clay reinforced by potsherds, and contained fragments of pierced bricks which had presumably been raised on fire-bars to form a grid (see below, p. 180).

It remains to consider the date of this phase—the first identifiable phase at Verulamium. Archaeologically, this must depend almost entirely upon the pottery recovered from the primary silting of the ditch and from the clay used to pack the palisades A and B. The total quantity of this pottery, though considerable, was scarcely large enough to give absolutely conclusive results. In considering it, certain general principles have to be borne in mind, and may be indicated here categorically.

In the present state of knowledge, Belgic pottery falls into two main categories: that which is free from admixture of Italic and south Gaulish wares and types, and that which includes them. The latter category cannot antedate the diffusion of Italic wares into the northern provinces—a process which began approximately in the last ten or fifteen years B.C. Having once begun, this process, directly by trade and indirectly by native imitateness, made rapid headway in the Belgic areas on the Continent and doubtless reached Belgic Britain almost contemporaneously.

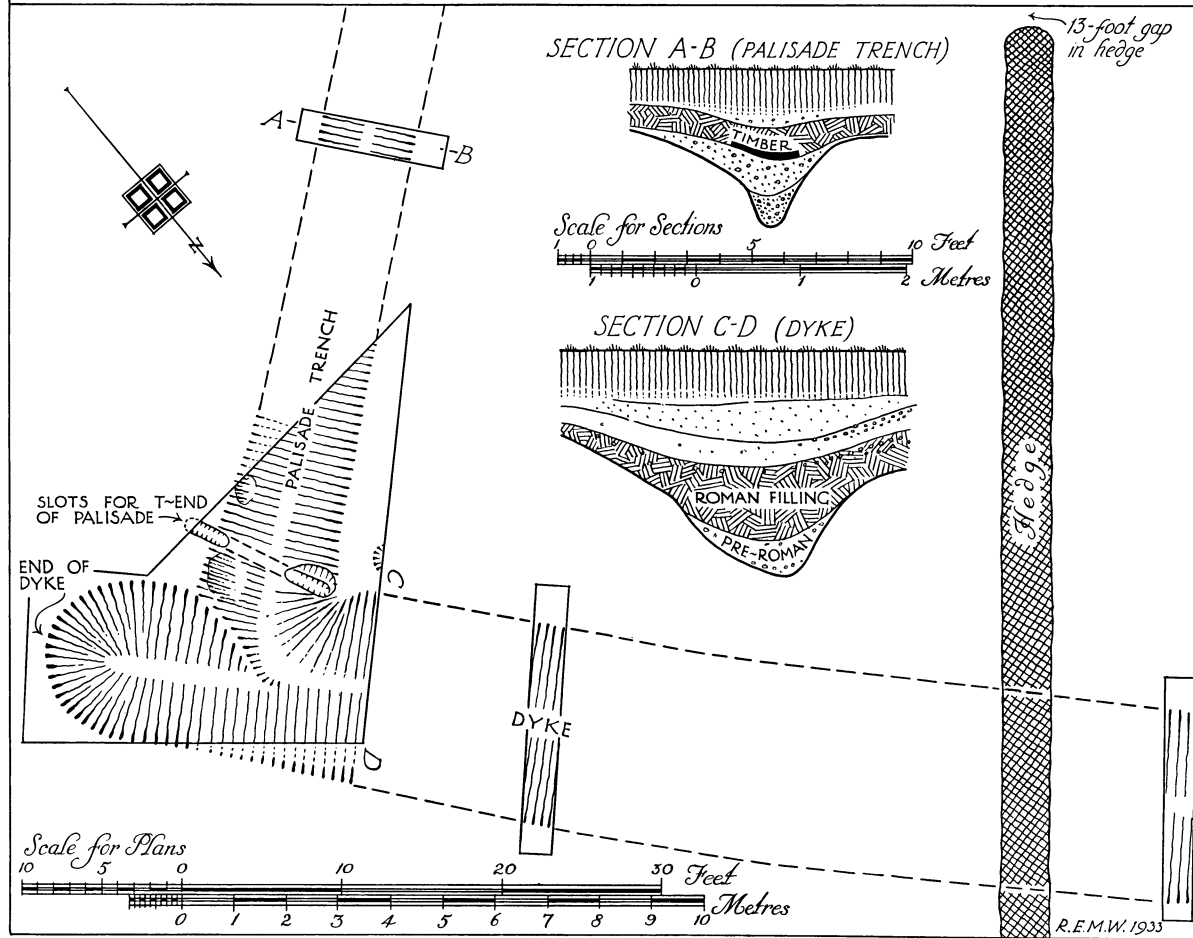
The introduction of the Italic element thus marks roughly the dividing line between Belgic pottery of a date prior to the middle of the reign of Augustus—or, in this country, of Tasciovanus—and pottery subsequent to that date. For the rest, the rougher Belgic forms and fabrics appear, in a large degree, to have remained constant both before and after this innovation and are not in themselves, therefore, of value for dating purposes. In dating a Belgic group, the archaeologist is thus thrown back upon a criterion—the presence or absence of Italic or Italianate wares—

¹ e.g. in the Romano-British huts of native type on the foreshore at Tilbury (see Royal Commission on Historical Monuments, *Essex, S.E.*, p. 39 and pl. facing p. xxxvi); and on the Iron Age sites of Hengistbury and Maiden Castle.



(See also pl. XII, and pp. 41, 49)

VERULAMIUM: END OF PRE-ROMAN DYKE SOUTH OF THE ROMAN CITIES



which is easy on the positive side but demands the utmost caution on the negative side. A group which contains an Italic form or fragment tells to some extent its own story; but a group which does not contain such a fragment must obviously be extensive and thoroughly representative of a site before it can be used as evidence for a pre-Augustan date. This condition was, as we have seen, present at Wheathampstead, to which an early period has accordingly been ascribed. Now, in the earliest period at Verulamium, we are faced with a very much smaller group of pottery from which a definite inference is less easy.

In the earliest or 'rapid' silt of the main dyke, sherds of about twenty-five vessels were found in the various cuttings, excluding that at the eastern corner of Pond Field, where there were later complications (see below). In so far as they were recognizable, these sherds represented the coarser Belgic fabrics and did not include either Italic wares or Belgic imitations of such wares. As a whole, therefore, these sherds are consistent with an early Belgic period for the earthwork in its original form. On the other hand, the experience of the four years' work prevents us from regarding a group of only twenty-five vessels as determinate in the negative sense. The most they can safely be allowed to suggest is a period not much later than the *beginning* of the traffic in Italic wares—a period, in other words, when these wares were still relatively scarce.

One or two other considerations seem, in the present instance, to support this conclusion. Enclosure A was, as has been remarked, prior to Phase 2 though not necessarily constructed at the same instant as the main dyke. It is, however, integral with the dyke and is likely to approach it in date. Now the greater part of the eastern ditch of this enclosure was cleared (pl. LXXV), and produced a great quantity of precisely stratified pottery, ranging from the Belgic to the Roman periods, and sharply divided by stratification into three groups. The lowest of these groups (Group A) was contained in the rapid silt of the ditch and was considerable in bulk. Amongst a large majority of non-Italic fabrics, it included fragments of two or three butt-beakers and one girth-beaker—types which do not seem to occur in north-west Europe prior to the decade on each side of A.D. 1, when they are found, for example, at Haltern in Germany. The small proportion of these exotic types again suggests a date not far removed from that of their introduction. Moreover, when the same ditch was used subsequently as a rubbish-dump, it was nearly filled with a great mass of pottery (Group B), containing much evidence of Italic influence and datable with fair certainty to A.D. 10–35. The

primary period of the ditch is thus again pushed back towards the end of the first century B.C.

Lastly, although the rapid silt of the main dyke was free from Italic sherds, those layers which immediately succeeded the rapid silt contained a sufficient quantity of Italic or sub-Italic fabrics to compel us to place them within the first half of the first century A.D. The time-interval between their deposit and the completion of the rapid silting is hard to guess; but it is reasonable to suppose that it was not of very great length.

In summary, therefore, the ceramic evidence converges upon a date at the end of the first century B.C. for the Belgic earthworks in their original form. This inference would fit them into the middle of the reign of Tasciovanus, but, considered in conjunction with the flimsiness of its fencing, appears to rule out completely the old conjecture that Verulamium was the 'well-fortified' place to which Caesar pursued the forces of Cassivellaunus in 54 B.C. (see above, p. 9).

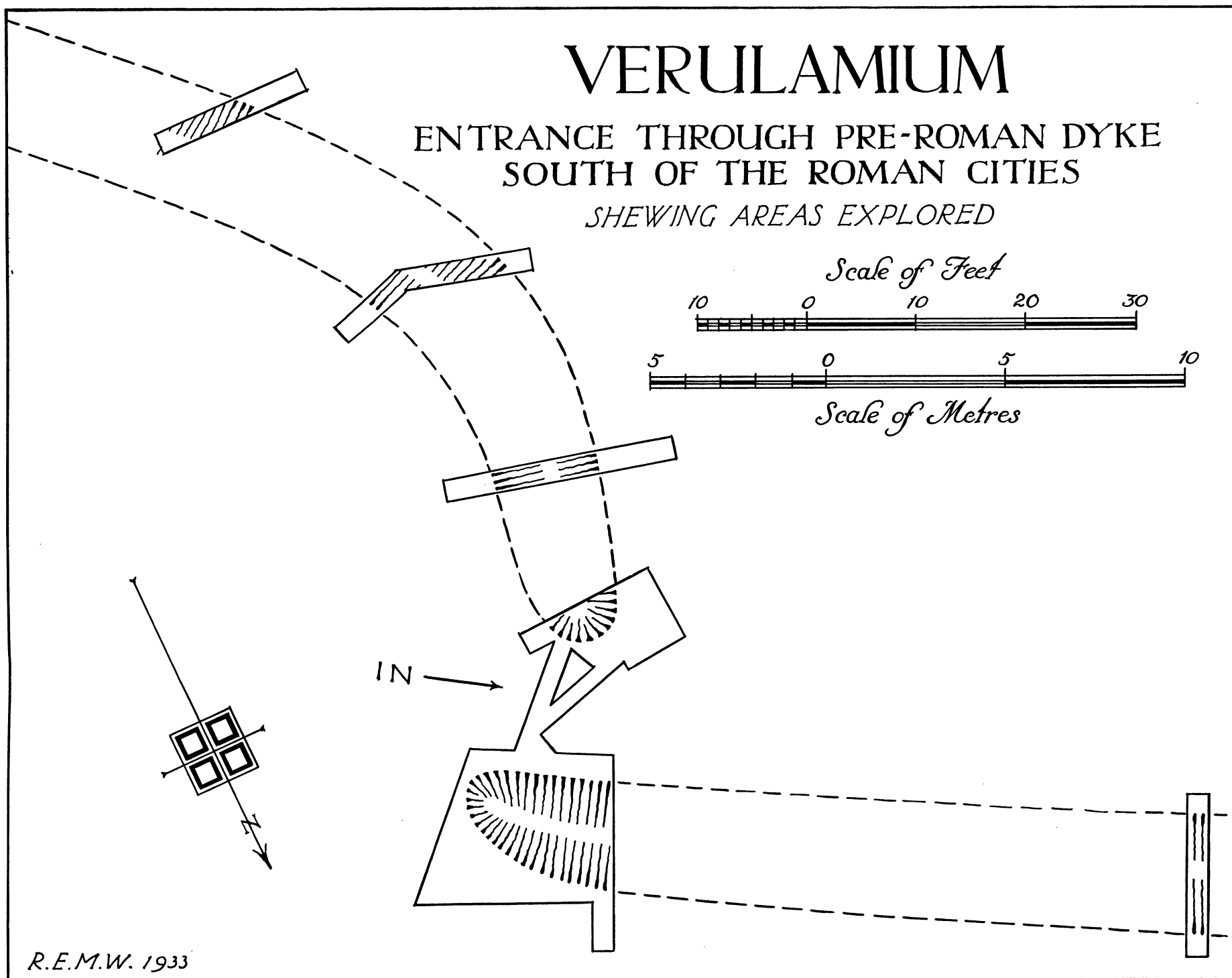
It remains to consider the functional purpose of the two Regions into which the area behind the main dyke was divided by the intermediate palisade. The complete absence of excavation within Region II, which was entirely unknown until the last season's work, makes certainty upon this point impossible. It will be seen, however, that in Phase 2 only Region I was reinforced—a fact which implies that, at about the time of the Roman invasion of A.D. 43, this was the only region which was worth special protection. A feasible inference is that Region I contained the city whilst Region II was designed as a cattle-pound or, less probably, perhaps for tillage. It will be recalled that Caesar speaks of the assemblage 'of a considerable number of men and of cattle' in the stronghold of Cassivellaunus; and the dual arrangement at Verulamium offers an easy provision at a later date for assemblage of this kind.

One other feature of the Belgic site calls for comment here. It is evident that towards the valley no expansion was contemplated by the Belgic builders. On this side, therefore, the margin of the settlement was marked out permanently by the dyke. On the other hand, the possibility of expansion southwards along the plateau was clearly accepted as a possibility, for, on this side, the boundary was marked merely by a palisade capable of easy readjustment. This plateau-wise orientation of interest is further emphasized, as has already been indicated, by the position of the south-east entrance, which is twisted and inset in order that it may open on to the plateau rather than on to the gentle slope of the valley.

VERULAMIUM

ENTRANCE THROUGH PRE-ROMAN DYKE
SOUTH OF THE ROMAN CITIES

SHEWING AREAS EXPLORED



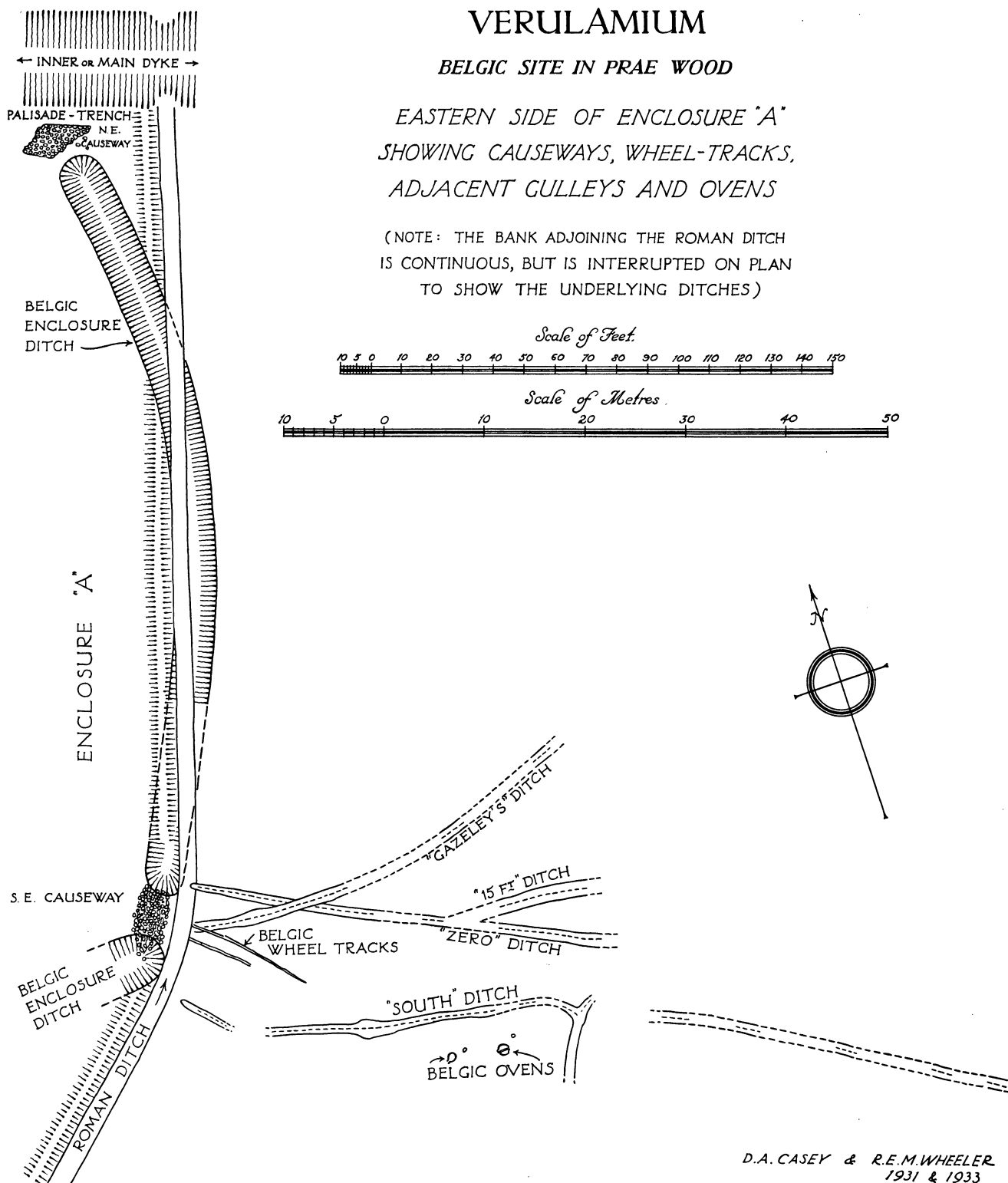
R.E.M.W. 1933

VERULAMIUM

BELGIC SITE IN PRAE WOOD

EASTERN SIDE OF ENCLOSURE "A"
SHOWING CAUSEWAYS, WHEEL-TRACKS,
ADJACENT GULLEYS AND OVENS

(NOTE: THE BANK ADJOINING THE ROMAN DITCH
IS CONTINUOUS, BUT IS INTERRUPTED ON PLAN
TO SHOW THE UNDERLYING DITCHES)



D.A. CASEY & R.E.M. WHEELER
1931 & 1933

PHASE 2

The second phase appears to be represented only in Region I. It includes the conversion of the earthwork of this region into a definitely military structure by the addition of an outer ditch and of a palisade to the inner margin of the original ditch (pl. xvii). At the same time, as sections at three separate points in and immediately adjoining Prae Wood showed, the old ditch was, in part at least, recut; whilst, at the north-west end, beyond enclosure A, the line of the inner ditch was continued to form an L-shaped terminal which was proved by excavation (pl. Lxix B) to end in fact where it now ceases on the surface. The purpose of this terminal can scarcely be in doubt: now that the earthwork was, in a military sense, defensive, a space in front of it was cleared of undergrowth and had to be closed at the end of the system by a salient arm. It may be observed that this arm has to-day, and probably always had, an inner bank far more formidable than the slight bank, probably nothing more than the upcast from the recut ditch, which elsewhere belongs to this period. The salient controlled, in fact, one of the weak points of the system and was thus proportionately formidable.

The new palisade, placed amidst the upcast above referred to behind the lip of the main or inner ditch, was found, at one point, to cut through an earlier hearth (pl. Lxxiv B) and, at another—in the eastern entrance of enclosure A—through the earlier road-metal (pl. Lxxii). It is now represented by a continuous trench which is on the average 2 ft. deep below the original surface and 1 ft. 6 in. wide (pl. Lxxiv). Only for the last 30 ft. in Pond Field, near the eastern angle of Region I, had an ancient lowering of the ground-surface removed all possible vestige of it.

Towards the eastern angle of Region I, the new outer ditch is represented by the dog-legged stretch of the Hemel Hempstead road and by a drop in the level of the adjacent garden-wall of Prae Wood Farm. At the angle itself, it returns sharply to meet the original ditch immediately outside the T-end of the palisade which divided Region I from Region II (see pl. xii).

The approximate date of this Phase is indicated by a considerable body of evidence. The rapid silt in the ditch of the L-shaped extension in Prae Wood (pl. xi, cutting xiii A) contained, with Belgic pottery, two or three fragments of early Samian ware, consistent, as Mr. Davies Pryce observes, with a date in the second quarter of the first century A.D. In Pond Field the end of the new outer ditch, where it returns on to the original dyke, was cut into the silt of the latter, and was thus structurally secondary to it

(plan, pl. XII, and pl. LXX B). At this point, the rapid silt of the new ditch contained not only a few fragments of Belgic pottery and brick, but also a few sherds of definitely Roman, but otherwise undatable, grey ware. Close by, within the lower silt of the inner or main dyke—which had, at this point, as elsewhere, been partially recut during the processes of reconstruction—were found a well-stratified coin of Agrippa (Mattingly and Sydenham, Tiberius 32),¹ minted prior to A.D. 37 and lost when in fairly good condition, a fragment of early Samian form 15/17 and part of a Roman amphora, together with sherds of Belgic ware. Lastly, it will be shown below that Phase 3, representing a complete obliteration of the earthwork system at this point, is datable to an early period of the Roman occupation, and gives, therefore, a general *terminus ante quem*.

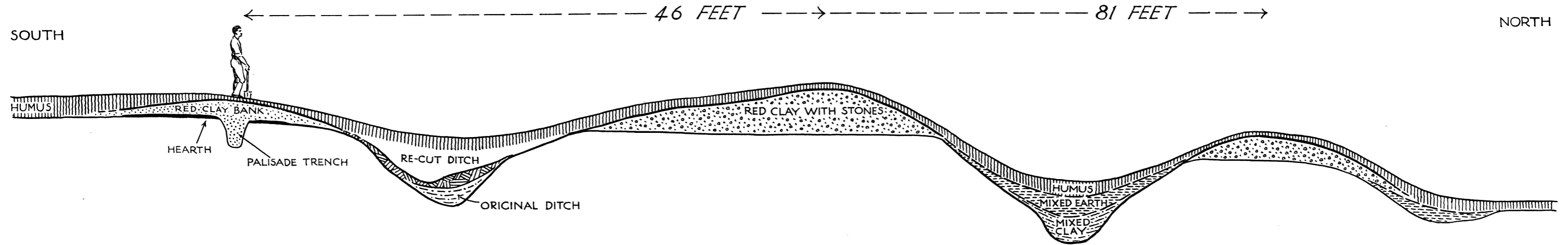
On these various grounds, it is evident that the works of Phase 2 represent the militarization of an earthwork essentially non-military in origin; that the restriction of this defensive remodelling to Region I implies that, at the time, the city lay in this region rather than in Region II; and that these activities occurred not earlier than the second quarter of the first century A.D., whilst the evidence is consistent with a date within that quarter. More than this it is admittedly dangerous to say; but it is difficult to avoid the temptation of associating this sudden military activity with the events of the Roman invasion in A.D. 43. The whole work has about it an air of improvisation, scarcely compatible with the dignity of a first-class city which became a *municipium* within a few years of that date. Moreover, the breaching and partial filling of the earthwork in Phase 3, dated independently to the first century, finds a natural context in that feeling of false security which prevailed in south-eastern England between the conquest and the Boudiccan revolt, and was reflected in the recorded absence of urban fortifications at that time.

PHASE 3

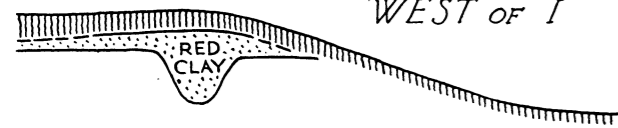
This phase is best represented in the eastern corner of Pond Field, where both the original dyke and the returned end of the added outer ditch were filled up to carry a roadway across their line (pls. XII and LXX A). The filling beneath the roadway contained Samian form 18, a fragment of an early-looking Roman jug-handle, parts of a Roman jug of pink ware and an amphora of red ware, which are normally early, various indeterminate Roman sherds, a small quantity of Roman brick, and a few fragments of

¹ H. Mattingly and E. A. Sydenham, *The Roman Imperial Coinage* (1927, etc.), hereafter generally cited as 'M. and S.'

COMPLETE SECTION AT I ON PLAN



PALISADE-TRENCH 30 FEET WEST OF I



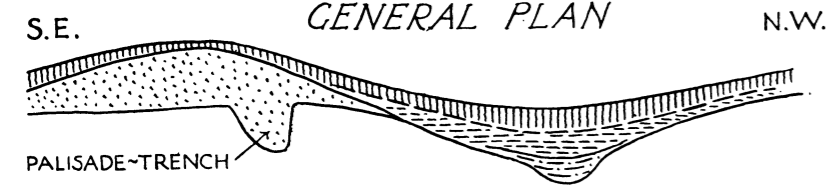
PALISADE-TRENCH CUT THROUGH EARLIER STONE CAUSEWAY AT III ON PLAN



PALISADE-TRENCH AT IV ON PLAN



COMPLETE SECTION AT XIII ON GENERAL PLAN



VERUL'AMIUM

SECTIONS THROUGH PREHISTORIC DEFENCES AT PRAE WOOD



NOTE: the plan referred to in the above sections is Plate XI

Published by the Society of Antiquaries of London, 1936

indeterminate Belgic ware—all suggesting, if not proving, an early Roman date for this material. Similar sherds, including another Samian form 18, were incorporated in the actual metal of the overlying road. Subsequently, the road was repaired with an overlying load of gravel of unequal thickness. On the surface of this gravel was a coin of Cunobelin, lost when in fairly good condition and consistent with a mid first-century date for the work.

The purpose of this road was presumably to supply an easy means of communication between the original town-site on the plateau and the new site on the hill-side where the Roman city took shape in the years following the conquest. During the same period, the earthwork itself was gradually filled up; and the character of the potsherds in the filling indicated that by the middle of the second century the dyke was no more than a slight undulation in the surface. It may be supposed that the process of levelling which was completed by the farmers of later ages was already carried to an advanced stage by the agriculturists of Roman Verulamium.

One other feature remains to be noted. At a date which cannot now be determined, two attempts were made to sink well-shafts into the margin of the Pond Field road (pls. XIII and LXX). The first of these attempts was cut partially into the insecure filling of the main dyke and was, doubtless on that account, abandoned after a depth of $4\frac{1}{2}$ ft. had been reached. It was then immediately refilled with the material excavated from it. The second attempt was carried down through the virgin soil for a depth of $13\frac{1}{2}$ ft. before being abandoned and likewise refilled. Both shafts were cut with the utmost care, the sides being carefully smoothed to prevent collapse. This meticulous workmanship makes it probable that the shafts were intended for wells rather than as incipient dene-holes for the purpose of obtaining chalk—which was incidentally not reached in either case. As to the date of these shafts, all that could be said is that they cut through and were therefore subsequent to the later of the two Roman road-surfaces. They contained only a few pieces of thin brick which might be either Roman or medieval.

2. THE FIRST ROMAN VERULAMIUM ('THE FOSSE')

Extending north-westwards from the second-century Roman defences (below, p. 56), a triangular area, about 35 acres in extent, is bounded by traces of a bank and ditch. Only a part of this bank and ditch has hitherto been mapped—namely, that

part which lies in the vicinity of Prae Wood House. Superficial indications, however, combined with excavation, have enabled the complete length of the south-western side, 2,760 ft., to be planned, whilst excavation in the vicinity of the north-west gate makes it clear that the work extended down to the line of the Watling Street, if not actually to the fringe of the water-meadows. The south-eastern and north-eastern sides have not been identified with certainty, but extensive trenching (E-F, S-T, U-V, W-X and Y-Z on plan, pl. cxix) for the former has, by means of elimination, narrowed down the possibilities with reasonable certainty to the present line (1935) of the Blue House Hill Road. The southern corner is now known by excavation (Q-R on pl. cxix) to be actually under the present roadway (see plan, pl. cxix, at end).

Thus amplified, the Fosse earthwork must have enclosed an area of about 140 acres. That it was in date earlier than the second-century city was suggested by surface-indications and was proved in 1932 by the uncovering of the ditch beneath the later defences in the vicinity of Prae Wood House (pl. lxxix and fig. 3). On the other hand, the associated pottery shows that it was of the Roman period, as its rectilinear character had indeed already foreshadowed. It may be said at once that the pottery in question, both from the ditch and from the bank, pointed to a date not later than the beginning of the Flavian period; and if we accept the implication of Tacitus that Verulamium was an unwalled city at the time of Boudicca's rebellion in the year 61 (above, p. 26), the earthwork must be ascribed to the decade following that event. Here, in fact, are the defences erected by the citizens about their *municipium* in the light of bitter experience.

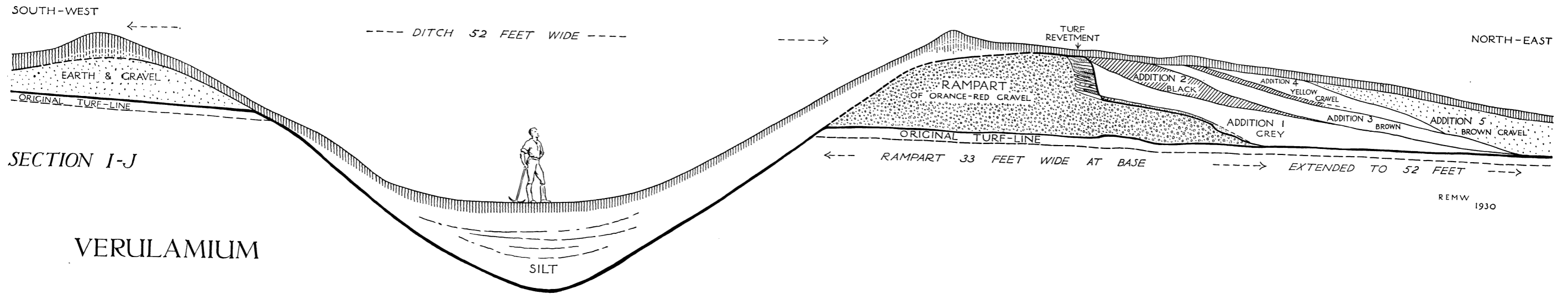
Seven partial or complete sections were cut through the earthwork between its southern corner and the vicinity of the later north-west gate. No entrance was encountered, but there is a slight and somewhat uncertain hint of an interruption about the middle of the north-western side. At the western corner a single wide trench (section M-N) failed to show any trace of a corner-tower, whether of masonry or of timber, but a further search for this feature is desirable.

Of the excavated sections, three only call for description in detail.

Fosse section I-J (see plan, pl. cxix, section, pl. xviii and pls. lxxvi B, lxxviii A)

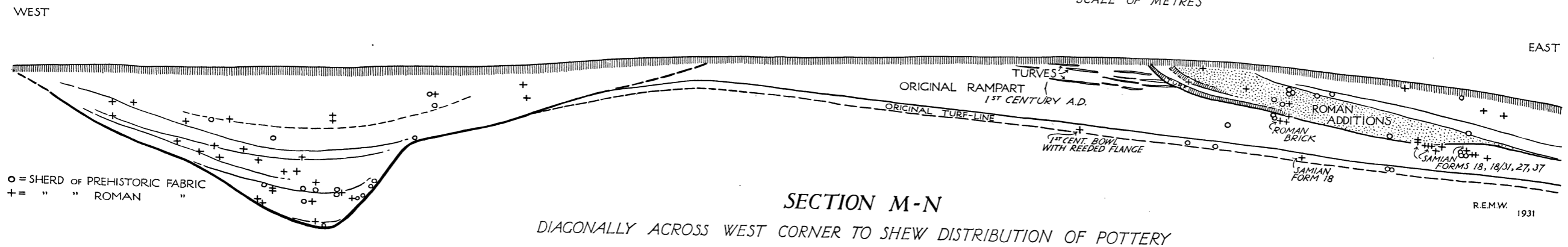
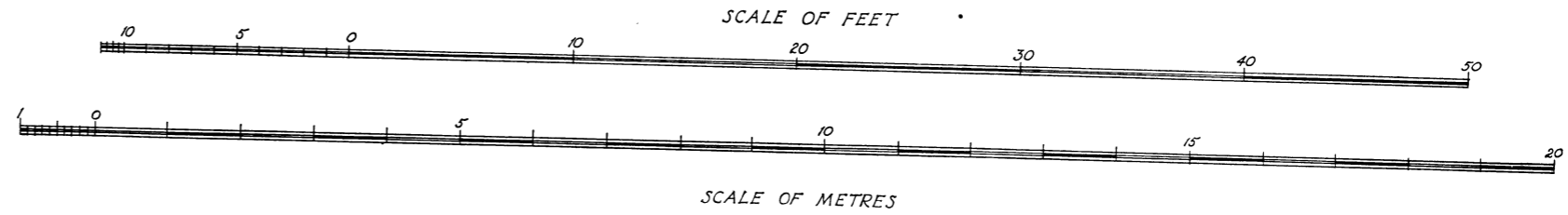
Here the ditch is still formidable and the bank clearly visible. Excavation showed that the former had been about 50 ft. wide and that approximately $6\frac{1}{2}$ ft. of silt occupied the bottom of it; the original vertical depth being about 18 ft.

PLATE XVIII



VERULAMIUM

THE "FOSSE"
EARLY ROMAN EARTHWORK
SECTIONS



On the outer or south-western side, there was a small counter-scarp of earth and gravel.

On the inner or north-eastern side lay the main bank, which survives to a maximum height of about 7 ft. above the original turf-line, and includes material of several successive periods. As originally constructed, this bank was of compact, orange-coloured gravel and had a basic width of 33 ft. From a height of 3 ft. above the base to the surviving summit, the bank was reduced in width by some 12 ft. on the inner side, and above that point the inner face of it was revetted by an almost vertical wall of turves (see pls. xviii and lxxviii A). This arrangement resulted in the formation of a sort of fire-step and parapet, recalling the sandbag-wall or parapet of a modern military trench. Whether the outer face of the bank had been similarly revetted could not be determined by reason of the ravages of tree-roots and rabbits.

Upwards of 30 tons of this hard gravel-bank were carefully examined in this section alone. The fairly abundant pottery found in it was exclusively of native or imported Belgic fabric and of types which, where datable, might be ascribed at Verulamium to the period A.D. 20-60. On this evidence alone, the bank might be regarded as of pre-Roman date; but it is convenient to record here that in the equivalent section through the western corner of the earthwork, a fragment of Samian form 18 and part of a first-century Roman bowl with reeded flange were found on the old turf-line beneath the rampart. This evidence combined with that from the ditch-sections (in particular, below, p. 52) to show a post-Conquest date, and the preponderance of native pottery may be ascribed in part to the proximity of the pre-Roman site (only 100 yards away) and in part to the fact that, at Verulamium, native fabrics remained freely in use until the Flavian period.

Subsequently, the 'fire-step' was submerged beneath a series of additions which ultimately extended the bank to a total basic width of more than 50 ft. The stratification of these additions was well-marked and is sufficiently indicated in the drawing (pl. xviii). Special attention may be directed to the thick layer of burnt material identified as 'addition 2', and to possible traces of an occupation-layer over 'addition 3'. The pottery, however, contained by all these additions was throughout uniform in character and suggests no substantial difference in date between them. In contrast to the pottery from the original gravel-bank, that obtained from these additions was almost entirely of Roman fabric and included many fragments of Samian. The forms represented are 18, 18/31, 27, 29, 33, and 37—the last fragmentary and very indeterminate. Mr. Davies Pryce has kindly examined this pottery

and notes that only one fragment is likely to be as late as the beginning of the Antonine period. The whole series would fit comfortably into the period A.D. 70-140, with a tendency towards the earlier date. The coarse pottery includes fragments of 'poppy-head' beakers which may be ascribed to the first half of the second century, and part of a rough-cast beaker which may be equated in date with the Samian.

It would thus appear that the accumulation of material against the back of the rampart ceased approximately at the period when the later defensive system was constructed.

Fosse section O-P (pls. XIX and CXIX)

The primary purpose of this section was to identify the course of the outlying earthwork at a point where all superficial traces of it had vanished. After some search, the line of the ditch was identified, showing that the more northerly side of the earthwork was slightly convex on plan.

The section revealed by the cutting was an extremely complicated one (see pl. XIX), but its main features were as follows. The original width of the ditch had been approximately 34 ft., i.e. some 6 or 7 ft. less than the width of the ditch in section E-F if the height of the counterscarp be omitted from the latter. The outer slope of the ditch was interrupted near the bottom—a feature which may be merely local. On the sides and in the bottom of the ditch was a considerable mass of silt, which contained pottery of late Belgic and early Roman types, including a rather coarse copy of Samian form 18 and a fragment of Samian form 30 to which Mr. Davies Pryce would ascribe a mid-first-century date. These sherds, together with an early reeded flange and globular bowl were found deep in the silt and must have been deposited soon after the digging of the ditch. Later, the silt was covered with a thick but loose deposit of chalk blocks and yellow, chalky earth, which may well have been thrown down from the former adjacent bank when the second-century Roman defences were constructed close by.

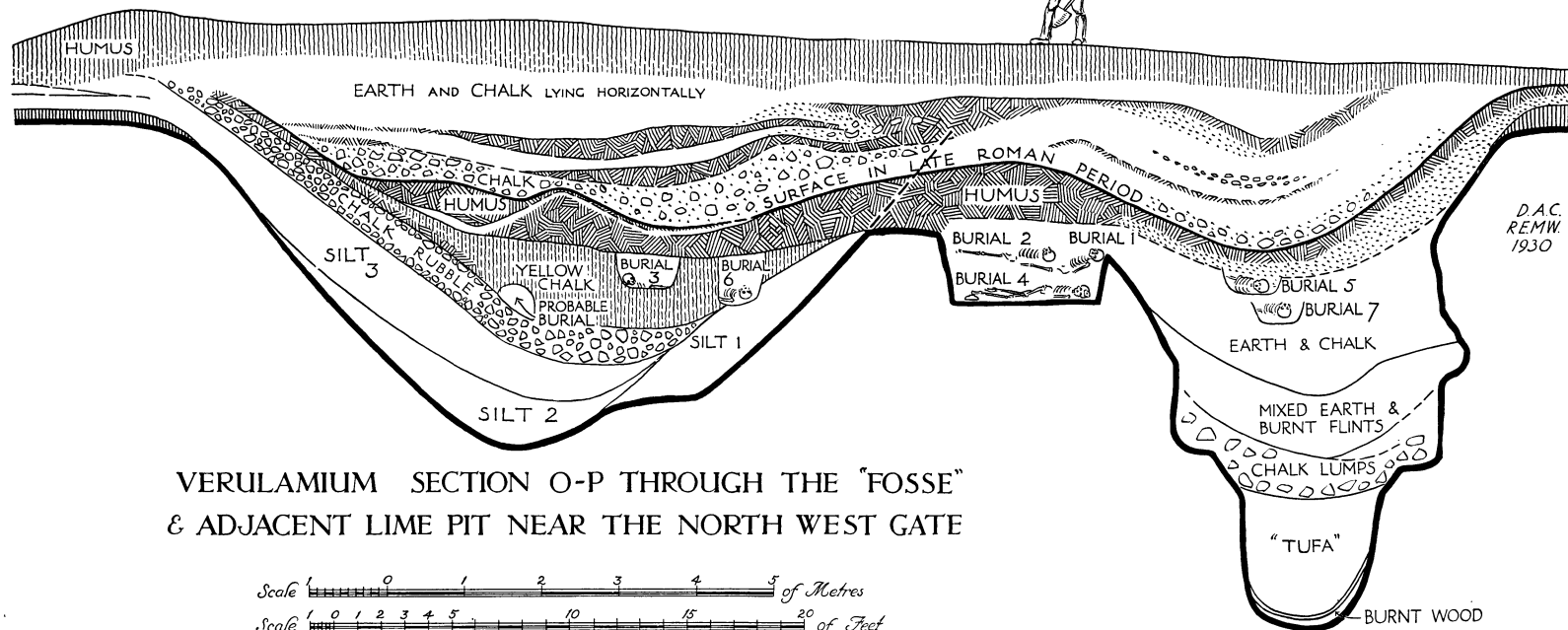
The next phase in the history of the ditch was the partial cutting away of its outer slope during the digging of a deep pit or trench just beyond it. Where excavated, this pit or trench extended to a depth of no less than $23\frac{1}{2}$ ft. below the present ground-level (pl. XIX). Its lateral limit towards the east lay only some 2 ft. beyond the margin of our trench, but to the westward its extent could not be ascertained. The bottom of this pit or trench was filled with wood-ash and masses of chalk, congealed and hardened by intense heat. The only reasonable explanation of this feature is

SOUTH-EAST

NORTH-WEST

←--- DITCH ORIGINALLY ABOUT 34 FEET WIDE ---→

PIT



VERULAMIUM SECTION O-P THROUGH THE "FOSSE" & ADJACENT LIME PIT NEAR THE NORTH WEST GATE

PLATE XIX

that this pit was used in connexion with the burning of chalk for lime on a considerable scale;¹ and the guess may be hazarded that the pit was dug for this purpose during the great work of building the neighbouring town-walls in the second century A.D., and that it was filled up, largely with its own debris, soon afterwards. No direct evidence, however, of the date of its construction or first filling was obtained, save that this occurred before the latter part of the Roman period.

The next phase in the history both of ditch and of lime-pit was the use of their filling for the purposes of human burial. Seven Roman interments were found in the filling, and will be described in connexion with the cemeteries (below, p. 137).

Fosse section G-H (fig. 3, and pl. LXXIX)

This cutting revealed the Fosse vertically beneath the wall and bank of the second-century defences. The bottom of the Fosse was reached at a depth of 17 ft. below the present surface of the second-century bank and in it lay an accumulation of 1 ft. 9 in. of dark silt, subdivided into three or four layers, of which the uppermost contained a considerable proportion of burnt material.

Above the silt, to a maximum height of nearly 17 ft., lay the compact orange-red gravel of the former early Roman bank, thrown back into its ditch at the time of the construction of the later defences. Across this rammed filling, the second-century city-wall had been constructed and a thick spread of mortar further marked the building-level. Above this mortar on the inner side of the wall had been piled the earth of the contemporary bank, into which, along the back of the wall itself, the inevitable trench had been cut by the post-Roman tile-robbers. At this point, the tile-robbers had laboriously removed the lowest course of tiles completely through the thickness of the wall (pl. LXXXIII B).

No coins were found in the section, but the pottery falls into clearly defined and useful groups, and was carefully analysed by the excavators and Mr. Davies Pryce.

1. *Pottery in the silt in the bottom of the Fosse.* The lowest level of the silting contained eighteen sherds, all of native Belgic fabric. No instance has yet occurred at Verulam of *exclusively* native groups of pottery as late as the Flavian period, and such groups are rare even in the Claudian period. It is difficult, therefore, to date

¹ The late Dr. H. H. Thomas of the Geological Survey agreed that the pit was 'possibly for burning lime'. He added that the tufa (for such in fact the material now is) had probably been formed by rain-water draining through burnt chalk, i.e. lime left in the bottom of the pit. Similar material was found in the Roman fort at Richborough in shallow pits, associated in the same way with burnt wood.

this group later than the period Claudius–Nero, and a lower limit of *c.* A.D. 60 is a safe inference.

Above the lowest silt a layer of gravelly brown soil contained a fragmentary brightly glazed rim of Samian form 29 (ascribed by Mr. Davies Pryce to the period Nero–Vespasian), two fragments of form 18, one of form 18 or 18/31, one of first-century form 27, and one of form 36 of first-century fabric. The whole of these sherds fall well within the second half of the first century A.D., and to the earlier rather than to the later part of that period. With them was associated a large quantity of coarse ware of which 90 per cent. was of native fabric, and included a butt-beaker of a type which is not likely to have been made or imported after the middle of the first century. The group, considered as a whole, was dated independently by Mr. Davies Pryce and the excavators to the period A.D. 40–70.

Above this deposit was a layer containing sherds of the following Samian vessels: two of form 18, one of form 24/25, three of form 27, two of form 36 (of first-century fabric), and two of form 37 of Flavian type. In the associated coarse ware, 60 per cent. of the sherds were of native fabric, a proportion not unusual at Verulamium in groups of early Flavian date. The whole deposit may be ascribed with confidence to the period A.D. 60–90.

The burnt layer which completed the silt in the ditch contained fragments of two Samian vessels of form 27 and one of form 35/6, all probably of the first century. With them was a small quantity of mixed Roman and native coarse ware approximately of the same period.

In summarizing the whole of the pottery from the various layers of the silt, Mr. Pryce remarks that 'almost all the sigillata or Samian fragments are datable to the first century, and no fragment can be definitely placed as late as the beginning of the second century'. If the evidence of the coarse ware which is free from Samian in the bottom of the ditch is solely considered, the Fosse might well be regarded as a construction of the Claudian period. It can, at any rate, scarcely have been later than the time of Nero.

2. *The pottery from the city-bank overlying the filled-in Fosse* will be considered in a later context (below, p. 57), but may be catalogued here for completeness. This bank, contemporary with the construction of the city-wall, contained a large number of Samian sherds notably of the following: form 15/17, period Tiberius–Claudius; form 18, first century; four of form 18/31 of late first or early second-century date; three of form 27 of first-century type; three of form 27 of second-century type; two of form 33 of late first- or early second-century type; one of form 35/6

VERULAMIUM SECTION G-H SHOWING THE "FOSSE" UNDERLYING THE 2ND CENTURY CITY-WALL NEAR PRAEWOOD HOUSE

SOUTH-WEST

NORTH-EAST

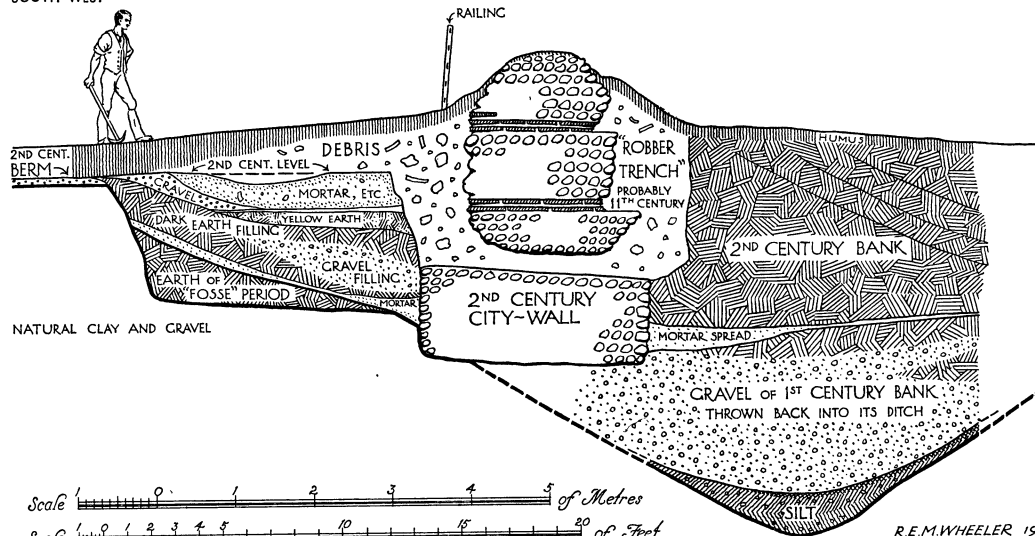


FIG. 3.

of first-century fabric; four of form 37, comprising one of the *Germanus* school and of Flavian date; two of the period Trajan-Hadrian and one (demi-medallion containing an upright three-bladed plant on an astragalus; panel-decoration, demarcated by rows of medium-sized beads) of the period of Hadrian. Mr. Pryce remarks that 'the sigillata found in the wall-bank extends from early in the reign of Claudius down to the reign of Hadrian. The decoration of the fragment of the form 37 is neither typically Trajanic, nor on the other hand is it typically Antonine. The evidence of this group of pottery, therefore, conforms with a pre-Antonine date for the building of the defences.' It may be added that the evidence of the associated coarse ware is entirely consistent with this conclusion. Much of it is of first-century type, and none of it need be later than the first quarter of the second century.

3. THE SECOND ROMAN VERULAMIUM

(1) THE DEFENCES

The defences which stand for Roman Verulamium in the modern eye are close upon two miles in length and enclose an area of upwards of 200 acres. It may be said at once that, though inscriptional evidence is lacking, abundant evidence from other sources indicates a date in the second quarter of the second century A.D. for these works. Their historical context has been considered above (p. 27).

The defences consisted of (1) an earthen bank, fronted by (2) a brick-laced flint-wall, with (3) salient round-fronted towers, and (4) large gateways likewise with projecting towers. In front of the wall lay (5) a single ditch or, at one point, two ditches, separated from it by a berm 15 to 25 ft. or more in width. During the excavations, two complete sections (pl. xx) and one partial section were cut through the defences at A-B, C-D, and G-H on the general plan (pl. cxix), whilst at the southern corner a considerable stretch of the defences has been cleared out for permanent preservation. Two towers were opened up along the line of the southern wall and the south-east, south-west, and north-west gateways were uncovered.



1. *The Bank*

The bank was from 45 to 50 ft. broad, and is still preserved to a maximum height of 12 ft., which probably approximates to its original dimension, although there were no traces of a paved walk along the top of it. Its erection was contemporary with, though constructionally secondary to, the wall; the latter was built free

and the mortar-spread from it underlay the bank, but the condition of the masonry showed that it had been protected immediately by the earthwork, whilst the absence of sliced flints from the internal facing suggested that this was not intended to be seen. Moreover, the tower west of the south-east gate was of one build with the wall and was from the outset specially buttressed to withstand the extra thrust of the bank on the downward slope at this point (see below, p. 61).

The bank, built of the chalk, earth, marl, and clay from the diverse local soils, showed in section the tip-lines normal to such structures, but was the work of a single period. The only secondary feature which it revealed was the consistent presence of a spoil-trench of varying depth cut through it along the back of the wall by tile-robbers, presumably in the Middle Ages (cf. above, pp. 38 and 53). The later Saxon abbots of St. Albans are known to have scoured the Roman city for building-material, but the persistency and careful method with which this spoil-trench was cut round the circuit of the walls suggests the systematic ransacking which must have accompanied the rebuilding of the Abbey on a large scale with Roman material after the Norman conquest. The character of the filling of this spoil-trench showed that the despoilers cut down to the lowest tile-course first and worked upwards, with a temporary platform at each tile-course: thus maintaining throughout their work an intact and safe wall-face above their heads.

The three sections through the bank, together with the clearance involved in the exploration of the towers and the south corner, produced a large mass of material bearing upon the *date of the bank* and therefore of the defences to which it belonged. First, the pottery from occupation-levels covered by the material of the bank, and therefore antedating it, was found in quantity in sections A-B and G-H, and to a less extent in section C-D. It was almost exclusively and typically of first-century date, and careful examination of it, sherd by sherd, in consultation with Mr. Davies Pryce, indicates A.D. 100 or 110 as the latest date ascribable to any part of it. It includes Samian forms 18 or 18/31 (9 examples), 24/25 (1), 27 (9), 29 (4), early 33 (2), early 36 (2), early 37 (3), and much coarse ware, mostly of Flavian date. The same underlying levels produced a *sesterius* of Nero (A.D. 64-8; Mattingly and Sydenham, 214). Secondly, from the substance of the bank itself, which was commonly separated from the underlying occupation-material by a clay-levelling, many hundreds of sherds of first- and early second-century date were recovered. They included the following Samian forms: 15/17 (3), 18 (10), 18/31 (8), 31 (1),

27 (17), 33 (10), 35/36 (2), 37 of the period Flavian–Hadrian (11), 42 (1). Of this mass of pottery, one sherd has been singled out by Mr. Davies Pryce as potentially later than the others and may be regarded as the latest identifiable constituent of the whole group. It is a single small fragment of form 37 bearing part of a dog (Déchelette type 934), which occurs frequently on bowls of forms 30 and 37 by *Cinnamus*. Dr. Felix Oswald would ascribe it to the earlier work of that potter and adds: ‘the earliest possible date for the fragment may, I think, be put down as A.D. 130 and the latest may be 145, or 150 at the very latest’. Mr. Davies Pryce concurs with this view. It may be observed that the overwhelmingly pre-Antonine character of the mass of associated pottery (most of which was, indeed, of first-century types) supports the earlier rather than the later of Dr. Oswald’s limiting dates for the exceptional sherd.

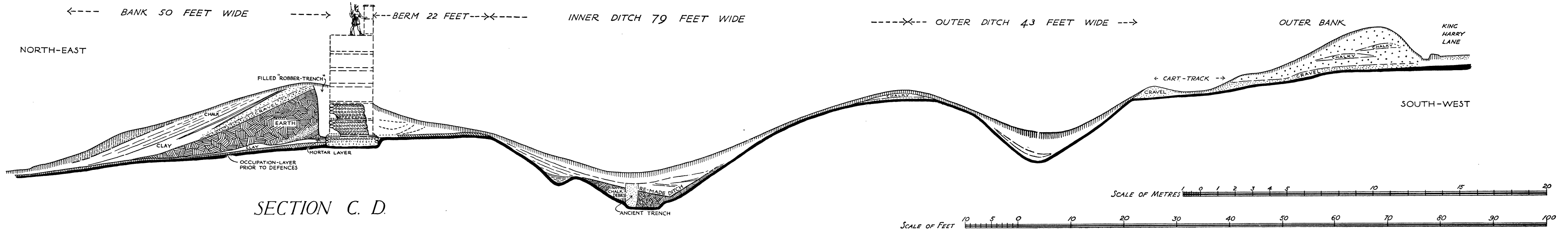
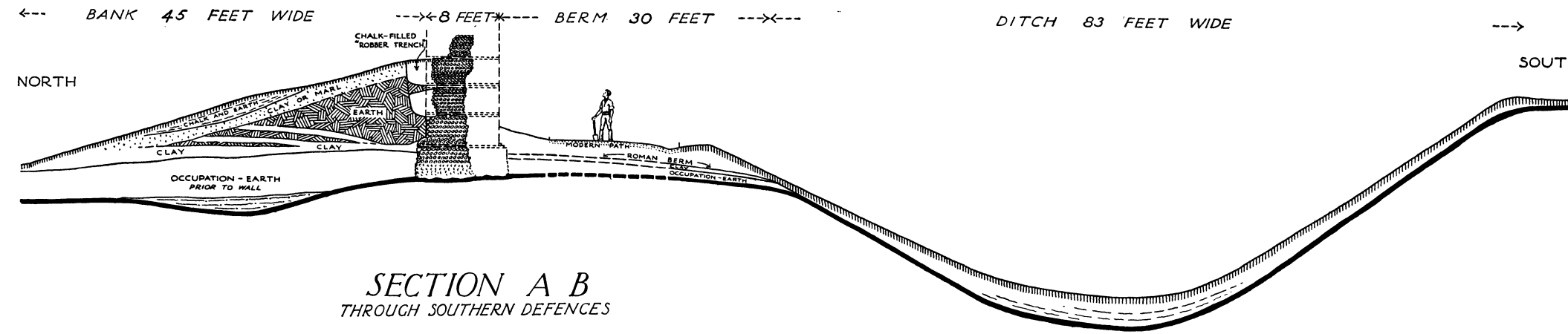
In summary, therefore, we may say that the evidence recovered from the bank alone points to a date not long after A.D. 130 for the construction of the defences. Other evidence will be considered in due course.

2. *The City-wall*

The city-wall was built on footings 9 ft. 9 in. broad, above which it was reduced by a single internal and triple external scarcements (pl. LXXX) to a width of 7 ft. Its construction varied in detail from point to point, showing that, like most Roman walls of the kind, it had been built more or less simultaneously by different gangs of workmen to which individually a considerable degree of initiative was allowed. Thus in some sections the flint-rubble is carefully pitched and coursed, whilst in others regular coursing is almost absent. The brick lacing-courses likewise vary slightly in level and thickness from section to section. A curious feature which is also not consistent is the use of small circular putlog holes running completely through the thickness of the masonry. They average 4 in. in diameter and, where the measurement is recoverable, occur at a height of 5 ft. above the contemporary ground-level. Two of them have long been visible in the ‘St. German’s Block’, where they are 24½ ft. apart, and the astonishing suggestion has been seriously made in regard to these that they were intended to hold ‘ring-bolts for mooring ships on the lake outside’.¹ If for no other reason, this explanation may be ruled out owing to the occurrence of four similar holes at the southern corner, where their intervals are 22 ft. 9 in., 26 ft. 9 in., and 25 ft. 2 in. respectively (see plan, pl. xxv). Beyond the fact

¹ *V.C.H. Herts.* iv, 129.

VERULAMIUM SECTIONS THROUGH SECOND CENTURY DEFENCES



that these holes represent light timbering used in the process of constructing the wall, little can be said about them. It is evident from their intermittency that they were not a normal feature of the scaffolding used by the wall-builders of Verulamium; but it may be recalled that similar small holes are to be seen in Roman masonry at Caernarvon and Holyhead.¹

An average section of the wall shows above the footings a double brick lacing-course running completely through the structure, surmounted by a third course of bricks restricted to the facing only, the three courses of bricks being recessed successively to form the total external scarcement of 11 in. The bricks average 1 ft. 4½ in. by 11½ in. by 1½ in. Above these brick-courses, the wall is carried up in flint for a further height of 2 ft. 9 in., the facing-flints being sliced in the better-built portions. Above this is a triple brick lacing-course running through the wall and surmounted by a further 2 ft. 4 in. of flint-work. There follows a double or triple lacing-course and another 2 ft. 9 in. or 3 ft. of flint-work, with yet another double lacing-course above. The maximum surviving height of the wall above the footings is 12 ft. 6 in., but there is no evidence as to the original total dimension. The mortar is hard, whitish-yellow in colour, without admixture of brick-dust, and is liberally used.

3. *The Wall-towers*

Although remains of a tower are said to have been observed long ago on the line of the south wall,² no trace has been visible in modern times until the present excavations. Two towers have now been found and are preserved, as excavated, by the Office of Works. One is situated at the southern corner, the other at a distance of 228 ft. west of the south-east gateway as measured from the western side of the gateway to the centre of the tower. Both towers are essentially similar in plan and may, for the most part, be described together. They were of one design with the town-wall, but the latter was carried up to the level of the second lacing-course before the construction of the towers was begun, provision, however, being made for them from the outset in the form of brick quoins included at appropriate points in the construction of the interior face of the wall (pl. LXXXIII A). Above the second lacing-course, tower and wall are carried through in one build. This structural independence of the component parts in the earlier stages of a heavy building is not uncommon in Roman construction: a well-known analogy to the Verulamium instance is provided by Burgh Castle, Suffolk.

¹ Wheeler, *Segontium*, pp. 61, 95, 106, and Fig. 45. ² *V.C.H. Herts.* iv, 130.

On plan (fig. 4 and pls. XXI, LXXXIB) these towers straddled the wall, the external projection being semicircular and the internal

VERULAMIUM SOUTH CORNER-TOWER

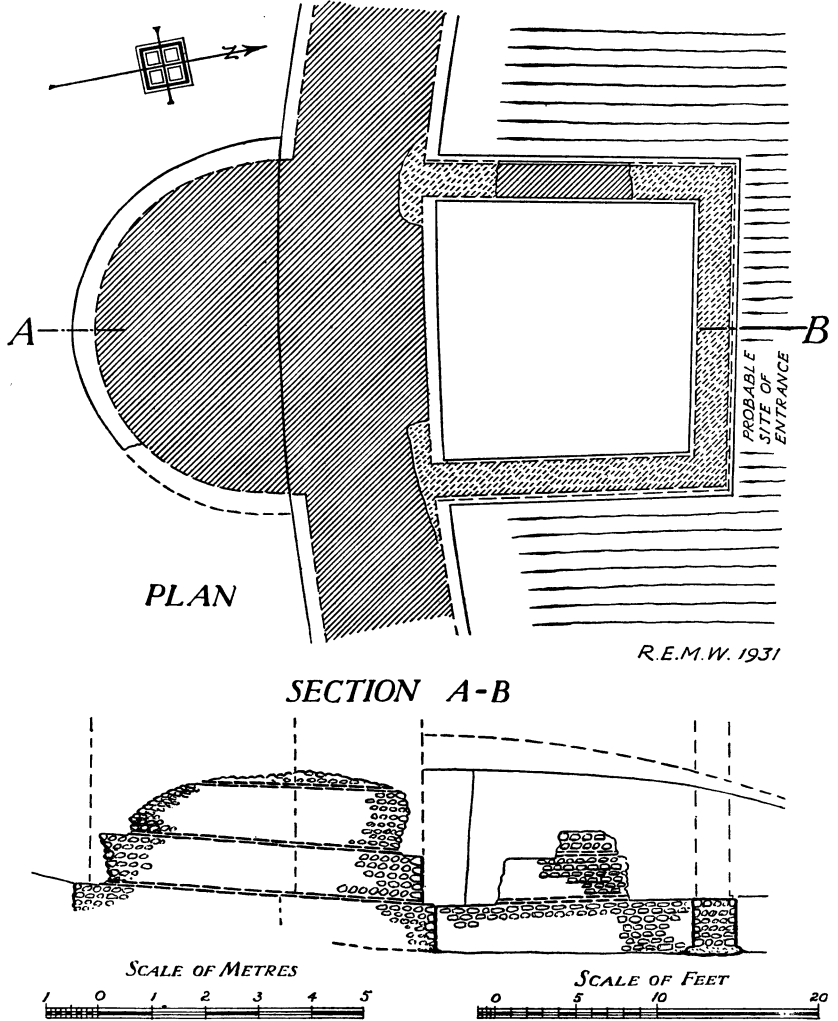
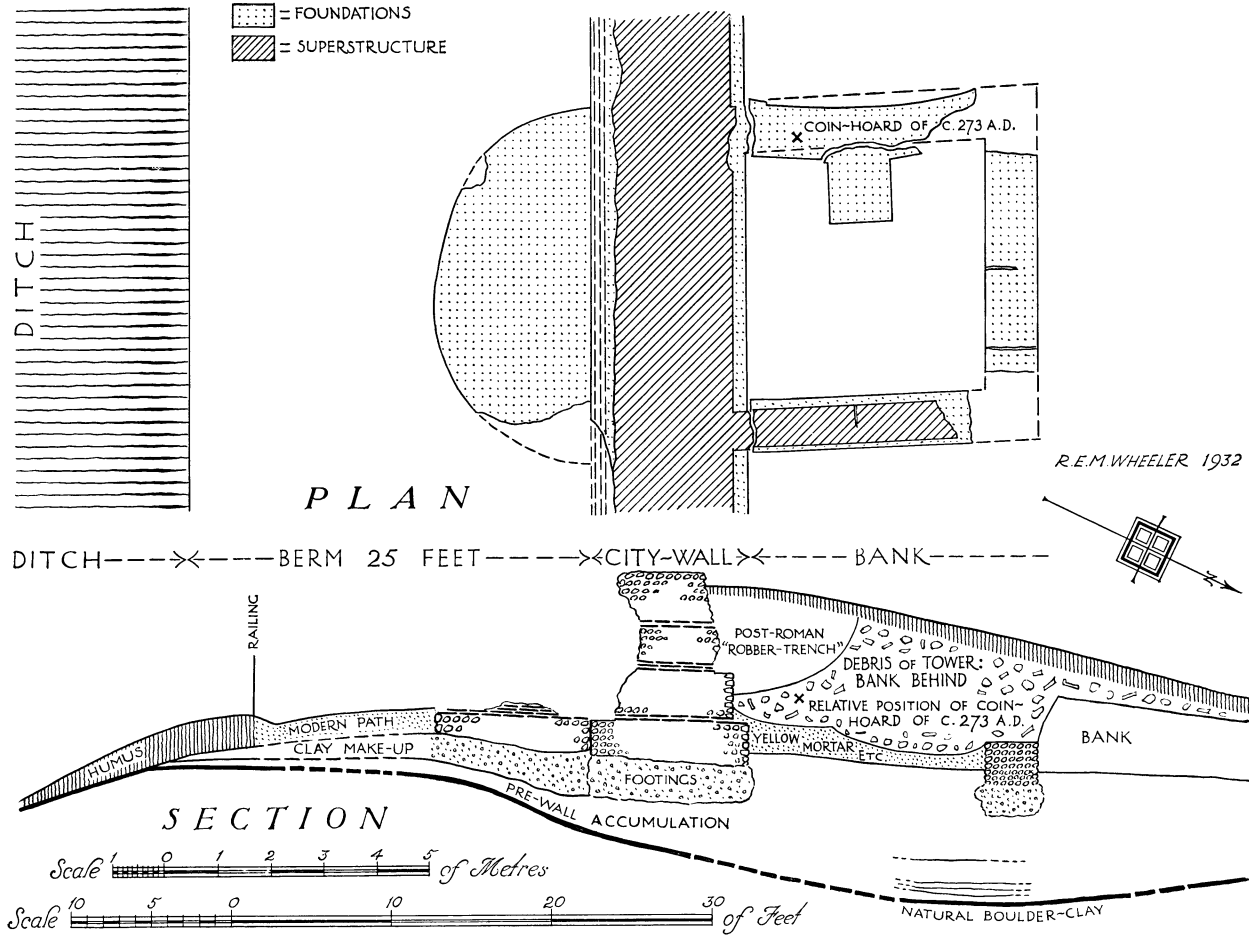


FIG. 4.

projection (encompassed by the bank) square. To a height of at least 8 ft. the outer half of the towers was solid, though presumably at a higher level the tower-chamber ran through

VERULAMIUM

TOWER 228 FEET WEST OF SOUTH GATE



Published by the Society of Antiquaries of London, 1936

into the bastion-front. Solid, or partially solid bastions are commonly associated in our minds with third- or fourth-century castellation, but the tradition, in fact, goes back to the Hellenistic period (e.g. at Mantinea in Arcadia)¹ and represents a natural device alternatively for defying siege-engines or for supporting them. The Verulamium examples, however, form an interesting anticipation of the revival of this feature in the late Roman period and, with their partially hollow construction, may be claimed to represent a logical process of transition between the lighter towers of the spacious Augustan age and the massive bastions of the late Empire.

Structurally, only one detail differentiates the two towers. Within the western wall of the chamber of the more easterly tower is, as noted above, a projection 4 ft. square and of one build with the side-wall. This projection might have been regarded as the basis of a stair or ladder but for the absence of any similar feature in the corner tower. The alternative suggestion, that it represents an internal buttress, is supported by the presence here of two special sources of weakness. The first lies in the upward slope of the ground and the exceptional downward thrust of the adjacent bank on this side. The second is the presence, at this point, of an underlying hollow, 8 ft. deep, which prior to the building of the defences had been used, in the latter part of the first century A.D., as a rubbish dump. The defences, therefore, at this point are built upon a relatively unsubstantial filling which must have added further to the strain on this wall. It is indeed clear enough that the builders had timely warning of this weakness, for the eastern wall of the tower began to subside during the early stages of construction, as is shown by a contemporary compensation at the level of the second brick-course. How far a similar weakness was at first apparent in the western wall cannot now be judged; but, as found, this wall had both sunk and been thrust inwards by combined subsidence and bank-pressure; and the buttress itself had, in addition, fallen partially away from the wall which it was designed to support.

The bank had at a diminishing depth been carried round the innermost or northern side of the tower and remained there at a sufficient height to preclude the probability of an entrance at ground-level. It seems likely that these towers were entered only from the top of the bank or the rampart-walk.

As to the *date of construction*, the excavation of neither tower added much evidence to that found elsewhere in association with the gates and the defences. Shafts cut into the filling already

¹ G. Fougères, *Mantinee et l'Arcadie orientale* (1898), p. 153.

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referred to under the more easterly tower yielded a *sestertius* of Nero and much pottery of late first-century date, whilst sherds found in the adjacent ends of the defensive bank ranged from c. A.D. 80 to 120, but not later.

The inner chamber of the corner tower had been too badly wrecked to provide datable evidence as to the subsequent history of the structure. The eastern tower was more productive. First, a chalk repair to the original cement floor contained a small hoard of five coins, deposited apparently sometime in the second quarter of the third century, when the tower was clearly still in active use. The coins were as follows: Titus (A.D. 77-8—M. and S. 786), Hadrian (A.D. 138—M. and S. 1083), Faustina II (Marcus Aurelius, M. and S. 1642), Commodus (A.D. 190—M. and S. 563), Severus Alexander (A.D. 227-9—C. 569).

Secondly, and more significantly, the tower fell subsequently into complete decay and was largely robbed of its building-materials. That this occurred at a relatively early date, not only to this tower but also to the corner-tower, was clearly shown by the fact that, in both cases, the trench dug everywhere by the medieval tile-robbers along the back of the town-wall cut *through* the tower-debris. The approximate date of the more ancient destruction was indicated in the eastern tower by a fortunate and conclusive piece of evidence. In the earlier debris, 3½ ft. above the centre of the foundations of the west wall of the tower (see plan, pl. XXI), lay a hoard of fifty-two coins as follows: ten of Gallienus (M. and S. 176 (2), 192*a*, 207 (2), 283, 287 (2), 322, 572); one of Salonina (M. and S. 29); six of Claudius Gothicus (M. and S. 14, 79/80, 109/10, 145, 171, 261/2); four of Postumus (M. and S. 54, 90, 323 (2)); seventeen of Victorinus (M. and S. 57 (2), 61 (4), 78 (2), 114 (5), 118 (4)); nine of Tetricus I (M. and S. 56 (3), 87, 90, 100, 136 (2), 141); two of Tetricus II (M. and S. 260, 272); one of Tetricus type (*Pax*); one of Postumus type (*Laetitia*); one of Tetricus or Postumus type (*Victory*). The condition of the coins is very good. Mint specimens occur of Gallienus, Victorinus, and Claudius II, while a considerable amount of silvering appears on coins of Postumus, Victorinus, and Claudius II. The coins of the Tetrici come from poorer dies and show evidence of bad striking.

These coins must have been dropped within a few years of A.D. 273, by which date, therefore, the tower-wall underlying the coins had been reduced to its present fragmentary condition. Nor can the destruction be ascribed merely to the special instability of this particular tower, since, as noted above, a similar destruction was observed at the corner tower where

the foundations were sound. The destruction assumes thus a historical rather than a merely structural significance, and has been considered in that light in the introductory section of this report (above, p. 28).

If the destruction of the tower must be ascribed to a date in the vicinity of A.D. 273, it seems possible that the next phase, which consisted of the 'tidying-up' of the debris over both towers, should be ascribed to the fourth century. The basis for this supposition is no more than a single coin of Constantine I (*Urbs Roma*), but this coin was found deep in the filling over the rear part of the eastern tower, and is more likely to have been dropped during the actual manipulation of the material than to have percolated subsequently. No emphasis, however, is laid upon this minute piece of evidence.

4. *The Gates*

(a) *The South-east or 'London' Gate and the adjacent Watling Street*

Medieval and modern St. Albans have diverted the Watling Street from its ancient course some 700 yards south of the Roman city. Its former line between St. Stephen's and the Roman defences was, however, identified in 1930 by a trench cut across the line of it at a distance of 125 yards outside the latter. The cutting showed that the Roman road lay in direct prolongation of its modern representative south of St. Stephen's.

In section, the road as excavated revealed from three to four main periods of construction. At the earliest period it was only 10 ft. wide, but consisted of gravel bound by lime into a hard concrete. Subsequently it was twice remetalled and enlarged, on the first occasion by means of large pebbles and blocks of chalk. These renewals tended to spread in an uphill or westerly direction; and finally the whole road was relaid on a larger scale completely to the west of its original line. This latest road (pl. LXXXIV B) was well cambered, was on the average about a foot in thickness, and had a somewhat loosely metalled surface consisting of pebble with some broken brick. On its western flank was a cutting from 2 to 3 ft. in width and upwards of 2 ft. in depth, which may have been a part of a continuous roadside ditch.

Evidence as to the chronology of this series of roads was not forthcoming save in the case of the latest, which contained a few sherds of fourth-century pottery, notably a part of a red-coated flanged bowl, roughly decorated with white slip, and of a type common in mid and late fourth-century deposits. Five coins—a worn and possibly overstruck late third-century 'radiate', a 3Æ of

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Valens (A.D. 364-78—C. 47), two of Gratian (A.D. 367-83—C. 13, C. 23), and a 4Æ of Magnus Maximus (A.D. 383-8—C. 7) were found on the surface of the road, and a *Constantinopolis* (A.D. 330-7—C. 21) was found in the metalling. Moreover, the road, with its mixture of small pebbles and brick, was identical in character with the late fourth-century road in the gateway (below, p. 67).

At the point at which the line of the Watling Street thus identified impinges upon the line of the Roman defences, excavation in 1930 revealed the foundations of the greater part of the *south-east* or 'London' gate. Outside the gate, the city-ditch, which is still clearly defined to the westward, is interrupted by a causeway, the original width of which is obscured by modern pathways and other alterations. The gate itself has long been razed to the ground, and owes its partial survival beneath the surface only to the astonishing depth and solidity of its substructure (pls. xxii and lxxxvi).

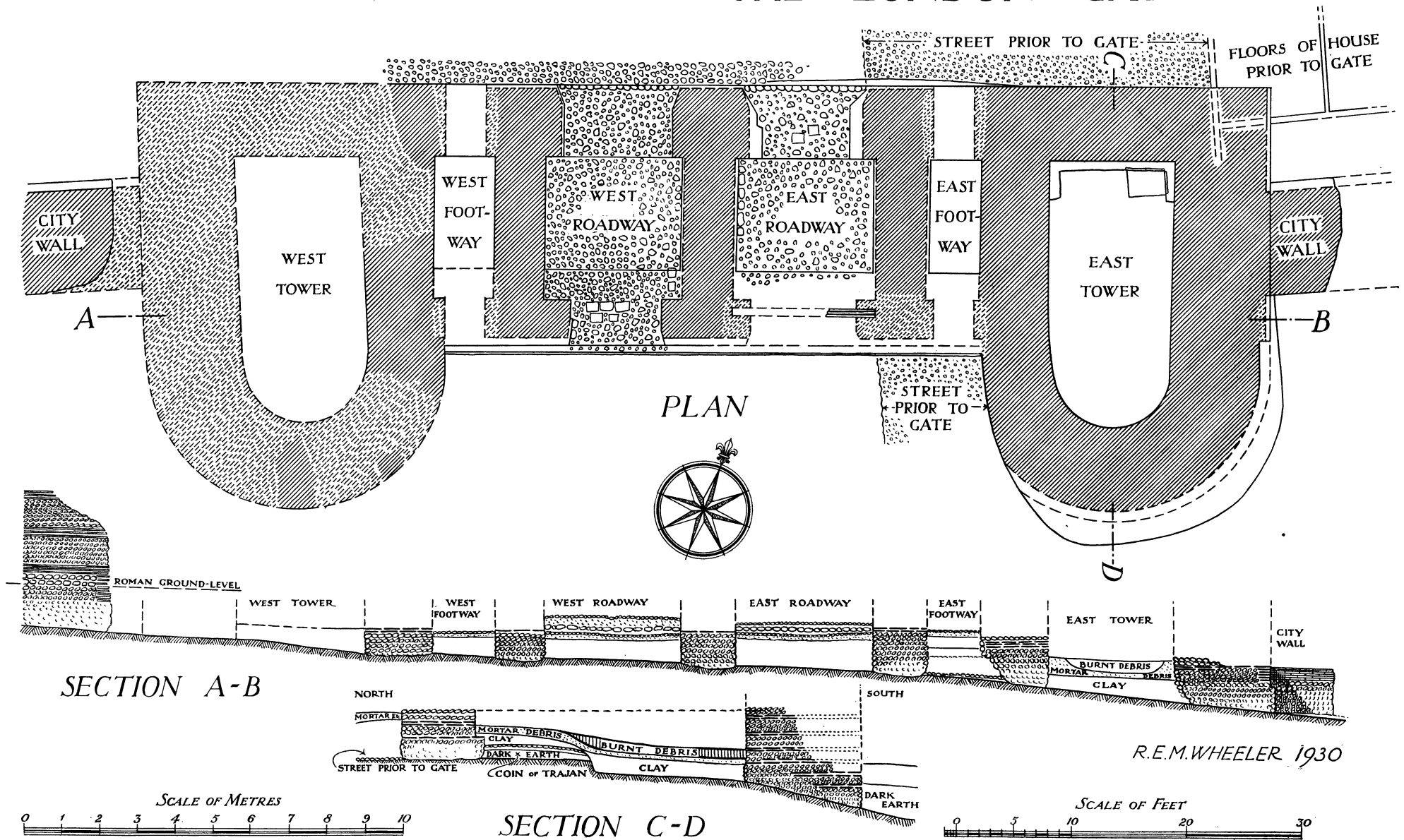
The gate was approximately 100 Roman feet in total width and consisted of two roadways, each 9 to 10 ft. wide, and two footways, from $3\frac{1}{2}$ to 4 ft. wide, the whole flanked by two round-fronted towers which projected about 18 ft. in front of the city-wall and 9 ft. behind it. The gate was set slightly askew in the line of the city-wall, but at right angles to the Watling Street, which approaches obliquely; and the consequent adjustment of the line of the city-wall, together with the uniformity of construction of wall and gate, show that the two works are contemporary.

Although robbed with unusual thoroughness by medieval tile-seekers (who had, incidentally, removed completely the western half of the western tower),¹ the remains were sufficient to indicate all the main features of the structure. The materials were flint-rubble, coursed, and roughly pitched, held together by abundant and hard yellow mortar without brick-dust, and levelled by frequent courses of bricks (see section, pl. xxii). In the substructure of the east tower, which was the best surviving fragment of the gate, the brick-courses were normally double and at vertical intervals of approximately 1 ft. The bricks measured superficially 1 ft. $5\frac{3}{8}$ in. by 1 ft. $\frac{7}{8}$ in. or, less usually, 1 ft. $3\frac{3}{8}$ in. by $10\frac{1}{2}$ in.; and they were normally $1\frac{1}{2}$ in. to $1\frac{7}{8}$ in. thick. The mortar-joints varied from $1\frac{1}{2}$ in. to $2\frac{1}{2}$ in. in depth. As is usual in Roman flint-construction, the principal quoins were turned in brick.

The foundations of the fronts of the towers were carried down nearly 5 ft. into the natural soil, and the whole gate was tied together by massive sleeper-walls running from tower to tower, respectively beneath the front and the rear piers of the openings.

¹ The more complete uncovering of this tower was also prevented by a large tree.

VERULAMIUM : THE "LONDON" GATE



The roads and pathways were of pebble with occasional brick, mortared into the surfaces of the concrete rafts between the piers. The shape of the latter above the ground-level was partially indicated by the surviving shell of the inner end of the central pier. This showed cut-away angles as indicated on the plan (pl. xxii). The shape of the outer ends of the piers was less completely preserved by matrices of road-metal. A striking feature of the eastern roadway was the fragment of an outer sill, built contemporaneously with the gate, and consisting of three lines of heavily mortared tiles set obliquely on edge—a vivid testimony to the absence of any local freestone. There had apparently been no similar sill in the western roadway.

The eastern pier and footway overlay, and the eastern tower largely cut through, a pre-existing pebbled road representing the Watling Street in use prior to the construction of the gate (pl. LXXXVII A). Alongside this early road, and partially underlying the north-eastern corner of the east tower, were remains of a Roman building represented by cement floors, divided by channels from 4 in. to 6 in. in width which had contained wooden walls and partitions (see plan, pl. xxii, and pl. LXXXVII B). Since it was not, at the time, possible to uncover any considerable area of this underlying building, the floors were left intact for future exploration.

The almost complete destruction of the towers of the gate below floor-level had fortunately failed to remove a considerable mass of evidence from which the approximate period of the gate may be inferred. The eastern tower in particular contained and covered a series of well-marked and intact layers which were, with one exception, either contemporary with or prior to its construction. The significant contents of these layers were as follows.

Coins. Two coins were contained by these sealed layers; an *as* of Nero (A.D. 54–68—M. and S. 329) and an *as* of the fifth consulship of Trajan (A.D. 103–11—M. and S. 522). The latter, which was in good condition, was found in a layer of clay which either preceded the gate or was, more probably, inserted during the process of levelling the site at the time of construction.

Samian pottery. Seventeen more or less datable sherds of Samian pottery were sealed by the gateway. Of these, seven are ascribed by Mr. Davies Pryce to the Flavian period; five to the period A.D. 100–30, and five to c. A.D. 110–40.¹ The only potter's stamp (ATTIANI M on form 3I) is included in the last group.

¹ The sherd which appeared both to Mr. Davies Pryce and ourselves to be the latest in character was submitted without comment to Dr. Felix Oswald. Dr. Oswald's opinion is that it 'can definitely be ascribed to the potter *Criciro* of Lezoux. The same lion (Déch. 766) and the same snake and rock (Déch. 960 bis) occur together

The *coarse pottery* sealed by the gate covers approximately the same periods. About seven early 'poppy-head' beakers are represented—a type which occurs with minor changes at Verulamium, as elsewhere, between the years A.D. 90 and 160. Other coarse wares included a sherd of micaceous ware which is normally prior to *c.* A.D. 130. Several fragments of bowls with reeded flanges are of types which occur mainly between A.D. 80 and 120. On the other hand, the remains of two ring-necked jugs show the splayed form characteristic of A.D. 120–60 (see below, fig. 35, p. 196).

In summary, the evidence as to the dating of the gateway is as follows:

1. The structure is definitely subsequent to the fifth consulship of Trajan, which began in A.D. 103.
2. The bulk of the pottery is prior to *c.* A.D. 125, and the rare sherds for which a slightly later date is possible or likely need not in any case be later than the reign of Hadrian—their rarity suggesting a relatively early date within their margins of possibility.

On all grounds, the period A.D. 125–50 may be regarded as liberally covering the whole of the evidence available from the gate. It will be observed that this evidence tallies exactly with that from other elements in the defensive system.

Whether at any period the Verulamium gate, like the Balkerne Gate at Colchester and many other town- and fort-gates in Britain, was partially blocked cannot now be known. Reliable evidence of Roman date subsequent to the construction of the gate is confined to a deposit in the eastern tower, and to reconstruction of the two roadways. In the outer half of the eastern tower, above the strata already referred to, was a layer or pocket of heavily burnt material which had presumably collapsed or been driven into the base of the tower from a former timber floor at a slightly higher level (see sections in pl. xxii). This burnt material included fragments of a Samian bowl, form 38, dating probably from the second half of the second century, a Samian plate of form 31, and part of a funnel-necked jug of a type which had a long life in the third and early fourth centuries (cf. Wheeler, *Segontium and the Roman Occupation of Wales*, p. 167, no. 49). But the most interesting object from this burnt deposit was a die (the trussel) for stamping

in the same association on a 37 signed CRICIRO in the British Museum from London, and on another 37 with CR . . . from Malden, now in the Colchester Museum. Criciro's work is definitely Hadrianic, probably 125–130 A.D.' From this comment it will be observed that Dr. Oswald's dating is somewhat earlier than Mr. Pryce's.

the reverse of a *denarius* of Hadrian. For a further discussion of this discovery, unique for Britain, see p. 222.

In the footways through the gate, no evidence of any repair to the metalling had survived. This was doubtless due, in part, to the lighter traffic which the footways were called upon to support; but it may also be thought to indicate that these were disused relatively early in the history of the gate. The two roadways, on the other hand, showed three main phases of reconstruction with a less distinctive layer or patch between the second and the third. The first reconstruction consisted of the addition of large blocks of flint, etc., corresponding apparently to the large blocks of chalk already noted in the Watling Street cutting (above, p. 63). Two coins, respectively of Claudius II (M. and S. 81) and Tetricus I (M. and S. 100 or 102), were found imbedded in the hard make-up of this new metalling and may be taken as evidence that it was not earlier than the latter part of the third century. The apparent lapse of time—perhaps a century and a half—between the two periods of metalling may seem to be an unduly long interval in the history of one of the main gateways of the town. But it must be remembered that the original road, on its concrete bedding, may be described as masonry rather than as road-metalling, and that it had nevertheless been worn in places almost threadbare before the renovation was carried out. Moreover, there is now widespread evidence that during the greater part of the third century A.D. the civic life of Verulamium was almost at a standstill.

The uppermost road-surface in the two roadways rose to a height of 15 in. above the original concrete road. It consisted of small pebble with much broken brick, and contained in its make-up a third brass of Licinius I (C. 49), a worn and barbarous copy of *Fel. Temp.* type and a third brass of Valens (C. 4). Trodden into the road-surface were a minim of *Fel. Temp.* type and a fourth brass of Arcadius (A.D. 388–95—‘single victory’ type, Arles mint). With this late road may be equated the remade Watling Street outside the gate (above, p. 63). The extensive road-repairs of this period indicate a thorough, if not very skilful, attempt to rehabilitate the Watling Street within the last few decades of the Roman occupation.

In regard to type, the gate is the latest approximately dated example of the series of monumental gateways which are associated more particularly with the Augustan cities of Gaul. The gate of Augustus at Nîmes (16 B.C.), the two surviving gates at Autun, the Porta Palatina at Turin,¹ were all of this expansive four-way type, shielded by flanking towers. In Britain, the only previously

¹ I. A. Richmond, *Papers of the British School at Rome*, xii (1932), 52.

known example of this type was the Balkerne Gate at Colchester, which, however, differs in detail, and may date from the end of the first rather than from the second century.¹ The four-way type as a whole belongs to the earlier phases of Imperial town-building, when, in the first flush of provincial urban development, the Roman authorities were spending lavishly with a view to impressing and Romanizing the provincial population and, doubtless, attracting capital into the new provinces. In Gaul this phase followed naturally upon the complete subjugation of the province by Julius Caesar; that is to say, it coincided with the principates of Augustus and Tiberius. In Britain the equivalent phase of development began in the Flavian period, when the effective pacification of the province seemed imminent; but the start was a false one and it was not, as it seems, until the conservative régime of Hadrian that the 'Augustan' era of Britain may be said to have begun (see above, p. 26). Of that era, the Verulamium gateways are a worthy symbol.

(b) *The North-west or 'Chester' Gate*


The north-west or 'Chester' gate closely resembled the south-east gate in design and construction (pl. xxiii), and need not therefore be described in detail. It had everywhere been robbed by tile-seekers to a depth below the ground-level contemporary with the gate (pl. lxxxviii A), whilst 'Gorhambury Drive' had been driven completely through the greater part of the two main Roman roadways. Nevertheless, the substructure of the north-eastern tower in particular was fairly well preserved, and in both that and in the south-western tower a considerable mass of stratified Roman material remained intact. The only structural points which call for note are the remains of a relieving-arch included, for no apparent reason, in the base of the south-western wall of the north-eastern tower; and remains of a series of offsets which had formerly existed along both outer and inner fronts of the north-eastern tower and were overridden by the abutting end of the city-wall. The foundations of this tower, owing to the fall of the ground, had been deeper and more substantial than those of its neighbour.

Throughout the site there were traces of occupation prior to the construction of the gate. The traces included animal bones, ash, and considerable quantities of pottery, but no masonry or flooring. Beneath the south-western tower were remains of a narrow, clay-lined hearth or oven. As a whole, the pottery from this first pre-gate occupation was predominantly native (Belgic) in character, but included some slight admixture of early Roman

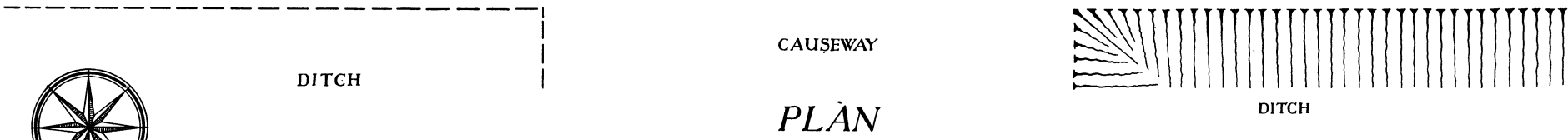
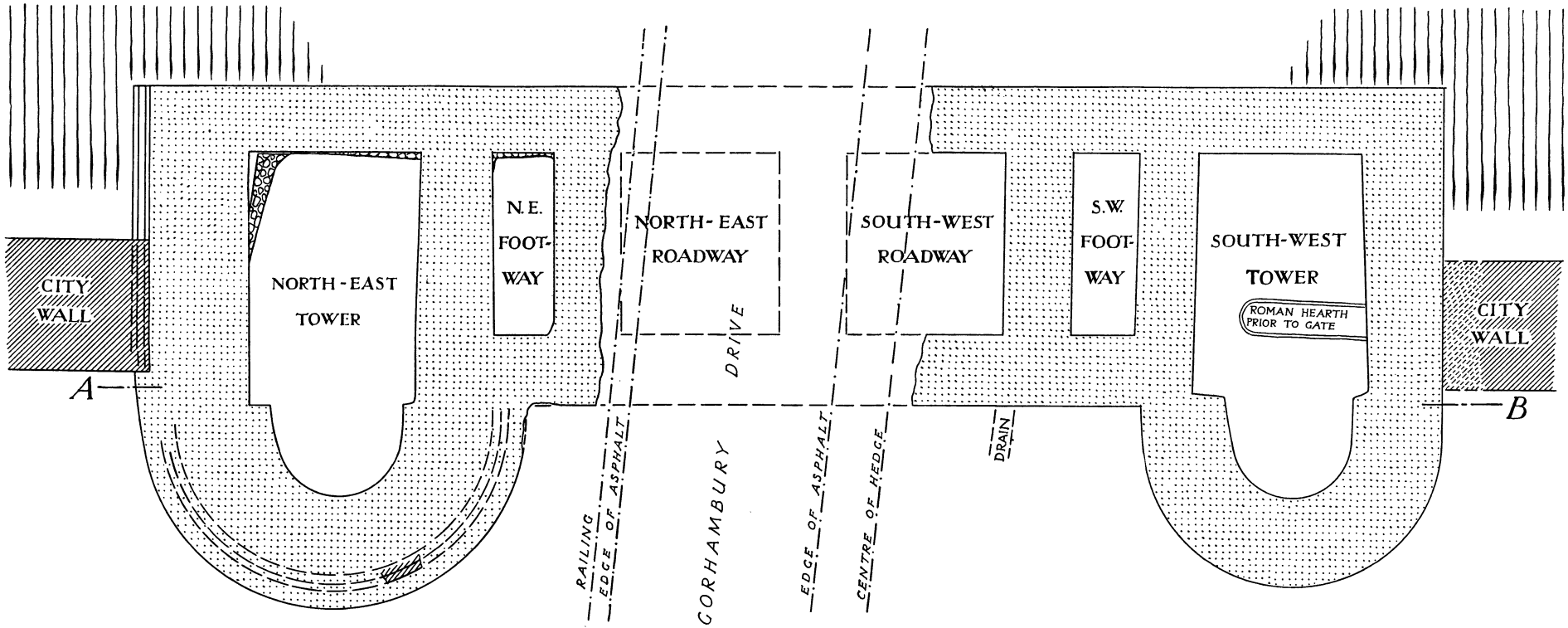
¹ *Essex Arch. Soc. Trans.* (N.S.), xv (1920), 179.

VERULAMIUM

THE "CHESTER" GATE

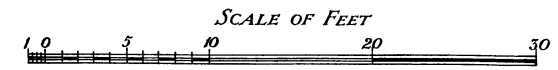
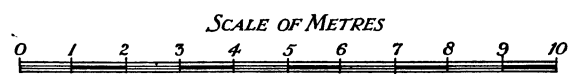
 = FOUNDATIONS

 = SUPERSTRUCTURE



SECTION A-B

R.E.M. WHEELER 1931



wares. The latter were of first-century date (probably all pre-Flavian) and included small fragments of Samian forms 16, 18, 24/25, 27 (stamped [PRI]MI), Ritterling forms 9 and 12; part of a grey Belgic plate and of a first-century 'carrot-shaped' amphora may also be noted. From this layer came two 'poor-men's' brooches of first-century type. The general impression given by the material was that it exemplified an extension of the Belgic culture into the early Roman period, and represented, therefore, as its site would indicate, a part of the earlier Roman city.

Over this well-defined occupation-layer was another, also pre-Flavian in character. It contained parts of Belgic and sub-Belgic plates, together with Samian forms 18, 27 (stamped MO[MO] retrograde) and 29. Above this second occupation were successive deposits of material which were not, for the most part, in their original position: i.e. they had been thrown in during the construction of the gate to bring the final flooring to the required level. These deposits, together with surviving fragments of the actual clay flooring of the towers, included pieces of painted wall-plaster and much pottery of the following types: Samian forms 15, 17, 18, 18/31, 27, 29, 31, 33, 37, Ritterling 5 and Curle 11; and, with a fair quantity of native and Belgic wares, fragments of bowls with reeded flanges of late first- and early second-century date, and part of a small rough-cast goblet. Most of the pottery is of first- rather than second-century date, and none of it need be later than the reign of Hadrian. The latest identifiable sherd, a fragment of Samian form 37, bears an ovolo rather like that of the Trajan-Hadrian potter *Ciriuna* of Heiligenberg (R. Forrer, *Terra-sigillata von Heiligenberg*, Taf. xxiii, 4), and is ascribed independently by Dr. Oswald and Mr. Pryce to a period not later than A.D. 125 or 130. Three coins were also found in sealed layers beneath the flooring and the original road-metal of the gate: a worn *as* of Nero (A.D. 66—M. and S. 321), a *dupondius* of Trajan (A.D. 98—9—M. and S. 385), and a *dupondius* of Hadrian (M. and S. 570) dated A.D. 118—19, and lost when still in good condition. This last coin is of special importance. It was found in the clay immediately beneath the hard layer of road-metal of the eastern footway, a few inches north of the outer sleeper-wall. This clay was otherwise unproductive and it seems likely, therefore, that the coin was dropped during the actual construction of the gate. Amongst the great mass of material which has now been obtained from building-layers of the defences during the extensive exploration of them at eight different points, ranging from the north to the south gates of the town, this coin is the latest object to which an exact date can be ascribed.

Of the repairs to, and accumulations on, the original floors to the towers, fragmentary patches remained *in situ*, notably in the south-western tower. These included, first, a layer of debris, containing roof-tiles, which overlay the original clay floor and suggested a partial destruction of the building. This debris had been roughly levelled, and over it had formed a layer of 'occupation-earth', which contained a semi-barbarous third brass of Magnentius (A.D. 350-3—C. 71). Over this again, the floor had been repaired by means of a layer of chalk, over which was a thick layer of burnt material containing much roof-tile and again suggesting a partial destruction of the gate. This destruction seems to represent the final phase in the history of the building.

The inner lip of the town-ditch was found at a distance of $4\frac{1}{2}$ ft. beyond the front of the south-western tower. The ditch was not completely opened up, but it was found to be clay-lined and to have been brought to a sharply cut square end in front of the south-western footway. On the assumption that the causeway thus formed was symmetrical with the gate, it was 39 ft. broad. The metalling of the causeway showed two main periods of repair and had, at the lowest level, been penetrated by a timber drain-pipe (see plan, pl. XXIII), now represented by a vacant socket and an iron collar-junction of the usual type. This drain-pipe probably came from the south-western footway in which two other junctions were found. Embedded in the topmost metalling was an open-work bronze disc with a Celtic triskele ornament which is of considerable interest in view of the probability that it is of late Roman date (below, p. 216).

The bank thrown up contemporaneously with the construction of the gate and the main defences¹ clasped the inner ends of the gate-towers, and was examined on both sides of the gate. The pottery contained by the original material of the bank included the following: Samian forms 15/17, 18, 18/31, 27, 29, rouletted 30, 31, 33, 35/6, 38, 40, Curle 23, Ritterling 12, together with much native ware, bowls with reeded flanges of late first- and early second-century date, micaceous ware, Belgic and imitation Belgic ware, ring-necked jug of late first-century type, and 'poppy-head' beaker. Much of this pottery is of first-century date and none need be later than the reign of Hadrian. Amongst the small finds included in the material was a 'poor-man's' brooch of first-century type.

¹ If further evidence be needed to show that the gate is not later than the city-wall it is here shown clearly by the fact that, on the north-eastern side of the gate, the end of the wall overlaps the offsets of the gate-tower, as noted above.

(c) The South-west Gate

The position of the south-west gateway was indicated by an interruption of the partially filled ditch. A search for the structure in 1895 proved fruitless,¹ and fresh investigation in 1932 readily explained this conclusion. At some period—perhaps since 1700, when the remains of the gate are supposed to have been still visible—the city-wall at this point had been uprooted down to the pebble footings; and the pillagers had followed the line of the wall right across the site of the gate.

In spite of this wholesale destruction, it has now been possible to reconstruct the plan of the gate with certainty. It was flanked by square towers which projected beyond the external face of the city-wall, and the projecting portions of these towers had escaped the attention of the wall-robbers (pls. XCA and XCIA). As in the case of the south-east gate, the structure of the south-west gate had been set carefully at right angles to its roadway and, since this lay at a slight angle with the city-wall, the projection of the flanking towers is unequal (see plan, pl. xxiv).

The towers, like those of the south-east and north-west gates, had been tied together by a pair of sleeper-walls. The general character of the gateway itself was recovered by the fortunate preservation of a considerable portion of the road-metalling within it. The interval between the towers was 30 ft., a width unlikely to have been spanned by a single arch. Moreover, a single-arched entrance to one of the main streets of the town would, on general grounds, be unlikely. On the other hand, both of the sleeper-walls were wholly or partly covered by road-metal in the middle of the plan, and a central pier is thus out of the question. The gate must therefore have had three openings, a wide central one for the roadway and two small lateral ones for footways. With this scheme, as the plan indicates, the evidence conforms.

It may be observed in passing that an exact analogy, both in general design (as restored) and in constructional detail, was excavated in the Trajanic colony at Xanten in Germany in 1902.² The Xanten gate was not dated by direct evidence but appears to have been secondary to a town-wall ascribed to a period not earlier than the end of the first century. The type of gate with square projecting towers, moreover, was used by military engineers in Britain at the beginning of the second century, e.g. at Caerleon and at Brecon, in Wales.

In front of the towers, excavation showed that the city-ditch had ended squarely on each side of a causeway, 38½ ft. wide. The

¹ *V.C.H. Herts.* iv, 130 (footnote).

² *Bonner Jahrbücher*, cx (1903), 182.

line of the ditch, parallel to that of the city-wall, was at a slight angle with the front of the gate. By the inner lip of the ditch opposite the south-east tower were found two large blocks of free-stone, identified by the late Dr. H. H. Thomas of the Geological Survey as oolite from Oxfordshire, probably from the Chipping Norton district, which is the nearest outcrop of the Great Oolite and is on a direct route via Bicester and the Akeman street. Of the two blocks, one is plain; the other, 3 ft. 7 in. long, is moulded to form part of an architrave (pl. xc v). These blocks are the only available indication of the character of the superstructure of the Verulamium gateways.

On the berm opposite the north-west tower, a pit containing first and early second-century pottery was sealed at the time of construction. Hereabouts also, as elsewhere under the gate, was a considerable accumulation of material containing first-century pottery and of pre-gate period.

Within the surviving fronts of the towers, remained an intact succession of deposits extending from the date of construction to the end of the third century A.D. An intermittent line of mortar marked the building-level, and, above this, a sandy layer represented the disintegrated substance of the yellow concrete with which the towers had originally been floored. On this, in turn, was an occupation-level, above which the floors of both towers had been made up at four successive periods.

In the south-east tower the burnt occupation-layer on the first of these renewals contained a second brass of Lucilla (A.D. 147-83—M. and S. Marcus Aurelius, 1750), which had been lost whilst in moderate condition. The second renewal in this tower was made up largely with broken brick and was again capped by much burnt material containing a posthumous coin of Claudius II (M. and S. 261/2). In the make-up of the subsequent and last-surviving floor was a coin of the Tetricus period (c. A.D. 270).

In the north-west tower datable relics were less widely distributed; but the uppermost renewal consisted mainly of a hearth, built of clay and broken brick, which sealed a coin of Claudius II (M. and S. 105), and contained in its structure a coin of Carausius (M. and S. 288).

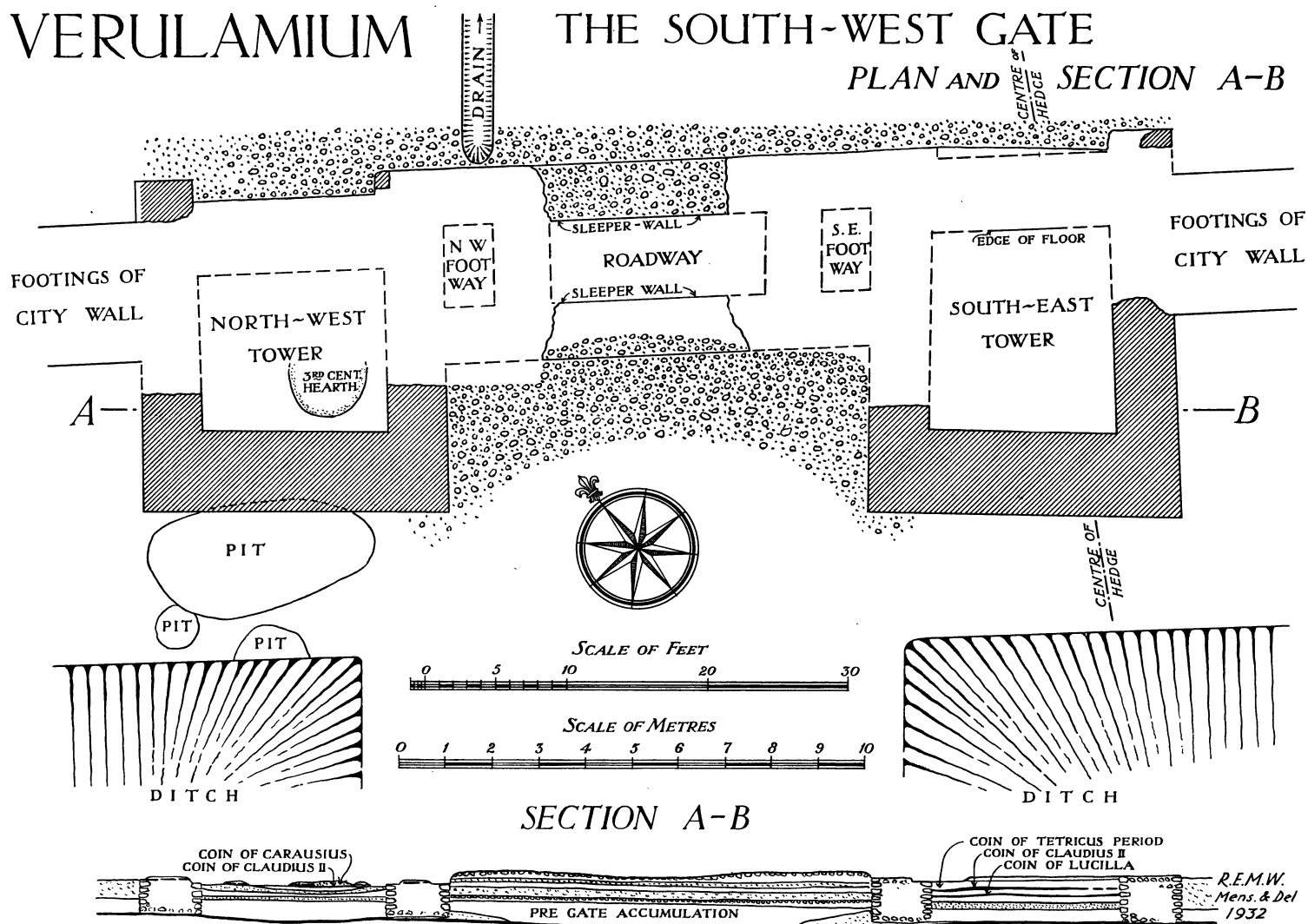
In both towers the re-use of building material in the late floors and the presence of much burnt matter suggested the possibility of a partial burning and renovation of the building during the latter half of the third century:

Above the third-century levels the whole structure, walls, and floors alike had been completely removed. The absence of stratified fourth-century material has, therefore, no historical signifi-

VERULAMIUM

THE SOUTH-WEST GATE

PLAN AND SECTION A-B



cance. A minim of the House of Theodosius may, however, be noted from the mixed material which overlay the site.

The road in and near the gate consisted of rammed pebble with occasional brick, the latter more particularly (as usual) in the later layers. The metalling had been worn into a shallow hollow outside the centre of the gate—a further point confirming the inference that the main opening was central. The metalling had been relaid or patched to a varying extent at different points, but, for the most part, it showed from four to five extensive renewals. At the base of the latest layer of metalling in front of the gate was a coin of Claudius II (M. and S. 266), and in the make-up of the same metalling, at another point, was a barbarous coin of *Fel. Temp.* type which must be subsequent to A.D. 345. The unbroken surface of this road indicates, with reasonable certainty, that it was the last on the site.

Reviewing the chronological evidence as a whole, the following points emerge:

1. In spite of the ruined condition of the structure, the levels of the surviving foundations of gate and city-wall alike, together with the character of the mortar and structure of the towers and their relationship to the road-surfaces, prove that the gate is of one build with the city-wall.
2. The northern part of the gate overrides a pit containing pottery which extends into the beginning of the second century A.D.
3. The original floors of the towers contained no closely datable relics, but after the floor of the south-western tower had been renewed, a coin dated 147–83 was lost upon it.
4. Subsequent renewals of the floors of both towers are associated with late third-century coins.

It will be seen that the evidence is thus consistent with that obtained elsewhere from the gates and defences of Verulamium; and with them, the south-west gate falls comfortably into the reign of Hadrian or his successor.

5. *The Ditch-system*

The outermost member of the second-century defences was a great ditch or, at one point, two ditches, which are still a noteworthy feature of the site. For the most part a single ditch sufficed, upwards of 80 ft. in width and 20 ft. in vertical depth from the level of the berm (pl. xx). At and adjoining the southern corner of the town, the ground rises outside the defences, which were accordingly enlarged by swinging out the main ditch and

by introducing a second ditch between it and the wall. This double system extended north-westwards to some undetermined point near the south-west gate, where the contours enabled the walls to resume their tactical command without this reinforcement. At the south corner a considerable stretch of the double ditch-system has been cleared and preserved by H.M. Office of Works (pls. xxv and xcii). It is evident that the main or outer ditch was here dug from two opposite directions, as the plan shows towards the corner, where the junction was not a very exact one.

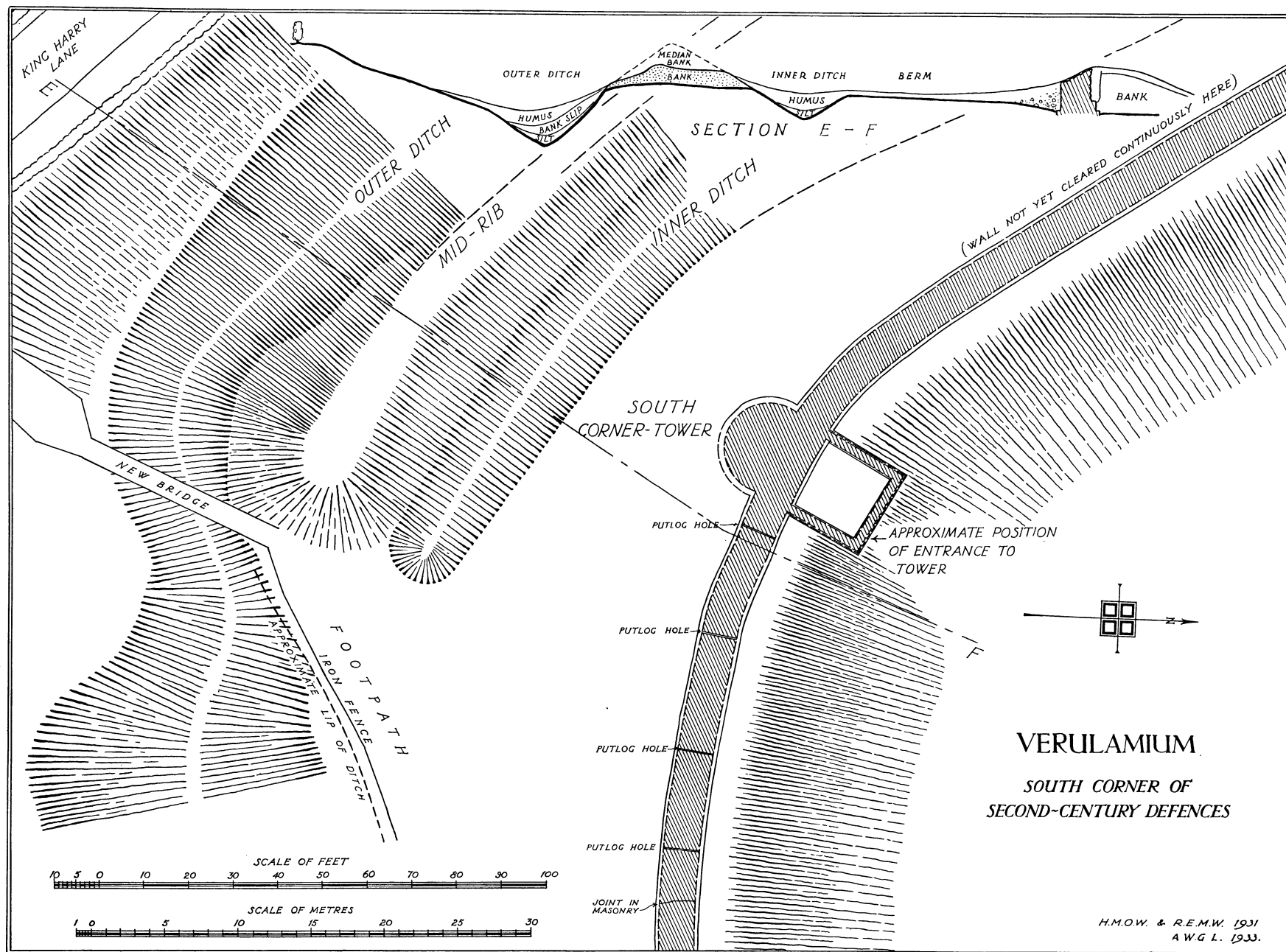
Between the two ditches the earth was piled up until, as it seems, the intervening space carried its maximum load, whilst the remainder of the excavated earth was piled up beyond the outer margin of the ditch. The lower part of the outer ditch was thus entirely concealed from the walls and towers, which would have had to attain a height of nearly a hundred feet to command the bottom of the ditch! It is clear that, as military works, the ditches were regarded as self-sufficing obstacles; indeed, it is to-day almost impossible to scale them empty-handed in wet weather. In section C-D the inner slope of the inner ditch showed a V-shaped depression half-way down, a feature frequently found in Roman ditch-construction and designed usually to contain a *chevaux-de-frise*. This feature did not appear, however, nearer the south corner, and may be an accident to this particular section (pl. xx).

It remains to add that in the clearance of the ditches at the south corner, the rapid silt contained a fair number of potsherds which, when datable, could be ascribed to the period Trajan-Hadrian and thus conformed with equivalent evidence from other parts of the defences. The median and outer banks covered similar pottery: in particular Samian form 33 of early second-century date was found on the old ground-level under the centre of the outer bank in section C-D, thus disproving a tentative suggestion that this feature was of earlier date than the main defences.

Summary of the Chronology of the Defences

From the foregoing sections, the following points emerge as to the chronology of the later Roman defences:

1. The latest coin sealed by them is a *dupondius* of Hadrian, dating from A.D. 118-119, and lost when still in good condition. The defences are therefore not earlier than A.D. 119.



2. The great mass of pottery sealed by the defences consists mostly of types not likely to be later than *c.* A.D. 120, whilst the latest datable sherds—only two or three in number—need not be later than *c.* A.D. 130, and are in any case unlikely to be later than *c.* A.D. 140–50. It has been observed that the extreme scarcity of these relatively late sherds supports an early dating for them within the margin of possibility.
3. In all three gates a considerable time had clearly elapsed between the date of construction and the addition of floor-levels associated with late third-century coins, whilst in the south-west gate a renewal of a floor was associated with a coin dated as early as A.D. 147–83, and a die for stamping *denarii* of Hadrian, of the period A.D. 134–8, was found in a secondary level in one of the south-east gate-towers.

On all grounds, positive and negative, the evidence abundantly confirms a date not later than the second quarter of the second century A.D. for the refortification of Verulamium, with a strong indication that the work occurred rather in the reign of Hadrian than in that of Pius.

(ii) THE ROMAN STREET-PLAN

The Watling Street at Verulamium can now be dated on good archaeological evidence to the earliest years of the Roman occupation of Britain (below, p. 114). Within the limits of the later city, it proceeded straight from the direction of London to the vicinity of the St. Michael's ford, where it bent north-westwards to avoid the river and its flanking marshes. It was to the north of this bend that, as we have seen, the earlier Roman city lay, and, although direct evidence is lacking, it may be presumed that then, as later, the highway thereabouts controlled the street-plan.

From the outset, however, the process of 'ribbon-development' along the Watling Street towards London foreshadowed the ultimate extension of the city in that direction. Traces of hutments and other vestiges of occupation, associated with Claudian pottery and coins, were found in and about *Insulae* I and II, some 400 yards south of the bend in the highway. At first this development was doubtless of a casual character; but, by the opening years of the second century, it had been regularized by the formal extension of the grid-plan across the oblique line of Watling Street and by the construction of a remarkable temple (and, later, a triumphal arch) at the main point of junction (below, p. 113).

By this time it had become acutely evident that the city had completely outgrown its first-century defences. The population, increasingly Romanized and increasingly dependent upon main-road traffic, had tended to move down the hill and to desert the higher portion of the earlier city. It has already been shown how, in or under the inspiration of the Hadrianic era, the outline of the town was redesigned to conform with the newer conditions. The new design included not merely the existing southerly extension of the grid-plan, but also a further stretch of the Watling Street beyond that point, thus allowing, quite logically, for further expansion in this direction. The street-plan of this further stretch has not yet been closely examined, but trial-trenches suggest that, instead of prolonging the grid-plan, it conformed with the lay-out of the southern defences (see pl. cxix). This point, however, requires confirmation.

Extensive further trenching in 1934 within this southern stretch, between the grid-plan and the southern defences, has shown that a large part of this space was never used for building-purposes. It may be conjectured that it was the failure of the anticipated development in this area that led, in the later part of the second century, to the construction of the triumphal arch, mentioned above, as the formal entry into the built-up area, 180 yards within the south-east gate.

(iii) THE SOUTHERN TRIUMPHAL ARCH

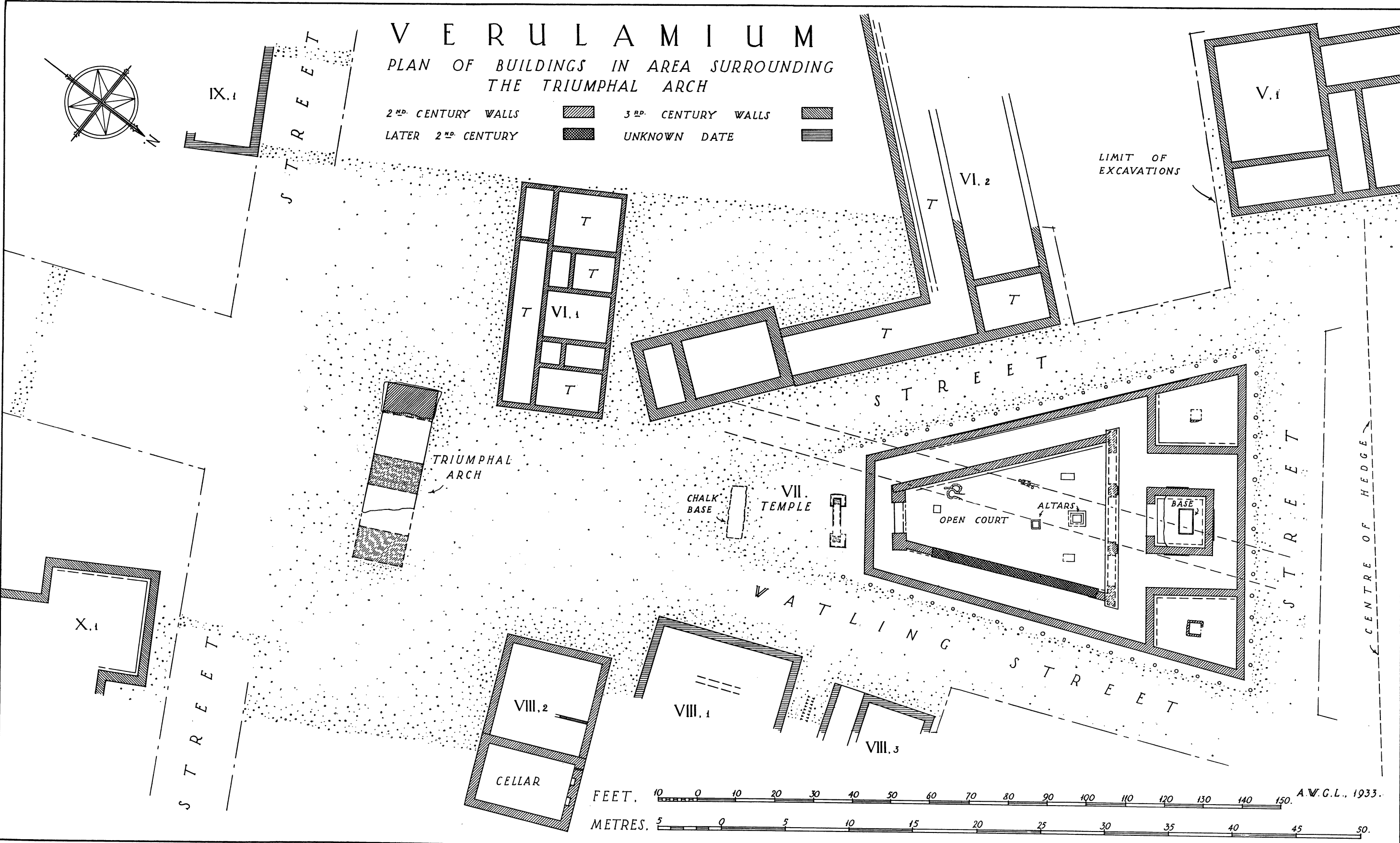
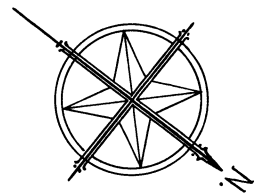
Remains of two triumphal arches—the first identified in Britain—were found during the excavations. The first spanned the Watling Street beside the theatre in the northern part of the town (below, p. 129). The second lay likewise along the line of the Watling Street, at a distance of 180 yards within the south-east gate, and at a point where a spacious *place* was formed at the junction of the highway with three other streets (pl. xxvi). This southern arch had been so drastically robbed by tile-seekers that scarcely any detail of its superstructure has survived. It was represented by a massive foundation, 14–15 ft. broad, and preserved only for a length of 35 ft. (pl. xciiiA); but its original length, as indicated by the robber-trench in the road-metal, had been about 47 ft. The foundation was set nearly at right angles to the line of the Watling Street, but was slewed round slightly to harmonize with the important road-junction and the ‘triangular’ temple (below, p. 113) to the north-west.

The base of the western jamb is still partially preserved above the original ground-level; for the rest, the remains are those of the strainer-wall now stripped to the base of its lowest brick-course

V E R U L A M I U M

PLAN OF BUILDINGS IN AREA SURROUNDING THE TRIUMPHAL ARCH

2ND CENTURY WALLS 3RD CENTURY WALLS
LATER 2ND CENTURY UNKNOWN DATE



FEET. 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150. A.W.G.L., 1933.
METRES. 5 0 5 10 15 20 25 30 35 40 45 50.

and formerly covered, in part, by the road-metal of the thoroughfare. The proportions of the plan indicate a former double archway of the rare type represented at Saintes, the arches being some 11 ft. in width.

Of the superstructure, it is possible that some hint survives in the form of a number of fragments of marble veneer (pl. xciii B) found partly to the south of the structure in the vicinity of building IX, 1 (below, p. 122), and partly in unstratified material on the site of the 'triangular' temple. Both groups of fragments come from the same structure and, since the arch lies roughly centrally between them, there is perhaps some justification for associating them with that structure rather than with the temple itself, which is an obvious alternative. The marble was examined by the late Dr. H. H. Thomas, who pronounced it to be of foreign origin, probably from Carrara. It may be observed that the marble fragments found beside building IX, 1 occurred in a well-stratified layer of debris in association with third-century pottery and a coin of Gallienus (M. and S. 283), which suggest that, by the end of the third century, the building from which the veneer was derived was destroyed or in a ruinous condition.

The character of the flint-masonry, with its lavish use of yellow mortar, was generally similar in character to that of the city-gates, which likewise provide exact analogies for the use of massive strainer-walls below ground. On general grounds, therefore, a second-century date might be suggested for the structure. But more exact evidence is available. A careful equation of the road-levels extending from the arch to the 'triangular' temple produced the following results.

(i) Two road-levels antedated the construction of the arch. Of these, the lower covered Samian forms 18 and 29 and native coarse wares of Flavian or pre-Flavian date. This road also antedated the triangular temple. The upper of the two roads included Samian form 31 and was contemporary with the temple as built soon after A.D. 100 (see p. 116). On this evidence the arch is not earlier than the beginning of the second century.

(ii) Above these roads lay a third, which was constructed contemporaneously with the arch. Like the others, it was traced from the arch to the temple, and produced much pottery of Hadrianic and Antonine types, safely ascribable to a period not later than the third quarter of the second century. With the pottery was a *dupondius* of Antoninus Pius (A.D. 153-4—cf. M. and S. 924), lost when in fairly good condition, and, as a whole, the group is sufficiently extensive to indicate with reasonable certainty a late Antonine date for road and arch.

(iv) INSULAE IN THE SOUTHERN PART OF THE TOWN

In the southern part of the town, only one complete *insula* of normal shape has been explored. It measured 410 by 355 ft., or $3\frac{1}{3}$ acres and was thus of a size exceptional in Roman towns. It may be compared with the 375 ft. square of the largest *insula* at Silchester, and with the 375 by 260 ft. of the medium-sized *insulae* at that place; whilst at Wroxeter certain of the largest *insulae* measured only 375 by 310 feet.

The *insulae* may now be described *seriatim* in accordance with the enumeration on pl. cxx.

Insula I

Building I, 1, and adjacent oven (pls. xciv–xcvii, and figs. 5 and 6)

Phase I. This small building fronted upon Watling Street and consisted of three rooms which opened on to the street through a verandah. Rooms and verandah were alike floored with red tesserae. The verandah had been subdivided by a timber partition. At the back, and of one build with the main structure, was a cellar, $6\frac{1}{2}$ ft. deep below the general floor-level. This cellar presented several features of interest. Owing to the fact that it had been deliberately filled up in Roman times (see below, p. 83) it was in an exceptionally good state of preservation. Its walls, mostly of flint-rubble with occasional brick, retained their rendering of hard whitish-yellow cement intact save where, in ancient times, a line of shelving round the north, east, and south walls had left occasional scars. This shelving had been carried by brackets with the average dimensions of $2\frac{1}{2}$ in. by 4 in., set into the wall with their longer axes vertical.¹ The cement rendering of the wall ran into the sockets for these brackets, showing that they were an original feature of the structure. There were two of them in the north wall, four in the east wall, and three in the south wall (see pls. xcvi, xcvi A). They were set at a height of 3 ft. 9 in. above the floor.

The cellar was entered through two doorways, one in the west wall, the other in the north wall. The latter entrance was approached by a ramp flanked by retaining walls. The former was probably also approached by a ramp, but disturbance had here obscured the details. The sill of the west doorway retained the sockets for the door-pivot and bolt. The north doorway was originally fitted with a wooden sill bedded upon four bricks (pl. xcvi) and had evidently been framed in timber.

¹ This is of course the scientific method of setting joists or brackets, but is one which was never understood in medieval England and was not, in fact, reintroduced into construction here until about the year 1700.

The most remarkable feature, however, of the cellar was the window in the western wall. This window (fig. 6) had splayed sill and jambs, the southern jamb being more widely splayed than

VERULAMIUM 1930
 SITE 'A' BUILDING I ('SHOP')
 EARLY 2ND CENTURY A. D.

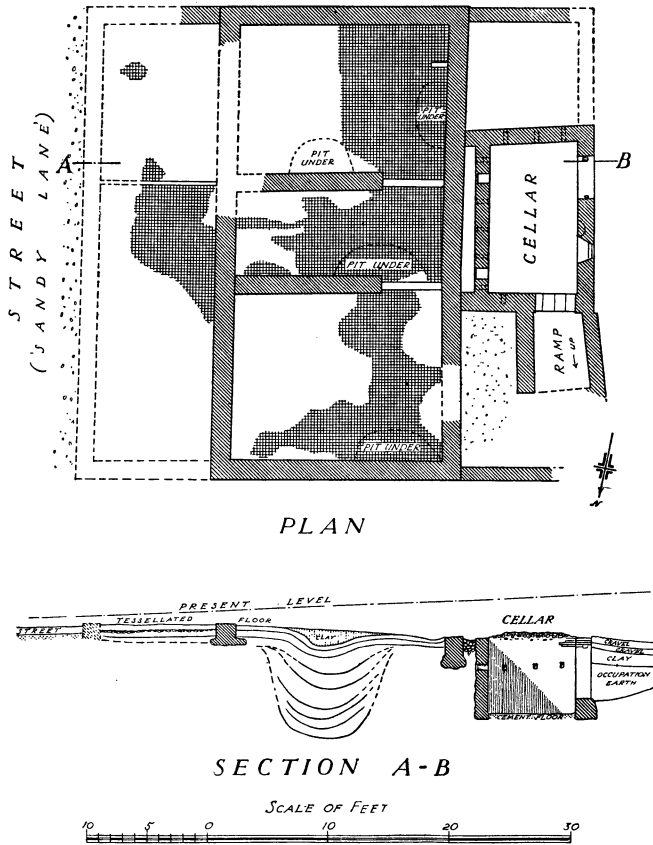


FIG. 5

the northern in order to admit the light towards the centre of the cellar. Both jambs and sill had been covered with white plaster, which had to a considerable extent survived. There was also a slight external splay at right angles to the internal splay—a feature due to the use of rectangular bricks in the building of the jambs. The only remnant of the framework of the opening was the socket for a

cement remained, here and there, intact. The purpose of these massive timbers has not yet been discovered. Since they occur only in one wall, there is no reason to suppose that they were wall-posts to support a roof. It has been suggested that they held a part of the framework of some sort of crane for lifting heavy objects in or out of the cellar. The evidence, however, is insufficient to determine the matter. A somewhat similar feature, has been found in a cellar at Rottweil in Germany.¹

Cellars in non-military buildings are rare in Britain. An example occurred at Caerwent,² and another more recently in the Roman town at Richborough. On the Continent, however, and more particularly in eastern Gaul, they are common enough. They occur in the civil settlements outside the forts of the German Limes.³ Cellars of a more elaborate character, and comparable with ours, are found in Roman 'villas' in Belgium. For example, a cellar with two entrances formed a part of a second-century villa at Sauvenière (Namur). Another formed one wing of a small building, also of the second century, at Serville in the same region. A third was incorporated in a villa at Chastrès, near Thyrmont; this had a window splayed similarly to that above described.⁴ Many other continental parallels could be found, though the detail of the shelving seems to be peculiar to the Verulamium example. The window is of special interest, since in Britain Roman windows are exceptional. The bath-buildings of Chesters and Great Chesters on Hadrian's Wall retain fragments, and complete though blocked examples may be seen in the bath-building at Ravenglas in Cumberland. At Lincoln and at Colchester traces of small first-floor windows have been noted in the masonry of the town-gates; and at Silchester a fallen fragment of the bath-building contained a part of a square-headed window. It is probable that the Verulamium window, like similar windows at Pompeii, was also square-headed, doubtless with a timber lintel.⁵

The small size of the building, coupled with the exceptional storage-accommodation provided by the cellar, suggest that the structure was originally a shop; though the further identification of it as a wine-shop with the verandah under which the patrons could sit and drink in modern continental fashion is perhaps fanciful.

Date of Phase I. The date of the original construction of the shop was indicated primarily by a considerable mass of underlying

¹ F. Hertlein, O. Paret, and P. Goessler, *Die Römer in Württemberg*, Teil III, 114.

² *Archaeologia*, lxii, 422 and pl. LXII, figs. 2 and 3.

³ e.g. O.R.L., *Stockstadt, Zugmantel*, &c.

⁴ *Annales de la Société archéologique de Namur*, xxiv (1900).

⁵ See R. Herbig, 'Fensterstudien', *Mitt. des deutsch. Arch. Inst., Roem. Abteilung*, xlv (1929), 260 ff.

material, contained mostly by pits and by the ditch of the Claudian Watling Street, upon which the building—like the neighbouring temple (below, p. 113)—had encroached. The filling of the pits included in the lower strata much Flavian pottery, notably Samian forms 18, 29, 37, and 67, an early form of ‘poppy-head’ vase of late first- or early second-century type, and a second brass of Domitian (A.D. 86–7) lost when in good condition; whilst the uppermost stratum, still underlying the foundations of the building, contained, amongst further sherds, two fragments of Samian form 37 which are dated by Dr. Felix Oswald to A.D. 135–40 and by Mr. Davies Pryce to A.D. 130–50.¹ These were the latest datable sherds sealed by and therefore prior to the structure.

The internal evidence as to chronology was amplified by other evidence found outside but adjacent to the shop. To the north of the building, the clay which forms the natural surface at this point had been covered by a heavy deposit of burnt material, mostly charcoal, containing two *asses* of Claudius I (A.D. 41–54—M. and

¹ About these sherds, Mr. Pryce writes as follows:

(i) Form 37: squat ovolo, the tongue of which is slightly frayed at the end (cf. R. Knorr, *Die westfälischen Sigillata-Töpfereien von Blickweiler und Eschweilerhof*, p. 91, 1, bowl stamped COBNERTI retro). Bead-row beneath ovolo. The figure in the arcade is Déch. 506 (probably Mercury) and was used by *Libertus*, *Illixo*, *Advocisus* (Netherhall) and *Docilis* (Lancaster), all potters of Lezoux. But the same figure also occurs at Rheinzabern in the identical arcade or ‘portico’ (Ludovici, v, 1927; type M 159) on a bowl stamped COBNERTI retro. The arcade is flanked by the same feathery upright *motif* as that occurring at Verulam. This feathery upright is not uncommon in the work of *Cobnertus* (cf. form 30, Guildhall Museum, and Knorr, *op. cit.*, p. 91, 1).

The little *motif* resembling two small conjoined crowns above the arcade is closely approximated in the work of L.A.A. of Eschweilerhof, who was chiefly active in the reign of Antoninus Pius (Cf. Knorr, *op. cit.*, p. 70, 2; also 62, 4; 65, 1; 66, 56; 67, 5). The paste and glaze are comparatively good. Both Dr. Oswald and I think the piece is representative of the early work of *Cobnertus* of Rheinzabern. Knorr places his chief activity in the reign of Antoninus Pius. Dr. Oswald gives, as a close date, A.D. 135–40. I should assign a wider period, c. A.D. 130–50.

(ii) Form 37. Comparatively good paste and glaze.

Conventionalized tree, a Rheinzabern type (Ludovici, v, p. 83, P. 10).

Figure to l. The pose of the legs is very closely that of Déch. 385, a Central Gaulish type, but in view of the fact that the tree is undoubtedly a Rheinzabern type the figure more probably represents an East Gaulish or German warrior (cf. Lud. M 29, N 189, and V 249). The Rheinzabern potters who used both the above types were *Cobnertus*, *B. F. Attoni*, and *Comitalis*. The work seems too good for the last two potters. Closely similar warriors occur in the work of the ‘potter of the large figures’ at Blickweiler (Knorr, *op. cit.*, pp. 31, 1; 42, 2) of Hadrianic date, and in the work of the Antonine potter *Avitus* (Knorr, *op. cit.*, 88, 3). The ware is East Gaulish or German and not improbably the work of *Cobnertus* of Rheinzabern. Dr. Oswald gives the close date of A.D. 135–40. My period is c. A.D. 130–50.

S. 66). As elsewhere in this region, it is clear that occupation, though of an undeveloped kind, began shortly after the Roman invasion of A.D. 43, but had not been preceded by any significant pre-Roman occupation. This early Romano-British debris was subsequently covered by a levelling of chalk and clay, and upon it had been roughly constructed an oven of oblong shape only part of which could be excavated in 1930. The structure, 6 ft. wide from east to west, had a brick flooring, carried by three low chalk walls (from 1 to $1\frac{1}{2}$ ft. high), leaving two channels each $1\frac{1}{2}$ ft. wide. From the burnt material contained in these channels or flues were recovered two coins—an *as* of Vespasian (A.D. 77-9—M. and S. 764B) and an *as* of Titus, struck under Vespasian (A.D. 77-8—M. and S. 789A). The oven was therefore presumably in use during the last quarter of the first century.

This inference was supported by other coins found in the debris covering the floor of the oven and from a subsequent levelling of clean clay which sealed that debris. The former produced a burnt coin, probably of Vespasian, the latter contained a *dupondius* of Domitian (A.D. 86-7—M. and S. 351) and a *sestertius* of the same emperor (A.D. 87-8—M. and S. 338). Both coins were in good condition when lost, and suggest that the oven was out of action by the end of the first century.

At this point, the evidence takes us back to the shop, for it was into the yellow clay levelling which produced the Domitian coins that the foundation-trenches for that building were dug. The shop is therefore not earlier than *c.* A.D. 90. On the other hand, in connexion with the building of the shop a layer of gravel was laid over the yellow clay, and in the occupation-level on this gravel (and therefore contemporary with the earliest phase of the shop) were found two *denarii* of Hadrian, dated respectively A.D. 119-22 and A.D. 134-8 (M. and S. 94 and 307). Both coins were in good condition and were lost after the completion of the building. The pottery from the equivalent layers was entirely in harmony with the evidence of the coins.

A combination of the chronological evidence found within and adjacent to the building thus indicates that the construction of the shop can scarcely be placed earlier than A.D. 130, but that the building was apparently already in use within the quarter-century following that date.

Phase II. The subsequent history of the shop falls into two phases. At the end of the third century the cellar was disused, its window was blocked (then, if not earlier), and it was completely filled up with sand and debris containing much pottery of late first-, second-, and third-century dates, together with three coins of Trajan (M.

and S. 271, 533, and one not closely identifiable); one of Faustina I (M. and S. Antoninus Pius 1125); one of Commodus (M. and S. 478), two of Gallienus (M. and S. 157, 287) and another probably of Gallienus; four of Victorinus (M. and S. 67 (3), 78) and two probably of Victorinus (one burnt and clipped, one barbarous); three of Claudius II (M. and S. 61, 105, 195) and one probably Claudius II; three of Tetricus I (M. and S. 77, 126, 132/3) and three probably of Tetricus I; one of Tetricus II (M. and S. 258) and three (one barbarous) probably of Tetricus II; seven of Carausius (M. and S. 309 variant, 98, 101, 855 variant, 880 (2), 983) and one (burnt) probably of Carausius; five barbarous 'radiates'. The latest coins from this filling were the seven of Carausius (A.D. 287-93) and were lost when in good condition. From the distribution of fragments of the same pot, in several cases, throughout the filling it was clear that the latter was all inserted at one time (end of third century) and was not a gradual accumulation. At the same period, the tessellated floors of the building were partially relaid in soft material, which contained a coin of Victorinus (M. and S. 118) and another of Claudius II (M. and S. 12), whilst the sandy surface between the ramp of the former cellar and the back wall of the main block was partially consolidated by the simple process of 'peppering' it roughly with brick-tesserae. Outside the shop the road was relaid with a thick layer of clean yellow sand which contained one clipped radiate coin of the late third-century date. It is clear that here, as elsewhere in Verulamium, there was an extensive if rough-and-ready reconstruction at the end of that century.

Phase III. If the second phase of the building seemed to represent a deterioration in standards of craftsmanship, the third and last must be regarded as an almost complete reversion—at any rate on this particular site—to barbarism. The latest occupants of the house were content to level the floor, where it had gradually subsided into the underlying pits, by mere wads of clay. In one of these wads was found buried up to the rim a pot of reddish calcited ware covered by a lid of harder and probably earlier fabric. The pot itself was empty but, with its lid, was intact and in position as it had been left by the last inhabitants (pl. xcvi B and fig. 38, nos. 83-4). Unfortunately, these clay wads contained nothing which could indicate their absolute date.

Building I, 2

This small building, roughly oblong with a central partition, had no distinctive features. Fronting as it does upon the Watling Street, it may have been a shop. A coin of Trajan (A.D. 103-11—

M. and S. 492), lost when in a somewhat worn condition, was found in the foundation-trench of one of the walls, and shows that the building was not constructed before the early part of the second century. Its original flooring was of clay with a surfacing of broken brick. The accumulations above this flooring had been thoroughly disturbed by tree-roots, but a deep secondary deposit abutting upon (but not extending over) the walls externally contained the following coins: one of Trebonianus Gallus (C. 128), one of Victorinus (M. and S. 71), three of Claudius II (M. and S. 98, 261/2, 266), two of Tetricus I (M. and S. 87/8, 127), one of Tetricus II (M. and S. 258), three of Carausius (M. and S. 155, 471, 878), and one of Allectus (M. and S. 33). The walls of the building were therefore still upstanding at the end of the third century, though they had been constructed before the accumulation of this deposit.

Building I, 3

This building, in its final state, was L-shaped on plan with a small projecting room near the external angle. It was in an extremely fragmentary condition, its walls being represented mainly by rough and unsubstantial footings consisting of lumps of yellow cement and chalk. Its largest room had been floored with a mosaic of which only a small fragment of a key-pattern border and a panel containing lozenges in red, grey, white and black survived.

Beneath the structure, on the natural soil, was a layer containing an *as* of Claudius I (M. and S. 66) and mid-first-century pottery, including a fragment of early Samian form 29. Above this was a deposit of Flavian date, capped by a second-century stratum containing a *dupondius* of Trajan (A.D. 98-9—M. and S. 98/102), and much pottery of c. A.D. 100-150. Into this stratum the projecting room adjoining the external angle of the structure was built. This room had been entered from its south-eastern end and was the surviving fragment of a hypocaust, the remainder of which had been completely demolished and replaced by the L-shaped plan already noted. The stratum contemporary with the building of the new L-shaped structure contained the following coins: a *denarius* of Aelius Caesar (M. and S. 440), an *antoninianus* of Tetricus I (M. and S. 100), another of Tetricus II (M. and S. 270), and a barbarous imitation of a 'radiate' coin. Contemporaneously, the surviving fragment of the earlier hypocaust was filled in with flue-tiles and other debris and refloored with clay; and in this filling was a coin of Valerian I (A.D. 255-6—M. and S. 101). In its final form, therefore, the composite building is not earlier than the last quarter of the third century.

*Insula II**Building II, 1*

To the south-east of building I and on the opposite side of the Watling Street was uncovered a part of a succession of buildings which were equated with four main periods.

Phase I. At the lowest level, overlying the natural gravel of the site but almost entirely obscured in detail by extensive late Roman building operations, was slight evidence of a wattle-and-daub hut or huts dating from the beginning of the Roman occupation. The structural remains occurred to the north of the later apsidal room and were of the slightest. They included perhaps half of an oval depression, sunk to a depth of 18 in. in the natural gravel and extending to a width of 6 ft. The rounded eastern end was exposed and the major axis of the half-oval was 9 ft. The hollow was floored with a layer of charcoal-flecked clay incorporating an intensively burnt patch or hearth. In the clay were fragments of burnt daub showing the marks of the former wattles. The pottery from the layer included Samian forms 15/17, 18, 24/5, early 27, fragments of about 16 bowls of form 29 which, where datable, may be ascribed to c. A.D. 50-70, and a sherd of early form 30. The coarse ware from the same layer included parts of two imitation Belgic plates, a considerable quantity of the coarse heavily combed native ware, parts of two bead-rim pots (fig. 34, nos. 56-7), and part of an early jug with undercut flange. The layer also contained a second brass of Claudius I, too corroded for detailed description. The whole group indicates a considerable if primitive occupation at or soon after the middle of the first century A.D. It may be added that there was no hint of any earlier occupation of the site.

Phase II. The second phase is represented by short and incoherent stretches of foundation-trench between 18 in. and 2 ft. in width, doubtless to take a timber-structure. In conjunction with this building, the floor-surface was levelled up and capped by a compact layer of gravel. Beneath this gravel layer and effectively sealed by it was a *dupondius* of Vespasian (A.D. 72-3—M. and S. 301) lost when still in good condition. The pottery associated with the coin included Samian 18, early Flavian 29 and 78, two more bead-rims and a Flavian ring-necked jug. There was also a brooch (fig. 43, no. 7) of a type unlikely to be later than the third quarter of the first century. The general trend of the evidence, therefore, is that this timber building was constructed in the Flavian period.

This date was supported by the character of the pottery found

in the occupation-layer which accumulated on the surface of the gravel floor and contained Samian forms 15/17, 18, 18/31, 24/25, 27, 29, together with coarse native pottery, Flavian jug-necks, and other sherds, all or mostly belonging to the last quarter of the first century A.D. On the other hand, two fragments carry the occupation into the second century. One of these is a poppy-head beaker which is more likely to be after than before A.D. 100, and a sherd of Samian form 37 decorated with a figure comparable with Déchelette 449, which was used by the potter *Cinnamus*. Mr. Davies Pryce ascribes this sherd to the reign of Hadrian or the beginning of the reign of Pius, say A.D. 125-45.

From an equivalent accumulation, sealed by a later cement floor, was recovered part of a Samian form 37, with ram's-horn wreath, of Trajanic date (cf. Wheeler, *The Roman Fort near Brecon*, p. 192). The importance of these sherds is that they definitely reached the site before the third phase of construction.

Phase III. This third phase is represented by the remains of a well-built house with flint walls and mosaic or tessellated floors (pl. xxvii). Only the western part of this house was available for excavation, and even this part was much obscured by an almost complete re-planning at a later Roman date. Enough remained, however, to show that the nucleus of the second-century plan included a room, 24 by 18 ft., with a tessellated floor containing a mosaic panel (14 ft. by 11 ft.) of which only part of a key-pattern border survived (pl. xcviia). The walls had been rendered in plaster, painted with a green and red pattern of uncertain design, and there was a stout quarter-round moulding of cement at the junction of walls and floor. To the south this room opened through a doorway, 7½ ft. wide, into an oblong room or passage, floored with red tesserae and opening in turn into a projecting apsidal compartment. The apse was floored with a mosaic pavement with an elaborate scallop-shell pattern. The cement in which the tesserae were laid contained fragments of Samian forms 33 and 38 of second-century type, and the thick wall of a form 31, dated by Mr. Davies Pryce to c. A.D. 130-50. The pavement is further discussed below (see pl. xxxix and p. 144). The plan of this building could not be ascertained beyond the fact that it included a range of rooms some 23 ft. broad within the outermost walls.

It may be recalled that this structure was superimposed upon a building which had been occupied down to c. 130-50; and it may be added that the filling of the foundation-trench cut for the apsidal projection contained a coin of Domitian (A.D. 85-6—M. and S. 299) lost when in moderate condition. A lower limit is suggested by two other coin-finds. At some period the house

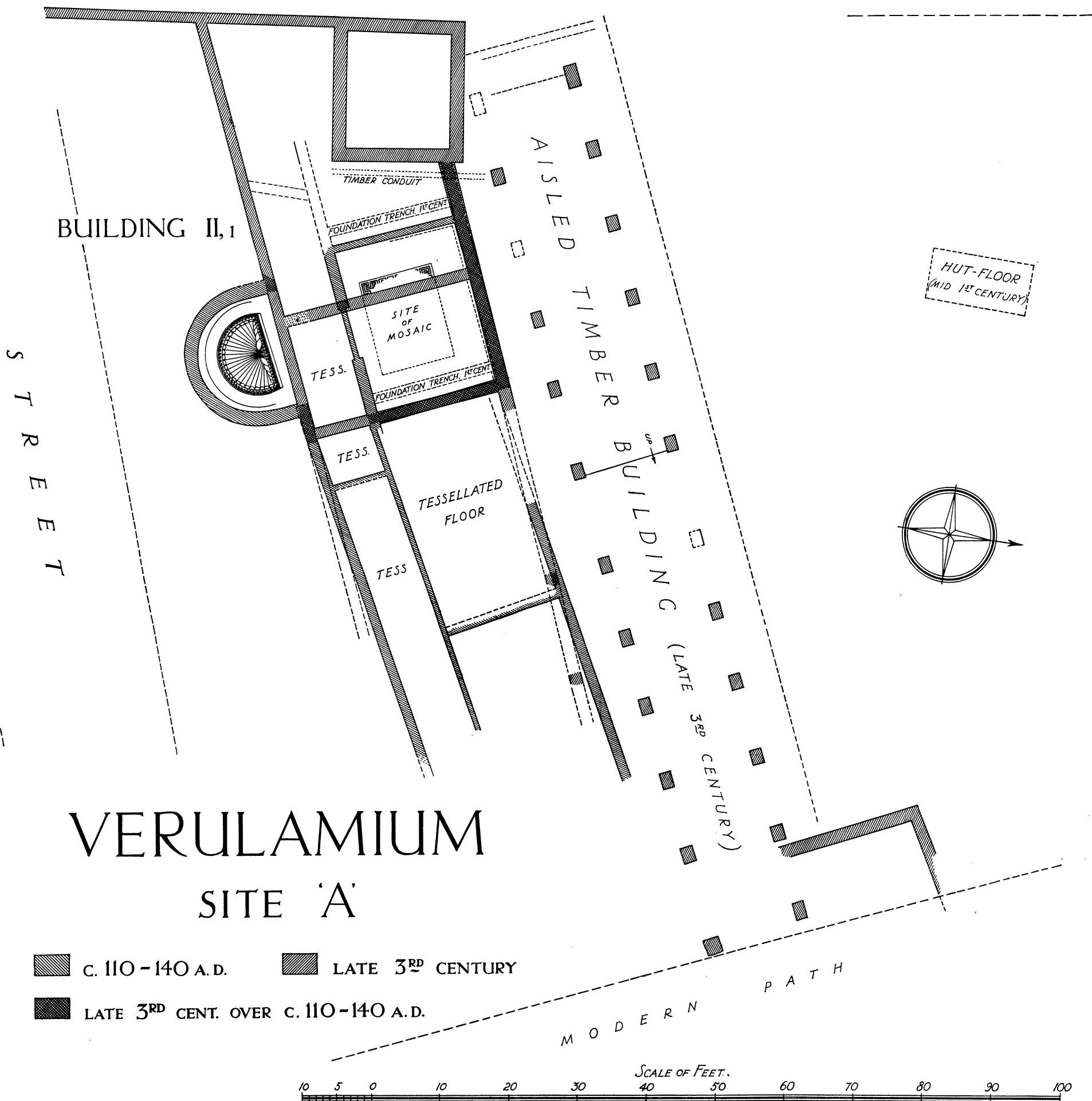
with its mosaic pavements was destroyed and the site deliberately levelled. Over the apsidal mosaic and the adjacent surfaces was laid a layer of iron-hard clay about 1 ft. in thickness. Imbedded in this clay and contemporary with it was a *sestertius* of Marcus Aurelius (A.D. 169—M. and S. 969), lost when still in good condition. From the material which had similarly been laid upon the floor of the adjacent room, two burnt *denarii* of Septimius Severus (A.D. 197—211) were recovered. The whole evidence suggested a destruction and obliteration of the building early in the third century.

The limits of occupation thus suggested lie roughly between A.D. 130 and 225, and it is unlikely, in view of the abundance of datable pottery sealed by the cement floor of the building, that the initial date is much later than that of the solitary Hadrian-Pius sherd above noted. The third phase of construction may thus be ascribed to c. A.D. 130—50.

Phase IV. The fourth and final phase of the history of this site is represented by a new building constructed at a higher level, the ground being made up to a height of more than 2 ft. above the level of the mosaic floors by the addition of mixed material overlying the destruction-level above referred to. The new building consisted of a range of rooms set partly askew to conform with adjacent street-lines. The walls, being near the surface, had to a large extent been uprooted in post-Roman times. They were founded partly upon the walls of the previous building but in such cases conformed only approximately with the earlier masonry; and it was clear that the earlier foundations were only partially visible to the later builders. The floor of the largest room of this new building had been paved very roughly with coarse red tesserae set in inferior mortar which had mostly perished. Indeed, the inferiority of this later constructional work, in comparison with that of the previous phase, was manifest throughout.

Along the whole of the northern front of the main block of this new building, as uncovered, had extended a timber structure of special interest. This was a double-aisled hall or barn or warehouse, represented now only by the square flint-built bases of the former timber posts, and by a stretch of cement (*opus signinum*) floor at the western end. The original extent of this aisled structure, like that of the main building, could not be ascertained, by reason of the adjacent footpath and hedge, but twelve bays were identified and it is possible to say that the width of the 'nave' was 13 ft., and that of the aisles about 6 ft. From centre to centre, these posts had been approximately 11 ft. apart. Between those of the sixth bay from the west, the 'nave' was stepped upwards.

WATLING STREET



VERULAMIUM SITE 'A'

-  c. 110-140 A.D.
-  LATE 3RD CENTURY
-  LATE 3RD CENT. OVER c. 110-140 A.D.

This structure was shown by its floor-levels and alignment to be contemporary with the latest phase of building II. It is reminiscent of the aisled structures found in certain villas in Hampshire and elsewhere and, so far as the recorded evidence goes, dated to the third or fourth century.¹

The approximate date of this late rebuilding was abundantly indicated by the coins and pottery found in the material used to level its floors at the time of construction. The coins thus found consisted of a *denarius* of Julia Domna (C. 156), two *antoniniani* of Gallienus (M. and S. 208, 305), one of Claudius II (M. and S. 124), and one radiate coin of barbarous type. From the equivalent levels adjacent but external to the building were recovered a *denarius* of Elagabalus (C. 38), four *antoniniani* of Gallienus (M. and S. 157, 159, 160, 179), one of Victorinus (M. and S. 78), six of Tetricus I (M. and S. 69, 87, 100, 100/2, 121, 126), two of Tetricus II (M. and S. 248, 260), two of Carausius (M. and S. 101, 883), and two imitations of Tetricus. The associated pottery included Samian forms 45 and 31 of very late type, Rhenish black-glazed ware, scaled thumb-pots of Castor ware with fairly high pedestal feet, and mortaria with heavily drooping flanges. The whole group may be ascribed to the third century, and the latest sealed coins—those of Carausius—bring the date down to the last decade of that century.

Insula III

Building III, 1 (fig. 7)

Phase I. The first identifiable structure on this site was an oblong building, subdivided into two unequal parts and having a verandah along its south-eastern side. This building was essentially of timber, and the sockets of nine wall-posts, driven deep into the soil, were identified. Between these wall-posts had been built a flint wall which had in many cases clasped the wall-posts closely, showing that these were of circular section and about 1 ft. in diameter (pl. xcviib). This wall retained traces of plain pink wall-plaster *in situ*. Towards the south-western end (which had been open to the street) the building had been paved with heavy cobbles; and beneath the outer margin of the verandah at this end were remains of a large, brick-paved hearth. It seemed possible that the building had been used as a smithy.

Date of Phase I. A layer of debris underneath the house was not directly associated with any structure but contained fragments of

¹ This type is discussed by R. G. Collingwood, *The Archaeology of Roman Britain* (1930), p. 133.

painted wall-plaster, with pottery extending down to A.D. 100 or a little later and consisting of Samian forms 18 and 18/31, a ringed jug-neck and a bowl with reeded flange, both of Trajanic type,

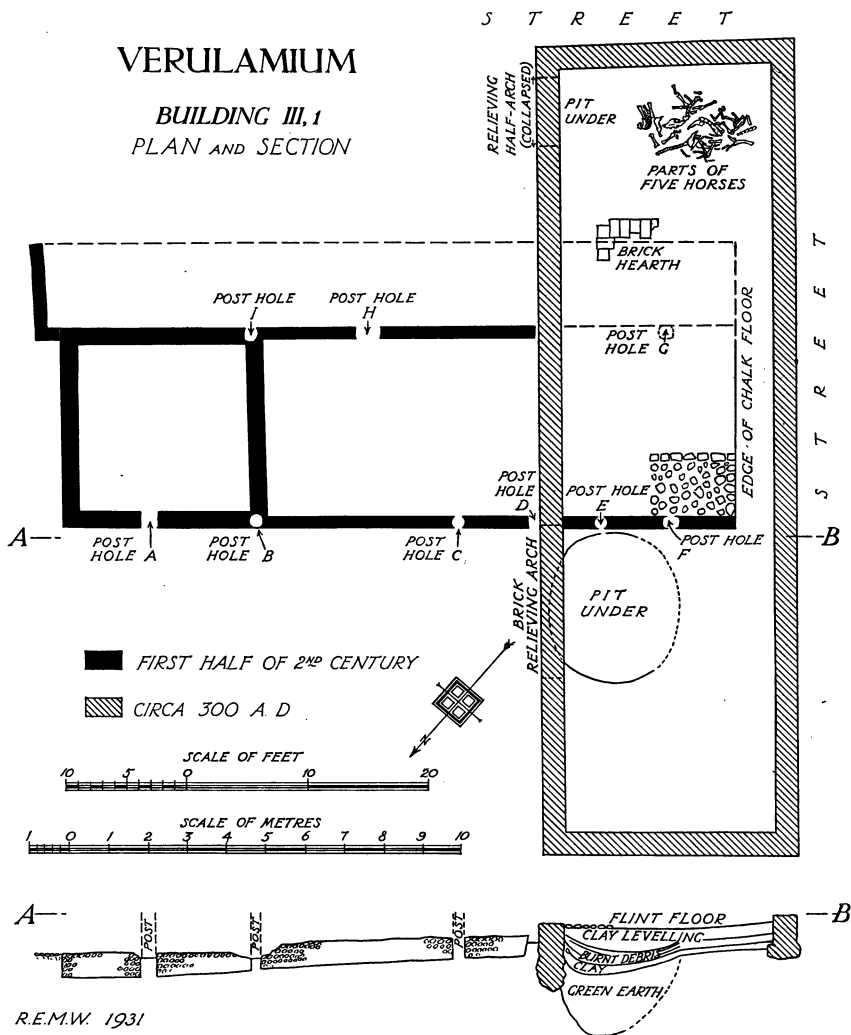


FIG. 7.

and other less determinate sherds. The floor contemporary with the building was represented by a thick layer of decayed yellow cement and contained Samian forms 18/31, 30 (early second-century type), 31 and 33 (both second century), and a fragment with the cut-glass decoration which came in shortly after the middle of the second century. The pottery thus implies a con-

structional date not earlier than *c.* A.D. 150. Consistently, a stratum which accumulated against the outside of the building during the period of its use contained a worn *sestertius* of Hadrian and an *as* of Antoninus Pius, dated A.D. 145–60 (M. and S. 934), and lost when still in good condition. The pottery from this post-constructional stratum included Antonine Samian forms 31, one stamped MARCIM.

Phase II. The building described above was demolished within the Roman period and its site was levelled with clay and dark earth. This levelling-material contained the following coins: a *denarius* of Julia Domna (C. 72), and *antoniniani* of Gallienus (M. and S. 159), Victorinus (M. and S. 78), Claudius II (M. and S. 266), Tetricus II (2) (M. and S. 270, 270/4), Carausius (M. and S. 101), and a barbarous imitation of a 'radiate' type.

Across the south-western end of the site and encroaching somewhat upon the street, a new oblong building, with flint walls and brick quoins, was now erected at right angles to the previous structure. The floor of this new building was of flint cobbles on a clay basis, and immediately under the clay, near the south-eastern end, were parts of five aged horses buried when the ligaments were still intact (pl. xcixA). From the interlocking of the bones of one animal with another, it was clear that they had been stripped of their meat before burial, and it is suggested that they are the relics of a sausage-factory. Professor D. M. S. Watson, F.R.S., very kindly examined the bones *in situ*, and has reported as follows:

'The great majority of the bones occur in natural association with others, building up large pieces of skeletons; but these do not themselves fit together so as to compose entire individuals. The entire deposit, for example, includes only one skull, although there are five lower jaws and six hind legs.

'The nature of the individual skeletal fragments is interesting because it has a bearing on the significance of this remarkable deposit. The largest individual fragment consists of an articulated series of eighteen dorsal and lumbar vertebrae, sacrum, and pelvis; ribs are attached to the right side of the first and third of these vertebrae and to the left side of most of them. A complete mandible lay with its articular end within the pelvic cavity.

'Three complete necks occurred, two of them with the first dorsal vertebra attached and the other with two dorsals and the first pair of ribs, one of which at least was complete but with no trace of the prosternum. The single skull lay detached by some three inches from its normal articulation with the atlas of one of these necks. None of the hind legs included the femur, and in all cases the upper end of the tibia was destroyed. The tarsi, metatarses and usually the first phalange were in natural articulation, but the hoof absent, except in one case.

'The fore-limbs usually included the humerus, with an imperfect upper

end, and all the bones, including sesamoids, to the end of the first or second phalange.

'The five lower jaws are entirely disarticulated and were complete (including the coronoid process) when buried.

'There are a few isolated long bones, but no isolated vertebrae.

'Finally it may be noted that all the lower jaws belonged to aged, or even very old horses.

'The systematic character of these pieces of skeleton makes it clear that the horses after death had been skinned, the hoofs being probably removed at the same time, and that they were then cut up into pieces apparently by cuts at the base of the neck, at the shoulder and knee, the femora being removed separately and the scapulae presumably before the division of the backbone. The destruction of the upper ends of the humerus and tibia suggests that the butchery was carried out by a heavy and blunt axe.

'The bones, although still connected by their ligaments, can have had little flesh remaining attached to them at the time of their burial. This fact is made evident by the occurrence of a fore limb, naturally articulated but with the humerus, radius, and metacarpus lying parallel and lightly pressed against one another, and by the occurrence of displacement of segments of otherwise articulated limbs by two or three inches.

'The pieces of horse dismembered in this way were clearly not joints intended for food, nor can they be the waste from a bone-using industry. It is equally improbable that the muscles were removed from the skeletons and sold as food.

'It is not likely that the dismemberment was merely for convenience of transport, and that the pieces resulting from it were then left to decay on the surface until they were reduced to bones and dried ligaments.

'It is perhaps conceivable that they represent the waste of a sausage-manufactory, which might be expected to remove the meat as rapidly as possible with no consideration of the possibility of cooking it in small joints.'

At two points the north-eastern wall of the building had been strengthened over underlying rubbish-pits by means of brick-lined relieving-arches. The more southerly of these arches had collapsed in ancient times. The other, straight-sided and pointed (pl. xcix B), was of weak design, but had served its purpose. The pit which it straddled was 13 ft. deep, and on the evidence of its abundant and well-stratified pottery had been cut early in the second century, and filled before the middle of that century. Amongst the contents was a fragment of a human skull. At the time of the construction of the later building, a slight hollow, which still indicated the position of the pit, was levelled with clay containing sherds of very coarse and late Samian form 31, mortaria of coarse ware with drooping flanges, and Castor ware.

Date of Phase II. This later building—probably a shop or warehouse—was constructed after the levelling of the site already described, i.e. after the deposition of many late third-century coins.

The process of levelling and construction may, however, have been closely successive since the make-up of the floor of the new building contained the following coins: a *denarius* of Marc Antony, worn smooth and evidently an accidental intrusion, and *antoniniani* of Tetricus I (M. and S. 87), Carausius (M. and S. 118, 322), and Allectus (M. and S. 28). No fourth-century coins occurred in the building-levels, and once more the evidence points to a construction scarcely later than the end of the third century.

In an unsealed stratum of broken brick and flint above the remains of the floor were the following third-brass coins: one of Licinius I (C. 49), four of Constantine I (C. 17, 21, 123, 536) and one of Valens (*Securitas* type).

Building III, 2, and underlying buildings

Phase I (pl. xxviii). The large courtyard house which ultimately occupied this site was preceded by at least three small buildings, all apparently of late first-century date and here described as 2A, 2B, and 2C.

2A was a small house with a slightly projecting porch towards the south-east and (probably) a small central courtyard, no. 6 on plan (pl. xxviii). The house had been built of timber, with tree-trunk sleeper-beams on cobble foundations, and with studding likewise of unsquared timber. On this framework, the walls had been of wattle and daub, extensive burnt remains of which were found over the site. The daub had been faced with plaster painted in panels in red and white, the latter speckled with red and, rarely, yellow. The corridor (5) and the courtyard (6) had been paved with yellow cement; the rooms were floored merely with clay. The roof had been tiled.

Beneath the house were two pits, containing wood-ash and small lumps of molten glass (possibly representing glass-manufacture), in association with an occupation-layer containing a *dupondius* of Nero (A.D. 68, M. and S. 286), lost when still in good condition, Belgic potsherds and Samian forms 15/17, 24/25, 27, 29, and 30—all dating from the third quarter of the first century. The house is thus not likely to have been built long after A.D. 70.

The house had been destroyed by fire and its site was covered by a thick layer of its own debris containing a *sestertius* of Nerva (M. and S. 60, 73, 83, or 98), part of a plain domestic altar of stone, Samian forms 31 and 37 of c. A.D. 130-60, and coarse pottery of poppy-head and other second-century types, together with a notably large number of amphora-sherds. The destruction of the house may therefore be dated approximately to the middle of the second century.

2B was again a small house or shop, though rather more substantial in character. The outer walls and the main partition-wall were built, as far as preserved, of well-mortared flint with quoins of brick. The partitions between rooms 1 and 5, and 3 and 2, had consisted of a timber framing of unsquared beams (pl. c1) on a clay foundation. The framing had been caulked with wattle and daub (pl. c) and had been rendered in plaster, painted, for the most part, in red and white. Room 1 was paved with *opus signinum*, 6–8 in. in thickness and bounded by a quarter-round moulding. The floors of rooms 2 and 3 were of clay; that of room 4 was of yellow cement. The roof had been of tiles.

The *opus signinum* floor of room 1 had been founded on 5 in. of clean clay which formed a levelling over an occupation-layer with which were associated five slender post-holes (4 in. in diameter) in a line, possibly representing a former fence. This occupation-layer produced Samian 29 of Nero–Vespasian date and Belgic sherds, and was consistent with a building-date in the latter half of the first century.

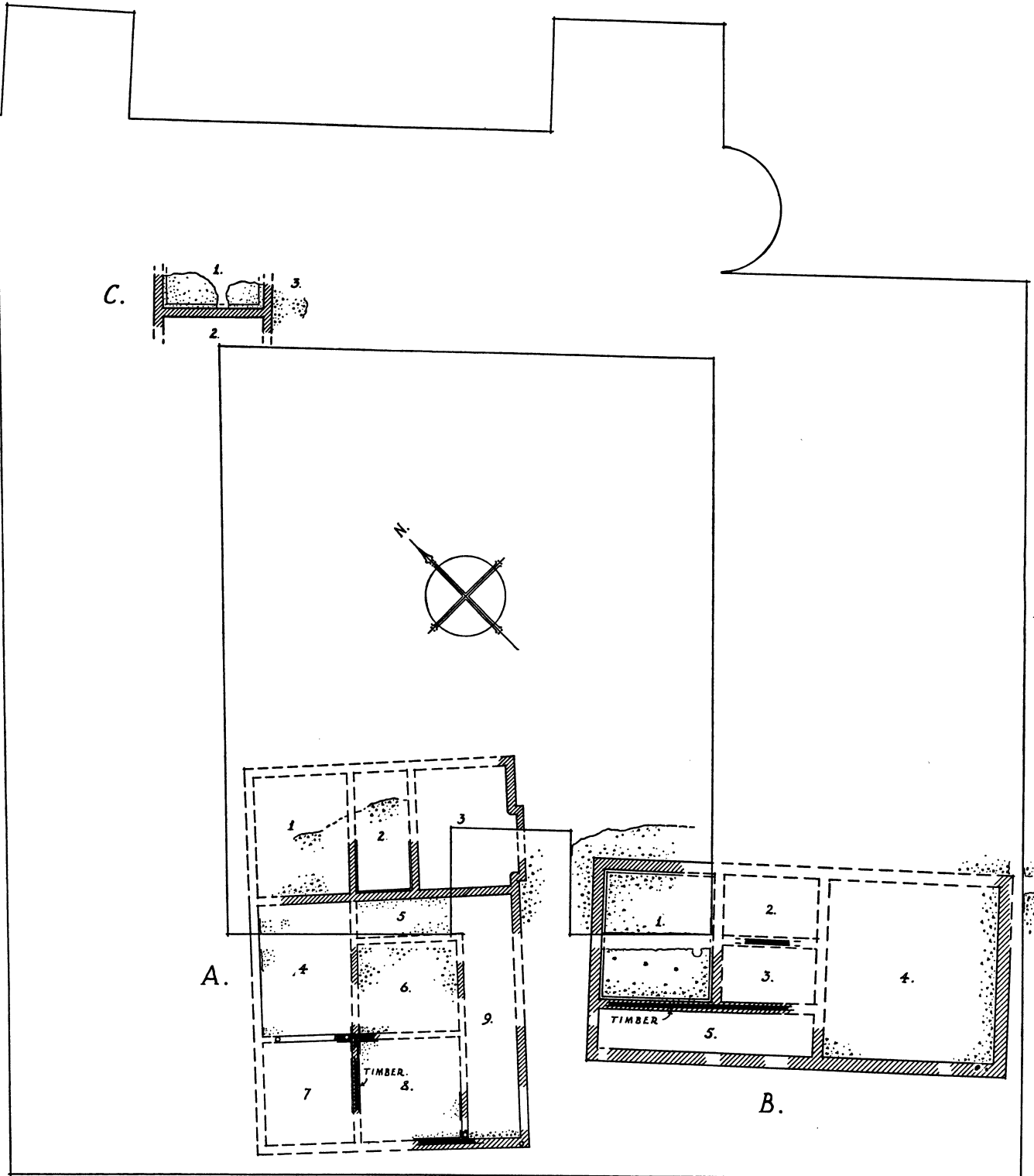
This house, like 2A, was destroyed by fire. The debris contained a *denarius* of Galba (A.D. 68–9—M. and S. 20), an *as* of Titus (A.D. 77–8—M. and S. 785), and a worn *dupondius* of Hadrian (A.D. 119–21—M. and S. 600), together with Samian forms 46 and Curle 11, and coarse ware (poppy-head, etc.) of Hadrian–Antonine date. It seems likely enough, therefore, that this house was burned with its neighbour about the middle of the second century.

2c. Only a minute fragment of this building was recoverable in ground which had been extensively disturbed. The walls were represented by clay foundations and the floors by a yellow cement pavement with marginal quarter-round mouldings. The overlying destruction-level contained Samian forms 31 and Walters 79.

Phase II (pl. xxix). To these three buildings succeeded a single large house of quadrangular plan of a normal urban type. It was constructed of flint and yellow mortar, and some hint as to the character of the verandah enclosing the central court or garden is probably given by a small provincial Doric column-capital of Rutland stone found incorporated in the later rebuild. The floors, in so far as they were preserved, were tessellated, that in the eastern corridor (14 on plan) being marked by a yellow border, whilst that in room 10 had double margins of white and yellow tesserae respectively. A fragment of key-pattern border found in room 33 probably also belonged to this period. Rooms 24 and 25, in the south wing, had cruciform channelled hypocausts, heated, doubtless by means of charcoal, from the adjacent corner-room 23; whilst the apsidal

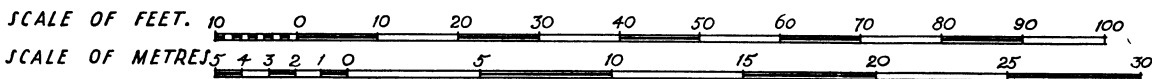
1ST CENTURY BUILDINGS UNDERLYING HOUSE III,2.

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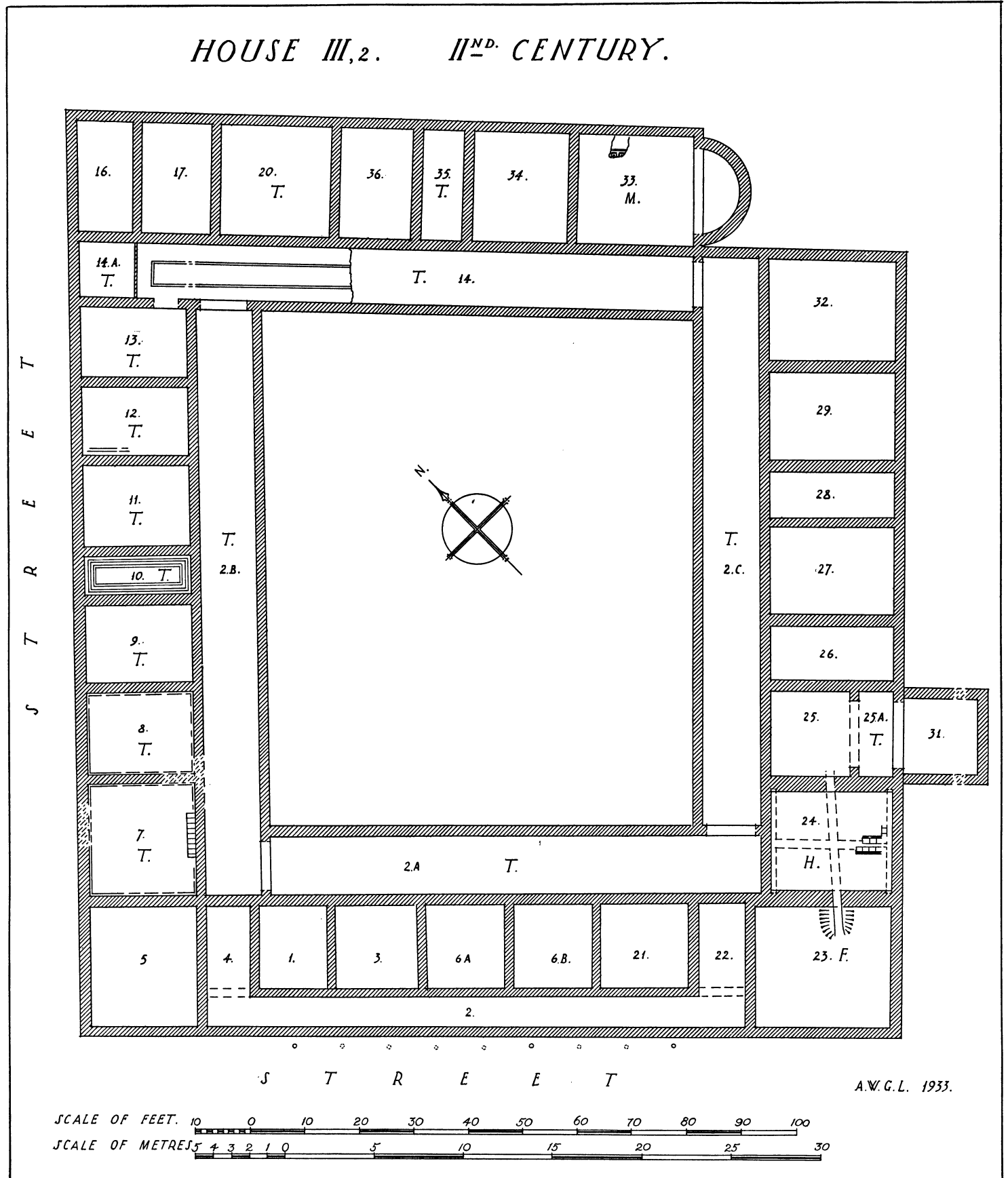


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A.W.G.L. 1935.



HOUSE III, 2. IIND. CENTURY.



room 33, at the southern end of the east wing, had probably also contained a hypocaust at this period.

In the material used for making up the floors of this house were found the following coins: an *as* of Claudius, worn almost smooth, an *as* of Trajan (A.D. 112-17—M. and S. 593), an *as* of Hadrian (A.D. 119-21—M. and S. 577), an *as* of Faustina I (*post* A.D. 141—M. and S., Antoninus Pius, 1162), and a *sestertius* of Antoninus Pius,¹ lost when in good condition; and under the make-up of the road contemporary with this building a *sestertius* of Faustina I (*post* A.D. 141—M. and S. 1103A). In the same layers were found Samian forms 27, 31, 33, Walters 79, all or mostly of Hadrian-Antonine date, together with appropriate coarse pottery. It is evident, therefore, that the construction of the house followed closely upon the destruction of its predecessors, soon after the middle of the second century.

Phase III (pl. xxx). Subsequently, this house was extensively rebuilt and modified in detail. In particular, a porch opening on to the garden was added to the west wing and a verandah or corridor was built across the original porch on the exterior of the south wing. At the same time all the hypocausts were filled up, and floors, many of them with mosaic patterns (see below, p. 145), were renewed in a majority of the rooms and verandahs.

The drastic character of this reconstruction betokens an advanced state of decay at the time; indeed a well-marked layer of debris had accumulated in many of the rooms. In this debris there was hardly any Samian save a very heavy Samian form 45 probably of third-century date, whilst the coarse pottery contained a fair amount of barbotined and painted Castor ware. In the debris was a number of broken hexagonal sandstone roofing-slabs² which presumably indicate the character of a part at least of the original roofing.

At the time of the final reconstruction, this layer of debris had been covered and levelled with clay and miscellaneous material containing the following coins: one of Postumus (M. and S. 67); one of Victorinus (M. and S. 71); three of Claudius II (M. and S. 14, 109, 261/2); three of Tetricus I (M. and S. 56(2) and one barbarous copy); two of Tetricus II (M. and S. 258 (clipped) and one barbarous copy); six of Carausius (M. and S. 143, 300, 303, 354, 895, 1040 var.) and a small hoard of *antoniniani* consisting

¹ This coin is not recorded in Mattingly and Sydenham, *Roman Imperial Coinage*, iii. *Obv.* ANTONINVS AVG PIVS PP COS III or IIII. Bust, ? laureate and draped, r. *Rev.* AETERNITAS S C. Juno standing l., holding patera and sceptre.

² Ascribed by the Geological Survey either to the beds of Collyweston (Northamptonshire), or to those near Woodstock (Oxfordshire).

of two of Gallienus (M. and S. 179, 256); one of Claudius II (M. and S. 266); four of Tetricus I (M. and S. 86, 88, 90, 141) and one of Tetricus II (M. and S. 258). In the contemporary level in the central garden were found one of Gallienus (M. and S. 164); three of Claudius II (M. and S. 231, 259, 266); two of Tetricus I (M. and S. 86 or 90, 100); one of Tetricus II (M. and S. 258); and two of Carausius (M. and S. 101 and one semi-barbarous *Pax* type). It is abundantly evident, therefore, that the reconstruction of this house, as of other houses described, occurred at the end of the third century.

Shortly after the reconstruction a subsidence occurred in rooms 1 and 3, and the floors of these rooms were made good with a clay levelling which covered the following coins: one of Gallienus (M. and S. 181); two of Victorinus (M. and S. 57, 71); three of Claudius II (M. and S. 91, 262, and one not closely identifiable); two of Tetricus I (M. and S. 71, 100/2); three of Tetricus II (M. and S. 254/5, 260, 272); two of Carausius (M. and S. 469 and one barbarous) and three 'radiates' (two barbarous).

No stratified material ascribable to a date later than the end of the third century was found in this building. The unstratified material covering the site contained only four fourth-century coins: i.e. one each of Crispus (C. 6), Constans (C. 179), fourth-century unidentified and a fourth-century barbarous minim, akin to Lydney class D.¹ It is evident, therefore, that no significant occupation can be ascribed to the latter half of the fourth century. Four intrusive post-holes, roughly reinforced with broken tiles, are shown on the plan at the south-west corner of the main verandah (see also pls. XLIII A, CI A), but cannot be dated. They represent a hut erected at this point at some time when the house had already ceased to exist.

Insula IV

Building IV, 1 (plan, pl. xxx1)

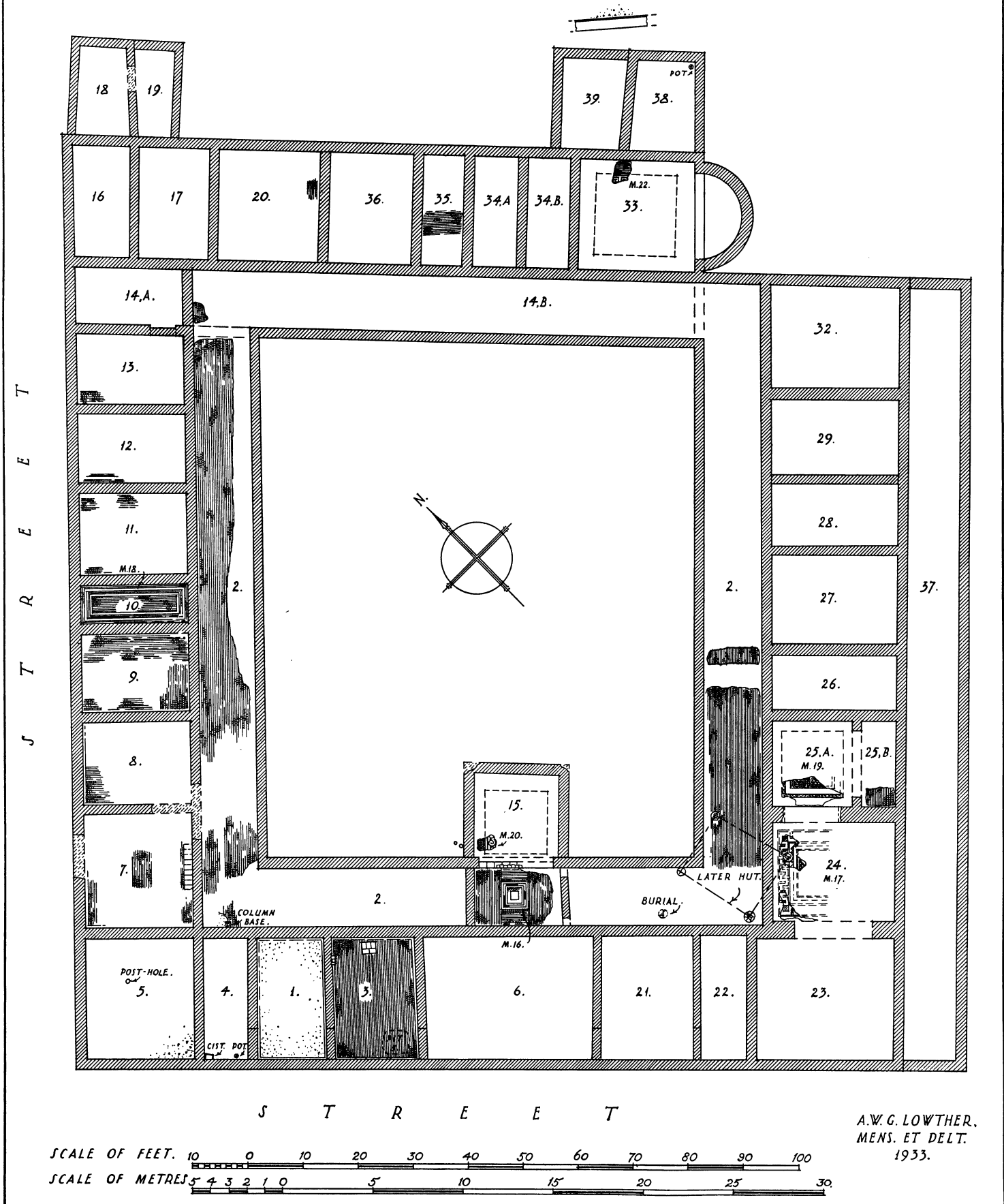
Buildings IV, 1-6, form a complex group of foundations representing six structures, together with two small square outhouses, all closely interlocked. The complex appears to have begun with buildings IV, 1, and IV, 2, small but well-equipped dwelling-houses of the second century.

Building IV, 1, was L-shaped, with a projecting room (3) from one arm of the L. It was surrounded almost continuously by a verandah with a red tessellated floor, and at least two of its rooms (5 and 6) had included mosaics. The only structural feature of note was the relic of a brick-turned relieving arch which had

¹ *Lydney Report* (Society of Antiquaries, 1932), p. 122.

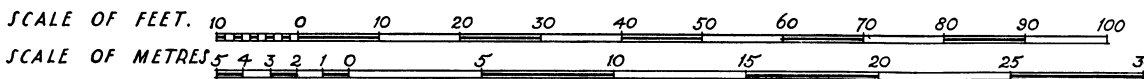
HOUSE III, 2

c. 300 A.D.



S T R E E T

A.W.G. LOWTHER,
MENS. ET DELT.
1933.



carried the south-eastern wall of room 6 across a filled-up rubbish-pit, and had subsequently collapsed into it. This, however, was not the only source of instability from which the building had suffered. A large swallow-hole in the underlying chalk had manifested itself in Roman times, and into it a part of rooms 5 and 6 and of an adjacent verandah had collapsed. Indeed, this part of the house must have been built over a concealed cavity in the top of the swallow-hole, since pieces of the tessellated flooring of the rooms in question were found at a depth of 14 ft. within it, and were connected with the surviving floor on the surface by a continuous cascade of material.

Of the mosaics, that in room 6 was now represented only by a strip-panel of white lozenges on a black ground; but in room 5 most of a square mosaic consisting of a circular floral pattern with a rectangular grid imposed upon it remained in position. For a discussion of this and other mosaics, see below, p. 146. On the adjacent verandah-walls, part of the painted wall-plaster had survived *in situ*. It had been decorated in broad panels in white, green, and black.

The two small square detached structures, 1 and 2, should probably be associated with this building. Their purpose can only be guessed, but in a corner of the smaller was a brick hearth which had been extensively used, and suggests the possibility that they may have served as cook-houses. The cement floor of the larger contained the base of a pot set upright in it, and sealed Samian forms 18/31 and 27, and a second-century poppy-head beaker. The cement floor of the smaller sealed Samian forms 31, 33, and Walters 79—the form characteristic of the Hadrian–Antonine period.

Date of building IV, 1. Under room 5 and the adjacent verandah were found five post-holes associated with the remains of a gravel floor which sealed a *dupondius* of Vespasian (A.D. 72, good condition—M. and S. 528) with Samian pottery (forms 15/17, 18, 24/24, and 27) and native pottery of pre-Flavian or early Flavian date. These remains indicate a timber structure not earlier than A.D. 72 and probably not later than *c.* A.D. 80.

Other relics sealed by building IV, 1, were numerous but included only three coins, an *as* of Agrippa (M. and S., Tiberius, 32) and two *dupondii* of Vespasian (one pierced, M. and S. 740 and 749). An important Mithraic token, described below (see p. 221), does not help in the present context. The abundant mass of pottery included much late first- and early second-century Samian, together with the following, to which an Antonine date may be ascribed: several examples of forms 31 and 33, late type; forms 37,

including a decorated fragment of *Cinnamus* type; and fragments of one each of 38, 43, 44, and 45. The coarse pottery covers the same range of period. The whole of this pottery was clearly stratified and most of it was sealed by tessellated or mosaic floors. The latest Samian forms are rare and probably early in their series; and the bulk of the evidence as a whole is such as to establish a date for the structure in the latter half of the second century, probably before the end of the Antonine period.

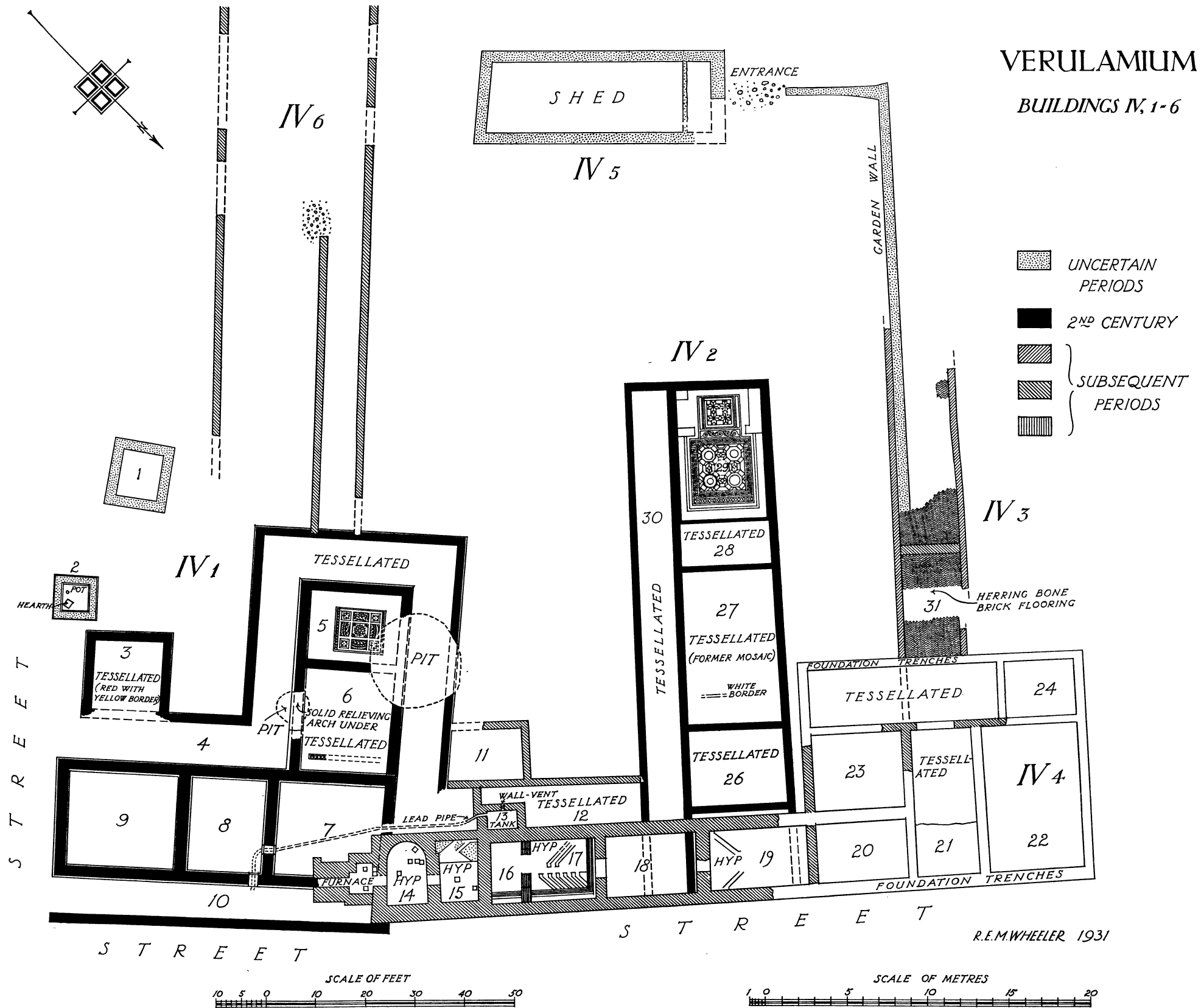
The cavity into which, as described above, rooms 5 and 6 and the adjacent verandah partially collapsed, was filled up in Roman times with building-debris and other material containing the following coins: a somewhat worn second brass of Antoninus Pius, a *denarius* of Caracalla (? C. 243), and *antoniniani* of Victorinus (M. and S. 71, 114), Claudius II (M. and S. 98/9, 261/2, 266), Tetricus I (M. and S. 100) (3), and Carausius (M. and S. 98/108, 421), together with five unidentifiable coins of the latter part of the third century. It may be noted, moreover, that this levelling extended over the greater part of the site of the house and that the surviving foundations and floors in the neighbourhood of the swallow-hole were found buried beneath a layer of clay.

It is clear, therefore, that the house, built in the second half of the second century, had collapsed before the end of the following century and that, during the general clearance and remodelling of this part of the town about A.D. 300, the whole site had been carefully levelled.

Building IV, 2 (plan, pl. xxxi)

This building was a simple corridor-house, of which two at least of the rooms contained mosaic floors whilst the remainder were paved with red tesserae. The mosaic of room 27 had disappeared save for a short length of white border. That of the double room 29 (divided, it would seem, by an arched or trabeated opening) was largely intact, and included circular floral motifs within a background of 'box' pattern (see below, p. 145). The walls of this room retained the remains of painted wall-plaster, bearing traces of red panels outlined with successive bands of blue, yellow ochre, green, white, and purple lines of varying widths, and arranged in a number of different sequences round successive panels. Two further structural points may be noted. First, the cement moulding between the wall and floor of the verandah (30) on its inner side had a chamfered surface instead of the usual quarter-round. It had been painted a bright blue. The second point is that a partition-wall between rooms 28 and 29 had

VERULAMIUM
BUILDINGS IV, 1-6



NOTE: the walls shown as of 'uncertain periods' are probably of the second century

been of timber and retained good evidence of its method of construction (fig. 8 and pl. cii B). The timber itself had disappeared but its matrix, 4 in. thick, had been preserved by the plaster-facing which remained on both sides. The timber-framing had been

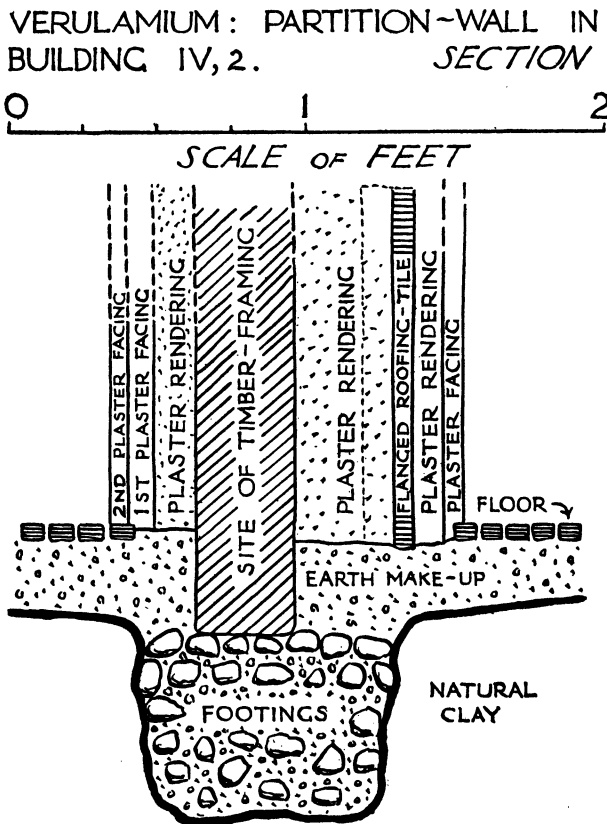


FIG. 8.

bedded to a depth of $4\frac{1}{2}$ in. on a pebble footing. The plaster-rendering on one side had been reinforced by the incorporation of roof-tiles; and on both sides the wall was faced by a final rendering of finer plaster which, in one case, had been renewed. It was clear from more fragmentary remains that partitions at Verulamium had not infrequently been made in this manner.

Date of building IV, 2. Beneath a part of this house were two layers, of clay and earth respectively. In the former, which was the earlier, was a coin of Claudius I (M. and S. 66) and small fragments of Samian forms 18 and 29. In the earthen layer above this was a worn *as* of Vespasian (M. and S. 497). Pottery which

was likewise sealed by the floors included Samian forms 18/31, 27, 31, 33, 35/6, and a rim of 37 which is not likely to be earlier than the reign of Hadrian. The coarse pottery included 'poppy-head' beakers and Hadrianic bowls with reeded flanges. The whole group suggests a date not earlier than *c.* 140 for the building of the house.

Building IV, 3 (plan, pl. xxxi)

Parallel with and 23 ft. to the north-west of the house IV, 2, were remains of a simple, oblong structure, IV, 3, of which neither the south-western nor the north-eastern ends had survived. It had been paved with herring-bone tiling, and overlay a wall which had probably been built as a garden-wall for the house IV, 2 (see plan). Otherwise there was no indication of the date or purpose of this building IV, 3, save that the herring-bone paving would be particularly suitable for a stable or cart-shed. Paving of this kind occurs in a number of Roman buildings in Britain, e.g. that at Ashted¹ (late first or early second century) and in another discovered in 1843 in Wood Street in the city of London.² At Ashted the room thus paved formed part of a dwelling-house.

It may be added that in building IV, 3, the herring-bone paving was secondary and had been inserted over a yellow cement floor after the north-westerly wall of the building had been thrust out of alignment (see plan). A partition-wall had subsequently been built across the secondary flooring.

Building IV, 4 (plan, pl. xxxi)

This large and somewhat rambling building lay across the north-eastern ends of IV, 1-3. Building IV, 1, had already been demolished, but the greater part of IV, 2, was incorporated in it. Its relationship to IV, 3, was obscured by subsequent destruction.

The south-eastern end of IV, 4, consisted of a bath-suite, terminating in a furnace, with a small *sudatorium* (14), a *caldarium* (15), and a *tepidarium* (16-17). Adjoining the last was a small cement-lined tank with an outlet containing part of a leaden pipe at its more southern corner. This tank projected into a verandah (12) but, for purposes of ventilation, contained in its south-western wall a vertical flue with a lateral opening which could be covered or uncovered at will in the floor of the verandah (pl. ciii B). The *tepidarium* had contained a brick-built channelled hypocaust, of herring-bone pattern on plan. It had apparently been connected with two further rooms (18 and 19); these rooms were in a very

¹ *Surrey Archaeological Collections*, xxxviii (1929).

² Royal Commission on Historical Monuments (Eng.), *Roman London*, p. 121.

fragmentary state, but the latter appeared to have contained a channelled hypocaust. Its distance from the furnace might suggest the former existence of a supplementary furnace, but no evidence was available.

Of the various rooms, outlined on two sides by verandahs and partially floored with yellow and red tesserae, nothing can be said. The walls were for the most part represented by trenches from which the actual structure had been torn.

That the major part of building IV, 2, was retained in occupation at this period was made clear by the amalgamation of its verandah (30) with the verandah (12) of the new building. At the point of junction the relaying of the tesserae was evident, and the new floor overlay a part of the original verandah wall of IV, 2. The projecting room 11 appeared to have incorporated on one side the foundations of the adjacent verandah of the former building IV, 1.

Date of building IV, 4. Beyond the fact that this building was subsequent to two houses of mid or late second-century date, no evidence was forthcoming as to its own period. Later in its history, all or most of the hypocausts in rooms 14-19 had been deliberately filled up, and in the filling were coins and pottery dating from the third century. The coins were of Gallienus (M. and S. 297), Victorinus (M. and S. 118), four of Claudius II (M. and S. 38, 98, 98/9, 261/2), Numerian (M. and S. 397), Carausius (M. and S. add. p. 507, nos. 527, 783), and five barbarous 'radiates' derived from late third-century types. The associated pottery included heavy and late examples of Samian form 31, forms 37, 38, 146, and 78 with 'cut-glass' decoration, together with imitation Samian, hammer-head mortaria, Castor-ware, and black-glazed Rhenish ware, in one case with a BIBE inscription in white barbotine. The inference is that, during the general re-organization of c. A.D. 300, the hypocaust system had been dis-used and filled up, though the building itself remained in use. To this period of reconstruction may be ascribed a partition-wall inserted into the former *tepidarium* (16-17). The higher levels of the building had been entirely removed and, with them, all possible evidence of the nature of this later occupation.

Building IV, 5 (plan, pl. xxxi)

This oblong structure was represented merely by clumsy, dry-built footings, and had presumably been a barn or garden shed. It was associated with the garden wall which partially underlay building IV, 3, and had probably been constructed in relation to the second-century house, building IV, 2.

Building IV, 6 (only partially represented on the plan, pl. xxxi, but see general plan, pl. cxx).

This structure, possibly a large barn or warehouse, was represented by fragmentary foundations and by a small tessellated room at its south-western end. At its north-eastern end, its foundations overlay the verandah-wall of building IV, 1, and its construction must therefore have been subsequent to the demolition of the latter, i.e. after the second century. Nevertheless beneath the building were no evidences of any significant previous occupation.

Building IV, 7 (plan, pl. cxx)

This building was found to be in an extremely fragmentary condition, many of the walls being represented merely by spoil-trenches, whilst the floors had in every case been removed. Moreover, its eastern end was further obscured by trees and a thick hedge.

Its plan consisted of a main range flanked by irregular wings projecting towards the south. The principal room in the western wing contained the remains of a cruciform channelled hypocaust, supplied, doubtless with charcoal, from a small brick furnace at its northern end.

The proximity of the remains to the present surface nullified most of the evidence, but a deliberate levelling of clay across some of the walls indicated that the building had been razed to the ground within the Roman period. That part at least of the building had been demolished by the end of the third century was proved by the presence of a square rubbish-pit (pit 5), which had been driven to a depth of 13 ft. through the western wall. The pit contained an undeciphered late third-century coin and a few fragments of Samian pottery of second- and early third-century date (including form 45). Amongst the associated coarse ware were fragments of Castor vessels of the latter half of the second or the third century and two jugs with the flange and funnel which came into use at the end of the third century (see below, p. 199). The jugs were at the bottom of the pit.

Building IV, 8 (plan, pl. xxxii)

Phase I, c. A.D. 150-190. This building is a dwelling-house of considerable size and elaboration. It was built in the latter half of the second century, and remodelled at or shortly after the end of the third century. Its plan is E-shaped, with the wings and the main front facing towards the south. On this side it overlooked an open space or garden which extended to the southern limit of the *insula* and contained no buildings.

Beneath the eastern part of the house lay fragmentary walls of an indeterminate building of earlier date; under the western part of the house, and, indeed, in the whole of the westerly portion of the *insula*, there were no traces of a previous occupation.

The main range of the building consisted of a series of small rooms of which two (19 and 24) were respectively no more than $3\frac{1}{2}$ and $4\frac{1}{2}$ ft. wide, and may be thought to have contained staircases to an upper floor. Another room (15) contained originally a cruciform channelled hypocaust with wall-flues, heated, probably by means of charcoal, from the double-furnace room (13) to the west of it. From this double furnace was also heated (again, probably by charcoal) the channelled hypocaust with which the adjoining room on the west (8) was likewise originally equipped. The hypocausts in both rooms 15 and 8 had, however, been abolished in the Roman period (see below) and no trace remained of the system of ventilation which, as Sir George Macdonald has shown,¹ is normally to be expected in connexion with a charcoal-heated system.

Along the back of this range ran a verandah (9), which was presumably used for service, particularly in connexion with the hypocaust-furnaces; at any rate, it was destroyed in the later period of the house when these furnaces and their hypocausts had been dismantled and overbuilt.

Projecting from the verandah (14) along the south front of the main range is a small room (21) which may be supposed to have formed an entrance-porch.

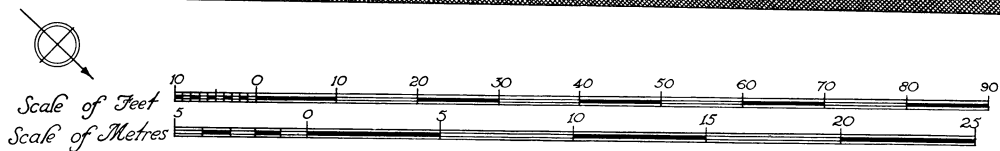
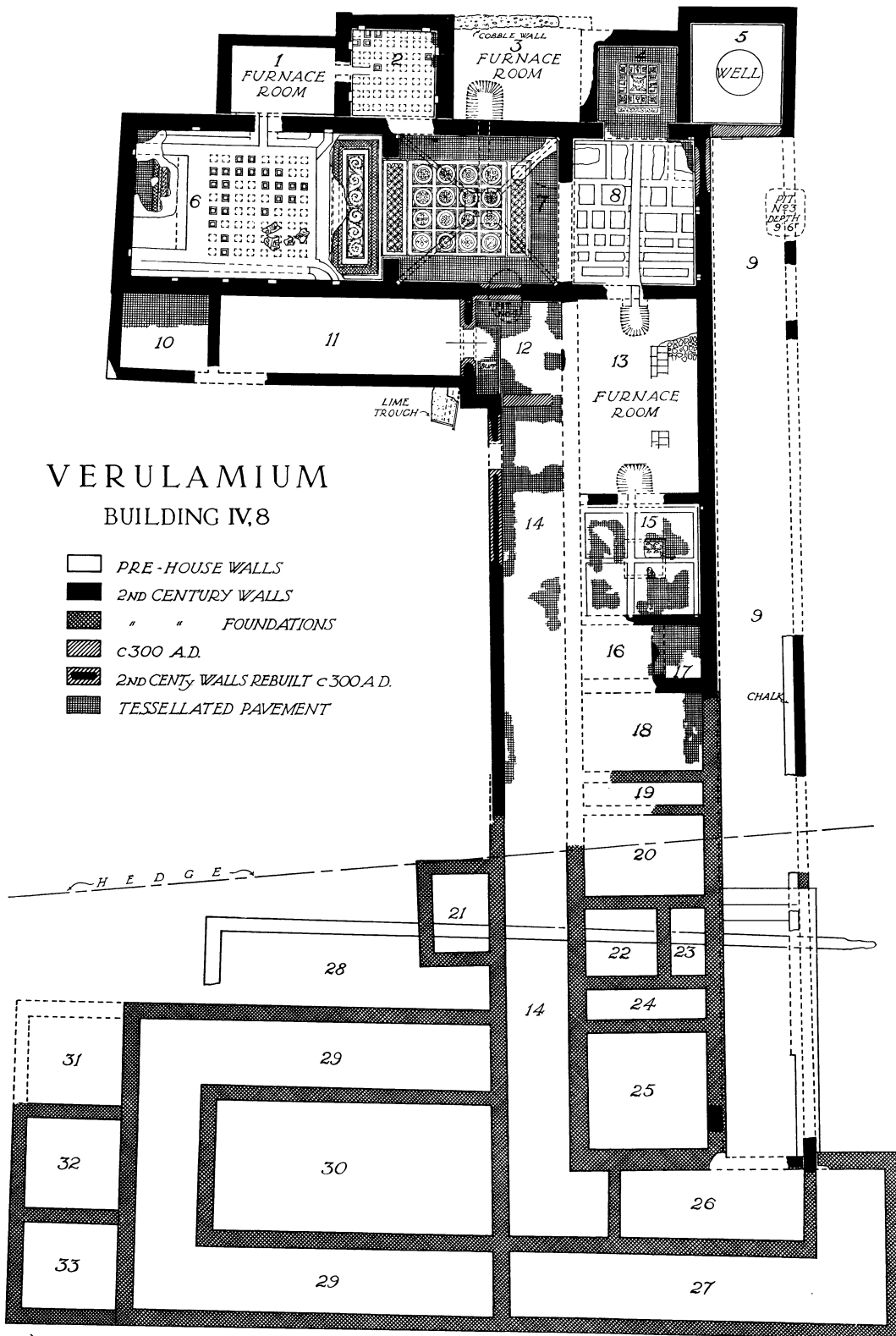
The eastern wing of the house had at the best been reduced to bare foundations, and had for the most part been entirely uprooted, the lines of its walls being, however, clearly represented by robber-trenches. No floors remained in position, and nothing further can be said about it.

The western range included, at its north-western corner, a projecting room (5) containing an unfinished well-shaft (pl. CVI A), an adjacent room with a fine mosaic floor, and a series of rooms (2, 6, 7, and 8—the last already mentioned), heated by hypocausts. The projecting room 5 had a floor of *opus signinum* with a continuous quarter-round moulding, and had been entered originally in its eastern side from the adjacent verandah. The well-shaft was central and was undoubtedly contemporary with it; the *opus signinum* floor stopped at its margin and the continuous cement skirting round the room was clearly a special measure to prevent the spilled water from flooding through the door into any adjoining portion of the house. Nevertheless, as a well, the shaft had never been functional. Its total depth was only 38 ft., whereas

¹ *Proc. Soc. Ant. Scot.* lxiii (1929), 483 ff.

the water-level at this spot would not be reached to-day, according to a local well-sinker, at a depth of less than 70 ft. Moreover, the unlined sides of the shaft—which was an excellent piece of boring—showed no signs of water-action, nor was any sediment found in the chalk bottom of the shaft when it was cleared. It is evident that the construction of the well was abandoned at the time of building, and that the shaft was then, or shortly afterwards, filled up with debris. That this debris was not a gradual accumulation but was inserted at one moment was shown by the repeated occurrence of pieces of the same pot at many different depths. It included three coins of Antoninus Pius (A.D. 140-4—M. and S. 635; A.D. 152-3—M. and S. 908; A.D. 145-61—M. and S. 798), the latest lost when in fair condition, and a vast quantity of pottery (see below, p. 182) amongst which were a single early-looking fragment of the late Samian mortarium form 45 bearing the stamp of the Antonine potter GEMINUS. Other Samian pottery comprised several examples of form 31 with the stamps of the Antonine potters ALBUS, ALBUCCIUS, MAGIO, MICCIO, UXOPILLUS, and possibly MARCELLUS, and a form 33 with the stamp of the Trajan-Antonine potter SEXTUS. The large mass of coarse pottery in the same group is consistent with this dating. Food-debris was also abundant and included bones of ox, sheep or goat, pig, two or three indeterminate bird bones, large quantities of oyster-shells and a number of shells of mussel and whelk, together with lobster-claws.

Rooms 2 and 6 were heated by a double furnace in room 1. Room 2 was equipped with a brick-pillared hypocaust and double vertical wall-flues; it may be identified with the *sudatorium* or sweating-room of the normal Roman bath-system. Room 6 was equipped with eight double wall-flues and a pillared hypocaust, supplemented by flint supporting-walls (pl. cvii B). The position of one of these walls suggests a former water-tank above the floor at the southern end. The large size of this room apparently determined the builders to supply a separate furnace, probably with charcoal-fuel, for the large warm room or *tepidarium* (7) which adjoined it to the north. This room, as excavated, retained its hypocaust almost intact (pls. civ and cv). It had been warmed through a brick-arched flue in its western wall from a fire in an unlined pit beneath a shed of relatively light construction. The heat from the furnace was carried to a small central space with four brick pillar-supports, whence it passed, through diagonal channels, to wall-flues in the four corners of the room. At the south-western corner, a doorway had provided admission direct from the *tepidarium* to the *sudatorium*.



This bath-system, normal save for the provision of the separate charcoal-furnace for the *tepidarium*—a feature necessitated by the exceptional size of the rooms—is completed by a small room (12) which, together with the verandah (10 and 11) would serve the purpose of ante-room.

Adjoining the bath-system on the north are rooms 4 and 8, the former unheated, the latter heated, by means of an elaborate channelled hypocaust, from the double furnace (13) already mentioned. It may be that these two rooms 4 and 8 should be regarded as an example of the supplementary abbreviated bath-system frequently found in Roman baths—the system by which the less leisurely bather passed from a cold ante-room into a hot room without the intermediary *tepidarium*.

In the main range the floors, in so far as they survived at all, were all of the later period (phase II, see below). The south verandah (14), with its corner-expansion (12), however, retained a part of an original red tessellated flooring; whilst room 10, i.e. the south-western end of the verandah, had a floor of coarse yellow tesserae which may be original but are more likely to be of phase II when tesserae of this kind were more freely used.

In the west wing, the mosaics of rooms 4 and 7 were substantially intact and belong to the original construction of the building. Room 4 was part of the original plan, and its mosaic (which has now been taken up for preservation) lay on the clean, natural clay of the site. Its design included a central panel bearing a bearded head of Neptune or Ocean with a projecting pair of lobster's-claws—a motive not uncommonly associated with bath-buildings.¹ The mosaic of room 7 was also in its original condition except for an extensive patching of the border with coarse, yellow tesserae. It consisted of two end-panels of intersecting circles and a main pattern of sixteen squares containing floral designs. In the adjoining room 6, the hypocaust had been filled in in phase II (see below, p. 106) and the fragments of mosaic which remain *in situ* are of this later period. Contained in the Roman filling of the hypocaust, however, were several fragments of the earlier mosaic, which included rhomboidal forms of the type still preserved in building IV, 2 (below, p. 146).

Of the former floor in room 2 (the *sudatorium*) only a small part of the yellow tessellated border remained.

Fragments of the wall-plaster associated with phase I were found in the later filling of rooms 6 and 8, and a fragment remained actually *in situ* below the later floor-level in the verandah 14.

¹ This, like the other mosaics found at Verulamium, is dealt with in detail in a separate section, see below, p. 146.

So far as can be seen, the decoration consisted of simple panels in maroon, yellow ochre, and bright blue, outlined in white on black.

Date of phase I. The only coin from levels prior to the building of the house is one of Vespasian (A.D. 71—M. and S. 300) found in a stratum into which the foundation-trenches were dug. The period of construction is bracketed at the other end by the three coins of Antoninus Pius—the latest dated A.D. 161—which were lost while still in fairly good condition and were inserted into the unfinished well (room 5) when its construction was abandoned. It may be recalled that the large quantity of datable pottery from this filling is also of Antonine date and may be ascribed confidently to the period A.D. 160–90.

Phase II, c. A.D. 300. At some date soon after A.D. 293–6 the house was extensively reconditioned and partially rebuilt, apparently after a period of advanced decay in which some of the walls had become ruinous. How far this remodelling extended to the eastern half of the house it is now impossible to say. In the western part of the main range, the wall of the corridor (14) was reconstructed on the old foundation in conjunction with a new floor-level, 8 in. above the tessellated floor of phase I. The westerly expansion shown on the plan as room 12 was partitioned off from the corridor by a new wall built upon the original paving. In the southern wall of room 12 the doorway was rebuilt, and in the western wall of this room a subsidence necessitated an extensive reconstruction. The surface of the new flooring had vanished, but its make-up—from 6 to 12 in. of re-used mortar, wall-plaster, broken bricks, etc.—was largely in position.

In room 15 the original cruciform hypocaust was disused and filled up at this period, and was repaved with a new mosaic pavement decorated with a pelta-motif (see below, p. 147). The remains of this pavement were taken up for preservation.

The adjacent furnace, room 13, and the hypocaust in room 8, were likewise disused and were levelled up with mortar-debris capped in places by carefully laid bricks.

Rooms 4 and 7 were retained in their original state, save for patching in the latter room as noted above. In room 6, however, the original hypocaust was obliterated and a fresh mosaic floor was laid down over fragments of its predecessor. Of the new floor only part of the yellow border and multiple guilloche framework, together with an oblong panel containing an acanthus pattern, remained.

Whether the *sudatorium*, room 2, was retained in use at this late period is uncertain. There was at least no reason to suppose the contrary.

Lastly, the service-verandah (9) at the back of the building was destroyed by this period and, towards its western end, a rubbish-pit (Pit 3), $9\frac{1}{2}$ ft. deep, was dug through the line of its wall. The pit contained much third-century pottery.

Date of phase II. The period at which the remodelling of the house was carried out is abundantly shown by well stratified coins of which the latest sealed in the process of reconstruction are of Allectus (A.D. 293-6).

The relevant coins are as follows:

In the filling which carried the pelta-mosaic over the disused hypocaust of room 15, two coins of Gallienus (M. and S. 176, 280); one of Victorinus (M. and S. 71); one of Tetricus I (M. and S. 100); one of Tetricus II (M. and S. 270/2); and two of Carausius (M. and S. 121, 880).

Under the later tessellated flooring of room 17, one of Carausius (M. and S. 322).

Under the later tessellated flooring of room 18, one of Allectus (M. and S. 128).

In the material used to level the double furnace-room 13, two of Victorinus (M. and S. 57, 109); one of Claudius II (M. and S. 109/11); one of Tetricus I (M. and S. 70); two of Tetricus II (M. and S. 277 and one barbarous); five of Carausius (M. and S. 101, 143, 155, 1038, one as 121 but mint \overline{xx}); and one of Allectus (M. and S. 128).

In the material used to fill up and refloor the hypocaust of room 8, one late third-century 'Radiate'.

In the material used to refloor the verandah 14, together with room 12, one of Victorinus (M. and S. 67); one of Tetricus I (M. and S. 80); one of Claudius II (M. and S. 106); two of Carausius (M. and S. 212 var., 736); and one of Allectus (M. and S. 55).

In the material contemporary with the levelling of the site of the northern verandah 9, one of Victorinus (M. and S. 57).

In view of the abundance of the coin-evidence, it is unnecessary to emphasize that of the stratified pottery; but it may be recorded that the ceramic evidence is entirely consistent.

As to the subsequent history of the house after its rehabilitation, *c.* A.D. 300, no evidence survives. The proximity of the remains to the surface is a sufficient explanation; indeed, in some places the flooring of phase II had been entirely removed by the plough. Only two coins of fourth-century date were found on the surface of the site—of Crispus (C. 22) and Constantine I (C. 113) respectively.

Building IV, 9 (plan, pl. cxx)

Like its neighbour, building IV, 10, this house had been reduced, in post-Roman times, to little more than a succession of spoil-trenches. Not very much, therefore, can be said about it

save that the passage connecting it with room 10 of house IV, 10, was structurally of later date than the latter. The floors of the building had suffered as extensively as the walls, with the result that no satisfactory evidence as to date was recoverable. The projecting porch (room 4) obviously served as the main street-entrance, via room 3 and the adjacent passage, to house IV, 10.

Building IV, 10 (plan, pl. cxx).

This house was of L-shaped plan with a lightly-built room or shed projecting from one end of the main range. The masonry had been almost entirely removed, save at the apsidal end of the main wing (pl. cvii A), but it was possible to recover the plan by a succession of cuttings across the lines of the robber-trenches. Towards the western end of the main range, parts of plain red tessellated floors remained in position and covered pottery—Samian forms 35/6 and 37, together with poppy-head and other equivalent coarse wares—dating from the first half of the second century, and suggesting a mid-second-century date for the structure. Subsequently, the building fell into decay and a hypocaust which, though not traceable in detail, had apparently existed in room 9 was broken in. When excavated, the room was found to be filled with fragments of a mosaic pavement, including a panel with an urn flanked by dolphins (see below, p. 147), and numerous hypocaust-tiles. Later, this debris had been roughly levelled with clay and had been used as a burial-ground for infants (see p. 139).

Following the period of dilapidation the house seems to have been rehabilitated, and the material used for a re-levelling of the south-east wing contained Antonine Samian and Rhenish or pseudo-Rhenish ware of the second or third century with two coins, of Gordian III (C. 319) and Tetricus (M. and S. 71) respectively. An adjacent panel of chequer-pattern mosaic in the corridor (pl. xlviii B) may, from its level, be ascribed to this period of rebuilding, but it covered no datable relics, and the wholesale destruction hereabouts prevented accurate stratigraphical association. So far as it goes, the evidence is consistent with, but does not clearly prove, a reconstruction towards the close of the third century, when much rebuilding was being carried out in many parts of Verulamium.

The last phase in the history of the house is represented by a clay covering over the chequer-pattern mosaic and the insertion of a rough tile-hearth into one corner of the room (pl. xlviii B). A second hearth of the channelled type was also at some period built above the tessellated floor of room 1 at the more westerly end of the main range.

*Insula V**Building V, 1* (plan, pl. xxxiii)

This large building, covering nearly three-quarters of an acre of ground, is of simple plan, half-H-shaped, with a southerly aspect. On this side, the usual verandah opens into the main range and the wings. The house was built on a considerable upward slope from east to west, involving a rise in floor-level in the western half of the main range (between rooms 11 and 12). Even so, the builders found it necessary to cut the more westerly rooms into the hill-side; whilst they added buttresses towards the eastern end where the walls must have risen proportionately higher above the ground.

As found, the building was substantially of one date, save for the insertion or alteration of a small bathroom, projecting from the south-western wing. These alterations, which included the addition of two small apses, are sufficiently indicated on the plan.

Rooms 10 and 11 were particularly well preserved and retained their painted wall-plaster to a maximum height of 4 ft. (pl. cviii A). The decoration of room 11 was simple in character; it had included a projecting plaster dado, about 1 ft. high, the position of which was clearly indicated. Splashes of light blue paint in the vicinity suggested that it had been painted in that colour. Above the dado the walls were outlined by a broad band of Pompeian red, supplemented by five black lines. The fallen debris suggested that, at a higher level, this framework had contained further painted panelling in yellow ochre and black. The corners of the room had been filled, above the dado, by a vertical quarter-round moulding similar to that commonly found at the junction of floors and walls.

The decoration of the adjacent room 10 had been somewhat similar. Here, however, a part of the plaster dado, hollow-chamfered at the offset, remained in position and the panels above it had been framed in a simple geometrical arrangement of thin black lines. In rooms 9, 10, and 11, the jambs of the doorways showed the former presence of timber-sills, partially supported by bricks. It was probable, though not quite certain, that the jambs had been faced with timber.

In the south-western wing, three rooms, 18, 19, and 22, had been built as cement-lined tanks, though 22 had subsequently been filled up to a height of $3\frac{1}{2}$ ft. and floored at that level with red tesserae. The intervening rooms, 19 and 21, had each had a smaller tank within their outer ends (pl. cviii B). The whole wing was very badly ruined and search failed to reveal any details

which might have elucidated the purpose of the tanks. The in-filling contained a number of flue-tiles and fragments of tessellated flooring, but it is difficult to reconcile the remains *in situ* with any normal bath-system, nor was there any sign of burning. A series of tanks such as this recalls the arrangement of a fulling-establishment as preserved at Pompeii and perhaps in one or two Romano-British buildings.¹

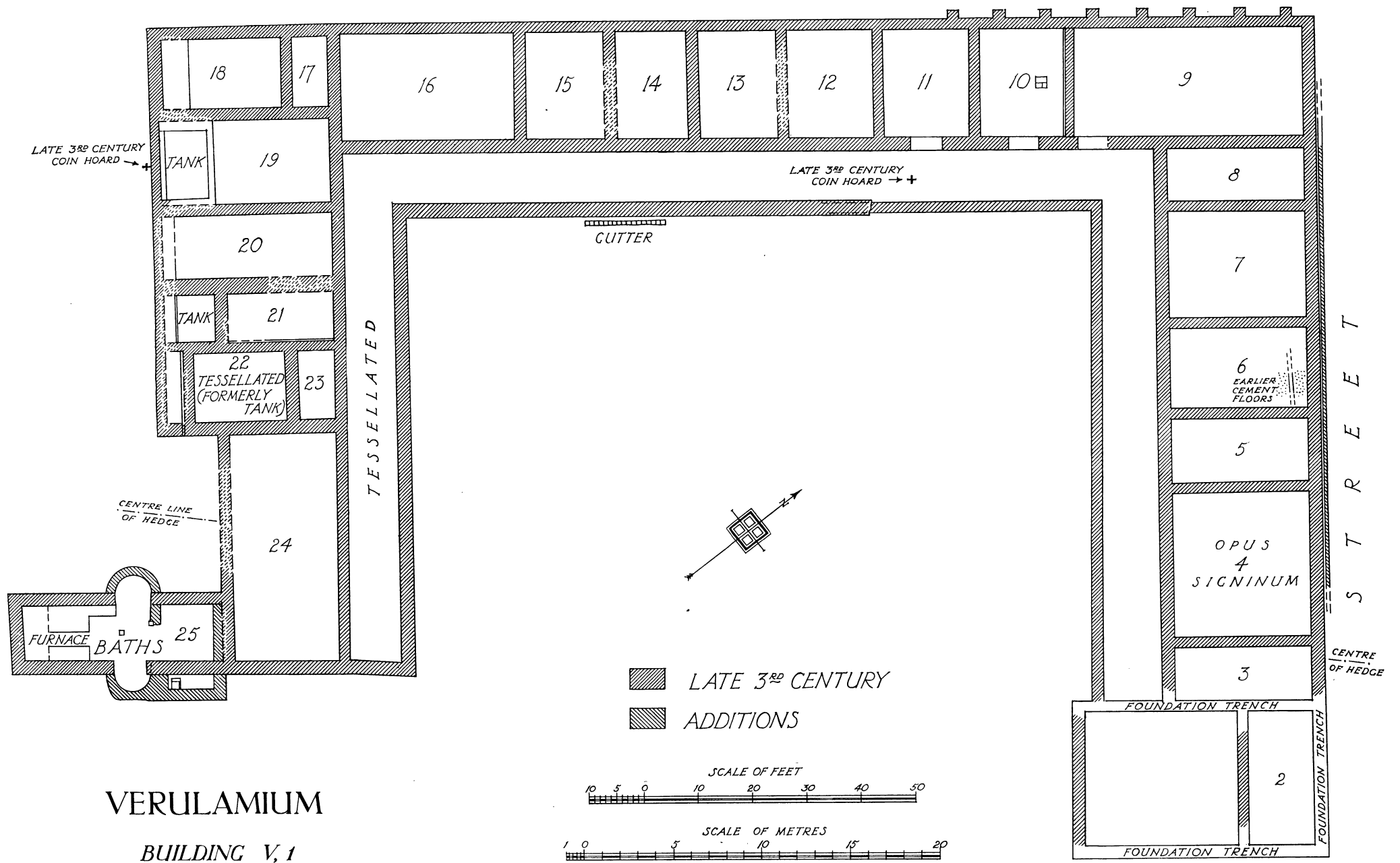
Date of building V, I. Structural evidence on this site of a date prior to the building described above was scanty, and it is clear that the area had not been densely occupied, unless under the north-east wing, where mid-first-century pottery, together with a coin of Cunobelin and three *asses* of Claudius I (M. and S. 66, 69), was found. Beneath room 6, also in the north-east wing, were fragments of yellow cement flooring associated with a runnel which had evidently held a timber wall. A similar fragmentary relic occurred likewise at the other end of the site beyond the south-west wing, and covered a few fragments of Samian pottery of *c.* A.D. 100. Trenches in the garden area enclosed by the main range and wings of the house showed no pre-existing structure and only a moderate amount of first- and second-century pottery.

The most ample evidence bearing upon the date of the building occurred under its lower or north-eastern half. Under the tessellated floor of the verandah of the north-eastern wing were found *antoniniani* of Victorinus (M. and S. 118), Tetricus I (M. and S. 132/3), Tetricus II (M. and S. ?238/9), Carausius (M. and S. 101), and one unidentifiable. A fire-blackened deposit of debris into which the verandah-wall of the main range, together with rooms 9 and 10, had been built, produced a hoard of the following thirty-six *antoniniani*: one of Gallienus (M. and S. 166); one of Salonina (M. and S. 5); three of Victorinus (M. and S. 61, 71, 78); two of Claudius II (M. and S. 266 (2)); seven of Tetricus I (M. and S. 69 or 71, 70/1, 77, 80, 88, 121/4, and one overstruck); five of Tetricus II (M. and S. 234, 258, 270 (2), and one illegible); fourteen of Carausius (M. and S. 33, 101 (2), 121, 272 var., 300, 482, 783, 880 (5, one double-struck), 920); and three barbarous 'radiates'. The same layer produced the following isolated coins: a denarius of Geta (C. 183) and *antoniniani* of Quintillus (M. and S. 31), Tetricus I (M. and S. 126), Tetricus II (M. and S. 270), and two of Carausius (M. and S. 484/6, 488).

In the south-western wing, a further hoard of nineteen coins of Carausius² was found close to the exterior edge of the footings

¹ See G. E. Fox in *Archaeologia*, lix, 207 ff.

² These nineteen coins are as follows: one *Fortuna Aug.* type (M. and S. 787)



VERULAMIUM
 BUILDING V, 1

of the outer wall of room 19. Disturbance of the strata at this point robbed this hoard of the evidential certainty which may be attached to the coins listed above, but it seemed probable that the hoard was deposited before the construction of the wall.

If we exclude this last hoard, it is still abundantly clear that the house was built subsequently to the deposit of sixteen coins of Carausius (A.D. 287-93). The complete absence from these pre-building levels of coins of the Constantinian era suggests a period not later than the beginning of the fourth century; and a date within ten years of 300 may thus be inferred for the construction of the house.

Of the subsequent history of the building only one piece of chronological evidence survived, but such as it is its evidence is significant. Room 9 had originally, it seems, been floored with red tesserae. Later, this flooring had, for some reason, been broken up, and with other debris had been sealed by a clay-levelling. On this was a layer of occupation-material containing the following coins: a *siliqua* of Julian, a third brass of Valentinian I (*Gloria Romanorum*), Valens (*Securitas*), and Gratian (*Securitas*), all in fair condition. It is clear therefore that, on a poorer scale, this part at least of the building was still in occupation as late as *c.* A.D. 380. Whether this late occupation extended throughout the building could not be ascertained owing to the wholesale disturbance of its surface.

Building V, 2

This small house of simple half-H-shaped plan, with a continuous verandah along its eastern front, was represented merely by spoil-trenches (pl. CVII B) and footings. The only evidence bearing upon its date was the occurrence of an *as* of Vespasian (A.D. 77-8—M. and S. 786) in a deposit which antedated the building.

Building V, 3

This plain oblong structure was represented merely by the chalk footings of its former walls. Closely adjoining it on the and eighteen *Pax Aug* types. Of these eighteen, one is an overstruck coin (M. and S. 128 on a *Salus Aug* type with *patera*); the remainder are all slightly barbarous. Two show *Pax* apparently with wreath and anchor (the type of *Laetitia Aug*) and have a barbarous mint mark $\frac{\Gamma}{ML}$; another may be compared with M. and S. 108, mint-mark \overline{IMI} , no doubt also intended to indicate London. Two coins are of M. and S. 880 type and the rest, twelve in all, correspond roughly with M. and S. 917 (*Pax* holding wreath and cornucopiae). Instead of a wreath, however, *Pax* holds (left of the field) a long branch. Several of these twelve coins appear to be from the same die and one is double-struck.

south, but not impinging upon it, was a large and productive rubbish-pit (Pit 6) of Antonine date. Amongst a mass of characteristic pottery (see below, p. 186, and figs. 30, 31), it contained a *dupondius* of Hadrian (A.D. 132-4—M. and S. 714), an *as* of Sabina (M. and S. Hadrian 1023), both in good condition, and a burnt *dupondius* of Antoninus Pius (A.D. 154-5—M. and S. 930).

The south-western corner of this *insula* has not been fully explored, but there is a remarkable absence of occupation-material in this direction.

Insula VI

Building VI, 1 (plan, pl. xxvi)

Immediately to the west of the triumphal arch (above, p. 76) lay a small oblong building of which the arrangements are consistent with use as a shop. It was fronted by a verandah, the western end of which was shut off by a partition; whilst the main body of the building was subdivided in such a manner as to suggest provision for two small 'shop-windows' opening on to the verandah. The floors, in so far as they were preserved, were of plain red tesserae which sealed a considerable quantity of datable pottery. This included Samian forms 18, 18/31, 27, 29, 33 (with the Trajan-Antonine stamp *REDITIM*), a form 37 with a *Germanus* lion (Flavian) and another in the style of *Libertus* and datable to the period c. A.D. 110-30.¹ This last is the latest datable sherd sealed by the floors and, in view of the quantity of pottery available from this source, may be taken to indicate a late Hadrianic or early Antonine date for the building.

Building VI, 2 (plan, pl. xxvi)

Only sufficient of this building was explored to show something of its general character and to give the street-line. It was probably a dwelling-house, connected by a corridor with a shop, fronting towards building VI and the triumphal arch. There were slight indications that the building was of more than one period, but the

¹ Mr. Davies Pryce's full report on this sherd is as follows:

Form 37. Orange-red glaze, characteristic of much (not all) of the work of the Trajan-Hadrian potter *Libertus*. Panel-decoration demarcated by a wavy line. The wavy line when occurring on Lezoux ware or central Gaulish ware is much more frequent in the first third of the second century than in the Antonine period and was frequently used by *Butrio* and *Libertus*. Annular ornament in the field, most commonly found in the Antonine period but occasionally occurring in the first third of the second century (cf. *J.R.S.* xx, pl. vi, 1, *PVTRIV*). The figure has the general pose of many Lezoux types but cannot be exactly identified. ? a small vine-tree with bunch of grapes (cf. Déch. 1125, Lezoux). Period: Trajan-Hadrian, c. A.D. 110-30.

'shop' and adjacent corridor, with characteristic chalk footings, were structurally of the later phase and may be ascribed to the general period of reconstruction *c.* A.D. 300. The whole structure was close to the surface and most of the flooring had been removed. A considerable part of the make-up of the floor of the 'shop' remained and incorporated a coin of Victorinus (M. and S. 114) and a barbarous 'radiate', whilst the material into which the footings had been built contained coins of Gallienus (M. and S. 297/9) and Tetricus II (M. and S. 270). It is at least clear, therefore, that this structure is subsequent to A.D. 270-3.

Insula VII

The 'Triangular' Temple (plan, pls. xxvi and xxxiv)

The traveller proceeding northwards, after passing the triumphal arch (above, p. 76), found himself confronted by a forking roadway at a point at which the grid of the town-plan impinged upon the pre-existing Watling Street. The triangular *insula* thus formed necessarily occupied a prominent position in the town-plan, and was accordingly allocated to a public building of some importance. The anomalous shape of the site inspired the architect to produce a building of equally anomalous character, but the constituent parts of it prove that its function was that of a temple.

It may be recalled that the normal classical temple was primarily a store-house for the image and the treasury of the cult. The major public ceremonies took place outside the temple itself, at an altar placed usually in front of the temple-steps. At a busy junction on one of the great arterial roads of Roman Britain, such public gatherings must obviously have been difficult or impracticable. Not the least of the problems, therefore, which faced the architect in the present instance, was the provision of an area for assemblage within the compass of the structure itself. His solution of the difficulty, whilst it accorded generally with the normal principles of classical architecture, conformed with no normal classical plan. It was as follows:

At the northern, or broader, end of the site, a transverse hall included three cells or compartments, which had been walled with brick-laced flint. The central cell had contained the statue of the god, and bore upon its cement floor the imprint of the pedestal, $6\frac{1}{4}$ by $3\frac{1}{4}$ ft. (pl. cxv). The sides of the pedestal, which had probably been of brick, had been rendered in cement and painted in red and yellow. The flanking compartments had each contained a brick-lined 'tank' or pit, 3 ft. square and 1 ft. deep below floor-level. The western pit had been almost entirely destroyed, but the

eastern remained substantially intact (pl. cxia). Beneath each of the pits were burnt patches dating from the actual period of construction and, in the case of the western pit, containing burnt pine-kernels (below, p. 119) and a burnt *as* of Nero (M. and S. ?329).

Southwards, the cross-hall was connected laterally with two cement-paved corridors, which thence converged towards the main entrance of the building. Between the corridors, it gave on to an unroofed court through three broad openings which had been divided by brick piers. The flanking corridors had likewise opened on to the courtyard, probably through colonnades, represented presumably by the fragments of column-casings of Ketton freestone found hereabouts. The casings, on the average about 3 in. in thickness, had evidently enclosed a rubble core and indicated columns 2 Roman feet in diameter at the base and therefore probably from 14 to 16 ft. high.

The open court, a truncated triangle on plan, lay at a level of some 12 in. below the corridors and cross-hall, thus avoiding the risk of flooding these by rain-water. It had been paved with rammed gravel. Its main function was to provide accommodation for the altar and the attendant ceremonial. At this point, it becomes necessary to consider the chronology of the building.

When the Watling Street was laid out in the early days of the Roman occupation, it was flanked on the western side by a ditch which has been traced intermittently for a distance of 150 ft. during the present excavations (see plan, pl. xxxiv). The 'rapid silt' in this ditch contained part of a Roman upper quern-stone of Andernach lava, a chip of South Gaulish Samian of indeterminate form, a fragment of a green-coated cup with barbotine decoration of Claudian type, a handle of a pink-coloured, and therefore early, Roman jug and many sherds of native Belgic pottery. Subsequently to the accumulation of this silt, an extended inhumation-burial, head towards the south and accompanied by a late Belgic beaker (pl. cixA, and fig. 34, no. 54), had been inserted in the western lip of the ditch, the upcast from this burial overlying the adjacent stretch of silt. It may be observed in passing that inhumation was characteristic neither of the Belgic nor of the Roman cultures at this time, and that there are only seven analogies for inhumation in Belgic Britain.¹ The present burial, from the position

¹ No other Belgic inhumation is known from the area of primary Belgic settlement. In the areas of secondary Belgic settlement (Wessex and Sussex), where the new-comers came into contact with the vigorous naturalized cultures of Iron Age B, the new-comers were occasionally influenced by the native burial-rite. We are indebted to Mr. G. C. Dunning, F.S.A., for the following list of Belgic inhumations in these areas:

1. Yarnbury Castle, Wiltshire. *Wilts. Archaeological Magazine*, xlvi, 202.

of the upcast of the grave—between two layers of ditch-filling, of which the lower is Claudian and the upper not later than the beginning of the Flavian period—may be ascribed to a date within a few years of the middle of the first century A.D. The characters of the skeleton are described below (p. 133).

Subsequently two substantial layers of earth and debris—the later also containing ash and iron-slag—accumulated over the site, incidentally almost levelling the ditch. The lower of these layers contained Samian (forms 15/17, 18, 24/25, 27, 30) of Nero-Vespasian types together with much native Belgic ware, an uninscribed *Aucissa* brooch, and the following coins: three worn *asses* of Claudius (all M. and S. 66), a worn *dupondius* of Antonia, mother of Claudius (M. and S. 82), and two fairly good *semisses* of Nero (M. and S. 386, 378—but no CON). The upper layer contained Samian (forms 15/17, 18, 24/25, 27, 29) with a mid-first-century mortarium, a girth-beaker, Belgic sherds, and the following coins: five of Claudius (M. and S. 66, 66D, 66D or E, one barbarous), five of Nero (M. and S., 214, 342, 364, and pp. 171 ff.), five of Vespasian (M. and S. ?482, 494, 497, 502). The two layers do not differ much in period, and the later dates from the 70's of the first century A.D.

Above these layers the site had been levelled to carry the temple. The levelling-material and the lowest of the floors of the temple-court contained Samian (forms 15/17, 18, 27, 29, early 37, 78, and Ritterling 11B) together with Flavian coarse pottery, numerous Belgic sherds, a number of small white tesserae, and the following coins: one of Nero (M. and S. ?329), six of Vespasian (M. and S. 487, ?497, 500, 588, 740, 746), one of Titus (M. and S. 786), one of Domitian (M. and S. 302A), and one of Trajan

Contracted skeleton in pit 4 under bank of camp. Fragments of wheel-turned pottery of bead-rim period found near the bones.

2. Rotherley, Wiltshire. Pitt-Rivers, *Excavations*, ii, 191–8. Ten interments in various pits. All crouched, usually with head to north-east or north. Associated grave-goods are bead-rim pottery and brooches of c. A.D. 50.
3. Woodcuts, Wiltshire. Pitt-Rivers, *Excavations*, i, 35–6. Two interments in pits. Crouched. Pottery of hand-made bead-rim type in filling of pits.
4. Rusholme Park, Dorset. Pitt-Rivers, *Excavations*, i, 244. Contracted burial at bottom of pit. Pit contained mixed pottery, partly 'Romano-British'.
5. Battery Hill, Winchester. Hawkes, Myras, and Stevens, *St. Catharine's Hill*, 176. Extended skeleton in clay-lined cist cut in the chalk. Grave-goods are an iron knife, an iron sickle, and hand-made bead-rim pottery.
6. Sheepwash, near Freshwater, Isle of Wight. *Proceedings of the Society of Antiquaries*, xxv, 189. Contracted skeleton in stone cist, with handled bead-rim pot.
7. Eastbourne, Sussex. *Antiquaries Journal*, xi, 71. Extended skeleton in flat grave with wheel-turned butt-shaped pots.

(M. and S. 417), dating from A.D. 99–100, and lost when in good condition. The coin of Trajan is thus the latest datable item in a very considerable mass of material from layers prior to or contemporary with the construction of the temple, which may thus be ascribed safely to an early second-century date.

Two structural features of the temple in its first phase demand notice. It had originally been intended to place the altar near the southern end of the court; but the square brick substructure prepared for it was covered by the first temple floor and was therefore not used. Instead, the altar was actually placed on a similar substructure 25 ft. farther north (see plan, pl. xxxiv). Similarly, and perhaps not unconnected with this minor alteration in plan, a small circular oven built of chalk blocks and clay on the western side of the court was built, first with its flue facing approximately towards the original site of the altar, and was then almost immediately rebuilt so that its flue might face towards the north, i.e. in the direction of the new site of the altar (pl. cxiv B). Whatever may have been the precise purpose of the oven in the temple-ritual, it was certainly part and parcel of the building in its first phase, the floor of the court in the vicinity of the flue showing signs of burning; and it may be observed that burnt offerings of pine-kernels, etc., were clearly a regular feature of the ceremonial (below, p. 119).

The external walls of the temple, doubtless already plastered as they certainly were in the second phase of the building, were protected from the traffic of the three adjacent streets by lines of posts placed at 5 ft. intervals round the building. The holes for these posts averaged 8 in. in diameter and were 2½ ft. deep. That they did in fact hold short protective posts and not any sort of taller structure was proved by the inward inclination of some of them.

To the south of the temple an oblong chalk foundation in the road may perhaps have carried a supplementary external altar.

The second structural phase of the temple followed closely upon the first, and was due to the weakness caused by the underlying ditch of the early Watling Street. Into the filling of this ditch both the altar and the temple itself began to subside. A further process of levelling was thus necessitated, and the sleeper-wall of the eastern colonnade of the court was rebuilt above its predecessor (pl. cxii A). Then, if not earlier, the external walls of the temple were rendered with crimson-painted plaster, which was found standing on the western side to a maximum height of 2 ft. (pl. cxix B). A new brick altar-base, with an offset enriched by a cavetto-moulding of cement, was now built in the northern or inner end of the court, and the altar was, for the first time, placed on the main axis of the building. At the same

time, a porch, probably of timber, was added to the front of the temple, the main uprights being carried upon a sleeper-wall built largely of roof-tile (pl. cxiii'A). The new floor of the court was, like its predecessor, of rammed pebble, and covered much building-debris, presumably resultant upon the rebuilding of the temple. With this debris, and therefore preceding the period of the reconstruction, were sherds of Samian (forms 15/17, 18, 29, Trajanic 37, 67, 78), an early poppy-head beaker, several frilled incense-cups, and a tall, arcaded 'funnel' (see below, p. 190), together with coins of Antonia (M. and S. 82), Nero (M. and S. 329), two of Vespasian (M. and S. 482, 787), Domitian (M. and S. 699), and Trajan (A.D. 101-3—M. and S. 434), the last in good condition. The rebuilding may thus be ascribed, likewise, to the early years of the second century. The rebuilt temple was at any rate in use before a deposit containing a coin of Antoninus Pius was inserted into its renewed floor (see below, p. 118).

The third and final structural phase was less completely indicated, owing to the wholesale destruction of the uppermost levels by tile-robbers and by ploughing. Patches of flooring of an inferior cement, supplemented by brick, showed that both the court and the adjacent corridors had been raised about 9 in. above their previous levels whilst retaining their relative disparity. Flanking the altar, two small pedestals of cement within a tile framework were now inserted in the court, whilst the base of the altar itself was rebuilt at the new level. As rebuilt, it was constructed with two offsets and had been covered with plaster painted yellow, probably to simulate stone. Lastly, in the floor immediately behind the altar, in a cavity roughly lined with roof-tiles, was inserted the skull of an ox—doubtless from the dedication-sacrifice of the restored temple (pl. cx B).

As to the date of this last restoration, only one hint was preserved—a semi-barbarous coin of Tetricus I (A.D. 270-3) incorporated in a patch of cement in the floor behind the pedestal of the statue. This hint, though inconclusive, is just sufficient to suggest that the temple shared in that general restoration of the city which, as ample evidence now shows, marked the recovery of Britain by the official régime at the end of the chaotic third century. It is worthy of note that as many as 67 of the 196 fourth-century coins found in the southern part of the town (above, p. 29) came from the surface-soil on the site of the temple.

Some attention has already been drawn to a notable feature of the temple—the presence here and there, throughout the structure, of deposits of pottery, etc., which we may assume to have

been votive offerings or, at any rate, connected directly with the ritual usage of the building. These deposits are numbered on the plan (pl. xxxiv) and may be described *seriatim*.

1. Roughly circular pit, 15 in. in diameter, cut into the second (early second-century) flooring of the court. It contained oak charcoal and five small beakers of coarse buff ware (fig. 32, no. 45), together with the fragmentary burnt bones of birds, three species of about the size of a thrush being represented.

2. Circular pit, 2 ft. in diameter, cut into the second flooring of the court. It contained oak charcoal, three small buff beakers, and a buff unguent-jar, together with a cockspur and burnt bones of pig, possibly a stoat, a small and a large bird.

3. Small pit cut into the cement floor immediately behind the eastern 'tank' of the cross-hall or *cella*. It contained oak charcoal, a lamp of late second- or third-century date (fig. 40, no. 4), and two bronze staples.

4. Small irregular pit cut into the cement floor of the cross-hall between the central and the eastern *cella*. It contained oak charcoal, burnt bones of a small bird, a pig's jaw, and an iron nail.

5. Circular pit, 4½ ft. in diameter and 4 in. deep, cut into the cement floor of the cross-hall between the central and the western *cella*. It contained only oak charcoal.

6. Circular pit, 10 in. in diameter, cut into the cement floor of the eastern portico against the line of the eastern external wall of the temple (pl. cxii B and figs. 32 and 40). It contained, carefully buried, a buff jar, stoppered with a red incense-cup containing a 'firm' lamp (second century) bearing the maker's initials Q G C (for which see O. R. L. *Kastell Pfünz*, p. 73, and Taf. VIII^B, 202; and S. Loeschcké, *Lampen aus Vindonissa*, p. 296).

7, 8, 10, 11. Shallow pits cut into the second flooring of the court and containing only oak charcoal.

9. Rectangular pit, 6 ft. by 4, and 18 in. deep, cut into the second flooring of the court in front of the later altars. It contained oak charcoal and large quantities of animal bones, representing sheep or goat and lamb, young and small ox, and small bird. A large number of the bones were calcined.

12. Rectangular pit, 3 ft. by 2, cut into the second flooring of the court. It contained oak charcoal and the fragments of five beakers of poppy-head type, seven plates, four steep-sided dishes, and a wide-mouthed urn, all of grey-black ware (fig. 33, nos. 49-52); together with two plain bronze rings of 'curtain-ring' type, an *as* of Augustus (M. and S. 364), and another (moderately worn) of Antoninus Pius (A.D. 154-5—M. and S. 930). Throughout the pit were found the charred seeds and scales from the cones

of the Italian pine (*Pinus pinea*)¹—see below. The contents of the pit may be ascribed to the latter part of the second century.

13. Irregular pit cut into the second floor of the court behind the later altars and alongside the votive ox-skull. It contained charcoal and two complete and five fragmentary buff beakers of the small type noted above under group 1.

14. Small oval pit under the western 'tank' in the cross-hall. It had been formed during the actual construction of the building and before the floor was laid. It contained an *as* of Nero (M. and S. 329) and oak charcoal, throughout which occurred seeds of *Pinus pinea*.

15. Small pit under the eastern 'tank' in the cross-hall. Like the preceding, it had been formed during the actual construction of the building. It contained only oak charcoal.

In addition to these grouped deposits, pottery vessels of distinctive types occurred throughout the building, notably in the make-up of the second flooring of the court (early second century). In this make-up, immediately in front of the central *cella*, were found together an incense-cup and a 'funnel', 2 ft. high, designed in the form of a pharos and intended perhaps as a shelter for an incense-burner (see below, p. 190). Fragments of many other incense-cups were found elsewhere in the same layer; whilst sherds of large two-handled vessels, some with frilled decorations, occurred also at this level.

In the absence of inscriptions, the dedication of the temple can only be conjectured from the nature of the votive offerings. The form of the building, distinctive though it be, owes more to the exigencies of the site than to any ritual peculiarity. Superficially, the plan bears a slight resemblance to that of a temple at Zugmantel;² but there the colonnade appears to have been external, not internal, and so to have approximated to the conventional arrangement. Both the Zugmantel and the Verulamium temples have the threefold shrine, which is not confined to the Capitoline triad and so is not a determinate feature. The buried offerings, on the other hand, include deposits of pine-seeds of a species which must have been imported from Italy and may therefore be regarded as costly and special gifts to the presiding deity. Now the pine had associations with Dionysus (Bacchus), but it was particularly connected with the Phrygian Cybele and her son Attis,³ whose

¹ We are greatly indebted to Professor E. J. Salisbury, F.R.S., for identifying these seeds and the charcoal from the temple.

² *Saalburg Jahrbuch*, v, 1913, ii (pub. 1924), 24 ff.

³ Thus at the spring equinox a pine-tree was solemnly carried to the celebrated shrine of Cybele and Attis on Mount Dindymus in Phrygia, and the pine figures

cults enjoyed a wide vogue under the Roman Empire. Cybele, in origin the great Asiatic earth-mother, became the goddess of human progress generally and, above all, of cities, as the patron of which she is commonly represented with a mural crown. In the first half of the second century A.D., the Taurobolia and the Criobolia—forms of baptism with the blood of bulls and rams killed in sacrifice—were added to the ritual of these deities. It would be a stretch of imagination to connect with this the ceremonial burial of the ox-head behind the altar; but the pine-seeds at least may reasonably be counted in favour of the Phrygian or some derivative cult. At this dominant site near the main entry into Verulamium there would have been a special appropriateness in a shrine to the patroness of cities, with some reference also, perhaps, to the agricultural pursuits of the surrounding countryside.

The function of the lateral *cellae* in a shrine of Cybele cannot be defined without further evidence. They may have been allotted respectively to Attis and to Mercury, who are found together as *dadophori* in the Cybele cult.¹ This suggestion has been offered in the case of the triple shrine of the Zugmantel temple, where likewise a cult of Cybele, in some guise or other, has been suspected. There, it may be observed, the forms of some of the votive vessels—two-handled beakers, and frilled incense-cups—have been cited in favour of the identification, although the still more pertinent pine-seeds are absent. As in the Verulamium temple, the votive vessels were found buried in pits behind the altar and elsewhere, in conjunction with bones and charcoal.

Insula VIII

Only a small part of this *insula* was explored. The Watling Street frontages of two buildings (VIII, 1, and VIII, 3) were outlined for the purpose of the general plan, and appear to have belonged to comparatively small structures, probably shops. A third small building (VIII, 2) was completely uncovered, and requires description.

Building VIII, 2 (plan, pl. xxvi)

This small building, doubtless a shop, consisted of two rooms with a cellar at the back of them. The partition between the rooms had been of timber. The walls, or at least their bases, had been of flint-rubble. The cellar, with the southern half of the building,

in the Attis myth. It may be observed also that pine-seeds were found in the temple of Isis at Pompeii, though in association with a heterogeneous collection of fruits.

¹ *Saalburg Jahrbuch* as cited, p. 30.

had collapsed in Roman times owing to a subsidence, but its north wall, intact nearly to the Roman ground-level, showed that it had been about 6 ft. deep. In this wall at a height of 3 ft. above the floor were two rectangular recesses, each 1 ft. deep, 2 ft. wide, and 2 ft. 5 in. high. Such recesses are commonly found in similar cellars on continental Roman sites (for which, see above, p. 81). The floor of the cellar had been of coarse cement in which, against the fragmentary foundation of the south wall, had been partially embedded a lidded pot of a second-century type. The floors of the two rooms were of *opus signinum*, and contained Samian forms 15/17, 18, 29, and Flavian 37, together with Flavian coarse wares, and are consistent with a late first-century date for the building in its original form. Later, the floor of the inner room, which had originally been somewhat lower than that of the front room, was brought up to the level of the latter with a fresh layer of *opus signinum* which covered three coins of Salonina (M. and S. *Gallienus* 5), Gallienus (M. and S. 278), and Postumus (M. and S. 90) respectively, thus indicating a date not earlier than the latter part of the third century for this reconstruction.

Subsequently the whole building collapsed through a subsidence due probably to a geological weakness of a kind to which this district, with its closely underlying chalk, is prone. The site was then used as a rubbish-dump, which contained a great quantity of fourth-century pottery, together with forty-six late third- and fourth-century coins extending down to Arcadius. The coins were as follows: one of Julia Maesa (C. 52), two of Gallienus (M. and S. 163, 263), three of Victorinus (M. and S. 61, 71, 110), six of Tetricus I (M. and S. 76 or 79, 88 or 90, 100, 136, 141, and a barbarous *Spes* type), nine of Tetricus II (M. and S. 86, 100, 254/5, 258, 270, 272, 270/2 (2), and one barbarous *Virtus* type), four of Claudius II (M. and S. 14, 109, 261/2, 266), one of Tacitus (M. and S. 65), two of Carausius (M. and S. 470, 475), three of Allectus (M. and S. 55/9 or 128/30, 128), nine barbarous 'radiates' and one 'radiate' minim, one of Constantius II (*Fel. Temp.*), one of Valentinian (*Securitas*), one of Valens (*Gloria Romanorum*), and a worn Theodosius (one Victory). The filling was homogeneous, and, although containing some earlier material, cannot have been inserted before the last decade of the fourth century.

Insulae IX and X

In these *insulae*, fragments only of two buildings were encountered during trial trenches cut to elucidate the road-system.

Building IX, 1 (plan, pl. xxvi)

At a relatively low level on this site was found an *opus signinum* floor which sealed Flavian pottery. Subsequently the building to which this floor belonged was replaced by another, of which a part of one room was uncovered. Immediately outside this later building was an accumulation of material which contained a coin of Gallienus (M. and S. 283) and fragments of fluted Italian marble which may have come from the triumphal arch near by (see above, p. 77). Above this layer was a further accumulation containing coins of Tetricus II (M. and S. 232), Carausius (M. and S. ?98), Allectus (M. and S. 33), and one undecipherable coin. In the short stretch uncovered, the walls of the building were represented merely by spoil-trenches, and the structural relationship of these external layers could not be clearly ascertained.

Building X, 1 (plan, pl. xxvi)

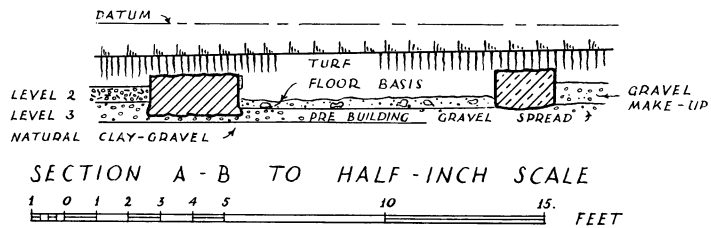
Part of a salient room with unusually well-built and substantial walls, $2\frac{1}{2}$ ft. thick, was uncovered and was found to have been built subsequently to the formation of a stratum containing a *denarius* of Severus Alexander (A.D. 222-35—*Obv.* IMP SEV ALEXAND AVG. Head laureate, r. *Rev.* LIBERALITAS AVG. Liberalitas, l., with ? palladium and cornucopiae). This coin is not in Cohen.

Small Basilical Building in Southern Quarter of the Town (pl. xxxv)

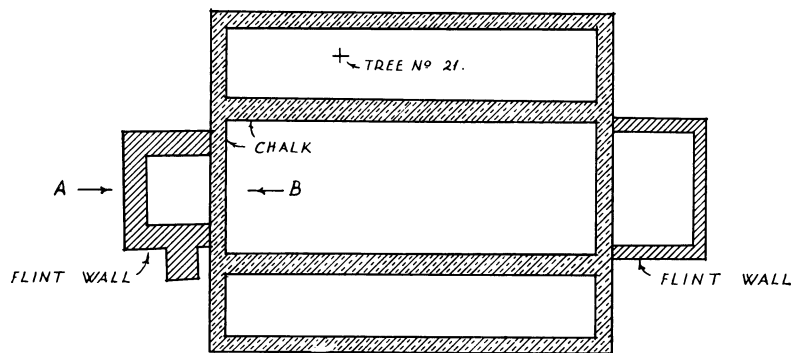
In 1934 an area of between 4 and 5 acres within the southern quarter of the town was partially planted with small trees and bushes in connexion with the lay-out of this region as a park. With the help of the St. Albans Corporation, Mr. A. W. G. Lowther, F.S.A., A.R.I.B.A., took the opportunity to trench the areas immediately affected and the result, if largely negative, was for that reason none the less important (see above, p. 28). A large part of the area was found to be devoid of any appreciable evidence of occupation. Towards the south, where a rubbish-filled hollow had already been found to underlie the defences (above, p. 61), a further portion of this hollow was identified with much late first-century pottery and two small fragments of an unintelligible inscription on stone (pl. cxiii B). Only at one point was any structural evidence brought to light—in the form of a small isolated building of somewhat remarkable plan. The building was close to the surface and had been robbed to its footings. It had, however, apparently been a small *basilica* with a projection at each end of the 'nave'. The north-eastern projection was the smaller but was by far the more substantially built; it had foundations 3 ft. wide, with a square

V E R U L A M I U M

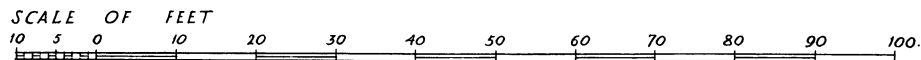
BUILDING S(T)A N° 1



- MATERIALS IN SECTION.
- FLINT MASONRY.
 - CHALK.
 - FLINT-MORTAR SPREAD.
 - GRAVEL-POTTERY "
 - CLEAN GRAVEL "
 - EARTHY GRAVEL "



PLAN



A.W.G.L. 1934.

projection perhaps to carry a stair on the north-western side. The plan might be thought to have some slight resemblance to that of a small Christian church with western porch or narthex and with a square, instead of the usual apsidal, chancel; but close analogies of the Roman period are lacking and no stress is laid upon the suggestion.

Owing to the drastic robbing of the site and the absence of occupation-material in the vicinity, no direct evidence as to the date of this building was forthcoming. The character of the masonry, however, pointed to a late Roman date, and the absence of any ancient stratum above the remains was consistent with this inference.

(v) BUILDINGS IN THE NORTHERN HALF OF THE LATER
ROMAN CITY

(a) *The Theatre and Adjacent Triumphal Arch* (plan, pl. xxxvi,
and pl. cxiv)

The Roman theatre at Verulamium—the only Roman theatre yet identified in Britain—was found in 1847 by a local antiquary, Mr. R. Grove Lowe, whose plan and description, although very incomplete and even faulty, reached a standard above the average for his day.¹ No trace of the structure had, however, been seen in recent times and its exact position was not recorded. With the Earl of Verulam's cordial co-operation, the building was re-identified in 1933 and, at the charge of Lord Verulam and the Gorchambury Estate, was completely uncovered and preserved permanently for inspection in 1934. The work was carried out under the supervision of Miss Kathleen Kenyon, whose detailed report has appeared in *Archaeologia* LXXXIV, 213–61.² The main results of Miss Kenyon's work are here summarized.

The theatre stood beside the Watling Street and was constructed on ground which sloped gently towards the north-east but was substantially level. The orchestra was sunk somewhat below the ground-level, but, as was frequently the case with Roman theatres, the greater part of the building stood free. The structural history of the theatre falls into four main phases or periods.

Period I. In its original plan, the theatre had a completely circular orchestra, clasped on the east by a small stage-building of which the main stage or *pulpitum* had been floored with timber. Post-holes nearly a foot square represented the uprights which had

¹ R. Grove Lowe, *A Description of the Roman Theatre at Verulam*, St. Albans Architectural Society, 1848.

² An illustrated summary by Miss Kenyon also appeared in *Trans. St. Albans and Herts. Architectural and Archaeological Soc.*, 1935, pp. 133 ff.

supported this floor. At the centre of the stage-front the orchestra-wall had been no more than a sleeper, and there had probably been at this point a wooden staircase leading down from the stage to the orchestra.

The seating of the *cavea* had presumably been of timber and was carried on gravel banks, supported internally and externally by brick-laced flint walls, the external wall being strengthened by buttresses. The seating had been approached by two external staircases carried on massive square projections placed symmetrically on the north-western and south-western sides of the theatre.

The orchestra had been entered by three gangways, across the upper parts of which the seating had doubtless been carried by barrel-vaults. At its lower end the central gangway had a timber sill and must have been equipped with a gate; the other gangways seem at this period to have had gates only at their outer ends.

Near the centre of the orchestra stood at this period a vertical post carried upon timber cross-pieces or bed-plates pegged into the ground. The function of this post, whether perhaps as a sort of maypole, as a post to which baited animals could be chained, or possibly even as a gibbet, can only be guessed.

Between the back of the stage-building and the Watling Street, a series of massive foundations approximately of this period may be thought to have carried an arcaded screen along the side of the Street.

The date of the theatre was indicated by a considerable quantity of underlying pottery of first- and early second-century date and included only one piece of Samian ware which is likely to have been made as late as A.D. 125-30.¹ The latest coins sealed by the structure are a *dupondius* of Trajan (A.D. 98-9, rather worn) and a *sestertius* of the same emperor (A.D. 103-11, fairly good condition); whilst in the level immediately outside the walls, but contemporary with their completion, were two *sestertii* of Hadrian (one illegible, the other dated A.D. 125-8, in moderately good condition). It

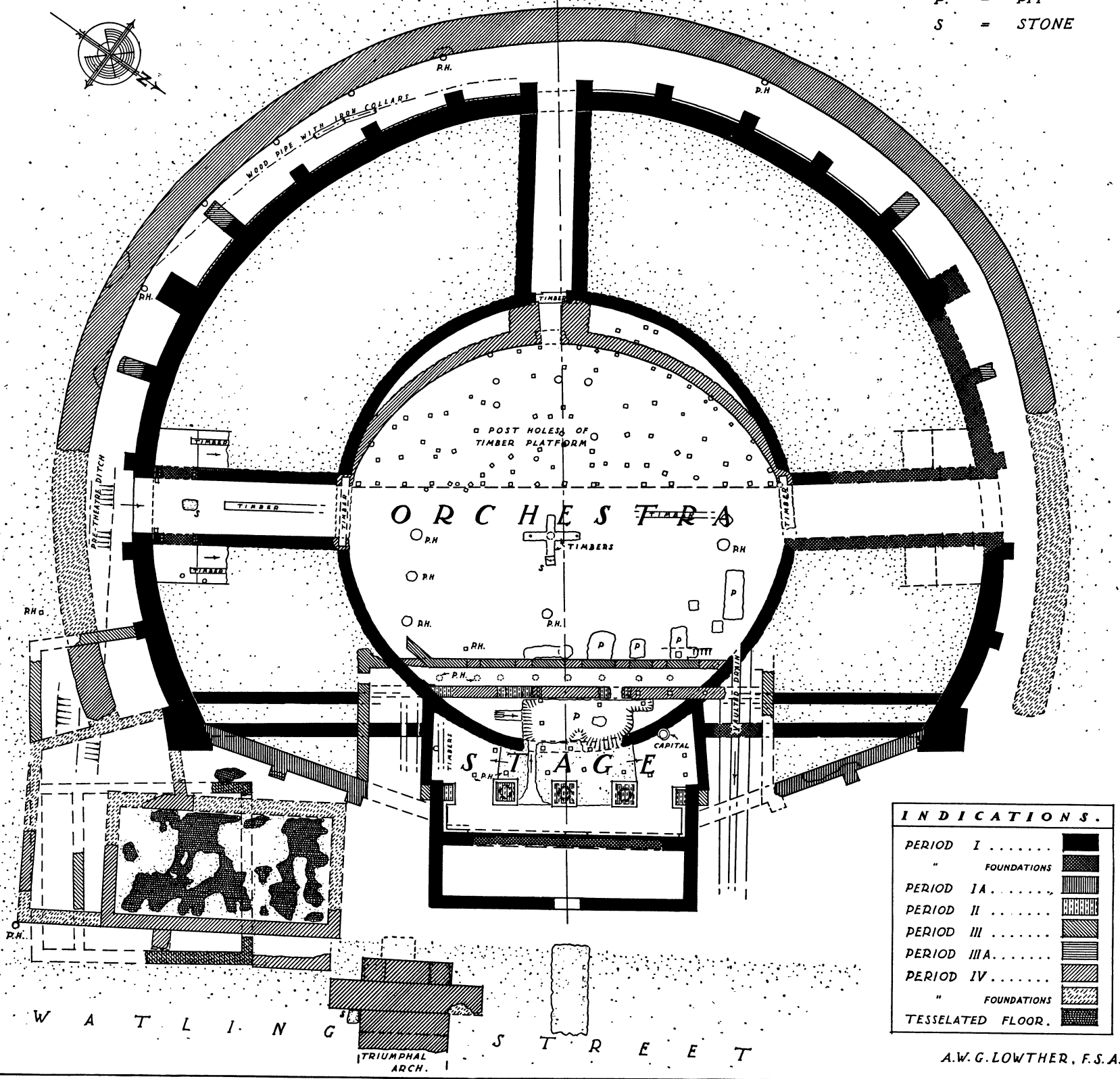
¹ Form 37. Fair glaze and workmanship. The ovolo has a beaded-rossette terminal. Panel decoration demarcated by sharp wavy lines which terminate in 'crowns', as frequently found in ware of the Trajanic and early Hadrianic periods. In one panel, an upright ornament composed of a basket of fruit (cf. Déch. 1069, *Cinnamus*), conjoined dolphins, and a mask (cf. Déch. 678) as used by the Trajan-Hadrian potter *Arenicus*. In the other panel, human figure to l. The upright ornament is only occasionally met with in ware of the first quarter of the second century. Period: c. A.D. 125-30.

From the levels contemporary with Phase I, came early second-century examples of forms 27, 33, 18/31, Curle 11, a form 37 of c. A.D. 100-20, and another of c. A.D. 125. The coarse pottery included Flavian and Hadrianic reeded rim bowls, a late first-century or early second-century ring-necked jug, and a mortarium of the first half of the second century.

V E R U L A M I U M
THE THEATRE.

SCALE OF FEET.
10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

P.H. = POST-HOLE
P. = PIT
S = STONE



INDICATIONS.

PERIOD I	.....
"	FOUNDATIONS	
PERIOD IA	.....
PERIOD II	.....
PERIOD III	.....
PERIOD IIIA	.....
PERIOD IV	.....
"	FOUNDATIONS	
TESSELATED FLOOR.		

A.W.G. LOWTHER, F.S.A.

would therefore appear that the theatre was built during the general reconstruction of the city between A.D. 125 and 150.

In type the theatre differs widely from the conventional Roman plan as defined by Vitruvius; and, although the Vitruvian canon was not invariably followed by the Roman architect, the special features of the Verulamium theatre do not fall within the normal range of variation. They include notably the circular orchestra and the three axial gangways admitting to it. These features, as Miss Kenyon points out, are suggestive of an amphitheatre, with the arena as the centre of interest, rather than of a normal theatre where, in Roman times, the equivalent area was used wholly or mainly by a part of the audience. It is a fair inference that, although equipped with a stage and designed therefore for theatrical displays, the alternative utilization of the orchestra as a small arena—for animal-baiting, cock-fighting, or the like—was also envisaged. It is proposed, therefore, to name this type of building the 'cockpit-theatre'. On the Continent twenty or more cockpit-theatres are known or probable, and they all occur significantly in Gallia Comata, i.e. in those Gallic provinces which were Romanized late and retained or evolved a number of individual traits to which the epithet Gallic or Celtic is sometimes attached in a special sense. Structurally, the most notable of these traits is the Gallo-Roman or Romano-Celtic temple (see below, p. 133); and now we may add, it seems, the cockpit-theatre as a further manifestation of this provincial individuality.

The best known of the continental examples of the cockpit-theatre is the much-restored building known as *Les Arènes* adjoining the Rue Monge in Paris. Here, the amphitheatral aspect of the structure is emphasized by the presence of five small waiting-rooms opening on to the arena and doubtless intended, like similar rooms in the normal amphitheatre, to house human or animal performers waiting their turn.

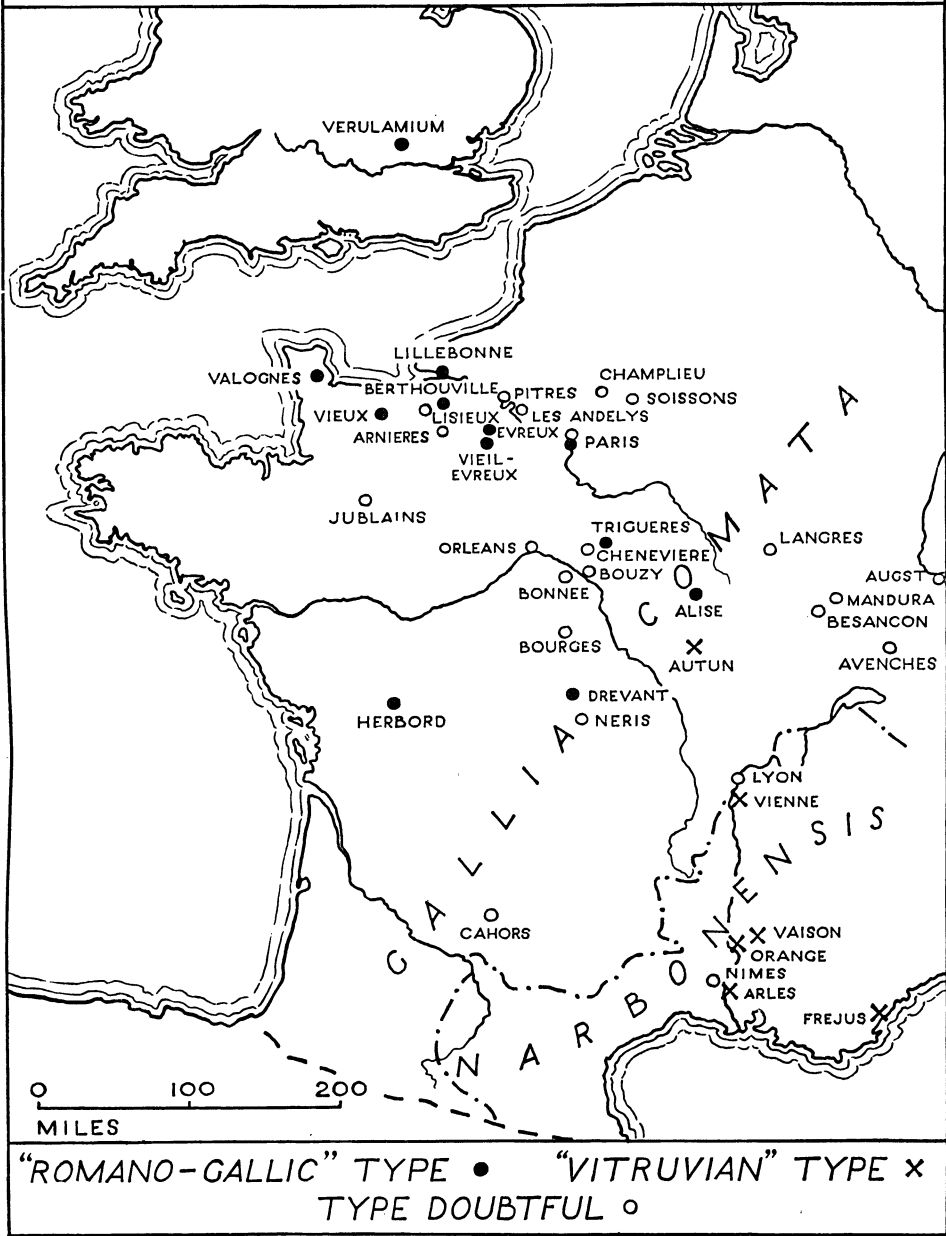
We are indebted to Miss Kenyon for the following list of Gallic theatres which are certainly or possibly of the 'cockpit' type (map, pl. xxxvii):

1. Alesia (Côte-d'Or). E. Esperandieu, *Les fouilles d'Alésia de 1906*.
2. Araines, near Vendôme (Loir-et-Cher). Plan in possession of M. L. Coutil.
3. Arnières (Seine-et-Oise). Bonnin, *Antiquités gallo-romaines des Eburovices*, section iv, Arnières, pls. II and III.
- 4, 5. Avenches and Augst (in Switzerland). F. Stähelin, *Die Schweiz in römischer Zeit*.
6. Berthouville (Eure). L. Coutil, *Les ruines romaines de Noyers-sur-Andelys*.

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7. Bonnée (Loiret). M. Jollois, *Mémoires sur les antiquités du département du Loiret*, 1836, pp. 55-61.
8. Chenevière (Loiret). M. Jollois, *Mémoires sur les antiquités du département du Loiret*, 1836, pp. 1-10.
9. Drevant (Cher). G. Mallard, 'Le théâtre gallo-romain de Drevant (Cher)' in *Bulletin archéologique du Comité des travaux historiques et scientifiques*, 1906, pp. 43-71.
10. Évreux (Eure). L. Coutil, *Archéologie gauloise, gallo-romaine et carolingienne, dépt. de l'Eure*, 1895-1921, vol. iv. Arrondissement d'Évreux, pp. 83-7.
Bonnin, *Antiquités des Éburovices*, section ii, Évreux, pls. v and vi.
11. Hedernheim (Frankfurt-on-Main). *Germania*, 13, 1929, p. 76.
Forthcoming publication by Dr. Woelcke.
12. Herbord (Vienne). C. de la Croix, *Mémoire archéologique sur les découvertes d'Herbord*, 1883, pp. 36-43.
13. Jublains (Mayenne). E. Laurain, *Les ruines gallo-romaines de Jublains*.
14. Lillebonne (Seine-Inférieure). A. de Caumont, *Cours d'antiquités monumentales*, vol. iii, pp. 430-41, and *Abécédaire d'archéologie, ère gallo-romaine*, pp. 269-72, 1862.
R. Lantier, *Revue archéologique*, 1913, 'La ville romaine de Lillebonne'.
15. Lisieux (Calvados). R. Lantier, 'Le théâtre gallo-romain du vieux Lisieux', in *Bulletin archéologique du Comité des travaux historiques et scientifiques*, 1911; A. de Caumont, *Abécédaire d'archéologie, ère gallo-romaine*, 1862, pp. 442-5.
A. de Caumont, *Cours d'antiquités monumentales*, vol. iii, pp. 442-5.
16. Nérès (Allier). A. de Caumont, *Abécédaire d'archéologie, ère gallo-romaine*, p. 279.
17. Noyers-sur-Andelys (Eure). L. Coutil, *Les ruines romaines de Noyers-sur-Andelys (Eure)*, 1928.
18. Paris. F. G. de Pachtère, *Paris à l'époque gallo-romaine*, 1912, pp. 76-80.
19. Pitres (Eure). L. Coutil, *Louviers et ses environs à travers les âges*, 1929, and *Archéologie gauloise, etc.*, vol. ii, pp. 168-97.
20. S. André sur Cailly (Seine-Inférieure). Cochet, *Répertoire archéologique du département de la Seine-Inférieure*.
21. Tintignac (Corrèze). V. Forot, *Étude sur les ruines gallo-romaines de Tintignac*.
22. Triguères (Loiret). F. Dupuis, 'Mémoire sur la découverte d'un théâtre romain à Triguères en 1857', in *Mémoires de la Société archéologique et historique de l'Orléanais*, vol. iv, p. 390.
23. Valognes (Manche). B. de Montfaucon, *L'Antiquité expliquée*, vol. iii, pp. 248-9, pl. CXLV, 1719.
24. Vieil-Évreux (Eure). L. Coutil, *Archéologie gauloise, etc. département de l'Eure*, 1895-1921, IV, pp. 151-4.
25. Vieux (Calvados). A. Charma, 'Rapport sur les fouilles pratiquées au village de Vieux près Caen', in *Mémoires de la Société des antiquaires de Normandie*, xx (1855).

ROMAN THEATRES IN GAUL AND BRITAIN



Between period I and period II the seating-bank was slightly extended on the flanks of the stage by the construction of an oblique buttressed wall, as shown on the plan (pl. xxxvi).

Period II marks an approximation to the more normal theatre-plan by an extension of the stage into the orchestra. At the same time the *frons scaenae* or back of the stage was enriched by a range of Corinthian columns some 19 ft. high; these were of Rutlandshire oolite and were probably enriched with colouring.¹ It is possible that the masonry front-wall of the stage was supplemented by an outer wall of timber (replaced by stone in phase III), since a series of eight deep slots cut immediately in front of the masonry wall, subsequently to its construction but prior to the new outer wall of phase III, were probably used for the curtain-raising apparatus normal to this position. A massive iron weight found in one of these slots was doubtless one of the counterpoises of the apparatus.²

It was at this period that nearly one-half of the orchestra was covered by a timber staging to carry the seating to which the Roman orchestra was normally allocated. The staging was represented by rows of post-holes driven sometimes as much as 3 ft. into the ground and in many cases designed to hold posts a Roman foot square in section.

At this period also, the external staircases to the auditorium were supplemented by stairs of timber approached through doorways cut through the lateral walls of the southern gangway. A similar feature had probably been inserted into the northern gangway, but the structure was too badly wrecked at this point to provide evidence.

In date phase II can have been little later than the original structure. Its work sealed an *as* of Hadrian (A.D. 125-8, in fairly good condition), and, amongst the pottery, a number of ring-necked jugs of Antonine type and Samian of which the latest datable example is of *c.* A.D. 150 or a little earlier.³

Period III. In this period the presumed timber front of the stage was replaced by a masonry wall, after the pits, referred to in

¹ A fragment of stone cornice, plastered in white and outlined in red and yellow, was in fact found close to the back of the stage-buildings. See coloured illustration in *Archaeologia*, lxxxiv, pl. lxxvi.

² For this apparatus, see J. Formigé, *Remarques diverses sur les théâtres romains (Mémoires présentés par divers savants à l'Acad. des Insc. xiii, 1914)*; and R. Cagnat and V. Chapot, *Manuel d'archéologie romaine*, i (1917), 181.

³ Form 37. Panel decoration demarcated by rows of small beads; in the panels a Venus (Déch. 176, *Albucius*) and a man (probably Déch. 338); annular ornament in the field. Demarcation by small beads is a common characteristic of much pottery of *c.* A.D. 110-50.

the last paragraph, had been filled up, and it may be supposed that the dampness of the site militated against the proper use of the somewhat elaborate subterranean curtain-mechanism. At its more southerly end the new stage-wall turned outwards, probably to carry a short stair between itself and the adjacent walls of the orchestra. At the same time, the stage was extended laterally into the ends of the seating-banks, with which (at least at the southern end) a lateral doorway now communicated. To the south of the stage also, an extensive wing was added. The details of this wing are obscured by later building and extensive robbing; whilst a drastic subsidence and spoliation in late Roman and post-Roman times makes it impossible to determine whether an equivalent wing ever existed at the northern end.

A minor work, only slightly later than this period, was the (partial)rebuilding of the two external staircases to the seating-bank.

The work of period III sealed a *denarius* of Trajan, three worn coins of Hadrian, an *as* of Antoninus Pius (A.D. 154-7, in good condition), an *as* of Faustina I, *as* of Faustina II (A.D. 175), and a *denarius* of Septimius Severus or his family. The pottery included late Antonine ring-necked jugs, mortaria with drooping flanges of late second-century type, and Castor ware, which scarcely appears at Verulamium before the last quarter of the second century. The Samian pottery included forms 31, 38, 44, and 45, all of late second-century character. The date of the phase is thus unlikely to have been much earlier than A.D. 200 and may have been a few years later. It is tempting to recall, though without emphasis, the building activities of the reigns of Septimius Severus and his immediate successors.

Period IV. Like other buildings at Verulamium—including the defences themselves—the theatre fell into a state of advanced decay during the third century. When, at the end of that century, it underwent the extensive reconstruction which seems to have been general at this time throughout the city, its walls were jagged ruins. Some of them were now patched with new masonry, whilst others were superseded by a partial replanning of the structure. In particular, the seating-accommodation was enlarged both internally and externally by the construction of new walls. The stage was largely rebuilt on its previous plan, but the lateral staircase from stage to orchestra was demolished. The southern wing was completely redesigned and its main room was floored with red tesserae. The new outer wall of the auditorium involved the demolition of the two external staircases, and approach to the seats was now apparently obtained only through the doorways in the lateral walls of the southern (and presumably also the northern)

gangway. The stage at this period was of concrete, and in the filling immediately beneath it was found a remarkable hoard of 800 *minimi* which are numismatically of the first importance and are reserved for separate publication.¹

The date of this reconstruction was abundantly indicated by large numbers of late third-century coins and a single *foliis* of Diocletian (minted A.D. 296–305 and lost when practically in mint condition), all sealed by or directly associated with the new work. It cannot have been far removed from the year 300.

Northern triumphal arch. It may be added that to this period should also be ascribed the massive cruciform pier lying immediately to the east of the theatre. The monumental structure (probably an arcade) which flanked the Watling Street hereabouts in the earlier days of the theatre had by now been demolished and this pier in part took its place. It can scarcely be other than the foundation of one jamb of a triumphal arch, bestriding the Watling Street at this point. The site of the complementary pier underlies the present Gorhambury drive and is not accessible, but a trial-cut under the edge of the drive indicates the presence here of a deep rubbish-filled chasm which suggests that the actual pier may have been removed.

The surviving pier had been turned in and partially built of brick, and had been integral with a sleeper-wall which in normal Roman fashion had tied the piers together below the roadway. Its plan indicates on each side a salient podium designed doubtless to carry a column after the fashion of the arches of Severus and Constantine at Rome, or of Augustus at Rimini. The limits of the site indicate an arch of a single span (see plan, pl. xxxvi).

Period V. The last phase in the history of the theatre is marked by its abandonment save as a convenient rubbish-tip. A brownish deposit, containing potsherds, food-bones, and other debris, first accumulated on the surface of the derelict orchestra; it contained nearly 1,000 coins, mostly of the fourth century and including five of the House of Theodosius, which on the one hand indicate a date not earlier than A.D. 379 for the accumulation and, on the other hand, suggest by their rarity a date but little later. In other words, it may be inferred that the theatre had fallen into disuse by c. A.D. 380.

Above the brownish deposit a thick black layer of mingled ash and other debris completed the obliteration of orchestra and stage. In it were over 1,300 coins, also mostly of the fourth century and including twenty-one of the House of Theodosius.

¹ In a forthcoming volume of the *Numismatic Chronicle*.

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A summary list of the coins from these two deposits, and from the material overlying them, is of interest:

(i) *From the lower (brownish) deposit:*

Third century and earlier	. . . . .	225
Fourth century: House of Constantine	. . . . .	658
House of Valentinian	. . . . .	69
House of Theodosius	. . . . .	5
Unidentified	. . . . .	10
		Total 967

(ii) *From the upper (black) deposit:*

Third century and earlier	. . . . .	302
Fourth century: House of Constantine	. . . . .	787
House of Valentinian	. . . . .	120
House of Theodosius	. . . . .	21
Unidentified	. . . . .	90
		Total 1,320

(iii) *From the superficial strata on the site of the theatre:*

Third century and earlier	. . . . .	616
Fourth century: House of Constantine	. . . . .	568
House of Valentinian	. . . . .	117
House of Theodosius	. . . . .	12
Minims of Lydney types C and F	. . . . .	10
Unidentified	. . . . .	102
		Total 1,425

These coins impel a twofold inference. First, as already indicated, they show that, before the late fourth-century currency had ceased to circulate in Verulamium, this great public building, lying beside the highway and close to the centre of the city, was a derelict ruin and a dump for rubbish. Secondly, they imply that fourth-century coins were at the same time circulating with sufficient freedom in the vicinity for many hundreds of them to find their way to the tip-heap.

(b) *The Forum*

Fragments of the forum buildings have been exposed from time to time in St. Michael's churchyard and the adjacent vicarage garden,¹ but no exploration commensurate with the evident importance of these structures has yet been undertaken. It would

¹ See W. Page in *Trans. St. Albans and Herts. Architectural and Archaeological Soc.*, 1899-1902, and *V.C.H. Herts.*, iv, 130 ff.

appear that they included a colonnaded courtyard and a group of temples, but the identification of the latter is not proved.

In 1934 the clearance of the farm-buildings of St. Michael's Farm by the St. Albans Corporation provided an opportunity for the examination of the south-eastern corner of the forum, and the work was supervised for the Corporation by Mr. A. W. G. Lowther, whose report will appear in due course. With his collaboration, however, a preliminary summary is here included.

Owing to the limited area available, only part of three rooms of the eastern range, together with the actual corner, were uncovered. The outer south wall was $3\frac{1}{2}$ ft. wide whilst the outer east wall was 2 ft. $10\frac{1}{2}$ in. wide. Two original internal partition-walls and one added partition-wall were found. In the second room north of the corner were five superimposed floors of which the two lowest were prior to the inserted partition. The debris forming the basis of the floor contemporary with the latter contained two coins of Faustina the Younger (died A.D. 175); whilst an upper limit for the date of the building is indicated by the finding of two *sestertii* of Hadrian (one dated 134-8, the other illegible) under the mortar-spread contemporary with the original construction. The reasonable inference is that the forum, as revealed, dates from the general reconstruction of the city towards the middle of the second century.

On the south side of the building, where it abutted on the main east-west road of the city, a timber-built drain had been inserted against the outer footings of the wall in a deep trench cut through the metalling of the road. The trench was then filled up with earth containing much late third-century pottery and an undeciphered 'radiate' coin of the same period. It may well be, therefore, that the insertion of this drain was incidental to the rehabilitation of the city *c.* A.D. 300.

A cutting on the north side of Blue House Hill, in the field in which the Roman theatre stands, revealed a wall which is probably the northern wall of the forum. If the wall is correctly identified the external width of the forum from north-west to south-east is just under 420 ft.

(c) *Temple West of the Theatre* (plan, pl. xxxviii)

Excavations also carried out in 1934 by Mr. Lowther revealed, immediately to the west of the theatre, an enclosure or *temenos* 300 by 160 ft., containing a temple of Romano-Celtic type.¹ As

¹ An illustrated summary by Mr. Lowther appeared in *Trans. St. Albans and Herts. Architectural and Archaeological Soc.*, 1935, pp. 166 ff. His full report will appear in the *Antiquaries Journal*.

originally constructed, the temple was of the normal square plan with an external portico or verandah and a *cella* 19 ft. square internally. The area was not completely explored, but a fair quantity of pottery sealed by the temple and its enclosure ranged in date from Claudius to Vespasian, the only coins being two of Cunobelin and two of Claudius I; and the building is not very likely, therefore, to have been much later than the last two decades of the first century A.D. The original wall of the *temenos* was 1 ft. 8 in. wide and built mainly of squared chalk-blocks with buttresses along its outer face at intervals of 12 ft. from centre to centre.

Subsequently, two symmetrical wings were added to the temple, the ground-level in the eastern part of the *temenos* was raised to reduce the gradient, and internal and external colonnades were added to the *temenos*-wall. Entrance to the *temenos* was provided now, if not previously, in the centre of the eastern wall, immediately behind the theatre. The gateway was of monumental type, 24 ft. wide and flanked by brick-built columns 2 ft. 3 in. in basal diameter. The new wings of the temple were built into material containing third-century pottery, and the gravel imported to level the enclosure and pave the colonnades incorporated a coin of Tetricus I. The reconstruction may thus have formed a part of the general rehabilitation of the city at the end of the third century A.D.

During the use of the *temenos* after the reconstruction, a large circular oven was inserted into the centre of the inner western colonnade.

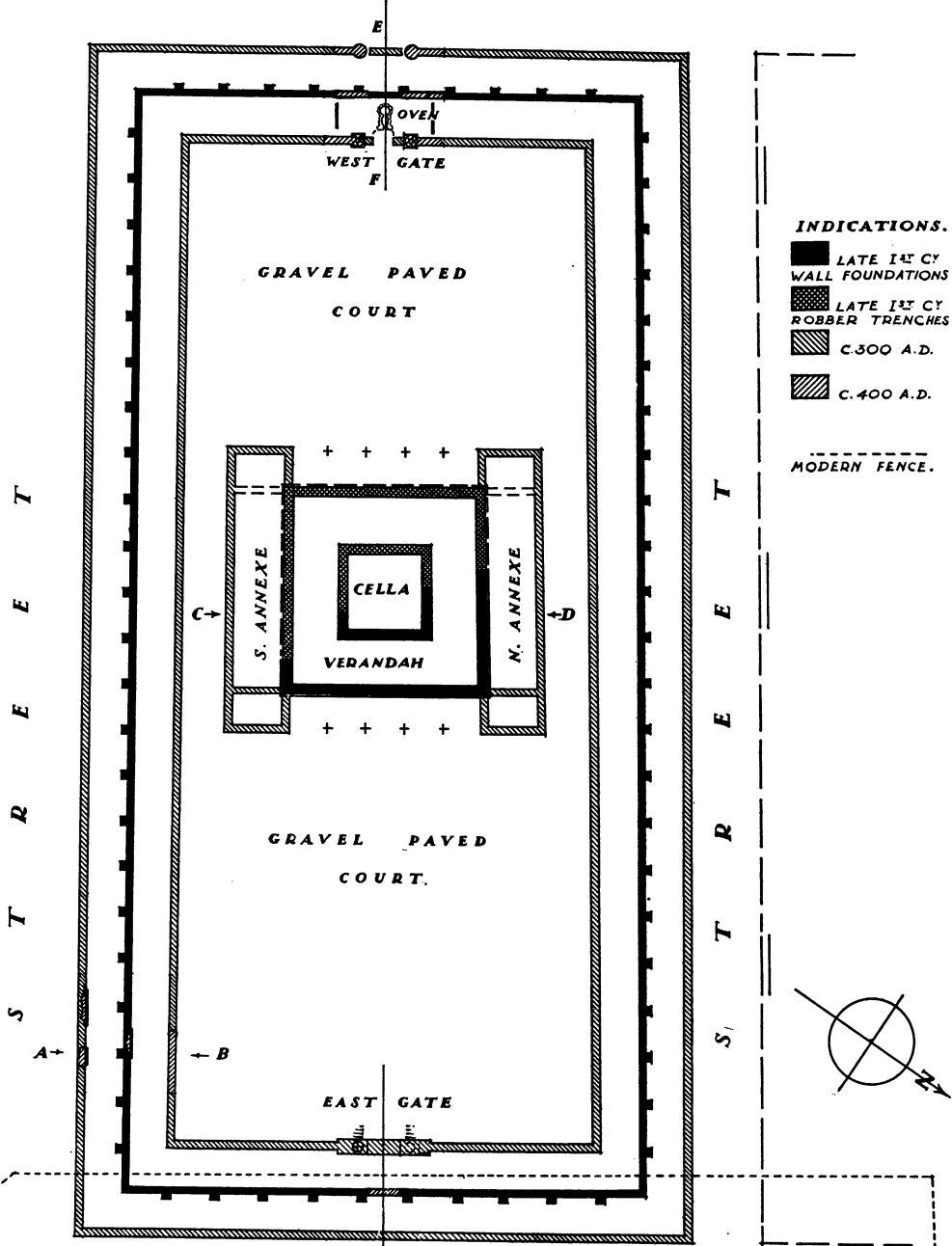
Lastly, the walls enclosing the *temenos* were again reconditioned, the east gateway was dispensed with and a new gateway with internal and external columns of re-used brick-work was inserted into the middle of the western side. This new gateway was built into a thick black layer which produced 115 late fourth-century coins, including 22 of the House of Valentinian and 11 of the House of Theodosius. The final reconstruction is thus not earlier than A.D. 379.¹ It may be recalled that at about this period the theatre had fallen into disuse save as a rubbish-dump; and the removal of the entrance from the side facing the disused building

¹ In summary, the coins from the temple and *temenos* are as follows:

Third century and earlier	.	.	57
Fourth century: House of Constantine	.	.	82
House of Valentinian	.	.	25
House of Theodosius	.	.	12
Unidentified	.	.	15
		Total	191

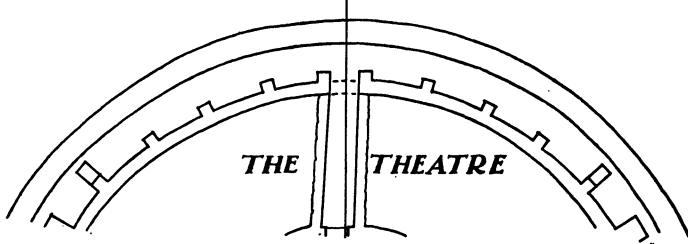
V E R U L A M I U M
I N S U L A X V I , T E M P L E .

S T R E E T



INDICATIONS.

- LATE 1ST CY WALL FOUNDATIONS
- LATE 1ST CY ROBBEY TRENCHES
- C.300 A.D.
- C.400 A.D.
- MODERN FENCE.



SCALE OF 50 0 50 100 150 FEET. ANGL.

to the opposite end of the *temenos* may not be unconnected with that circumstance. It may be noted that there was no surviving evidence of alterations to, or rebuilding of, the temple itself at this time, but it may be emphasized that the building was at plough-level and in a very fragmentary state.

This late fourth-century renovation has been discussed briefly above (p. 31) in relation to analogies from other sites.

NOTE.—For Romano-Celtic temples, see *Antiquaries Journal*, viii (1928), 300 ff. To the English examples there cited should be added the following:

1. Farley Heath, Surrey. *Surrey Archaeological Collections*, xxxvii (1927), 180 ff.
2. Jordan Hill, Weymouth, Dorset. *Dorset Nat. Hist. and Archaeological Soc. Trans.* 1932.
3. Caistor-by-Norwich. Two temples. *Norfolk and Norwich Archaeological Soc. Trans.* xxiv (1930), 98.
4. Maiden Castle, Dorset. *Ant. Journ.* xv (1935), 271.
5. Colchester. Two temples found W. of the Roman city in 193 Unpublished.
6. Titsey, Surrey. Temple reported to have been discovered, 1935.

To the continental examples should be added the following:

1. Triguères (Loiret). Two temples. H. Koethe, *Germania* (1932), p. 276.
2. Mont-Frugy, near Quimper. Three temples. *Bull. de la Soc. archéol. du Finistère*, 3 (1875/6), 179 ff.
3. Crozon. *Ibid.*, 21 (1894), 160 ff.
4. Ste-Marguerite-sur-Mer. Cochet, *Répert. archéol. du Dép. de la Seine-Inférieure* (1871), 80.
5. Chantenay. G. de Soultrait, *Répert. archéol. du Dép. de la Nièvre* (1875), 188 f.
6. Chassey (Saône-et-Loire). *Rév. archéol.* 1866, 2, 180.
7. Alesia (Côte-d'Or). *Rév. archéol.* 1925, 1, 63.
8. Saalburg. H. Jacobi, *Führer durch die Saalburg*, 1927, p. 36 f.

4. BURIALS

(a) BELGIC

The only 'Belgic' burial found at Verulamium belongs, in fact, to the early Roman period (c. A.D. 50) but its character and the associated pot (pl. CIXA and fig. 34, no. 54) are non-Roman. As an inhumation, it is indeed equally anomalous if regarded as Belgic and may best be perhaps qualified non-committally as native. Its general features have already been described (p. 114) and it remains here to add Miss M. L. Tildesley's commentary.

The skeleton is that of a middle-aged woman, of fairly short stature. Her most probable height, as estimated from the long bones of the right side, would be 5ft. 2 in., or if one bases the calculation on the bones of the left side, which are rather longer, 5ft. 2½ in. She suffered from rheumatoid

arthritis, especially in the lower part of the spine, the pelvic joints and the shoulder, a fact which was doubtless associated with the condition of her jaws. There is clear evidence of pyorrhoea in the upper jaw; and in the lower jaw all the molars have been lost long before death. The two incisors and canine which still remain in the upper jaw on the right side are very much worn down, partly, no doubt, owing to the extra work thrown upon the front teeth when the lower back teeth were lost. The thigh-bones exhibit that antero-posterior flattening which is so frequently found in the earlier races in this island, and the shin-bones exhibit the facet which is usually interpreted as evidence of habitual squatting.

‘When we come to the question of skull-type, we are hampered by the paucity of comparative material from the Early Iron Age. We have, however, a series from Danes’ Graves in Yorkshire; and a larger series consisting of skulls of the Romano-British period in England (the majority doubtless belonging to the native population), and of the same and an earlier period in southern Scotland, these two groups being found by Dr. G. M. Morant sufficiently alike to warrant pooling in one series, which he designates ‘British Iron Age skulls’. Of these two series it is to the latter that the Belgic skull from Verulamium must be assigned rather than to the Danes’ Graves series. One could not exclude it, on cranial characters alone, from later periods in Britain, including Anglo-Saxon. But the definite dating of this skull makes such comparison unnecessary. One can say that the Belgic skull is of a type familiar to us in Roman Britain, and unlikely to be of the same stock as the La Tène settlers in Yorkshire who buried their dead in Danes’ Graves.’

(b) ROMAN

(i) *The Roman Cemeteries of Verulamium*

Roman cemeteries have been found on all sides of Verulamium except the south-west where, owing to scarcity of roads and buildings, little occasion has up to the present time (1935) been given for their discovery. It may be found that, in the Roman period, the plateau on this side, being convenient agricultural land, was not extensively used for burial.

The Roman cemeteries fall roughly into three groups: A, that which flanks the Watling Street to the south of the later city; B, that which lies outside the north-eastern wall on both sides of the river and to the south of the main road to Colchester; and C, that which lies to the west of the north-west gate.

A. *The cemetery flanking the Watling Street to the south of the later city.* Both cremation and inhumation burials—mainly the former—have been found from time to time in Verulam Hill Field, which lies between the site of the south-east gate and St. Stephen’s Church. A summary account of those found prior to 1914 is given in the *Victoria County History*¹ and need not here be

¹ *Herts.* iv, 137 ff.

repeated. Pottery from them is preserved both in St. Stephen's Church itself and in the Herts County Museum at St. Albans. Subsequent discoveries have occurred from time to time, but principally during building-operations in the western angle between King Harry Lane and the Watford Road during 1932-4, and in the grounds of 'Halsmede' on the opposite side of the Lane. These discoveries occurred mostly during the winter and spring, and were not for the most part supervised, with the result that a great part of the material was dispersed by the workmen. Indeed, but for the records made from time to time by Dr. Norman Davey, of the Building Research Station at Watford, during visits made under difficulties, our knowledge of an extensive cemetery, dating mostly from the second century A.D., would be negligible. Forty yards to the west of the King Harry Lane and about 100 yards north of the Watford Road, a small oblong flint structure, containing at least 18 in. of burnt material, was found and destroyed by the builders, but may, from their description, have been an actual crematorium. It would at least appear that all or most of the burials in the vicinity were by cremation, and illustrations of pottery from them—mostly of c. A.D. 90-160—will be published by Dr. Norman Davey.

During the excavation-season of 1933, a trial trench was cut close between the angle of the two roads and a complete burial-group, containing a cinerary urn with ashes and lid, a Samian plate of form 31, and a small jug and cup, was found close beneath the surface—so close, indeed, that the tops of the higher vessels had been removed by the plough. The group may be ascribed to c. A.D. 125-50 (pl. cxvii A).

B. *The cemetery outside the north-eastern wall on both sides of the river Ver.* To this cemetery may be ascribed cremation burials found before 1847 'from one to two furlongs' from the south-west angle of the nave of the Abbey Church and others from the same district now preserved in the Abbey. Within the same general area, in a field behind Kingsbury Manor House, a stone coffin was found in 1813 and is now in St. Michael's Church. It contained three glass vessels which are preserved at Gorhambury. Near by, a leaden coffin containing the skeleton of a youth was found in 1799; and more recently other burials appear to have been discovered in Harley Street and Kingsbury Avenue.¹

Early in 1931, during the excavation of the northern end of the bed of the present lake on the site of the monastic fish-pool, upwards of fifteen inhumation-burials were found at the site indicated on the general plan (pl. cxix) at a distance of about 100 ft. outside

¹ For a summary, see *V.C.H. Herts.* iv, 138.

the city-wall. With the assistance of the City Engineer, the excavation of some of these burials was supervised by Mr. D. A. Casey, F.S.A. It is certain that several other burials had already been found in the vicinity. The skeletons lay at a depth of between 2 and 3 ft. from the surface and well below the level of the adjacent river, which runs at this point between an embanked channel. Apart from the fifteen intact burials, traces of others, which had been disturbed partly during the actual use of the cemetery and partly during the digging of watercress-beds in more recent times, were noted during the period of observation.

The skeletons were all laid in an extended position and on their backs, with the arms either by the side or resting across the lower part of the body. Twelve of them were aligned with the heads between north and north-west, and three with the heads between the south-west and the south. No traces of coffins could be detected. In three cases, a late Roman pot was found in close proximity to a burial. These pots were, however, damaged, and the disturbed state of the ground, combined with its water-logged condition, obscured the stratification. It cannot be certain, therefore, that the pottery was actually associated with the graves, although it occurred at the same level. Another complete pot and sherds of others were found near the graves at a similar depth, and where datable could be ascribed to the third or fourth century.

In one grave there were fourteen semicircular jet beads, all near the left wrist, evidently representing a bracelet (see below, p. 210). There was also a bronze armlet on the left arm, and a small plain bronze ring lay near the left shoulder.

No.	Sex	Age	Skull L.	Skull B.	C.I.	Femur	Stature
1	♂	—	—	—	—	448·5 R.	1656 (5'5¼")
2	♀	—	—	—	—	429 L.	1561 (5'1½")
3	♀	—	—	—	—	541·5 R.	1604 (5'3¼")
4	♀	—	—	—	—	431 L.	1565 (5'1¾")
5	♂	—	—	—	—	420·5 R.	1603 (5'3¼")
6	♀	—	—	—	—	—	—
7	♂	—	202	145·5	72·0	459·5 R.	1677 (5'6")
8	♂	—	—	—	—	—	—
9	♂	—	—	—	—	435 L.	1631 (5'4¼")
10	♀	—	—	—	—	—	—
11	♀	—	185	137·5	74·3	409 L.	1522 (5'0")
12	♀	25	—	—	—	415·5 L.	1534 (5'0½")
13	♀	30	195	157	80·5	460? L.	1621? (5'3¾"?)
14	♀	30-40	190	141	74·2	403 L.	1510 (4'11½")
15	♀	—	—	—	—	470? L.	1640 (5'4½")
16	♂	c.30	—	—	—	455? R.	1668 (5'5¾")
17	♀?	—	—	—	—	—	—

Sir Arthur Keith, F.R.S., very kindly examined the skeletons, and the table on p. 136 summarizes his report.

In spite of the vagueness of some of the associations, the evidence is sufficient to indicate a cemetery of the third or fourth century here. It is clear also that, in Roman times, the river-bed was at a lower level than it is to-day, and the land hereabouts must have been considerably less waterlogged.

C. *The cemetery west of the north-west gate.* This was discovered during the cutting of section O-P (see above, p. 53, and pls. xix and cxix) across the line of the Fosse, and the presence of seven burials in a single trench barely 3 ft. wide suggests a crowded cemetery at this point. The burials, all inhumations, were found in the upper filling of the Fosse, and the uneven layer of humus over each interment was readily distinguished from the mixed chalky soil which subsequently completed the process of levelling. It is evident that in the third or fourth century—the period of the burials—the Fosse hereabouts was represented merely by a shallow depression. It is now completely levelled here.

Owing to the restricted scope of the cutting, some of the burials could not be completely examined, but it was clear that, in every case save for numbers 1 and 3, the body had been buried in an oblong coffin, now represented by iron nails and occasional wood-stains (see pl. cxvA). With the exception of one child's skeleton, the burials lay approximately north and south, with the heads towards the north. The burials were as follows:¹

1. A man, aged about 30, height 5 ft. 6 $\frac{3}{4}$ in., and cephalic index 80.9. Position: extended on the back, thighs slightly flexed to left, knees slightly bent. The right tibia showed an overlapping, healed fracture which had thus shortened the bone by three quarters of an inch.

2. A woman, aged 30–35, height 5 ft. 2 in., and cephalic index 79.3. Position: extended on back, hands up to skull, the right hand alongside the skull and the left hand over the left orbit. Left knee slightly flexed. Silver ring on middle finger of left hand (below, p. 216, no. 78). A plain bronze bracelet on each forearm (below, p. 217, nos. 2 and 3).

3. Child, possibly female, height 4 ft. 2 $\frac{1}{2}$ in., and cephalic index 73.4. Position: south-east and north-west, with head towards the south-east; lying on right side, thighs at right-angles to body, knees bent, left arm by side, left forearm up and left hand on chest; right hand missing. Part of a goblet with a high pedestal and of late Roman type rested on the lower left ribs.

4. (Pl. cxvA.) A man, aged about 20, height 5 ft. 4 $\frac{1}{2}$ in., and cephalic

¹ We are indebted to Sir Arthur Keith and Mr. G. C. Dunning for examining the skeletons.

index 71.9. Position: on left side, knees slightly flexed, left hand under chin, right hand between left arm and forearm. In the north-east corner of the coffin stood an earthenware goblet, mouth uppermost, whilst in the south-east corner of the coffin lay an earthenware dish upside down. Both vessels (pl. cxv B) were of buff ware and the goblet, which is of a normal late third or fourth-century type,¹ bore the incised graffito *Maurusi*, i.e. 'This belonged to Maurusius'. The freshness of the graffito suggests that it had been incised at the time of burial.

5. A man, aged about 25, the skull too distorted for accurate measurement. This burial could not be completely excavated.

6. A woman, aged 30-40, height 4 ft. 10 $\frac{3}{4}$ in. and cephalic index 74.1. The skeleton could not be fully excavated, but the skull lay face upwards; a plain iron bracelet was on the right forearm and 55 beads lay about the neck, but had been to some extent scattered and mixed by the decay of the cord. Where their order could be recovered, they did not appear to have been graduated by size or arranged in a pattern. They were all of glass, save for one which was of jet (see below, p. 214).

7. A man, aged 30-40, cephalic index about 73.7. The burial could not be completely excavated. The skull showed, on the left stephanion, a healed wound, 1 in. long, which had completely penetrated the bone.

(ii) *Infant-burials*

Ten burials of infants were found during the excavations. All save one were full-time infants, and fall into the normal category of infant-burials such as are frequently observed in the vicinity of Roman buildings. The Roman burial-laws enjoining the burial of the dead outside towns did not apply in the case of infants, nor was the custom of cremation extended to them at a time when it was otherwise universal. Juvenal (*Sat.* xv, 139) and Pliny (*Hist. Nat.* vii, 15) both refer to the inhumation of infants, and the latter states specifically that it was not customary to cremate babies which died before teething. Pliny adds (vii, 54): *Aiunt mortuos infantes in subgrundariis condi solere*—'subgrundae' being the eaves of the house. Some four centuries later, Fulgentius (*Sermones Antiqui*, 7, ed. R. Helm, 1898, p. 113) refers to the same custom: *Suggrundaria antiqui dicebant sepulchra infantium, qui necdum quadraginta dies implessent, quia nec busta dici poterant, quia ossa, quae comburerentur, non erant, nec tanta immanitas cadaveris, quae locum tumesceret; unde et Rutilius Geminus in Astianactis tragoedia ait: 'Melius suggrundarium miser quaeraris, quam sepulchrum'*. See R. C. Neville in *Archaeological Journal*, vi, 21, with special reference to similar burials at Ickleton and Chesterford. An exceptional number of infants—no less than ninety-seven—

¹ e.g. Heywood Sumner, *Roman Pottery made at Ashley Rails* (1919), pl. III, 3.

were found buried in the vicinity of the Romano-British house at Hambledon, Bucks (*Archaeologia*, lxxi, 150).

One infant burial, no. 10 on the list below, may have been of a somewhat different kind. It was perhaps (though not certainly) prematurely born, and was contained in a small cist made of brick roofing tiles and inserted into an angle of room 4 in building III, 2, at the time of its final reconstruction at the end of the third century. The stratigraphical relationship of the cist to the two adjacent walls (one of the second century, the other of the third) was clear, and the cist was sealed by the clay basis of the late third-century floor. It would be rash to assume that the interment was in any real sense a foundation-burial, but its coincidence with the rebuilding may be noted. (Pl. CXVII B).

1 and 2. Infant-burials between the two most westerly buttresses of building V, 1. These burials were inserted through the occupation-layer which accumulated subsequently to the erection of the building at the end of the third century.

3 and 4. Infant-burials—one with the knees drawn up towards the chin, the other fragmentary—found beneath room 11 in the eastern wing of house IV, 10 (pl. cxvi). They ante-dated the house, which was apparently erected about the middle of the second century.

5-7. Three infant-burials found in room 9 in house IV, 10. This room had apparently been equipped originally, about the middle of the second century, with a hypocaust and a mosaic floor which had subsequently been broken in and roughly levelled over with clay containing late second- and third-century pottery. It was in this debris and levelling that the burials had been inserted, evidently during a period of dilapidation prior to the reconstruction of the house at the end of the third century. It was doubtless to that century that the burials should be ascribed. In each case, the infant had been buried with its knees drawn up to its chin.

8. An infant-burial inserted into the debris and partially into a cement floor of house III, 2B after its destruction about the middle of the second century and before the building of the large courtyard house shortly afterwards. The skeleton was fragmentary, but had clearly been of the crouched type like others above mentioned (see pl. CIA).

9. A fragmentary infant-burial was found immediately outside the western street-wall of the second century courtyard-house. The ground hereabouts was much disturbed and it can only be said that the burial was prior to the late third-century reconstruction.

10. Fragments of an infant's skeleton were found, as mentioned above, in a small brick-cist buried in an angle of room 4 in house III, 2, at the time of its reconstruction at the end of the third century.

All the skeletons have been examined at the Royal College of Surgeons by Miss M. L. Tildesley. They present no noteworthy features.

5. STRUCTURAL DETAILS

I. MATERIALS¹

The principal building-materials have been noted above in their contexts, but the information may here be collected for convenience.

Timber (oak) was the normal building-material at Verulamium in the first century A.D. Before the end of that century, however, the use of sleeper-walls of flint and brick had come into use and these materials were perhaps occasionally carried up at least for external walls (perhaps in building III, 2 B; above, p. 94). For the rest, there is at present no evidence for the use of building-material other than timber prior to the second century.

Timber buildings were constructed either on a framework of wall-posts driven into the soil or, occasionally, on sleeper-beams which might or might not rest upon a specially prepared clay foundation. In one case, the filling between the wall-posts was wholly or partly of flint (above, p. 89 and pl. xcvi B); but this was in other cases—notably in the two late first-century buildings under house III, 2 (above, p. 93)—of wattle coated with clay bearing impressions of a herring-bone stamp as a key for the plaster (pl. c).² Internal partitions of timber were common throughout the Roman period. They are normally represented merely by channels between adjacent cement or tessellated floors, but in one instance (building IV, 2, above, p. 99) the structural details of a timber partition, bedded on pebble footings and rendered with plaster reinforced by tile, had survived in recognizable form (fig. 8 and pl. cii B). The timbering had here been 4 in. thick. In the account of the second-century city-wall, attention is drawn to vestiges of scaffolding (p. 58).

For the most part, the main timbers used for structural purposes seem to have been left in the round, but carefully squared stakes of a foot scantling pointed at their lower ends were used in the timber-work of the theatre, and door-sills and door-frames, which were normally of timber, were necessarily squared.

Flint-work was, in the second century, carefully coursed with as true a face as the material permitted. The facing-flints were sometimes sliced (e.g. in a part at least of the city-wall, p. 59) and were often carefully flushed with mortar. In the late third-

¹ Thanks are due to the late Dr. H. H. Thomas, F.R.S., Mr. H. Dewey, Mr. W. W. Dove, F.S.A., Mr. Kenneth P. Oakley and Dr. Norman Davey for the identification of building stones. Mr. Oakley has also given much other help in regard to geological problems.

² Cf. Silchester, *Arch.* lviii (1902), 25; and *First Wroxeter Report*, p. 10.



Mosaic no. 1, from building II, I: c. A.D. 130-50

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century flint-work, on the other hand, the construction was noticeably rougher and considerably less care was taken in the choice of facing-flints, with the result that the flint-walls of this period commonly presented a more dishevelled appearance.

The flint-walls were usually, if not always, levelled with brick lacing-courses and were turned in brick at the corners. The sizes of the second-century bricks and of their mortar joints are sufficiently represented by examples cited from the defences (above, pp. 59, 64). A majority of the bricks in the extensive late third-century rebuild of the town were fragmentary and doubtless re-used. The very thick bricks occasionally found on Roman sites (e.g. Colchester) have not been observed at Verulamium; a few examples $15\frac{3}{4}$ by 12 by $2\frac{1}{2}$ from the early second-century 'triangular' temple being above the average thickness for the site. Many of the early second-century bricks from this structure showed a rough central boss on one side, a feature which recalls the four bosses on the bricks from the Roman pharos at Dover.¹ In the latter case they may have been designed to secure an air-space between the bricks when stacked for drying or baking, but the single boss can scarcely have served this purpose and may rather have been used, on the upper side of the brick, as a guide to the bricklayer in maintaining an equal thickness of mortar throughout his work.

Another feature of the early second-century brickwork at Verulamium is the sporadic use of *yellow* bricks. These do not occur in any wall to which a date later than the first quarter of the second century can reasonably be ascribed. They were found in the original walling of the 'triangular temple' and in the original (late first or early second-century) structure of the *temenos* west of the theatre.

Roofs were normally of the usual *tegula* and *imbrex* type. Some of the earlier *tegulae* (first and early second century) were lighter and more sharply angled than those normal at later periods, but an exceptionally thin type of *tegula* (only $\frac{5}{8}$ in. thick) was used in the late third-century reconstruction of building IV, 8. In one instance only was any material other than tile used for roofing—in building III, 2, where the northern range of the large quadrangular house of mid second-century date was roofed with hexagonal slabs of pennant. This feature must have been something of a luxury at Verulamium since the stone must have come from the neighbourhood of Colleyweston in Northamptonshire or Stonesfield in Oxfordshire.

The *imbrices* and *tegulae* were usually secured by mortar, nail-

¹ For illustration see J. Mothersole, *The Saxon Shore* (1924), p. 129, fig. 26.

holes being comparatively rare. It may be inferred that the roofs were of low pitch.

Freestone is lacking within a distance of 40–50 miles of Verulamium and is proportionately rare there. The columns of the 'triangular' temple were, however, cased in oolite from Ketton in Rutland (above, p. 114), whilst the architrave of the south-west gateway was likewise of oolite from Oxfordshire (above, p. 72). A few fragments of Purbeck marble were found in and near the 'triangular' temple. This material was fairly widely used in Roman Britain and occurs, for example, in Roman associations at Colchester.

The only non-British building-material identified at Verulamium is a foreign white marble (probably Carrara) of which fluted and moulded casings were made for some building (probably either the triumphal arch or the 'triangular' temple) in the southern part of the town (p. 77 and pl. XCIII B).

For the materials used for mosaic floors, see below, p. 148.

2. WALL-DECORATION

Walls were normally plastered internally and doubtless also externally, although, for the latter statement, only in the case of the 'triangular' temple and the theatre was actual evidence forthcoming. A cement or plaster quarter-round (occasionally obtuse-angled) moulding commonly marked the junction between walls and floor and a similar moulding filled the vertical angles of a room in building V, 1. In this building also there was a projecting dado of plaster, about 15 in. high (p. 109).

At all periods, the normal painted decoration of the wall-plaster consisted of simple outlined panels in which Pompeiian red predominated. A few fragments of more elaborate design—a conventionalized floral border and a fragment bearing the representation of a human eye—were found, but not in dated deposits.

3. FLOORS: MOSAICS

Floors of plain cement (*opus signinum*) are rare in Britain before the second century A.D., but two with marginal quarter-round mouldings were found in small Flavian buildings in Insula III (above, p. 94). For the rest, first-century floors seem normally to have been of clay and rammed gravel.

In the second century red tessellated floors became common.

The principal feature of the dwelling-houses was, however, the series of mosaic pavements which they included.¹ These pavements form a considerable addition to the small series of approxi-

¹ The coloured illustrations, pls. XXXVIII–XLI, have been prepared by Mrs. T. V. Wheeler, Dr. Norman Davey, and Mr. Gordon Godfrey from tracings, and are exact in detail.



Mosaic no. 6, from building IV, 2: mid 2nd century A.D. See also pl. XLVIA

Published by the Society of Antiquaries of London, 1936

mately dated mosaic pavements from Britain,¹ and deserve consideration in a wider context than the present. Here, it must suffice to note their principal characters and dates.

The mosaics fall into two main groups, the first dating from *c.* A.D. 130 to 190 and the second from the renaissance of *c.* A.D. 300. Technically, there is a perceptible difference between the work of the two periods. In the second century the tesserae are normally deep-set and clean-cut, and rectangular tesserae are usually retained throughout, save where the exigencies of the design absolutely necessitate the rhomboid or the triangle. In the later mosaics a liberal use is made of cut or broken and shallow tesserae, partly doubtless owing to the re-use of material from earlier and damaged pavements, but partly also owing to a less austere standard of craftsmanship. Indeed, in the curvilinear forms of the later designs the tesserae tend to become a mere conglomeration of bits and pieces. A comparison between the technique of the second-century mosaic no. 10 and the late third-century relay no. 9, or of the curvilinear forms in no. 7 (second century) with those in no. 11 (late third century) illustrates this point.

Stylistically, the range of material at Verulamium is too limited to justify detailed analysis here, but the following points may be noted.

1. The four-strand plait as a continuous border, e.g. in no. 9 (*c.* A.D. 300), seems usually to be a late feature, although three-strand and two-strand plaits occur in this manner as early as the middle of the second century.

2. A more definite value can be attached to the 'combined' or 'running' pelta-patterns, of which a variety hereinafter known as the 'recurrent swastika-pelta' is illustrated in no. 11 (*c.* A.D. 300). As a decorative unit, the pelta occurs at least as early as the first century A.D. in classical mosaic: thus a series of peltae was sometimes used as a border-panel at Pompeii.² The more elaborate 'swastika-pelta' may occur, though doubtfully, as an isolated motive in the second century: an example at Aquileia has been tentatively ascribed to that or the following century,³ whilst at

¹ Indeed, save for the fourth-century series at Lydney, Gloucestershire (*Lydney Report*, Society of Antiquaries, 1932, pp. 65 ff.) and perhaps those found recently at Rudston, Yorks., scarcely a single mosaic pavement from Britain has been dated by associated evidence, whilst outside Britain the volume of reliably dated material is very much less than might be supposed from a casual examination of the literature.

² See M. E. Blake in *Memoirs of the American Academy at Rome*, viii (1930), pls. xxvii, 2; xxxii, 1; xxxiii, 3.

³ M. E. Blake as cited, pl. xxxv, 3 and p. 111. Miss Blake does not express any definite opinion upon the matter of date, but from the context inclines to the second or third century.

Silchester in a floor otherwise closely similar to our no. 7, which is of Antonine date, the same motive occupies an isolated panel.¹ But as a recurrent unit forming the main body of the design, there can be little doubt that the swastika-pelta, like the running-pelta proper,² belongs to the Late Empire, and no example seems to have been ascribed on objective evidence to a date earlier than the end of the third century.

3. The use of chequer-pattern on a large scale, generally in black and white, is more often late than early. In the present series of mosaics a minute chequer is used in a second-century design (no. 7) as a form of 'shading' for the perspective-box pattern, but the use of the chequer as a principal motive is represented only by a floor attributed to c. A.D. 300, and is well exemplified in the late fourth-century mosaics at Lydney and in the Romano-British church at Silchester.³

4. Lastly, a feature of the early mosaics at Verulamium is the careful laying of the red or mottled tesserae which frame the design, and a tendency to vary this framework by inserting into it a band of yellow cubes. This feature is illustrated in the borders of nos. 1 and 7 (both of the second century) and occurs in two otherwise plain tessellated floors in the mid second-century house, insula III, 2, room 10 and corridor 14. It is by no means universal in the early floors, but has not been observed in those of post second-century date at Verulamium. On the other hand, the border of a late mosaic at Rudston in Yorkshire⁴ is variegated in a similar fashion, so that the feature is not in itself determinate.

1. (Pl. xxxix.) Semicircular mosaic from building II, 1, dated c. A.D. 130-50 (above, p. 87). The motive is that of the scallop-shell in an unusually elaborate setting. This motive probably began in the decoration of the half-domes of wall-niches. It is not common in floor-decoration but an inferior example occurs on a mosaic from Leicester (now in the Leicester Museum). The border is of the Hellenistic wave-pattern⁵ which is frequent in pavements of the first and second centuries A.D., and was not entirely excluded from later work.

The technical skill shown by this pavement is exceptional in

¹ *Archaeologia*, lv (1896), pl. xii. On the other hand this Silchester pavement likewise shows points of similarity with a fourth-century mosaic from Ephesus. See C. E. Reisch, *Forschungen in Ephesos* (Austrian Archaeological Institute), iv (1932), coloured pl. iii.

² For this see *Lydney Report* (Society of Antiquaries), p. 66.

³ *Archaeologia*, liii, pl. cl.

⁴ I. A. Richmond, *Roman Pavements at Rudston* (1933), Pl. II.

⁵ This motive occurs in the earliest classical mosaics—those of c. 400 B.C. at Olynthus. D. M. Robinson, *Excavations at Olynthus*, part v (1933), pls. II, 12, &c.



T.V. WHEELER 1931

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1

2 FEET

Central panel of mosaic no. 8, from building IV, 8: c. A.D. 160-90.

See also pl. XLV A

Britain, especially in the boldness and variety with which the fluting of the scallop is indicated.

The mosaic has been taken up and is preserved in the Verulamium Museum.

2. (Pl. xcviia.) Fragment of a black and white key-border from the same house and of the same date. The mosaic panel formerly enclosed by this border was removed in Roman times.

3. Mosaic in building III, 2, room 15, a projecting porch added during the rebuild of c. A.D. 300 (above, p. 95). Only a fragment of mosaic remained, consisting of a tendril border including lotus-leaf pattern in black, white, red, and yellow. The damaged state of the floor prevents further description, but it is clear that the mosaic was very much more roughly laid than those of the second century, described above.

4. (Pl. xliii.) Fragment of mosaic from room 24 of the same house, also dated to c. A.D. 300. This design consists of a coarse key-border, the key itself being in white tesserae on a black background.

5. (Pl. xliva.) Fragment of mosaic in room 25A of the same house, also dated to c. A.D. 300. The fragment includes parts of panels with isolated peltae, knot-pattern, and indented pattern mostly in black on white, but with shading in red and yellow.

6. (Pls. xl and xlvia.) Mosaic in building IV, 2, from the double rooms 28 and 29, dated to the middle of the second century. This pavement is mainly in black and white but includes red, yellow, and blue for details. The larger floor included five circular panels of which the central one is now missing. The other four contain floral patterns and two of them are framed in the popular second-century wave-border. The smaller floor is also framed in a wave-border between lateral 'straight wreaths'. The main ground of both floors is of the perspective box-pattern, which seems to last throughout the period of Roman mosaic but tends, in the later examples,¹ to lose coherence and to devolve into a mere geometrical pattern of lozenges or squares. The present example, particularly in the smaller pavement with its suggestion of shading and relief, shows the pattern in its better form; whilst the emphatic white background and the absence of the continuous framework of guilloche which becomes normal after the middle of the second century are also early features usually not later than the reign of Hadrian.²

¹ e.g. at Woodchester where the pavements seem to be of late type—S. Lysons, *Reliquiae Britannico-Romanae* (1813), i.

² Cf. E. Krüger, 'Römische Mosaiken in Deutschland', *Archäologischer Anzeiger*, 1933, Heft 3/4, p. 666.

7. (Pl. XLIV B.) Mosaic from building IV, 1, dated to the end of the second century A.D. It consists of a grid-pattern framed in three-strand guilloche with a rose in each of the four corners, all overlying a circular panel framed in a border of black and white indentations, two-strand guilloche and wave-pattern, and enclosing a 'dahlia'. A good example of careful pedestrian work. The liberal use of the guilloche-border begins in the Antonine period,¹ and is here fully developed. Now in the Verulamium Museum.

8. (Pls. XLI and XLVA.) Mosaic from building IV, 8, room 4, dated to c. A.D. 160-90. The central panel contains a representation of a bearded head with projecting lobster-claws. The framework includes a basal band of three-strand guilloche and a main border of key-pattern enclosing four square floral panels and four *canthari* of which two contain a ladle. The head is that of a sea-god, and was presumably chosen as appropriate to the bath-wing of the house. It is an unusually good example of a well-known type, represented, for example, in the following mosaics²:

- (i) From Frampton in Dorset—a pavement bearing the Chi-Rho monogram and, paradoxically enough, an inscription to Neptune, to which the head clearly relates. Probably fourth century. S. Lysons, *Reliquiae Britannico-Romanae*, i.
- (ii) From Withington, Dorset. Also probably fourth century. Lysons, as cited, ii.
- (iii) From the site of the Foundry, Dorchester, Dorset, now in the Dorset County Museum.
- (iv) From Vienne, in France. Artand, *Histoire de la peinture en mosaïque* (1835), p. 117, pl. LVI.
- (v) From Saint-Rustice, Haute-Garonne, France. References in *Inventaire des mosaïques de la Gaule* (Académie des Inscriptions et Belles-lettres) i (1909), no. 376.
- (vi) From Bir-Chana, in Africa. *Ibid.* ii (1910), no. 449.
- (vii) From Ain-Témouchent, in Africa. *Ibid.* iii (1911), no. 318.

The ladle-handles projecting from two of the *canthari* are an exceptional feature.

The design of the whole is vigorously executed and attention may again be drawn to the bold transitions in the representation of light and shade.

9. Mosaics in the same house, room 6. This room had originally contained a hypocaust, which had, however, been destroyed and refloored in Roman times. Fragments of the earlier floor, dating from c. 160-90, were found in the filling and had included

¹ Krüger, as cited, p. 678.

² See also H. Wirth-Bernards, 'Versuch einer Chronologie der Mosaiken in Boscéaz bei Orbe (Urba),' *Anzeiger für schweizerische Altertumskunde*, N.S. xxxvii (1935), Heft 3, p. 200.



Mosaics nos. 9 and 10, from building IV, 8: m.
See als



160-90; acanthus-panel on right, c. A.D. 300.

21V

of London, 1936

flower-patterns and a perspective box-pattern (pl. XLVIII A) somewhat similar to the pattern of mosaic no. 4 above, but more vividly coloured. The later floor, dating from *c.* A.D. 300, had mostly been destroyed, but one of the end panels had survived (pl. XLII, right). This included an elaborate acanthus-tendril of the somewhat finicky type which seems to have been popular in late Roman mosaic, and the framework contains the four-strand guilloche which has been noted above as an unusual border-design before the third century.

10. (Pls. XLII, left and XLV B.) Large mosaic in the same house, room 7. Apart from an extensive patching of the red tessellated border with coarse buff tesserae (apparently at the time of the late third-century rebuild), this floor remains substantially as it was laid, *c.* A.D. 160-90. It contains sixteen square floral panels with end-panels of interlacing circles, all framed within bands of two-strand guilloche. This floor is preserved *in situ*.

11. (Pl. XLVI B.) Mosaic panel, originally 5 ft. 3 in. by 4 ft. 10 in., from the same house, room 15. It covered coins of Gallienus, Victorinus, Tetricus I and II, and Carausius and belongs to the rebuild of *c.* A.D. 300 (above, p. 107). Its decorative motive is a form of 'running-pelta' which, from the general character of its units, may conveniently be distinguished as the 'swastika-pelta' pattern. The popularity of the 'swastika-pelta' belongs to the late Empire (see above, p. 143). It is found as a border in a third- or fourth-century mosaic at Melos,¹ and is included in the floor of an early Christian church (*c.* A.D. 300-50) at Ephesus.² Whether as an isolated motive it occurs before the end of the third century is doubtful (see above, p. 143), but as an 'all-over' pattern there is no evidence that it was used before the Late Empire. The recurrent 'swastika-pelta' is, indeed, one of the few mosaic-motives to which a definite chronological value may, it seems, be attached. Compare the Rudston (Yorks.) pavement cited above.³

12. (Pl. XLVII.) Fragmentary mosaic from a late Roman filling of a mid or late second-century hypocaust in building IV, 10. These fragments doubtless represent the original floor of the room. As restored by Mr. C. D. P. Nicholson, who carefully recorded the position of each fragment during excavation, the pattern included a typical second-century key-border enclosing floral and guilloche panels, with a central panel representing a cantharus flanked by dolphins.

¹ R. C. Bosanquet in *Journal of Hellenic Studies*, xviii (1898), pl. 1.

² C. E. Reisch, as cited above, p. 144, n. 1.

³ P. 144, n. 4. The Verulamium pavement is now in the Verulamium Museum.

13. (Pl. XLVIII B.) Mosaic panel in the southern corridor of the same building. The panel has a black and white chequer-pattern varied by an occasional L-shaped arrangement of the squares. This panel almost certainly belongs to the late third-century rebuild of the house: direct evidence was not forthcoming, but the floor of the adjacent room, which marched with the corridor at this point, was certainly of *c.* A.D. 300. See also above, p. 144.

Materials used for the tesserae of the mosaics

The materials of which the tesserae were made do not seem to have varied from period to period—a uniformity which perhaps owes something to the re-use of earlier tesserae in later floors. Classified by colour, the materials are as follows:¹

Black. Limestone of the argillaceous and bituminous type which occurs commonly in the Upper Jurassic of Dorset (e.g. in the Kimmeridge clay). Specimens of a brownish tint are probably also from this source.

Dark blue. Purbeck marble: a few specimens also of the red and green type of Purbeck marble which outcrops on the shore in the neighbourhood of Swanage.

Blue-grey. Tough argillaceous Limestone. Cement-stones of the Lias or similar.

Grey. Limestone: one of the hard 'rock' bands in the chalk, probably local.

White. Chalk rock, local.

Green-grey. Calcareous grit, probably from the Lower Greensand of the south of England: it is similar to some of the finer grained parts of the Kentish Rag.

Brown. Argillaceous limestone of the type which forms septarian nodules in the London clay.

Yellow-grey. Calcareous sandstone: inferior Oolite; may well be Barnack Rag.

Red brick, probably local.

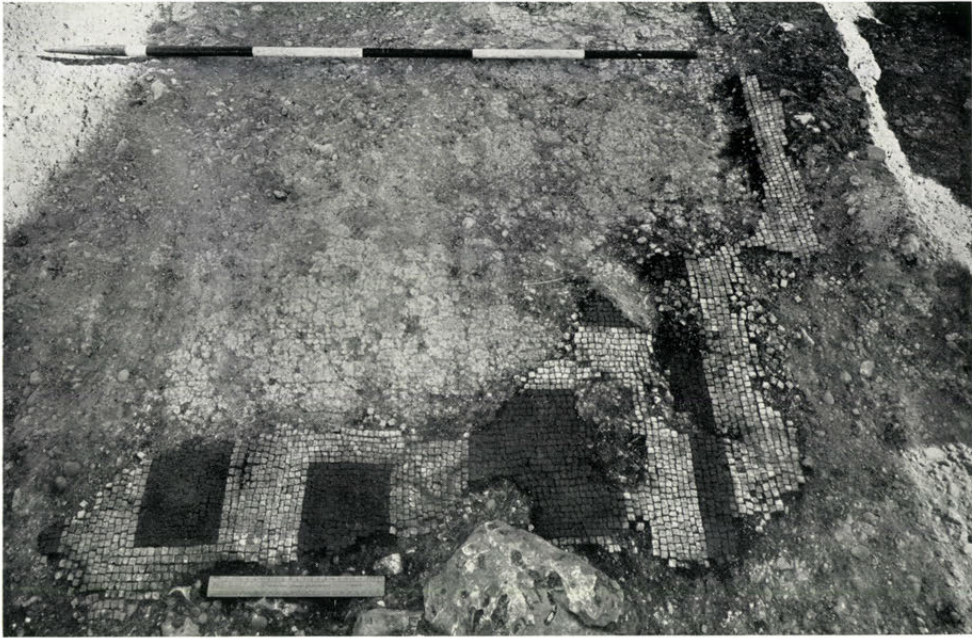
Yellow brick made from calcareous clay and therefore probably not of local manufacture. The Gault Clay makes similar brick.

Large tesserae were normally of red or buff brick and frequently cut from disused flue-tiles. Here and there, however (notably in the case of pavement 16), use had been made of a grey-green Calcareous Grit—probably from the Lower Greensand of the south-east of England—possibly a fine-grained Kentish Rag.

¹ Mr. Kenneth P. Oakley, F.G.S., has very kindly reported upon representative material.

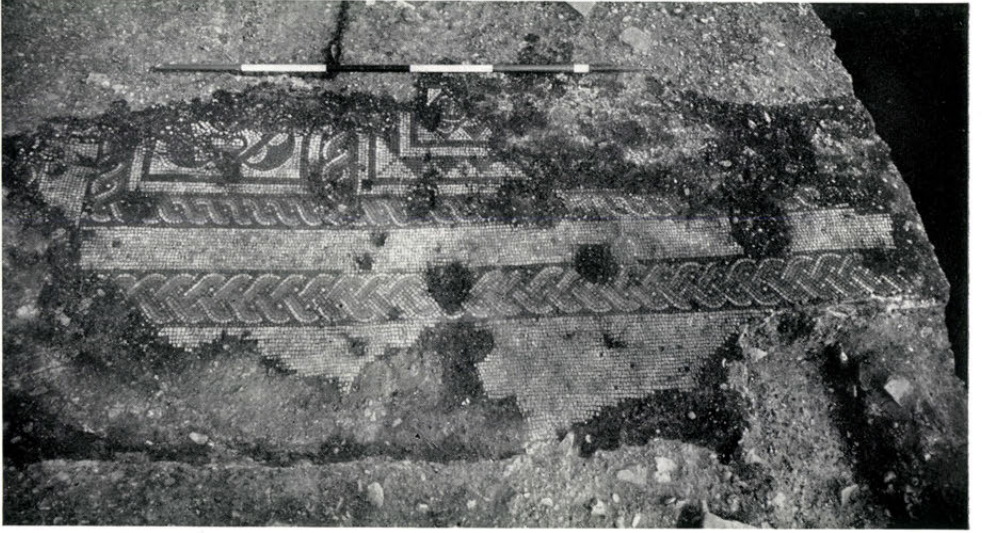


A. Mosaics nos. 4 and 5, from building III, 2: *c.* A.D. 300. In the foreground the mosaic is penetrated by a post-hole of late Roman or post-Roman date. (*See pp.* 95, 145)



B. Mosaic no. 4, from building III, 2: *c.* A.D. 300. (*See p.* 145)

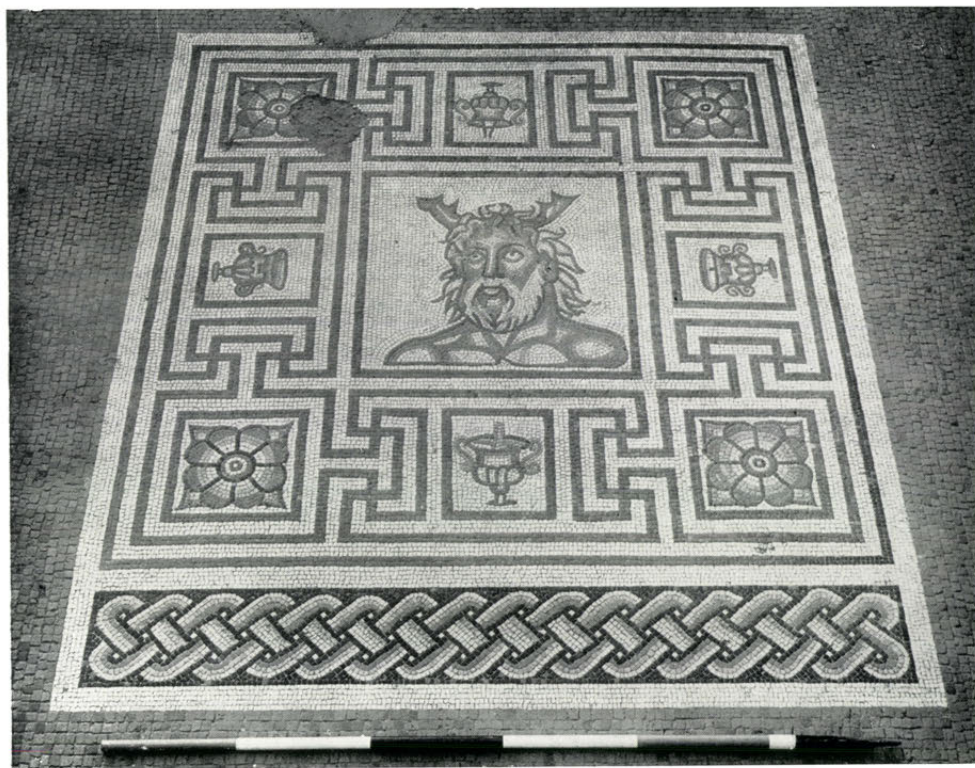
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A. Mosaic no. 5, from building III, 2: *c.* A.D. 300. (*See p.* 145)



B. Mosaic no. 7, from building IV, 1: late 2nd century. (*See p.* 146)



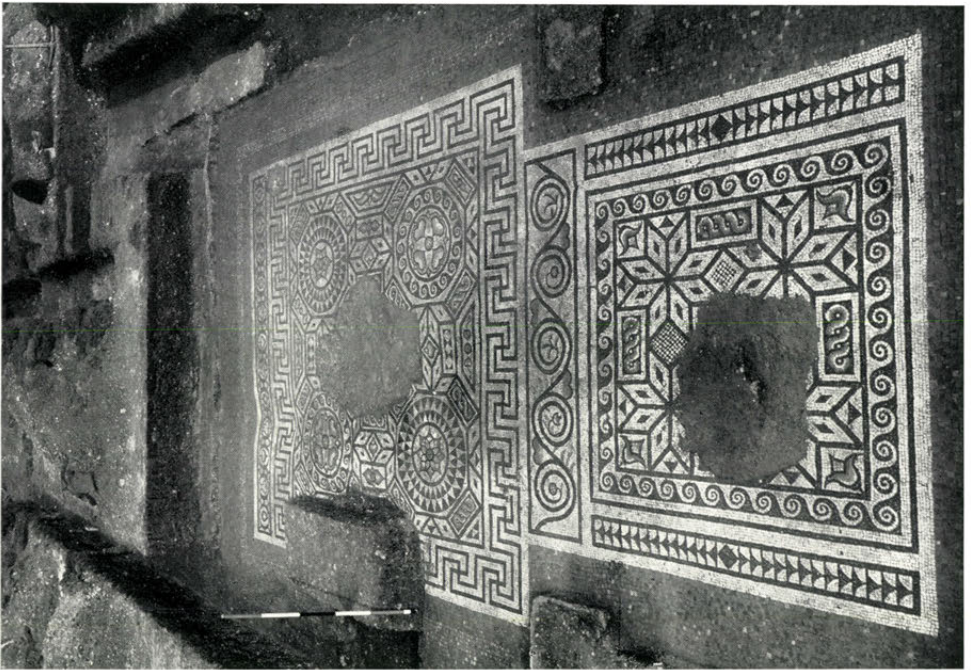
A. Mosaic no 8, from building IV, 8: *c.* A.D. 160-90
(See pl. XLI and p. 146)



B. Mosaic no. 10, from building IV, 8: *c.* A.D. 160-90
(See pl. XLII and p. 147)



B. Mosaic no. 11, from building IV, 8: c. A.D. 300
(See p. 147)



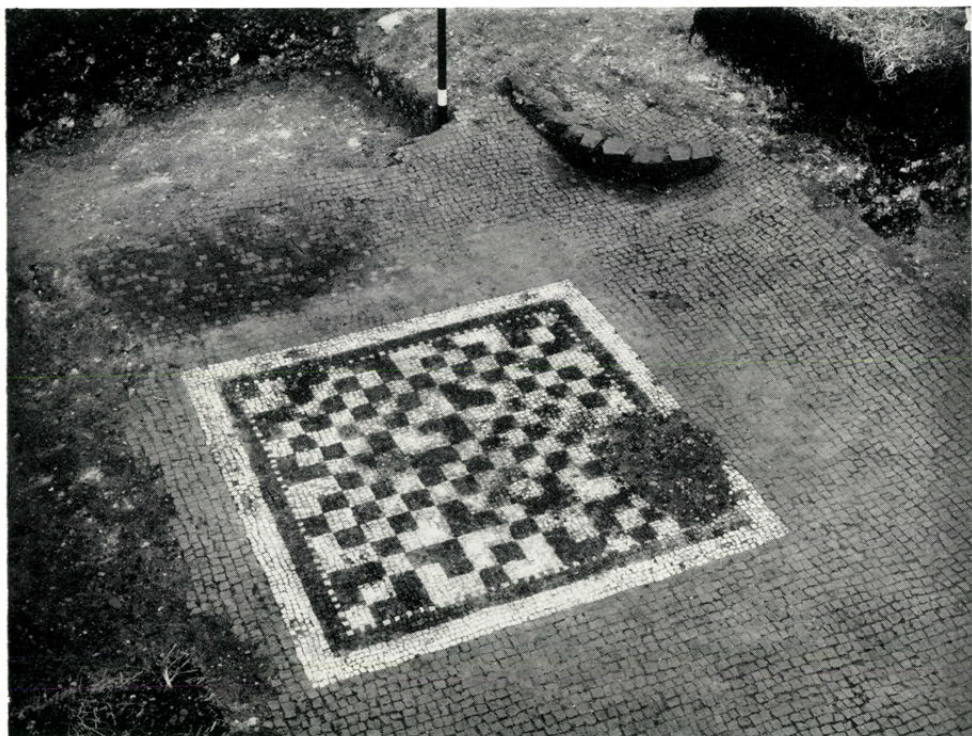
A. Mosaic no. 6, from building IV, 2: mid 2nd century
(See pl. XI and p. 145)



Mosaic no. 12, from building IV, 10: mid or late 2nd century A.D. $\frac{1}{6}$
(See p. 147)



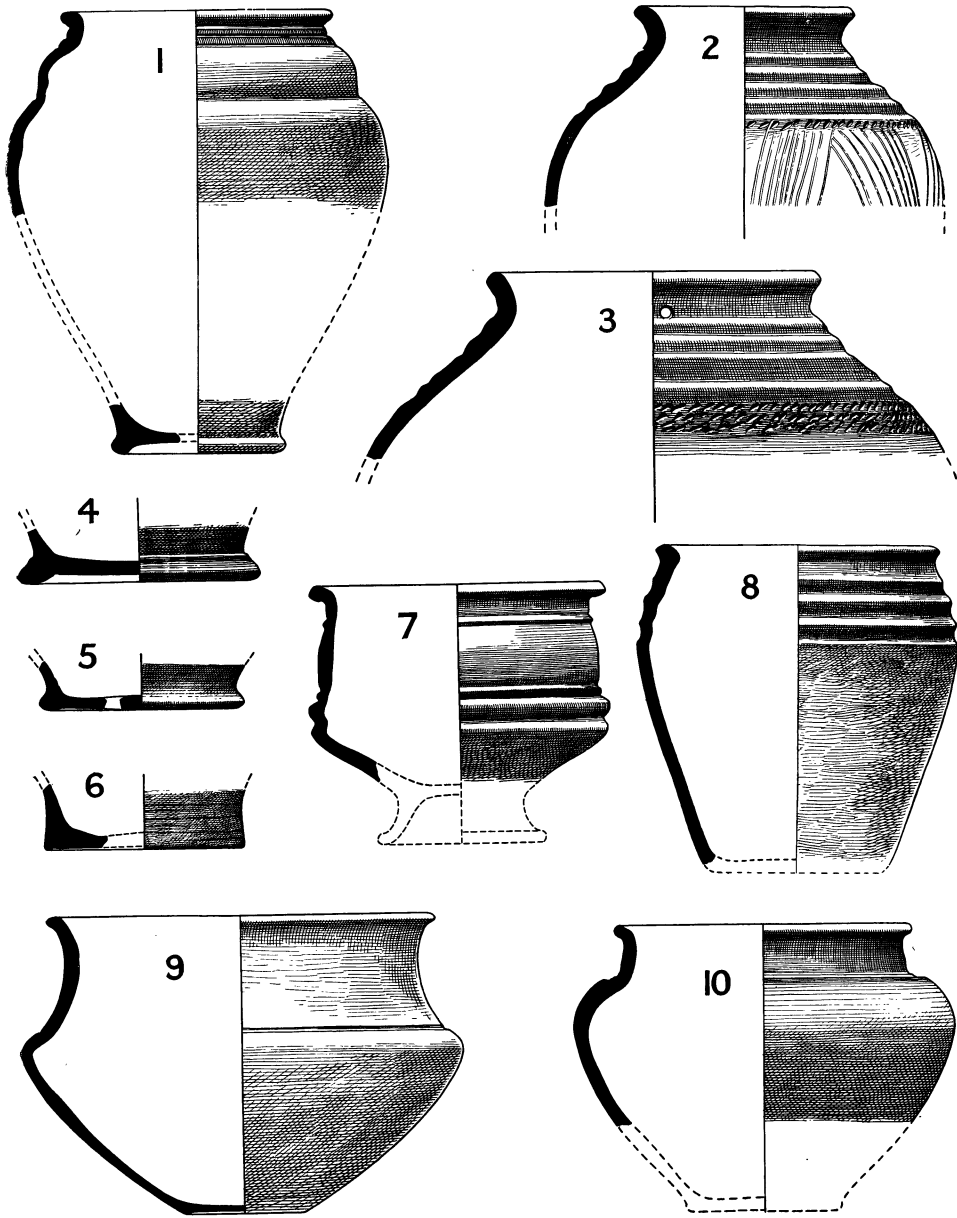
A. Fragments of 2nd-century mosaic floor in the filling of the hypocaust of building IV, 8, room 6: *c.* A.D. 160-90. (*See p.* 146)



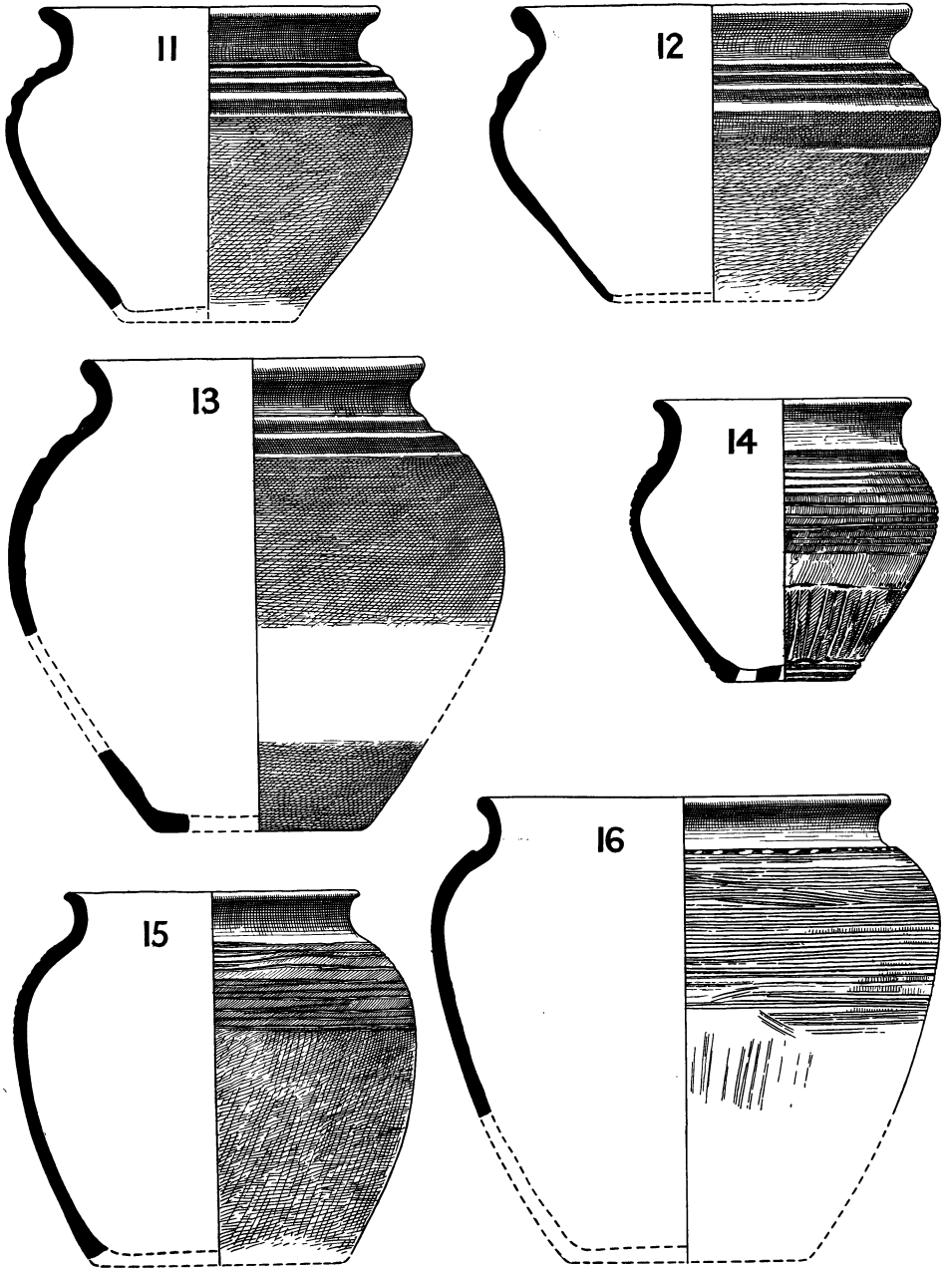
B. Mosaic no. 13, from building IV, 10. Probably *c.* A.D. 300. (*See pp.* 108, 148)

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PLATE XLIX



Pottery from the Wheathampstead *oppidum*. $\frac{1}{4}$
(See pp. 149-50)



Pottery from the Wheathampstead *oppidum*. $\frac{1}{4}$
(See p. 150)

C. THE FINDS

I. FROM THE BELGIC OPPIDUM AT WHEATHAMPSTEAD

POTTERY (pls. XLIX-LI, and LIII)

Sherds of upwards of 500 pots were found in the trial trenches at Wheathampstead (above, p. 19). They mostly occurred in the filling of two drainage ditches of the type already familiar at Verulamium and Colchester, and there was nothing in the character of the filling to suggest that it represented a lengthy process. The pottery may therefore be regarded as substantially of one date.

As already observed, this extensive group of pottery is marked by the complete absence of imported sherds of south Gaulish or Italic type, and by the absence of Belgic imitations of such types. In particular, there are no Belgic plates based on Arretine forms and there are no butt-beakers or girth-beakers. No group of this size, or even approaching this size, from Verulamium or Colchester is devoid of these extraneous features; and since the latter were introduced into the Belgic ceramic by the middle of the principate of Augustus, the Wheathampstead series may be regarded as prior to *c.* 10 B.C. and may easily go back to the earlier years of the Belgic occupation (after *c.* 75 B.C.).

The examples illustrated (pls. XLIX-LI) represent the main range of types at Wheathampstead. They are all wheel-turned, but their fabric is of varying fineness, types 14-15 being considerably coarser than those which precede them. Pedestals are rare and are of unpronounced form; all those found are illustrated in types 1, 4, 5, 6, and they are thus disproportionately emphasized.

The fabric is normally grey, varying to brown or brownish-yellow in the coarser types 16-25.

Detailed description of the forms is unnecessary, but the following points may be observed.

Type 8. This bi-conical pot is represented by a single example at Wheathampstead and has not been found at Verulamium. It is roughly, though not closely, comparable with Swarling type 19.¹

Type 9 is a copy of a bronze vessel, and is distinguished appropriately by the exceptional thinness of its walls. The metallic prototype is of Hellenistic origin, but became securely established

¹ J. P. Bushe-Fox, *Excavation of the Late-Celtic Urn-field at Swarling, Kent* (Soc. Ant. Lond., 1925).

in north-western Europe in the Early Iron Age, and survived, indeed, well into the migration-period in Scandinavia.¹

Types 11-13, with rippled or cordoned shoulder, were fairly common, but the dominant type in the group was that of *14* and *15*, with decoration of rough vertical or horizontal combing.

Type 17, with its band of finger-tip ornament, so emphatic as to suggest almost an applied strip, retains into the Belgic period a vestige of an old ceramic tradition abundantly represented throughout western Europe in the Bronze and earliest Iron Ages. It was exceptional at Wheathampstead, but a less emphatic variety of notched or finger-tip ornament occurred on two or three examples (*types 18* and *19*) at that place. (At Verulamium it is even scarcer—below, p. 151, no. 2.) The sweeping scored decoration of the main body of the vessel in *types 17* and *20* was not uncommon in the coarser wares, and was probably rendered by means of a bunch of fibre rather than by a comb. It combined to disguise the roughness of the fabric and to give the hands a firmer grip upon the vessel. To German archaeologists, ware of this kind is known by the expressive name 'Besenstrichware'; it occurs in South Germany in the late Hallstatt period, and recurs in the late La Tène period (hence its appearance in the Belgic complex), but links between the two phases have not yet been satisfactorily established.²

Types 21 and *22* were represented by single examples.

Types 23-5 are the normal Belgic storage-vessel which lasted throughout the Belgic and well into the Roman period.

OTHER OBJECTS FROM WHEATHAMPSTEAD (pl. LII)

At a high level in the trench which contained most of the pottery occurred a bronze brooch (pl. LII, 1), of a type generally analogous with, though differing somewhat from, the so-called 'Nauheim' brooches which are found on sites of the Mont Beuvray series in the first century B.C., and may be of mid-Gaulish origin.

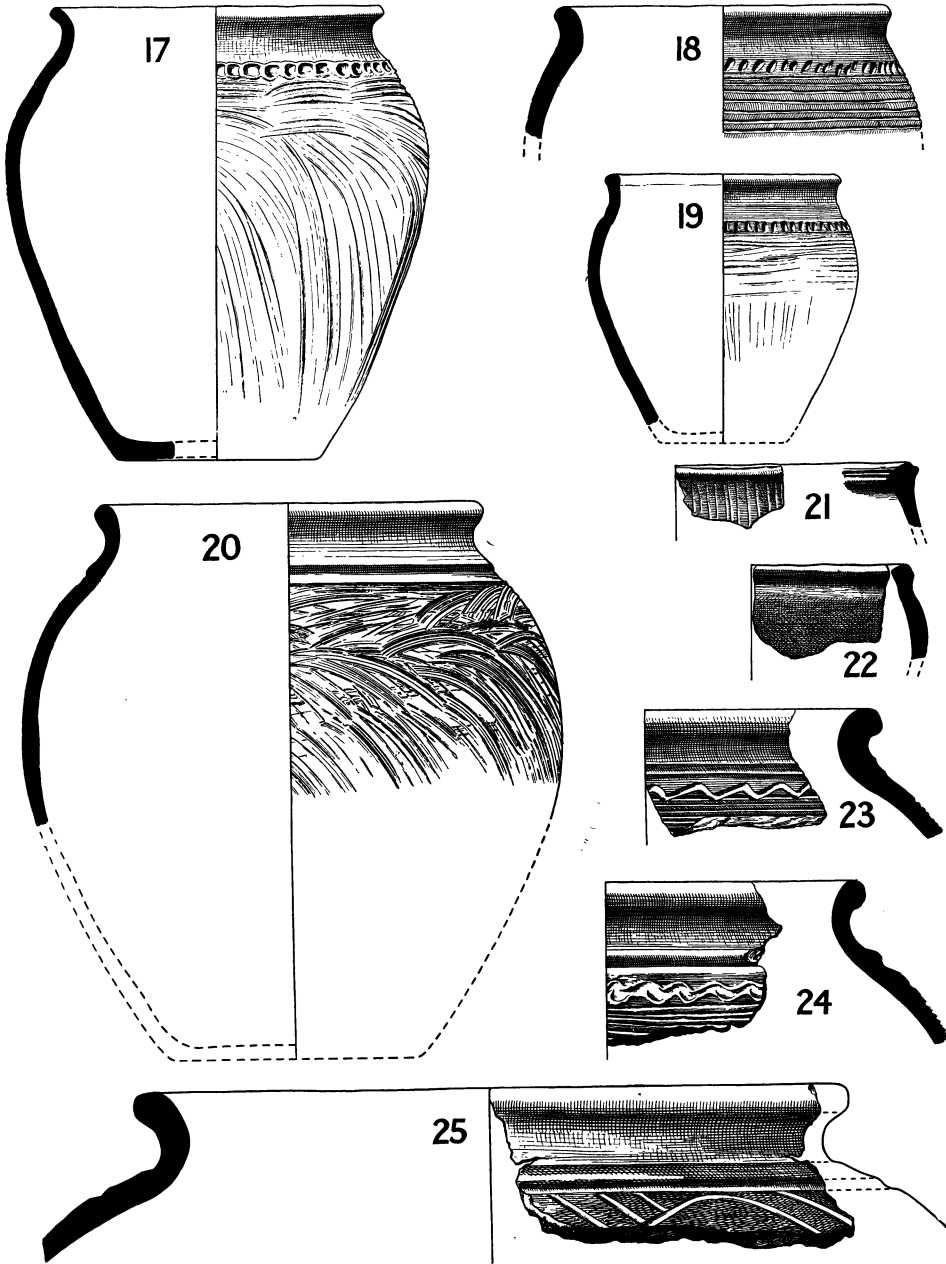
At a somewhat lower but roughly contemporary level was found a pair of bronze tweezers (pl. LII, 2) of the elemental type which is familiar on Late Bronze Age, Early Iron Age, and Roman sites.

A fragment of an iron knife-blade with hooked end (pl. LII, 3) is of normal Early Iron-Age type; and a clay spindle-whorl (pl. LII, 4) is of a flat form which is rare before the last phase of the Early Iron Age in this country.

Pl. LII, 5 represents a fragment of a triangular clay loom-weight of baked clay, of the normal late La Tène type.

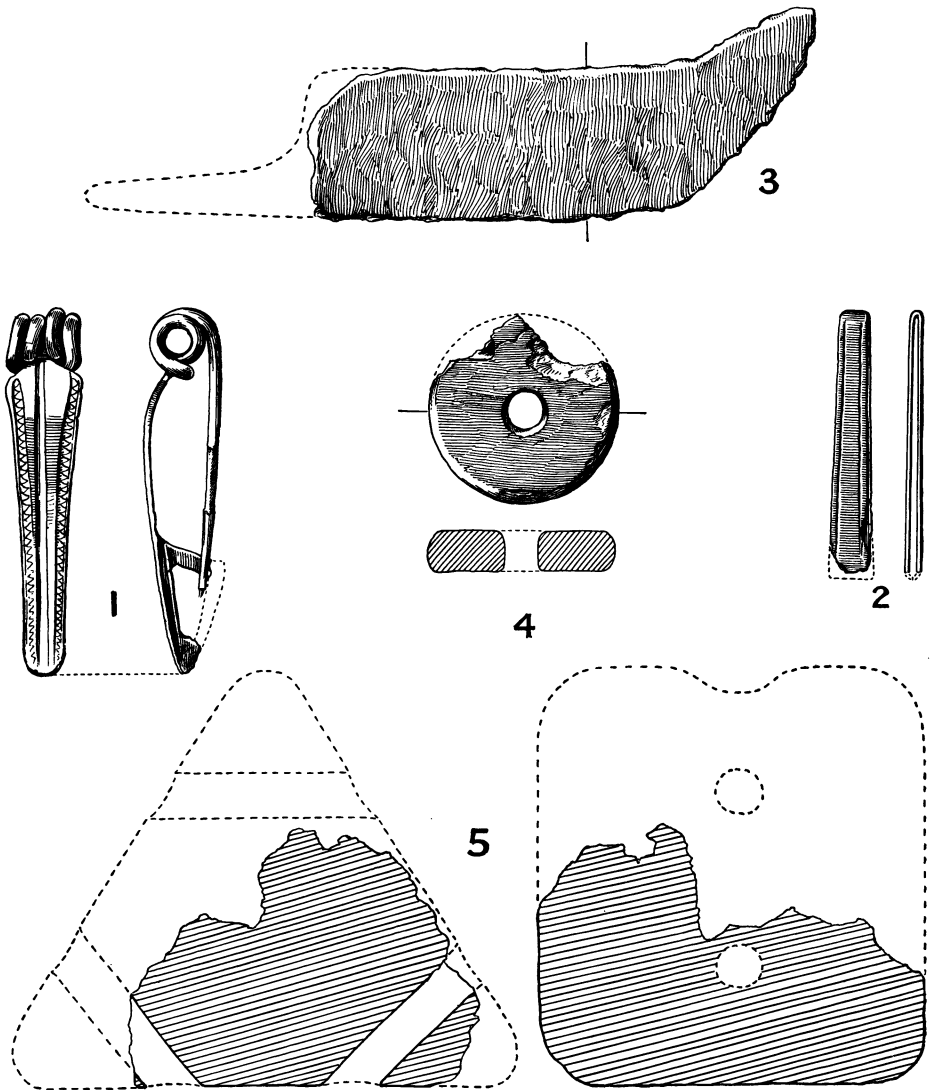
¹ E.g. A. W. Brøgger, 'The Prehistoric Settlement of Northern Norway,' *Bergens Museums Årbok*, 1932, No. 2.

² See K. Bittel, *Die Kelten in Württemberg* (1934), p. 89.



Pottery from the Wheathampstead *oppidum*. $\frac{1}{4}$
(See p. 150)

PLATE LII



From the Wheathampstead *oppidum*: 1, bronze brooch; 2, bronze tweezers;
3, iron knife; 4, clay spindle-whorl; 5, clay loom-weight.
Scales: 1-3, $\frac{1}{4}$; 4 and 5, $\frac{1}{2}$. (See p. 150)

2. POTTERY FROM BELGIC VERULAMIUM

FROM PRIMARY LEVELS (fig. 9)

The primary levels associated with the main earthworks of Belgic Verulamium produced sherds only of the coarser wares represented on the site (p. 44). These wares, all wheel-turned, are sufficiently illustrated by the vessels here figured.

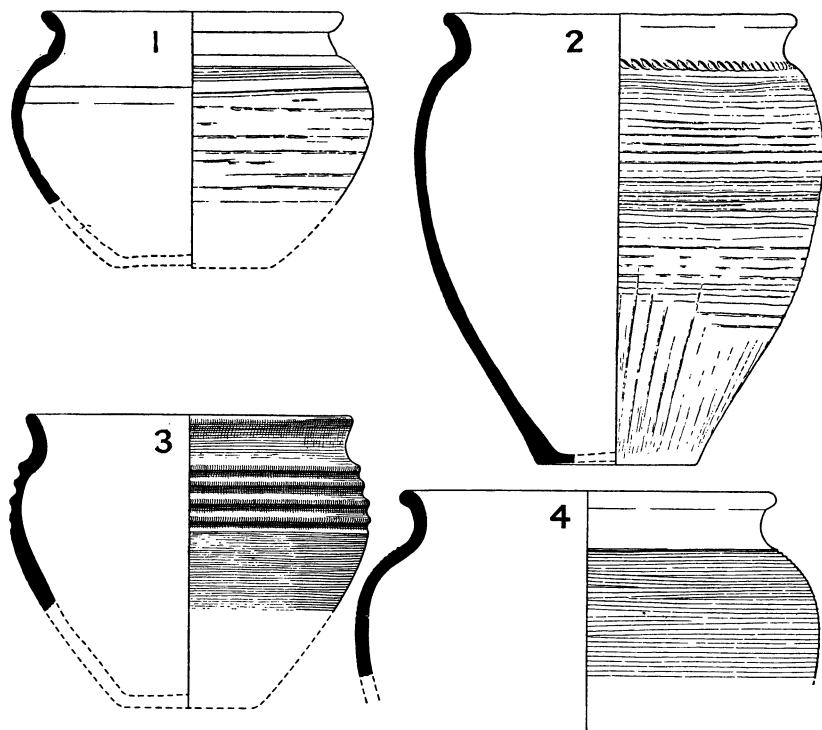


FIG. 9. Pottery from primary levels of Belgic Verulamium. $\frac{1}{4}$. (See pp. 151 f.)

1. Vessel of coarse brown ware with rough horizontal combing. From the packing inserted to support the original intermediate palisade A in Pond Field. This common type of Belgic pot might be either of the first century B.C. or of the first century A.D. (cf. below, p. 166, type 61).

2-4 were found in a hearth on the inner lip of the main dyke in Prae Wood. This hearth was cut by the palisade of Period 2 and was covered by the up-cast thrown up during the recutting of the ditch in that period (see pl. LXXIV B). No. 2 is an urn of brownish ware with rough horizontal and vertical combing on the sides¹ and

¹ For this technique ('Besenstrichverzierung') see above, p. 150.

a band of finger-tip ornament round the shoulder. It is appropriately a link rather with the earlier than with the later Belgic types. It does not seem to occur in any secondary levels at Belgic Verulamium but is well represented at Wheathampstead in the first century B.C. (see pl. LI, 17 and 19).

No. 3 is of the orange-grey ware characteristic of the Prae Wood pottery, but like no. 2 is reminiscent of the earlier Belgic (Wheat-hampstead) series, in which the multiple rilling of the shoulder is a common feature. This feature is rare in Belgic Verulamium.

No. 4 is of orange-grey ware with exceptionally regular horizontal combing but otherwise conforming to a common and undated Belgic type.

Group A (fig. 10)

This group (nos. 1-8) represents the main types of pottery found in the rapid silt of the south-eastern ditch of enclosure A in Prae Wood (plan, pl. xvi). This enclosure, it may be recalled, was either contemporary with or slightly subsequent to the main dyke. It was in any case prior to Period II (above, p. 43). It will be seen that the group is subsequent to the introduction of the butt-beaker and associated forms, and is therefore not earlier than the last decade B.C. On the other hand, in the group as a whole the number and range of these late types was small, suggesting a general date not much later than that decade.

No. 9 in this figure comes from the earlier silting of the main dyke where it forms the outer boundary of enclosure A. It is either contemporary with nos. 1-8 or slightly earlier.

1. Coarse, roughly combed vessel of brownish ware and of a common Belgic type, comparable with type B 61 below, p. 166.

2. Part of a large vessel of orange ware, in type mid-way between the cordoned examples at Wheathampstead (pl. LI, 24 and 25) and the cordonless vessels normal at Verulamium (below figs. 18 and 19, 60*a* and *b*).

3. Part of a vessel of well levigated orange-buff clay; an exceptional Belgic variant.

4. Small cup of hard grey ware of type B 35 below (p. 161).

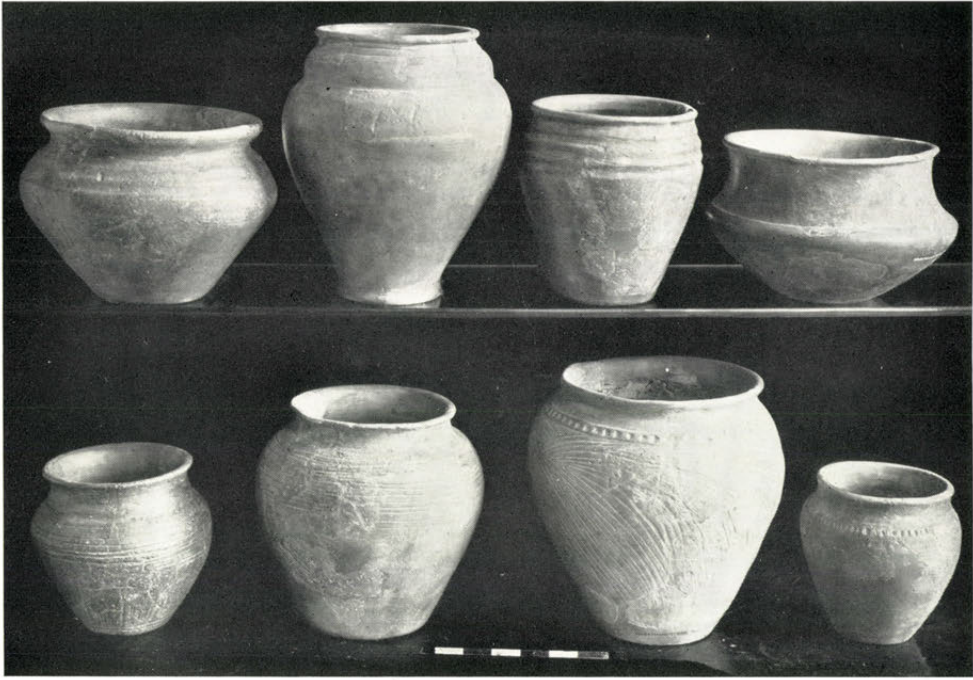
5. Butt-beaker of orange-grey ware, comparable with B 31 *a-b* below (p. 159).

6. Butt-beaker of hard grey ware, comparable with B 31 *d* and *e* below (p. 159).

7. Part of beaker (possibly a large girth-beaker) of coarse orange-grey ware.

8. Pedestal of coarse grey ware; a small example of the type normal (though not common) at Belgic Verulamium.

PLATE LIII



Belgic pottery from the Wheathampstead *oppidum*. Scale of inches
(See pp. 149-50)



Pottery from Belgic Verulamium: part of group B. *Scale of inches*
(See pp. 153 ff.)

9. Bowl of grey ware, with sharply incurved rim to provide seating for a lid. It is not easy to find an analogy for this form,

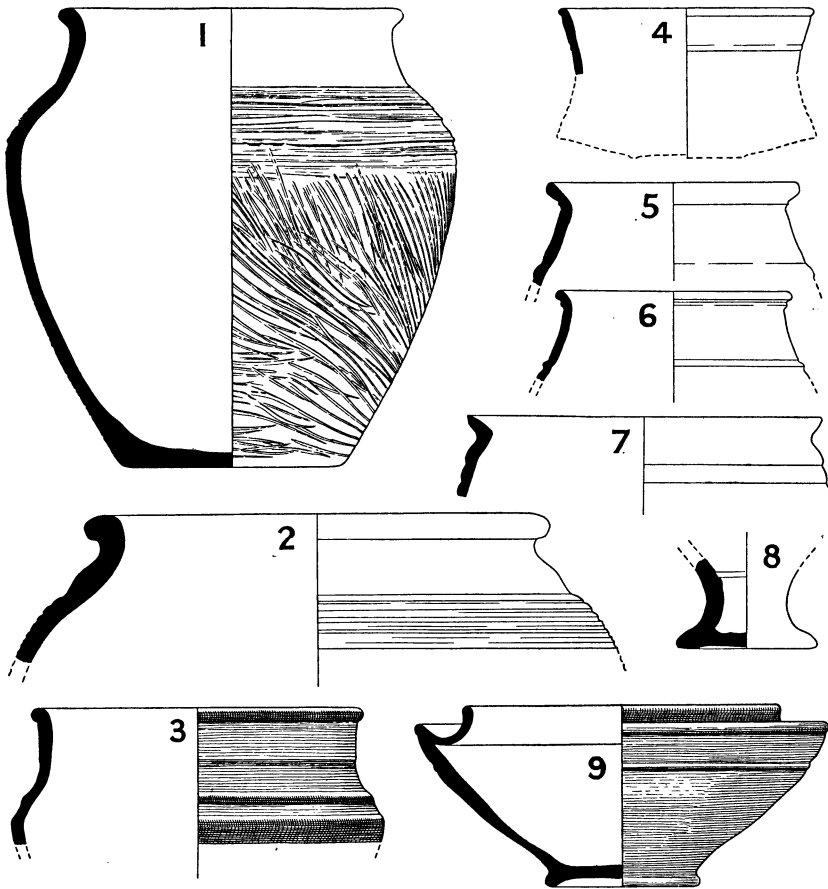


FIG. 10. Belgic pottery: group A. $\frac{1}{4}$. (See pp. 152 f.)

but it may perhaps be regarded as an ancestor of the Claudian Hofheim type 115.¹

Group B (figs. 11–21, and pl. LIV)

This series represents many hundreds of fragmentary pots which had been thrown into the south-eastern ditch of enclosure A (plan, pl. XVI; also pl. LXXV) subsequently to the accumulation of the 'rapid silt' in that ditch. The material containing this immense group consisted of a grey sandy clay, interleaved with thick streaks

¹ E. Ritterling, *Das frühromische Lager bei Hofheim i. T.* (Annalen des Vereins für nassauische Altertumskunde, 1913).

of charcoal-ash, and included food-bones, broken loom-weights, a few brooches and numerous fragments of the distinctive pre-historic brick which will be described hereafter. The whole of this mass of material formed a single unit and its contents may be regarded as approximately of one date.

The actual date must be inferred partly from the stratigraphical position of the material and partly from its constituents. The 'rapid silt' which preceded the group contained a fragment of girth-beaker and two or three fragments of butt-beaker which are unlikely to be earlier than the last decade B.C. On the other hand, the group was sealed by a thick and well-defined layer of early Roman material unlikely to be later than the middle of the first century A.D. Stratigraphically, therefore, our group belongs to some date within the first half of the first century A.D. With this date, its inherent character is consistent. Both Roman brick and Samian pottery, even of the earliest sort, are entirely absent from it, and the presence of other imported Roman wares suggests that the absence of Samian (first manufactured in southern Gaul about or even before A.D. 25) is significant. Apart from this, the Italic types and their derivatives are themselves sufficiently numerous to point to a date after the beginning of the present era. Of the four brooches, one (below, p. 176, no. 1) is of the type characteristic of the Swarling cemetery, which seems to have flourished mainly in the first half of the first century A.D. On all grounds, therefore, this important series may be ascribed approximately to the period A.D. 5 or 10 to 30 or 35—i.e. it belongs rather to the time of Cunobelin than to that of Tasciovanus, but clearly precedes the Claudian invasion by an appreciable margin. With all allowance for geographical and other local factors, the facies of the group is very definitely earlier than that of continental Romano-Belgic groups of the Tiberio-Claudian period (e.g. at Hofheim or Nijmegen).¹

The group contrasts with other groups of the same general period at Colchester exactly in those respects in which contrast might be expected. At Colchester, enjoying at this time the combined advantages of a capital and a sea-port, the wealth of imported wares is necessarily more striking than at Verulamium, and care must again be exercised to discount the geographical and political factors in comparing groups from the two sites.

All the pots in the group were turned on the wheel, though in many cases with inferior skill.

¹ W. Vermeulen, *Een romeinsch Grafveld op den Hunnerberg te Nijmegen* (Amsterdam, 1932).

Group B, 1-7: Italic or Arretine ware (fig. 11)

Only seven vessels of this red-glazed Italic ware are present in the group.

1 and 2. Fragments of Loeschcke form 8, the commonest Arretine form at Haltern (11 B.C.—A.D. 16).¹

3. Part of a campanulate cup, probably of Dragendorf's form 7. This form is rare in the provinces and is not recorded at Haltern.

4. Fragment of a plate, probably of Loeschcke type 2 *b* and 3 *b* (Haltern).

5. Plate of Loeschcke type 2 *a* (Haltern).

6. Variant of Loeschcke type 2, with exceptionally rounded junction of wall and base. A closer analogy in the Victoria and Albert Museum (1063-1905) is stamped PHILOSI/TI; and the stamp of Philositus, from the workshop of Titus, occurs on a plate of Haltern (Loeschcke, p. 184).

7. Plate of Loeschcke type 1 (Haltern).

Group B, 8-70: other wares (figs. 12-21)

Fig. 12 illustrates the range of plate-forms included in the group. The fabric of these plates falls into two distinct classes; plates of a hard, almost metallic grey ware which is doubtless of Continental manufacture,² and plates of a somewhat coarser ware and generally of more summary form, roughly imitating the previous class and presumably of local manufacture. In fig. 12, nos. 8-11, 16 and 18 are of the former category, the remainder of the latter.

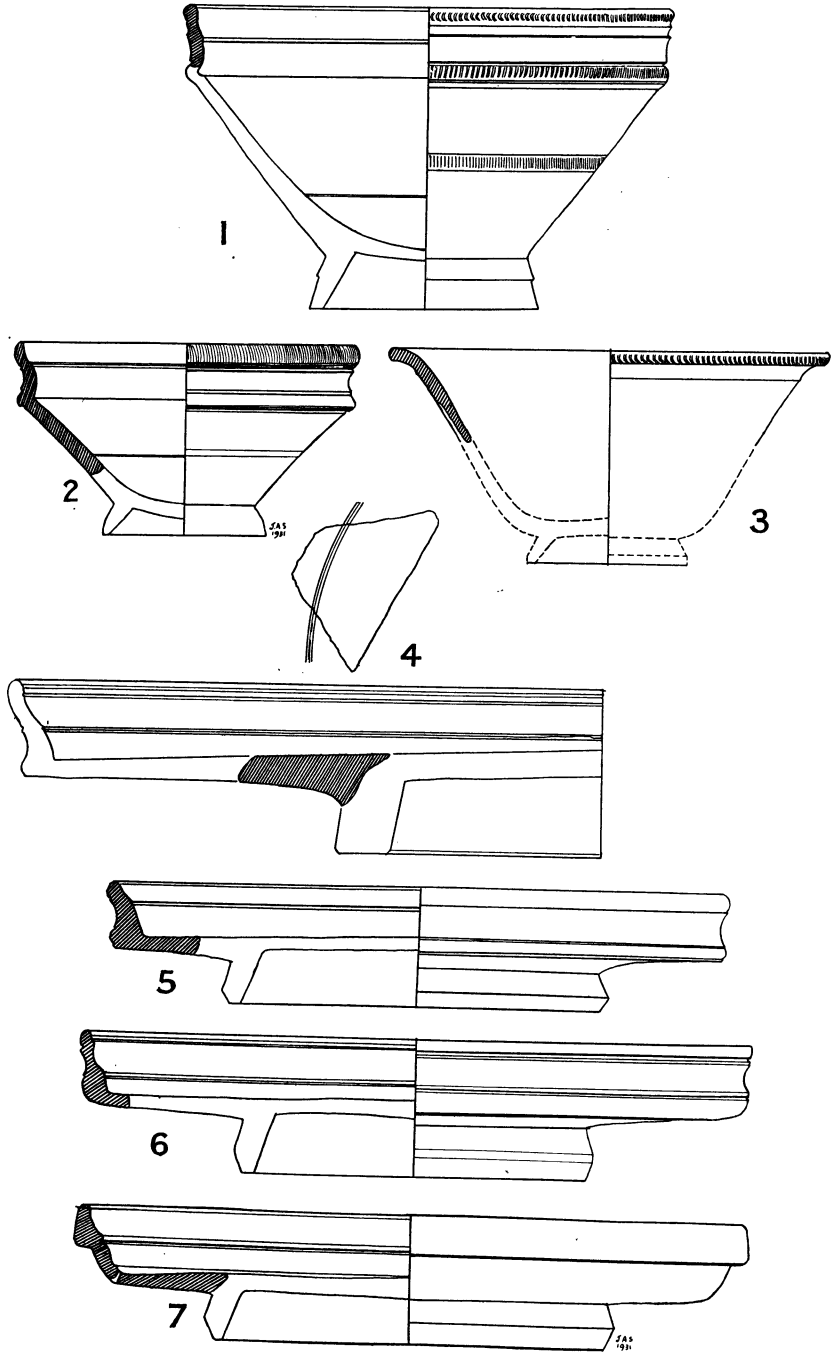
8. The form is that of Haltern 72 *b* and is similar to Hofheim 97 *a* but lacks the high basal 'kick' characteristic of the latter; indeed, the base of the present example seems to have sagged very slightly below the level of the base-ring. As noted both by Loeschcke and by Ritterling, this type was of long duration, extending from the Augustan to the Claudian period. If, however, the heightening of the base be regarded as evidence of a relatively late date, the Verulamium example should be ascribed to a fairly early place in the series.

9. A variant of the preceding type, of similar fabric and from the same group.

10. Another variant, also of similar fabric and from the same group.

¹ S. Loeschcke, *Keramische Funde in Haltern* (Mitteilungen der Altertums-Kommission für Westfalen, v, 1909).

² The bright red Belgic plates, which are commonly later than the grey ones, and occur freely in the Claudian period, are entirely unrepresented at Belgic Verulamium. A few of the coarser derivatives (e.g. no. 23) are of a reddish native fabric.



J. A. Stanfield del.

FIG. 11. Belgic Verulamium: Arretine pottery from group B. $\frac{1}{2}$.
(See p. 155)

11-25 illustrate an increasing departure from the Arretine prototypes, although three of them (nos. 11, 16, and 18) are of

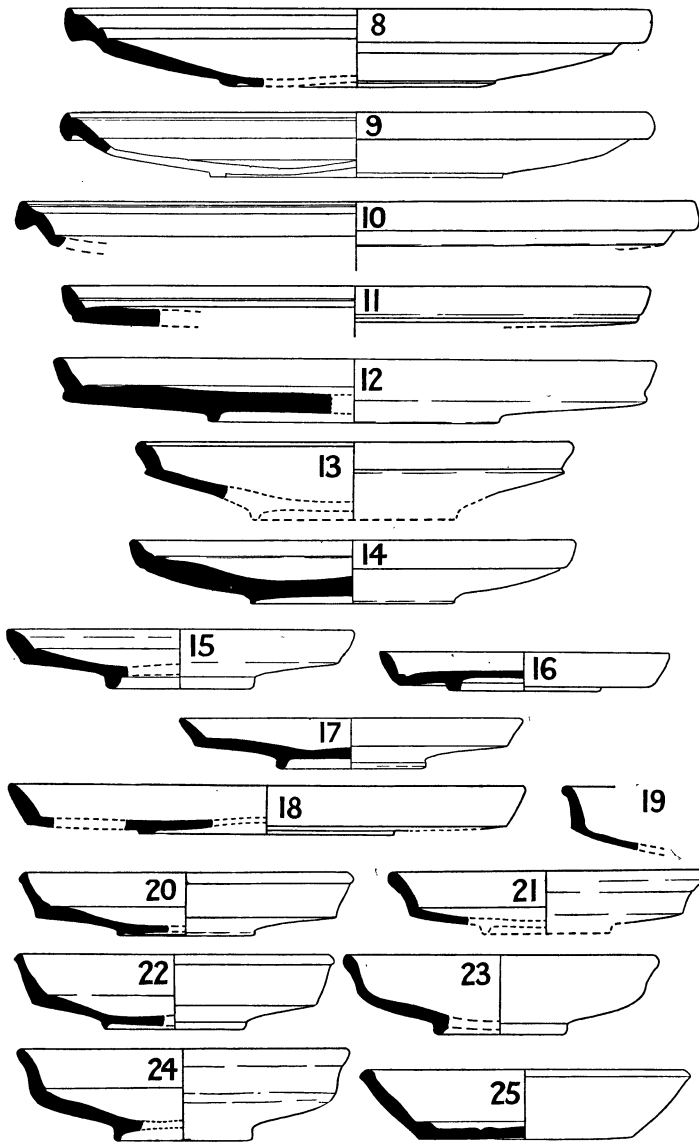


FIG. 12. Belgic pottery: group B. $\frac{1}{4}$. (See pp. 155, 157 f.)

the Continental Belgic fabric. No. 25 differs from the others in the absence of a footstand and owes very little—save perhaps the internal moulding at the junction of side and base—to Italic models. Loeschcke's Haltern types 73 and 75 provide analogies

to several of our examples, but the Haltern series shows less degeneration than do our insular and probably late examples. No. 16 bears the stamp OTAV (see below, p. 176); this plate is a slightly elaborated variety of Haltern 73, which Loeschcke notes

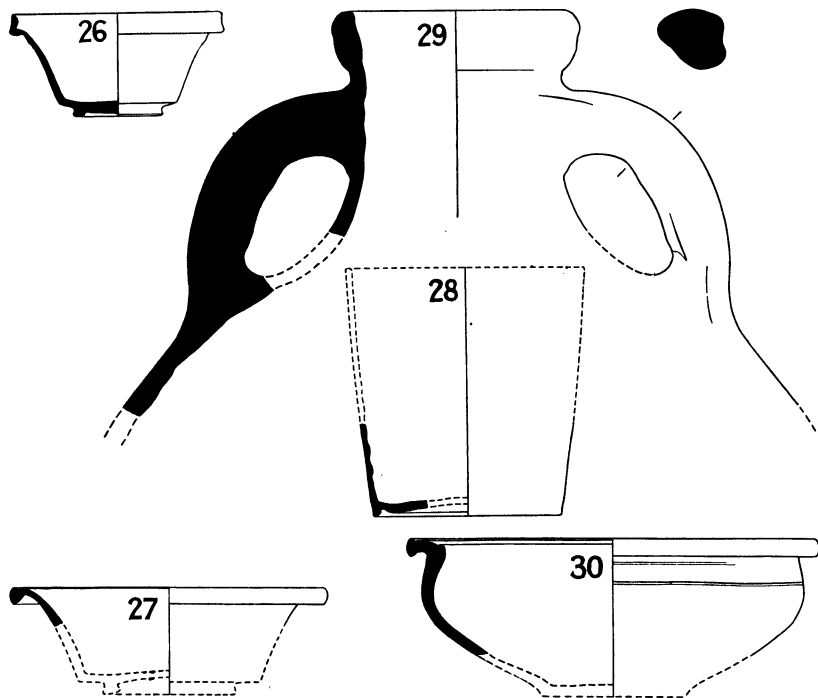


FIG. 13. Belgic Verulamium: pottery of group B. $\frac{1}{4}$. (See pp. 158 f.)

as surviving into the reign of Tiberius but as absent from Claudian Hofheim.

26. Small cup of grey ware imitating the Arretine form illustrated at Haltern (Loeschcke, type 8) and in the present group, nos. 1-3 above. The copy is of comparatively rough fabric and probably of local manufacture.

27. Cup of pinkish-buff ware with red slip in imitation of Arretine. The type occurs at Haltern (Loeschcke, type 77).

28. Cylindrical vase of fine hard grey ware, probably imported. This is an adaptation of an Italic or Arretine type of which a single example was found at Haltern (Loeschcke, type 16). The type in brown, red, or grey fabrics, sometimes 'marbled' in red, occurs also at Wiesbaden, Mainz, and Xanten in deposits dating from the first half of the first century A.D.

29. Part of an amphora of buff ware and of a somewhat non-

descript type which occurs in the Augustan period at Haltern (Loeschcke, type 71) and had a very long life.

30. Bowl of a grey-brown ware with flange grooved to take a lid. Two or three examples of the type occur in the group and belong to a wide range of variant flanged bowls which occur at Augustan Haltern, Claudian Hofheim, and other sites of the first half of the first century A.D. The type is of classical origin, and developed with comparatively little change into the type with elaborately reeded flanges which is common on Roman sites in the Flavian and subsequent periods.

31 *a-d* and 32. Butt-beakers. The butt-beaker, derived by the Belgic potter from South Gaulish and classical sources, does not seem to occur in the Belgic area before the last decade of the first century B.C. It lasts into the Claudian period at Hofheim (Ritterling, type 102), but scarcely occurs, save in devolved and coarsened forms (see under no. 54 below, p. 193), after the middle of the first century A.D. In Britain, it is characteristic of c. A.D. 1-45.

The illustrations represent the principal variants at Verulamium. These are probably all of local manufacture; but a few sherds of thin hard pipe-clay butt-beakers, finely rouletted, were also included in the group and are probably importations (pl. LIV). The sharply modelled concave rim of the foreign type (e.g. Loeschcke, type 85) is reflected in the coarser derivatives 31 *a* and *b*, whilst 31 *c-e* show a gradual weakening and coarsening of the form. Finally, in the exceptional type 32, all attempt to reproduce the splayed rim is abandoned and, save for the horizontal grooving, the top of the vessel becomes almost featureless.

This typological sequence is, however, of little or no chronological value, since all the examples here illustrated were approximately contemporary.

31 *a*. Grey beaker without rouletting.

31 *b*. Beaker of hard orange ware with unusually tenuous foot.

31 *c* and *d*. Plain beakers of orange ware with the normal foot-stand.

31 *e*. Grey beaker with rouletting. This decoration is usual on the continental beakers, but is exceptional on the Verulamium derivatives.

32. Beaker of hard, smooth, grey ware.

33 *a* and *b*. Girth-beakers of orange-brown ware.

The girth-beaker is contemporary with the butt-beaker, to which it is closely allied, and is likewise a symptom of classical influence in the Belgic area. It is found on sites such as Haltern, Urmitz, and Xanten, primarily occupied in the Augustan period, but scarcely occurs after A.D. 40. Thus it is absent on

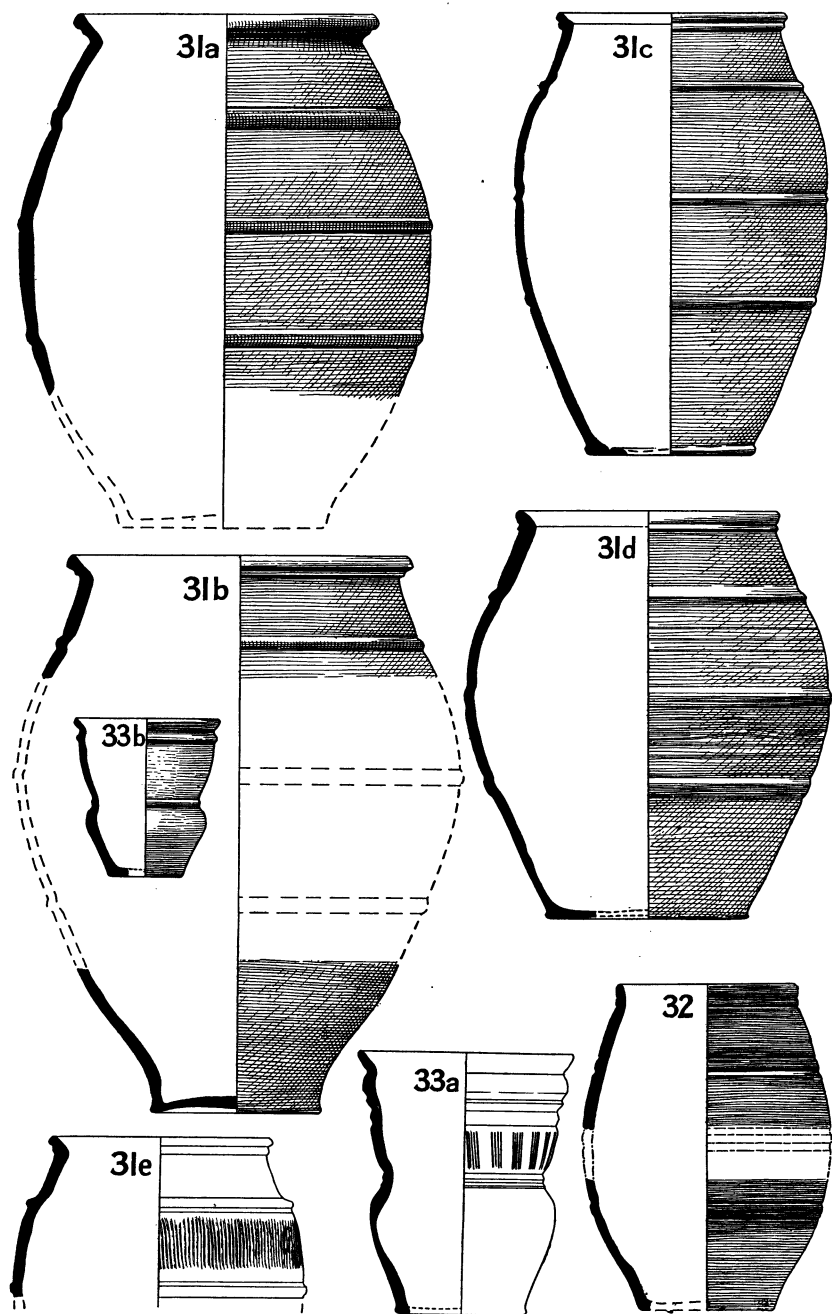


FIG. 14. Belgic pottery: group B. $\frac{1}{4}$. (See p. 159)

Claudian sites such as Hofheim and Richborough. The combed metope-decoration of 33 *a* is a common feature of the continental type, and in the early examples is continued below the multiple cordons which form the girth-band. These multiple cordons are themselves regarded by Loeschcke as suggesting an early rather than a late place in the series, but this feature is admittedly not determinate. The present example combines the multiple girth-cordons of the earlier examples with the restricted metopes or panels of the later, and falls conveniently, therefore, into the period (A.D. 10-30) suggested for the bulk of this group. Both 33 *a* and 33 *b* are doubtless of local manufacture.

34. Mortar-shaped pot of hard, grey ware, mica-dusted. Vessels of this type are not common, but examples occur at Haltern (Loeschcke, type 88) and the type survives into the Claudian period at Hofheim (Ritterling, type 108). The later examples generally lack the horizontal grooving which occurs at Haltern and on the present fragment. The mica-dusting is characteristic and doubtless reflects a metal prototype. Loeschcke ascribed the fabric to a mid-Gaulish origin, and the form is possibly related to that of the metal or metal-bound mugs which are not uncommon in the pre-Roman Celtic world. (Cf. also *Oudheidkundige Mededeelingen uit 's Rijksmuseum van Oudheden te Leiden*, 1931, p. 32, fig. 24).

35 *a-d*. Mortar-shaped vessels akin to type 34. In Belgic groups, vessels of this kind are not infrequently found with a pedestal foot, but no example with this feature occurred within the present group. Devolved examples in which the cordons are simplified and the outline is beginning to lose its precision are not infrequently found in late Belgic groups: e.g. at Kelvedon, with a brooch of the first half of the first century A.D. (*Swarling Report*, pl. xi, 9, and p. 22), and towards the middle of the century at Woodcuts in Cranborne Chase (one with pedestal and one fragmentary: see Pitt-Rivers, *Excavations*, I, pl. xxxv, 5 and 12). 35 *c* and *d* are of grey ware, whilst 35 *a* and *b* are of reddish-brown ware. All the vessels of this class are notably well made.

36. Orange-buff vessel representing a cross between type 35 and the girth-beaker type 33. Decorated with combed metopes.

37. Bowl of grey ware, akin to type 35 in its metallic carination, but differing in its simpler rim-form.

38. Small bowl or cup of grey ware with cordoned shoulder. Two similar cups occurred at Swarling in a burial group described as 'probably one of the earliest from the site' by reason of its association with two brooches of a type ascribable to the first century B.C. *Swarling Report*, nos. 22 and 23, and pp. 12 and 24.

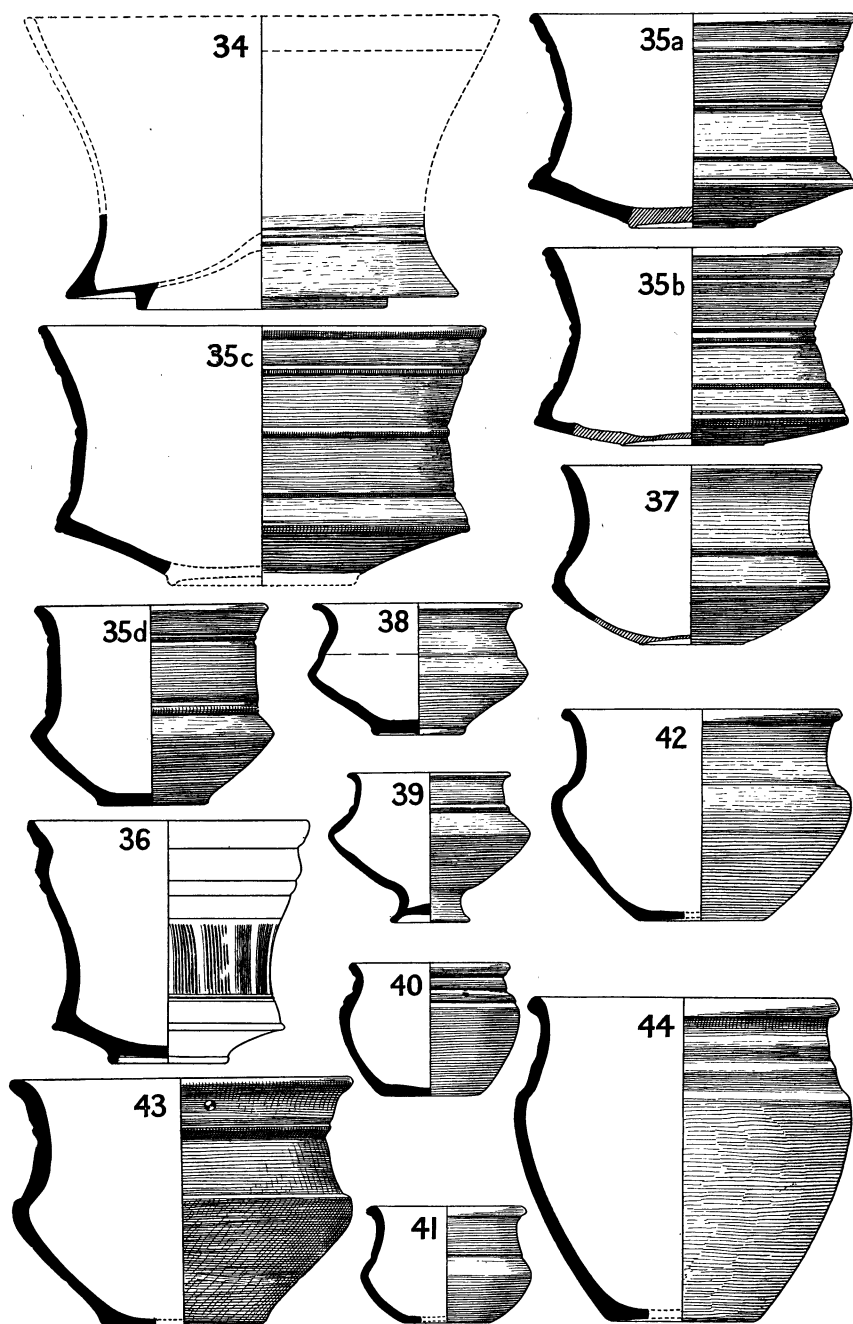


FIG. 15. Belgic pottery: group B. $\frac{1}{4}$. (See pp. 161, 163)

39. Small grey cup, similar to type 38, but with a pedestal.
40. Small bowl or cup of grey ware with cordoned shoulder, comparable with Swarling, no. 30, ascribed to the first century A.D.
41. Small bowl of grey ware akin to 38, but of clumsier form.
42. Bowl of grey ware derived ultimately from a metallic prototype to which the earlier Wheathampstead bowl (pl. XLIX, no. 9) is a somewhat closer approximation.
43. Bowl of brownish-black ware, akin to 41, but of weaker form and more heavily cordoned.
44. Bowl of grey ware representing the decadence of types 41 and 42; or perhaps rather a cross between the earlier Wheathampstead examples, nos. 8 and 9 (above, p. 149).
- 45 *a* and *b*. Globular cordoned pots, of a long-lived Belgic type which was widely adopted by the provincial Roman potters and variously modified. They are of grey ware and have a roughly scratched chevron-pattern on the shoulder.
- 46 *a* and *b*. Pots similar to 45, but more pear-shaped in profile and free from decoration. This pear-shaped type, although it lasted alongside the more globular type 45, appears to be of earlier origin and frequently has more emphatic cordons (e.g. 46*a*).
- 47 is of well-levigated grey ware, red in section, and is the only example of its type identified in the group.

PEDESTALS

Pedestals were of rare occurrence in the group, and almost all of them are here illustrated. They are thus disproportionately emphasized in the series figured. They are all of the flattened type which is commonly, though not invariably, late.

48. This may be included in the pedestal series, although it is a complete cup—and as such unusual, since it is made on the pedestal model. It is of reddish ware, partially burned black.

49 *a* is also of reddish ware, largely baked black.

49 *b* is of hard black ware.

49 *c* is a pedestal of reddish ware, which, after being broken off, was rubbed down at the line of fracture for use as a lid or plate.

50. Pedestal of hard grey ware and of weaker form than the preceding. Indeed, this exceptional example may be taken to represent a last phase of the pedestal-type.

51. Large bowl of dark-grey ware with boldly cordoned shoulder. Fragments of four or five of these bowls were included in the group. They are usually well made, with a smoothly finished surface.

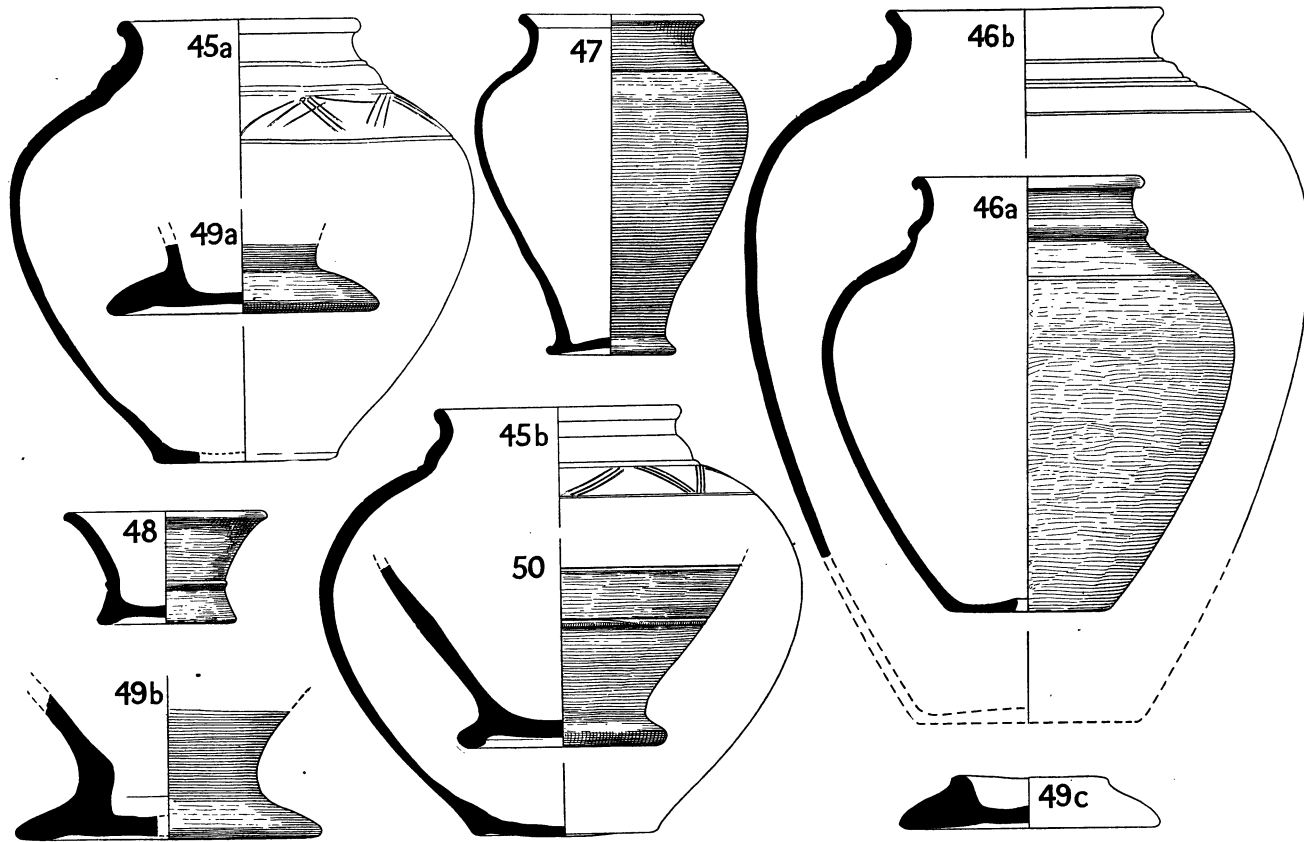


FIG. 16. Belgic pottery: group B. $\frac{1}{4}$. (See p. 163)

52. Part of a large, weakly cordoned urn of hard, grey ware. It is possible that the decadent pedestal-base, no. 50 above, belongs to this vessel. The contrast between the vigorous cordons

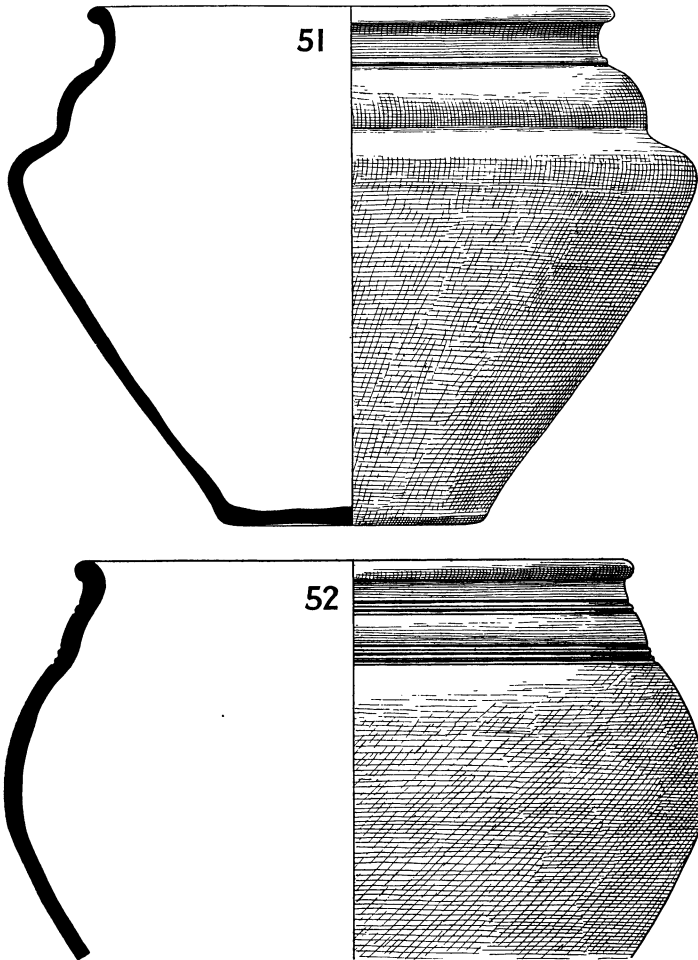


FIG. 17. Belgic pottery: group B. $\frac{1}{4}$. (See pp. 163, 165)

of no. 51 and the feeble cordons of no. 52 has no appreciable chronological significance, since the two vessels occurred in the same deposit.

53 and 54. Two vessels of grey ware with their rims flattened to provide a seating for a lid. The reconstruction of no. 54 is uncertain; a somewhat similar rim at Claudian Hofheim (Ritterling, type 9 p) occurs on a tripod bowl, but it has been thought safer to complete the outline of our example on the basis of

Haltern types 58 and 91, although these bear less resemblance in the rim-form.

55. Bowl of coarse brown ware, fired grey externally. The rim is rebated for a lid; the side is pierced for the riveting or lacing of an ancient crack. The type is exceptional.

56 and 57. Urns of hard, grey ware with rims grooved to take a lid; in general form, these vessels are comparable with the more elaborate example, no. 64 *b*, below.

58. Small bowl of grey ware and of exceptional type.

59. Part of small vessel of orange-grey ware. Fragments of two of these vessels were found in the group, but their complete form could not be ascertained.

60 *a* and *b*. Large roll-rimmed vessels of orange-buff ware, sometimes fired grey, with combed pattern, consisting of horizontal waves round the shoulder and curved oblique striations down the sides. These massive storage-jars, frequently of immense size, are characteristic of Belgic pottery of all dates (cf. Wheathampstead, types 23-5; and pl. LI), and were not infrequently in use as late as the latter part of the first century A.D., if not later. The Romano-British derivatives, however, are usually of finer clay, have a more angular rim, and lack the coarse combing of the Belgic prototype (see fig. 37, no. 76 for the Roman type).

61 *a-f*. 'Cooking-pots' of coarse, brown-black ware, roughly combed or grooved horizontally. These are the commonest Belgic type at Verulamium. Like type 60, they are undatable within the general limits of the Belgic period; they occur, for example, at Wheathampstead (pl. L, no. 14). Unlike type 60, however, they did not long survive the Claudian invasion. Their bases have frequently been pierced, subsequently to the baking (e.g. nos. 61 *b* and *e*). This feature is so constant that it must have some reference to a normal use of these vessels, possibly in straining honey or in cheese-making. For such usage the combed striations, as affording a secure grip to moist hands, are likewise appropriate.

62. Cooking-pot of brownish-black ware, with tall rim, horizontal combing on the shoulder and two holes drilled in the base after firing. This variant of 61 is not common, but is a recognizable type.

63. Pot of reddish-brown ware, fired grey at the rim. The surface is scored with vertical striations, looped at the top. The type is not closely datable within the limits of the Belgic period.

64 *a-d*. Pots of orange-red ware, unequally fired grey. The rims of this type are commonly grooved as in type 57 to give a

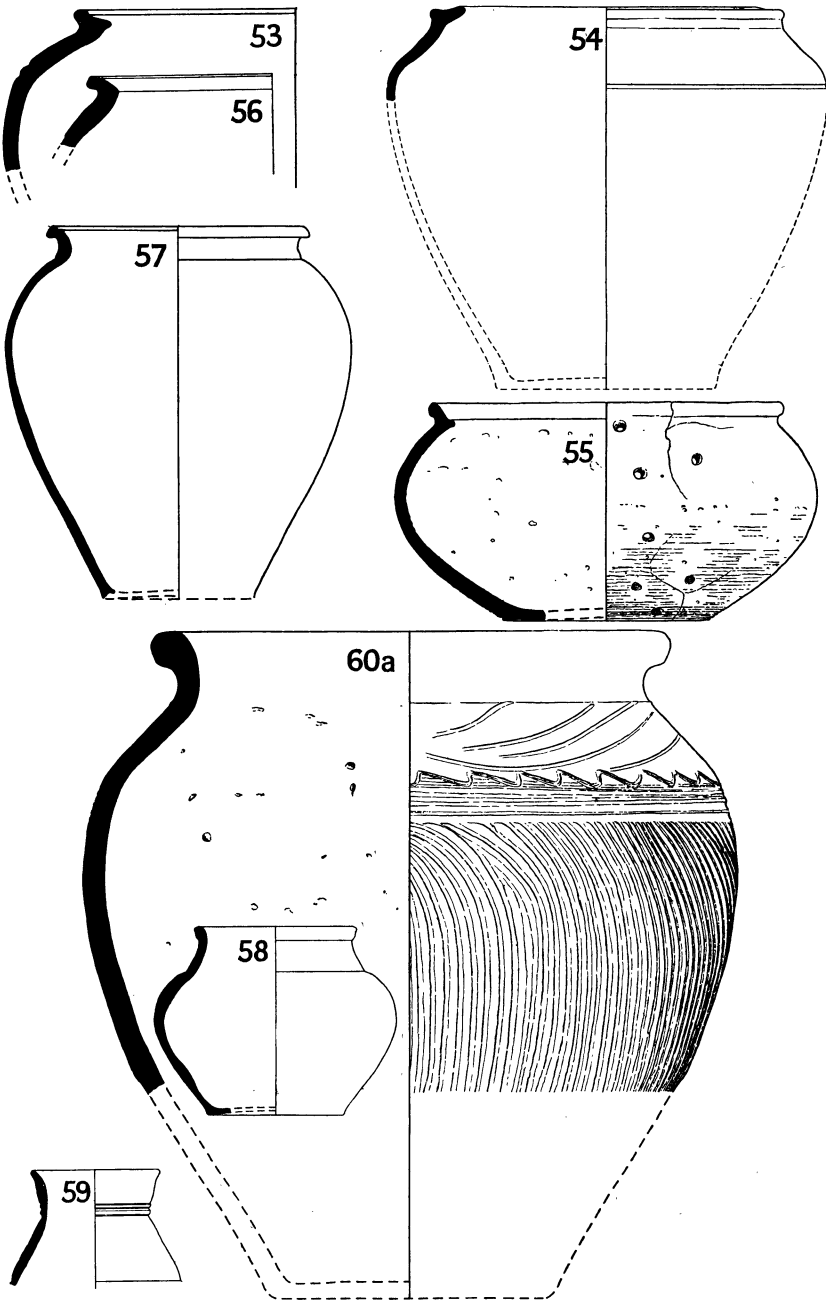


FIG. 18. Belgic pottery: group B. $\frac{1}{4}$. (See pp. 165 f.)

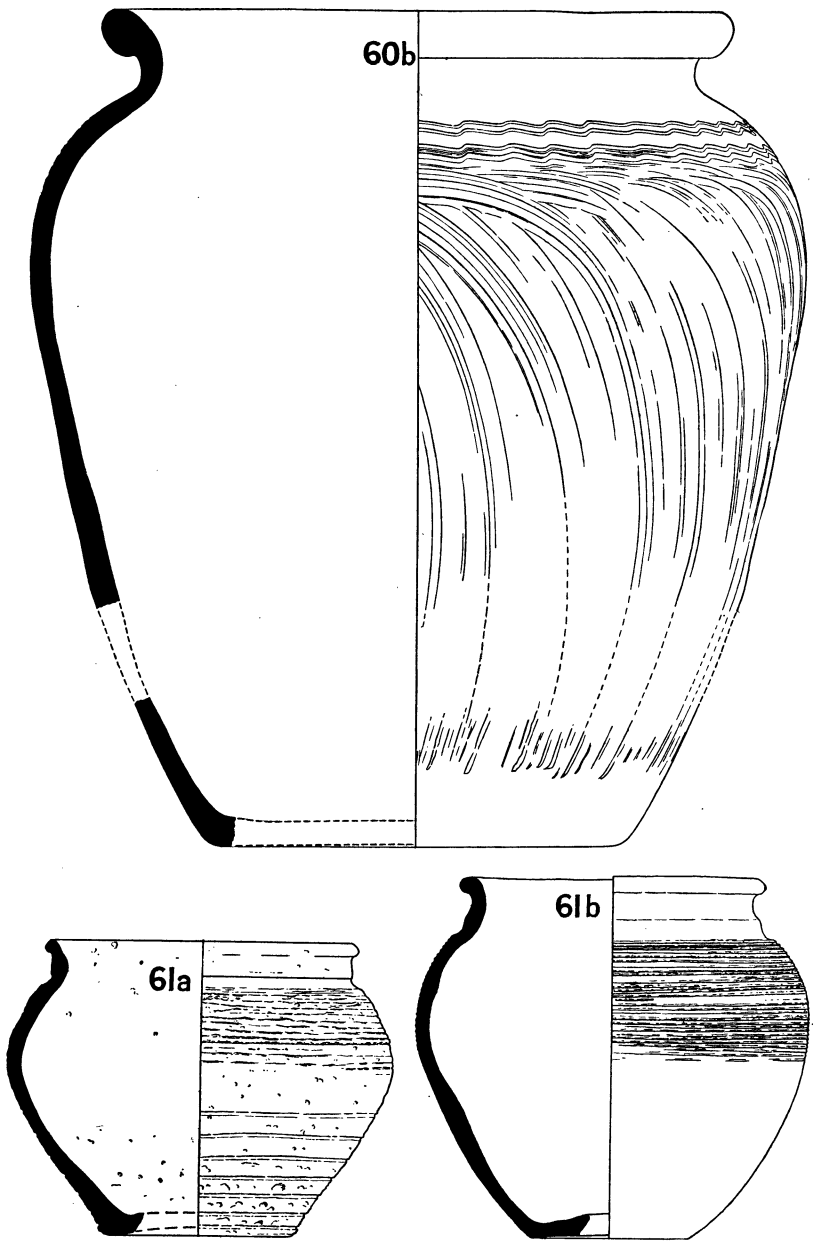


FIG. 19. Belgic pottery: group B. $\frac{1}{4}$. (See p. 166)

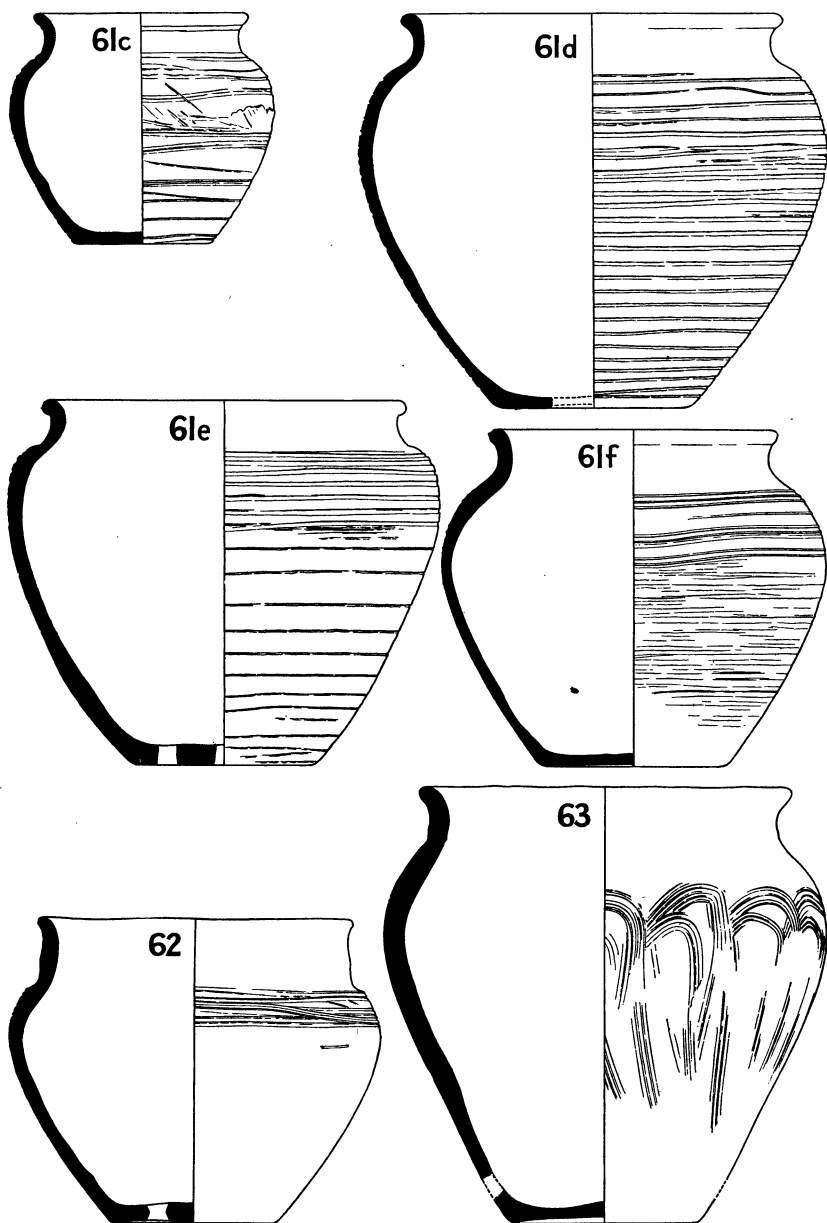


FIG. 20. Belgic pottery: group B. $\frac{1}{4}$. (See p. 166)

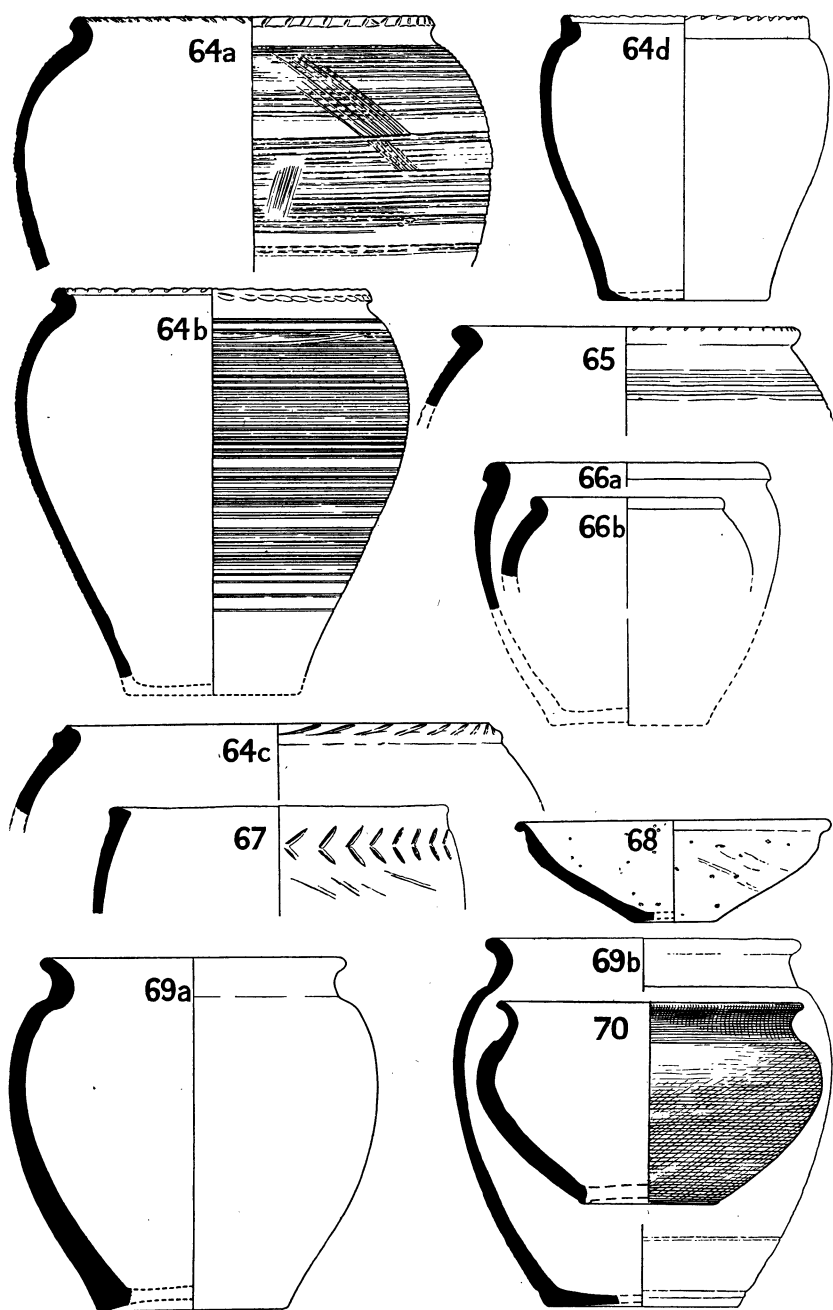


FIG. 21. Belgian pottery: group B. $\frac{1}{4}$. (See pp. 166, 171)

seating for a lid, and they are rippled or nicked, sometimes with the finger-nail and sometimes with a point. In two of the examples illustrated, the exterior is combed horizontally.

65. Rim of reddish-brown vessel with incised oblique strokes on the rim, comparable with the decoration of type 64.

66 *a* and *b*. Bead-rimmed pots roughly made of coarse grey ware. These are two of the very few examples of bead-rimmed pots found in Belgic Verulamium; the type was, on the other hand, somewhat more common in Roman Verulamium in groups dating from the quarter-century following the Claudian invasion.

67. Rim of orange ware with roughly incised herring-bone pattern round the shoulder. This fragment is unique in the group and differs from it in character. It may provisionally be regarded as representing a native rather than a Belgic tradition.

68. Shallow vessel of coarse grey ware.

69 *a* and *b*. Coarse 'cooking-pots' of orange-grey ware and of ill-defined form.

70. Bowl of hard, brownish-grey ware with fine, sharply moulded rim—an exceptional type.

Group C (fig. 22)

This group of pottery is derived from one of the small drainage ditches adjoining the south corner of enclosure A (see plan, pl. xvi). The filling of the ditch was homogeneous, and its contents may be regarded as of one date. The filling included much ash and some food bones.

It will be seen that an imported Italic jug-neck and plates of derivative Italic type are included; but no Samian ware was present. The group as a whole may be regarded as approximately contemporary with group B above, and to belong to the period A.D. 5 or 10 to 30 or 35.

1. Jug-neck of orange ware with deeply undercut flange, neck tapering slightly downwards and broad strap-handle. These features are all early and occur, for example, at Haltern prior to A.D. 16. On Claudian sites, such as Hofheim, the tendency to reduce the undercutting of the flange and to taper the neck upwards rather than downwards is already apparent. The development of these features is not, however, constant, and almost any date within the first half of the first century A.D. might be ascribed to the present example.

2. Part of a carinated bowl of smooth brownish ware with a spout (now missing) provided with a strainer. The general type is a long-lived Roman one, and occurs, for example, at Silchester¹

¹ T. May, *The Pottery from Silchester* (1916), Pl. xlviii, 62, and p. 116.

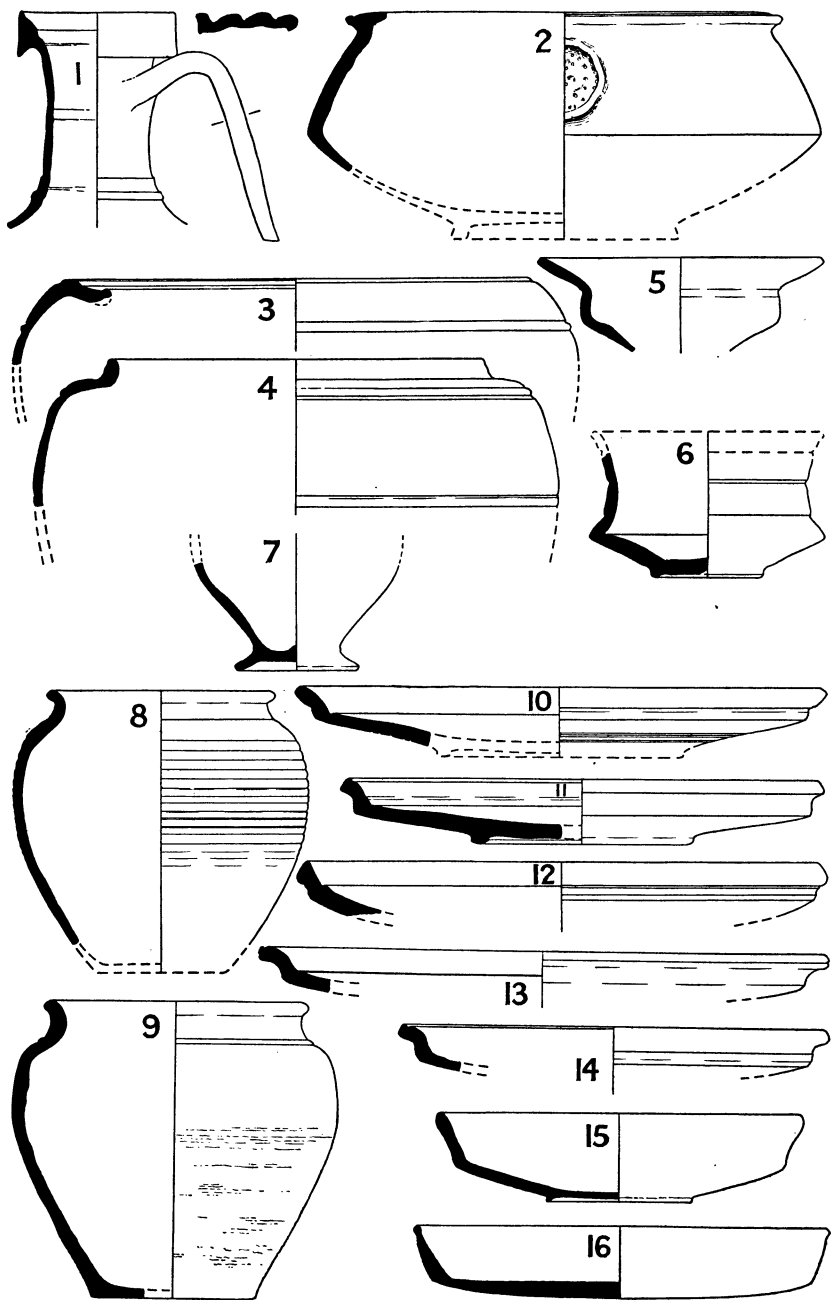


FIG. 22. Belgic Verulamium: pottery of group C. $\frac{1}{4}$. (See pp. 171, 173)

and the Brecon Gaer.¹ The grooved and flattened rim of the present example is unusual.

3 and 4. Fragments of two vessels of grey ware with rim inturned to provide seating for a lid. Inturned rims of this general type are not uncommon in Belgic groups (see *Swarling Report*, p. 14, no. 33) and partial analogies occur at Haltern, Loeschcke's type 91.

5. Fragment of wide-flanged cup or lid of hard grey ware.

6. Cup of brownish ware of type 35 in group B above.

7. Pedestal base of grey ware.

8. Pot of orange-coloured ware with regular external grooving.

9. Pot of grey ware with slightly grooved or combed exterior; a long-lived Belgic type.

10-13. Plates of orange-grey ware, the intentional finish being grey. The fabric is doubtless local, but the type derives ultimately from Arretine prototypes.

14. Plate of orange ware, probably finished originally with a slip to simulate Arretine.

15 and 16. Plates of coarse grey ware. No. 16, which was to become a common Roman type, is rare in Belgic Verulamium.

Group D (fig. 23)

This group is from 'Zero ditch' (pl. xvi), another of the small drainage ditches immediately south-east of enclosure A. Again, the units of the group may be regarded as contemporary with one another and as dating from the eve of the Claudian invasion.

1. Two-handled vessel of Italic type and of a gritty grey-buff ware. This type occurs in the Claudian period at Hofheim (Ritterling, p. 291, fig. 68, 2), but without the marked downward taper which is an early feature consistent with a pre-Claudian date.

2. Large bead-rimmed vessel of gritty grey ware. The bead-rimmed type is exceptional at Belgic Verulamium; probably not more than half a dozen examples occurred altogether amid several hundredweights of pottery. Moreover, it does not seem to appear until the last pre-Claudian generation.

3. Pedestalled vessel of orange-buff ware, a weakly formed and doubtless late example of the Belgic *tazza*.

4. Small well-made vessel of hard orange ware, perhaps an importation.

5. Pedestal of thin grey ware. This example of the 'hollow' type is less usual at Verulamium than the flat type illustrated in group B, no. 49 above.

¹ Wheeler, *The Roman Fort near Brecon* fig. 100, c. 66.

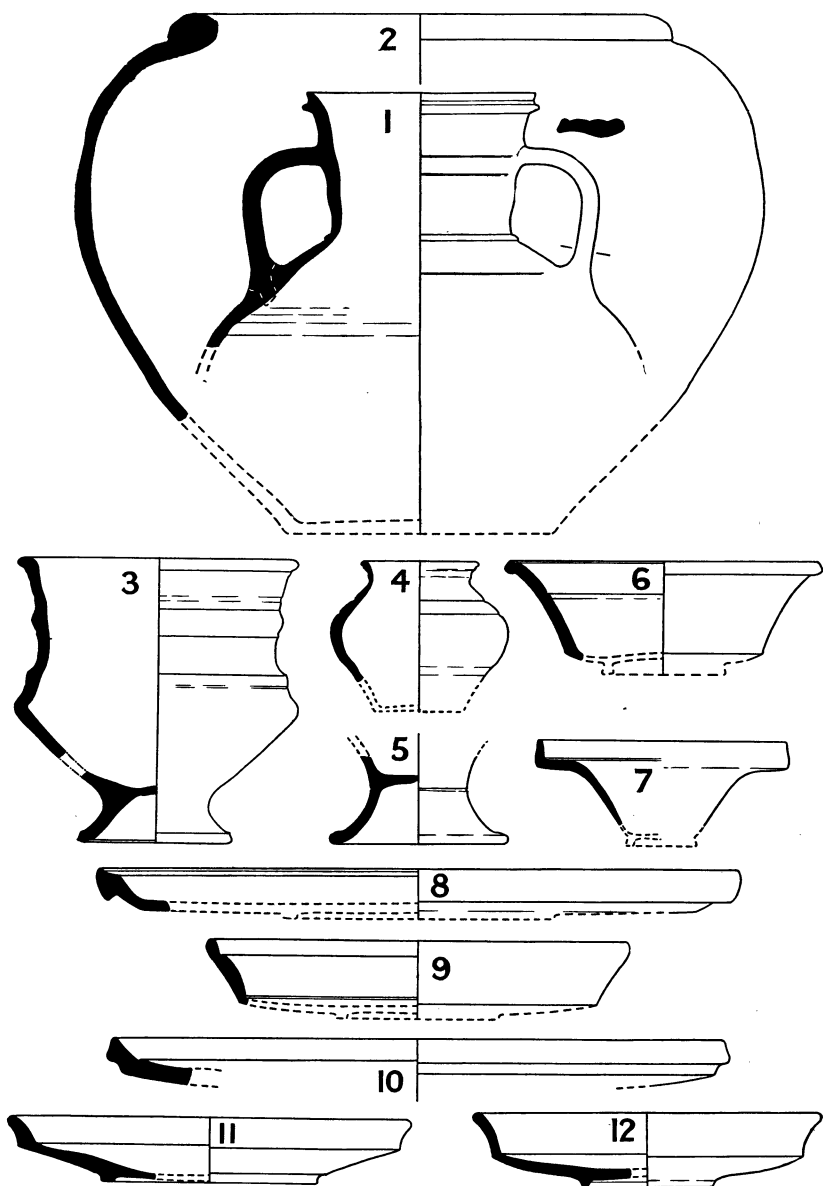


FIG. 23. Belgic pottery: group D. $\frac{1}{4}$. (See pp. 173, 175)

6. Well-made cup of hard orange ware; the form is that of Loeschcke's type 77, and is derived from an Arretine prototype.

7. A grotesquely proportioned vessel of reddish-grey ware, comparable with Loeschcke's type 80, and likewise derived from an Arretine prototype.

8. Part of grey plate of true Belgic ware, i.e. probably imported. The form is a variant of Loeschcke's type 72 (see *Haltern*, p. 263, fig. 38).

9 is likewise of the true Belgic grey fabric. A fragment of a similar (or the same) plate was found near by, bearing the stamp of the Belgic potter NONICO (below, p. 176). The type represents an Arretine form in an advanced stage of devolution. A somewhat analogous form occurs, though rarely, at Haltern (Loeschcke, p. 269, fig. 39, 3 and 4), but for the most part it seems to belong to the closing phase of Belgic pottery. A similar example was found under the North-West Gate of Verulamium with pottery of the Claudian period. Consistent with a late date for the type is the observation that it is 'the commonest form [of Belgic plate] at Colchester' (*Colchester and Essex Museum Annual Report*, 1928, pp. 32-3, no. 6332.27).

10. Fragment of a plate of brownish ware, probably of local fabric.

11. Fragment of plate of orange ware, probably of local fabric. The form is that of Ritterling's Hofheim type 73, dating from the Claudian period.

12 is a variant of the preceding. It is of brownish-grey ware and probably of local manufacture.

PLATE LV A

This plate illustrates fragments of hard white or yellowish-white vessels of a fabric which was common both to Belgic and, to a less extent, to central and southern Gaul in the time of Augustus and Tiberius, but scarcely lasted into the principate of Claudius. They are clearly importations into Verulamium.

1. Fragment of a beaker ornamented with herring-bone pattern in barbotine. This type of decoration occurs at Haltern (Loeschcke, pp. 286 ff.), but is absent from Claudian Hofheim. The fragment is derived from the layer which immediately sealed group B (above, p. 154), and may be ascribed to c. A.D. 30-50.

2. Fragment ornamented with a series of barbotine strokes; a variant of the preceding. Found with group B (c. A.D. 5-35).

3-6. Fragments of butt-beakers ornamented with bands of fine engine-turning. Also found with group B.

Belgic Potters' Stamps

IVF On the base of a small cup of grey sub-Belgic ware, but of uncertain form. Possibly an illiterate form of the Belgic stamp IVL . . .

NONICO On a grey plate of imported Belgic ware; above, group D, 9; *c. A.D.* 20-45. The stamp is recorded in *C.I.L.* xiii, 1441, from Langres, Mainz, and Andernach.

OTAV or VATO retrograde. On a plate of imported Belgic ware, above, group B, 16; *c. A.D.* 5-35.

TIOTAG Twice, on grey plates of imported Belgic ware; from groups dated *c. A.D.* 20-45. The stamp is recorded in *C.I.L.* xiii, 1911k from Landreville.

. . . AN On a grey sherd. Possibly RELAN or BELAN, a stamp which occurs at Haltern.

3. OTHER OBJECTS FROM BELGIC VERULAMIUM

FIG. 24

1. Bronze brooch from the secondary filling of the eastern ditch of enclosure A, together with group B above, *c. A.D.* 5-35. The brooch doubtless had a pierced catch-plate, now missing. The type occurs at Mont Beuvray and is normal at Swarling, but was apparently going out of fashion towards the middle of the century.

2. Bronze brooch, catch-plate missing, of a type analogous to, but simpler than, Swarling no. 2 (*Swarling Report*, p. 40). The example differs from the Swarling type in that the bow and the spring are of one piece of metal and so approximate more nearly to the construction of the Nauheim type of the first centuries B.C.-A.D. From the same layer as no. 1 above, *c. A.D.* 5-35.

3 and 4. Bronze penannular brooches, the former with incised zigzag decoration. These brooches, unlike the penannular brooches from Glastonbury, are rolled frontally instead of laterally at the terminals. They come from the same layers as nos. 1 and 2 above, and belong, therefore, to *c. A.D.* 5-35.

5. Bronze arm of small balance from the same layer as the preceding, *c. A.D.* 5-35.

6. Small bronze mount with two piercings and incised lines; possibly from the pommel of a sword or knife. From the same layer as the preceding, *c. A.D.* 5-35.

7. Fragment of bronze sheeting with turned-up edge and rough lozenge-pattern, possibly from a scabbard. From the same layer as the preceding, *c. A.D.* 5-35.

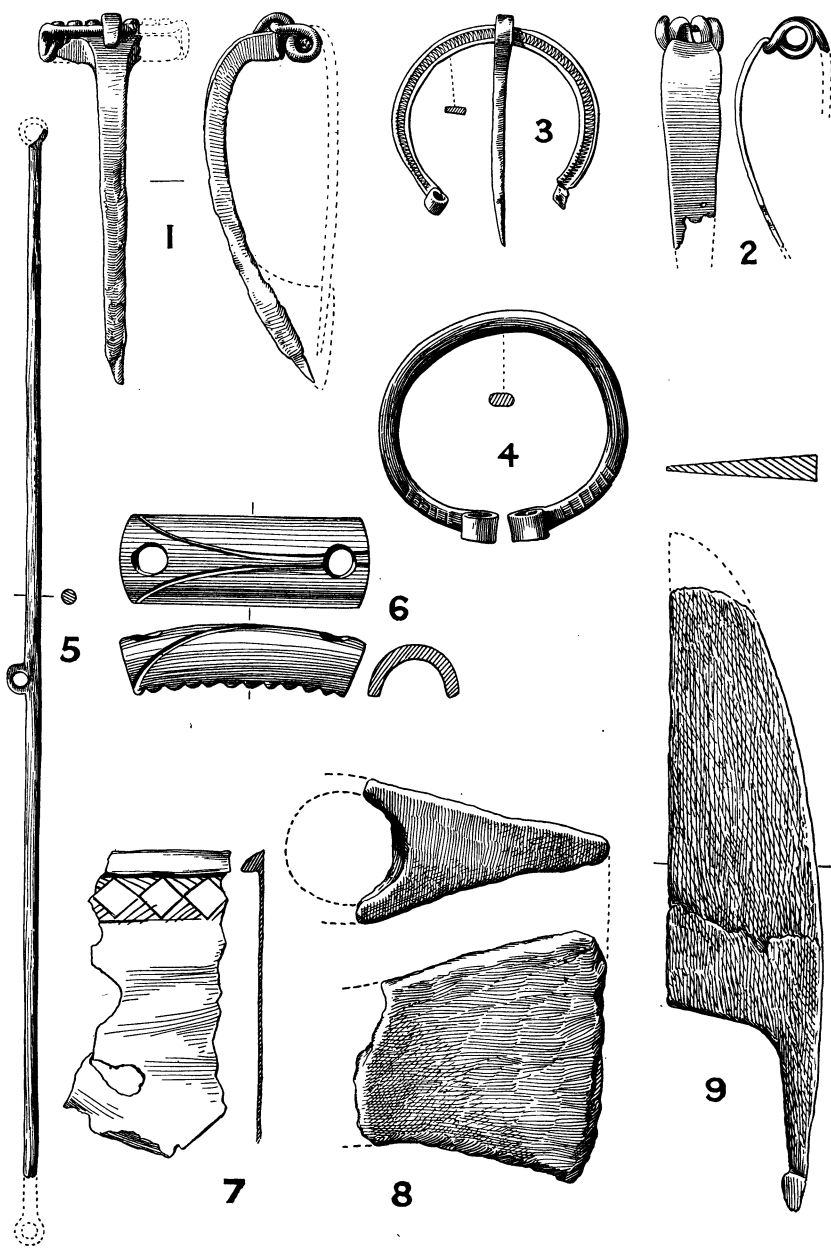


FIG. 24. Belgic Verulamium: objects of bronze (1-7) and iron (8, 9). Scales: 1-7, $\frac{1}{2}$; 8 and 9, $\frac{1}{4}$. (See pp. 176, 178)

8. Fragment of iron axe, found in the filling of the trench of palisade A below the old turf-line which in turn underlay the Roman levelling (see section, pl. XIII). This filling is unlikely to be later than the period of the Roman invasion and the axe may be regarded with certainty as a relic of the Belgic occupation, to which all the associated pottery belonged.

9. Iron knife of a type common to the Early Iron Age and later. From the same levels as 1-7, *c.* A.D. 5-35.

FIG. 25

An exceptionally small triangular loom-weight of baked clay, with a single perforation. From the secondary filling of the south-eastern ditch of enclosure A, with Group B pottery, *c.* A.D. 5-35.

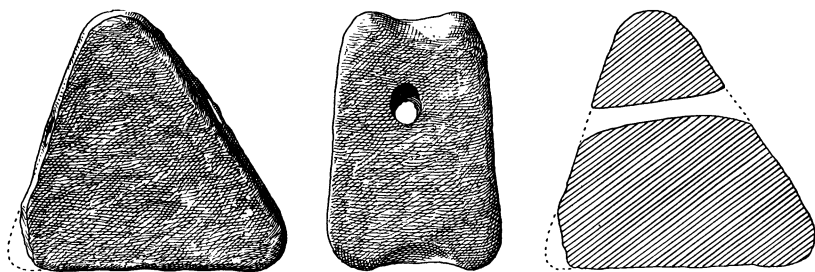
FIG. 25. Clay loom-weight from Belgic Verulamium. $\frac{1}{2}$. (*See p.* 178)

FIG. 26

1. Fragment of a triangular loom-weight of baked clay, with piercings across the corners. The remains of several weights of this kind were found in Belgic Verulamium but were entirely absent from the sites of the Roman cities.

2. Clay fire-bar narrowing towards one end and square in section. Fragments of a number of these bars were found in Belgic Verulamium. They probably served as supports for floors or trays in ovens such as those described above (p. 44).

3. Fragment of a brick from the Belgic site, showing its original width ($4\frac{1}{2}$ in.). Other fragments of pre-Roman brick are illustrated in pl. LVI, but no brick was found sufficiently complete to indicate its original size. It is certain, however, that the size varied considerably, although the thickness averaged just over an inch. The fabric was distinctive; the clay not infrequently contained large pebbles and, as fired in an inadequate kiln, was normally reddish-yellow or orange in colour; it never showed the grey core frequent in Roman bricks. The surface of these bricks

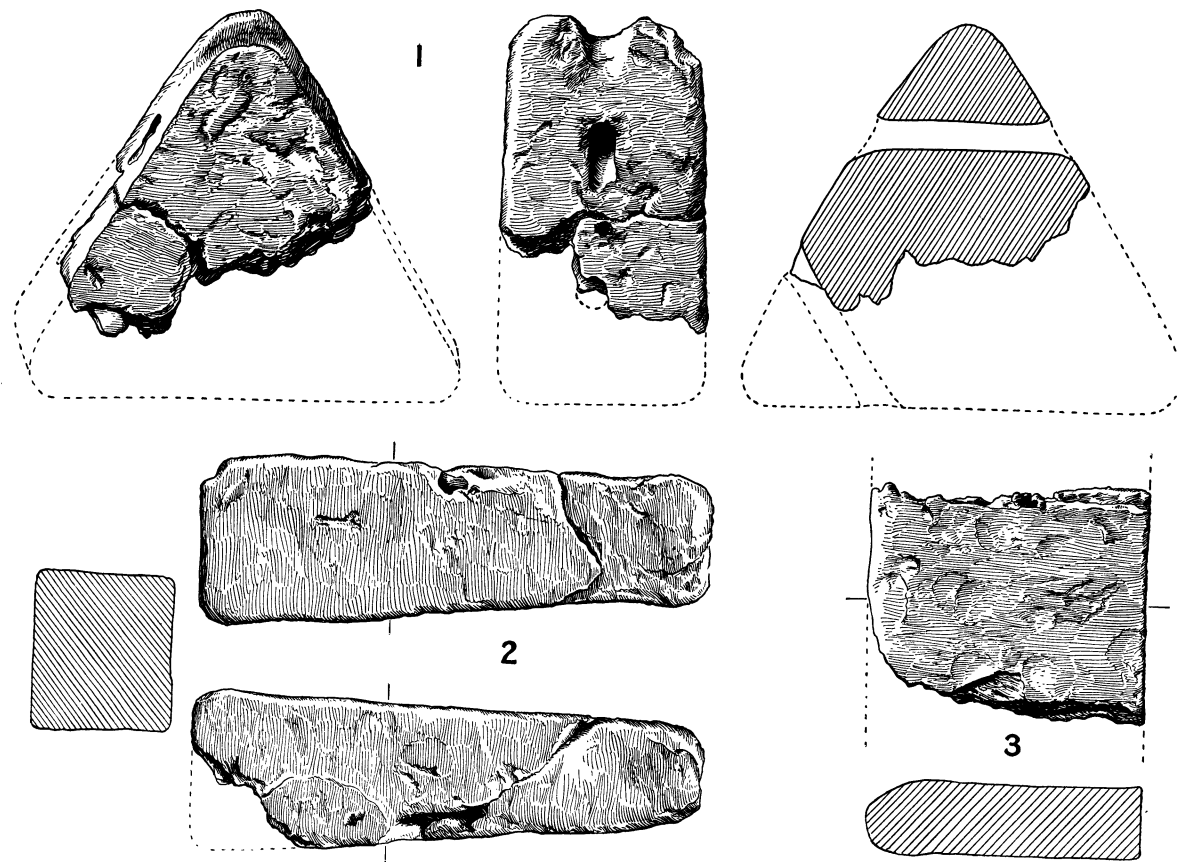


FIG. 26. From Belgic Verulamium: 1, clay loom-weight; 2, clay fire-bar; 3, part of brick. $\frac{1}{2}$. (See p. 178)

was smoothed with the fingers, impressions of which are usually visible, and the angles were commonly rounded, particularly on one side—i.e. on the upper side as the brick lay on some flat surface during manufacture. The general appearance and texture of the bricks may be compared with that of overbaked short-bread.

The Belgic bricks are ultimately imitations of Roman bricks, but it was abundantly clear that (*a*) bricks of Roman manufacture were not imported into Verulamium before the Roman invasion, and (*b*) the inferior native imitation was replaced by bricks of Roman manufacture immediately after the invasion. So consistent was the absence of overlap in this respect that it would now be possible at Verulamium to use the presence of one or other fabric as a criterion of pre-invasion or post-invasion date for any given group. It may be added that no fragment of Belgic brick was observed in a definitely primary deposit; but there were a few fragments in the rapid silt of the south-eastern ditch of enclosure A in association with the earliest fragments of butt-beaker from the site. It may be inferred that the manufacture of brick was introduced into Belgic Verulamium at the end of the first century B.C. or the beginning of the first century A.D. as a constituent of the Italic complex to which the butt-beaker belonged.

None of the bricks was found in any sort of structural relationship.

PLATE LVI

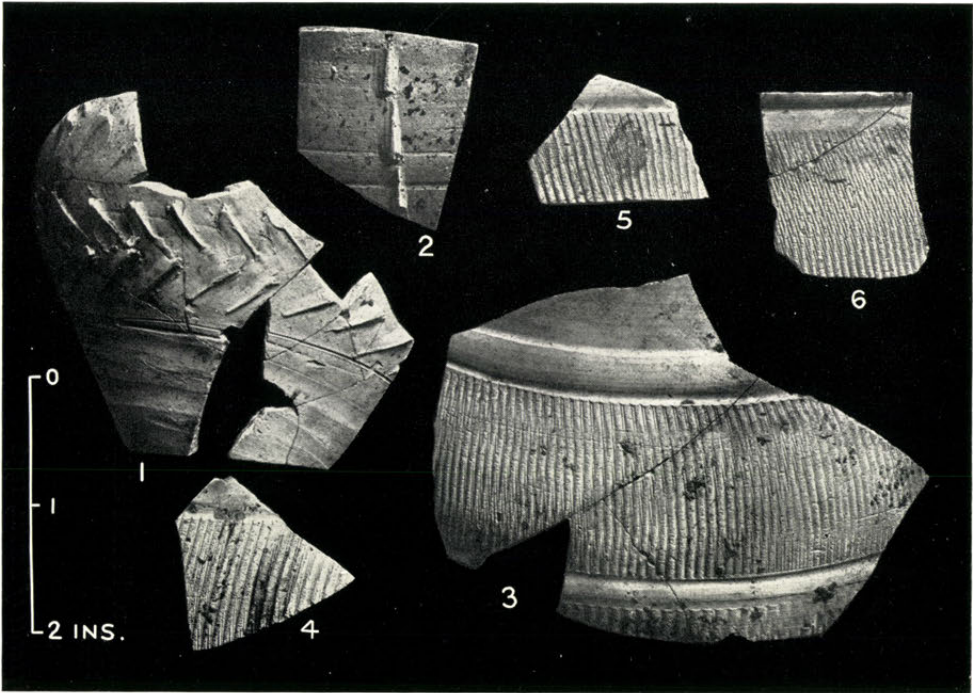
A. Fragments of Belgic brick referred to in the preceding paragraphs.

B. Fragments of pierced brick, also from the Belgic layers and in some cases from the ovens described above (p. 44). These pierced bricks, all in a very fragmentary condition, were probably used as trays or platforms over hearths or in ovens. Somewhat similar pierced bricks, which appear to have measured $7\frac{3}{4}$ by 12 in. with a thickness of $1\frac{1}{2}$ in., were found, much burnt, on hearths made in the ditch of a camp near Wallington in Surrey.¹ Part of another was recovered from the outer ditch of Lidbury camp in Wiltshire, and yet another was found in Casterley camp² in the same county. A fragment seems also to have been found in the Glastonbury Lake Village;³ and a few pieces were unearthed at Maiden Castle, Dorset, in 1934, in deposits dating from the first

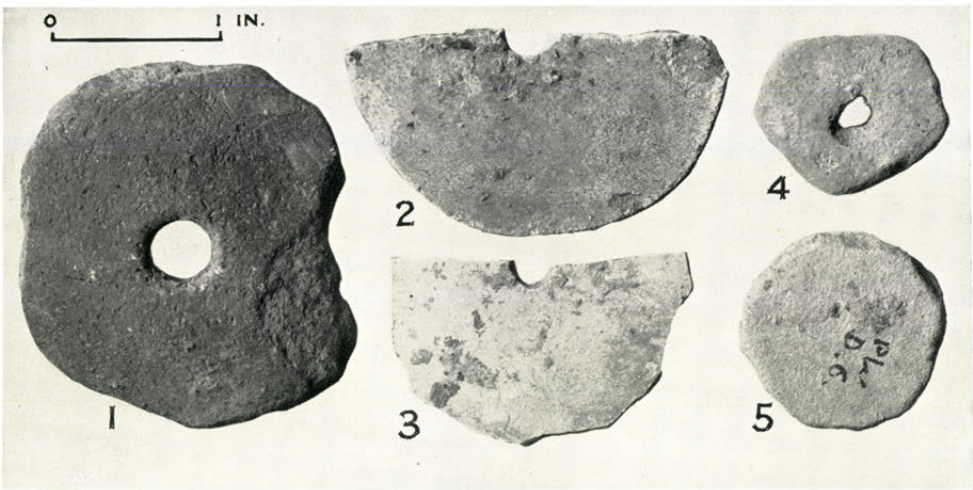
¹ *Journ. Royal Anthropological Institute*, xxxv, 394.

² *Wilts. Arch. Mag.* xl, 25.

³ A. Bulleid and H. St. G. Gray, *Glastonbury Lake Village*, ii (1917), 561, D 42.



A. Imported white ware, from Belgic Verulamium
(See p. 175)



B. Spindle-whorls from Belgic Verulamium
(See p. 181)



A. Pre-Roman bricks from Belgic Verulamium

(See pp. 178, 180)

B. Pierced bricks from Belgic Verulamium

half of the first century A.D., when Belgic influence had begun to reach the site. All these find-spots are consistent with a late pre-Roman date.

PLATE LV B

Five spindle-whorls from the Belgic site, all cut from potsherds. No. 2 is from a grey Belgic plate; no. 3 is from a Roman jug of typically early white-coated red ware.

ANIMAL BONES FROM BELGIC VERULAMIUM

Owing to the nature of the soil, bones had rarely survived in a recognizable condition. Dr. J. Wilfrid Jackson has, however, very kindly examined a number of the larger fragments, and reports the presence of small ox, sheep, pig, and horse, mostly identifiable only from teeth.

4. POTTERY AND GLASS FROM ROMAN VERULAMIUM

The Roman pottery here illustrated is restricted either to special groups or to selected forms of individual interest. It may be prefaced by a few general observations.

First, the continuous sequence of Belgic and Roman cities at Verulamium provided an easy illustration of the survival and progressive modification of Belgic forms and fabrics in the Roman period. In general, it may be said that during the first generation of the Roman occupation about 70 per cent. of the pottery in normal use was still Belgic in type and fabric. During the last quarter of the first century, Romanization advanced suddenly and rapidly until, by the end of the century, only a few large storage vessels still adhered closely in fabric to the Belgic tradition. Belgic forms, on the other hand, survived with more or less modification throughout the second century, rendered now with the efficient if mechanical technique of the thoroughly Romanized potter. Examples will be given below: e.g. the evolution of the Belgic bowl—types 75 (fig. 36), 66 (fig. 35), and 50 (fig. 33)—between the middle of the first century and the end of the second; that of the large pear-shaped cordoned pot—types 60–62 (figs. 34 and 35)—between the middle of the first and the beginning of the second century; and that of the large storage jar—type 76 (fig. 37)—between the Belgic period and the end of the second century.

Secondly, a general observation may here be made in regard to the occurrence of the familiar Castor-ware with its barbotine or painted patterns. The fabric of this ware is peculiarly brittle and

few examples were capable of reconstruction even on paper. No attempt is therefore made in the present context to illustrate it. But it may be remarked that the ware is almost completely absent from two large groups dating from the third quarter of the second century—the group from pit 6 and that from the well in building IV, 8. The latter included only four sherds attributable to this fabric. This negative evidence is consistent with that elsewhere at Verulamium and combines to show that the Castor factories were not marketing their products in the city until the latter part of the second century. Throughout the third century, Castor ware occurs there abundantly, and it lasts plentifully into the fourth century.

Thirdly, attention may be drawn to an undistinguished hand-made jar—no. 83—which is a relic of the latest occupation of building I, 1, and has perhaps a better claim than any other object from Verulamium to be regarded as a product of fifth-century barbarism.

POTTERY AND GLASS FROM THE WELL IN BUILDING IV, 8
(Pl. LVII and figs. 27–29)

The filling of this unfinished well-shaft (see above, p. 103) was inserted at one period, since fragments of the same pots continually occurred at many different levels. In it were a *sestertius* and two *dupondii* of Antoninus Pius, the latest dating from 145 to 161 and lost when in fair condition. The Samian pottery is also consistent with a date in the second half of the second century, and includes a single early-looking example of the late second- to early third-century form 45 bearing the stamp of the Antonine potter GEMINUS. The group as a whole may be ascribed to the period A.D. 160–90.

It may be observed that the pottery was uniformly and notably well made and hard-baked. Save for four sherds, Castor-ware was absent from this large group; and, as remarked above, it has been generally observed at Verulamium that Castor ware did not come into common use until after the Antonine period.

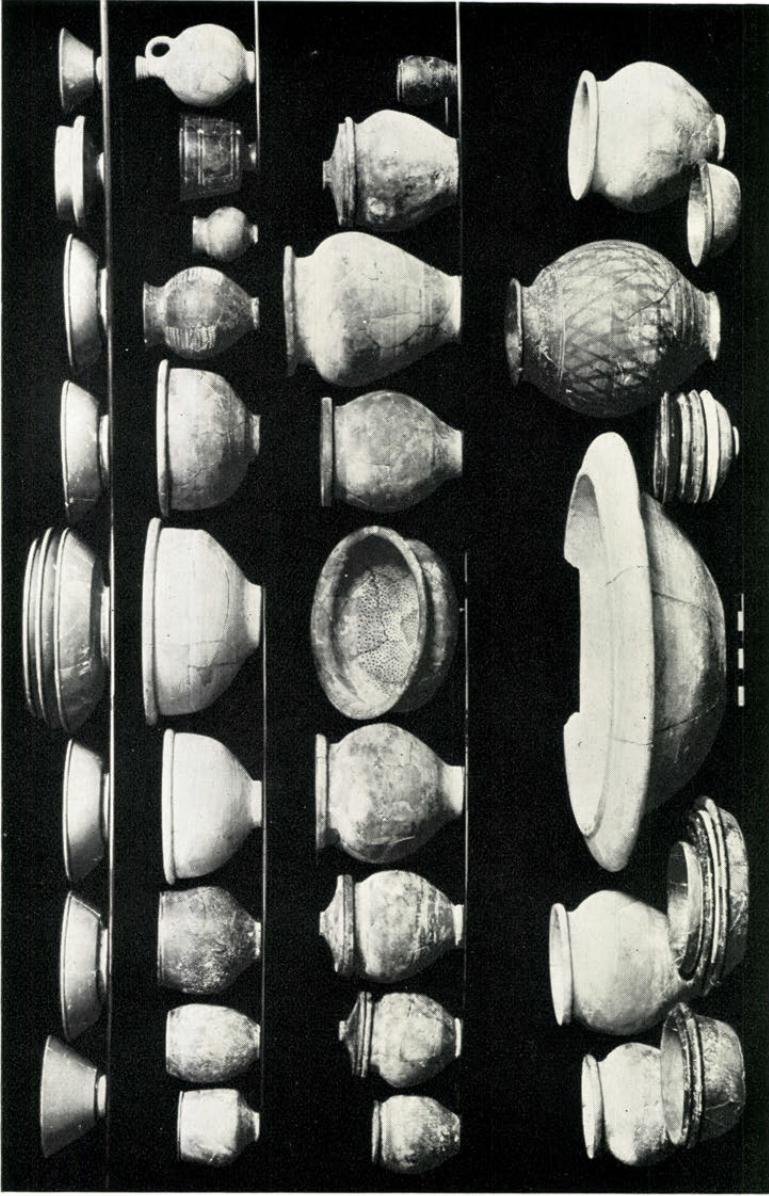
For associated glass, see p. 186.

FIGS. 27–28

1. Samian form 31 bearing the stamp VXOPILLI M. Uxopillus was an Antonine potter of Lezoux.

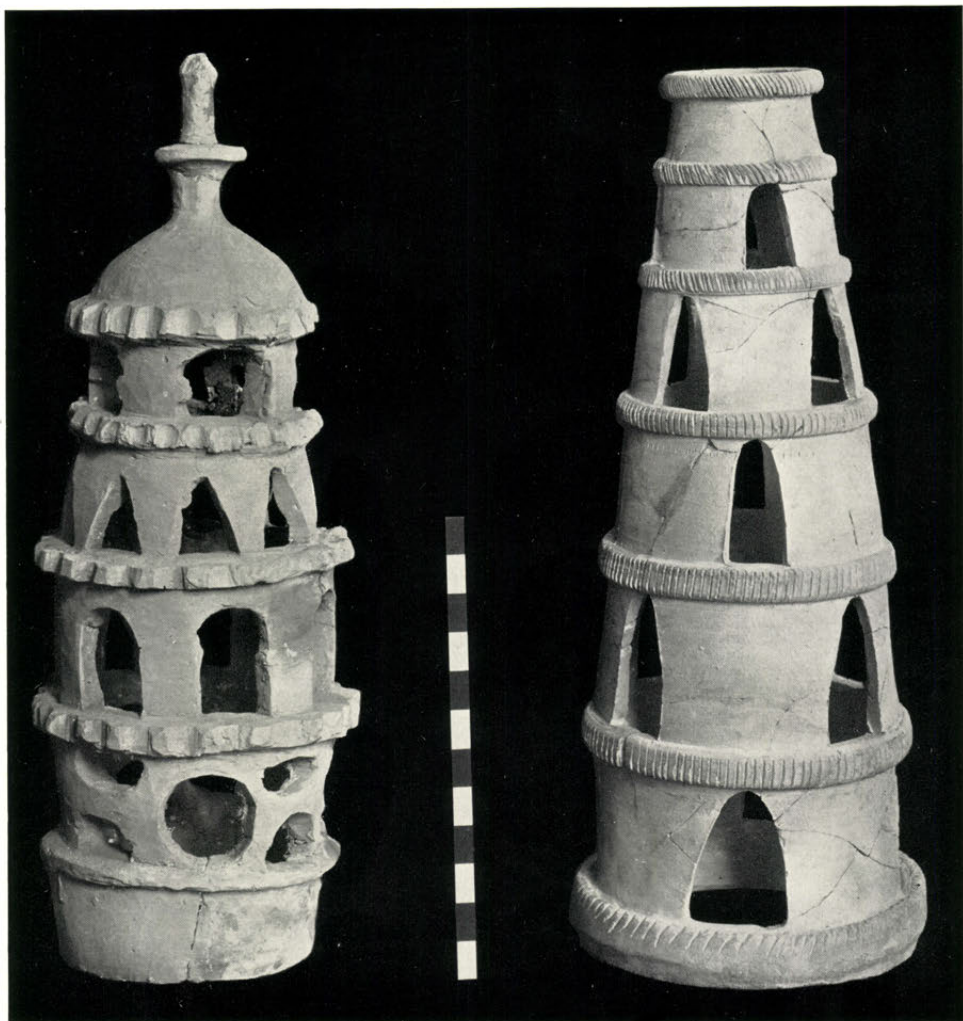
2. Samian form 31 bearing the stamp ALBVCI. Albucius was a Trajan-Antonine potter of Lezoux. Four other examples of form 31 in the group bore respectively the stamps of MAGIO F

PLATE LVII



Group of pottery, c. A.D. 160-90, from the well in building IV, 8. Scale of inches. (See pp. 182 ff.)

Published by the Society of Antiquaries of London, 1936



Chimneys for lamps or incense-burners: left, from the Roman house at Asstead, Surrey; right, from the 'triangular' temple at Verulamium. *Scale of inches*
(See p. 190)

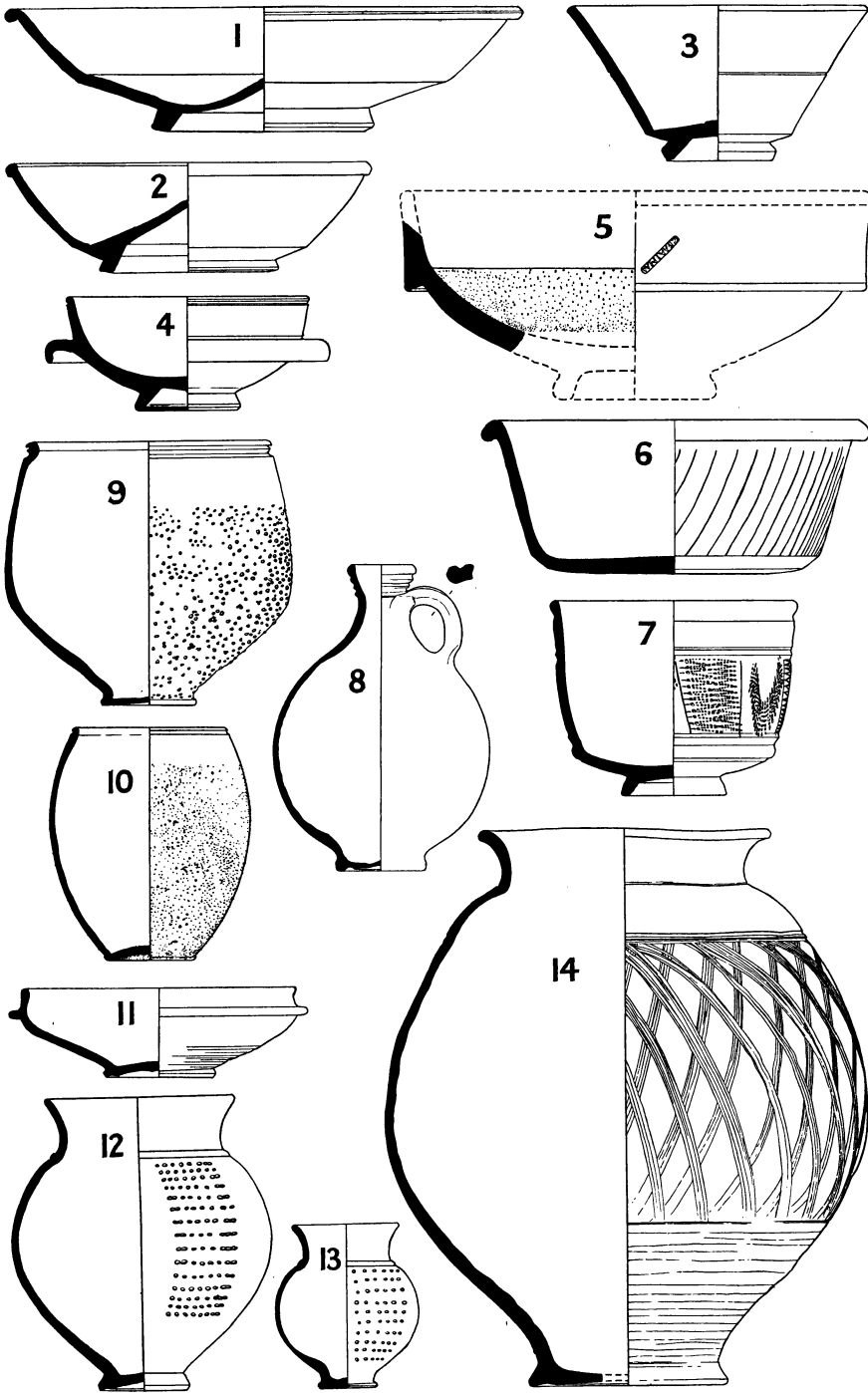


FIG. 27. Pottery of c. A.D. 160-190, from the well in building IV, 8. $\frac{1}{4}$.
 (See pp. 182, 184)

(Magio, a Hadrian-Antonine potter of Lezoux), ALBIM (Albus, a Lezoux potter of Hadrian-Antonine period), MICCIONIM (Miccio, a Trajan-Antonine potter of Lubié), M ILIM (probably Marcellus, a Hadrian-Antonine potter of Lezoux). A sixth example, similar in form to no. 1, bore a palm-leaf stamp.

3. Samian form 33 bearing the stamp [S]EXTUS. This is probably the Lezoux potter of Trajan-Antonine date.

4. Samian form 38.

5. Samian form 45 bearing the stamp GEMINIM on the exterior of the flange. Geminus was an Antonine potter of Lezoux.

6. Black bowl with smoothed oblique lines.

7. Well-made black imitation of Samian form 30 with roulette-pattern in panels.

8. Buff jug with ringed neck of late type, one of several such jugs found in the group.

9-10. Dark-brown roughcast vessels. No. 9 is of a well-known type which begins in the first century, but the present example, with the conical lower half and weakly made foot, is late in the series.

11. One of half a dozen dark-grey flanged bowls.

12-13. Two dark-grey 'poppy-head' beakers.

14. A large vessel of grey ware with smoothed trellis-work pattern and traces of the cordoned shoulder and pedestal base characteristic of its Belgic prototypes. This vessel is an interesting example of the late survival of these non-Roman features.

15. Large buff mortarium, spout missing, with incised semi-circular pattern on each side of the former spout. In type, this mortarium might well be half a century earlier in date, but the survival of early mortarium-types into late groups is not an uncommon phenomenon.

16. Small black-ware vessel.

17-18. Vessels of grey ware derived from a Belgic prototype.

19. Buff vessel with sharply cut rim and well-marked, if clumsy, base. This was a popular type at this period, and upwards of half a dozen examples occurred in the group.

20. Buff vessel with reeded flange and well-marked foot. This represents the last phase, unstable in use and weak in outline, of the bowls with reeded flanges well known in first- and second-century groups.

21. Buff bowl, somewhat analogous in type to preceding, but with a plain roll rim.

22. Colander of dark-grey ware.

23. Dark-grey vessel with smoothed lattice-work—a type of decoration rare at Verulamium.

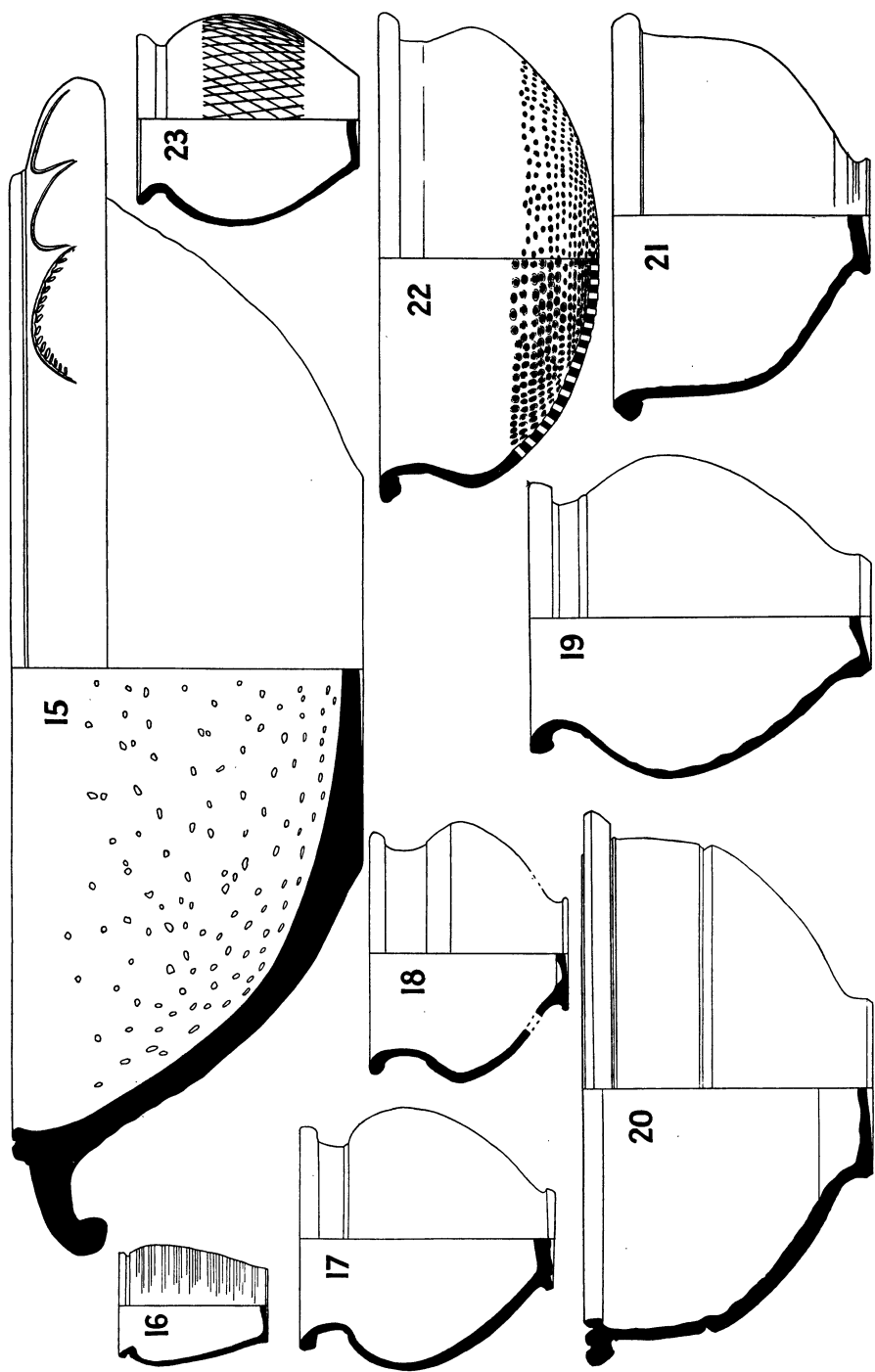


FIG. 28. Pottery of c. A.D. 160-190 from the well in building IV, 8. 1. (See p. 184)

FIG. 29

24-7. Four glass vessels from the same group. 24 is a small cup of white glass; 25 is a jug of blue-green glass with an applied pattern in glass thread; 26 is a knobbed beaker of opaque white glass, with raised foot; 27 is a barrel-beaker of bluish-white glass, with ribbing in glass thread. These vessels, here dated by association to A.D. 160-90, show in an incipient form certain of the features which were to dominate provincial Roman glass-ware (particularly of the Rhineland) in the third century. These features include extreme fineness of fabric, a preference for plain or lightly coloured glass, careful modelling of the footstand and other details, and a fondness for applied decoration. The general form of 26 is comparable with that, for example, of a beaker from a Cologne grave of *c.* A.D. 200 (F. Fremersdorf, *Römische Gläser aus Köln*, 1928, fig. 20) and the jug is a normal Rhenish type of the third and fourth centuries.

FROM INSULA V, PIT 6 (Figs. 30 and 31)

The pottery illustrated in these two figures represents a large quantity of sherds derived from pit 6 in insula V. The contents of the pit included a number of 'saggers' and 'wasters', evidently the debris from some neighbouring kiln. Both the wasters and much of the pottery were of a uniform hard buff ware and had evidently come from the same source. The pottery, which was clearly of one period, was associated with coins of Sabina (A.D. 119-38—M. and S. 1023), Hadrian (A.D. 132-4—M. and S. 714), and Antoninus Pius (A.D. 154-5—M. and S. 930), and may be ascribed to the period A.D. 120-60.

28. Small cup of grey ware with oblique barbotine lines on the flange; an imitation of Samian form 36.

29. Amphora of buff ware.

30. Pot of grey ware.

31. Pot of buff ware.

32. Pot of buff ware.

33. Face-urn of buff ware.

34. Ring-necked jug of buff ware and of a type which may be ascribed to the first quarter of the second century.

35. Carinated bowl of grey ware with stamped and rouletted decoration. This type is perhaps vaguely reminiscent of Samian form 30. It is exceptionally well made and the stamped decoration is unusual.

36 and 37. Carinated bowls of buff ware representing a considerable number of this type which is reminiscent of Samian form 29. This derivative type occurs in the latter part of the first

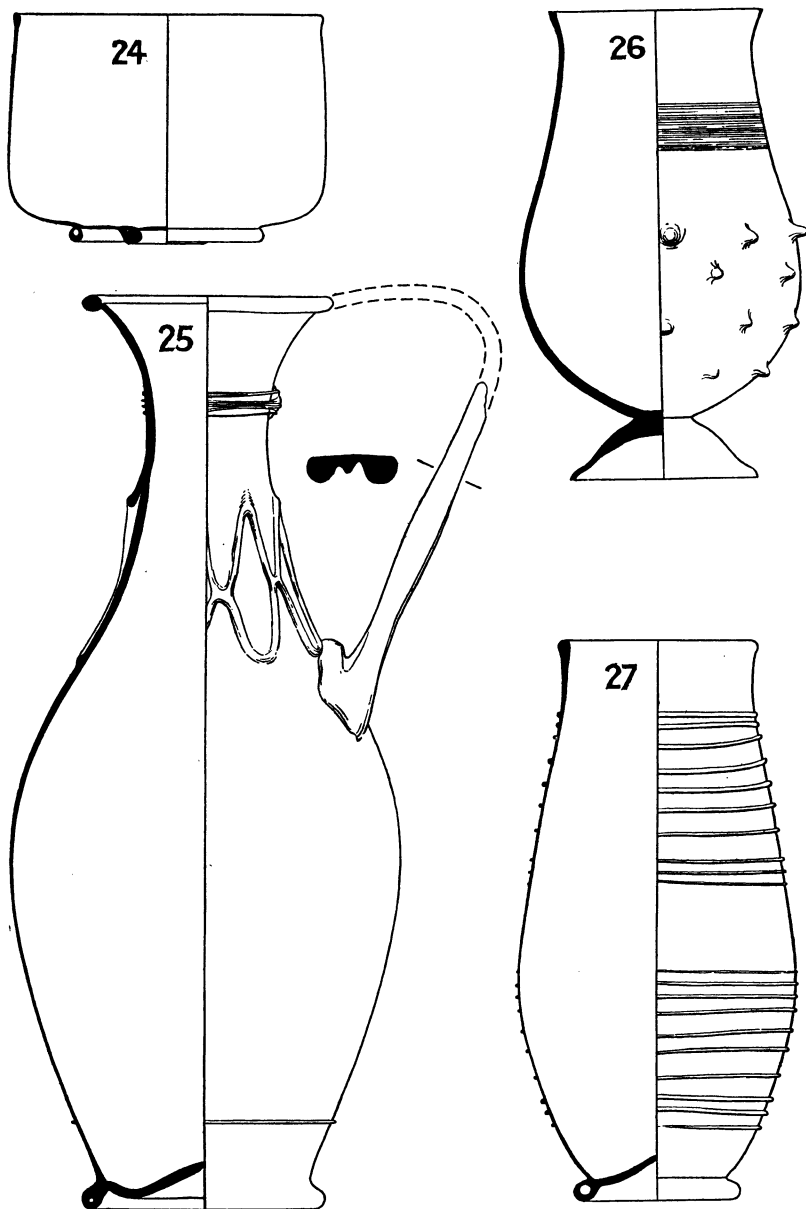


FIG. 29. Glass of c. A.D. 160-190, from the well in building IV, 8. $\frac{1}{2}$.
(See p. 186)

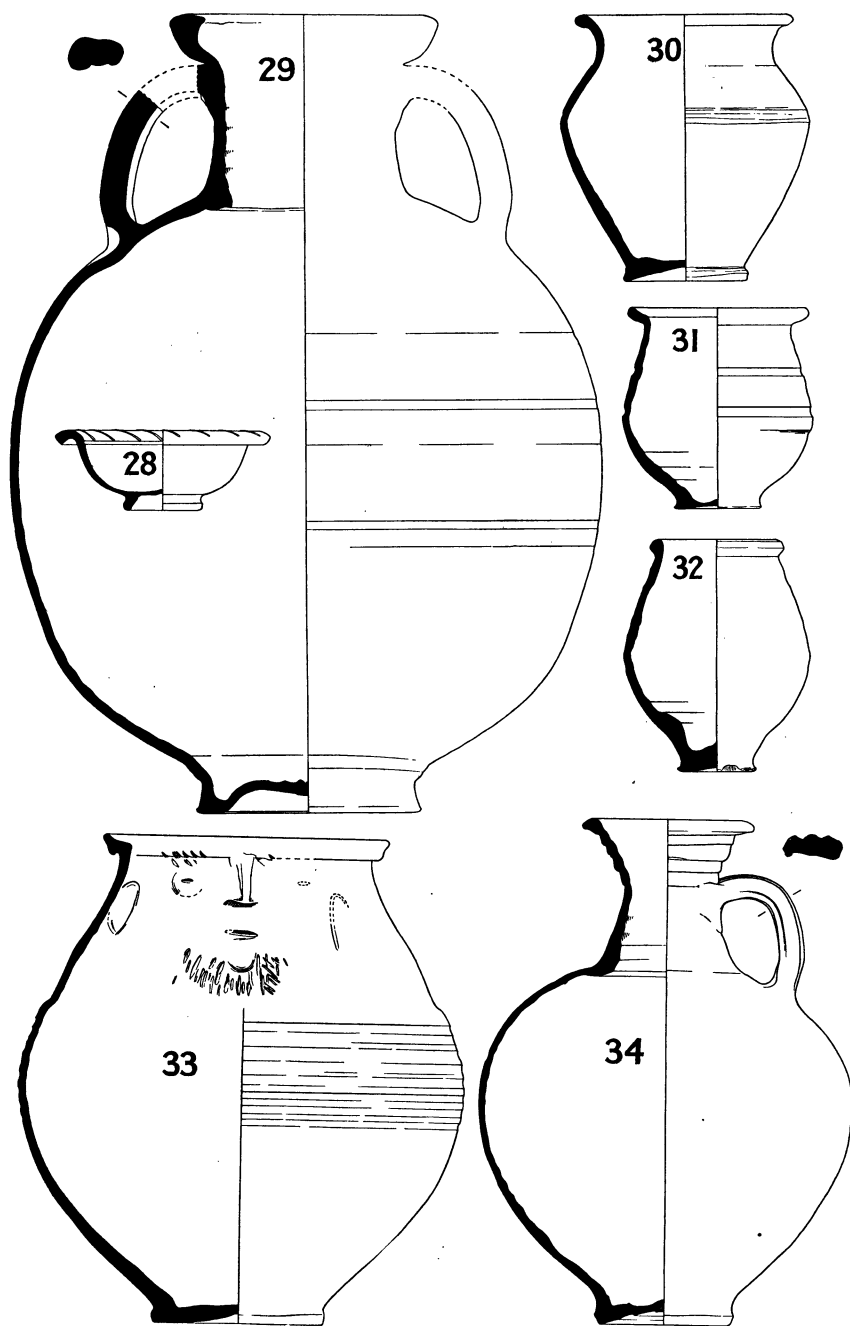


FIG. 30. Pottery of *c.* A.D. 120-160 from Insula V, pit 6. $\frac{1}{2}$. (See p. 186)

century A.D. and lasted well into the next century, e.g. Wroxeter, *First Report*, p. 70 and fig. 17, no. 6 (dated A.D. 80-120).

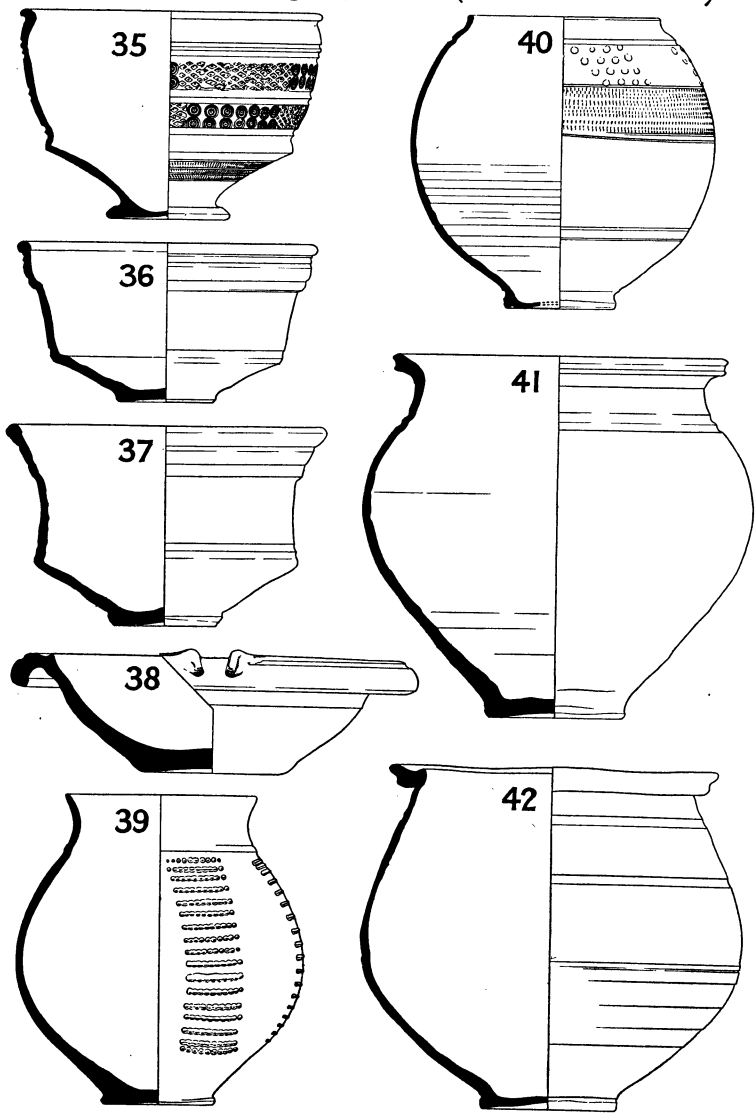


FIG. 31. Pottery of c. A.D. 120-160 from Insula V, pit 6. $\frac{1}{4}$. (See pp. 186, 189, 190)

38. Small mortarium of orange-buff ware; a normal type in deposits of the first half of the second century.

39. 'Poppy-head' beaker of the grey ware usual to the type, and of the form normal at Verulamium in the second quarter of the second century.

40. Pot of fine buff ware with roulette and barbotine decoration.
 41. Pot of orange-buff ware, of a type common at Verulamium in Hadrianic deposits.
 42. Pot of orange-buff ware of a type common at Verulamium in the first half of the second century.

FROM THE 'TRIANGULAR' TEMPLE (figs. 32 and 33)

43 (also pl. LVIII). 'Lamp-chimney' or funnel of yellow pottery, 23 in. high, found in the debris between the first and second floors at the inner end of the courtyard of the 'triangular' temple. Both floors were of the early second century and thus date the funnel. It is of six stages, divided by obliquely scored bands and pierced by round-headed 'windows', and is doubtless based upon the telescope-form of the conventional classical lighthouse. It was presumably intended to shelter a light or, more probably, burning incense (on an altar?) in some draughty place such as the courtyard itself; remains of a frilled 'incense-cup' (no. 44) were in fact found with it. It belongs to a class of 'lamp-shades' which is more common in the Mediterranean world than in the north, and has Egyptian and Hellenistic prototypes. The general type spread to the Roman settlements of the Danube and Rhine valleys and is occasionally found in this country. In the first and second centuries A.D. the cylindrical or conical type (as here) is normal, but after the end of the second century a quadrangular tower or *aedicula* takes its place. The present example is unusual in not possessing a fixed lid or roof, but certain of the fragmentary examples from the Continent (e.g. from Bonn, see *Bonner Jahrbücher*, 72, Taf. I, 2; 118, p. 407, Abb. 19, 2) may have resembled it in this as in other respects. For the type generally, see S. Loeschcke, *Bonner Jahrbücher*, 118 (1909), pp. 405 ff.; F. Fremersdorf, *Das Beleuchtungs-Gerät in römischer Zeit* (1924), pp. 14 ff. For Romano-British 'lamp-shades', see G. H. Jack in *Antiquaries Journal*, v (1925), 286 (from Leigh Sinton, Worcestershire); A. W. G. Lowther in *Surrey Archaeological Collections*, xlii (1934), 61 (from Ashted, Surrey); and examples in the York and Guildhall (London) Museums. In some cases, it has been suspected that these objects were used as flue-cowls or as ventilators to bath-buildings rather than as lamp-shades, but their scarcity vitiates this suggestion, and the function here postulated seems more likely. The ritual use of these objects is perhaps supported by their occasional occurrence in graves—in one case (at Xanten) surrounded by small pots comparable with those from several of the votive deposits in the same temple at Verulamium.

44. *Tazza* or incense-cup, of light buff ware, with 'frilled'

carination, and with evidence of burning on the inside. The upper part of the cup had been broken anciently and the broken edge

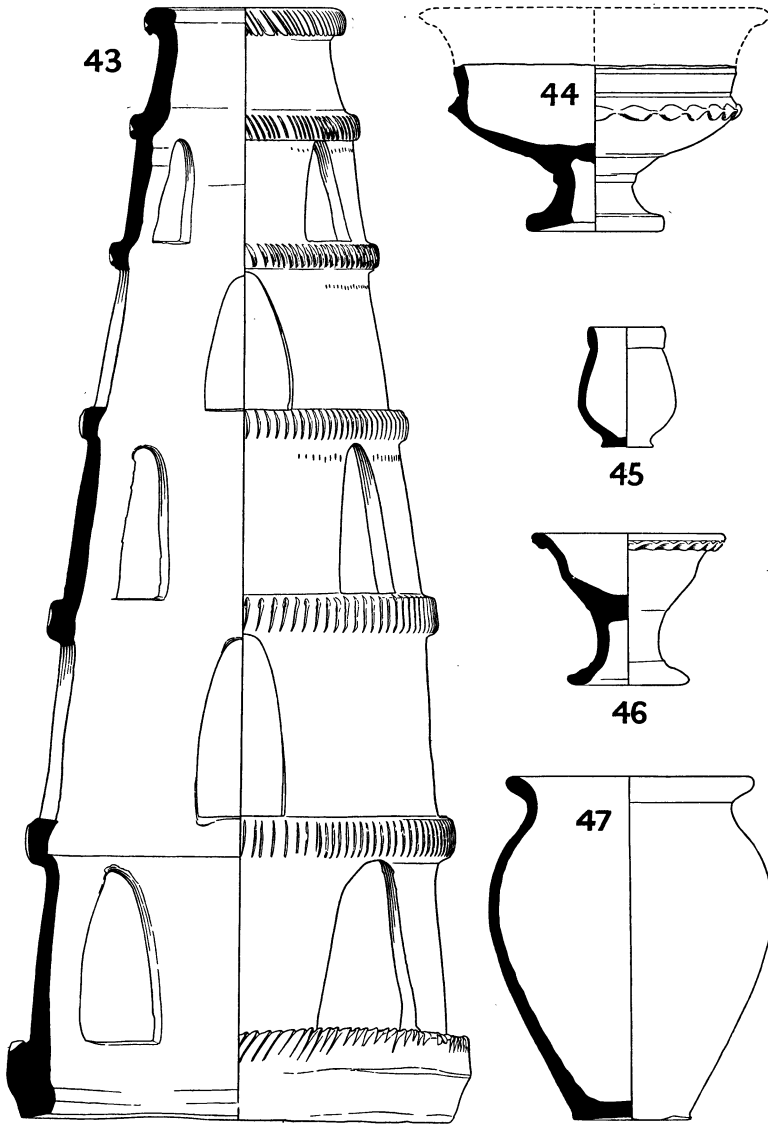


FIG. 32. Pottery from the 'triangular' temple. $\frac{1}{4}$. (See pp. 190-3)

carefully levelled so that the cup might be re-used. Found in the same layer as no. 43: early second century.

45 (see also pl. LIX). Small vessel with thickened rim; light buff ware. This is a sample of upwards of fifteen similar small pots

found in the temple, in two cases in grouped deposits (above, p. 118). Those vessels were clearly used in connexion with the temple ritual, possibly to contain oil. As remarked above, a group of similar vessels

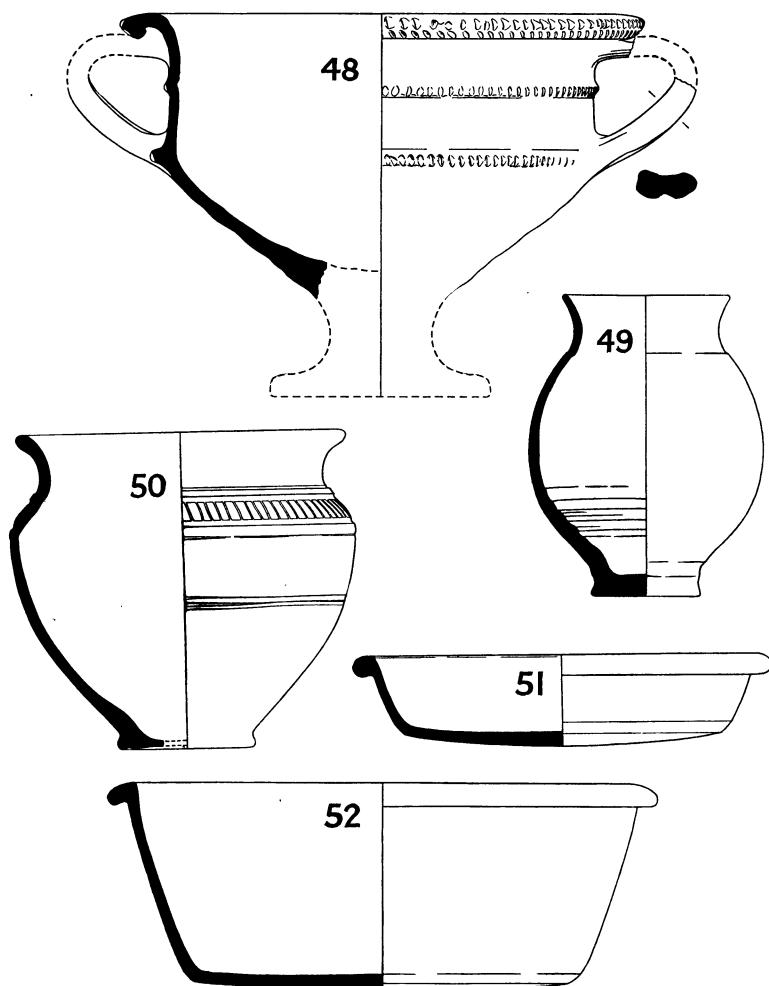
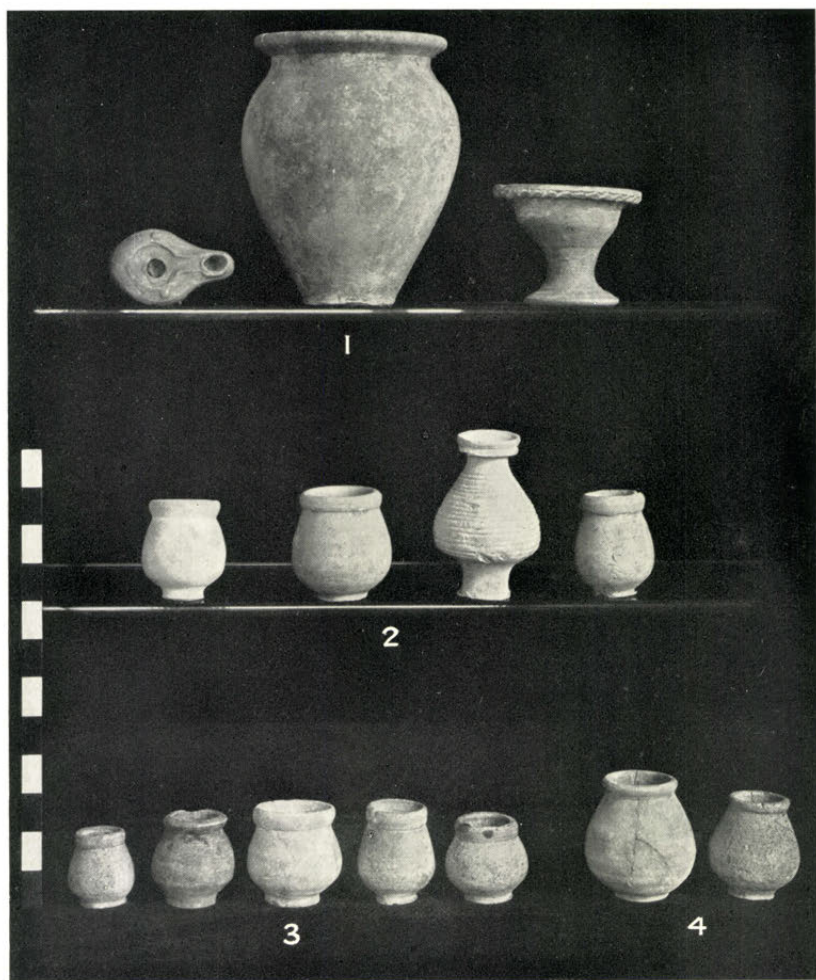


FIG. 33. Pottery from the 'triangular' temple. $\frac{1}{4}$. (See p. 193)

was found in association with a 'lamp-chimney' in a burial at Xanten. The Verulamium examples were not closely dated. They were in pits cut through the second (early second-century) floor of the temple and were all or mostly prior to the late third-century rehabilitation of the building. It is probable that a majority of them belonged to the middle or second half of the second century, since relics of the third century were rare on the site.

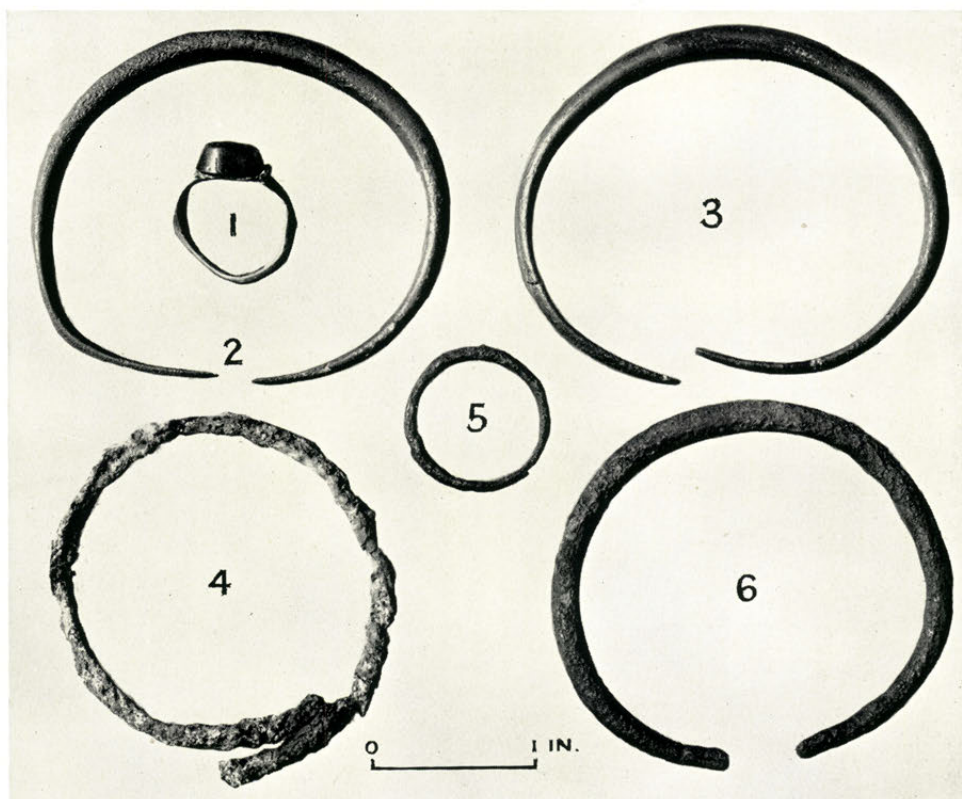
PLATE LIX



Votive deposits from the 'triangular' temple: 1, deposit no. 6; 2, deposit no. 2; 3, deposit no. 1 (five vessels); 4, part of deposit no. 13. *Scale of inches* (See pp. 118, 193)



A. Group of late 2nd-century pottery from deposit no. 12 in the 'triangular' temple.
Scale of inches. (See p. 193)



B. Bracelets and rings from Roman burials: 1-3, of bronze, from cemetery near N.W. Gate, burial no. 2; 4, of iron, from same cemetery, burial no. 6; 5 and 6, of bronze, from cemetery outside N.E. wall, from same burial as jet beads, fig. 45, no. 48. (*See p. 217*)

46 and 47 (also pls. LIX, I, and CXIIB). Small incense-cup of orange-coloured ware and jar of light buff ware, found with the second-century lamp (fig. 40, no. 3) as a carefully deposited group in a small circular cavity cut into the cement floor of the eastern ambulatory of the 'triangular' temple (above, p. 118). The incense-cup had been placed upright in the mouth of the jar and the lamp stood in the incense-cup. The type of the lamp points to a date in the first half of the second century.

48. Two-handled *tazza* of light buff ware, burnt on the inside; found in the same early second-century layer as nos. 43 and 44, and, like them, doubtless part of the ritual equipment. A considerable number of pedestalled, two-handled vessels, though not exactly of this type, was found in the Zugmantel temple, cited above, p. 119.

49-52 (also pl. LXA). Vessels of dark grey and black ware representing upwards of seventeen vessels, buried in fragments in a square pit cut into the second (early second-century) floor of the 'triangular' temple, and associated with coins of Augustus and Antoninus Pius (see above, p. 118). The Augustus coin was very worn but that of Pius may be taken as a fair indication of date, and the group may be ascribed to the second half of the second century. With this dating is consistent the weak and late form of the beaker no. 49, which is of the 'poppy-head' type but without the usual barbotine spots. No. 50 is also a weak and devolved form, derived ultimately from a late Belgic type (fig. 36) which was adopted by the Romano-British potters in the first and early second centuries. The present example shows the final degradation of the type. Nos. 51 and 52 are familiar Roman forms which occur abundantly after the beginning of the Antonine period. No. 52 retains a vestige of the carination which is common in the first half of the second century, but increasingly rare thereafter.

FIG. 34 (Miscellaneous)

53. Neck of a high-shouldered vessel, perhaps originally with two small handles, of a pink fabric of early type. From the make-up of the first road over the Belgic ditch-system in Pond Field (above, p. 48), with pottery of the middle of the first century A.D.

54. Beaker of brownish-black ware, found with the inhumation-burial beside the ditch of the early Watling Street underneath the 'triangular' temple (above, p. 114). This type of beaker belongs principally to the second and third quarters of the first century A.D. It is derived from the pre-Roman Belgic butt-beaker and, in devolved forms, survived occasionally into the second

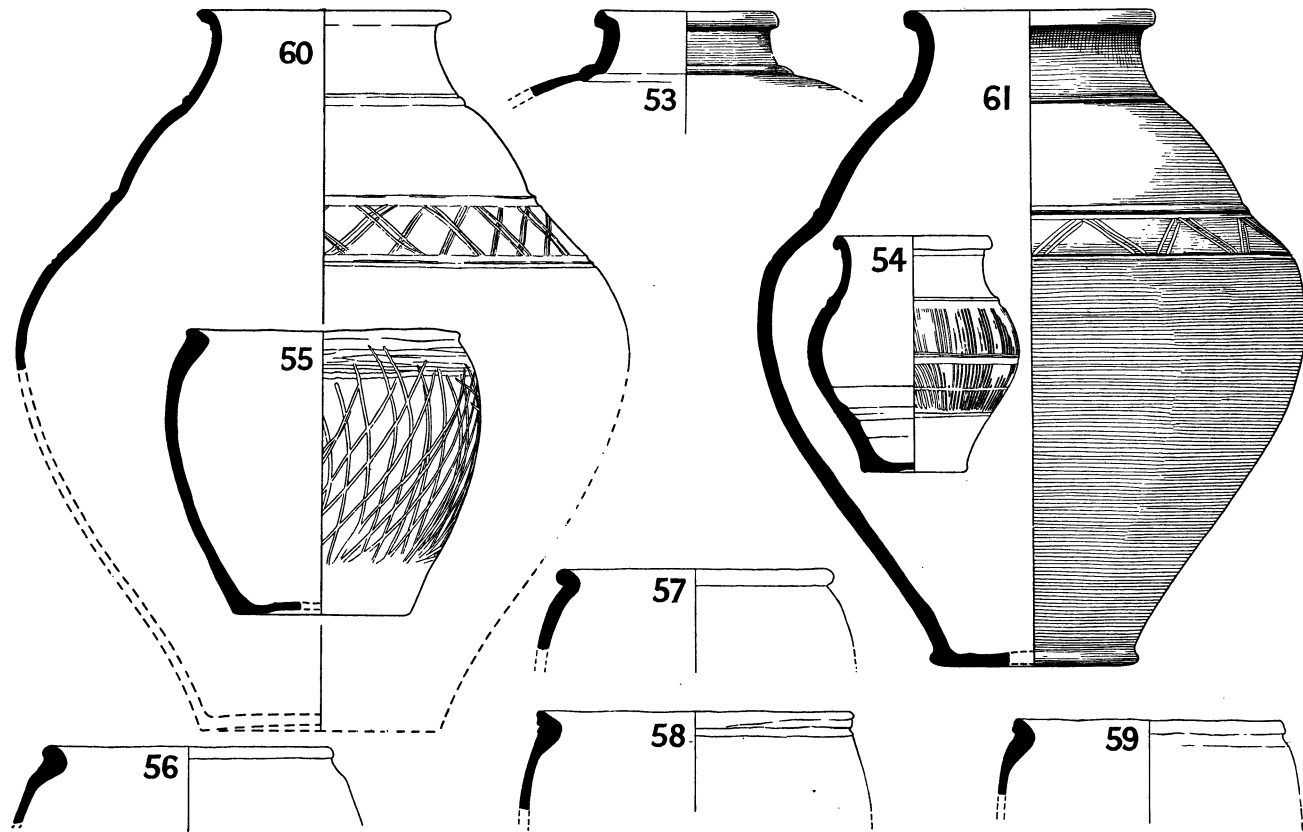


FIG. 34. Miscellaneous Belgic and Roman pottery. $\frac{1}{4}$. (See pp. 193, 195)

century A.D. (see *Swarling Report*, type 34, p. 15; and *Third Wroxeter Report*, type 71, p. 62). The present example, with the emphatic rim, is close to the Swarling type which is probably just pre-Roman; but it is actually of post-conquest date since it is later than the building of the Roman Watling Street, c. A.D. 50.

55. Hand-made pot of dark brown ware with smoothed lattice-pattern and bead rim. From a Claudian deposit under the south-west gate. This is one of the very few hand-made vessels from the Verulamium region.

56 and 57. Bead-rim pots either hand-made or very roughly turned, of coarse dark brown ware. From a Claudian deposit under building II, 1.

58. Pot of similar ware, perhaps very roughly wheel-turned, from the same layer as the preceding. Claudian.

59. Pot of similar ware, perhaps very roughly wheel-turned from the same layer as no. 56. Claudian.

60. Part of large cordoned vessel of smooth brown ware with roughly smoothed criss-cross pattern round the shoulder. From a late Belgic group in Prae Wood, c. A.D. 20-40. This type is included here to illustrate the Belgic ancestry of nos. 61 and 62.

61. Similar vessel of hard grey-brown ware with smoothed zigzag pattern on shoulder. Found with coins of Vespasian in the upper filling of the ditch of the Watling Street under the 'triangular' temple. The close resemblance between this and the preceding type (no. 60) is obvious, but the fabric of the later example is notably harder and more Roman than that of the earlier, and the wheel has been more skilfully used. A further stage in the Romanization of the type will be observed in no. 62.

FIG. 35

The whole of the pottery illustrated in this figure (nos. 62-73) was found under the south-east gateway of the second Roman city and includes all the *latest* types which antedated that structure.

62. Pot of fine, hard, grey ware with panels of smoothed vertical stripes on the shoulder. Found with early second-century pottery in the make-up of the original floor of the north-eastern tower of the gate.

63. 'Bottle' of grey ware, found with nos. 65, 66, and 71, c. A.D. 110-40.

64 and 65. Typical examples of the buff mortaria from the groups underlying the gate. No later types of mortarium occurred in these strata. No. 65 was found with nos. 63, 66, and 71; it is approximately of Wroxeter type 62, which occurs at Poltross Burn in the period A.D. 120-80, and is a recognized Hadrianic

type in the Wall-stations. At Verulamium, it seems to occur first in the latter part of Trajan's reign.

66. Bowl of grey ware with smoothed vertical and horizontal lines on the shoulder. Found with nos. 63, 65, and 71, *c. A.D.* 110-40. The type is derived from a late Belgic form which is,

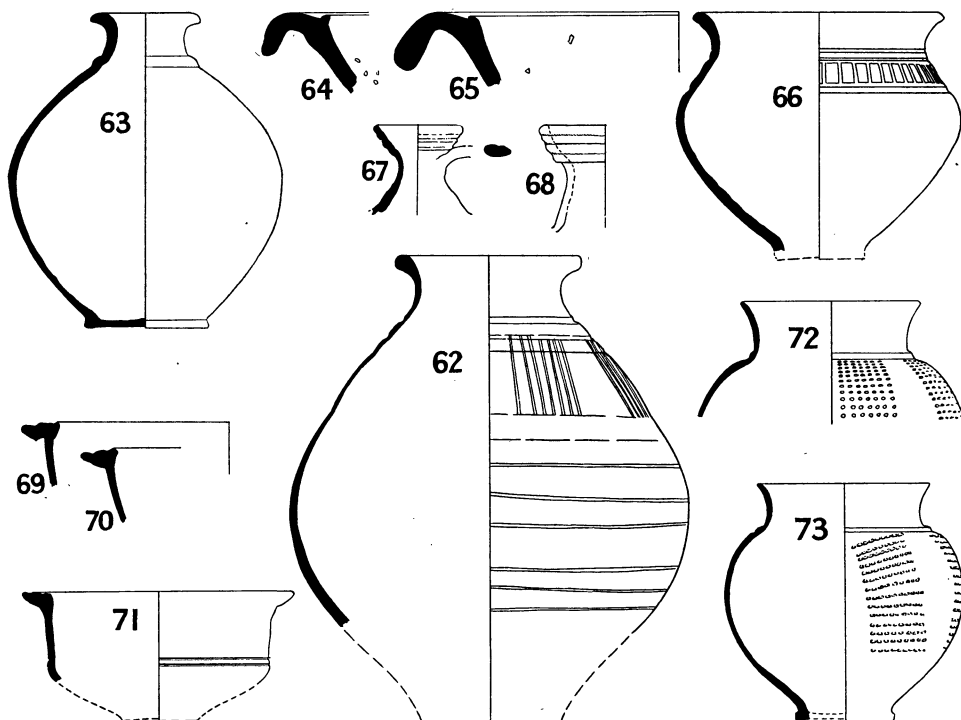


FIG. 35. The latest pottery from the building-levels of the south-east or 'London' gate. $\frac{1}{4}$. (See pp. 195-7)

however, of squatter shape. Prototypes of *c. A.D.* 40-60 are illustrated in fig. 36, nos. 74 and 75. The further devolution of the type, marked by a weakening of the profile, has been illustrated above, no. 50 (late Antonine).

67 and 68. Fragments of buff ring-necked jugs. These are the latest types of jug-necks found beneath the gateway and are the only two examples of their kind so found. The short expanding neck is normal to the period *c. A.D.* 120-50.

69-71. Fragments of buff bowls with reeded flanges. Nos. 69 and 70 are from a layer equivalent to that which produced nos. 63, 65, 66, and 71, and may therefore be ascribed to the Hadrianic period, although no. 69, with its sharp angle between flange and side, is a first-century type.

72 and 73. 'Poppy-head' beakers of the squat, circular form which is typologically early in the class. The general type is common at Verulamium between *c.* A.D. 90 and 160, but after the first quarter of the second century the form loses something of its rotundity and becomes more pear-shaped as in no. 39 (*c.* A.D. 120-60) above, fig. 31, no. 39. By the latter part of the second-century, the type had become still slimmer and weaker (see above, fig. 33, no. 49) and it did not survive the century.

FIG. 36

74 and 75. Two bowls of dark brown ware, one with smoothed oblique strokes along the shoulder. Found with pottery mainly of

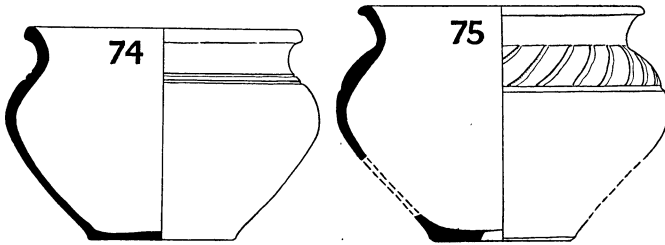


FIG. 36. Bowls of *c.* A.D. 40-60, from 'The Fosse'. $\frac{1}{4}$. (See *p.* 197)

late Belgic type (*c.* A.D. 40-60) in the rampart of the Fosse earth-work. These examples are here illustrated as Belgic prototypes for nos. 50 and 66, above.

FIG. 37

76. Large storage vessel of pink-buff ware with fine but emphatic and regular horizontal rilling on most of the exterior. From the second- and third-century filling of the cellar in building I, 1. Vessels of this type were used extensively at Verulamium throughout the second century, and occasionally as late as the fourth century. They are the Romanized descendants from the common Belgic type represented above in fig. 18, no. 60 *a* and fig. 19, 60 *b*. The rough combing characteristic of the Belgic examples is represented by the regular rilling of the Roman forms. It may here be observed that the Belgic type showed very little Romanization until the end of the first century.

77. Large vessel of buff ware with grey core and with grooved wave-pattern on the shoulder. From a late third-century deposit in the south-west gateway. This vessel is remarkable and apparently unique.

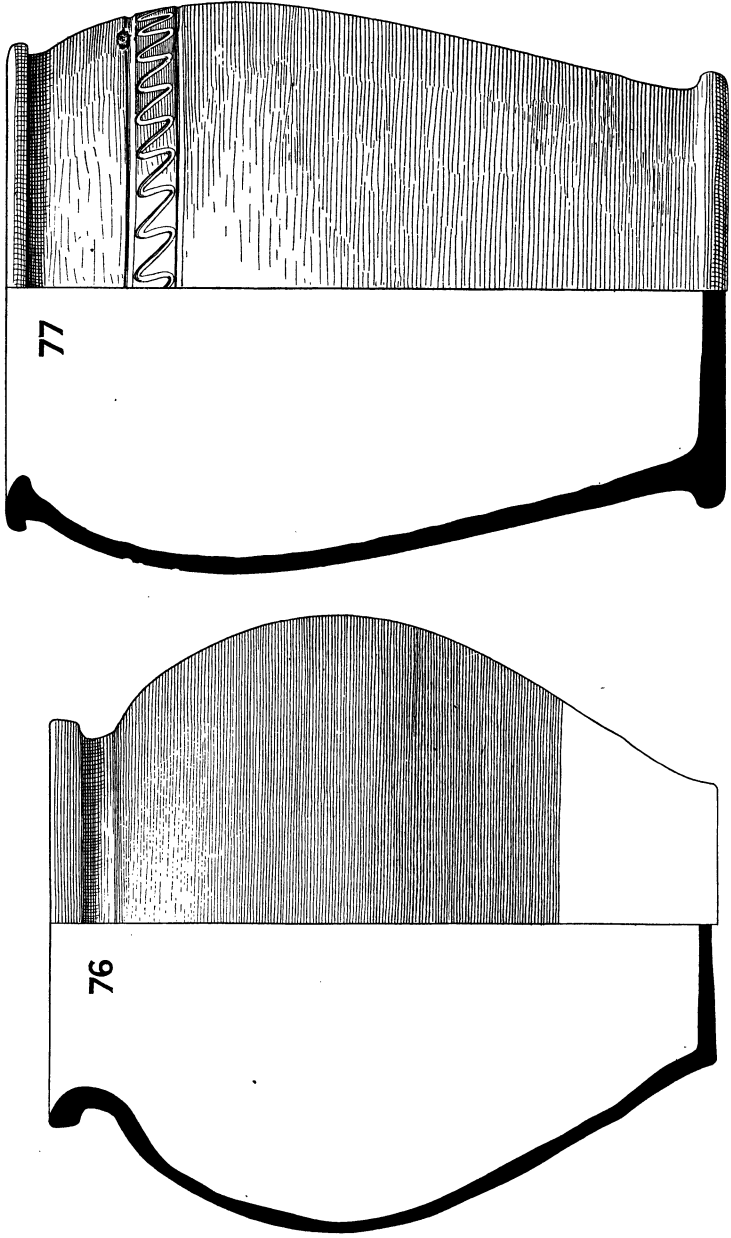


FIG. 37. Storage-jars, second-third century A.D. $\frac{1}{4}$. (See p. 197)

FIG. 38

78 and 79. Two funnel-necked jugs from the late third-century Pit 5 in building IV, 7. No. 78 is of orange ware with a fine smooth orange slip and bears the incised graffito PATERNI (fig.

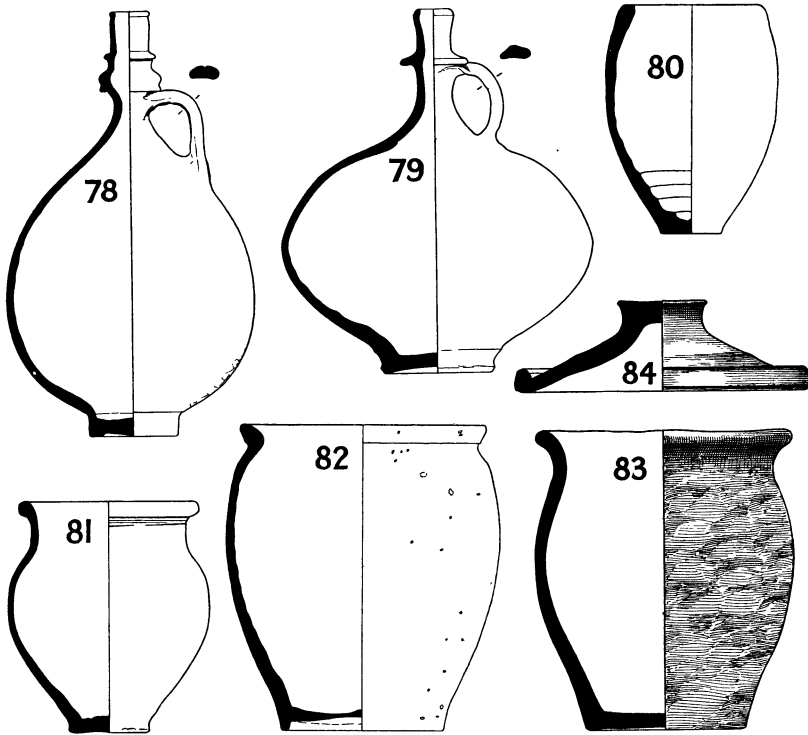


FIG. 38. Miscellaneous pottery, third-fifth centuries. $\frac{1}{4}$. (See p. 199)

39, no. 78 a). No. 79 is of buff ware and bears the incised graffito SACER between leaf-stops (fig. 39, no. 79 a).

80 and 81. Pots of coarse buff ware from a late third-century deposit.

82. Roughly wheel-turned jar of grit-laden ware. From layer overlying a late third-century floor in building II, 1. The jar comes from the latest deposit on this particular site and may be ascribed to the fourth or even the fifth century.

83 and 84. Pot and lid which covered it when found, set carefully upright in a clay patch on a late third-century tessellated floor of building I, 1 (see pl. xcvi B). The pot is of grit-laden orange clay and is not wheel-turned: the lid is of hard wheel-turned buff ware, much burnt, and is probably a survival from a considerably

earlier date. As found, the pot and lid may with probability be regarded as the latest stratified object discovered during the Verulamium excavations. Unfortunately, no associated object provided a definite clue to their date; but, occurring as they did in a slovenly patch to a floor which was itself not earlier than c. A.D. 300, they represent a phase of social degradation which seems to imply a considerable lapse of time. Moreover, they cannot have been placed in position long before the final evacua-



FIG. 39. Graffiti from third-century jugs. $\frac{2}{3}$. (See p. 199)

tion of the site, since any traffic over the spot would have broken the pot or at least dislodged the lid. It may be observed that coarse, hand-made pottery occurred occasionally at Richborough in the fourth century (*Third Richborough Report*, p. 182, no. 334). The Verulamium pot may be as late as the fifth century.

5. CLAY LAMPS

FIG. 40

1. From a level contemporary with the first rebuild of the 'triangular' temple. Early second century. This variant of the so-called 'firm-lamps', with the continuous flange round the *discus*, occurs normally in the period A.D. 70-110 (London Museum Catalogue, no. 3, *London in Roman Times*, 1930, p. 63, type 3).

2. From the Roman filling of the cellar in building VIII, 2. This filling contained material of all dates from the end of the first to the fourth century, and the lamp must belong to the earlier date.



Pipe-clay figurines. (*See p. 202*)

3. Lamp forming part of a votive group buried in the corridor of the 'triangular' temple (above, p. 118). A 'firm-lamp' of second-century type, bearing the maker's initials, Q. G. C., for

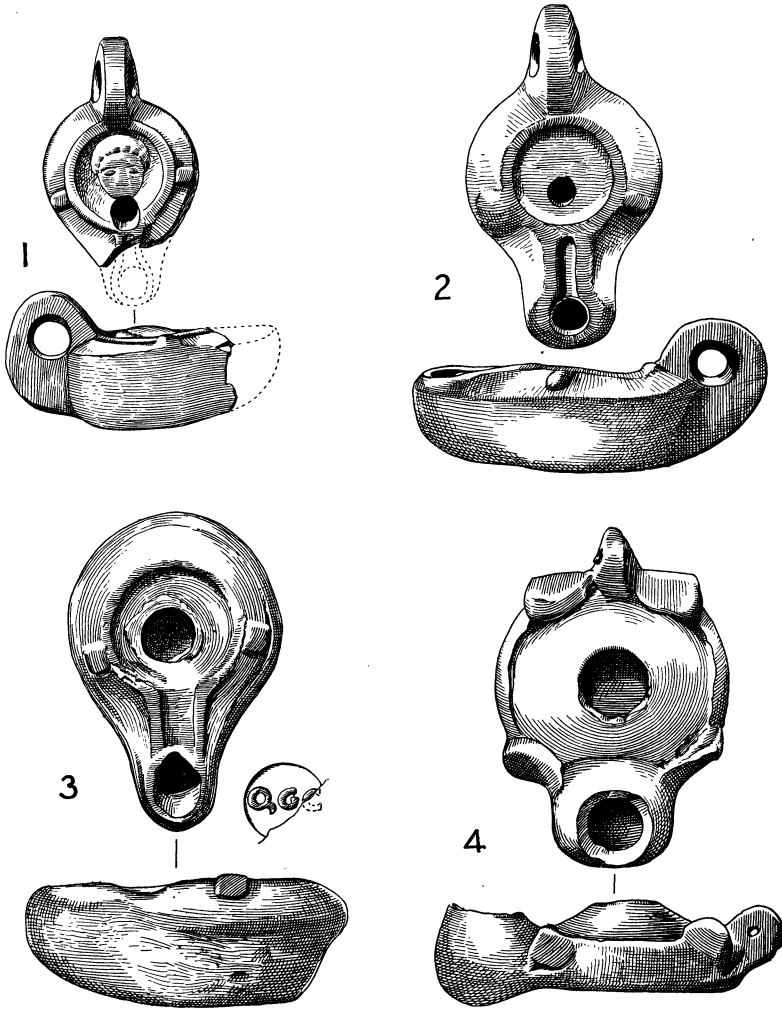


FIG. 40. Clay lamps. $\frac{1}{2}$. (See pp. 200-1)

which compare O.R.L. *Kastell Pfünz*, p. 73 and Taf. VIII^b, 202; and S. Loeschke, *Lampen aus Vindonissa* (1919), p. 296.

4. From a pit cut into the second-century cement floor behind the eastern 'tank' of the 'triangular' temple (above, p. 118). The type is anomalous, but is probably prior to the rebuild of c. A.D. 300.

FIG. 41

Lamp of phallic form from pit 3 in building IV, 8, with a coin of Victorinus and late third-century pottery.

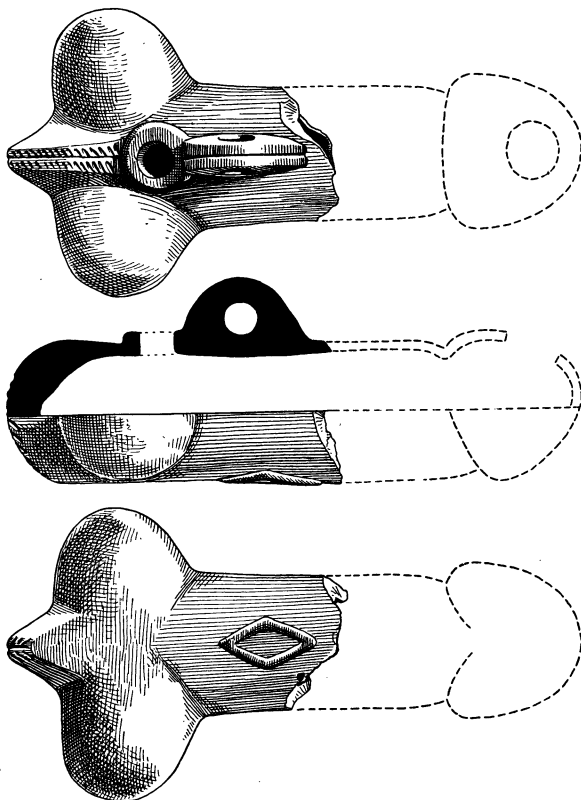


FIG. 41. Clay lamp. $\frac{1}{2}$. (See p. 202)

6. CLAY FIGURINES

Fragments of six pipe-clay figures, all from deposits of the second and third centuries (pl. LXI). They might on that account be ascribed to the derivative factories which flourished in the Rhine valley in the second century rather than to the parent-factories which were producing similar figurines in the Allier district of France during the first century. On the other hand, one of the figures bears the name of a modeller whose work has been found in the Allier district, so that the possibility of survival must not be discounted.

1. Back of a female head from a small bust. From the second- and third-century filling of the cellar in building II, 1.

2. Part of a female face, probably from a similar bust. From the same filling.

3-5. Figurines of Venus. No. 3, from the same layer as nos. 1 and 2, bears on the drapery at the back the name *IOPPILLO*, a name which occurs in relief on the mould for a similar figure, found in the Allier district (E. Tudot, *Collections de figurines en argile*, 1860, p. 64 and pl. III). The occurrence of the name in relief on the mould implies that it was incised on the original clay figure, and that it is therefore the name of the actual modeller rather than of the manufacturer, unless the two were identical.

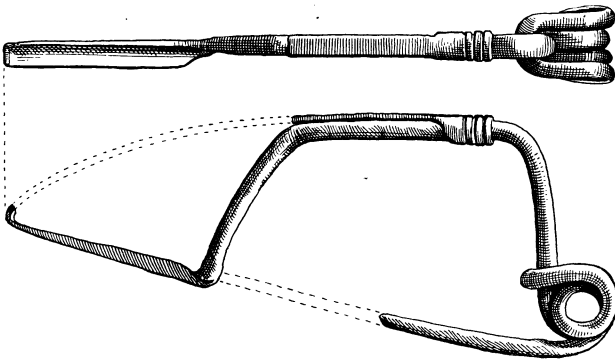


FIG. 42. Bronze brooch of La Tène II type. $\frac{1}{2}$. (See p. 203)

Nos. 4 and 5 were found in deposits of late third- and fourth-century date.

6. Fragment of a figure seated in a basket chair. Figures of this kind are normally of females holding two infants and represented some goddess, such as Juno Lucina, who presided over child-birth.

For pipe-clay figurines in general, see Tudot as cited; Lindenschmit, *Altertümer unserer heidnischen Vorzeit*, v, 381; *First Wroxeter Report*, p. 31.

7. METAL-WORK, ETC.

BROOCHES

(all of bronze unless otherwise specified)

FIG. 42

Brooch of late La Tène II type, probably pre-Belgic but perhaps as late as the first century B.C. Found *ad nat.* under the 'triangular' temple. For La Tène II brooches, see *Lydney Report*, pp. 68 ff., with distribution-map.

FIG. 43

1 and 2. Brooches of the so-called 'poor-man's' type characteristic of the second half of the first century A.D. No. 1 was found in the demolition-layer of building 2a, underlying building III, 2. The demolition occurred about the middle of the second century, but the house then demolished had been built in the Flavian period, so that the brooch had probably been lost sometime between *c.* A.D. 80 and 150. No. 2 was found under the 'triangular' temple in a layer containing pottery and coins of *c.* A.D. 50-75.

3. Brooch with incised zigzag decoration down the flattened bow. Found beside the Watling Street in an occupation-layer containing Claudian pottery and coins of Claudius and Antonia: mid-first century A.D. The type is derived from a La Tène II form with open catch-plate and a junction-moulding (here still visible vestigially) at the base of the flattening on the bow. The prototype is common in the *Hradischt* of Stradonič in Bohemia. See J. Déchelette, *Les fouilles du Mont-Bewray, etc.*, 1904, pl. xxiii, 8, and p. 142.

4-7. Brooches of the winged Hod Hill type. A continental form abundant at Hofheim and other sites *c.* A.D. 40-50. In this country, it is commonly referred to as the Hod Hill type from its occurrence with other Claudian and earlier material on that Dorset site. The type was imported probably from the Rhine at the time of the Claudian invasion and, though fairly abundant on the earliest Roman sites, was never fully naturalized in this country. For a discussion of the type, see *Third Richborough Report*, p. 76, no. 6.

4. Of tinned bronze. Found under the 'triangular' temple in an occupation-layer containing pottery and coins of *c.* A.D. 50-75. The splayed foot of this and of no. 5 is exceptional on this type, and is probably derived from other contemporary forms, such as the thistle-brooch.

5. From the same layer as no. 4, *c.* A.D. 50-75.

6. Of tinned bronze. A good example of the type with normal knobbed foot. Unstratified.

7. Found with Flavian and pre-Flavian material in the make-up of a floor of building II, 1 dated to *c.* A.D. 80.

8-11. Brooches similar to nos. 4-7, but devoid of wings. This wingless type likewise occurs at Hofheim in the Claudian period.

8. Of tinned bronze. Found beside the Watling Street in an occupation-layer containing Claudian pottery and coins of Claudius and Antonia: mid-first century A.D.

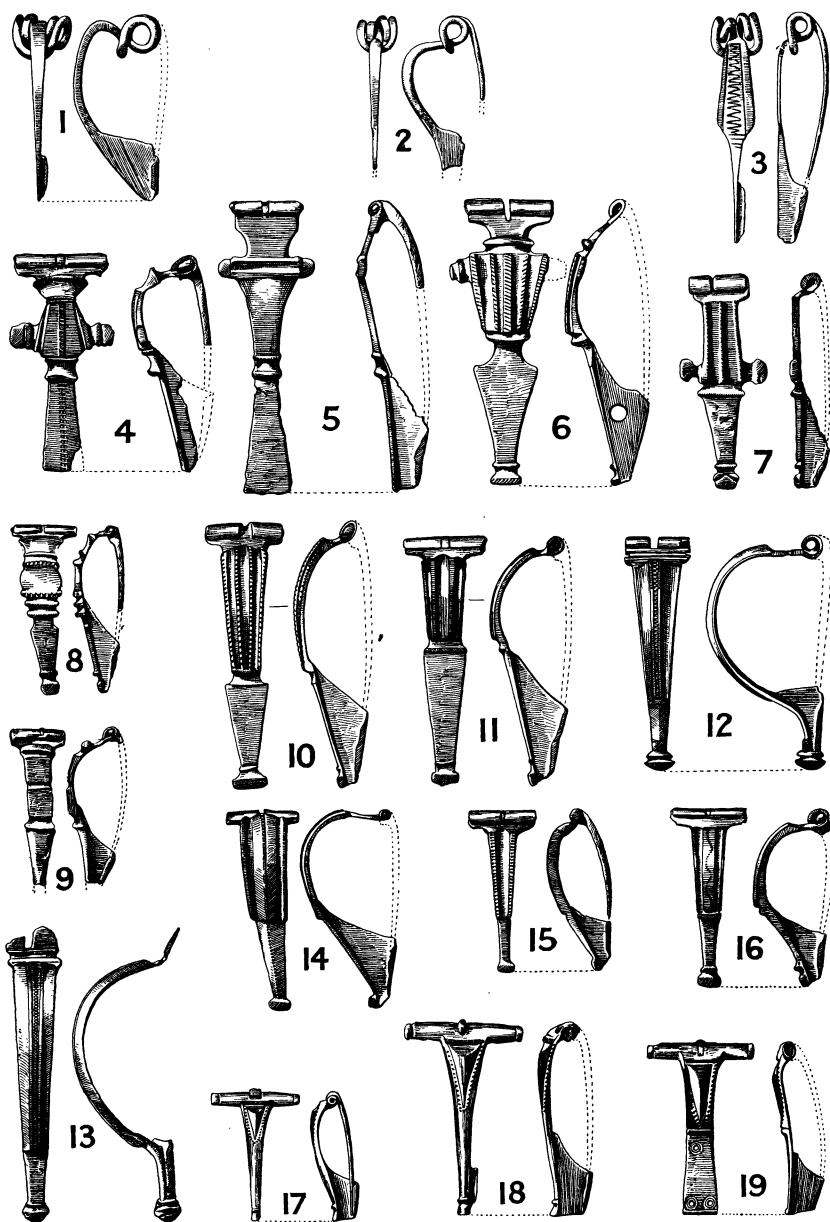


FIG. 43. Bronze brooches. $\frac{2}{3}$. (See pp. 204, 206)

9. Of tinned bronze. Found with a coin of Domitian of A.D. 86–7 and Flavian and earlier pottery in the filling of the Watling Street ditch under building I, 1. The brooch is a feeble example of its kind and may be relatively late, although an even poorer variant was found in the bottom of a Claudian ditch at Richborough (*Third Richborough Report*, pl. VIII, 4, and p. 76).

10. Of tinned bronze. Unstratified.

11. Of tinned bronze. Found incorporated in the mortar of the building III, 2, built about the middle of the second century. The brooch itself, however, must be nearly a century earlier in date.

12–13. Two brooches of the so-called ‘Aucissa’ type. The type is perhaps of East Gaulish origin and flourished from c. A.D. 30–60, though both earlier and later examples are recorded (see *Archaeological Journal*, lx, 236, and lxii, 265; and *First Wroxeter Report*, p. 24, no. 5). The present examples show no trace of the Aucissa inscription which has given its name to the type.

12. Found under the ‘triangular’ temple, in an occupation-layer containing coins and pottery of c. A.D. 50–75.

13. Found in the same second-century layer as no. 1, but the material of which this layer was composed was partially of first-century derivation.

14. Brooch of tinned bronze, closely allied to the ‘Aucissa’ type, but of somewhat inferior manufacture. It differs from nos. 10 and 11 in the absence of the expansion of the bow above the catch-plate. Found in the same Claudian layer as no. 3.

15–16 represent a further process of devolution from the ‘Aucissa’ type.

15. Found under the ‘triangular’ temple, in a layer containing coins of Claudius, Nero, and Vespasian, the latest being five of A.D. 71. A date of c. A.D. 75 may be ascribed to the brooch.

16. Of tinned bronze. From a layer containing five coins of Vespasian under the triangular temple.

17–19. These seem to represent, in the shrunken ornament on the back of the bow, the final devolution of nos. 15–16, but they also incorporate features from other late first-century and early second-century types.

17. Found in a layer sealed by building IV, 2, which was constructed c. A.D. 150.

18. Found with a coin of Vespasian in the layer below that containing no. 17.

19. Unstratified. The expanding foot is comparable with that of no. 5.

FIG. 44

20. This has been a fine example of what may best be called the Swarling type. It was found on the natural surface under the 'triangular' temple and was sealed by an occupation-layer of *c.* A.D. 50-75. It may well be of pre-conquest date; in any case of *c.* A.D. 1-50.

21. Similar but coarser brooch found with Belgic and other pottery of *c.* A.D. 40-50 under the north-west gate.

22. In this example the spring-hook, which is still functional in nos. 20, 21, etc., is cast with the bow as a purely decorative feature. Typologically, therefore, this brooch is derivative. Nevertheless, it was found in an occupation-layer by the Watling Street with Claudian pottery and coins of Claudius and Antonia and is not much later than the middle of the first century.

23. A simple version of nos. 20 and 21, with an emphasis of the spring-case that suggests a somewhat late phase. Found in an occupation-layer beside the Watling Street with Claudian pottery and coins of Claudius and Antonia.

24. In this example, as in no. 22, the turned end of the spring-catch is incorporated in the casting. Found under the 'triangular' temple in an occupation-layer containing coins of Claudius and Nero, together with five coins of Vespasian, all dated to A.D. 71.

25. From the same layer as no. 1, *c.* A.D. 80-150.

26. From an occupation-layer upon a Flavian floor under building II, 1, which was itself erected *c.* A.D. 125-50. Late first or early second century.

27. Brooch allied to preceding examples, but with a knobbed terminal to one foot and a sharply bent, rather heavy head which brings it into line with the 'dolphin' brooches of Mr. R. G. Collingwood's series (*Archaeology of Roman Britain*, p. 247, group H). From the same layer as no. 26. Early second century.

28. A small and clumsy example, derived from the type 20-6. The catch-plate is solid. Found in the filling of the well in building IV, 8, *c.* A.D. 160-90.

29-30. The only trumpet-headed brooches recorded from Verulamium. The type, particularly that of no. 29, is essentially north-British; and these examples are probably importations from north of the Humber.

29. Of white metal. From a layer contemporary with the construction of building II, 1, *c.* A.D. 125-50.

30 has a medallion of blue enamel on the centre of the bow. Sealed by the reconstruction of the large house III, 2, at the end of the third century, but otherwise not closely dated. The brooch

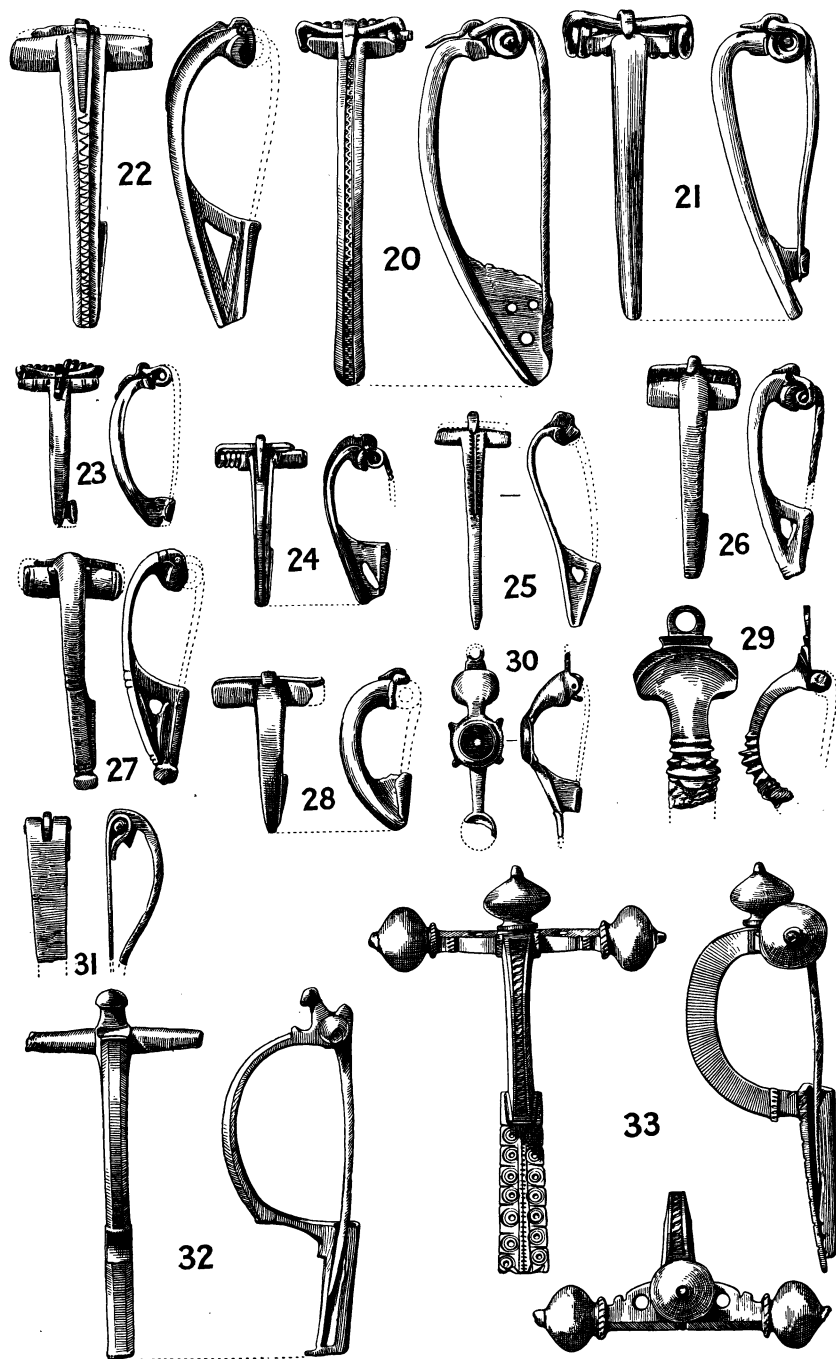


FIG. 44. Bronze brooches. $\frac{2}{3}$. (See pp. 207, 209)

itself was made doubtless in the second century A.D. (see J. Curle, *Newstead*, p. 324).

31. An elementary and extremely shoddy brooch which scarcely conforms to any type. From the first renewal of the floor of one of the towers of the south-west gateway; probably, therefore, late second- or early third-century date.

32. Cross-bow brooch of tinned bronze, formerly with a knob at the end of each arm. Found in the soot of the furnace (room 1) in building IV, 8. It is probable that this furnace was disused at the final rebuild of the house and that the brooch is therefore prior to c. A.D. 300. Brooches of this type were in use on the German Limes prior to A.D. 260, and a similar example was found at the Saalburg in a deposit dating from the time of Caracalla (see *O.R.L.* xxxii, *Zugmantel*, pl. ix and p. 76.) In the present example, the vestigial disc which frequently appears at the base of the arc of the bow is reduced to minimum proportions, and a date in the latter part of the third century would fit well typologically into the series.

33. Cross-bow brooch. A good example from the layer subsequent to the reconstruction of the large building III, 2, in c. A.D. 300. For the cross-bow brooch in general, see *Second Richborough Report*, pp. 44-5.

FIG. 45

34. Brooch possibly intended to represent a shield. For shield-brooches, see *Antiquaries Journal*, viii, 80, and *Lydney Excavation Report*, p. 81. The decoration, which shows traces of the Late Celtic tradition, is outlined in green enamel and filled with yellow enamel. From the same layer as no. 1, and datable, therefore, to c. A.D. 80-150.

35. Oval brooch. Decoration in blue, green, and red enamel. Found with debris containing late third-century coins in the filling of one of the hypocausts of building IV, 2.

36. Buckler-shaped brooch, with elaborate pattern in red, yellow, and blue enamel. A good example of a comparatively common Roman type. Found with a coin of Domitian and Flavian and earlier pottery in the filling of a pit under building I, 1. The present example is not likely to be earlier than A.D. 100, but the type is usually ascribed to the Antonine period (see *Third Wroxeter Report*, p. 25, no. 11).

37. Buckler-shaped brooch decorated with alternate inlay of green, blue, and white enamel. Found in a rubbish pit under building IV, 1, with pottery of c. A.D. 125-50.

38. One of a pair of penannular brooches found interlocked.

From a rubbish-pit (no. 5) cut through a wall of building IV, 7, together with a late third-century coin and pottery. This simple type with knobbed terminals had a long life, since it occurs before the end of the first century at Newstead and in the fourth century at Elton in Derbyshire (see J. Curle, *Newstead*, p. 326).

39. Penannular brooch with recurved terminals showing cross-nicks. From the same layer as no. 1: c. A.D. 80-150. For the type, see *Lydney Report*, fig. 14, no. 31 and p. 79.

40. Penannular brooch showing a stylized development from the preceding. The recurving and notching of the terminals is no longer a structural feature. Unstratified.

41. Brooch of unusual form, with enclosed slot for the point of the pin. This suggests a post-Roman development. From the clay patch filling a subsidence in a tessellated floor in building III, 2, as reconstructed c. A.D. 300. The patch may be of any date subsequent to 300, but the different domestic standards represented by the original tessellated floor and the clay patch suggest a considerable interval between the two. As a stratified relic of the latest occupation of this site, the brooch may indeed be as late as the fifth century A.D.

42. Part of a bracelet or possibly a penannular brooch of unusual form, circular in section and decorated similarly on both sides.

43. Bronze bracelet from a deposit of c. A.D. 200.

44. Bronze bracelet with snake's-head terminal. From a layer containing late third-century coins in the 'triangular' temple.

45. Part of a shale bracelet, from the material used for levelling up a floor of c. A.D. 300, and therefore of that date or earlier.

46. Part of a jet bracelet with polygonal outline, from the same stratum as the preceding. Compare F. Fremersdorf, *Die Denkmäler des römischen Köln*, i (1928), Taf. 138.

47. Fragment of bracelet of blue glass with triple cable-pattern of twisted blue and white glass in relief and marginal inlay of white glass. From third-century debris over the 'triangular' temple. Glass bracelets, rare in the south of Britain, are common enough in Roman deposits in the north (e.g. Curle, *Newstead*, pl. xci, 1, 2, 5). The cable-pattern, where present, on Romano-British examples is always in relief; but a variant with the 'cables' completely imbedded in the main ring of the bracelet is found in Ireland as late as the eighth century A.D. (e.g. in the Lagore crannog, Co. Meath).

48. Seven of fourteen graduated semicircular jet beads which had been strung as a bracelet round the left wrist of a skeleton in the late Roman cemetery on the site of the medieval fish-pool

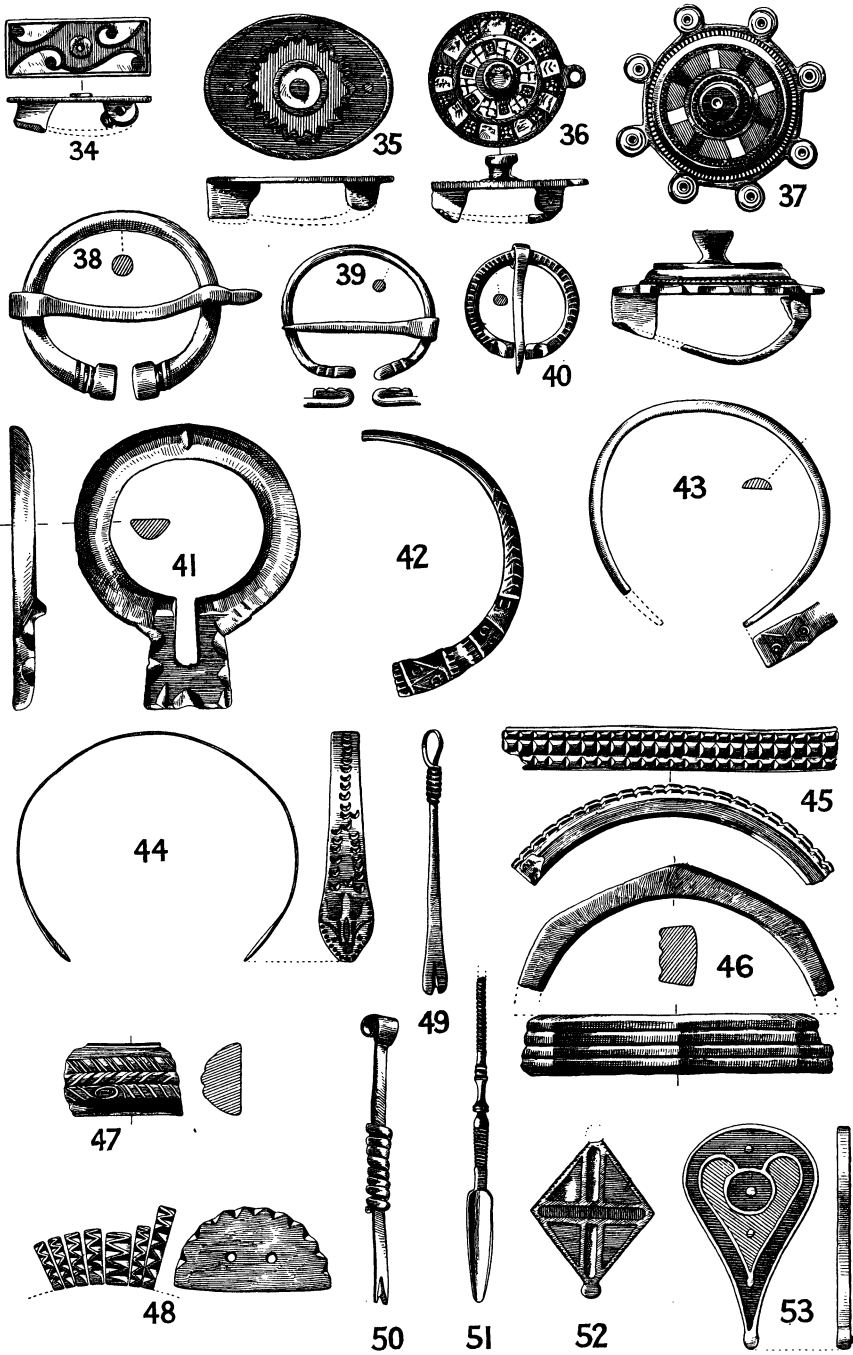


FIG. 45. Objects of bronze, shale (45), jet (46, 48), and glass (47). $\frac{2}{3}$.
 (See pp. 209-10, 212)

(above, p. 136). The same skeleton wore a bronze armlet and finger-ring (below, p. 217). Bracelets with large jet beads of this type extending only partly round the wrist have been assigned at Colchester to the third or fourth century (*Colchester Museum Report*, 1928, p. 60). See also T. May, *Catalogue of the Roman Pottery in the Colchester Museum*, Joslin grave group, no. 12; *Excavation of the Roman cemetery at Ospringe* (Society of Antiquaries Research Report, no. 8), pl. vii, fig. 2; and F. Fremersdorf, *Die Denkmäler des römischen Köln*, i (1928), Taf. 136.

49. Bronze nail-cleaner, from between the two early second-century floors of the 'triangular' temple.

50. Bronze nail-cleaner from the filling of the cellar of building I, 1, with material of the second and third centuries.

51. Bronze ligula from the same layer as 49; early second century.

52. Bronze seal-box lid with green, light green, and red champlévé enamel. From the make-up of the floor of the mid-second-century courtyard house, building III, 2.

53. Bronze seal-box lid with green and blue champlévé enamel. From the filling of the late third-century pit 5.

FIG. 46

54. Part of bronze statuette of female. Probably second century; unstratified.

55. Phalera or brooch consisting of a silver outer disc bearing a repoussé head of Medusa, backed by a flat silver intermediate disc, backed in turn with a bronze disc with remains of hinged pin and simple projecting catch. From the first renovation of the floor of the south-east tower of the North-west Gate; second half of second century.

56. Moulded medallion of greenish-blue glass bearing a Medusa head. From the make-up of the first floor of the 'triangular' temple and therefore not later than the beginning of the second century. Similar masks were used to decorate glass vessels throughout the Roman period but more particularly in the first century A.D. For example, a first-century jug in the British Museum bears a mask of the general type (*British Museum, Guide to Roman Britain*, fig. 123), and other masks occur at Haltern at the beginning of the century. Yet other examples are ascribed to the fourth century A.D. (F. Fremersdorf, *Die Denkmäler des römischen Köln*, i, Taf. 43).

57. Bronze dolphin, formerly attached by the flattened end of the snout. From the miscellaneous filling of the cellar of building VIII, 2, with coins of the late third and fourth century.

58. Small bronze ferrule, with a bearded head of third-century type. Found in a layer which produced late third-century coins

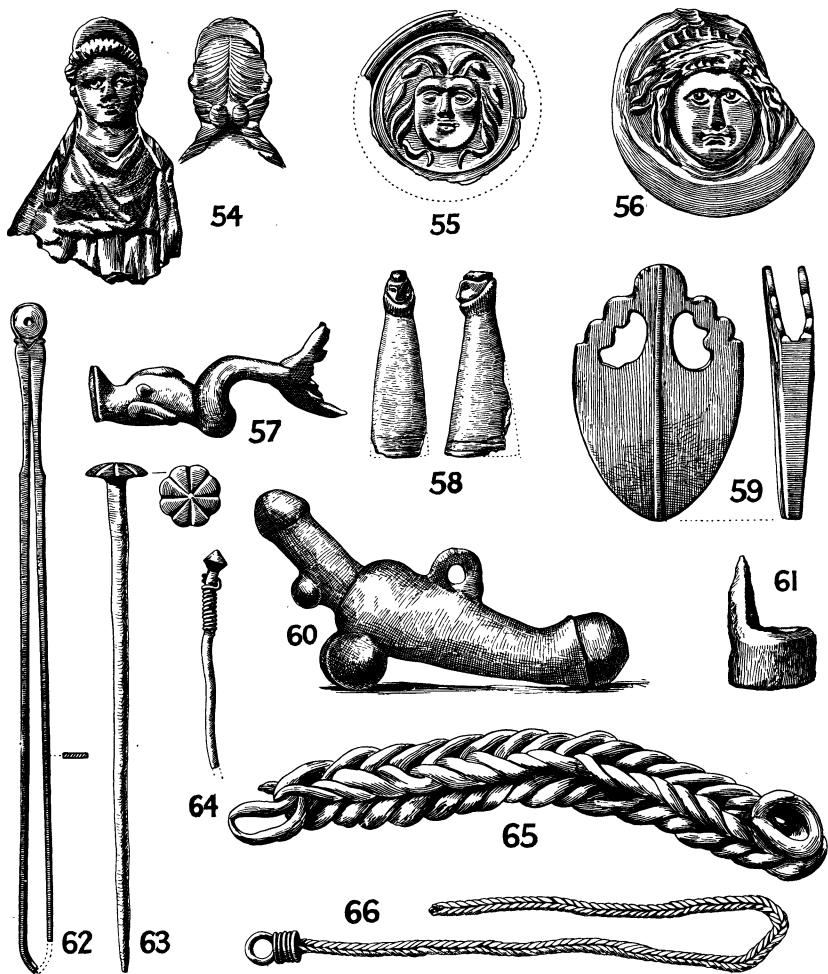


FIG. 46. Objects of bronze, iron (61), and glass (56). Scales: all $\frac{2}{3}$, except 55, which is $\frac{1}{3}$. (See pp. 212-14)

overlying the Claudian road in Pond Field to the west of the Roman city.

59. Bronze chape, from the miscellaneous filling of the cellar in building VIII, 2, with coins of the late third and fourth centuries.

60. Bronze weight or pendant (possibly a steelyard-weight) in the form of a double phallus. From a debris-layer containing fourth-century coins adjoining the 'triangular' temple.

61. Iron ox-goad from an early layer containing a coin of Claudius I.

62. Pair of bronze callipers, from a late third-century deposit.

63. Bronze pin from the same deposit as no. 59. Probably late third or fourth century.

64. Bronze pin-head found in the cement of the floor of the east ambulatory of the 'triangular' temple; early second century.

65 and 66. Plaited bronze chains. No. 65, of unusual size, is from the second- to third-century filling in building I, 1. No. 66 is from a mid first-century deposit containing coins of Claudius I and Antonia.

FIG. 47

67. Representative samples of fifty-five beads found as a necklace in a late Roman (probably fourth-century) burial near the North-west Gate (above, p. 138). The beads had not been threaded in any systematic sequence. They are all of glass save one (*q*) which is of jet, and are as follows:

- (*a*) Opaque green glass; oblong with flattened hexagonal section.
- (*b*) Opaque green glass; oblong with hexagonal section.
- (*c*) Bright green opaque glass; cylindrical.
- (*d*) Similar glass; oblong.
- (*e*) Opaque blue glass; cylindrical.
- (*f*) Similar glass biconical.
- (*g*) Bright blue opaque glass; oblong.
- (*h*) Dark blue translucent glass; oblate.
- (*i*) Similar but smaller.
- (*j*) Similar but still smaller.
- (*k*) Green opaque glass; minute and annular.
- (*l*) Of similar form but of opaque yellow glass.
- (*m*) Of similar form but of opaque white glass.
- (*n*) Wave-pattern cane bead of opaque red, white, and blue glass; of irregular form but square in section.
- (*o*) Gilded glass; oblate. For similar gilt glass beads, probably of the second half of the second century, see Curle, *Newstead*, p. 336.
- (*p*) Double or segmental bead of silver glass.
- (*q*) Fragmentary bead of jet.

68 and 69. Two jet beads of a late Roman type comparable with examples of late third- or fourth-century date from Lydney (*Lydney Report*, p. 89, 76-80). No. 2 was found with a hoard of late third-century coins (down to Carausius), under building V, 1. No. 3 was found on the site of the 'triangular' temple in material

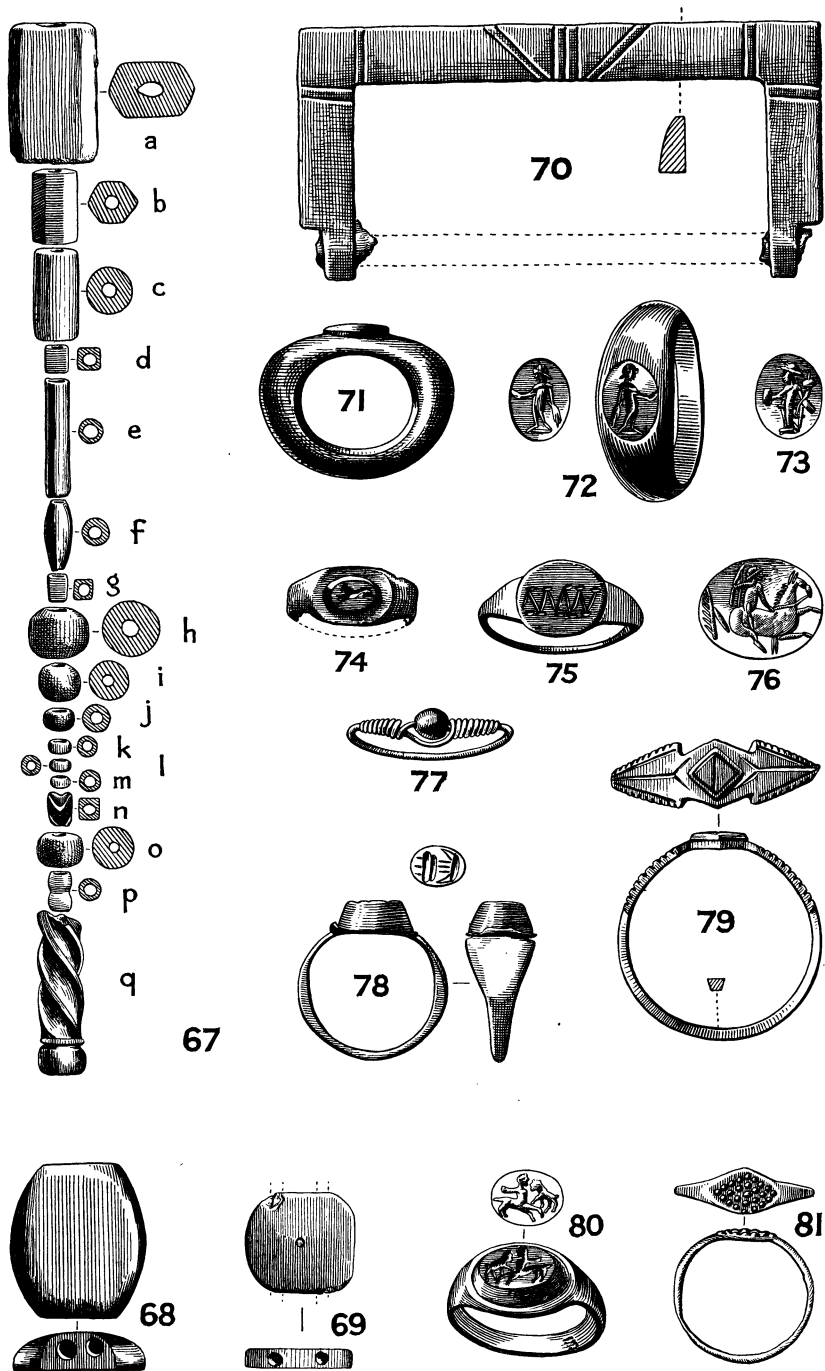


FIG. 47. Objects of bronze, jet (67q, 68, 69, 71), and glass (67a-p). $\frac{2}{3}$.
 (See pp. 214, 216)

not clearly stratified but containing late third- and fourth-century coins.

70. Buckle of tinned bronze found with late third-century coins.

71. Jet finger-ring with plain bezel, found with late third-century coins.

72. Bronze finger-ring with carnelian intaglio representing a helmeted figure holding a palm or a purse. Found in the foundation-trench of the late third-century rebuild of building II, 2. This simple type was in use in the second and third centuries.

73. Carnelian intaglio representing a figure holding a horn of plenty; very rough work. Unstratified.

74. Bronze finger-ring with blue glass intaglio of a running animal. Found in the very mixed filling of the cellar in building VIII, 2, with late third- and fourth-century coins.

75. Bronze finger-ring engraved with zigzag pattern on the bezel. Found in the make-up of the late third-century flooring in building III, 2, and prior, therefore, to c. A.D. 300.

76. Carnelian intaglio showing a figure with a bow on horseback. Unstratified.

77. Finger-ring of twisted bronze wire with central blue glass bead. Found with no. 74; late third or fourth century.

78. Silver finger-ring with prominent carnelian intaglio bearing a rough representation of an altar; from the middle finger of the left hand of skeleton no. 2 from the cemetery near the North-west Gate (above, p. 137, and pl. LX B, 1); late Roman, probably fourth century.

79. Silver finger-ring, unstratified, but of a design common in the fourth century.

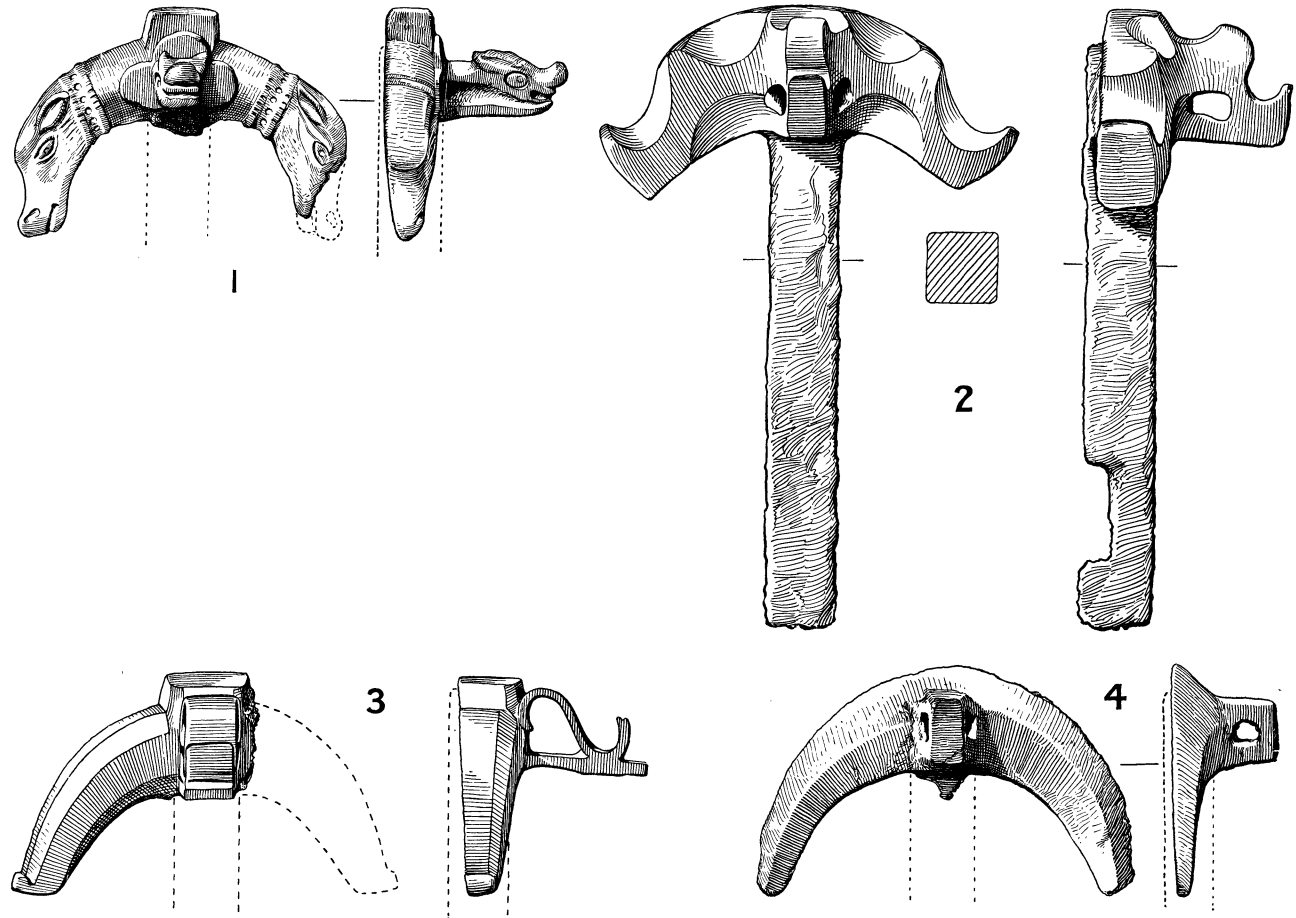
80. Bronze finger-ring with blue glass intaglio showing a centaur attacked by a lion. From a late third-century stratum.

81. Bronze finger-ring from a Flavian deposit.

FIG. 48

Bronze triskele found in the metalling of the latest road immediately outside the North-west Gate. The associated relics are of the fourth century, to which the triskele would normally therefore be assigned. If the ascription is correct, the object assumes a special importance as dating from the 'blank' period of Celtic art between the decline of that art in the latter part of the second century and its revival in the 6th. A Romanized triskele ornaments the base of the Kyngadle (Carmarthenshire) *patella* which was apparently found with late third-century coins,¹ but otherwise this typically Celtic motif is not known in the late Roman period.

¹ *Archaeologia Cambrensis*, 1901, p. 24.



Linch-pins: 1, from Colchester; 2 and 3, from Verulamium; 4, from London. $\frac{1}{2}$ (See pp. 217 f.)

PL. LXB

Rings and armlets from burials

1. Silver finger-ring, found with 2 and 3. See above, burial no. 2, p. 137, and fig. 47, no. 78.

2 and 3. Bronze armlets from the same burial. This single type, here probably of the fourth century, occurs also in an unpub-

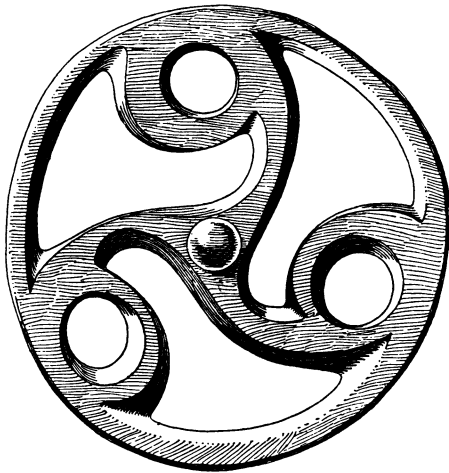


FIG. 48. Bronze triskele. $\frac{1}{1}$. (See p. 216)

lished second-century cremation-burial near St. Stephen's, south of Verulamium.

4. Iron bracelet from burial no. 6, above, p. 138. Found with the glass and jet beads, above, p. 214, no. 67. Third or fourth century.

5 and 6. Bronze finger-ring and armlet from a late Roman burial (above, p. 136). Found with the jet bead-bracelet, above, p. 210, no. 48.

PL. LXII

Linch-pins

Two lynch-pins, nos. 2 and 3, were found at Verulamium and are here illustrated with others from Colchester (no. 1) and London (no. 4) for comparison. The elemental type is T-shaped, and is kept from falling out by means of a thong, attached to the cross-piece and passing round the lower end of the pin itself when in position. These elements are illustrated in a simple form in the London example with its plain crescentic head and projecting loop for the thong. The head was usually of bronze and the pin of iron, as in all the examples here illustrated.

The bronze cross-piece readily lent itself to decoration, and both the Early Iron Age craftsman and his Romano-Celtic successor occasionally took advantage of this possibility.¹ The Colchester example (no. 1), published by kind permission of Mr. M. R. Hull of the Colchester and Essex Museum, is of the first century A.D., and shows the terminals and projection (in this case not certainly pierced) elaborated into the form of dogs' heads. For an analogy found with Roman pottery from Hassocks, Sussex, see the *Antiquaries Journal*, vii, 70. A reminiscence of this type of decoration has obviously influenced the form of the head of the Verulamium example, no. 2, found in the late third-century filling of a hypocaust in building IV, 8. This example retains the whole of its iron pin, which is rebated at the back near its lower end to take the loop of a leather thong or keeper attached to the pierced projection in the head. No. 3, also from Verulamium, from a late third-century level in building III, 1, seems to illustrate a further simplification of the type. No. 4 (from London, undated) may represent either the initial or the terminal point in this evolutionary process.

PL. LXIII A

Group of bone and bronze objects found together in a clay floor in building II, 1, with material of mid first-century date. The four bone objects take the form of a phallus at one end and, at the other end, a clenched fist with the thumb protruding through the first two fingers. These objects are pierced laterally through the wrist and were clearly threaded on a thong or tape in association with the four bronze attachments and the shield-shaped and looped objects. They were doubtless apotropaic charms and are variants of a large class of generally similar objects. An almost identical bone charm from Pompeii is preserved in the Naples Museum, and a similar example was found at Wroxeter (*First Wroxeter Report*, pl. x, 7). Analogous bronze amulets occurred at Newstead (Curle, *Newstead*, pl. LXXVII, 2 and 3).

PL. LXIV A

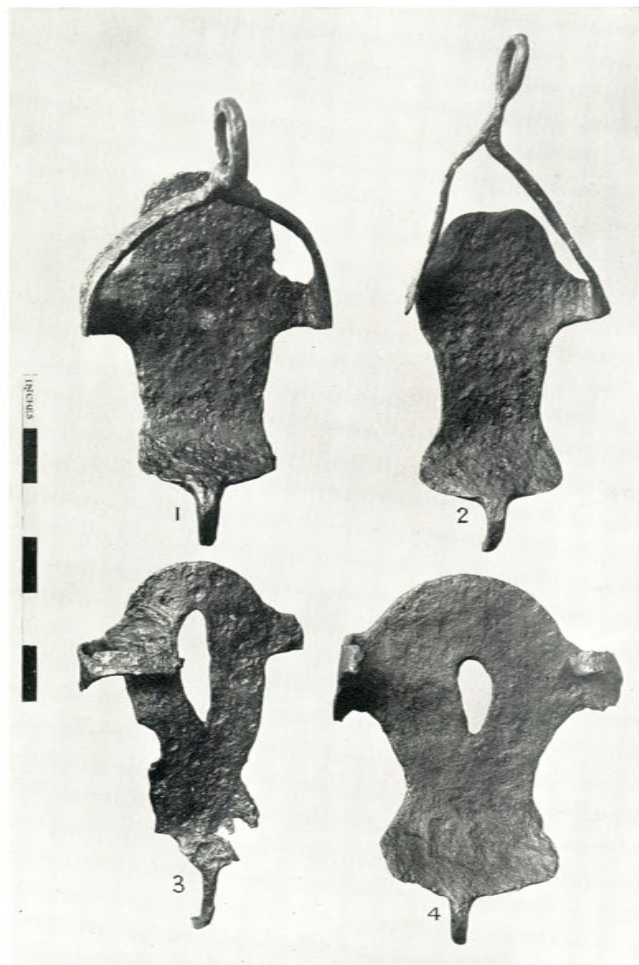
1. Part of iron pilum, head missing, from the fourth-century filling of the cellar in building VIII, 2.

2 and 3. Iron spear-head with closed socket, still containing part of its wooden shaft; and part of iron shield-boss or armour. Found together in the make-up of a late third-century floor in building II, 1.

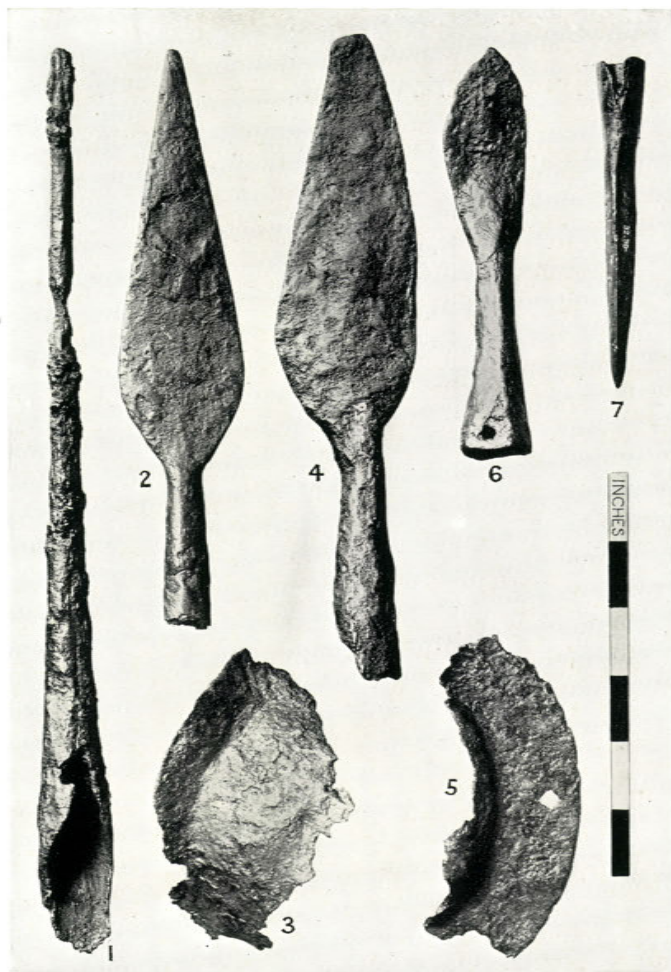
¹ For anthropomorphic linch-pins, see P. Goessler in *Préhistoire*, tome ii, fasc. ii, 1932, p. 268; and K. Bittel, *Die Kelten in Württemberg* (1934), p. 63 and pl. 8, 4.



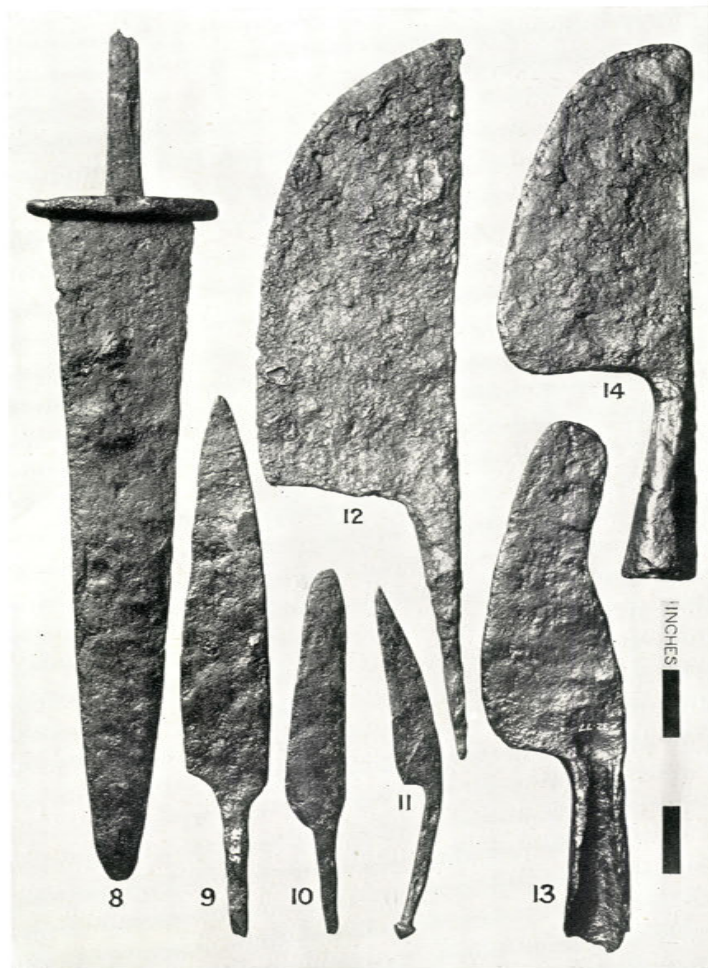
A. Group of bone and bronze objects from building II, r. 1 (See p. 218)



B. Iron hipposandals. (See p. 220)



A. Iron spearheads and shield-bosses. (See pp. 218-19)



B. Iron knives and choppers. (See p. 219)

4 and 5. Iron spear-head with damaged (probably closed) socket and part of iron shield-boss found together in an unsealed deposit which yielded late third-century coins.

6. Fragmentary iron spear-head with closed socket. From a deposit of late second- or early third-century date.

7. Pointed iron arrow-head or ferrule with quadrangular section and open socket. Whether this object actually served as the head of a heavy arrow or as a spear-butt it is difficult to say; the former is perhaps the more probable. From a fourth-century layer.

PL. LXIV B

8. Iron knife-dagger found beneath the late reconstruction of building III, 1, in association with late third-century coins.

9. Iron knife from an early second-century layer.

10. Iron knife found with mixed second- and third-century material in the filling of the cellar of building I, 1.

11. Iron knife found with Flavian pottery and a coin of Vespasian under building IV, 2.

12. Iron chopper with tang, found in building III, 2, in association with late third-century coins.

13. Iron chopper with open socket, not well stratified but prior to the latter part of the third century.

14. Iron chopper with closed socket, not stratified.

PL. LXV A

15 and 16. The box and the bolt of spring-padlocks. The box was found in a hypocaust-furnace in building IV, 8, and is not earlier, therefore, than the latter part of the second century. The bolt (no. 16) was found with late third-century coins.

17. Iron hook from a Hadrianic deposit.

18. Iron 'blaikie' or shoe-clamp found with late third-century coins.

19 and 20. Iron spade-shoes. No. 19 is from a deposit of the late third or fourth century, and no. 20 was found with a coin of Magnentius (A.D. 350-3).

PL. LXV B

21. Iron hook-key or latch-lifter, of early Iron Age type, found under the South-west Gate *ad nat.* A few pieces of Roman brick were found on the same level, but the key may be either pre-Roman or early Roman in date; from its position it is not in any case later than the Claudian period.

22. Iron key from pit 6 in Insula V: mid second century.

23-5. Iron keys from late third- and fourth-century filling of the cellar in building VIII, 2.

26. Iron key from the second- and third-century filling of the cellar of building I, 1.

27. Iron key found beneath building IV, 8, and therefore prior to A.D. 160.

28. Iron key from the make-up of a late third-century road adjoining the South-west Gate.

29. Iron key from a late second- or early third-century deposit.

30 and 31. Iron keys from the well in building IV, 8; c. A.D. 160-90.

PL. LXIII B

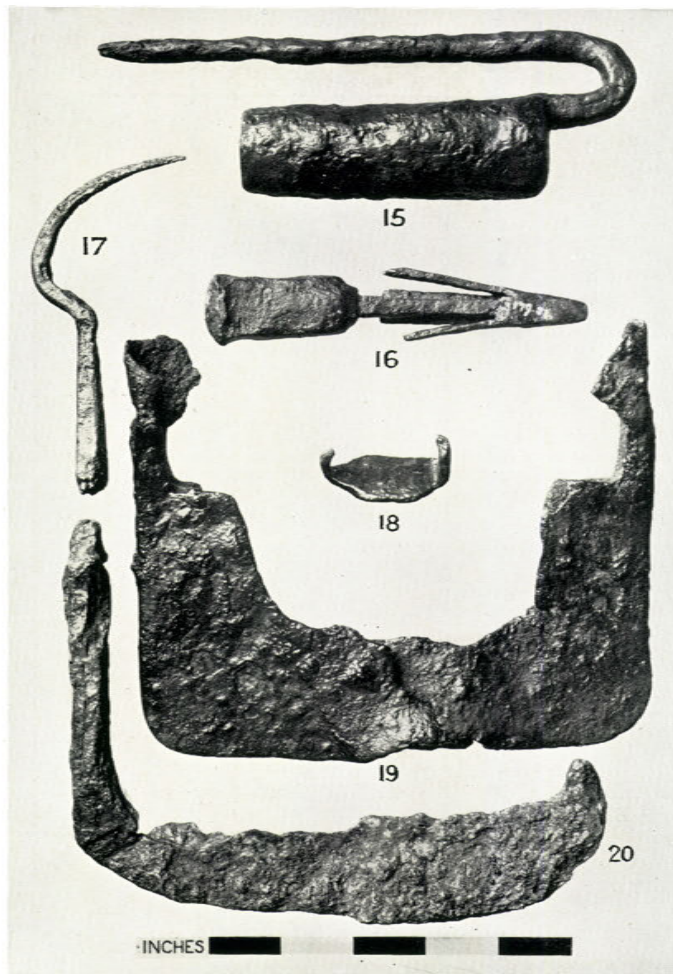
Hipposandals

About a dozen iron 'hipposandals' were found on the Roman site, and are here represented by four examples. There is now little doubt that these objects were, in fact, a form of readily adjustable and removable horseshoe (occasionally, ox-shoe), in use at a time when horses were doubtless worked frequently without shoes at all, and when a quickly adjustable shoe for road-work might be convenient. Occasionally the hipposandal is fitted with ice-nails, and in one case (an example from London, now in the British Museum) a normal horseshoe has been affixed to it as a secondary sole.

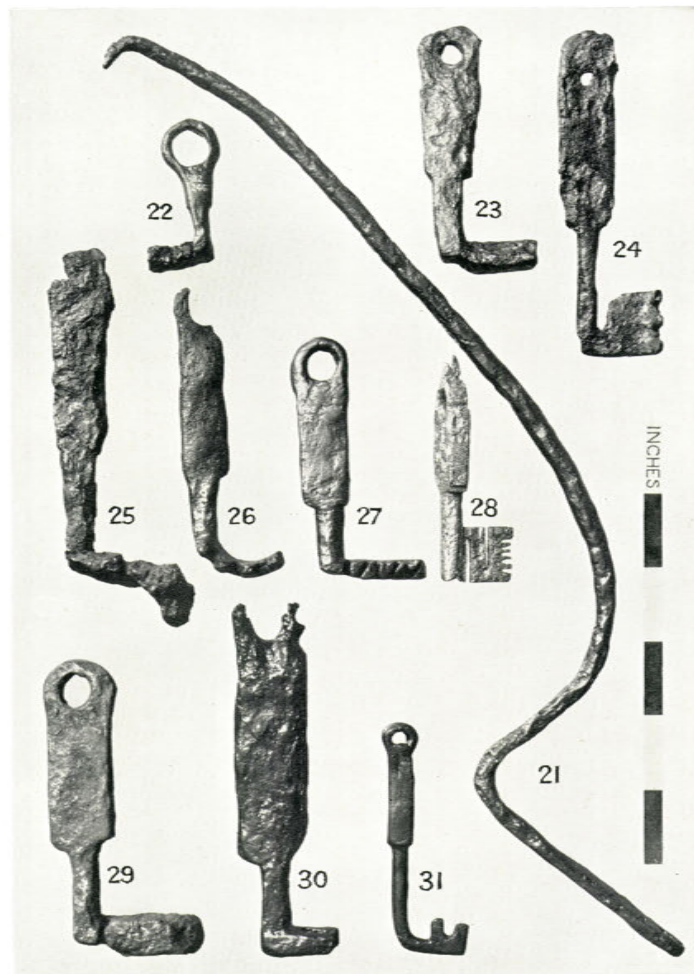
It has been observed that hipposandals are rare south of Macon and are absent from Italy. On the other hand they are common in northern Gaul and Britain; and they may be regarded therefore as one of the numerous idiosyncrasies of the Romano-Celtic culture of those regions. They are, indeed, an understandable improvisation on the part of a population to which metallised roads (and consequently hoof-protection) were a novelty.

Hipposandals vary in detail, and various attempts have been made to classify them typologically. On the whole the most convincing attempt is perhaps that of M. Xavier Aubert ('*Evolution des hipposandales: essai de classification rationnelle*', in *Revue des musées*, Dijon, 1929, no. 19, pp. 5, 53, and 75), who groups hipposandals into three classes. His earliest class has a long hooked or looped tang for attachment in front; his second and third classes, here illustrated, lack this clumsy feature and constitute improvements which may rather represent parallel developments than, as M. Aubert suggests, successive stages. More evidence as to the absolute dating of individual examples is required before any scheme can be regarded as proven, but Aubert's typology receives some support from the late date of the Verulamium specimens of his second and third classes.

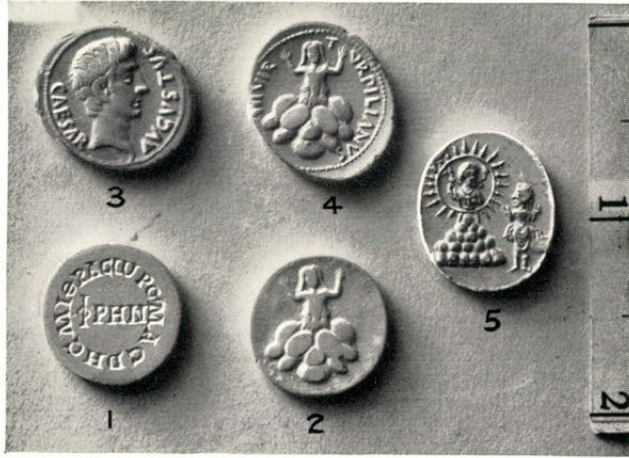
For hipposandals generally, see Aubert, as cited; L. Jacobi,



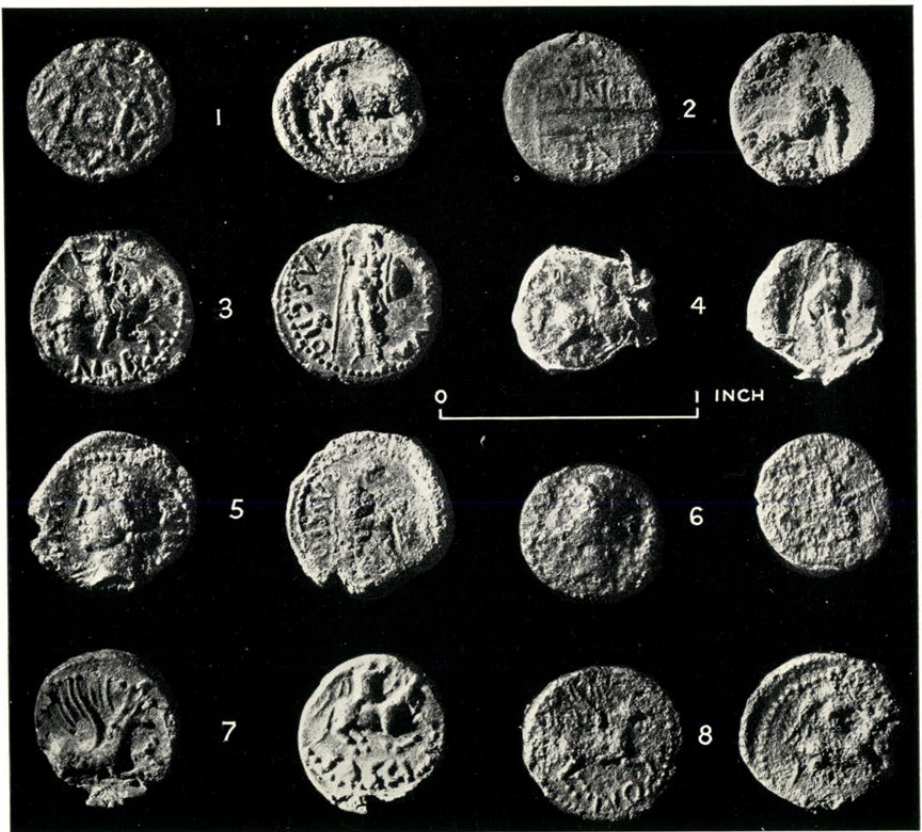
A. Iron objects. (See p. 219)



B. Keys. (See pp. 219-20)



A. 1 and 2, Mithraic token from building IV, 1; 3 and 4, denarius of Augustus to show original type; 5 Sassanian seal to show comparable Mithraic scene. (See pp. 221-2)



B. Belgic coins from Verulamium. (See pp. 226-7)

Das Römerkastell Saalburg, p. 529; Pitt-Rivers, *Excavations in Cranborne Chase*, i, 77; H. Corot, 'Essai de classification typologique et statistique des hipposandales', in *Pro Nervia, Organe du Syndicat d'Initiative de la région de Bavay*, iv, part i, pp. 4-19.

1. Hipposandal of the second of Aubert's three groups, with the wings meeting over the front of the hoof and ending in a loop. Found with late third-century coins south of building III, 1.

2. Similar hipposandal from the fourth-century surface of an adjacent street.

3 and 4. Two hipposandals of the third and latest of Aubert's groups, with the wings (here broken or bent) prolonged to clasp the hoof. Found together on the latest (fourth- or fifth-century) surface of the Watling Street near the South Gate (see pl. LXXXIV).

8. MITHRAIC TOKEN

PL. LXVIA 1 and 2

In the filling beneath one of the walls of building IV, 1, with material mostly of mid and late second-century date, was found a Mithraic token or *tessera* which appears to be unique. In origin it was a denarius of Augustus: *Obv.* Head of Augustus, bare, r. CAESAR AUGUSTVS, *Rev.*, Tarpeia, half buried under shields TVRPILIANVS IIIIVIR (as in pl. LXVIA, 3 and 4). The inscription had, however, been deliberately smoothed away from the reverse and the obverse had been rubbed completely blank and replaced by the following incised Greek inscription: ΜΙΘΡΑC ΩΠΟΜΑCΔΗC read inwardly from left to right in a circle, ΦΡΗN across the circle. The lettering is unlikely to be much earlier than A.D. 200, which is approximately the latest date ascribable to the object on stratigraphical grounds. Incidentally, the Δ for Δ shows us that we have to do with the Greek of a Latin-speaking province.

The *tessera* has been published by Mr. H. Mattingly in the *Numismatic Chronicle* (fifth series, xii, 1932), and thanks are due to him, to Mr. J. Allan, and to Professor F. Cumont for its elucidation.

The reverse type of the denarius has clearly been retained as a representation of the Mithraic nativity—Mithras born of the rock—much as that event is shown on the third-century Sassanian seal here illustrated (pl. LXVIA, 5). The interpretation of the incised inscription on the obverse is less easy, and the following note may be quoted from Mr. Mattingly's paper. 'ΜΙΘΡΑC, of course, is the Saviour God known throughout the Empire by that name. ΩΠΟΜΑCΔΗC ("Ormuzd") is recognized at once as the Persian supreme god. On Imperial monuments, however, he is normally

called by a Greek or Roman name (Zeus or Jupiter)—the use of the Persian form is unique. ΦΡΗΝ, the third of the trinity, can be none other than the sun-god, and, since the publication of the important inscription of Corduba,¹ can be taken for certain as a Greek form of *P'Re* (the divine name of the Egyptian sun-god with definite article) and a final N added, probably purely euphonic.' On the Corduba inscription, which dates from the reign of Elagabalus, ΦΡΗΝ is used as one of the three names of the sun-god. On the Verulamium *tessera* its use without the word 'ΗΛΙΟΣ suggests to Professor Cumont the probability that 'the Greek meaning of the word, "spirit", "intelligence", was retained and that ΦΡΗΝ might be at once a proper name, and a true characterization of the deity who was especially associated with spirit and intelligence'.

The precise use of the *tessera* can only be guessed. It may have been an amulet or, perhaps, some kind of pass used to obtain admission to Mithraic worship, or to show membership of one of the Mithraic degrees.

9. COIN-DIE

FIG. 49

A coin-die found in a secondary deposit, ascribable to the second half of the second century, in the north-eastern tower of the South-east Gateway, is of considerable interest as the only example hitherto found in Britain. It has every appearance of being an 'official' product and not a more or less fraudulent ancient imitation; its find-spot, in one of the great towers of one of the main city-gates, is consistent with this supposition. On the other hand, the relative softness of its metal might be cited in support of a less legitimate ancestry.

The die itself is of a hard bronze of which the following analysis² has kindly been supplied by Dr. H. J. Plenderleith of the British Museum, where the die is now preserved:

Copper	.	.	.	.	.	73.75 per cent.
Tin	.	.	.	.	.	14.54 „ „
Lead	.	.	.	.	.	6.55 „ „
Zinc	.	.	.	.	.	2.81 „ „
Nickel	.	.	.	.	.	Trace
Magnesium	.	.	.	.	.	Trace
						<hr/> 97.65

¹ *Archiv für Religionswissenschaft*, 1923-4, pp. 117 ff.

² The analysis was made from the metal of the backing of the die which, in the opinion of Dr. Plenderleith, is entirely similar to that of the die itself.

The authorities of the Royal Mint, who have kindly examined the die with special reference to its hardness and efficacy, remark that 'its hardness number on a Brinell machine is 150 (modern steel dies ordinarily show a hardness of 700-800), and it is doubtful whether the bronze of the die would strike in metals other than fine gold, fine silver, lead or similar soft media'. In point of fact, the die is that of the reverse of a *denarius* of Hadrian,

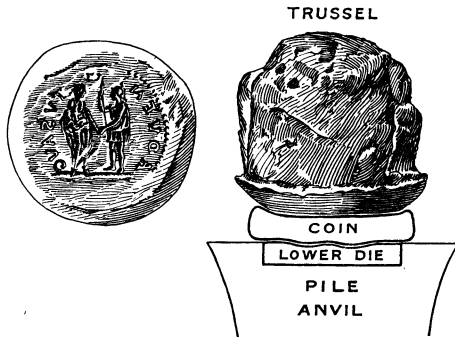


FIG. 49. Bronze coin-die from the South-east Gate, with diagram to show method of use. $\frac{1}{4}$. (See pp. 222-3)

whose silver coinage was struck in fairly pure silver which would conform with this condition.

The die has turned-up or bevelled edges and is backed by an irregular lump of bronze. It thus formed the 'trussel'; in use it was inverted upon the upper surface of the flan which was, in turn, placed upon an obverse die inset into the top of the anvil as shown in fig. 49.¹ The actual striking was effected by hitting the back of the trussel with a mallet.

The die shows Hadrian being received by Rome, within the legend *ADVENTVS AVG* (cf. M. and S. 224). This type is dated by Messrs. Mattingly and Sydenham to c. A.D. 134-8.

10. COINS

A. BELGIC COINS

Paradoxically, the excavation of the Belgic site at Verulamium added nothing to our knowledge of the Verulamium Belgic mint. Indeed, in the whole of the excavations only eight pre-Roman coins were brought to light. The opportunity, however, may be taken to print here the following general summary of the

¹ For the technique of ancient coin-striking, see G. F. Hill, *Numismatic Chronicle*, fifth series, II (1922), 1.

Verulamium coin-types which was written by Dr. G. C. Brooke, F.S.A., shortly before his premature death in 1934.

The signature of the mint of Verulamium occurs only upon coins of Tasciovanus. His gold coinage is of staters of approximately 85 grains, with quarter-staters in proportion. The stater has as its obverse type a floral design developed from the early laureate head model but now set into a definite decorative form; four leaved branches spring crosswise from four annulets which stand around two crescents in the centre of the field. Two of the branches are always curved and two straight, and in the angles of the irregular cross thus formed are wing-ornaments. The field of the coin is thus crowded with ornament and in this crowded surface are inserted, at the horns of the crescents, the letters VER in so minute a form as to be legible only under careful observation. The reverse design is the horseman riding to right, flourishing the *carnyx* above his head. Around the horse are the letters TASC, and over its head the wheel ornament.

A specimen of this coin was found with ten other gold staters of Tasciovanus in a hollow flint at High Wycombe in 1827. Another specimen is said to have been found at Old Sarum.

A variety of the preceding piece, also from the small High Wycombe hoard, omitting ER, places the initial only of the mint, V, beside the horn of one of the crescents but adds between the two crescents the letter T, presumably as the initial of Tasciovanus; the reverse is unchanged.

The quarter-stater, corresponding to these staters, has an obverse of similar design, but less crowded with ornament; the omission of the spreading wing-ornaments in the angles leaves space for the letters VER in larger and easily legible form, and the fourth angle is occupied by a cone-shaped foil (wrongly interpreted by Evans as the letter O); the reverse adopts the design of the earlier gold of Tasciovanus and of his predecessor Andoco(mius), a riderless horse with a bucranium above. The *carnyx*-bearing horseman was not, so far as we are at present aware, placed on the small denomination; on the Verulamium quarter-staters the riderless horse is the only reverse type; on other quarter-staters of Tasciovanus there are both the riderless horse and the winged horse.

The weight of the silver coins is usually between 19 and 22 grains. There are four varieties, described below:

1. An obverse design related to that of the gold coins; each of the four leaved branches of the cross is developed into a triple arm formed of two plain lines and one beaded line, but as on the gold two of the arms are straight and two curved; all ornament is discarded except a central panel, almost square, divided by diagonal lines; in the angles are the letters VERL. On the reverse is a finely designed boar charging to right, with the letters TAS above and a star below. Of three specimens known, two were found at Verulamium.

2. On the obverse an outline design of two intersecting squares, in the centre of which is an oblong panel bearing the letters DIAS, with C above and O or an annulet below; the reverse type is a riderless horse galloping to left, above the horse is a large crescent, and below it the letters VIR. The only published specimen (17½ grains) was found at Harlow in Essex. A variety

reading DEAS of uncertain provenance weighs $19\frac{1}{2}$ grains. The form Dias or Deas has been interpreted as a variant spelling of Tas for Tasciovanus (cf. the copper coins of type b, below).

3. On the obverse the letters VER in the centre of beaded circle. On the reverse a riderless horse to the right with the legend TASCIA around. The only specimen of known provenance was found at Verulamium.

4. Similar to the preceding, but the horse has a rider, and there is no legend on the reverse. Dorchester, Oxfordshire, is the only recorded provenance.

The copper coinage bearing the signature of the mint of Verulamium is more plentiful; on one type the name of the mint appears in full as *Verlamio*; VIRL is also found, and on the remainder the abbreviation *Ver*, or *Vir*, is used as on the gold and silver coins. The types are:

(a) The letters VERLAMIO between the limbs of a stellate ornament; on the reverse a bull to left, copying the Augustan coinage of 14-12 B.C.

(b) Head to the right with close-cropped hair and beard, with legend TASC behind or DIAS in front; on the reverse a centaur to right, playing pipes, VIR below.

(c) A similar head with TASC in front; on the reverse a pegasus to left with trefoil and annulet ornament above and the legend VIR below.

(d) Another, with similar head and TASC, has on the reverse a rider with *carnyx* (the letter V only legible below).

(e) A similar *carnyx*-bearing horseman with legend VIR has an obverse with shaggy head and the uncertain inscription read by Evans as RVFI.

(f) Head with shaggy hair and beard to right, the legend VIRL in front; on the reverse a hippocamp with trefoil and annulet ornaments above and the legend VIR or VIIR below.

(g) Head to left with close-fitting beaded collar, VER in front; on the reverse a goat to right with rosette above, no legend.

(h) Head to right, unbearded?; on the reverse a figure seated to left, VER below. One coin shows traces of an inscription in front of the head on the obverse.

(i) Small, beardless?, head to right with legend VER (?) in front; on the reverse a boar running to right.

(k) A similar reverse with the legend VER below the boar has an obverse with cruciform ornament, a development of the laureate profile, similar to the obverse design of gold coins.

Of the above ten types four have been found on the site of Verulamium and two others within the borders of Hertfordshire, the remaining four in Essex (Harlow, Great Chesterford, and near Saffron Walden). Specimens have also been found in Bedfordshire, Oxfordshire, Northamptonshire, and Cambridgeshire. The order in which the types are placed has no chronological significance.

The weight of the copper coins varies considerably, as does also their condition. The most frequent weight seems to be between 30 and 40 grains; all the recorded weights (about half a dozen) of type b are between 20 and 30 grains, and those of types g and i and some of type h fall below 20 grains.

Some of these copper coins have their counterpart in the coinage of

Tasciovanus on which no mint signature is borne; whether some or all of the unsigned coins of Tasciovanus should be attributed to the mint of Verulamium is an open question.

PL. LXVI B

Of the eight pre-Roman coins from the excavations, only one (no. 3) was found on the site of the Belgic city. Nos. 1, 4, 6, 7, and 8 were recovered from within the limits of the first-century Roman city; nos. 2 and 5 were found within the southern half of the second-century city. Except in the case of no. 1, which was unstratified, their context was in every case post-Conquest, but scarcely later than the principate of Claudius. The evidence is thus consistent with, though in itself scarcely proves, the continued circulation of pre-Roman coinage at Verulamium for a few years after the conquest.¹

Tasciovanus

No. 1.

Obv. A ring ornament in the centre of a star formed by two interlacing squares, the whole within a kind of wreath.

Rev. Bull, r. foreleg raised, standing on an exergual line, within a beaded circle.

Æ. J. Evans, *The Coins of the Ancient Britons*, pl. VII, 4, and p. 254. Unstratified.

This coin is uninscribed, but is otherwise similar to a coin which bears on the obverse VERLAMIO, and is therefore ascribed by Evans to the Verulamium mint. The bull of the reverse is derived from the silver coins of Augustus (Mattingly and Sydenham, *Roman Imperial Coinage*, pl. III, 40, and p. 88) dated to 14–12 B.C.

Cunobelin

No. 2.

Obv. CVNO[B]-ELINI in two compartments of a tablet within a beaded circle.

Rev. Victory, seated l. on a chair, right hand extended (and holding a wreath).

Æ. Evans, *op. cit.*, pl. XI, 7, and p. 231.

From the earliest occupation under the eastern end of building V, 1, to the west of the Watling Street in the southern half

¹ That British coins remained in use till the latter part of the first century A.D., either as currency or as bullion, alongside the Roman coinage in the remoter parts of Britain is certain and natural: e.g. five British coins were associated with eighteen Roman coins in a hoard deposited c. A.D. 75–80 at Honley, Yorks (I. A. Richmond, *Huddersfield in Roman Times*, pub. by the Tolson Memorial Museum, Huddersfield, 1925).

of the second-century city; found with three *asses* of Claudius I (M. and S., no. 66, 69). The bulk of the pottery from the same level was native in character but included Samian forms 18, 15/17, and 24/5 of Claudian types.

Nos. 3 and 4.

Obv. [CV]NOB. Naked horseman galloping r., brandishing a *carnyx* or a dart in his right hand (and holding a large oval shield on his left arm) within a beaded circle.

Rev. TASCIIOVAN[TIS]. Armed figure standing, with a plumed helmet on his head, right hand resting on spear, in left a circular buckler.

Æ. Evans, op. cit., pl. XII, 3, and p. 329.

No. 3 is from the surface of the road, built c. A.D. 40-50 across the dyke of the Prae Wood earthwork (above, p. 49).

No. 4 is from the earliest occupation, beneath the cella of the temple south-west of the theatre; the level contained an *as* of Claudius I and a moderate quantity of Claudian pottery.

Nos. 5 and 6.

Obv. CVNOBELIN. Beardless head, with the *petasus*, in profile to l., with either snakes or locks of hair appearing below the chin; within a beaded circle.

Rev. TASCIO. Figure, seated r., with hammer in right hand (at work on a hemispherical vase), within a beaded circle.

Æ. Evans, op. cit., pl. XII, 6, and p. 333.

No. 5 is from the earliest occupation in Insula IV; no. 6 is from the earliest occupation-level underneath the theatre: the pottery from the level was preponderantly native but included an early Samian form 18 and fragments of amphora.

Nos. 7 and 8.

Obv. CVNO. Pegasus springing to r., within a beaded circle.

Rev. TASCII. Winged Victory to r., sacrificing a bull, within a beaded circle.

Æ. Evans, op. cit., pl. XII, 7, and p. 335.

No. 7 is from the earliest occupation below the corridor of the temple south-west of the theatre; no. 8 from the earliest occupation-level north of the theatre: both were found in association with pottery of early post-conquest date.

B. ROMAN COINS

By B. H. ST. J. O'NEIL, F.S.A.

The coins in this list comprise all those found during the excavation of the southern part of the town in 1930-3 and of the defences, with the exception of the three hoards which are dealt

with above (pp. 62, 110). Smaller collections or hoards (less than ten coins each), although also mentioned in their appropriate places in the report have been included here. The coins found in the theatre, forum, and adjacent structures will be dealt with elsewhere in the detailed account of those buildings, and are therefore excluded from the following lists. They have, however, been summarized in the appropriate sections above (pp. 130-2) and are of historical importance by reason of the large proportion of late issues which they include. Amongst them are a number of minute coins of 'Lydney' type (p. 30; cf. p. 96).

The coins which are of interest to numismatists will form the subject of a paper at a later date in the *Numismatic Chronicle*, and Mr. C. H. V. Sutherland has kindly undertaken to prepare an account of the barbarous radiate issues.

The writer desires to express his gratitude for unflinching and constant help and advice in cases of doubt to Mr. Harold Mattingly and the other members of the staff of the Department of Coins and Medals of the British Museum, and to Mr. J. W. E. Pearce, F.S.A., in connexion with the latest Roman issues.

The reference-numbers for the Imperial coins are those of M. and S. (= Mattingly and Sydenham, *Roman Imperial Coinage*, vols. i, ii, iii, and v), unless otherwise marked. C. = Cohen, *Monnaies frappées sous l'empire romain*, 2nd ed. From the time of Valentinian I onwards reverse types are given to facilitate reference. The name of an emperor in brackets after a reference-number indicates that the coin was struck by or for him, when Caesar, during the reign of another ruler, e.g. Vespatian 191 (Titus) means that the coin is of Titus during Vespatian's lifetime. The name of an emperor in brackets at the beginning of the reference-numbers, e.g. Sabina (Hadrian), indicates that the reference-numbers are those of coins listed under that emperor, since in M. and S. (vols. ii and iii) no separate numbering is given for empresses, or for princes who did not actually become emperors. Numbers in square brackets indicate the number of coins of the particular type. The plus sign + following the mint-marks within brackets indicates the number of coins of the particular type, of which the mint-marks are illegible. The letters 'var.' following a number indicate that the coin is a slight variant in type from that of the particular reference-number and has therefore, apparently, not been recorded previously.

TABLE OF ROMAN COINS

<i>Emperor</i>	<i>Date</i>	<i>AR</i>	<i>Æ</i>	<i>References</i>	<i>Total</i>
<i>Republic</i>					
Marcus Antonius	33-1 B.C.; 31 B.C.	2		B.M.C. ii, p. 529, no. 211, and illegible galley type.	2
<i>Empire</i>					
Augustus	23 B.C.-A.D. 14		3	364, ? <i>Rev.</i> Altar of Lugdunum, <i>As</i> of Drusus (countermarked TIB AVG).	3
Tiberius	A.D. 14-37		2	32 [2].	2
Claudius I	A.D. 41-54		32	66 [24 (including 4 barbarous) + 1 doubtful], 69, 82 [5], 1 illeg. <i>As</i> (countermarked ? QR).	32
Nero	A.D. 54-68		23	214, 286, 304, 321 [3], 329 [6], 342, 364 [2], 376 ff., 388, 402 or 405, + 4 <i>Asses</i> illegible.	22
Galba	A.D. 68-9		1	20 (variant <i>obv.</i> not laureate), + 1 <i>As</i> illegible.	2
Vespasian	A.D. 69-79		4	35 75 [2], 191 (Titus), 244 (Domitian), ? 479, 482 (var.), 483, 487, 494, ? 495, 497 [4], 500 [2], 502 (var.), 528, 599, 699 (Domitian), 740 [4], 746 (var.), 747 (var.), 761, 764 <i>b</i> , 786 [2] (Titus), 785 (Titus), 789 <i>a</i> (Titus), 804 (Titus) + 5 <i>Asses</i> illegible.	39
Titus	A.D. 79-81		1	24 <i>a</i> .	1
Domitian	A.D. 81-96		1	15 133, 279 <i>a</i> , 299 <i>b</i> , 302 <i>a</i> , 313, 333, 335, 338 (var. and barbarous), 356, 357, 392, + 1 <i>Dupondius</i> , and 4 <i>Asses</i> illegible.	16
Nerva	A.D. 96-8		1	4 16, ? 60, 79, 84, 86.	5
Trajan	A.D. 98-117		2	21 271, 337, 385, ? 411, 417, 434 [2], 492, 516, 522, 527, 531, 533, 540, 563, 586, 593, 614, 653, 657, 675, + 1 <i>Dupondius</i> illegible, and 1 barbarous.	23
Hadrian	A.D. 117-38		4	18 94, 170, 307, 440 (Aelius Caesar), ? 570, 577, 578, 600 <i>a</i> , 604 <i>a</i> , 714 <i>b</i> , 743, 777, 975, 1083 (Antoninus Pius), + 3 <i>Sestertii</i> , 2 <i>Dupondii</i> , and 4 <i>Asses</i> illegible.	22

TABLE OF ROMAN COINS (*cont.*)

<i>Emperor</i>	<i>Date</i>	<i>R</i>	<i>Æ</i>	<i>References</i>	<i>Total</i>
Sabina			3	(Hadrian) 1023, 1024, + 1 illegible.	3
Antoninus Pius	A.D. 138-61		24	574, 635 [2], 678, ? 765, 798, 908, 920, 924 (var.), 930 [4], 934 [4], 1031, + 4 <i>Sestertii</i> (one Marcus Aurelius as Caesar), and 1 <i>As</i> illegible, also 1 new type (not in M. and S.)—viz. ANTONINVS AVG PIVS P P COS III(1) laur. (?) dr. r. AETERNITAS SC Juno stg. l. holding patera and sceptre—Sestertius.	24
Faustina I	Died A.D. 140		9	(Antoninus Pius) 1103a, 1125 [2], 1162 [3], 1170, + 1 <i>Sestertius</i> illegible, and 1 <i>Sestertius</i> barbarous.	9
Marcus Aurelius	A.D. 161-80	2	8	311, 359, 969/70, 1033, 1033-6, 1227, 1269, 1600 (Commodus), + 1 <i>Sestertius</i> , and 1 <i>As</i> illegible.	10
Lucius Verus	Died A.D. 169		1	(Marcus Aurelius) 1484.	1
Faustina II	Died A.D. 175		7	(Marcus Aurelius) 1381, 1395, 1403, 1619, 1642, ? 1672, + 1 illegible.	7
Lucilla			3	(Marcus Aurelius) 1747, 1750, 1759.	3
Commodus	A.D. 180-92	1	6	22, 478, 563, + 4 <i>Sestertii</i> illegible.	7
First or second century			18	4 <i>Dupondii</i> (1 ? Nero, 1 ? Nerva, 1 ? Trajan), 4 <i>Asses</i> (1 ? Nero, 1 ? Vespasian, 1 ? Domitian, 1 ? Marcus Aurelius), 10 other 2 <i>Æ</i> (1 ? early first century, 1 ? Claudius I, 1 ? Nero, 1 ? Marcus Aurelius).	18
Septimius Severus	A.D. 193-211		6	C. 87, 177, 424, + 3 <i>denarii</i> illegible.	6
Julia Domna	" "		4	C. 72, 97, 156, 211.	4
Caracalla	A.D. 198-217		6	C. 195, ? 243, 509, 545, 587, ? 606.	6
Geta	A.D. 209-12		5	C. 38, 157, 183, 192, 206.	5
Elagabalus	A.D. 218-22		3	C. 38, 276, + 1 not in C. (IMP ANTONINVS AVG laur. r. PVDICITIA Pudicitia seated l.)	3
Julia Maesa	" "		1	C. 52.	1

Severus Alexander

Julia Mamaea

Gordian III
Trebonianus Gallus
Valerian I
Valerian II
Gallienus

A.D. 222-35

” ”

A.D. 238-44

A.D. 251-3

A.D. 253-9

A.D. 253-5

A.D. 253-60 (Joint)

A.D. 260-8 (Sole)

4 | I | C. 187, 569, 580, +1 *denarius* illegible, and 1 *denarius* not in C.
(IMP SEV ALEXAND AVG laur. r. LIBERALITAS AVG
Lib. l. with palladium (?) and cornucopiae.

| I | C. 9.
All *Antoniniani*.

C. 319.

C. 128.

70, 72, 101, 106, 117, 126 or 128.

8, 9.

18, 45.

157 (B | [5], |), 159 (| , ? | Z, ? | H), 160 (Γ |), 163 (| Z),

164 (| H [2], +1), 165 var. (| B), 176, 179 (| X [2], | XI, | XII),

180 (| S), 181 (| XI [2], | XII [2], +1), 193 (| , +1), 194 (| S),

197 (Q |), 207 (| S , |), 207 ff. (illeg.), 208 (| N, ? | H |),

214 (X | |), 226 (| V, | , +2), 230 (| B, | D), 233 (| XI, +1),

236 (H | [3], |), 241 (|), 236-41 (illeg.), 253 (| Δ),

256 (T | , V | , +2), 267 (| X, +1), 270 (? | P [2], +2), 278 (| VI),

280 (? | H, 283 (| A [2], | H [2], +1), 287 (| € [2], | , +1),

297 (Z |), 297-9 (illeg.), 305 (T |), 325 (illeg. [2]), 473 (illeg.),

490 (|), 572 (| S), 575 (S |), ? 585 (|), +9 with reverse illegible.

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TABLE OF ROMAN COINS (*cont.*)

<i>Emperor</i>	<i>Date</i>	<i>References</i>	<i>Total</i>
Salonina	A.D. 253-60 (Joint)	29 [3], 31.	4
	A.D. 260-8 (Sole)	5 (Δ , 52, 31 (\perp), 32 ($\frac{\perp}{Q}$).	4
Claudius II	A.D. 268-70	12 (\perp), (14 $\frac{\perp}{S}$, $\frac{\perp}{H}$, \perp , +1), 16 (illeg.), 18 (? \perp), 19 (Δ [2]), 18/19 (\perp [2], +1 doubtful), ? 31 (illeg.), 34 (\perp), ? 34 (illeg.), 36 (XI , +1), 38 (ϵ), 45 (Γ), 46 (\perp [2]), 54 (? $\frac{\perp}{S}$, \perp [6]), 55 (N), 54/5 (\perp), 57 var. (\perp), 61 (\perp [3]), 66 (\perp), ? 79 (\perp), 79/80 (\perp), ? <i>Pax</i> type [2], 81 (A , +1), 85 (illeg.), 89 (\perp), 91 (\perp [2]), 94 ($\frac{\perp}{S}$), 98 (\perp [2]), 98/9 (\perp [2]), 102 (\perp), 105 (A [6]), 106 (\perp), ? 104-7 (illeg.), 109 (ϵ , \perp [3]), 109/10 (\perp), 137 ($\frac{\perp}{S}$), 145 (illeg.), 172 ($\frac{\perp}{P}$), 178 (\perp), 195 ( $*|II$), ? <i>Virtus</i> type [1], 259 (double-struck), 261/2 [35-one ? $\frac{\perp}{XXI}$], 266 [21], 274 ? <i>Ubertas</i> type [1], <i>Rev.</i> illeg. [2], barbarous 4 (incl. 1 <i>Altar</i> type).	135
Quintillus	A.D. 270	7 var. (N), 18 (ϵ), 28 ($\frac{\perp}{S}$), 29 ($\frac{\perp}{S}$), 31 (XI [2]).	6

Aurelian	A.D. 270-5	237 (<u>*|S</u>).	I
Tacitus	A.D. 275-6	65 (<u>Δ|*</u>), 93 (<u>XXIΔ</u>).	2
Probus	A.D. 276-82	129 (<u>B|</u>), 348 (<u>TXXT</u>).	2
Carus	A.D. 282-3	35 (<u>?|KAA</u>).	I
Numerian	A.D. 283-4	397 (<u>C|</u>).	I
Diocletian	A.D. 284-305	53 (<u>|P</u>).	I
Postumus	A.D. 259-68	54 [2], 53-7, 59 [2], 67, 73 [4], 85, 89, 90, 90 var., 93, 289, 309 [2], 318 (<u>P|</u> [4], <u>V|*</u>), 331, 373 (<u>|S</u>), +1 ? Jupiter type, and 1 barbarous ? Hercules type.	27
Victorinus	A.D. 268-270	46, ? 51 [2], 57 [4], ? 57, 58 var., 61 [3], 67 [7], 71 [12], ? 71, 78 [11], 109, 110 [2], 114 [13], 118 [10], ? 118 barbarous, 2 with reverses illegible.	72
Tetricus I	A.D. 270-3	56 [4], 56/7 [2] 68, 70 [2], 71 [4], 68 or 70, 69 or 71 [2], ? 69 or 71, 76 [2], 77 [3], 76 or 79 [3], 80 [6], 79/80, ? 76-81 [2-one barbarous], 86 [3], 87 [4], 88 [7], 87/8 [2], 90 [2], 86-90 [17], 100 [20], ? 100 [2], 101 [3], 101 var. (<u>V|*</u>), 100/101 [7], 100-102 [6], ? 100-2, 106, 109 (barbarous), 112, 121 [3], 121 or 123 [2], 126 [8], 127 [7], 126/7 [4], 121-7 [2], 130-1, 132 [3], 132/3 [2-one barbarous], 130-4 [3-one barbarous], 136 [8], 130-6 [2], ? 130-6, 141 [9], 141 (barbarous), 145, 146 [2], 148 [2], 14 with reverses illegible, 7 barbarous (including 1 <i>Laetitia</i> type, 2 ? <i>Pax</i> types, 1 <i>Pietas</i> type, 1 <i>Spes</i> type).	193

TABLE OF ROMAN COINS (*cont.*)

<i>Emperor</i>	<i>Date</i>	<i>References</i>	<i>Total</i>
Tetricus II	A.D. 270-3	224, 224 var., 229, 232, 234 (*|), ? 238/9, 1 semi-barbarous <i>Laetitia</i> type, 248 [11 including 3 barbarous], 248 var., 250 var., 254 [2], 254/5 [3], 258 [8], 254 or 8 [5], 259 [4], 258/9, 260 [5], 1 <i>Salus</i> type var. <i>obv.</i> (bust left) semi-barbarous, 270 [14], 270/1 [2], 272 [8], 270 or 272 [8], 274 [3], 272-4 [5], 270-4 [4], 277 [2], 280, 6 with reverses illegible, 8 barbarous (including 1 <i>Comes Aug</i> type, 1 <i>Hilaritas</i> type, 1 <i>Pietas</i> type, 1 <i>Salus</i> type, 1 <i>Spes</i> type, 1 <i>Virtus</i> type).	111
Tetricus I or II	A.D. 270-3	1 <i>Pax Aug</i> with transverse sceptre, obverse—TETRICVS—otherwise illigible.	1
Carausius	A.D. 287-93	1 new type Bust. 1A VICTORIA CARAVSI AVG Three victories to front, heads turned l. each holding wreath and palm $\frac{|}{SP}$ (London), 28 $\left(\frac{|}{ML}\right)$, 30 var., ? 34 $\left(\frac{|}{\quad}\right)$, ? 50, 98 $\left(\frac{S|P}{MLXXI}, \frac{S|P}{ML}, \frac{|}{ML\text{||||}}$), ? 98 $\left(\frac{F|O}{\text{|||||}}$), 101 $\left(\frac{F|O}{ML} [6+1 \text{ barb.}], \frac{B|E}{MLXXI} [2], \frac{L|}{ML} [2], \frac{|}{ML}, \frac{B|E}{ML}, \frac{|}{M\text{||||}}$), 98 or 101 $\left(\frac{F|O}{\text{|||||}}$), 98-108 $\left(\frac{F|O}{ML}, \frac{B|E}{ML}\right)$, 118 $\left(\frac{S|P}{MLXXI} [5], \frac{|P}{MLXXI}, \frac{B|E}{MLXXI}, \frac{S|P}{ML}\right)$, 119 $\left(\frac{F|O}{ML}\right)$, 121 $\left(\frac{F|}{ML}, \frac{F|O}{MLXX}, \frac{|}{ML}, \frac{|}{XX}\right)$, 143 $\left(\frac{S|P}{MLXXI} [2]\right)$, 155 $\left(\frac{|}{ML} [2], \frac{|}{M\text{||||}}$	144

		$\frac{B|E}{\text{|||||}}, +1$), 212 ($\frac{|}{C}$), 256 ($\frac{S|C}{C}$), 288 ($\frac{|}{MC}$), 298 ($\frac{S|C}{\text{|||||}}$), 300 ($\frac{S|P}{C}, \frac{|}{C}$), 301 ($\frac{S|P}{C}$), 303 ($\frac{|}{C}$ [2]), 322 ($\frac{|}{C}$), ? 322 (? $\frac{|}{C}$), 354 ($\frac{S|P}{C}$), 421 ($\frac{|}{C}$), 469 (S'C), 470 var. (S'C), 471 (S|), 475 (S|P [2], S|C), 484-6 (S|C), 513 (S'C), 527 var. (S|C), 615 (RSR), 732, 736, 783, ? 807 var. [2], 855, 855 var., ? 855, ? 878, 880 [7], ? 880 [2], 878 or 880, 881, 883 [5], 878-83 [12], 888 var., 893, 895 [2], 898 [2], ? 918, 927, ? 961, 983 [2], ? 983, ? 985, 988, ? 988, 1020 [2], 1038, 1040 var., 5 other <i>Pax</i> types <i>obv.</i> illeg., 7 with reverses illegible, 1 double-struck coin (illegible), 3 overstruck coins, 3 barbarous (including 1 <i>Laetitia</i> type).	
Allectus	A.D. 293-6	22 ($\frac{S|A}{ML}$), 28 ($\frac{S|P}{ML}$ [2]), 33 ($\frac{S|A}{ML}$ [3]), 45 ($\frac{S|P}{ML}$), 55 ($\frac{|}{QL}$ [3]), 86 ($\frac{S|P}{C}$), 128 ($\frac{|}{QC}$ [5]), 55 or 128, 1 with reverse illegible.	18
Radiate Crowns	c. A.D. 253-96	Including 1 ? Valerian I, 4 ? Gallienus, 8 ? Claudius II, 1 ? ditto posthu- mous, 1 ? Probus, 6 ? Postumus, 8 ? Victorinus, 1 ? Postumus or Victori- nus, 39 ? Tetricus I, 8 ? Tetricus II, 9 ? Tetricus I or II, 3 ? Postumus or Tetricus I, 3 ? Carausius. Of those with obverse quite illegible 1 is ? <i>Abundantia</i> type, 1 ? <i>Comes</i> , 4 ? <i>Laetitia</i> , 6 ? <i>Pax</i> , 4 ? <i>Salus</i> , 5 ? <i>Spes</i> , 1 ? <i>Victoria</i> , 3 ? <i>Virtus</i> . Entirely illegible 17. (These will be dealt with fully in a later article in <i>Num. Chron.</i> by Mr. C. H. V. Sutherland.)	134
Barbarous Radiates			128

TABLE OF ROMAN COINS (*cont.*)

<i>Emperor</i>	<i>Date</i>	<i>References</i>	<i>Total</i>
		All <i>Æ</i> except where specified (Julian <i>Æ</i> , Valentinian I <i>AV</i> , Valens <i>Æ</i>).	
Maximian	A.D. 286-308	Richborough I. 549 ($\frac{S|F}{PTR}$).	1
Galerius	A.D. 293-311	C. 83.	1
Licinius I	A.D. 308-24	C. 49 ($\frac{S|F}{PLN}$, $\frac{T|F}{PTR}$), 74 ₁ ($\frac{X}{||\Gamma}$ SMHB).	3
Constantius I	A.D. 293-306	C. 62 ($\frac{S|F}{ITR}$).	1
Constantine I	A.D. 306-37	C. 16 (<i>PTR</i>), 20 (<i>STR</i> •, <i>STR</i> •, <i>PTR</i> •), 123 (<i>ASIS</i> , <i>TT</i>), 246 (illeg.), 247 ($\text{▨}CONST$), 254 (<i>PCONST</i> , <i>TR</i> •S, <i>TR</i> • ▨ , +1), 255 (illeg.), 253-5 (<i>PLG</i>), 487 <i>PLON</i> ∪, 511 ($\frac{T|F}{PTR}$ [2]), 534 ($\frac{*|}{PLN}$), 536 ($\frac{T|F}{PLN}$, $\frac{F|T}{PLG}$, $\frac{C|S}{\text{▨}ARL}$), 664 (<i>PTR</i>).	22
<i>Constantinopolis</i>	A.D. 330-7	C. 21 (<i>TRP</i> *•, <i>TRP</i> •, <i>[T]RS</i> , <i>TR</i> ▨, • <i>PLG</i> , ∪ <i>PLG</i> , <i>BSIS</i> , +6).	13
<i>Urbs Roma</i>	A.D. 330-7	C. 17 (<i>PLG</i> , • <i>PLG</i> , ∪ <i>PLG</i> , <i>SLG</i> , * <i>SLG</i> , <i>PTR</i> , <i>CONST</i> , $\text{▨}CONST$, * <i>ΓSIS</i> *•, +2).	11
<i>Helena</i>	Died A.D. 328	C. 4 [2 illeg.].	2
Crispus	A.D. 317-26	C. 6 ($\frac{C|R}{PLG}$), 22 (• <i>PTR</i> •), 31 (• <i>AQS</i> •, (<i>T</i> ∪ <i>E</i>), 113 (<i>STR</i>), 175 (<i>H|S</i>).	6

Constantine II	A.D. 317-40	C. 16 ($\overline{\text{P L O N}}$), 113 (? $\overline{\text{TRP}}$, $\overline{\text{TRS}}$, $\overline{\text{TR}}$, +1), 113-15 ($\overline{\text{TRP}}$), 116 ($\overline{\text{TRS}}$), 122 ($\overline{\text{PLG}}$, $\overline{\text{TRS}}$).	9
Constantius II	A.D. 324-61	C. 35 ($\overline{\text{PARL}}$), 46 ($\overline{\text{AMB}}$, $\overline{\text{TRP}}$, +2), 47 ($\overline{\text{SMK}\Delta}$, +1), 92 ($\overline{\text{TRS}}$, $\overline{\text{PLG}}$), 93 ($\overline{\text{TRP}}$), 104 ($\overline{\text{TR}\cdot\text{P}}$, $\overline{\text{TR}\cdot\text{S}}$, $\overline{\text{TRS}}$, ? $\overline{\text{PLG}}$), 105 ($\frac{\text{R}}{\overline{\text{CONST}}}$), 104/5 (illeg.), 293 ($\frac{\text{M}}{\overline{\text{PARL}}}$ [2]), +1 Barbarous <i>Fel. Temp. R.</i>	20
Constans	A.D. 333-50	C. 22 ($\overline{\text{TRP}}$, $\overline{\text{TR}}$, +1), 52 ($\overline{\text{TRS}}$), 55 ($\overline{\text{TRP}}$, $\overline{\text{TR}}$), 65 ($\frac{\text{M}}{\overline{\text{TRP}}}$), 179 ($\frac{\text{D}}{\overline{\text{TRS}}}$ [2], $\frac{\text{D}}{\overline{\text{TRP}}}$, +1).	12
Constantius II or Constans	A.D. 340-61	<i>Fel. Temp. Reparatio.</i> ($\overline{\text{PLG}}$, ? $\overline{\text{PLG}}$, $\overline{\text{T}}$, $\overline{\text{TRP}}$, +3), Barbarous ditto 15, Two victories ($\frac{\text{D}}{\overline{\text{TRP}}}$, +1).	24
House of Constantine	A.D. 330-42	<i>Gloria Exercitus</i> , Two standards ($\overline{\text{TR}}$, +5), One standard (? $\overline{\text{TRS}}$, +1).	8
Magnentius	A.D. 350-3	C. 5 ($\frac{\text{A}}{\overline{\text{TRP}}}$, $\frac{\text{A}}{\overline{\text{TRP}}}$), 8 (illeg.), 31 (illeg.), 71 ($\overline{\text{AMB}}$, +2), 72 [2 barbarous].	9
Decentius	A.D. 351-3	C. 43 (illeg.).	1
Julian	A.D. 355-63	Æ C. 158 ($\overline{\text{TCON}}$).	1
Valentinian I	A.D. 364-75	AV ($\overline{\text{VICTORIA AVGG}}$ Two emperors seated facing $\overline{\text{TROBT}}$), <i>Gloria Romanorum</i> ($\frac{\text{M}|\text{R}}{\overline{\text{ASISC}}}$, $\frac{\text{F}}{\overline{\text{BSISC}}}$, $\overline{\text{SCON}}$, $\overline{\text{CON}}$, $\frac{\text{O}|\text{FI}}{\overline{\text{PS}}}$, $\overline{\text{LVG}}$)	16

TABLE OF ROMAN COINS (cont.)

<i>Emperor</i>	<i>Date</i>	<i>References</i>	<i>Total</i>
Valentinian I (cont.)		$\frac{O|FII}{LVGSD}, \frac{O|FII}{LVG\text{||||}}, \frac{O|FII}{LVG\text{Q}\text{S}}, +I), \textit{Securitas Reipublicae} (\overline{RSECVNDA},$ $\overline{SMAQS}, \overline{SMAQ\text{||||}}, \frac{\cdot|}{TCON}, \frac{N|}{SCON}, +I).$	
Valens	A.D. 364-78	$\mathcal{R} \textit{Vrbs Roma} \textit{ Type I} (\overline{TRPS}). \textit{Gloria R.} (\overline{PCON}, \frac{|B}{SMAQP}, \frac{\text{✠}|}{TRS},$ $+I), \textit{Secur.} (\overline{PCON} [2], \overline{SCON}, \text{||||CON}, \frac{N|}{PCON}, \frac{O|I}{\text{||||CON}}, \frac{O|II}{CONST},$ $\frac{O|III}{CON*}, \frac{O|II}{?CONST}, \frac{O|I}{?LVG\text{||||}}, \frac{O|I}{LVGP}, \frac{O|I}{LVGPD}, \frac{O|I}{LVGPR}, \frac{O|I}{LVGP},$ $\frac{O|I}{LVGP\text{||||}}, \frac{P|}{\text{||||||||}}, +I), \textit{Vot X Mult XX LVG}.$	23
Gratian	A.D. 367-83	$\textit{Gloria Novi Saeculi} (\overline{TCON} [5], \frac{O|II}{CONS}, \frac{O|III}{CON*}, \frac{O|I}{\text{||||||||}}, \frac{O|I}{\text{||}}, +I),$ $\textit{Gloria Ro.} (a) \textit{Augg. Aug.} (\frac{O|FII}{LVGS}), (b) \textit{P f Aug.} (\frac{FR}{\text{A}} \overline{\Delta SISCVE}$ $\overline{SMAQP}), \textit{Secur. (Augg. Aug.)} (\frac{O|I}{[LVG]\text{||||}}, \frac{O|I}{C\text{||||}}), \textit{I Votive}$ <p style="margin-left: 2em;">reverse (illeg.).</p>	16

House of Valentinian I	A.D. 364-83	<i>Gloria Ro.</i> (OF|III, O|FII CON, [2], + 2), <i>Secur.</i> (OF| [2], + 4).	10
Magnus Maximus	A.D. 383-8	<i>Spes Romanorum</i> (LVGP, +1), <i>Votis V</i> (TCON).	3
Valentinian II	A.D. 375-92	<i>Salus Reipublicae</i> (illeg.).	1
Theodosius I	A.D. 379-95	<i>Salus Rei.</i> (AQP, AQS, +1), <i>Victoria Auggg.-I</i> Victory (SCON, TCON [2], TCON, TR, +1), ? same reverse (? PCON).	10
Arcadius	A.D. 383-408	1 Victory (PCON, TRP, +1), ? the same reverse and ? Arcadius (TR [2]).	5
Honorius	A.D. 393-423	<i>Salus Rei.</i> (DN ONORI|VS PF AVG) 2 illeg.	2
House of Theodosius I 'Minimi'	A.D. 388-95	<i>Salus Rei.</i> (RT, R [2], + 2), ? ditto 1 (illeg.), 1 Victory (CON, + 2. i.e. barbarous coins smaller than smallest Theodosian 4 <i>Fel. Temp. R.</i> type, 1 <i>Constantinopolis</i> , 3 Lydney type C, 7 Lydney type D, 4 Lydney type E. The 'Lydney' reverses, where identifiable, are of the <i>Fel.</i> <i>Temp. R.</i> type. 1 ? Tetricus I type.	9 21
Illegible		1 ? <i>denarius</i> of Severan age, 9 ? radiates, 1 ? hybrid-diademed head and perhaps <i>Spes</i> with flower reverse, 5 4th century, and 5 ? 4th century. Remainder [18] quite illegible, but 3rd or 4th century.	39
		TOTAL	1668

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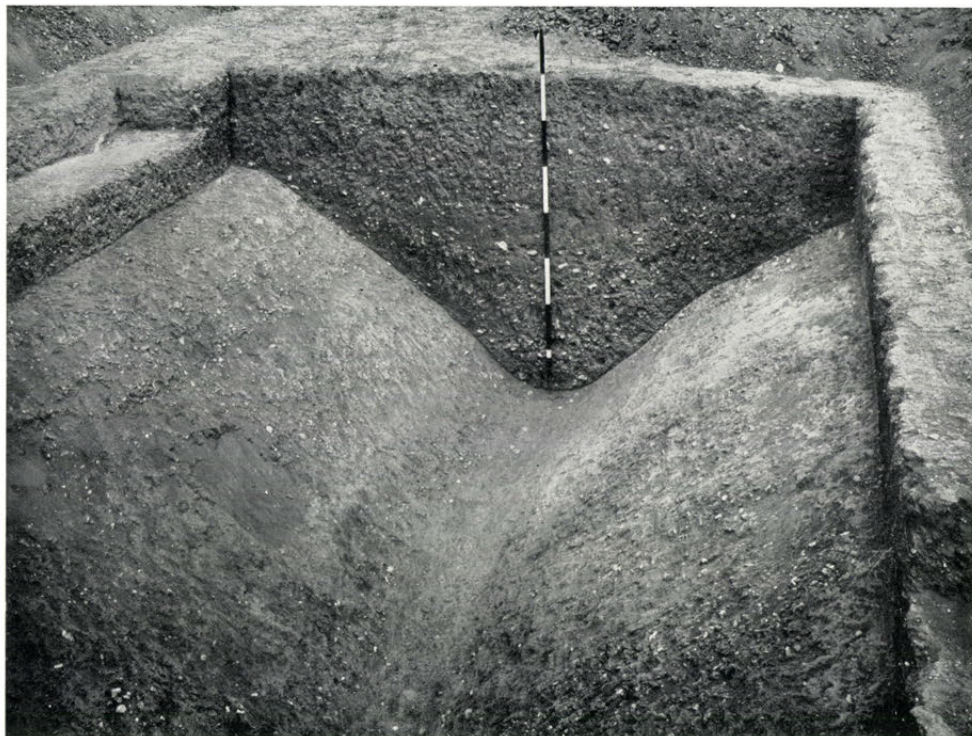
A. The Verulamium 'Devil's Dyke', near Mayne's Farm, looking north-east
(See p. 15)



B. Belgic Verulamium: main dyke as now visible between Prae Wood Farm
and Prae Wood (in left background). (See p. 40)



Belgic Verulamium : main dyke as now visible at north corner in Prae Wood. (See p. 40)



A. Belgic Verulamium : inner or main dyke as excavated in Pond Field. (*See p. 40*)



B. Belgic Verulamium : end of ditch in Prae Wood (Site VII on plan, pl. XI), showing lip of ditch and unexcavated silt. (*See p. 47*)



A. Belgic Verulamium: site at east corner of Pond Field (plan, pl. XII), showing main dyke (A), successive early Roman roads across filling of dyke (F, G), and subsequent well-shafts (E, E)



B. The same site after the removal of the Roman roads, showing continuous Belgic dyke (A, A), met at right-angles by palisade-trench (B)—'intermediate palisade A' on plan, pl. CXVIII—and cut obliquely by slots (C, C) for terminal barricade. The recurved end of the added outer ditch (plan, pl. XII), cut into the silt of the main dyke, as shown at (D). (See pp.41, 48)

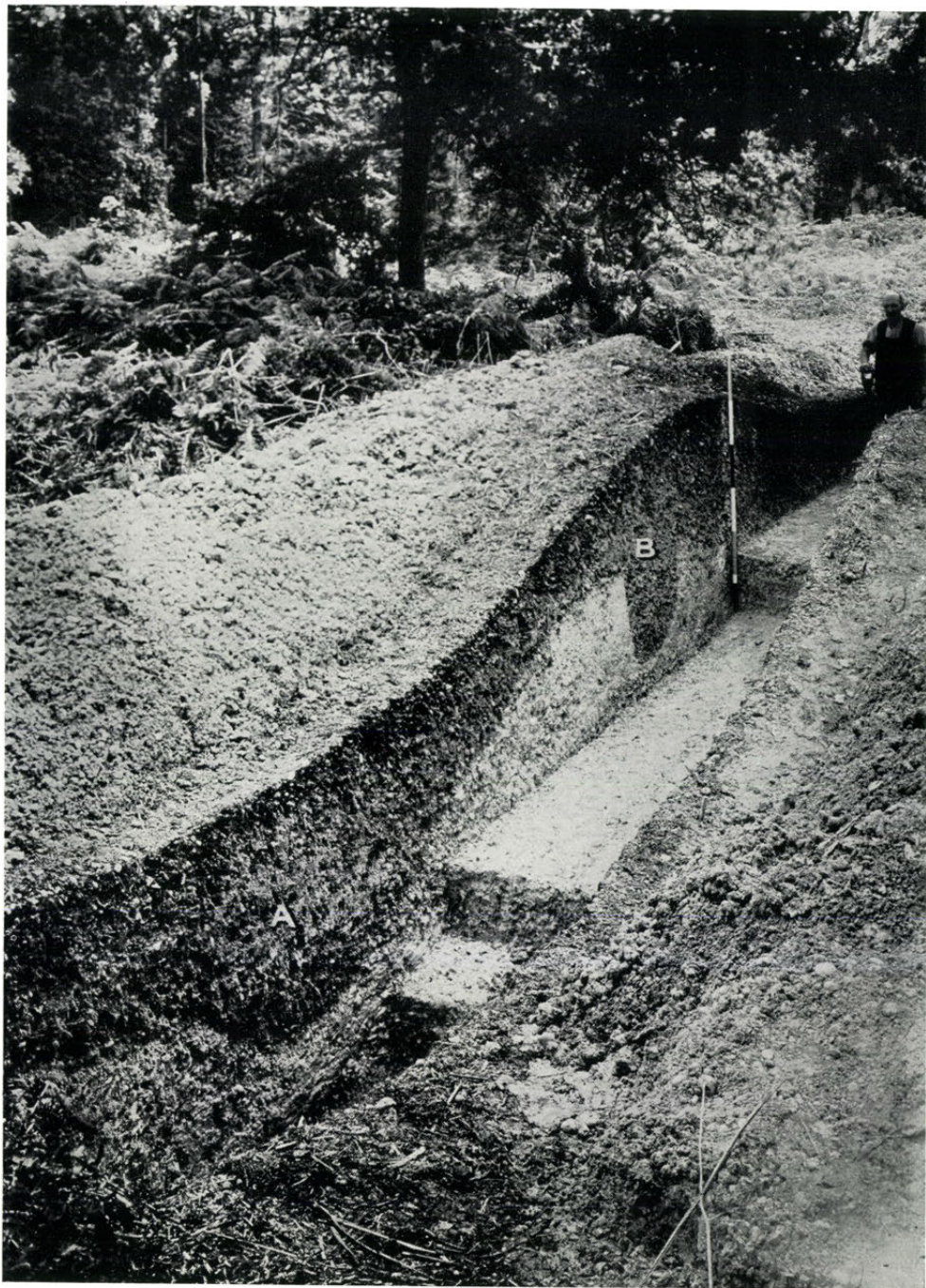


Belgic Verulamium : pre-Roman wheel-tracks, interrupted in foreground by Roman ditch, in Prae Wood
(See plan, pl. XVI, and p. 43)

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Belgic Verulamium : metalled causeway at north-eastern corner of 'Enclosure A' (plan, pl. XVI). The straight edge of the metalling near the ranging-pole marks the line of the intrusive palisade-trench. (See p. 47)



Belgic Verulamium : ditch (A) and palisade-trench (B) at Site XIIIa in Prae Wood.
(See plan, pl. XI, and p. 47)



A. Belgic Verulamium : palisade-trench behind main dyke in Pond Field
(See p 47)



B. Belgic Verulamium : palisade-trench (B) cut through a hearth and occupation-layer (A, A) at Site I in Prae Wood. (See plan, pl. XI, and p. 47)



Belgic Verulamium : section through east ditch of 'Enclosure A'. (See plan, pl. XVI, and p. 45)

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A. Belgic oven in Prae Wood. (*See p. 44*)



B. The first Roman city: Section I-J through the bank of 'The Fosse' earthwork
(*See plan, pl. CXIX; section, pl. XVIII; and pp. 50 ff.*)

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Verulamium: the site of the first Roman city, from the north-west. Left distance, St. Alban's Abbey; extreme right, fringe of Prae Wood (site of Belgic Verulamium); left of centre, the sunlit trees follow the line of the second-century city-wall; right of centre, the trees in shadow, continued by ground-shadow to edge of view, represent the 'Fosse' (earthwork of first Roman city), which returns behind and parallel to the hedge in the foreground.

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A. Section I-J: turf-revetment at back of original bank. (See p. 51)



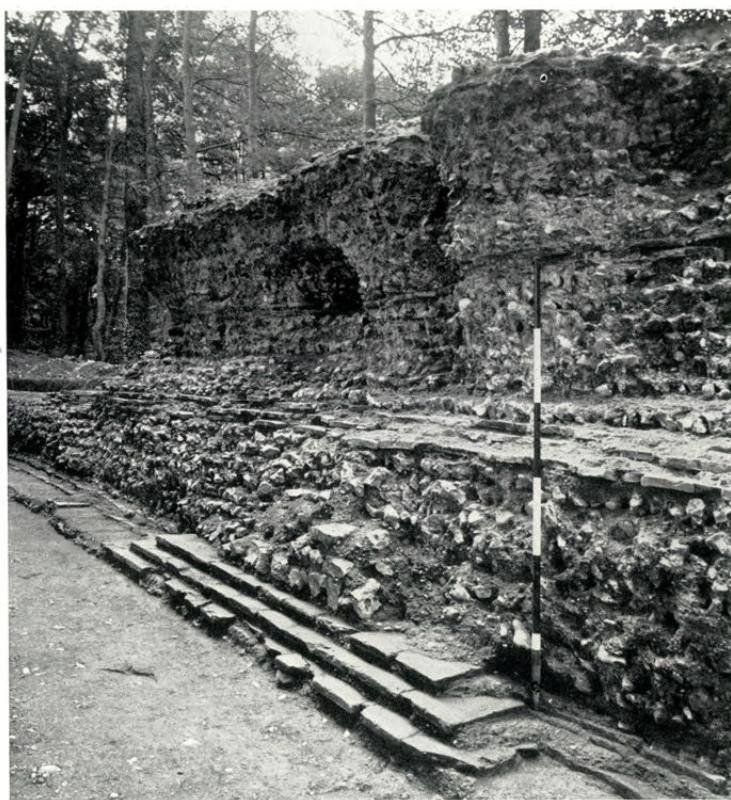
B. Section K-L. (See plan, pl. CXIX)

The first Roman city: cuttings through 'The Fosse' earthworks

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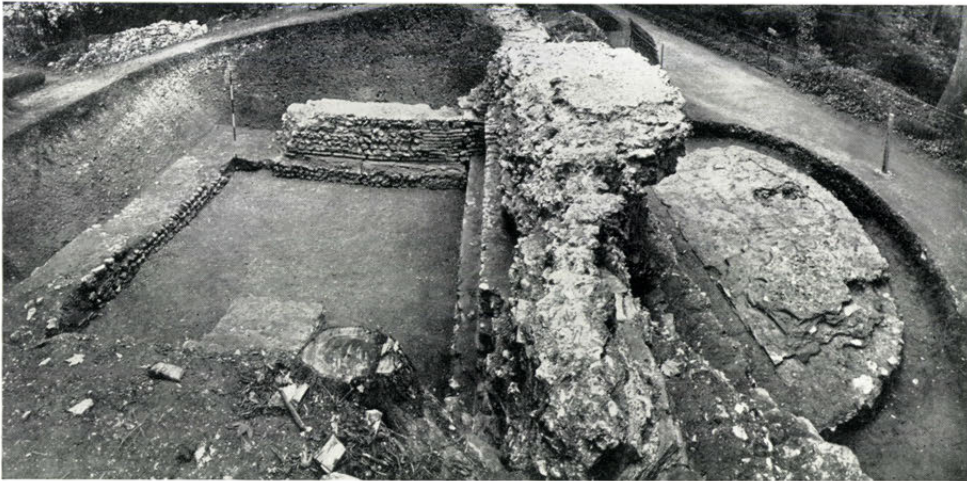
Section G-H (compare fig. 3, and pl. CXIX). 1, the ditch ('The Fosse') of the first Roman city; 2, the silt in the ditch; 3, the material of the early Roman bank thrown back into the ditch to form a basis for 4, the defensive wall of the second Roman city. 5 is the mortar-spread at the building-level of the wall. 6 is the bank contemporary with the wall, and 7 is the trench dug probably in the eleventh century by tile-robbers. (See p. 53)



The second-century city-wall, S. side (exterior), before and after excavation. (See p. 58)



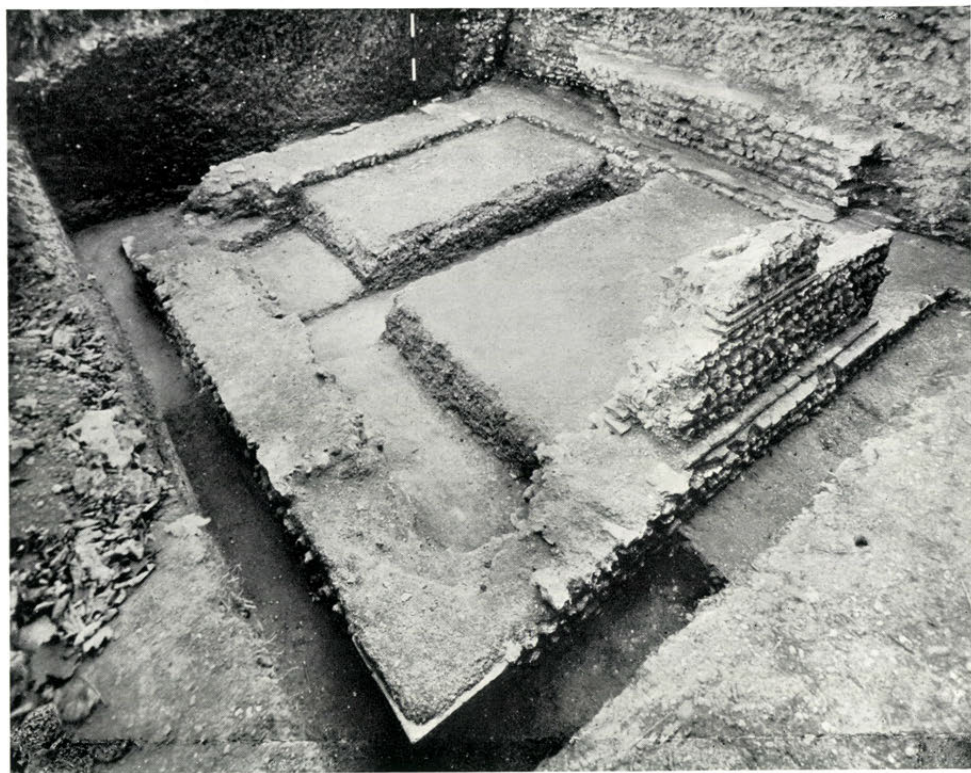
A. Section C-D through the second-century Roman bank. (*See p. 56*).



B. Tower 228 ft. S.W. of S.E. gateway. (*See p. 59*)



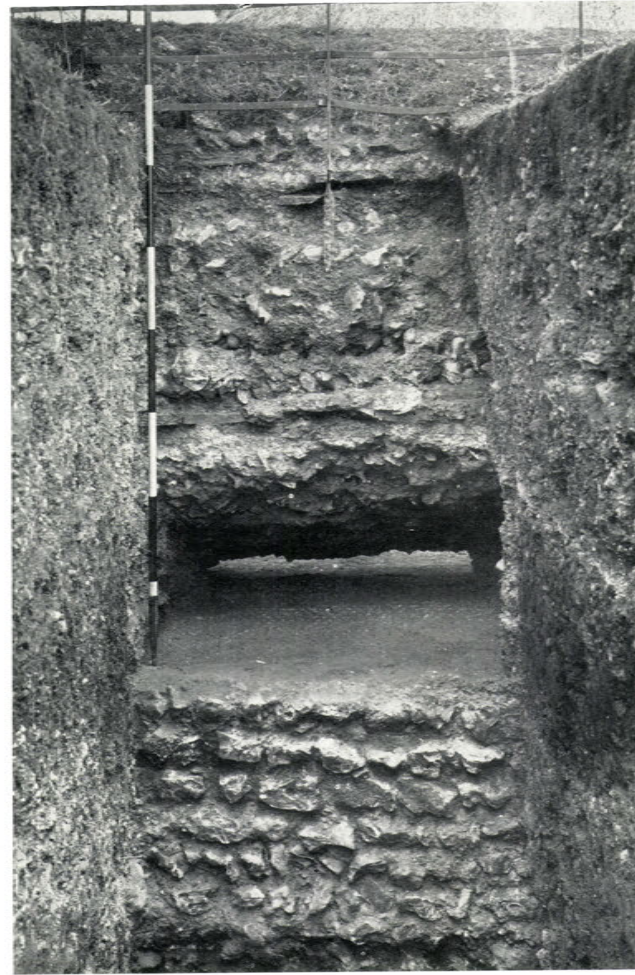
A. Second-century wall-tower at south corner : exterior



B. Second-century wall-tower at south corner : interior



A. Wall-tower 228 feet south-west of south-east gate : junction between tower-wall and city-wall on inner side, showing subsidence and levelling during construction. (*See p. 59*)



B. The 2nd-century city-wall in Section G-H, showing the robbing of a brick-course throughout the thickness of the wall. (*See p. 53*)

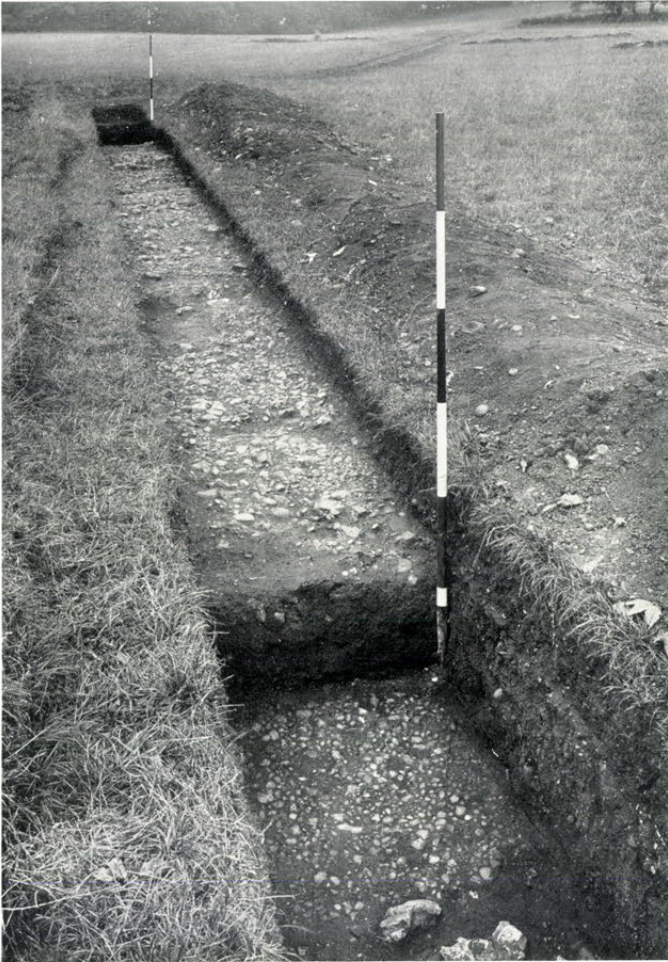


A. The Watling Street within the southern part of the city, showing two hipposandals lying on the latest surface. (*See p. 220*)



B. The Watling Street: section 125 yards outside the south-east gate. (*See p. 63*)

PLATE LXXXV



The Watling Street: section showing two surfaces within the southern part of the city



The south-east gateway (2nd century) from the north-east. The men are standing on the two main roadways within the gate, and the abutment of the city-wall can be seen in the foreground. (*See p. 63*)

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A. The foundations of the north-east tower of the south-east gate, showing the metalling of the earlier Watling Street in the left foreground. (*See p. 65*)



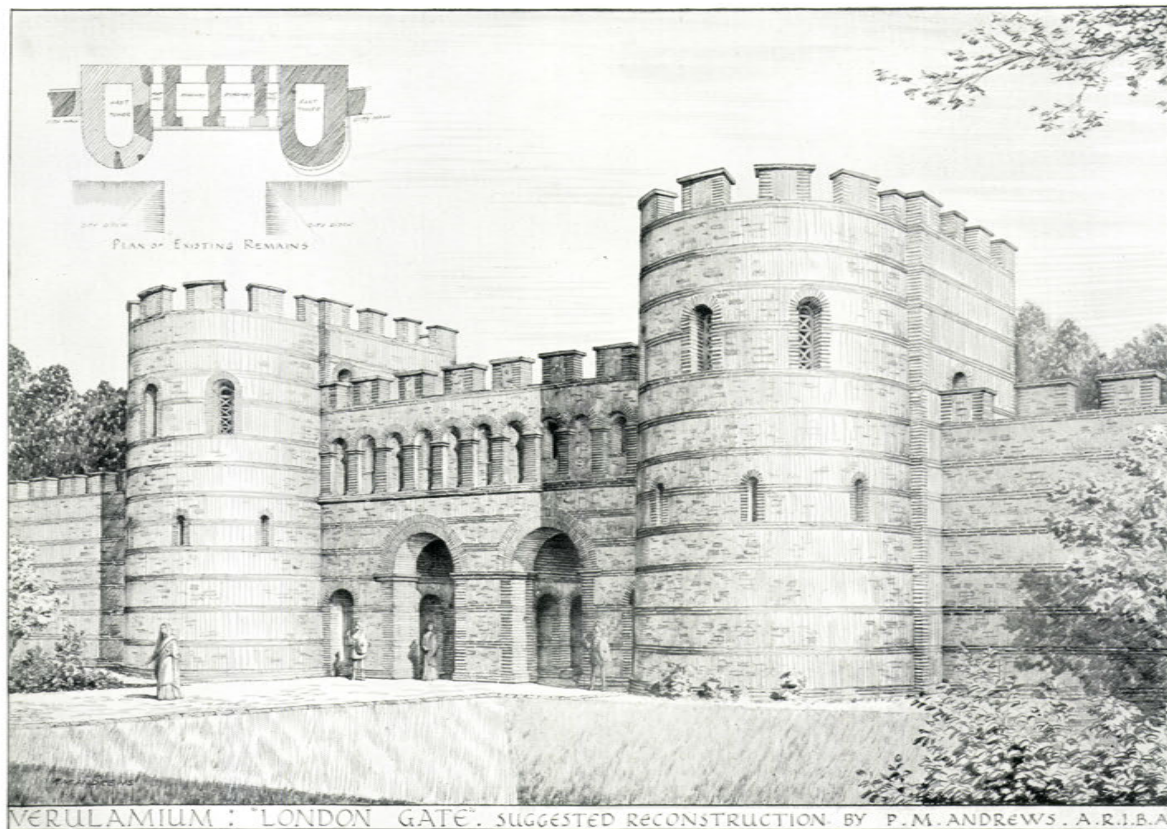
B. The south-east gate, from the north, showing the abutment of the city-wall (A) and the wall-grooves and cement floors of an underlying building (B). (*See p. 65*)



A. The north-west gate (2nd century), showing matrix of south-west tower. (See p. 68)



B. The north-west gate, showing north-east tower and (in foreground) abutment of city-wall, overriding the offsets of the tower. (See p. 68)

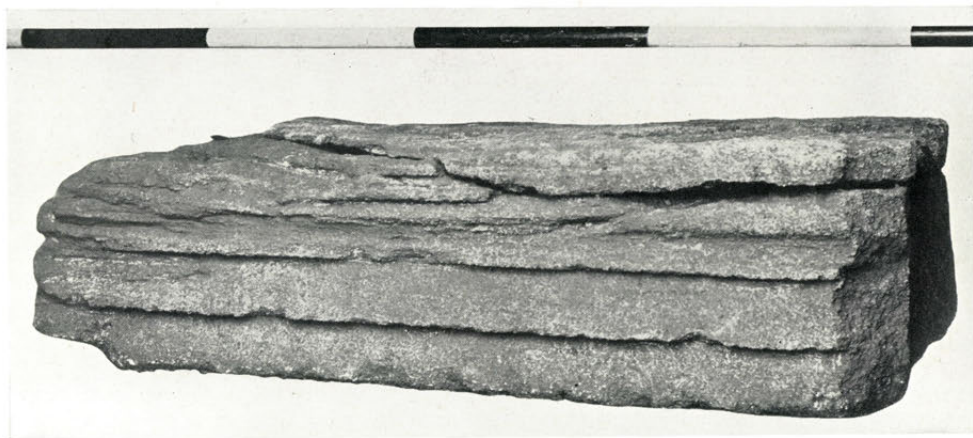


Reconstruction of the 2nd-century south-east gate.
By P. M. Andrews, A.R.I.B.A.

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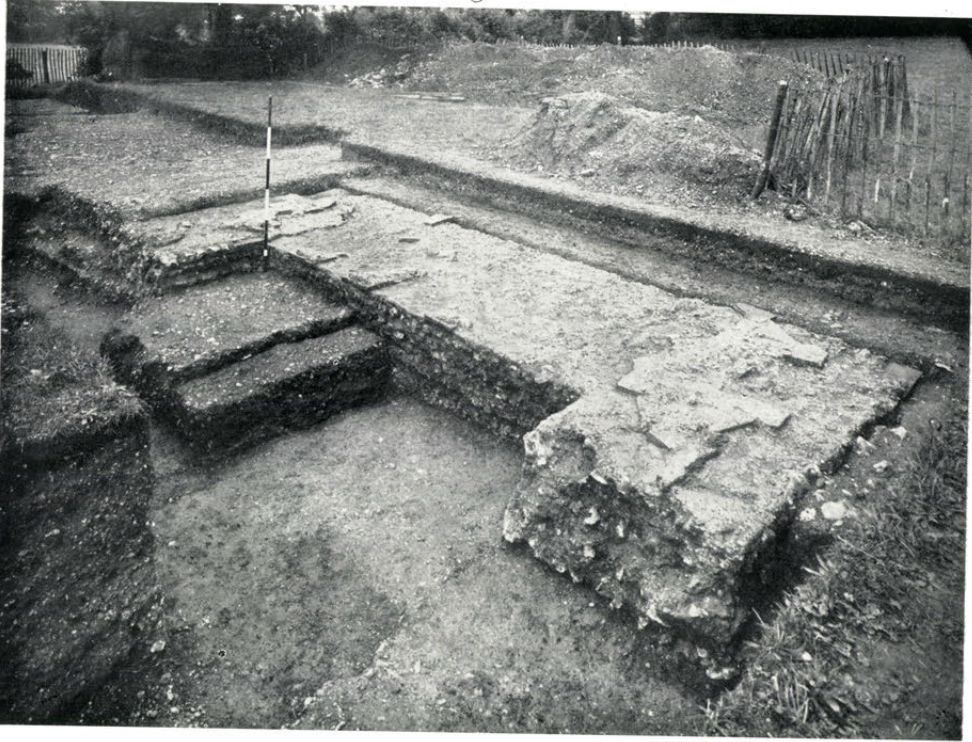


A. The south-west gate (2nd century), showing south-east tower in foreground and road in middle distance. (*See p. 71*)

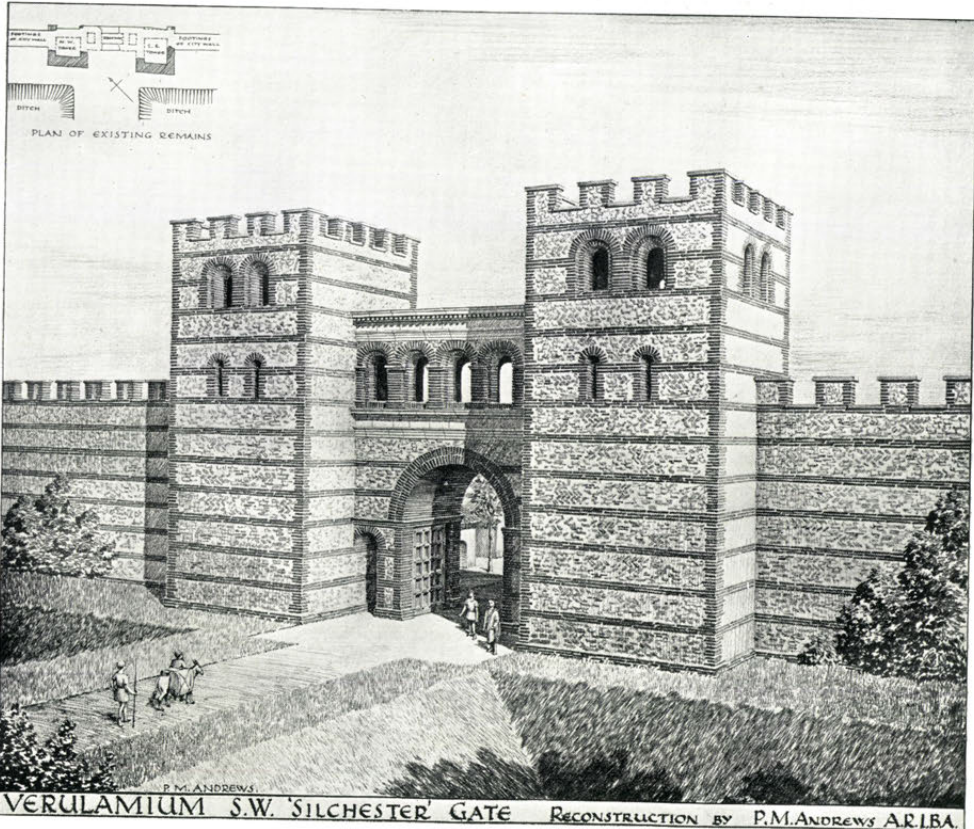


B. Stone found in front of south-west gate. Scale of feet. (*See p. 72*)

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A. South-west gate (2nd century), showing part of north-west tower. (See p. 71)



B. Reconstruction of 2nd-century south-west gate.
By P. M. Andrews, A.R.I.B.A.

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A. Outer ditch (2nd century) at south corner, as cleared, from the east

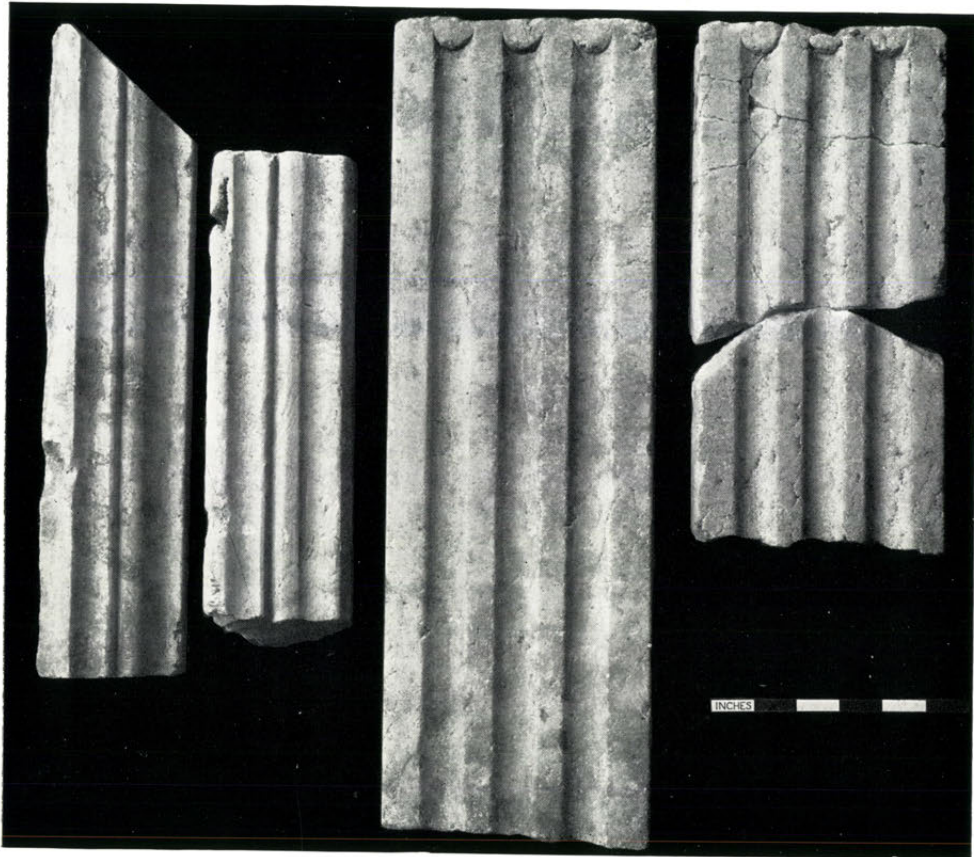


B. Outer ditch at south corner, as cleared, from the west

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A. Foundation of triumphal arch in the southern part of the city.
(See plan, pl. XXVI, and p. 76)



B. Fragments of moulded and fluted Italian marble found near the triumphal arch in the southern part of the city. (See pp. 77, 122)
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Cellar in building I, 1, showing two doorways and blocked window. (*See p. 78*)

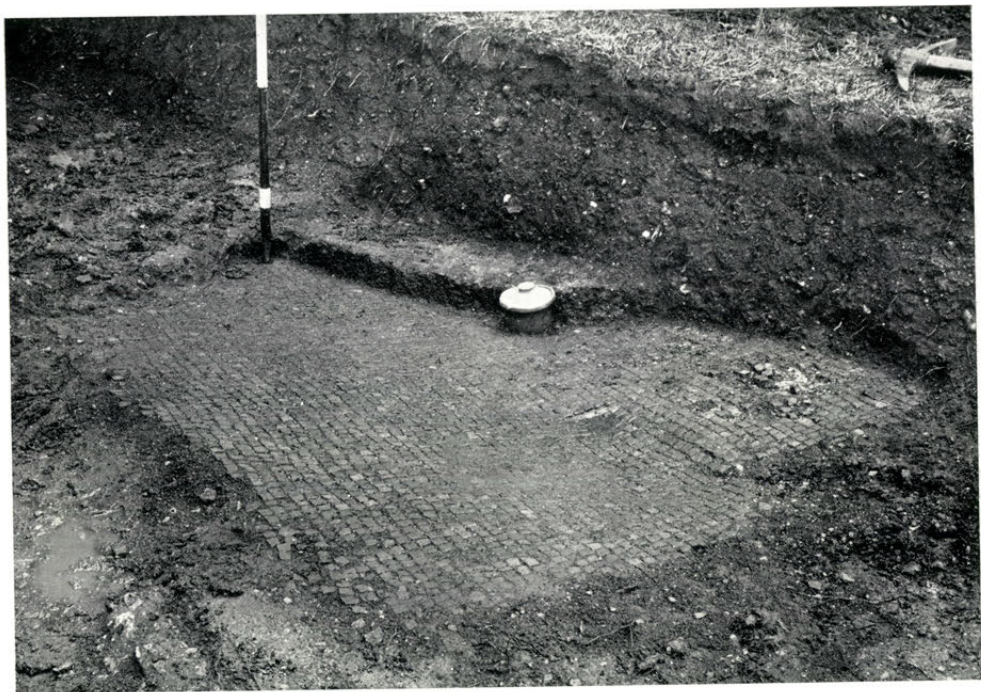
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Cellar in building I, 1, showing brick door-sill in foreground, and sockets for shelf-brackets in the plastered wall. (*See p. 78*)



A. Cellar in building I, I, showing vertical slots, and sockets for shelf-brackets.
(See pp. 78, 80)



B. Tessellated floor of building I, I, showing lidded pot (compare fig. 38, nos. 83-4) in remains of late clay patching. (See p. 84)



A. As found, with Roman blocking. (*See p. 80*)



B. After removal of Roman blocking. (*See fig. 6 and p. 79*)

Building I, 1: window in cellar

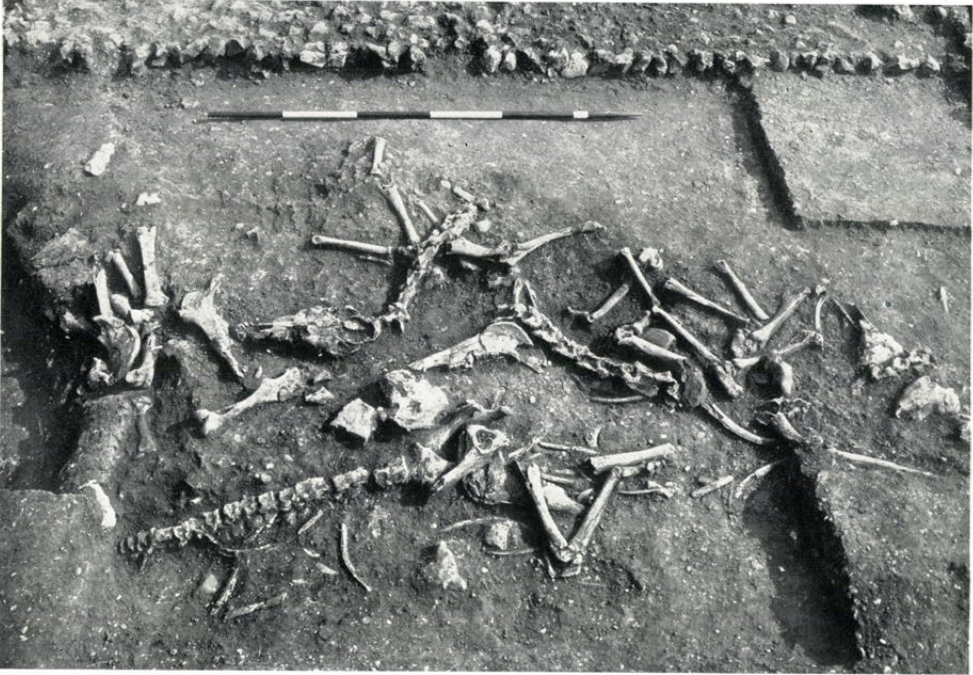


A. Building II, I, from the south, showing 2nd-century floors underlying walls of c. A.D. 300. (*See pp. 87-8*)



B. Socket of wall-post in building III, I. (*See p. 89*)

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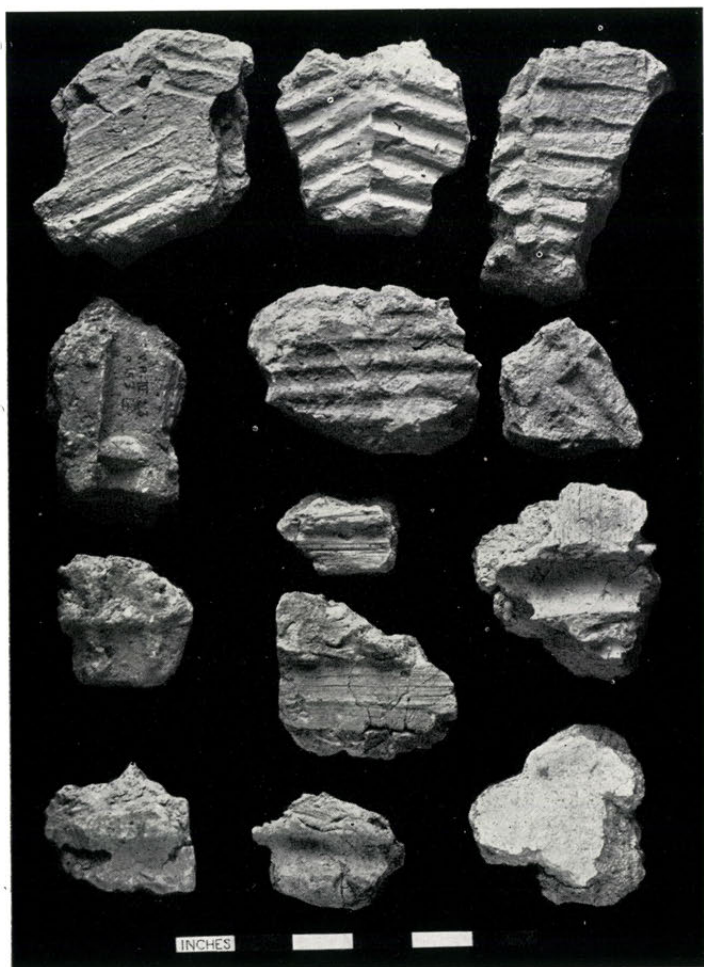


A. Remains of horses in building III, 1. (*See p. 91*)

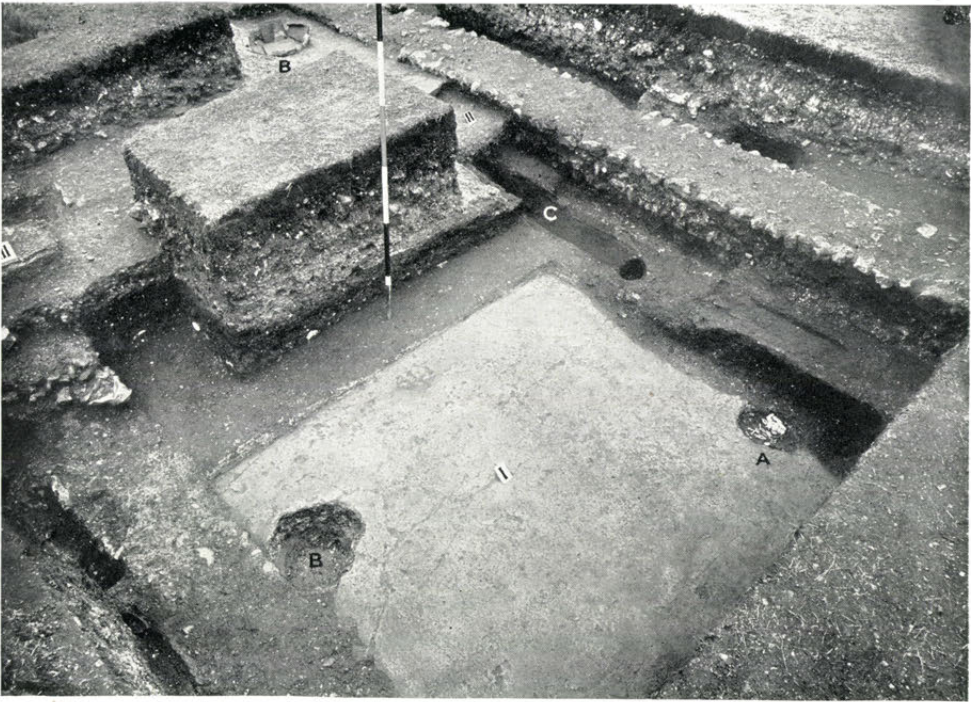


B. Relieving-arch in building III, 1 (*See p. 92*)

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Fragments of grooved daub (some showing imprint of wattles)
from building B (late 1st century) underlying building III, 2.
(See pp. 94, 140)



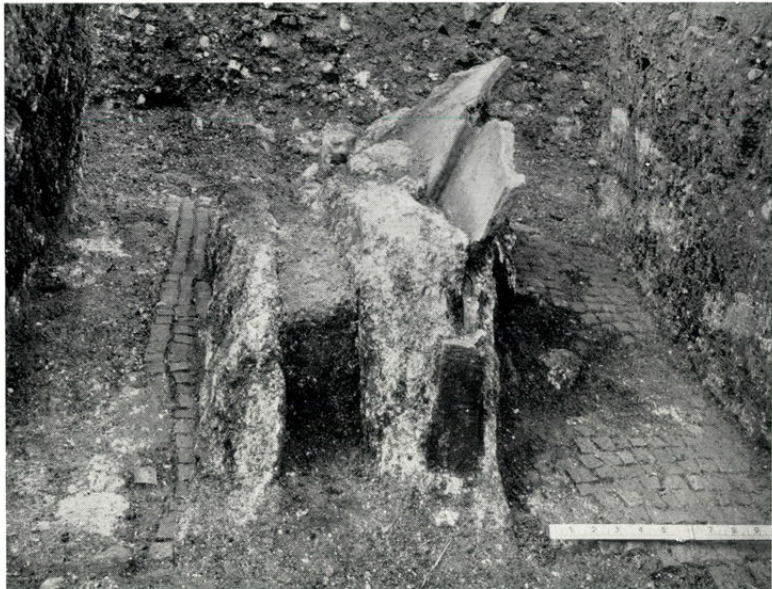
a. Building B (late 1st century), underlying building III, 2 : room 1, showing cement floor, base of timber partition-wall (C), infant-burial (A), and late Roman or post-Roman post-hole (B). (*See pp. 94-6, 139*)



b. The same, showing post-hole and surviving sill-beam. (*See p. 94*)



A. Building IV, 1, room 5, from the south. (*See p. 96*)



B. Partition between rooms 27 and 28 in building IV, 2. Compare fig. 8. (*See p. 98*)



A. Herring-bone brick paving in building IV, 3. (*See p. 100*)



B. Tank and wall-vent in building IV, 4, room 13. (*See p. 100*)

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Building IV, 8, room 7 from the west, showing arched furnace in foreground. (See pp. 104, 147)



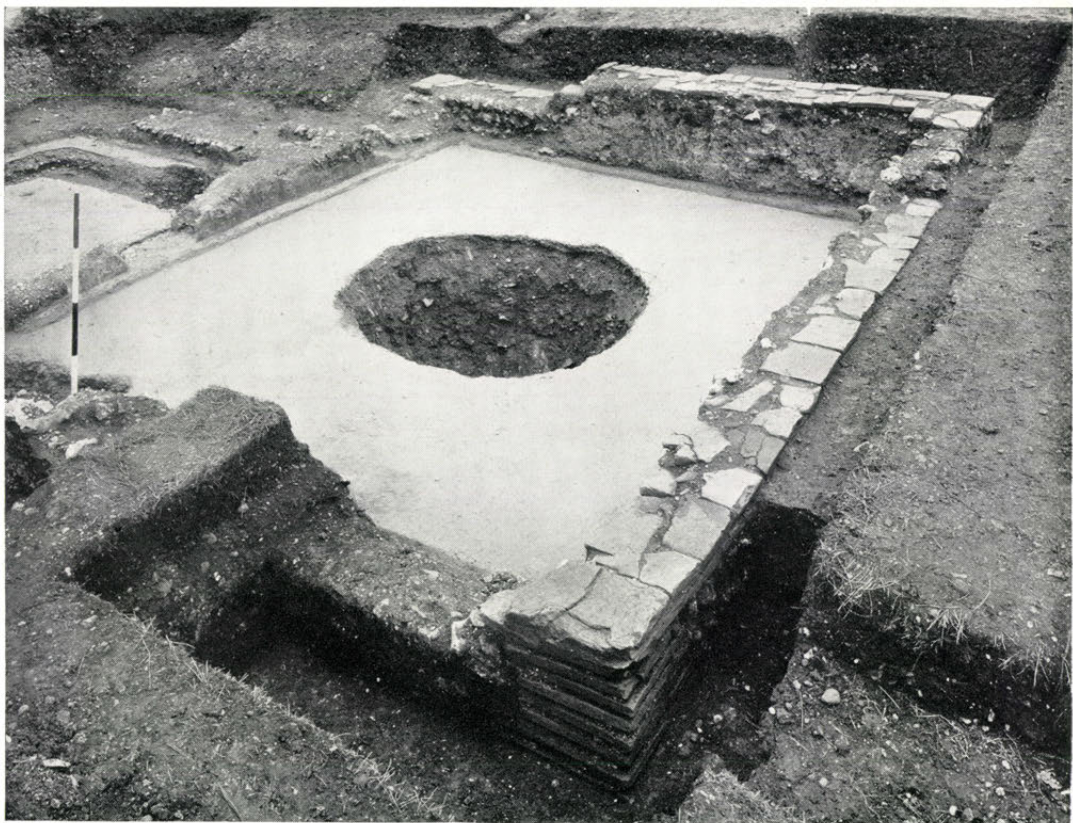
A. Furnace-flue in wall of room 7



B. Flashlight photograph taken beneath the floor of room 7, showing furnace-flue in distance and *pilae* $2\frac{1}{2}$ feet high in foreground

Building IV, 8. (See p. 104)

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A. Building IV, 8: room 5, containing well. (See p. 103)



B. Building IV, 8: room 6 from the south-east, showing remains of original hypocaust, and part of later mosaic floor over filling (A). (See p. 104)

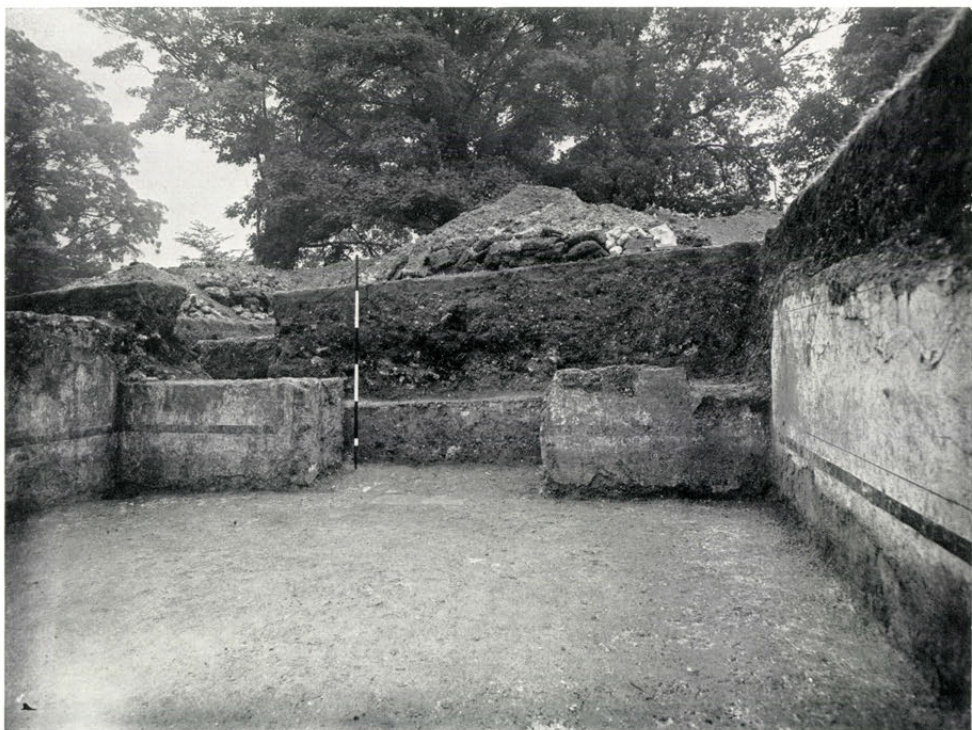
PLATE CVII



A. Apsidal room in building IV, 10. (*See p. 108*)



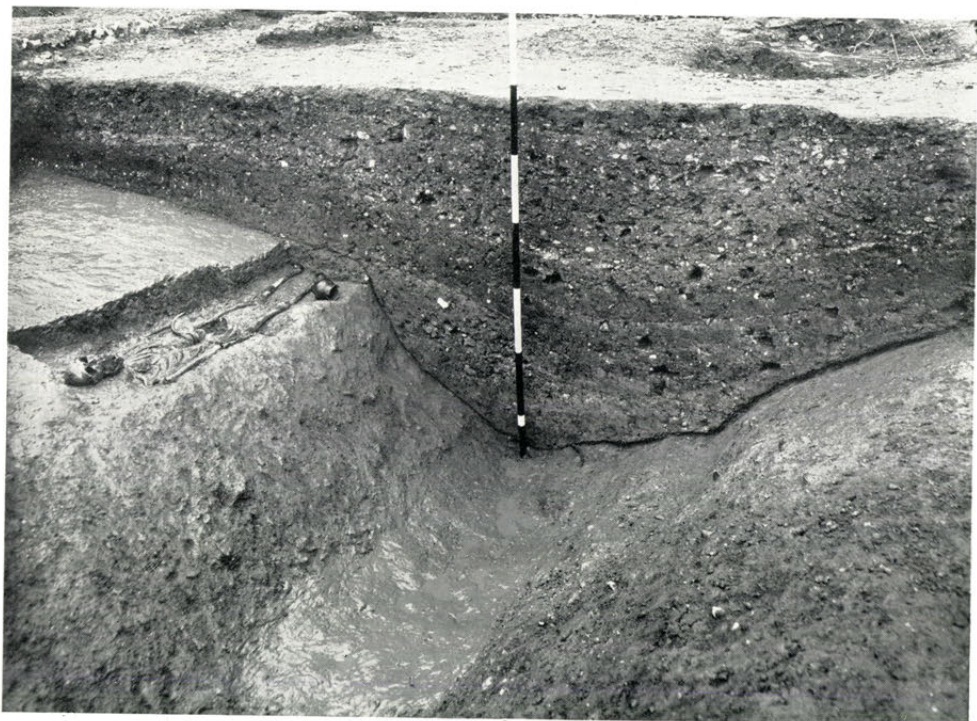
B. 'Ghost-wall' (spoil-trench of former wall) in building V, 2. (*See p. 111*)



A. Building V, 1, room 11, showing doorway and painted wall-plaster. (*See p. 109*)



B. Building V, 1: base of tank, room 19. (*See p. 109*)



A. Original ditch of Watling Street, under the 'triangular' temple: Belgic burial of early Roman period on left. (*See pp. 114 ff., 133*)



B. The 'triangular' temple: plastered face of south-west external wall, with adjacent line of post-holes. (*See p. 116*)



A. The 'triangular' temple: imprint of base of cult-statue in central shrine. (*See p. 113*)



B. The 'triangular' temple: base of latest altar in courtyard, with votive ox-skull buried in adjacent floor. (*See p. 117*)



A. The 'triangular' temple: tank or pit in north-eastern compartment. (*See p. 113 f.*)



B. The 'triangular' temple: oven in courtyard. (*See p. 116 f.*)

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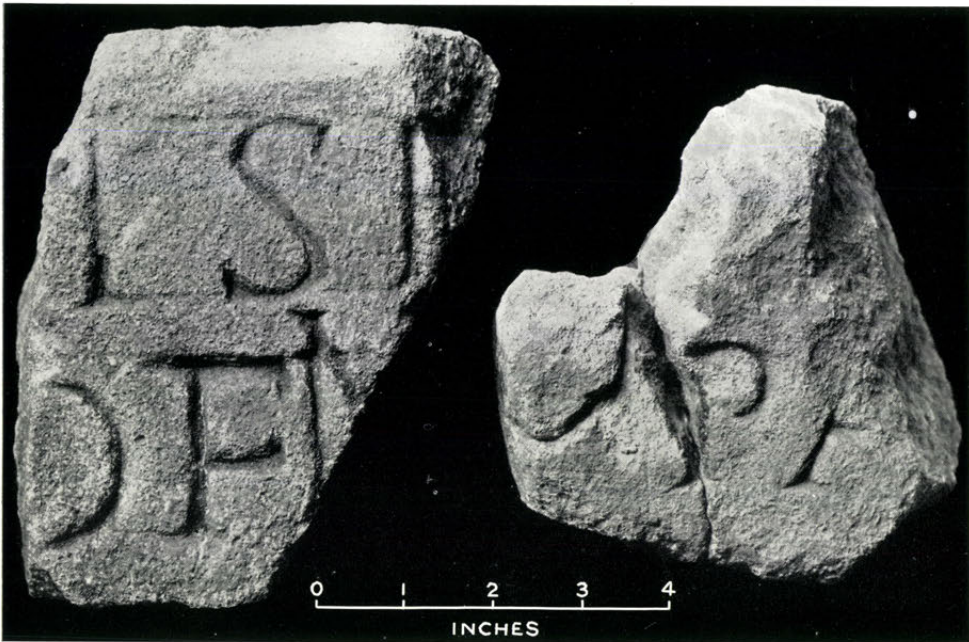
A. East portico-wall of 'triangular' temple, showing two periods of walling and flooring (both early 2nd century). (*See p. 116*)



B. Votive-offering No. 6, in east ambulatory of 'triangular' temple. (*See p. 118*)



A. The 'triangular' temple: base of front of porch, 2nd century. (*See p. 117*)



B. Fragments of inscription from the southern part of the city. (*See p. 122*)

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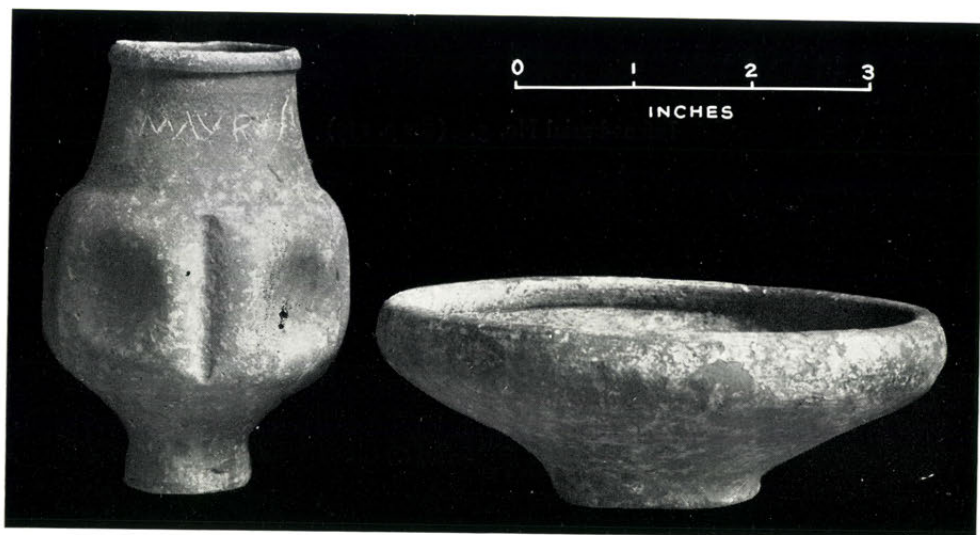


The Verulamium theatre, from the north-west. (*See p. 123*)

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A. Burial No. 4, in the late Roman cemetery west of the north-west gate. (*See pp. 137, 138*)



B. Pots from the above burial. (*See p. 138*)

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Infant-burial No. 3. (*See p. 139*)

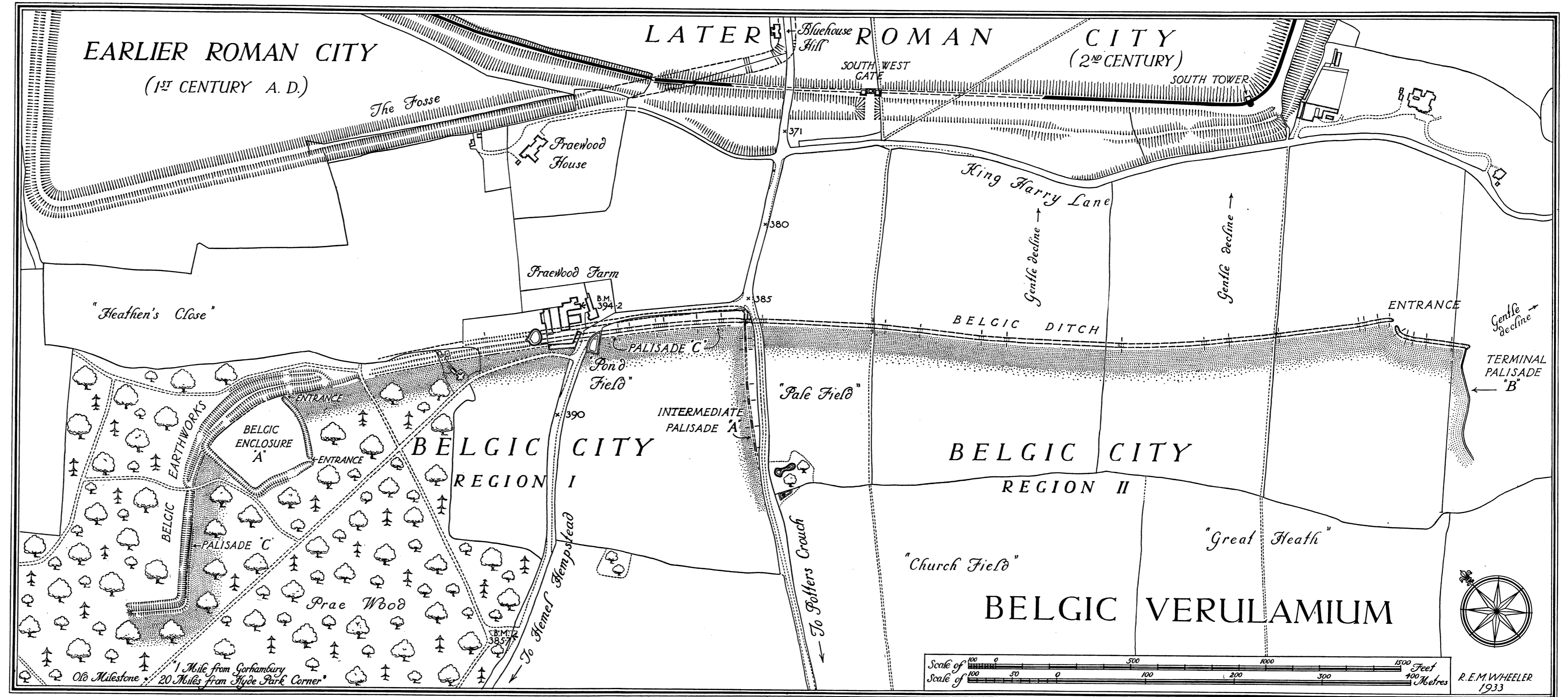


A. 2nd-century burial found at the junction of the Watford road and King Harry Lane, 1933. (*See p. 135*)



B. Brick cist containing remains of an infant, in building III, 2, room 4. (*See p. 139 f.*)

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EARLIER ROMAN CITY
(1ST CENTURY A. D.)

LATER ROMAN CITY
(2ND CENTURY)

The Fosse

Praewood House

Praewood Farm

"Heathen's Close"

King Harry Lane

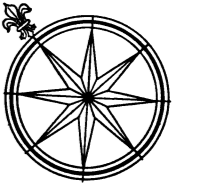
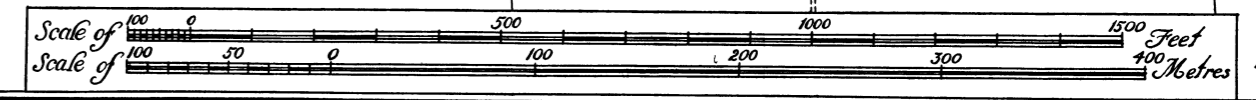
BELGIC DITCH

BELGIC CITY
REGION I

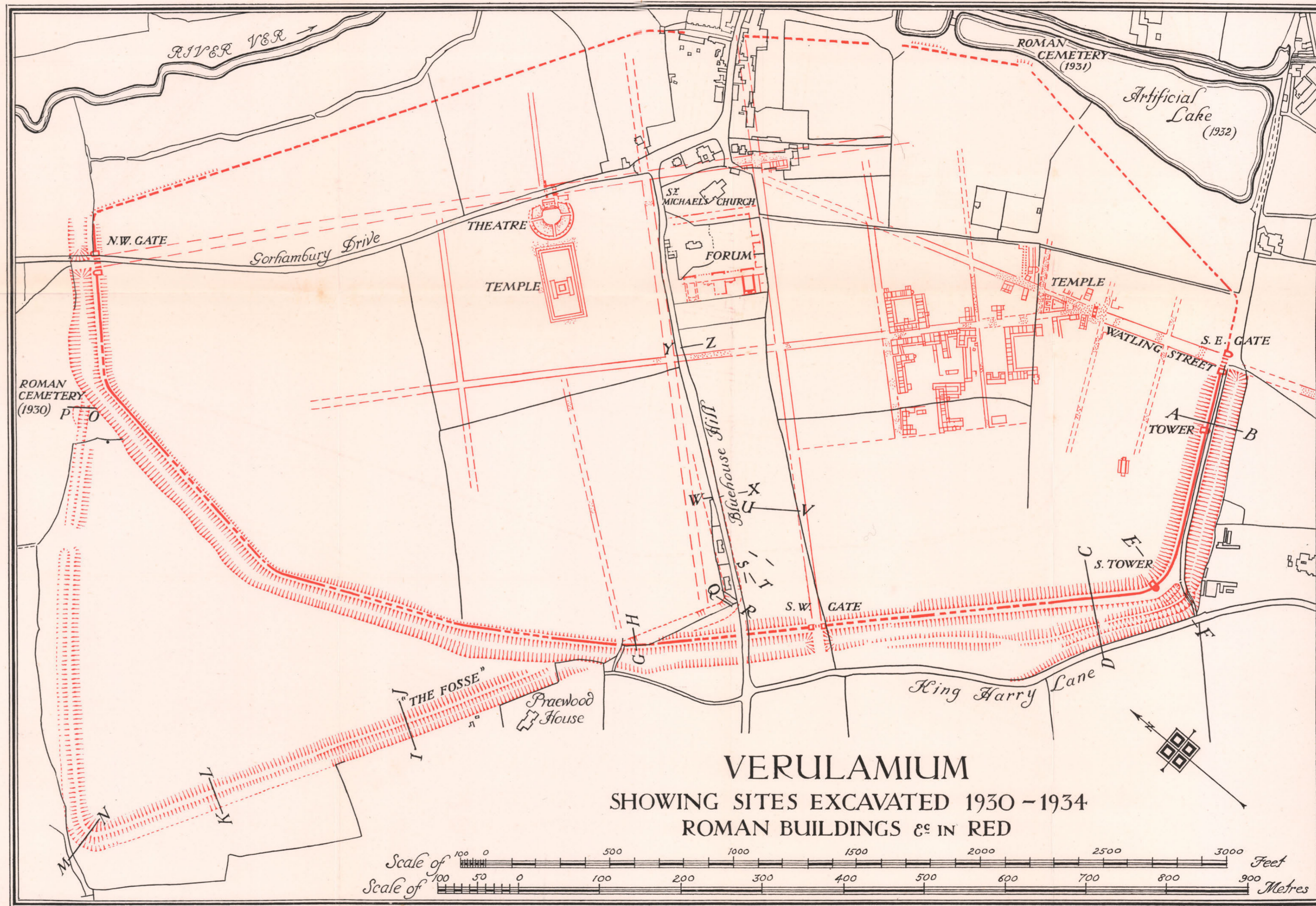
BELGIC CITY
REGION II

BELGIC VERULAMIUM

1 Mile from Gorhambury
Old Milestone 20 Miles from Hyde Park Corner



R. E. M. WHEELER
1933



VERULAMIUM
 SHOWING SITES EXCAVATED 1930 - 1934
 ROMAN BUILDINGS &c IN RED

