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## THE EXCAVATION OF A ROMAN PALACE SITE IN LONDON, 1961-1972

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### SUMMARY

The site is situated on the hillside overlooking the Thames, first occupied from about the middle of the first century A.D. to the early Flavian period. At the top of the slope during this period there was apparently a *timber building, possibly of military type, used for storage*, while, about the early Flavian period, a goldsmith seems to have had a workshop lower down the slope, for refining gold. It is possible that this latter activity may represent some official use of the site by the Roman provincial administration.

During the Flavian period, perhaps under the governorship of Agricola, the hillside was terraced for the construction of an enormous official palatial residence containing a large ornamental garden and several reception rooms of monumental proportions. It is concluded that this was probably the residence of the Roman Governor of Britain, built at a time when Londinium was, as a deliberate act of policy, enlarged and modified to become the capital city of the province of Britain.

Major alterations later occurred before the state rooms were eventually demolished and the pool was filled in, to be replaced by another Roman building or buildings of more modest proportions. On the evidence of a coin the south wing of the palace could not have been filled in before about A.D. 270; and this may have occurred during the fourth century. The periods of the modifications and rebuilding are too vague for any conclusions to be reached, but they presumably reflect the political situation of the time.

#### INTRODUCTION AND ACKNOWLEDGEMENTS

This report contains the results of several archaeological investigations undertaken over a period of 11 years, and I am particularly grateful to the many people who have contributed to the study, both on site and in post-excavation work. Firstly, my thanks are due to my Guildhall Museum colleagues in general, and in particular to Ralph Merrifield, who has not only undertaken a little site recording during my absence, but with whom many fruitful discussions have occurred. Thanks are also due to Gordon Davies, formerly of the Museum, who also undertook a little of the site recording; and to Hugh Chapman.

It is to the many volunteers of the former City of London Excavation Group that the greatest debt is owed, however, because at a time when it was not policy to finance archaeological investigation, they not only provided the labour, much of it sheer manual work to clear modern concrete and rubble, but also they collected and sold scrap materials from the sites towards buying an electric drill to help break up the concrete. It is difficult to single out individual names, but two must be mentioned. Nicholas Farrant and Mrs. Irene Wade were my constant Site Supervisors at weekends, regardless of the weather and of the time of the year, controlling anything up to 70 volunteers at one time, and the debt owed to them cannot be underestimated. It must suffice to say that a large part of this report could not have been written but for their personal help; also for the essential loan of equipment by the Wandsworth Historical Society, through Nicholas Farrant.

Thanks are also due to the various land owners, property developers and contractors, especially the latter, who generally tolerated our activities. At a time when the properties were changing hands for enormous sums of money prior to redevelopment, it was always an interesting exercise to discover exactly which company was redeveloping a particular site. Permission was not always granted, however, and the excavation of two major areas on the Roman palace site could not be carried out for this reason.

Although this report leaves many basic questions unanswered, it is clear that the collective effort of a large number of people to elucidate the history and plan of the Roman palace has been a success, and that, having firmly placed the palace on the map of Roman London, research excavations will no doubt update this study and clarify many of the unanswered problems described in this report.

For advice and help in the identification of objects I am most grateful to Brian Hartley (samian ware), Dr. Martin Henig (mosaic fragments), and to Miss Mavis Bimson (goldsmith's debris).

Finally, I must express my gratitude to Max Hebditch, Assistant Director of the Museum of London and to Brian Hopley, Chief Urban Archaeologist of the new Department of Urban Archaeology for their support in the preparation of this report and, from within the Department, I am particularly glad to have had the benefit of the expert draughtsmanship abilities of Miss Pam Broady, Miss Susan Knapp and Howard Pell, whose initials occur on their drawings. I am also grateful to Miss Hilary Kent who expertly mounted the many drawings of finds, and to Trevor Hurst for the photographs on Plates 6 and 7.

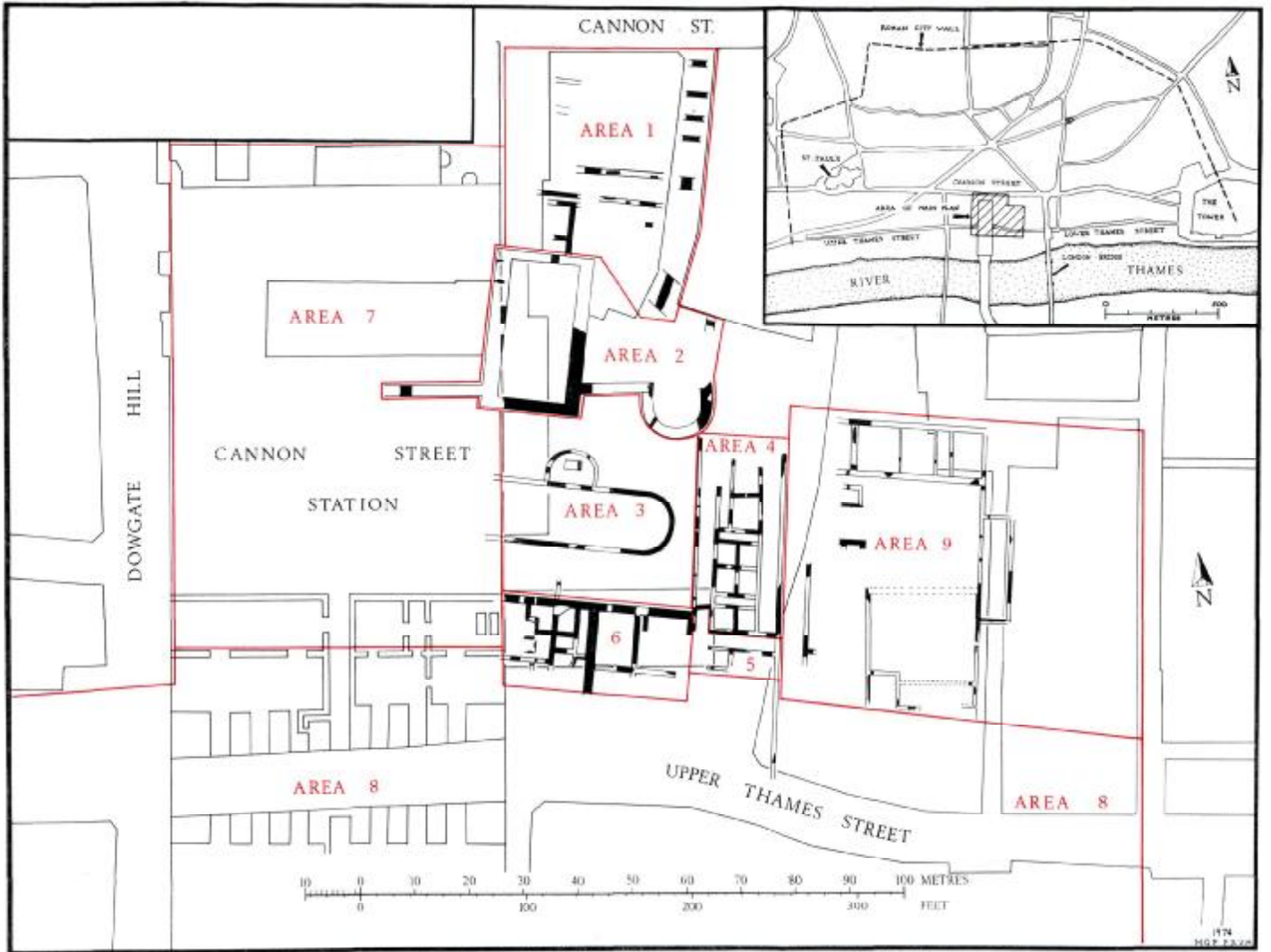


Fig. 1 Roman Palace. The location of the palace site in London, and the areas of study (red)

References are made to groups of objects recorded in the Museum Excavation Register (e.g. E.R. 1206), and reference is here made to p. 79 where the details of this form of record are given.

#### LOCATION OF THE SITE

The area under study in this report (Fig. 1) is now bounded by Cannon Street in the north, Dowgate Hill in the west, Laurence Pountney Lane in the east, and the River Thames in the south. A major portion of the western area of the site is now occupied by Cannon Street Station. In relation to Roman London it lay in the waterfront region, immediately east of the mouth of the Walbrook stream (Fig. 27).

#### HISTORY OF ARCHAEOLOGICAL DISCOVERY AND RECORDING ON THE SITE

The discovery of impressive Roman remains in the area of Bush Lane occasioned comment as early as about 300 years ago. The first published comment states that after the Great Fire of 1666 labourers rebuilding houses discovered "a Tessellated Pavement with the Remains of a large Building or Hall" at a depth of 20 ft (6.1 m) in Scott's Yard on the west side of Bush Lane. Prophetically they were believed to have indicated the presence of both the Roman governor's palace and the basilica. Four holes full of charred wood also drew comment for they were thought to have contained piles for the defence of the wall, and it was thought, too, that as the substructure of the pavement was composed of artificial earth containing bricks and broken glass it seemed that the building had been destroyed by Boudicca.<sup>1</sup> Later, Bagford, writing in 1714, stated that part of the pavement, which he believed to have been part "of Caesar's tent", was preserved in the Museum of the Royal Society.<sup>2</sup>

Scott's Yard is set back from Cannon Street and it is therefore unlikely that the post-Great Fire discovery is the same as that described in 1755 by Strype as: "in Canning Street nigh Bush Lane was found pretty deep in the Earth, a large pavement of Roman mosaic work".<sup>3</sup>

During the nineteenth century many more Roman structures were located in the Bush Lane region, particularly about 1840, when the main sewers were being built in open-cut trenches dug in the streets of the area. Charles Roach Smith was active at that time recording the walls and floors, though he had the most unfortunate habit of not publishing details of the positions of the structures. His reason was that "the hand of unchecked ignorance in a few minutes destroys what time has spared, and often before it is possible for the antiquary to make even a memorandum of the fact. These and other impediments will explain why in many instances I content myself with merely alluding to the existence of buildings or other remains without supplying details".<sup>4</sup>

Some of the walls found under Bush Lane were of great thickness, one of them being 20 ft thick! Although Roach Smith did not make a record of their location, their positions were fortunately sketched on the sewer working plans, now preserved in the Corporation of London Records Office.

Although reluctant to record in detail the structures he saw, Roach Smith was less reticent in drawing conclusions. In 1859 he suggested that "the extraordinary substructures which were cut through in Bush Lane and in Scott's Yard, may indicate a south-eastern boundary wall with a flanking tower" of an early city defence.<sup>5</sup> These views were developing in his mind as early as 1841 soon after the walls were found,<sup>6</sup> and were still supported by F. W. Reader as recently as 1909.<sup>7</sup> Similar ideas were held by Arthur Taylor in 1849.<sup>8</sup>

With the discovery of two tiles bearing variations of the official P.P.BR.LON. stamp by Roach Smith in the Bush Lane area, and similar discoveries made about 1868 during the construction of Cannon Street Station, the significance of the inscription was being questioned. Curiously, the discovery in about 1868 of many massive walls on the new station site, which were recorded by Mr. Thomas Gunston, drew no new suggestions as to the significance of the Roman structures. In particular one might expect that the discovery of one of the walls, 200 ft (60.96 m) long, 12 ft (3.66 m) thick and 10 ft (3.05 m) high, might have occasioned some comment, but this was not to be.<sup>9</sup> Later discoveries show that caution was justified and, as the Royal Commission Report of 1928 rightly concluded, "that there must have been an extensive building or series of buildings in this locality seems clear".<sup>10</sup>

Nothing of significance was recorded in the area of Bush Lane between 1868 and January 1961, though rebuilding of many sites in the area occurred at various times, and were undoubtedly responsible for the destruction of many Roman structures. For example, the cellar floor of Bush Lane House, built in 1898 at the north end of the street, was actually cut into the natural subsoil.

It was clear in 1960–61 that the combination of massive Roman structures and a concentration of official Roman stamped tiles indicated the former existence of a very important building or group of buildings in this part of the City, and that every effort should be made to define the nature of the building(s). The investigations began in 1961 on the site of Elizabeth House where a small archaeological sondage revealed a hypocaust overlying earlier Roman structures. It was not until Elizabeth House was built in 1961, however, that the first positive evidence was found of what is now interpreted as a Roman palace. Here the great hall (Room 42, Fig. 10) of the state rooms of the palace was revealed and recorded during the building operations and, later, part of the great pool (Feature 46, Fig. 12) was recorded. Observations and records were generally made by the author, but with valuable assistance from Gordon Davies who recorded the small apsidal pool (Feature 45, Fig. 12).

In 1964 a large bombed site on the east side of Bush Lane became available for excavation for a period of eight weeks prior to redevelopment. In spite of almost no financial support, the existence of the newly-established City of London Excavation Group, a team of amateurs, meant that at weekends it was possible to take some advantage of the opportunity given. The weekend digging was supervised by Nicholas Farrant, who augmented the small collection of tools with a loan of equipment from the Wandsworth Historical Society. A small amount of excavation was continued during the weekdays, at which time the archaeological features were mainly recorded.

At the outset of the excavation on this site, sondages were dug to determine the nature of the surviving archaeological remains with a view to making the best use of the short period available. These revealed that the Roman features lay on two terraces, described in this report as Areas 4 and 5 (Fig. 1). From the outset a deliberate decision was made not to investigate the post-Roman features because there was insufficient time to make an adequate record of both the Roman and the post-Roman features. In addition, the sondages had shown that in Area 4, on the upper terrace, only Roman foundations had survived, whereas on the lower terrace the walls stood intact to a height of a metre or more. The limitations of time, manpower, equipment, and the absence of money meant that only part of the site could be investigated and the decision had to be made to abandon one part of the site for recording during rebuilding operations only.

In the event it was decided to investigate archaeologically the area of wall foundations on the upper terrace in Area 4 because they were less well preserved. It was anticipated that the better preserved Roman walls on the lower terrace of Areas 5 and 6 would be more easily seen and recorded during building operations, but that there would be little chance of seeing the comparatively slight Roman foundations of the east wing. Fortunately, this proved to be the case and, as an experiment, a careful watch was kept on the east wing of the palace in Area 4 to determine just how much of the Roman structure could be recorded by making observations during building site excavations. Although the plan of the Roman building in that area was already known, so little of its structure was seen as the mechanical excavators dug away the ground that the resultant fragmentary record is meaningless. The deeper south wing (Areas 5 and 6, Fig. 1), however, lay just above the lower limit of the new general site basement level, and this fact, together with the much more complete state of preservation of the Roman walls, meant that the positions of the Roman walls were satisfactorily and reasonably accurately recorded. Details of floors and wall decoration were poorly recorded, and no significant dating evidence was recovered.

Early in the archaeological excavation inaccuracies were discovered in the most recent available plans of the sites on the east side of Cannon Street Station, and this necessitated the development of an independent method of recording the relationship of the sites to each other. Essentially, the Roman walls were all recorded in relation to the east side of Cannon Street Station, the structures on the site between Bush Lane and Suffolk Lane being related to an east-west datum at a right-angle to the east face of the Station and in line with the south face of Elizabeth House (Fig. 28).

The site of the bombed Dyers Arms public house beside Cannon Street was archaeologically excavated with volunteers from the City of London Excavation Group under the supervision of Mrs. Irene Wade between November 1965 and May 1966. The site was surveyed accurately in relation to the east side of Cannon Street Station, and to the south face of Elizabeth House. This meant that, in spite of the many inaccuracies in the modern surveys of the Bush Lane area, the Roman features were all correctly plotted on a plan in relation to each other.

Another major area of rebuilding occurred on the site of Norfolk-Suffolk House to the east of Suffolk Lane in 1969; and, although a concerted effort was made to record the Roman features by personal observation during the rebuilding excavations, it was not assisted by an archaeological excavation having previously been carried out. Nevertheless, a considerable part of the layout of what seems to have been yet another major Roman building was recorded, though on this very large site there was little opportunity to record sections and to recover any significant dating evidence.

Once again inaccuracies were found in the modern redevelopment survey of the site, and the Roman features were primarily related to a datum line drawn across the site in line with the north side of the south wing of Barclays Bank, a building which lies immediately against the east face of Cannon Street Station and next to Upper Thames Street. This east-west datum was accurately related to the datum line previously used to record the earlier discoveries in the Bush Lane region, so that the new Roman structures could be correctly related to the earlier finds, and to the east side of Cannon Street Station and its junction with the south face of Elizabeth House.

Finally, in 1972, the site of Bush Lane House, situated between Bush Lane and the Dyers Arms public house site, was excavated by Tony Johnson for the Guildhall Museum. Addi-

tional archaeological features were found relating to the Roman palace but, because the excavation took place inside the cellar of the occupied office building, it proved difficult accurately to link the site to the east side of Cannon Street Station. This difficulty will be discussed at a later stage in the report.

The archaeological investigations published here are largely the result of concentrated observations carried out during building operations, and by a limited amount of volunteer excavation under the direction of the author. These factors, linked with the absence of any financial support, will explain the limitations of this report. To gain this considerable quantity of knowledge a price has had to be paid—of observations not being carried out on other building sites. With mechanical excavators at times being in almost continuous operation on the palace area building sites, it was necessary to spend a very considerable amount of time on site, to the detriment of archaeological investigation elsewhere.

#### THE PHYSICAL GEOGRAPHY OF THE SITE (Figs. 2–3)

Geologically, the Roman city of Londinium was situated on the elevated Taplow terrace, the upper surface of which lay up to 10.97 m above O.D. This had been deeply dissected by the Fleet River and the Walbrook stream down to approximately the level of Ordnance Datum, which was probably about the level of the Thames during the early Roman period.<sup>11</sup>

The Roman palace was situated on the steeply-sloping hillside overlooking the River Thames to the south and the Walbrook stream to the west, but its situation necessitated extensive terracing of the hillside, both by excavating into the natural subsoil and by dumping clay and gravel onto the slope behind retaining walls. The hillside is now a slope of 1:14, Cannon Street at the top lying at 13.41 m above O.D., and Upper Thames Street at the bottom of the slope lying at 6.7 m above O.D. During the Roman period the slope of the hillside was approximately 1:10, the natural subsoil beneath Cannon Street lying at about 10.36 m above O.D., and at the bottom of the slope the natural surface lay at about 1.22 m above O.D. (Figs. 2, 3).

The hillside on which the palace was built originally showed a section of the Taplow terrace deposits and the underlying bedrock of London clay, but Roman and later buildings, together with considerable deposits of dumped earth and rubbish, have completely obscured the natural subsoil (Fig. 3). Nevertheless, the natural ground was observed and recorded both during the making of borehole tests by contractors and during archaeological investigations carried out before and during the rebuilding of the various offices constructed in the palace area.

At the top of the hillside the natural subsoil was a yellowish-brown brickearth and was revealed in 1960–61 by Professor W. F. Grimes on the site of the Church of St. Swithin, London Stone, in Cannon Street,<sup>12</sup> and also on the site of 143–149 Cannon Street (personal observation). Excavations further south on the upper edge of the hillside slope, on the site of the Dyers Arms public house, and beneath Bush Lane House,<sup>13</sup> showed that the natural subsoil lay at 9.90 m above O.D., and that the brickearth was somewhat sandy, being a transitional form between the underlying gravel and the brickearth. The actual junction between the brickearth and the gravel was not observed since it had been destroyed by the Roman and modern terracing. The actual junction line was probably at the north end of the great hall, Room 42, of the palace.

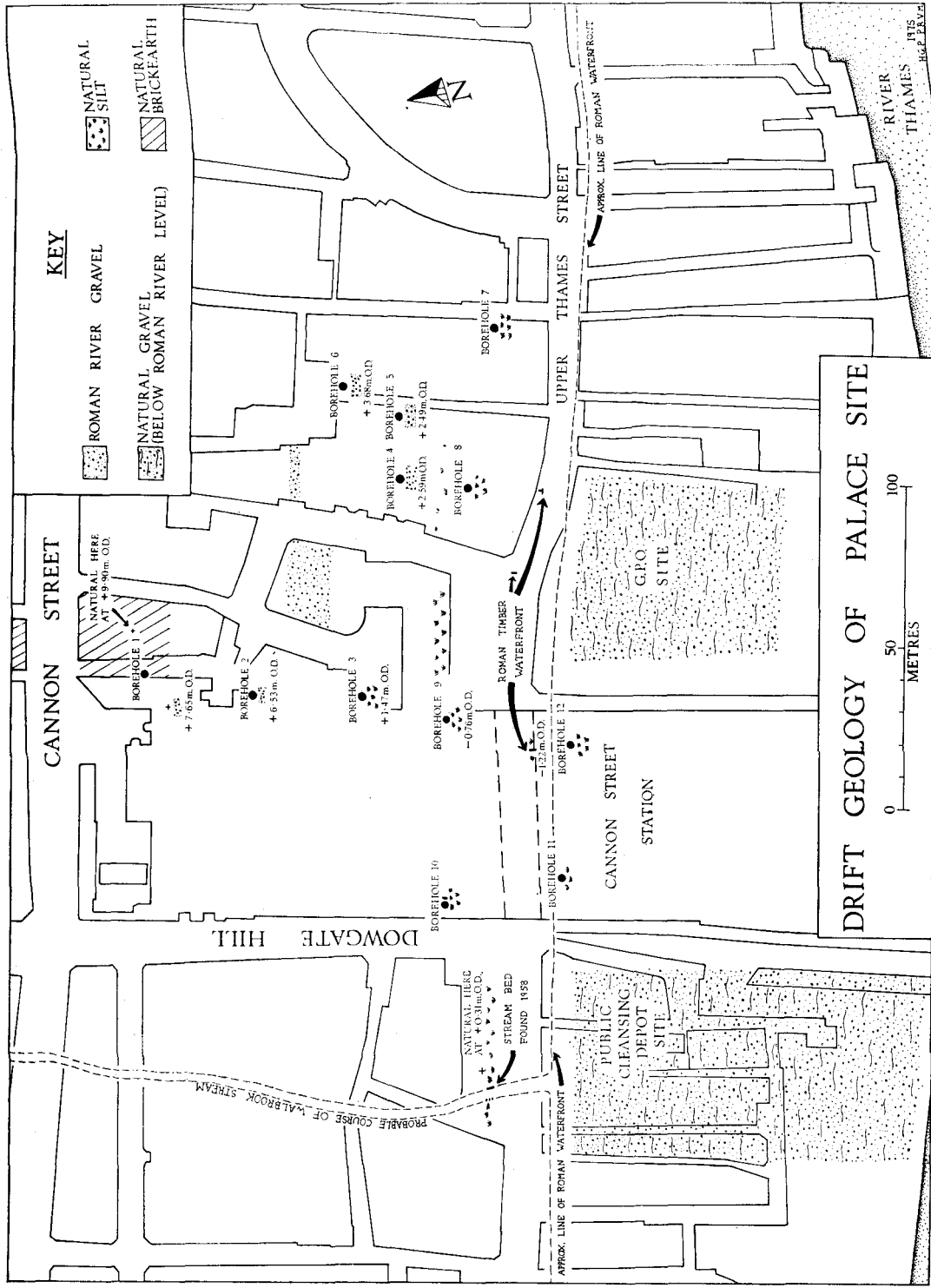


Fig. 2 Roman Palace. The recorded geology of the site



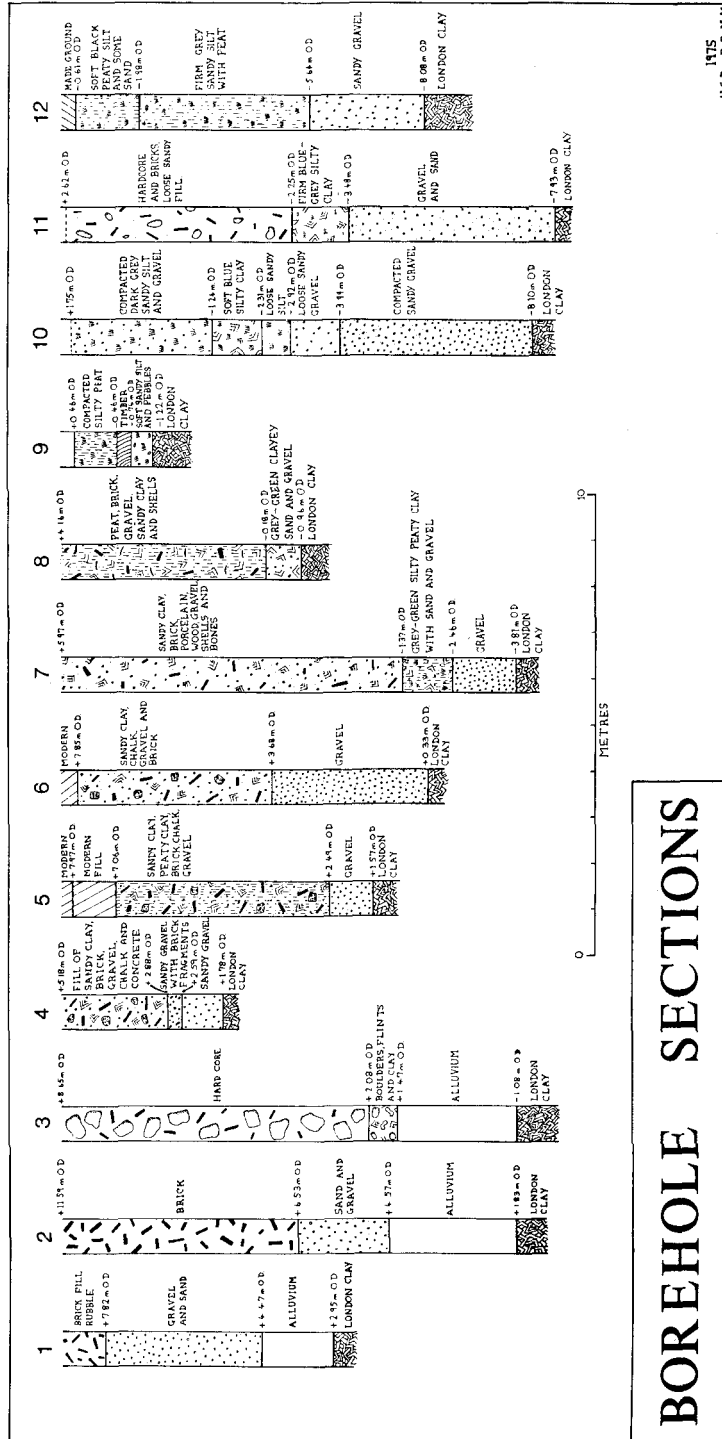


Fig. 3 Roman Palace. Borehole sections recorded during commercial site investigations

BOREHOLE SECTIONS

A thick deposit of Taplow terrace river gravel underlay the brickearth and outcropped down to the region below Rooms 7-11, and below it lay the stiff brownish grey London clay. The junction between the pervious gravel and the impervious London clay was no doubt a line of groundwater seepage, which on some City sites seems to have taken the form of actual springs, as at Billingsgate and beside Huggin Hill, where Roman baths were later located.<sup>14</sup> At the south end of the palace area, beside Upper Thames Street, the London clay was overlaid by sticky greyish silts presumably deposited by the Thames, and beneath this was found the gravel of the northern limit of the Flood Plain river terrace.

#### THE PRE-PALACE PHASE

Evidence of occupation prior to the palace construction has been found on various parts of the site (Fig. 4), and these are described under their separate areas (Fig. 1).

##### AREA 1 (Fig. 4)

Excavations by Tony Johnson in 1972 on the site of Bush Lane House revealed the only certain pre-palace structure in Area 1, there being three phases of Roman timber construction all of which are dated to the pre-Flavian period.<sup>15</sup>

The first phase comprised parts of three beam slots, each about 0.50 m wide, which probably formed part of a single Roman timber building. These had been dug into the natural brickearth, and in the bottom of each of them were post holes between 120 and 150 mm in diameter.

Two additional slots, also with posts, but with a slightly different filling, were found just to the south of the first phase slots and it was considered that these might have formed an addition to the first phase building, or may have been the construction of an adjoining building.

Clearly, with only a little of the plan of these buildings traced, it is difficult to interpret their significance with any certainty; but the association of Neronian pottery and slight traces of burning, with a method of building construction extensively used in military timber buildings, suggests that they may have been military constructions.

Finally, following the demolition of at least the first period timber building there seems to have been added a new timber structure which may have included wattle and daub in its construction.

Later Roman occupation was indicated on the site of the Dyers Arms public house, where Pit 6, which lay within the palace area, was probably of pre-palace date (see p. 16).

##### AREA 2 (Fig. 4):

The examination of the early deposits of this area only occurred during building operations, and much of the pre-palace occupation debris appeared to have been dug away when the great hall (Room 42) of the palace was constructed.

##### PIT 5:

Part of one rubbish pit was recorded which was cut by the south wall of the palace Room 42 (E.R. 681) and clearly belonged to the pre-palace occupation phase. The pit had been dug into the natural gravel, and at its bottom had a layer of silty black mud, overlying which and generally filling the pit was a brownish-grey clayey soil (Fig. 35, Nos. 49, 50).

##### AREA 3 (Fig. 4; Fig. 14, Sections 6, 7 and 8):

This area was only examined during building operations, and, apart from a very considerable quantity of dumped clay and gravel which had been deposited prior to the construction of the palace, no certain evidence of pre-palace occupation or land use was observed.

##### AREA 4 (Figs. 4, 5):

Although there was little time to investigate the evidence in Area 4 for occupation prior to the construction of the palace, some traces of limited extent were actually found. The pre-palace land surface had been destroyed by a very considerable amount of both late Roman, medieval and recent excavation and construction work. Indeed, the horizontal modern cellar floor had been cut diagonally across a succession of downward sloping hillside deposits, so that the pre-palace occupation debris occurred as a zone of pits in the region between Rooms 1 and 5 of the palace (Fig. 15). At the north end of this zone, under Room 1, only the bottom of the deeper feature, Well 1, had survived, while to the south of Room 5, although the archaeological deposits had

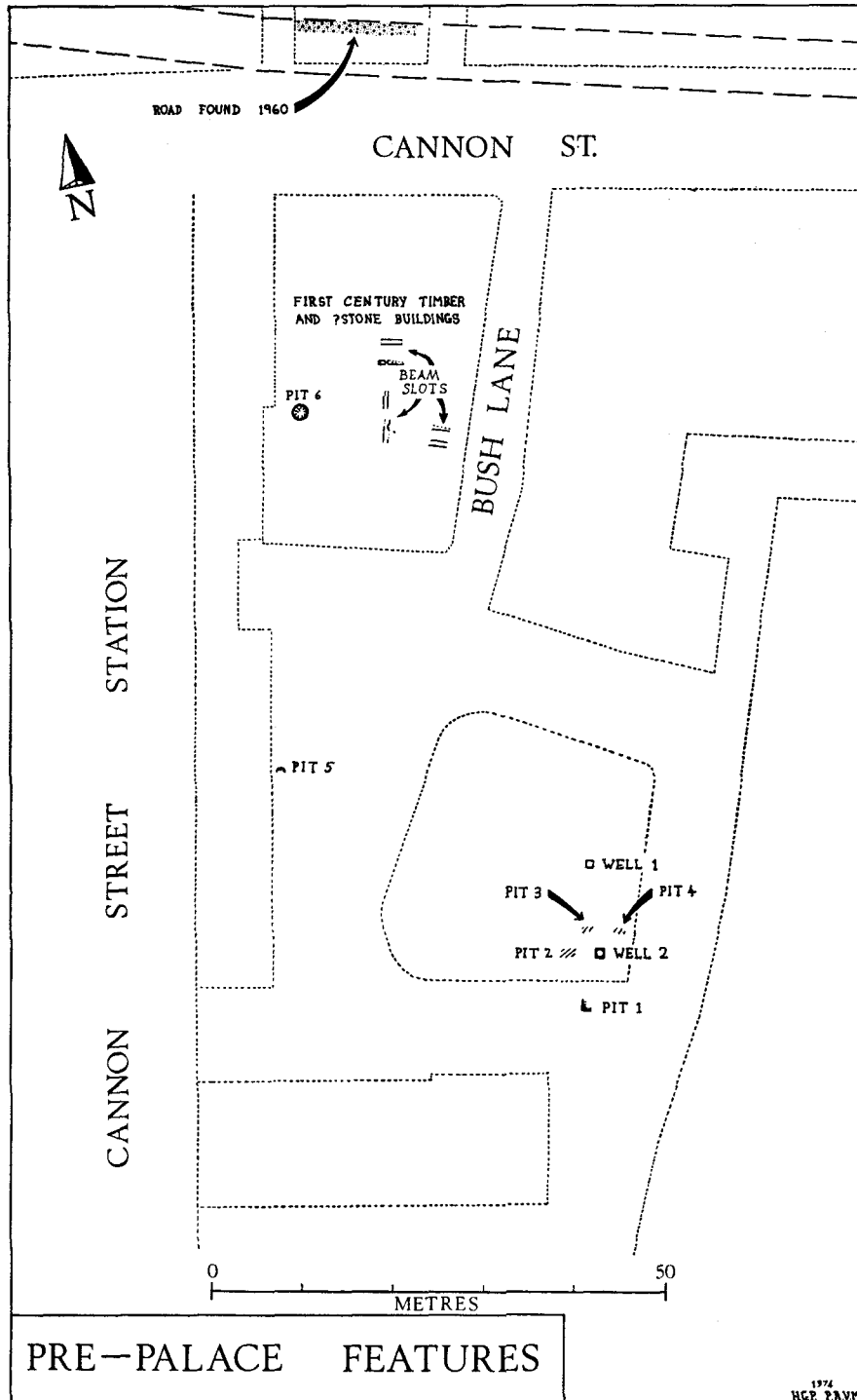


Fig. 4 Roman Palace. Pre-palace features of the first century A.D. The early date of the Roman road under Cannon Street is not established

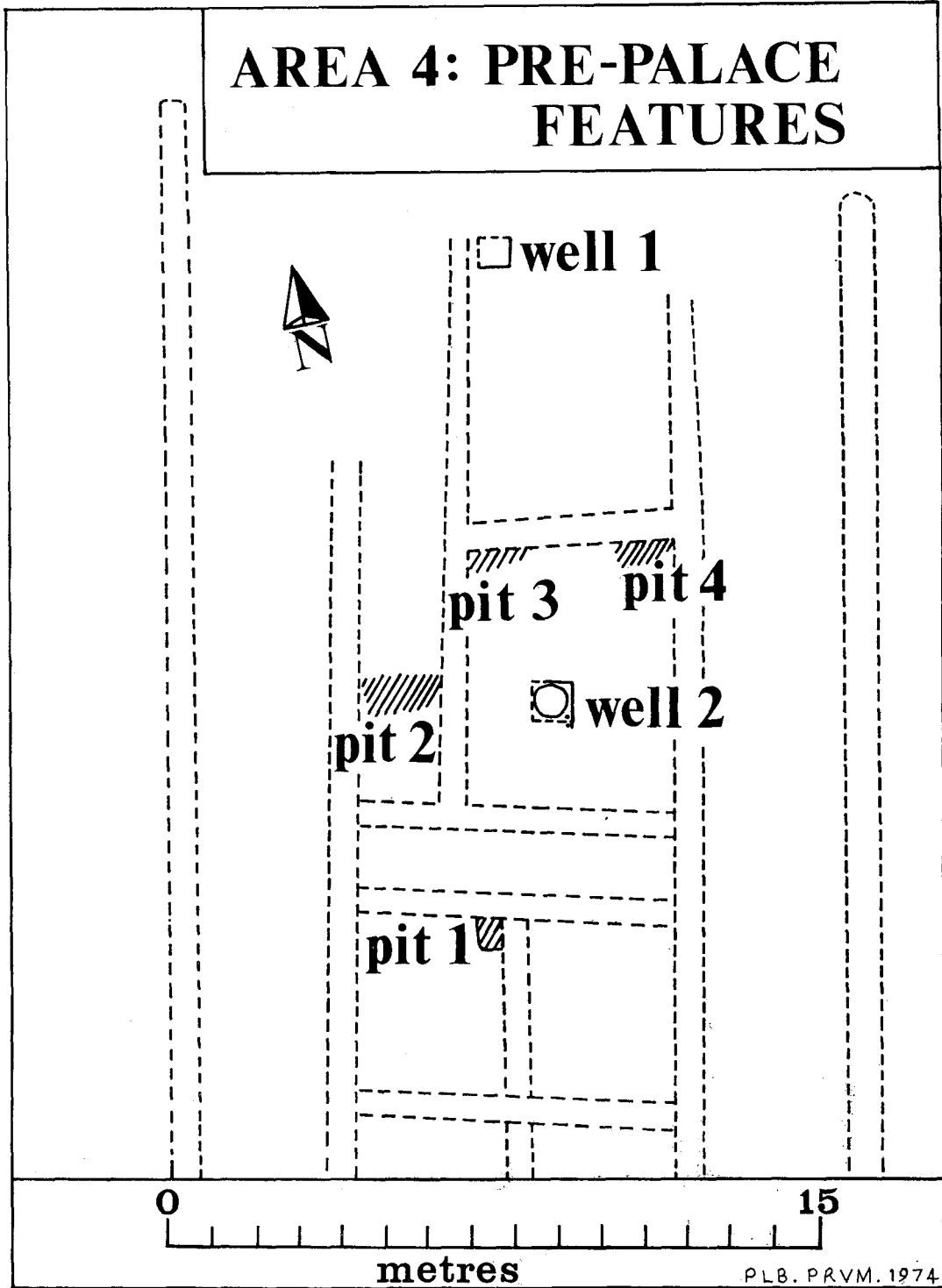


Fig. 5 Roman Palace. Pits and wells recorded in Area 4. Well 2 and Pit 1 contained evidence of Flavian gold refining

been much disturbed, it seems that here there lay a large dump of clay contemporary with the terracing of the hillside for the construction of the palace. That the two Wells, 1 and 2, belong to pre-palace occupation is an assumption based primarily upon their dateable contents.

The only indication of the nature of the occupation is the contents of the pits and wells, which in two cases are so distinctive that it is clear that during the period *c.* A.D. 60–80, a goldsmith had a workshop on the site of the later palace Rooms 2 and 5 or nearby (p. 100; Fig. 46).

#### WELL 1

Only the lowest 0.114 m of this well had survived beneath the modern concrete cellar floor, and indeed a large part of two of its sides and the main part of its surviving filling had been destroyed when a modern concrete foundation was constructed during a pre-war development. The well was square and wood lined, and the fortunate survival of three of its corners show that it was 0.76 m square. The boards forming the sides had completely decayed to a brown earth, and apart from these a corroded iron nail in the south-west corner and a decayed vertical external post at the south-east corner were the sole indications of the construction of the well. The impression of the boards was 0.19 m, and the bottom of the well lay at about 5.18 m above O.D. in natural gravel, this level clearly being below the water table at the time the well was dug. A few sherds were found in the gravel filling the bottom of the well (E.R. 1018) and these date from the period Claudius–Nero (Fig. 35, No. 51).

#### WELL 2 (Fig. 4)

This well was discovered during the building operations on this site, and its upper work and part of one side had been destroyed by a mechanical excavator prior to its archaeological investigation.

The well had been constructed in a deep pit dug into the London clay, to a depth of 1.98 m above O.D. Its lower part was constructed from a wooden barrel with a maximum diameter of 0.96 m which survived to a height of 1.45 m, but from the shape of the barrel it was clearly originally about 1.83 m high. At a mid point in the side of the barrel, in one of the staves, was a circular wooden bung. The circular end board at the lower end of the barrel had been removed prior to the re-use of the barrel and, although the upper end of the barrel had been destroyed, it may be inferred with certainty that the circular board has been removed at that end as well to allow a bucket to be lowered to the well bottom. The base of the well inside the barrel had been specially prepared with a layer of broken pieces of tile and a large fragment of amphora (E.R. 1033) (not illustrated). Above the barrel the well was originally square in form having been constructed of large boards. Parts of three sides, including two corners, were recorded, and it is clear that originally the well was 1.14 m square, this being the length of the one surviving side.

The great depth of the base of this well, compared with that of well 1, even allowing for a lower water-table level lower down the hillside slope, indicates that the well was intended to contain a very considerable quantity of water. That the users required a constant and considerable source of water is also suggested by the fact that the bottom of the well had been dug some distance into the impervious London clay. The amount of water is difficult to judge, but the water table at Well 2 is unlikely to have been below the bottom of Well 1 only 9.75 m away, and as this lay at about 5.18 m above O.D. it is reasonable to conclude that originally at least 3.5 m of water lay in Well 2. This considerable quantity of water suggests more than domestic usage, and it may well have been associated with the goldsmith's workshop, a view which is perhaps supported by the discovery of a little gold dust in the well filling.

The lower part of the well contained a layer of fine silt which included pottery dated to the period A.D. 60–80 (E.R. 1032) (Fig. 35, Nos. 54–58). When the well went out of use it was filled by dumping clay, and this too contained pottery of the period A.D. 60–80. While scraping down the dumped filling of the well a small pocket of water in the clay was opened, and a sprinkling of fine gold dust ran down the face of the section, indicating that the well was filled after the goldsmith had started operating on the site.

#### PIT 1

This pit was located at the north-east corner of the later Room 5 of the palace, and the foundations of the corner of the room had been cut through part of its filling. In the pit were a large number of sherds (E.R. 964 1021) which are dated to the period A.D. 80–100 (Fig. 35, Nos. 62–74; Fig. 42, Nos. 281–86). Part of the filling consisted of a layer of wood ash, and in this was found a series of objects connected with gold working, including parts of three crucibles which were partly impregnated with gold, three crucible lids, and fragments of baked clay used to seal the lids of the crucibles (Fig. 46).

PIT 2

The lower part of the pit containing a filling of mixed clay and earth was found cut by the later foundations on the east and west walls of Room 3, and also by the foundation of an hypocaust flue. The few dateable sherds (E.R. 962) are of Flavian period (Fig. 35, Nos. 59–61).

PIT 3

The bottom of a pit was found cut by the north wall of the later Room 2. The sandy earth filling included a few Flavian sherds (not illustrated), and small fragments of soft mortar (E.R. 956).

PIT 4

A pit containing mixed deposits of clay and black earth was found underlying the ragstone foundation probably of an hypocaust flue in the north-east corner of the later Room 2. The sherds are of Flavian period (E.R. 957) (Fig. 35, No. 52).

## DISCUSSION

### PRE-PALACE PHASE (Figs. 2, 3, 4, 5)

The physical geography of the region of Roman London under discussion is particularly interesting, for it comprises the edge of a high flat-topped promontory of land, with steep slopes down to the Walbrook stream to the east, and down to the River Thames to the south (Fig. 27). Thus this was a natural land formation of great potential as an easily-defended military position. Already excavation at the edge of the plateau area has revealed traces of a possible early Roman timber storehouse building of military type,<sup>16</sup> and it is possible that the edge of the scarp was originally strengthened by some form of defensive feature related to what may have been an early Roman military base in London, built at the northern bridge-head of the crossing of the Thames<sup>17</sup>. Early pre-Flavian developments in the area are very poorly preserved, and are largely represented by rubbish pits and wood-lined wells. Nevertheless, clear evidence of gold refining was found associated with a pit and a well dating from the early Flavian period (Pit 1 and Well 2), and as gold mining and refining, in contrast to jewellery making was, normally, undertaken under imperial control,<sup>18</sup> it is possible that the Bush Lane area of Londinium may also have remained under provincial ownership. In spite of this possibility it is difficult to understand why gold refining was undertaken in Londinium instead of at the mining source, which was possibly at Dolaucothi in Carmarthenshire where extensive evidence of gold mining is currently being investigated.<sup>19</sup> However, the discovery in London of an iron stamp probably of the second century A.D. bearing the inscription M.P. BR<sup>20</sup> may have some bearing on the problem and support the suggestions made above. Merrifield has interpreted this stamp as probably meaning *M(ETALLA) P(ROVINCIAE) BR(ITANNIAE)*—“mines of the Province of Britain”, and that this relates to provincial government control and the marking of ingots of a soft metal such as gold,<sup>21</sup> and that this is indicative of provincial economic affairs having been centred in Londinium at that time.

This suggested that continuing ownership of this significant quarter of Roman London by the provincial government would have stopped civil developments occurring on this attractive location, until such time as the site could be properly developed for provincial purposes. Although the site lies close to London Bridge and to the heart of the early Roman city no major stone buildings appear to have been erected there until the latter half of the Flavian period. These suggestions are supported by extremely tenuous evidence, but they are mentioned if for no other reason than to point out the importance in future excavations of trying to establish the nature of the pre- and early Flavian occupation of the area.

### THE ROMAN PALACE (Fig. 28)

A large palatial residence was constructed on the site during the Flavian period, and this is described below. Some attempt has been made to separate out the various building phases of each area, but where isolated portions of Roman structure have been found it is not possible to determine whether they are of the palace period or later. In other areas, such as in Areas 1 and 9, the evidence is sometimes too limited to allow a conclusion to be reached with any certainty. Nevertheless, the palace is described below in the various areas which most conveniently relate to its layout.

#### AREA 1. VARIOUS ROMAN PHASES (Figs. 6-9)

This region at the north end of the palace area (Fig. 6) was investigated in three major portions at different times. The first was in 1840-41 when Roman walls were roughly recorded on Sewer Plan 27 during sewer excavations in the centre of Bush Lane (Fig. 7). The second was in 1965 when an archaeological excavation was carried out under the author's direction on the site of the former Dyers Arms public house, just east of Bush Lane House. And finally in 1972 when the site of Bush Lane House itself was archaeologically investigated under the direction of Tony Johnson.<sup>22</sup> Extensive traces of Roman structures were found on all three occasions and, while it might be thought that they would easily form a coherent picture, this has proved not to be the case due to the difficulty of correctly positioning the three sites in relation to each other.

The position of the Roman walls found in Bush Lane about 1840 were sketched in pencil on Sewer Plan 27 (Fig. 8), and related to the buildings then extant, but none of which existed when the post-war archaeological excavations were carried out. Thus, although the sewer position and, therefore, the sewer trench in which the walls were found is known, it is not possible to establish the exact position north or south of the Roman walls.

The archaeological features exposed in the Dyers Arms excavation were recorded from the side of Cannon Street Station, which itself was accurately related to the archaeological sites further south and east in the palace area. Consequently, although the archaeological features on the Dyers Arms site are correctly positioned with regard to the rest of the excavated palace area, there is no accurate link-up with the walls found under Bush Lane in 1840.

The Bush Lane House site excavations occurred inside a standing office building of the late nineteenth century, and the archaeological features were related to an interior plan of the basement of that building. Unfortunately, this could not be accurately related either to the neighbouring Dyers Arms site or to Bush Lane itself so, in a sense, the plan of the Roman features is "floating" in an uncertain position.

The relationship of all three sites *as recorded* and without any attempt to rationalize their plan is shown in Fig. 6A; while in the same drawing there is shown a rationalization of all three plans in which each site is moved slightly to ensure that Roman features link up. Particularly important is a Roman wall apparently linking the Dyers Arms and Bush Lane House sites, for, as the unadjusted plan shows, the two portions of what seems to be the same wall (Feature 33 and the north wall of Room 39), are of similar construction and are so closely positioned that it seems reasonable to assume that they formed parts of the same wall.

The levels of the surviving Roman deposits also have an important bearing upon the interpretation of the plans, for both on the Dyers Arms and Bush Lane House sites the modern cellars had been horizontally cut into what was the top of the natural hillside slope. Consequently the Roman deposits had survived more intact at the southern or lower end of the two modern buildings, where also a terrace had been cut during the Roman period. The cellar floor of Bush Lane House was slightly deeper than that of the Dyers Arms public house and no trace of any Roman masonry building was found in the northern half of the site. On the Dyers Arms site, however, there remained the lower parts of two possible robbed Roman walls, while under Bush Lane itself, where no cellars had removed the Roman deposits, there were found in 1840 a series of Roman walls showing that a substantial area of building had occupied the northern part of Area 1 (Fig. 7). Because of the incomplete record of the pre-war discoveries it is very difficult to interpret the incomplete plan of the masonry constructions in this area.

#### DYERS ARMS SITE—PROBABLE PALACE PHASE

The natural subsoil on this site comprised a sandy brickearth, and the bottom of the modern cellar floor lay just above the level of the natural subsoil, thus preserving small portions of the lowest archaeological deposits.

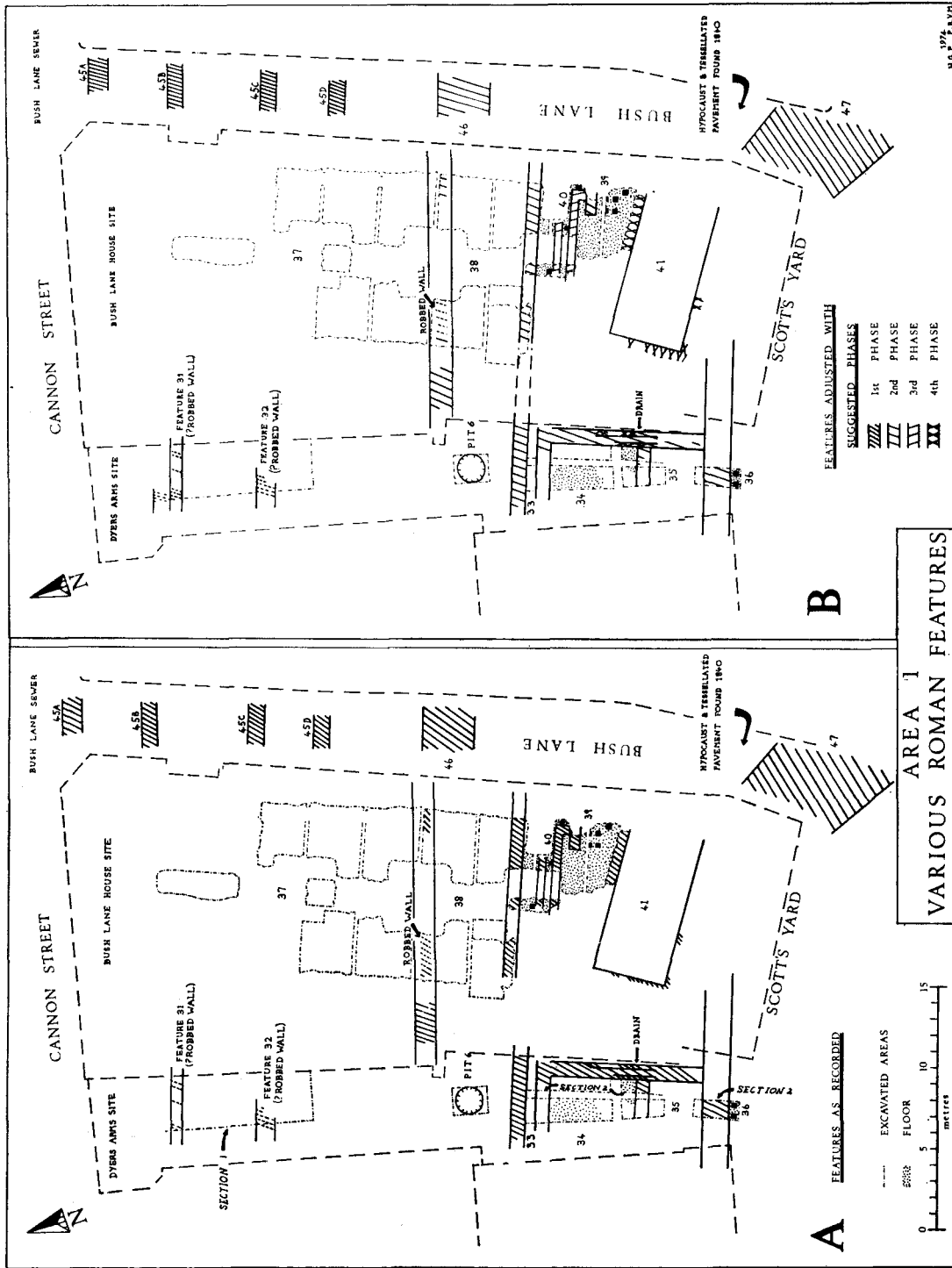


Fig. 6 Roman Palace. Roman masonry structures of all phases in A, as recorded, and in B, as adjusted to bring the Dyers Arms and Bush Lane House sites into line



For the purpose of description the site can be most conveniently divided into two almost equal parts—the northern and southern halves. Due to the depth of the modern cellar and a very considerable amount of post-Roman disturbance, few Roman features could be found in the northern half of the site, and those which were found could not be stratigraphically related to each other (Fig. 7). In the southern half of the site, perhaps due to a lower Roman terrace being situated there, the excavations exposed a complex of Roman masonry structures.

#### NORTHERN HALF OF THE SITE

##### PIT 6 (Fig. 6):

A circular pit filled with dark earth and containing a considerable amount of Flavian pottery (E.R. 1117, 1160) (Fig. 33, Nos. 1–22).

On the south side of this pit was a deposit of dumped clay, which had apparently been cut by the pit, and which also contained a considerable amount of Flavian pottery (E.R. 1162) (Fig. 34, Nos. 23–47).

##### FEATURE 31 (Fig. 7, Section 1)

This was the lower part of a “gully” 0.76 m wide, the bottom of which lay just above the natural land surface level; and in its black earth filling was a considerable quantity of broken mortar and rubble suggesting that this had been a robbed Roman wall aligned roughly east–west.

##### FEATURE 32 (Fig. 7, Section 1)

This was the bottom of possibly another robbed Roman wall also aligned roughly east–west, for it was a gully or trench about 1.35 m wide which had been filled with black soil containing a great amount of Roman building debris—ragstone, broken Roman tiles and fragments of *opus signinum*.

#### SOUTHERN HALF OF THE SITE

##### ROOM 33

This was a narrow “chamber” only 0.76 m wide. On its north side was a Roman wall 0.91 m thick and constructed of ragstone and buff mortar. Pressure had completely cracked this wall in two places in the short length exposed on this site, and it seems that this had been exerted from the north or uphill side of the wall as the western end of this short length had been slightly displaced to the south.

##### ROOM 34

This room had been extensively destroyed by excavations during the early medieval period. The room measured 4.88 m north–south, and at least 2.47 m east–west; and below the post-Roman disturbance which had removed the floor of the room, there was found a layer of ragstone rubble and buff mortar which may have been the foundation of a sunken floor.

##### ROOM 35

The floor and almost the entire north wall of this small room had been destroyed during the construction of a post-Roman pit. Sufficient had survived to show that the room measured about 3.35 m north–south, and more than 2.13 m east–west. The remaining part of the north wall was constructed of ragstone and buff cement, and it was 0.76 m thick and it abutted the east wall of the room from which it was separated by a straight joint. The south wall of Room 35 was a massive wall 1.68 m thick which formed the north wall of Room 36.

##### ROOM 36

Only a very short length of the north side of this room could be uncovered, the wall being 1.68 m thick and built of Kentish ragstone set in buff mortar and overlaid by five courses of red Roman bricks, also set in buff mortar, above which level the wall had been destroyed. There was an offset of 0.064 m at the junction of the ragstone wall and the tiles above on the south face of the wall, but no comparable offset on the north side. Just below the offset there was a Roman floor of buff flinty concrete which supported, in the trench, two red brick hypocaust *pilae* separated 0.31 m apart. Above the hypocaust floor was a deposit of black earth about 110 mm thick containing fragments of Roman tiles. The surface of the concrete floor lay approximately at 8.46 m above O.D.

Some possible indication of the interior of Rooms 34 and 35 was included in the contents of the early medieval pits dug into Rooms 34 and 35 (Fig. 7, Section 2). There appear to have been two separate pits (Layers 1–4, 6–12 and 14); that dug into Room 34 being the earlier. In this pit the deposits included Roman tiles, both of the *imbrex* and *tegula* types, as well as fragments of box flue tiles—these generally having traces of the buff-coloured mortar in which they had been set. Also a small number of pieces of pink-painted wall

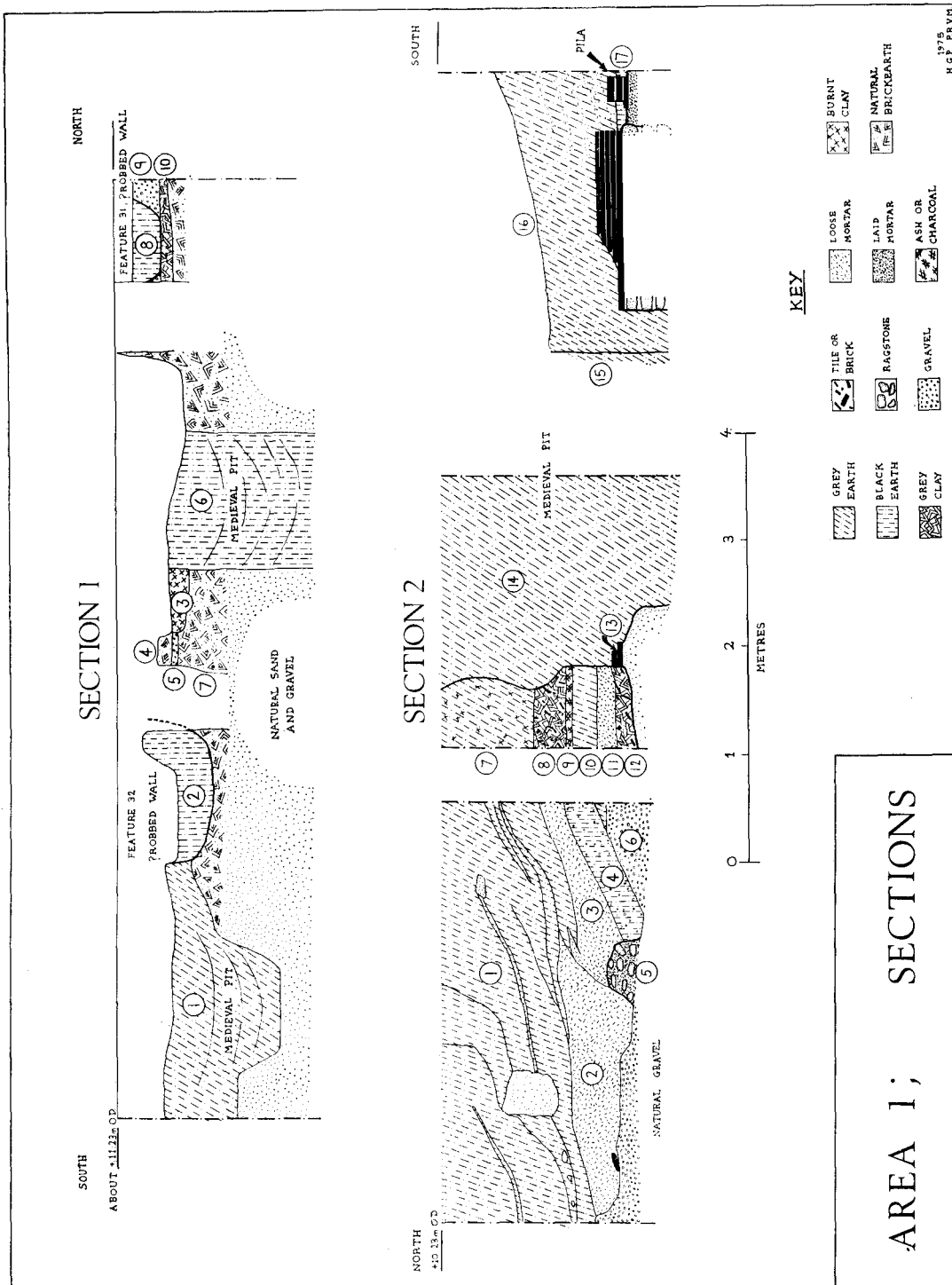


Fig. 7 Roman Palace. Sections 1 and 2 on the Dyers Arms site

plaster were found. Flooring was indicated by 35 white tesserae and two grey tesserae, most of which bear traces of the pink mortar in which they were set; and there were two small fragments of Purbeck marble, one bearing traces of having been set in pink mortar (E.R. 1120, 1122, 1123, 1124, 1125, 1127, 1128, 1129, 1130). The stratigraphically later pit dug into Room 35 also contained a few sherds of early medieval pottery (E.R. 1121) but, in addition, two white tesserae with traces of pink mortar; also a tile with a PP BR LON stamp (Fig. 42, No. 292). The suggestion, therefore, is that these rooms may have had hypocausts and tessellated floors; and this is also indicated by what seems to be the low-lying floor foundation in Room 34.

#### BUSH LANE HOUSE SITE (Fig. 6)

The cellar of this building had been cut into the natural brickearth a little and, as it was slightly deeper than the floor of the Dyers Arms public house, no Roman walls were found in the northern half of the site (Feature 38). The natural, sandy brickearth surface had been destroyed by the recent building operations, though it was recorded to a height of 9.90 m above O.D.

Johnson has discussed the sequence of Roman masonry construction on the Bush Lane House site,<sup>23</sup> though as the structures were evidently part of the Roman palace complex he did not attempt to interpret their significance. Essentially he identified three phases of masonry construction, to which a fourth may be added on the grounds of its probable Roman date.

#### PHASE A

This comprised two walls forming the north and south sides of Room 38. Only the foundations had survived dug into the natural subsoil, and their varying widths are due to the narrowing of the bottom of the foundations. The north wall (Johnson's "wall 1") had a maximum width at its west end of 1.30 m (not shown on Johnson's plan, Fig. 31) and was constructed of ragstone and yellowish mortar. The south foundation (Johnson's "wall 2") was similarly constructed and was about 0.55 m wide.

#### PHASE B

Whatever flooring had originally existed south of Feature 38, it is clear that this had subsequently been removed and a hypocaust inserted to form the base of Room 39.<sup>24</sup> Within this room was found the western end of a short wall of ragstone and buff mortar which also included an horizontal course of bonding tiles; this apparently having been constructed on the concrete lower floor of the hypocaust which suggests that it was a later modification.

#### PHASE B

Whatever flooring had originally existed in Room 39 it is clear that this had been removed and the soil below excavated down to the base of the foundation of the north wall of this room for the insertion of a hypocaust.<sup>25</sup> Perhaps a little later in date than the floor was a short length of wall<sup>26</sup> constructed of ragstone and buff mortar with an horizontal course of bonding tiles, which apparently had been built on top of the hypocaust floor.

#### PHASE C

Of even later date was the hypocaust flue<sup>27</sup> constructed on the concrete floor of the hypocaust. It is not clear how this relates to the stratigraphy but above the hypocaust floor was a compact layer of rubble,<sup>28</sup> clearly indicating that the hypocaust had been filled in at some stage, and it is perhaps then that the flue had been constructed as part of a modification to the hypocaust system. A *pila* tile bearing a PP BR LON stamp was found in the rubble.

#### PHASE D

The final Roman phase was not dated by any archaeological evidence but merely from the style of construction. It was, in fact, a sunken room (Fig. 6, Room 41), aligned obliquely to the earlier Roman structures, which had been cut through the hypocaust floor of Phase B, and through the overlying rubble. The walls were built of ragstone, flint, occasional Roman brick fragments, and a little chalk, set in a hard pale concrete and, in spite of the presence of the chalk (which is rarely found in Roman buildings), it had all the appearance of being of Roman date. The sunken interior faces of the room were rendered in white plaster, possibly painted white originally. No trace of any hypocaust was found, and the entire contents of the room, including the original floor, had been dug away in the nineteenth century and backfilled before Bush Lane House was built at the end of the nineteenth century.

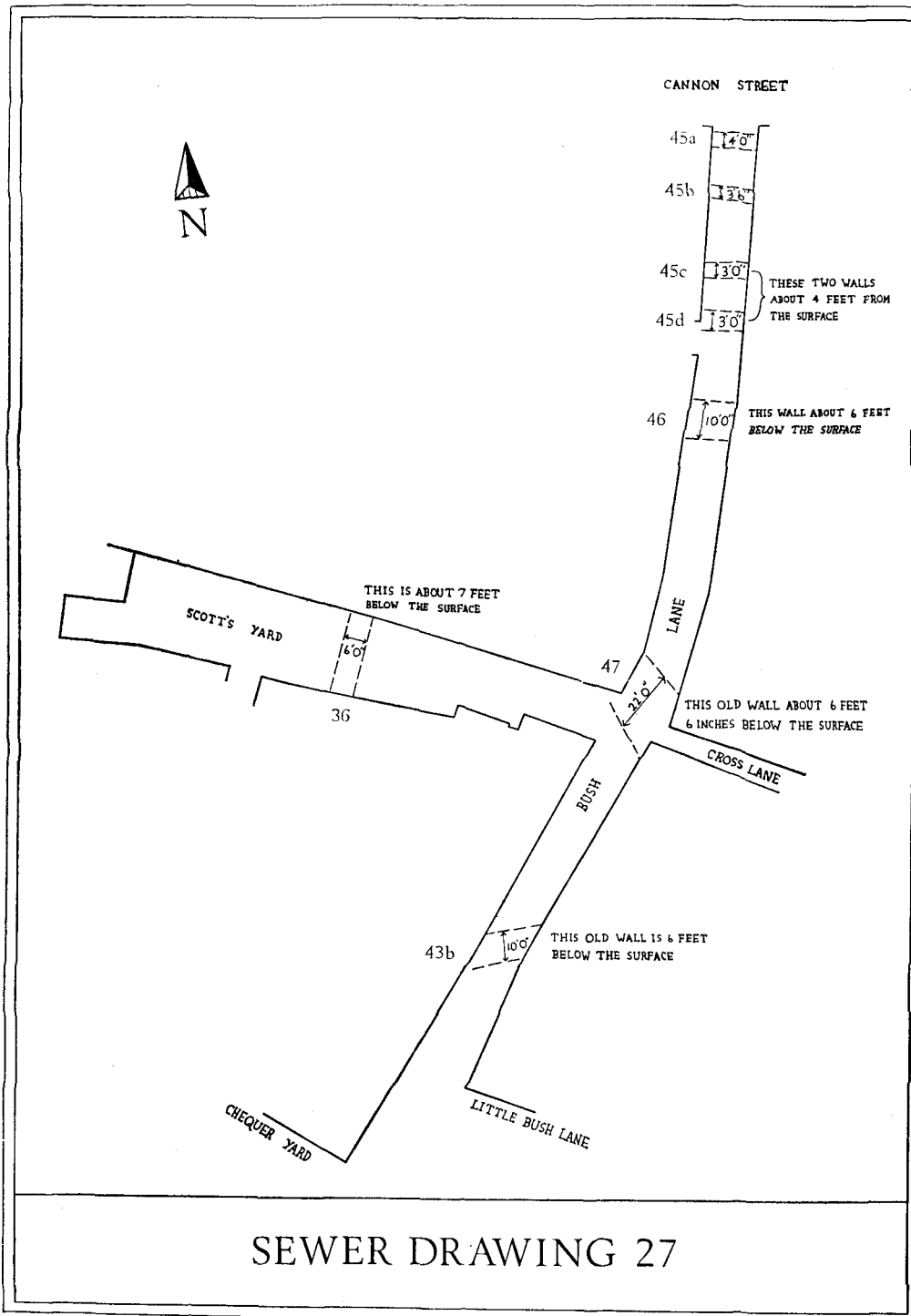


Fig. 8 Roman Palace. Roman walls recorded on Sewer Drawing 27, c. 1840, re-drawn for publication. The feature references used in this report have been added to the plan

## BUSH LANE SEWER EXCAVATION 1940-41 (Figs. 6, 8, 9)

In the northern half of Bush Lane the excavations in the main roadway in 1840-41 uncovered a series of Roman walls.<sup>29</sup>

These are recorded on Sewer Plan 27 (Fig. 8) and, with the numeration mentioned below, are shown on Fig. 6.

WALL 45A. This wall is recorded as being 1.22 m wide (Sewer Plan 27), and apparently in line with and "running under the pavement of" Cannon Street.

WALL 45B. This is recorded as being 1.07 m thick (Sewer Plan 27).

WALL 45C. This is recorded as being 0.91 m thick, and about 1.22 m from the modern road surface (Sewer Plan 27).

WALL 45D. This, too, is recorded as being 0.91 m thick and about 1.22 m deep (Sewer Plan 27).

WALL 46. This wall was 3.05 m thick and located about 1.83 m below the modern road surface (Sewer Plan 27).

WALL 47. This structure is tentatively called a "wall" though its massive size makes this unlikely. On Sewer Plan 27 it is shown as 22 ft wide, while in the original description by Charles Roach Smith, which is as follows, it is given as 20 ft wide:<sup>30</sup>

"... opposite Scot's Yard a formidable wall of extraordinary thickness was found to cross the street diagonally. It measured in width 20 feet (6.1 m). It was built of flints and rag, with occasional masses of tiles. On the north side, however, there was such a preponderance of flints, and on the south such a marked excess of ragstone, as to justify raising a question as to whether one half might not have been constructed at a period subsequent to the other, though the reason for an addition to a ten-foot wall is not apparent. So firmly had time solidified the mortar and ripened its power, that the labourers, in despair of being able to demolish the wall, were compelled literally to drill a tunnel through it to admit the sewer. Whatever might have been the original destination of this wall, whether it formed part of a public building or a citadel, it must have been perverted from its primary destination at some period during the Roman dynasty. The excavation was carried to the depth of 15 feet (4.57 m), the remains of the wall appearing 6 feet (1.83 m) below the street level. Adjoining the north side of the wall, and running absolutely upon it, was a pavement of white tesserae, together with a flooring of lime and pounded tiles, supporting the tiles of a hypocaust in rows of about one dozen, two feet (0.61 m) apart; with these were several of the square, hollow tiles, such as were inserted in the walls of domestic habitations, for conveying the heated air from the hypocaust to the apartments, but which were here somewhat out of place, and adapted for the purpose of pillars, by being filled with mortar. These remains must therefore have been long posterior to the erection of the great wall crossing this lane."

The interpretation of this description is uncertain, but essentially it seems that there were two structures—the "great wall" and the mosaic and hypocaust. Roach Smith's reasons for making the statement that the mosaic and hypocaust must be "long posterior to the erection of the great wall" are not clear, though the only alternatives are that he may have considered that the flue tiles used in the hypocaust as *pilae* may have been re-used from the great wall; or that the hypocaust partly overlay the great wall. Of these, the latter seems most likely because he does state that the hypocaust and mosaic were "adjoining the north side of the wall", and were "running absolutely upon it". It is unlikely that he intended that *both* of these phrases meant that the hypocaust lay immediately to the north of the great wall, for he would be merely repeating himself. Instead it seems more likely that he meant that the mosaic and hypocaust overlay the "great wall" and extended to the north of it. As the sewer trench was only about two metres wide it is clear that the hypocaust extended some considerable distance north of the "great wall". Indeed, the twelve rows of *pilae* each two feet (0.61 m) apart must have extended over a length of not less than 30 feet (9.14 m) up the hill, much of it probably to the north of the "great wall".

This "great wall" is recorded on Sewer Drawing 27 (Fig. 8), which states that it was 22 ft (6.7 m) wide. Sewer Drawing 43 (Fig. 9) gives us an additional record which states that the "old stone wall" lay at a depth of 6 ft 3 in (1.91 m) and that it was 5 ft (1.52 m) thick, this latter figure being implied by the note indicating that the base of the wall lay below 6 ft 3 in (1.91 m) of made ground and 5 ft (1.52 m) of old stone wall—a total depth of 11 ft 3 in (3.45 m) below Bush Lane, whereas the base of the new Bush Lane sewer lay at a depth of 13 ft 3 in (4.04 m), two feet (0.61 m) below the bottom of the masonry.

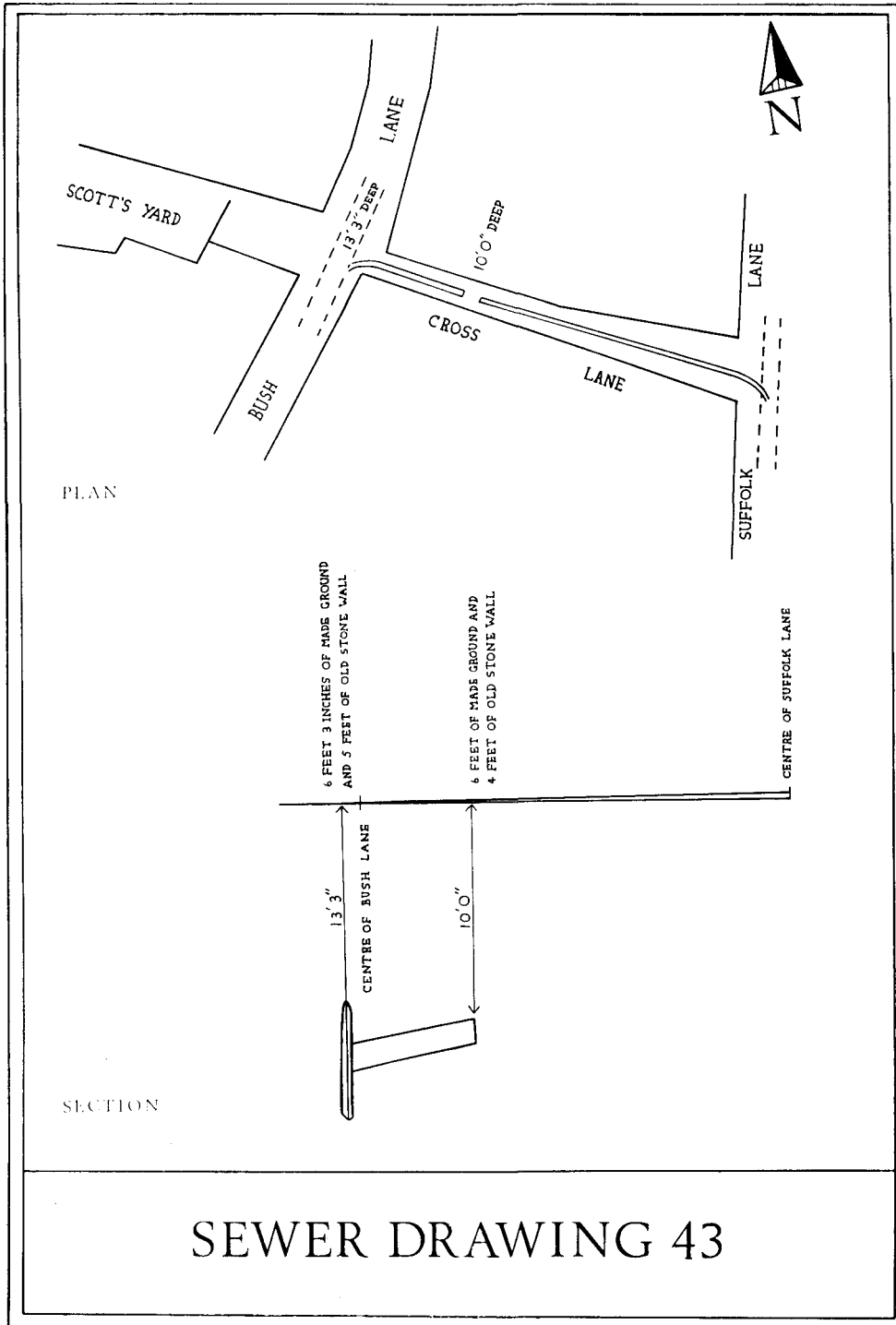


Fig. 9 Roman Palace. Roman walls recorded on Sewer Drawing 43, c. 1840, re-drawn for publication. See Fig. 10 for their location in the Roman Palace

In summary, therefore, it seems that Wall 47 was in fact a raft of ragstone and flint concrete about 5 ft (1.52 m) thick and 20–22 ft (6.1–6.7 m) wide; and that it was partly overlaid by a later Roman hypocaust and mosaic pavement. The massive construction of the concrete raft suggests that it belongs to the initial palace phase. East of this feature the sewer excavation in Gophir Lane exposed an “old stone wall” (Fig. 9), which may have been an eastern construction of the east wall of Room 44 (Fig. 10).

#### AREA 1. RECONSTRUCTION OF THE ROMAN STRUCTURES (Fig. 6)

If one assumes that the small adjustments made to rationalize the plan (Fig. 6) are reasonable, then it is possible to see a pattern of development in the site, and it is possible to make a tentative interpretation of the plan.

It is clear that the Roman masonry structures fall into three groups: those situated in the northern half of the sites on the highest level; those situated in the southern half of the site on a lower level; and those which have replaced the structures on the southern half of the sites.

The wall just north of Room 33 marks the division between the northern and southern halves of the site, and it is clear that to the south of it was situated a range of rooms which seem to have had hypocausts (Room 39 and, possibly Rooms 34 and 35) and possibly mosaic pavements judging from the tesserae and flue tiles found in the filling of the early medieval pit dug into Rooms 34 and 35. There were clearly subsequent modifications to these rooms, as is indicated by the flue (40) in Room 39; and it would seem that the hypocaust (36) may have been built into the north end of the great hall (42). The concrete “raft”, Wall 47, remains an enigma which can only be clarified by further excavation beneath Bush Lane itself, but its massive size, and that of Wall 46, indicates that they were constructed during the early palace phase.

In the northern half of the site the pattern of walls again suggests a range of rooms, not necessarily contemporary with the range of rooms in the southern half of the site. Walls 45A–45D are particularly interesting, and could be interpreted as possibly a range of rooms between Walls 45B and 45C and bounded by two corridors 45A–45B and 45C–45D. The possibly robbed Walls 31 and 32 may have been a westward extension of Walls 45B and 45C, which were not found on the Bush Lane House site because the modern cellars were too deep in that area.

This structure could, in fact, be interpreted either as a northern part of the north wing of the palace, or as a building pre-dating the palace which was located close to the southern edge of the Roman road beneath Cannon Street. Clearly it is necessary to excavate in Bush Lane itself and to the east to resolve these problems. If it was an earlier building, however, it is unlikely that the area north of Chamber 38 was an entrance courtyard of the palace.

The slightly oblique alignment of the wall on the north side of “Room” 38 is puzzling and, in spite of the similarity of its construction to the south wall of Room 38, it could belong to a pre-palace phase of construction. Alternatively, however, it may simply have belonged to the palace phase forming a corridor linking the range of rooms to the south. Within these alternative suggestions it is difficult to interpret the massive “wall” 46 which was located beneath Bush Lane, but its size indicates that it was probably constructed during the main palace phase when the monumental “state rooms” were being constructed.

Traces of structures which completely replaced the earlier palace structures were also found. On the Dyers Arms site a drain made from tiles was found lying on top of the east wall of Rooms 34 and 35, and this could only have been constructed after the wall had been demolished. Under Bush Lane House the sunken Room 41 had been constructed on a new alignment and cutting across the earlier “palace phase” structures. Under Bush Lane itself a mosaic and hypocaust were discovered, probably overlying part of Wall 47, and were certainly later in date than Wall 45.

#### AREA 2 (Figs. 1, 10, 11)

A group of rooms and possibly other structures of monumental size and massive construction were originally ranged along the north side of the garden-court of the palace. These clearly formed a central feature in the palace complex and are thus referred to as the “state rooms” (Fig. 10).

Possibly central to the group of rooms was a massive hall, Room 42, while at the east end there was the large apsidal Chamber 44. Unfortunately, however, the plan of these structures is incomplete, and there has been some difficulty in linking up parts of the whole Roman building found on adjoining sites at different times, this particularly applying to the southern or garden-court frontage of the state rooms. For this reason it has been necessary to rationalize what would otherwise be a disjointed and meaningless plan.

The structure of the "state rooms" was recorded in four stages, each independent of the others, and it was only when the last was completed that any suggestion of a coherent pattern began to emerge. Firstly, various walls were recorded during the excavations of about 1840 to construct sewers beneath Bush Lane, Cross Lane and Gophir Lane. These were described by Charles Roach Smith who, unfortunately, made no plan of the remains.<sup>31</sup> By good fortune, however, and perhaps because of the interest shown by Roach Smith, somebody (probably the foreman) sketched the positions of the Roman walls onto the old sewer plans and, wherever it is

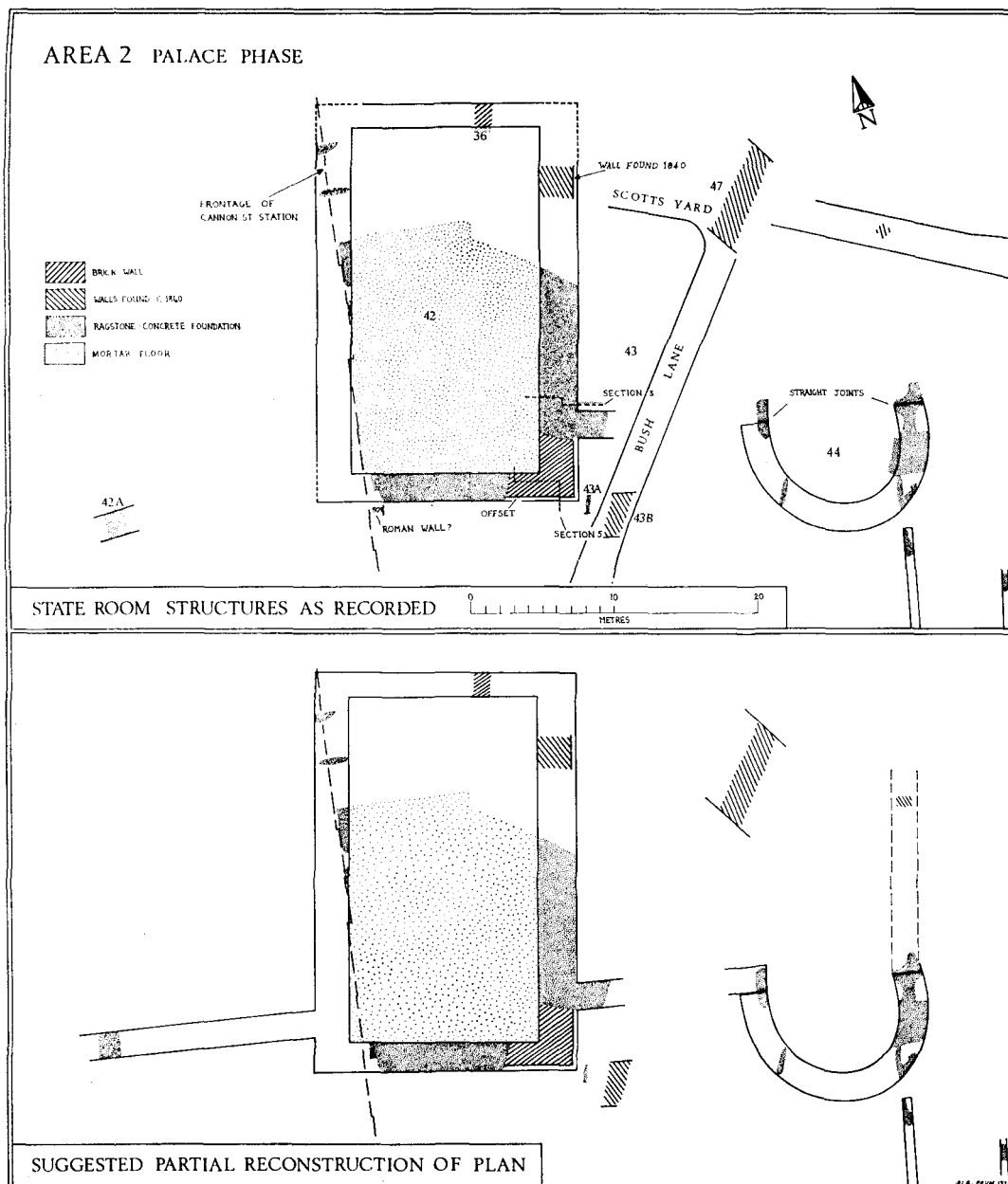


Fig. 10 Roman Palace. Area 2. Plan of the "state rooms" of the palace as recorded (upper) and as partly reconstructed (lower). The large rooms overlooked the ornamental garden-court (Area 3) to the south



possible to check, it seems that almost all Roman walls that were encountered were recorded. Secondly, the walls of the great hall, Room 42, were later recorded by the author during the excavations to build Elizabeth House, and it was here that a Roman wall was found continuing east of Room 42. This wall, which forms the southern boundary of Room 43, was only seen during the rebuilding operations, and the angle that it formed with the east side of Room 42 could not be determined and was presumed to be a right-angle.<sup>32</sup> Thirdly, archaeological excavations also by the author, to the east of Bush Lane in the area subsequently re-developed for office accommodation, revealed the apsidal Chamber 44, together with evidence of a wall foundation whose alignment, if extended westwards, links up almost exactly with the position of the wall found on the east side of the great hall. This alignment is diagonal to that of the great hall but, for the reasons stated below, it seems reasonable to conclude that it did exist. Fourthly, another palace foundation, 42A, was recorded by the author within the inner recesses of the vaulted lower part of Cannon Street Station and, although detailed measurements were taken, it was not possible to determine its position or alignment with great exactitude, though its distance west of the east wall of the Station is accurate. What was clear, however, was that the wall was on an alignment diagonal to that of the great hall, this wall being discovered before the excavation was undertaken which revealed the diagonal wall adjacent to the apsidal Chamber 44. It is now clear that if the line of the diagonal frontage wall to the east of the great hall is extended westwards it comes very close to the foundation 42A found beneath the Station. In all probability, therefore, this diagonal line is the garden-court frontage of the state rooms. Not only was this view supported by the fact that the fragments of the frontage wall were all of similar thickness, but also that, although the pre-war basements were deep to the east of Bush Lane opposite the great hall 42, they were not deep enough to remove the bottom of the foundation of Room 44, and had there been any other massive monumental frontage walls and structures associated with the state rooms, they would have been found. No such structures were found, however.

The construction of the "state rooms" walls was extremely distinctive and most unusual in London, for they were of exceptional hardness. The foundations were built of Kentish ragstone and a little flint set in a matrix of extremely hard creamy coloured concrete. There was no evidence of any layering of stone and concrete such as occurs, for example, in the defensive Roman city wall. The hardness of the concrete and its binding ability is such that when the foundations of the great hall, 42, were being demolished, the fractures split across both the concrete and ragstone as if both were one. The foundations have all the appearance of having been poured into the foundation trenches, though there was some evidence of efforts at stone facing in the foundations. Little of the walls above had survived later Roman demolition and robbing, and subsequent disturbances on the site; but at the south-east corner of the great hall, Room 42, was found a small surviving portion of the wall which was built of layers of bricks set in the very hard light-coloured concrete.

#### ROOM 42 (Fig. 10)

This was a very large hall about 13.1 m wide and probably 24.38 m long internally, floored with buff mortar about 0.23 m thick situated at about 7.31 m above O.D. The bottom of the foundations of the east, west and south walls lay at about 3.00 m below the Roman floor level of the hall. The thickness of the foundations varied for each wall, the south wall fronting on the garden-court being 2.01 m thick, the east wall being 2.74 m thick, and the west wall being about 3.00 m thick. The foundation of what was probably the north wall was not disclosed, but the wall above was 1.68 m thick. Most of the walls above the foundations had been destroyed both by later robbing and by the construction of later buildings on the site, but at the south-east corner of the hall they survived to a height of more than 1.52 m above the Roman floor level (Fig. 11, Section 5). Internally the lower 0.91 m of wall was faced with Kentish ragstone, and above that were ten courses of red bricks. On the exterior south and east faces and level with the bottom of the brick courses, was an offset of 0.35 m below which the wall had been faced with red bricks horizontally laid, the bottom of the bricks presumably being at the level of the north side of the garden-court.

Adhering to the wall faces inside the hall were traces of a plaster rendering which had been painted white (Fig. 11, Section 3). Not enough of the actual wall structure had survived to show if there were any external or internal mouldings, pilasters, or other ornamental features. It is reasonably certain, however, that there were no projecting buttresses, though a stone foundation (Fig. 12) of possible Roman date just south of the great hall and another, 43A (Fig. 12) just beyond the south-east corner may have been some form of projecting buttresses though, as the latter lay in front of the offset on the wall, it is much more likely that it was the base of a different structure, perhaps an ornamental feature in the garden-court.

The exterior face of the great hall was not studied in detail because it was merely uncovered to be destroyed during the excavations for rebuilding the site. During this limited study, however, no trace could be found of any external mortar or stone rendering to the wall, and it is fairly certain that the bricks formed the

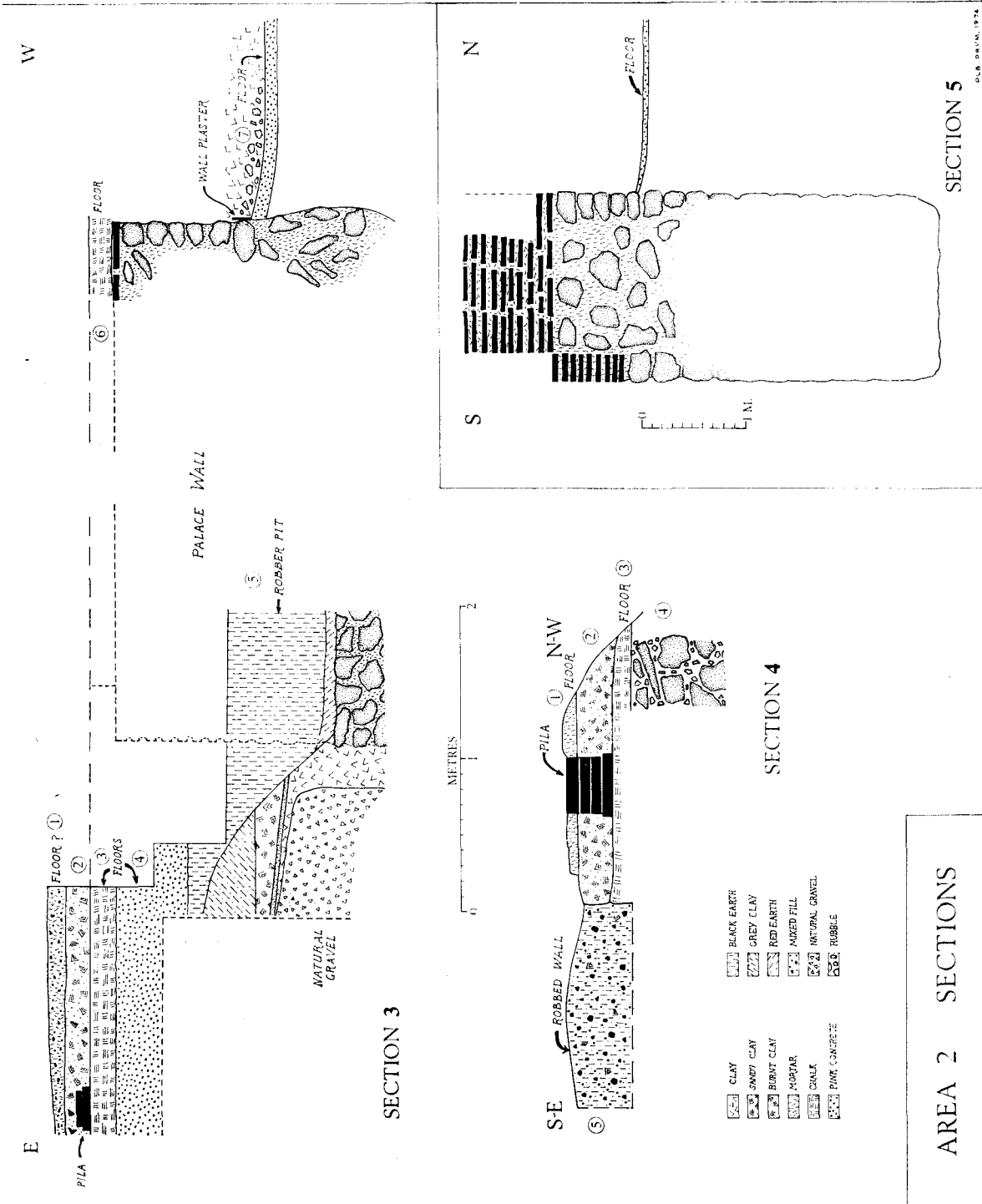


Fig. II Roman Palace. Area 2. Sections showing both the palace (Sections 3, 5) and post-palace (Sections 3, 4) Roman buildings.

actual visible facing (Fig. 11, Section 5), a view supported by the presence of facing tiles below the offset on that face.

The exterior offset on the east wall of the great hall clearly extended along the entire side for it seems that the east wall was discovered in 1840-41, when a sewer was constructed in Scott's Yard (Fig. 10). The discovery is described as follows:<sup>33</sup>

"In Scot's Yard . . . at a depth of eight feet (2.44 m), was another wall, eight feet (2.44 m) thick, composed entirely of oblong tiles and mortar. It descended to the depth of thirteen feet (3.96 m), where, alongside, were pavements of lime and gravel . . ."

It would seem that the sewer excavation did not reach down to the foundation level, and that only the brick upper construction rather than the stone lower work was encountered. Roach Smith did not record the position of the wall, though it is almost certainly the wall sketched on Sewer Plan 27 (Fig. 8) which is described as having been 6 ft (1.83 m) thick and "about 7 ft (2.13 m) below the surface". Presumably the reference to more than one pavement in Roach Smith's article may mean that mortar floors lay both inside the great hall and to the east of the hall. The recent excavations disclosed a large area of mortar flooring in the great hall, this being approximately 0.075 m thick. No evidence was found to suggest that there was a quarter-round moulding at the junction of wall and floor. The floor of the hall was evidently kept scrupulously clean, for nowhere in the destructive rebuilding excavations was any trace seen of "occupation debris", and instead the floor was overlaid by dumped brickearth containing ragstone rubble. It is presumably indicative of the restricted use of the hall that there was only one floor surface, though it is possible that earlier phases of flooring had been removed when the last floor was laid.

A short length of what was probably the north wall of the hall, 42, was uncovered at the south end of the Dyers Arms site during 1966, and, as already mentioned, was 1.68 m thick (Fig. 8, Section 2). Five courses of red bricks overlay the lower part of the wall, which was built of ragstone. The bottom of the courses of red brick here was about 1.22 m above the level of the bottom of the courses of bricks at the south end of the hall. Some 0.05 m below the bottom of the bricks, at 8.46 m above O.D., was a buff-coloured pebbly mortar floor adjacent to the south side of the north wall. This portion of the floor was therefore about 1.14 m above the general floor level of the major part of the hall. Upon this small exposed portion of mortar floor lay two brick *pilae*. Overlying the floor was a deposit of black earth 0.10 m thick and this was overlaid by thick deposits of Roman mortar dust and rubble.

In view of the high level of the floor and the presence of the *pilae* (which did not occur further south in the hall) it is possible that the floor and *pilae* are a later Roman construction and are not part of the original structure of the palace. On the other hand they may have formed part of a heated raised dais at the north end of the hall. Only further excavations beneath Scott's Yard can solve this problem, for lack of space made it impossible to excavate beneath the mortar floor supporting the *pilae*.

#### WALL 42A

This was a Roman foundation 1.83 m thick, built of Kentish ragstone set in exceptionally hard light-coloured concrete. Its position within the station basement area could only be approximately established in 1961, though it is certain that it lay 15.9 m west of the inner face of the east wall of Cannon Street Station.

#### WALL 43A

A foundation of ragstone and flint set in yellow mortar, about 1.14 m thick, was found just beyond the south-east corner of the great hall (42). It is unlikely to have been a supporting buttress for the hall, not only because of its small size compared with the massive structure of the great hall, but also because it was, or seemed to be, a separate structure not actually attached to the hall. It is probably best interpreted as the base of some ornamental feature in the garden-court, though its close proximity to the wall 43B suggests that both structures may have been associated.

#### WALL 43B

An "old wall" was discovered in 1840-41 during the construction of the sewer in Bush Lane, and, judging from its size, it seems likely to have been of Roman date. Its position is sketched on Sewer Plan 27 (Fig. 8) where it is shown as 3.05 m thick and diagonally crossing Bush Lane at a depth of 1.83 m. No wall of similar size has been found on the adjacent sites on either side of Bush Lane, except the much narrower and possibly associated foundation 43A.

#### REGION 43

This is the area between the great hall, 42, and the large apsidal chamber 44. For reasons already stated, it seems most likely that the garden-court frontage of this area was a diagonal wall, though this needs con-

firmation by future excavation. It is difficult to judge the nature and purpose of the structures in this area, this being somewhat complicated by the fact, as indicated by the discovery of about 1840 in Scott's Yard, that the external offset of the great hall, Room 42, extended throughout the east side of the hall in the area of Region 43. The floor of Region 43 adjacent to the great hall seems to have been mortar similar to that used inside the great hall. A trace of flooring seems to have been found in Scott's Yard, during 1840-41, and another at the south-west corner of the region adjacent to the great hall (Fig. 11, Section 3). Region 43 is largely unexcavated as it mostly lies beneath Bush Lane, where it has been to some extent protected by the modern street.

Three factors may have a bearing on the interpretation of this region of the palace. Firstly, the distance between the great hall, Room 42, and the apsidal chamber 44 is about the same as the width of 44, this presumably, indicating some form of symmetry. Secondly, the account of the nineteenth century sewer excavations in Bush Lane has no mention of having encountered a cross-wall between Rooms 42 and 44, possibly indicating that there was a gap in the wall, perhaps forming an entrance from the garden-court into the state rooms area. And thirdly, that the structures 43A and 43B to the south of this possible gap may have formed part of a monumental entrance. Unfortunately, the evidence is inconclusive and can only be explained by further excavation.

#### ROOM 44

This was an apsidal chamber 8.84 m wide and 6.4 m deep internally. Only the bottom of the foundations remained beneath the deep modern cellar floor, the bottom of the Roman foundations lying at about 5.64 m above O.D. in natural gravel. The lower part of the foundations comprised layers of ragstone slabs pitched at an angle, and mortar, above which the foundation was 2.08 m wide and strongly built of ragstone set in hard buff mortar and a rough facing of ragstone blocks.

The apse appears to have been built onto a wall, for, at the north ends of the apse, were foundations which were separated from the apse by straight joints. There was no trace of any cross-foundation closing the apse, though the separate foundations at the north end may be an eastward extension of the garden-court frontage wall of the Region 43, the gap presumably being an opening into a room to the north.

#### AREA 3 (Figs. 12, 13, 14)

The "state rooms" fronted on to what must have been a large ornamental garden-court situated on the same terrace level as the state-rooms and the east wing of the palace (Area 4). In the centre of the garden-court was an enormous pool 10.06 m wide, more than 30.48 m long and about 1.83 m deep, with certainly one, and probably two, minor pools on its north side. The limits of the garden-court are difficult to exactly define with certainty but it would seem that it was about 33.83 m wide and at least 36.58 m long (Fig. 12).

The garden-court was built on thick deposits of dumped clay and gravel (Fig. 14, Sections 8, 9), but it is unfortunate that the actual surface of the garden could not be examined during its destruction by the mechanical excavators. Judging from the bottom of the exterior facing bricks of the great hall, Room 42, however, and from the floor levels and dumped clay deposits under and adjacent to the east wing (Area 4) it seems most likely that the general surface of the garden-court lay at about 6.71 m above O.D. Certainly the dumped deposits in the garden-court area have been found to survive up to about 5.79 m above O.D., above which they have been destroyed.

It is unfortunate that the boundaries of the garden-court could not have been investigated in greater detail with a view to determining their exact layout. The limited evidence, however, suggests that the east side was bounded by a straight wall, and that the north and south sides were more irregular in plan.

#### THE NORTHERN BOUNDARY OF THE GARDEN-COURT

The northern boundary of the garden-court includes the south wall of the great hall, Room 42, as well as fragments of walls and foundations which do not seem to have comprised continuous walls. Had they been so they were so massive that they would have been easily visible in the builders' excavations. It is difficult, on the available evidence, to reconstruct the plan of the northern limits of the garden-court, but in view of the irregular frontage of the apparently continuous building line of Rooms 42-44 it seems most unlikely that a stylobate was included. Instead, it seems likely that there were a series of foundations and piers some of which may have supported a vaulted superstructure, while others were the bases of ornamental features in the garden. It is particularly interesting and possibly significant that these massive foundations occur along the area in front of the "state rooms". The difficulty of interpretation is that insufficient has been found to show any suggestion of the symmetry of planning that one would expect in the garden-court of a Roman palace.

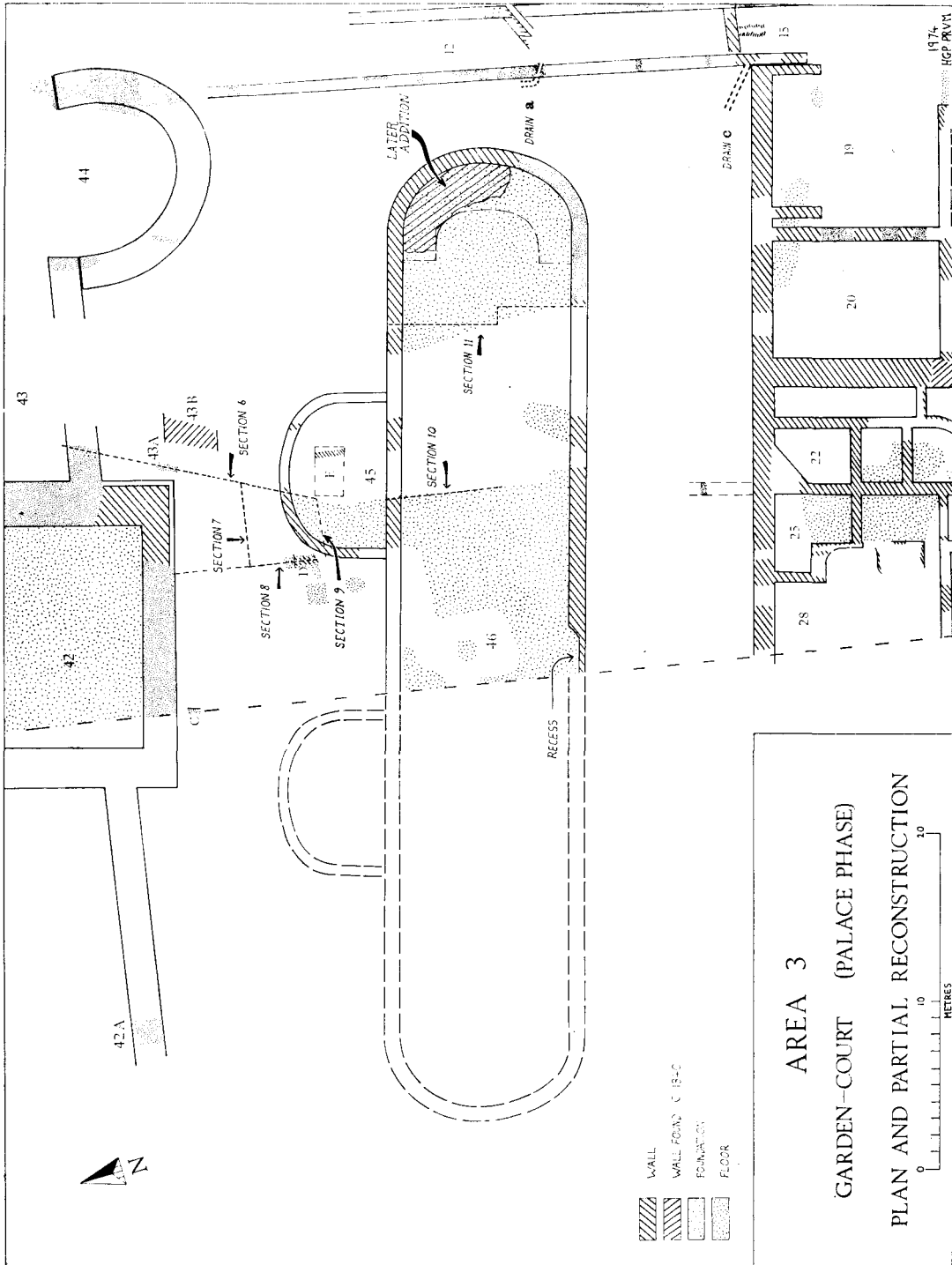


Fig. 12 Roman Palace. Area 3. Partially reconstructed plan of the garden-court of the palace

STRUCTURE 43A

This is a foundation of concrete and Kentish ragstone which was recorded during the recent rebuilding excavations. It was only observed in the face of the contractors' excavation on the site of Elizabeth House. It was apparently 2.29 m thick and had an offset in its foundation on the north face. Its very close proximity to Structure 43B indicates that the two walls were related, though only further excavation can resolve the problem.

STRUCTURE 43B

This is a wall found about 1840 while constructing the sewer in Bush Lane. It is recorded on Sewer Plan 27 as 3.05 m thick and 1.83 m below the road surface (Figs. 8, 12).

STRUCTURE C

In 1961 a small hole excavated beside Cannon Street Station revealed a fragment of Roman ragstone foundation of similar construction to the massive foundations of the period 1 "state rooms". It was more than 0.69 m thick, the west side lying beneath the east wall of the station. The east face was discovered, however, and it was aligned roughly north-south. This foundation could have been a projecting structure against the south wall of Room 42, but it is unlikely to have been a buttress or otherwise part of the wall itself as other buttresses were found along the south side of Room 42. Indeed, the frontage of Room 42 could not have been ornamented with buttresses and other architectural features which would require foundations projecting into the garden-court.

THE EASTERN BOUNDARY OF THE GARDEN-COURT (Fig. 12)

No evidence of any surface of the garden-court was found adjoining the east wing of the palace (Area 4), this evidently having lain above 5.79 m above O.D. and having been destroyed. The eastern boundary of the garden-court, however, appears to have comprised the straight outside wall of the corridor bounding the east wing. No other Roman structures were found in this area other than two drains which appear to have drained away from the garden-court into the main drain underlying the corridor, Room 12, and Room 15.

DRAIN a

This was a small drain 0.23 m wide which ran alongside the edge of the garden-court and sloped down to the south. The drain then turned eastwards to pass through the outer wall of the corridor (Room 12) of the east wing to join the main drain which apparently ran down the centre of that corridor (see p. 39).

In the court area the drain was built on a large slab of stone, possibly Purbeck marble, which had been carefully shaped and evidently had been re-used. The stone slab measured 0.75 m long, 0.48 m wide and 0.12 m thick. On it had survived a small portion of the west side of the drain built of the ends of flanged roofing tiles set in brown mortar. This was very similar to the construction of the drain that passed through the east wall of the corridor (see Fig. 17B).

DRAIN c

This was a timber drain observed during the contractors' excavations, sloping down to the south-east toward the south end of the corridor of the east wing of the palace. Its construction and level could not be recorded due to the circumstances of its discovery and rapid destruction, but it was noted that the drain was buried in the dumped deposits of clay and gravel which comprise the garden-court. It seems likely that the drain may have been taking surface water from the court or, indeed, to have been an overflow drain for the great ornamental pool in the middle of the garden-court; and that the water was being drained away to join the main drain underlying the corridor, Room 12, of the east wing of the palace.

THE SOUTHERN BOUNDARY OF THE GARDEN-COURT

The southern boundary of the garden-court was fronted by a substantial retaining wall 1.22 m thick which supported the great dump of sand and gravel which comprised the sub-soil of the garden-court, whose original surface level is estimated to have been about 6.7 m above O.D. On the south side of the retaining wall were the surviving floors of the "south wing" of the palace, the levels of which were at about 3 - 3.35 m above O.D. Unfortunately, the ground immediately on the north side of the retaining wall had been dug away quite deeply in recent times, and any trace of walls that might have lain immediately north of the retaining wall and in the garden-court had been destroyed. Nevertheless, at one point, north of Room 25, a small portion of a foundation of ragstone and yellow mortar was found with its base set in the dumped clay and gravel of the terrace at about 3.00 m above O.D.

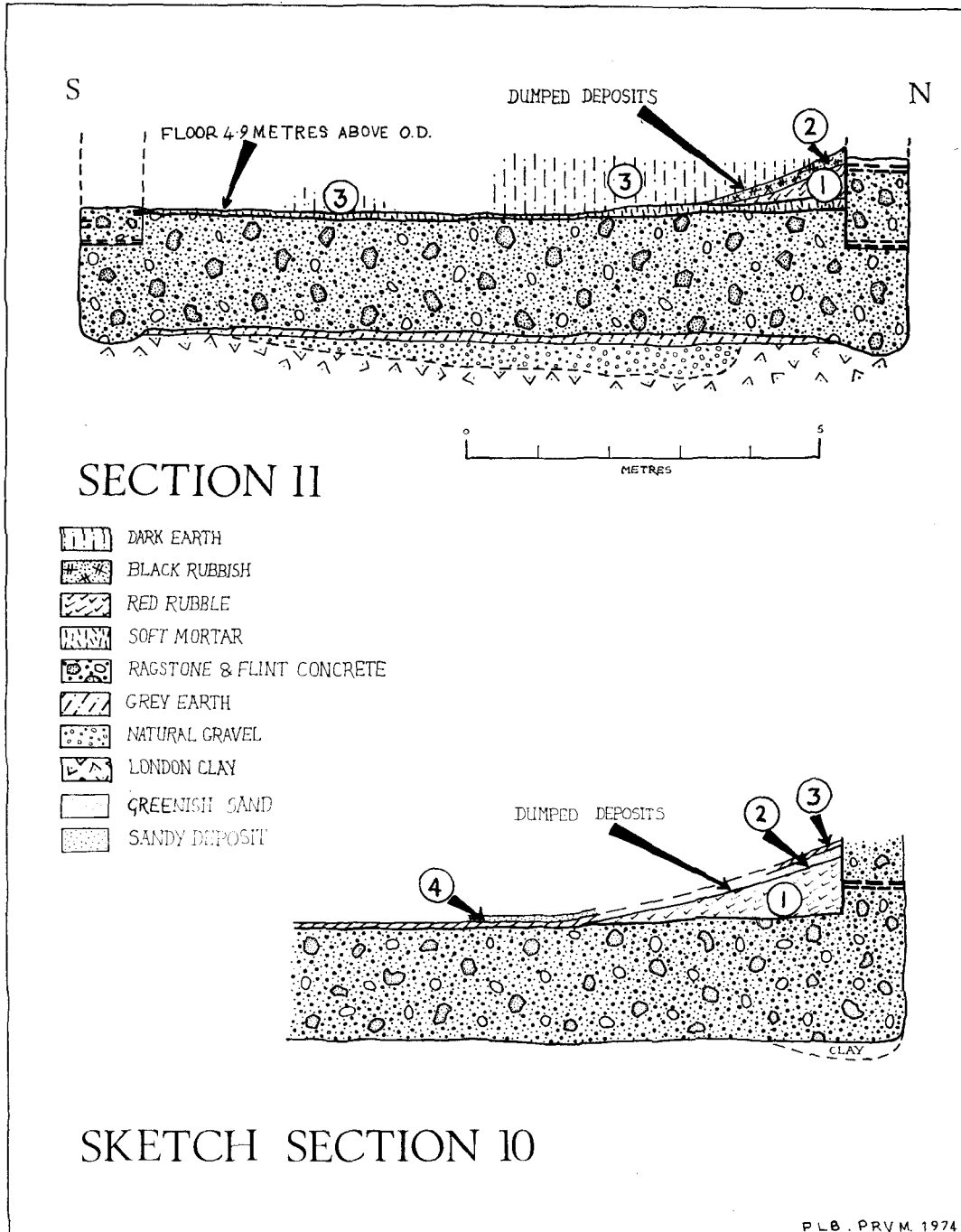


Fig. 13 Roman Palace. Area 3. Sections 10 and 11 across the great pool (Feature 46) showing the dumped deposits against the north wall

The great depth of this foundation which, from its construction appears to be of Roman date, suggests that some part of the palace may have extended northwards from the south wing into the garden-court. In this connection it is perhaps significant that the foundation is on the same line as the east wall of Room 25, thus strengthening the interpretation that the foundation belongs to the palace phase. The great depth, about 3.66 m, of the foundation below the surface level of the garden-court suggests that there may have been an access route at several intermediate levels between the two terrace levels.

#### THE CENTRAL COURTYARD AREA AND THE ORNAMENTAL POOLS (Figs. 12, 13)

In the centre of the courtyard and aligned on the main east–west axis of the palace was a great sunken ornamental pool (Feature 46) internally 10.06 m wide and more than 31.09 m long. Projecting from the north side of the pool near its eastern end was an apsidal exedra (Feature 45) which presumably also contained water as its floor was also sunk below the level of the garden-court. What appears to have been the mortar surface of the garden-court was found (Fig. 14, Section 8) and below it traces of some substantial but ill-defined ragstone foundation construction (Feature D) located just west of the smaller pool (Feature 45).

#### THE GREAT POOL (46)

The floor of the great pool comprised a layer of buff mortar at 4.88 – 5.18 m above O.D., which overlaid a massive sunken platform or foundation of very hard ragstone and flint concrete about 1.83 m thick which conformed to the shape of the pool. The foundation mostly comprised ragstones, flint and an exceptionally hard buff or white concrete which was characterized by many small lumps of chalk or lime, as well as rounded flint pebbles (Fig. 13, Sections 10, 11). The foundation was not apparently built in layers, but had the appearance of having been poured almost in one mass and in such a way that there were few air pockets left in the foundation. That the foundation had been laid in a series of loads, however, was indicated by concentrations of flint in some places and ragstone elsewhere in the usually almost white concrete. This “massive” construction is typical of the Roman period in London and was very similar to the construction of the foundations of the “state rooms” of the palace.

The wall forming the sides of the pool was 0.91 m thick and was set into the edge of the concrete platform. It was built of hard ragstone concrete with double courses of bonding tiles at intervals, and its inner face was rendered with hard pink mortar. The lowest double course of bonding tiles lay about 0.50 m below the floor of the pool, and the ragstone facing of the side wall extended down to the level of the tiles through the concrete of the platform (Fig. 13, Sections 10, 11; Plate 3).

It would seem that the great pool was constructed as follows: firstly, a deep hole was dug in the dumped gravel and clay forming the garden-court terrace; secondly, the lower 1.22 m of the great concrete raft was constructed with the base of the raft extending roughly another foot deeper around its edges, presumably to give a more solid foundation to the surrounding wall of the pool. The wall was built firstly with a double course of bonding tiles, then about five courses of stone, which were in turn overlaid by another double course of bonding tiles, above which were more courses of stone. The wall surrounding the pool survived in places to a level of 6.4 m above O.D., but its top had been broken away. The courtyard surface was presumably at a somewhat higher level, either flush with the original top of the wall or a little below it.

On the south side of the pool, beside Cannon Street Station, there was a recess in the wall 0.61 m deep and more than 2.13 m long. The purpose of this is unknown.

The east end of the pool was rounded and rendered on its inside with a thin layer of pink cement. Unfortunately, it had been considerably damaged in recent times, and as it was destroyed quite rapidly during the recent building operations it was not possible to examine the area in detail for traces of any possible ornamentation, though no obvious structures other than the later modifications were found.

#### THE SMALL POOL (45) (Fig. 12; Fig. 14, Sections 6, 9)

This small pool was apsidal in form, and measured internally 8.84 m long by 5.79 m wide. Its surrounding wall was 0.61 m thick and built of ragstone with triple courses of bonding tiles at intervals. No clear trace of any mortar rendering in the inner face of the room was found though, as the structures were found during building operations, it was difficult to establish some details of the construction.

The massive concrete platform which underlay the great pool (46) did not extend beneath the smaller pool (45). Instead its floor was of yellow mortar between 0.076 m and 0.152 m in thickness, lying on a layer of rubble at about 5.41 m above O.D.—about 0.30 m above the bottom of the great pool.



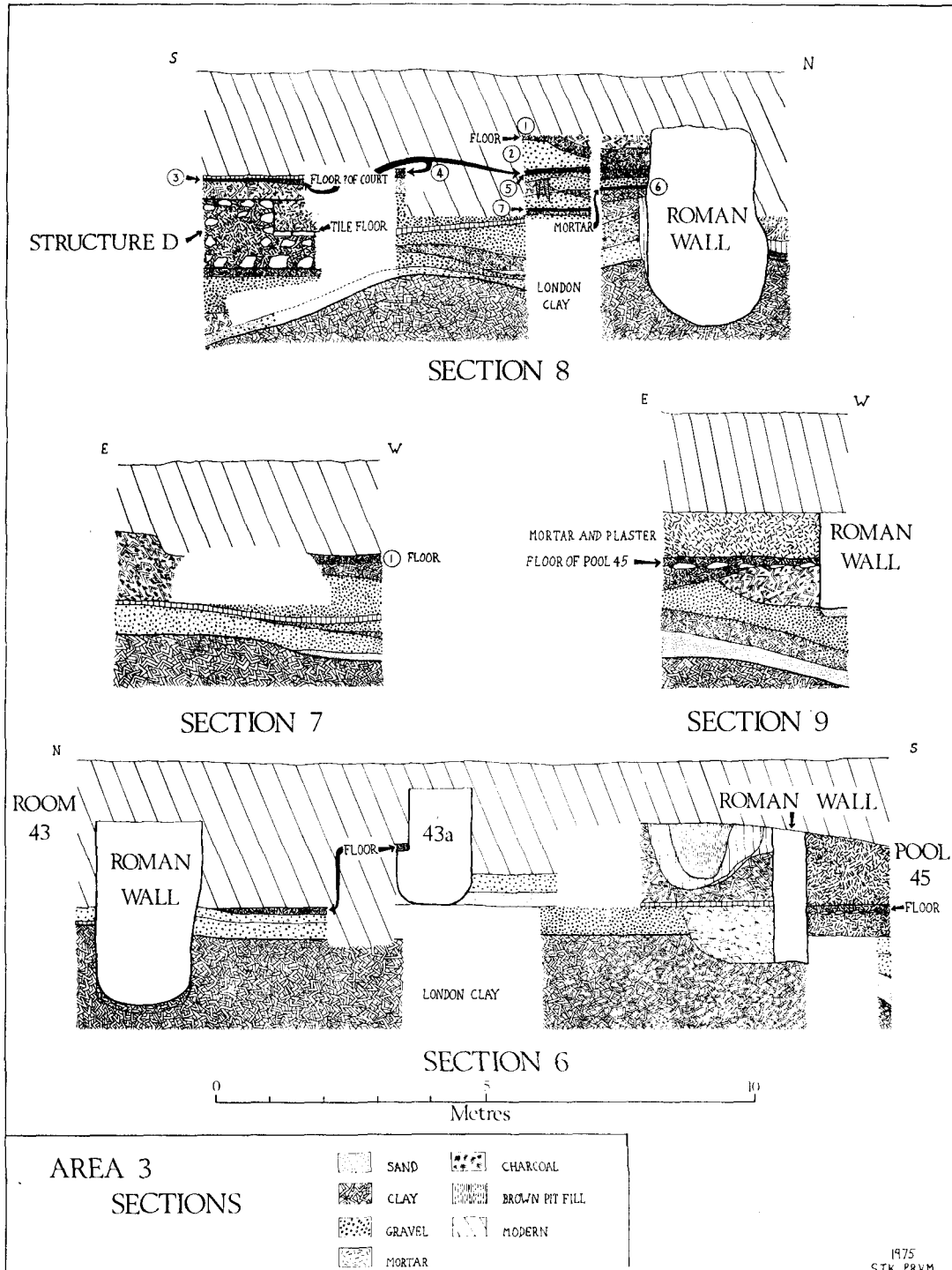


Fig. 14 Roman Palace. Area 3. Sections 6, 7, 8, 9 in the garden-court area

#### STRUCTURE E

In the centre of the pool there was a construction of Roman bricks and ragstone (E) perhaps forming some kind of decorative pier. The structure was discovered in 1960 during the excavation of a tunnel beneath Bush Lane to divert the nineteenth century sewer prior to the rebuilding of the area. The tunnel, dug from south to north, firstly cut through the 0.91 m thick north wall of the great pool, and it was observed that grey sandy silt lay against the south side of the wall (*i.e.*, inside the basin of the great pool). It next cut through the "pier", Structure E, which was only observed in the west face of the sewer tunnel. It could not be found on the base of the tunnel which lay above the bottom of Structure E, and it was not found in the east section of the tunnel where there was no obvious sign of disturbance which might have destroyed the structure.

Structure E had a core of ragstone concrete, above and to the south of which was a solid mass of Roman brickwork set in cement. A vertical south face of bricks set in cement was found aligned east-west and standing 1.14 m above the bottom of the tunnel. Above this the facing bricks had been destroyed but the brick core survived to an additional height of 0.25 m, showing that the whole structure was standing 1.4 m above the tunnel floor level, which itself lay above the floor of the small pool. The structure extended northwards from the south face for a distance of 1.68 m but, unfortunately, no clear sign of its northern limit could be found. Just north of this, however, was found the apsidal wall of the pool.

Where the western part of the pool was excavated no trace of any similar interior brick or stone construction was found to exist in that area, indicating that Structure E was probably some form of central ornamental brick pier, perhaps for a fountain or statue.

#### STRUCTURE D (Fig. 12; Fig. 14, Section 8)

This was an ill-defined ragstone structure lying immediately west of the small pool (45). Unfortunately, it could not be stratigraphically related to either of the pools, but it does seem to have been overlaid by the mortar layer which is believed to have been the "floor" of the garden-court. The structure appeared to partly comprise a wall of ragstone and yellow cement with a face roughly aligned east-west, and on its north side a floor of Roman tiles overlying a foundation of ragstone concrete 0.46 m thick. There is no clear indication that this structure, whose extent is shown on the plan (Fig. 12) belongs to the palace phase. It is overlaid by the mortar floor (Fig. 14, Section 8), however, which might suggest that it belongs to a pre-palace phase; but its substantial construction and the apparent absence of other structures which could have belonged to a pre-palace phase suggests that Structure D was part of the palace construction.

The tiled "floor" of Structure D lay below the surface of the garden-court, and at about the same level as the floor of the small pool. As it was somewhat narrow in extent it seems reasonable to suggest that the whole structure might have been part of the water-supply system for the pools at an early stage in the palace phase.

#### DESCRIPTION AND INTERPRETATION OF SECTIONS

These sections were recorded by Gordon Davies for the Museum under the extremely difficult building site conditions which did not allow for a fully detailed description and interpretation to be made. Nevertheless, the sections are extremely valuable and clarify some details of the history of the palace.

#### SECTION 8

This shows, at the north end, a section across the south wall of the state room (42). Unfortunately, it was not possible to record its construction in detail though it was noted that it was largely composed of Kentish ragstone, flint and white concrete. The bottom of the foundation was dug into the London clay. To the south of this wall were various layers of gravel and clay, evidently dumped to form a hillside terrace, perhaps as a preparation for the palace.

A layer of mortar (Layer 7) indicates possible construction in the area prior to the construction of the "state rooms", for the foundation trench of the south wall of Room 42 is cut down through these dumped gravel deposits.

At the south end of the section is the masonry structure (Feature D) and above it and the dumped gravel deposits, and overlying the filling of the foundation trench of the south wall of Room 42, is a layer of mortar (Layer 6) about 0.076 m thick. Perhaps mortar deposits 3, 4 and 5 formed the floor of the garden-court, which must, on stratigraphical grounds, be later than Structure D. It is possible, however, that the masonry structure D belongs to an early phase of the palace, and that the mortar floor above the structure represents a later modification of the palace.

The layers above the Roman mortar floor are very fragmentary, though the presence of some mortary rubble (Layer 1) and gravel deposits (Layer 2) suggests that the land surface was deliberately raised at a later Roman date, perhaps to accommodate the next phase of building after the demolition of the "state rooms".

## SECTION 7

The deposits in this section again largely comprise layers of gravel, some of which was no doubt natural. The mortar floor, which is interpreted as being part of the surface of the garden-court, was also located, though it would seem that there may have been some later digging to destroy the palace phase deposits (Layer 1).

## SECTION 6

This north-south section clearly shows the form of the southern foundation of Room 43. Once again the details of its construction could not be recorded during the building operations, but it was noted that the foundation was largely built of Kentish ragstone, flint and white mortar. To the south of this the section was very disturbed, though the section across Structure 43A shows that a small portion of mortar floor, probably the floor of the garden-court, overlay the northward projecting foundation of the structure. The Roman wall itself above the floor level was constructed of ragstone, flint and yellow mortar.

The section between Structure 43A and the north side of the small pool (45) is similarly disturbed and it is not possible to give a reasonable interpretation of the stratigraphy. It may be assumed, however, that the gravels in the lower part of the section were part of the dumped or even natural deposits which occurred in the adjoining sections.

Of particular value is the partial section through the small pool, Structure 45, at the south end of the section. In this case the concrete and stone floor of the pool was located, 0.15 m thick, and beneath it dumped layers of sand, gravel, clay and building debris. Above the floor the pool was filled with a layer of mixed mortar and plaster rubble which had been apparently dumped.

## SECTION 9

This east-west section, also across part of the small pool (45), includes deposits of dumped gravel, etc., below the concrete floor of the pool, and the later debris of mortar and plaster with which the pool was filled.

## AREA 3. RECONSTRUCTION OF THE GARDEN-COURT (Fig. 12)

The garden-court is very difficult to reconstruct on the available evidence, except in the most general way. Nevertheless, several factors seem to be fairly clear regarding the original layout of the garden-court.

A reconstruction of the general size and form of the garden-court may be based upon the assumption that there was a fair degree of symmetry in its planning and that, as far as the existing evidence indicates, the great pool (46) was located along the main central east-west axis of the garden-court and parallel to both the retaining wall of the south wing, and the great hall (42). In this connection it is worth noting that the plan of the great pool is reflected by a change in the plan of the rooms between the north and south ends of the east wing of the palace.

Of greater importance in judging the original complete size of the pools is the north-south axial line which seems to follow the east face of the east wall of the great hall (42), for if projected southwards across the garden-court to the south wing, it not only passes through the centre of the smaller pool (45), but also picks up the line of one of the major north-south walls of the south wing.

Assuming a degree of symmetry (p. 65) and that the pools are, as the evidence suggests, linked to the great hall (42), it is reasonable to expect that for the sake of completeness the undiscovered west end of the pools links up with the west side of the great hall. On this basis we might expect another small pool, like Pool 45, in line with the west face of the west wall of the great hall and adjacent to the great pool (46). In addition, it is reasonable to expect that the west end of the pool is situated the same distance westwards from the great hall (42) as does the east end lie to the east. The suggested plan reconstruction is shown in Fig. 12 and happily it would be possible to check this suggested reconstruction plan by excavation in the arches beneath Cannon Street Station. If this reconstruction is correct then the great pool can be estimated as having been internally 54.25 m long—large enough to hold a very considerable body of water to justify the very massive and thick ragstone concrete foundation.

It is unfortunate that careful excavation to expose the surface of the garden-court was not possible as it is clear that the garden was not merely a plain open space. It is called a garden-court because it was decorated not only with pools but also with foundations, perhaps of statues (Fig. 12, Structures A, B, C, D). The location of these foundations appears to be somewhat random in contrast to the symmetry of the pools, and indeed the apparent lack of symmetry and constant alignment of the southern frontage of the "state rooms" needs careful explanation, which the present evidence cannot supply. This alignment, fortunately, can be checked by excavating beneath Cannon Street Station in the future. Nevertheless, assuming that the plan of the frontage of the "state rooms" has been correctly reconstructed, it is difficult to see in this any suggestion that a stylobate had once existed.

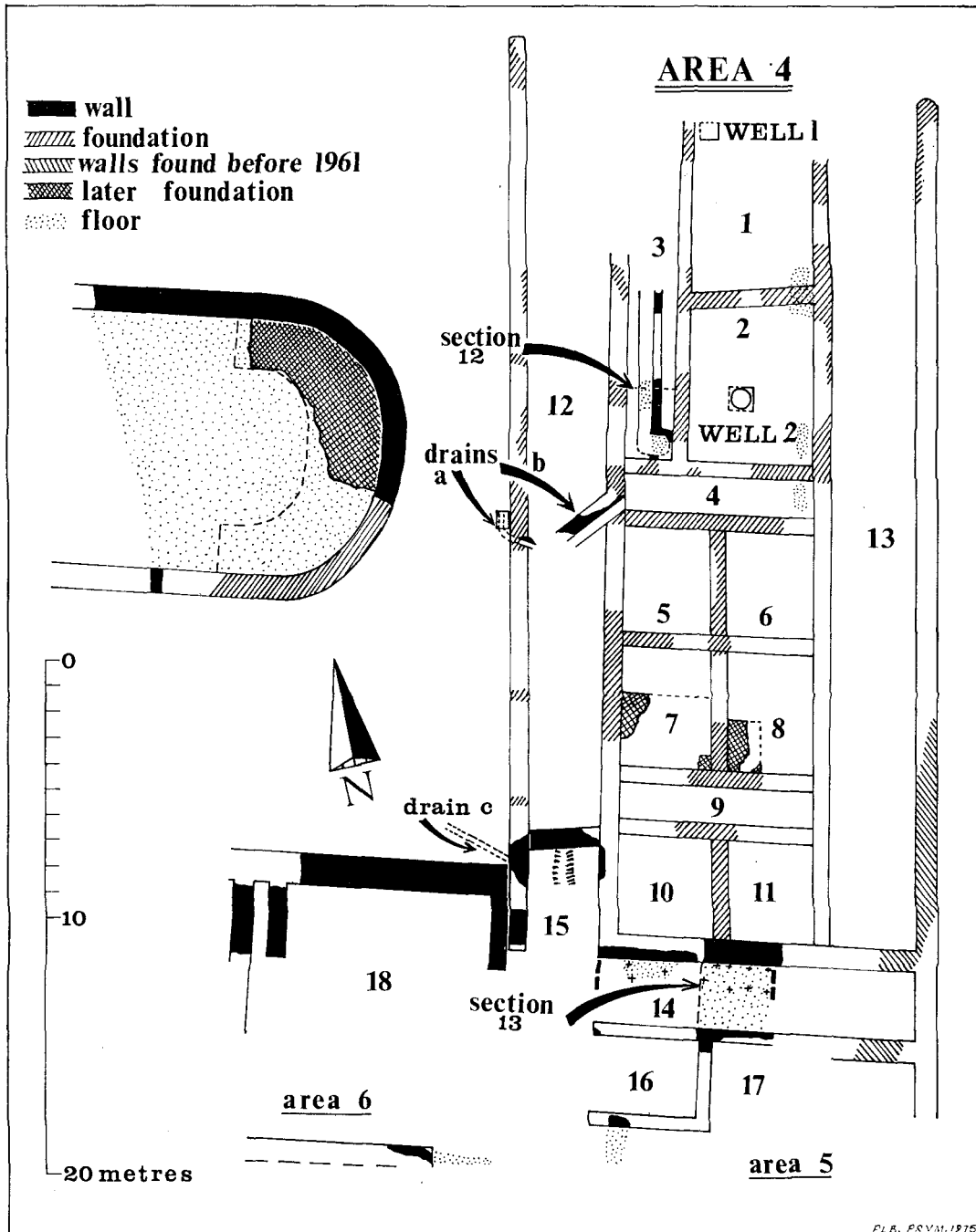


Fig. 15 Roman Palace. Areas 4 and 5. Structures of all Roman phases showing their relationships to each other

Although the archaeological features are somewhat unclear in the garden-court, it is interesting that such traces as there are tend to be in the area opposite the south end of the great hall (42) to the south wing, as if to suggest that here there was a concentration of the ornamentation presumably based on the outlook across the garden-court from the south end of the great hall.

#### AREA 3. MODIFICATION TO THE GREAT POOL (46). (Figs 12, 15)

During the modern building operations when the east end of the great pool (46) was destroyed, traces of a later Roman modification to the pool were found. This was a brick structure about 2.44 m thick built inside the curved end of the pool, its later date being implied by its having been built up against the pink plaster rendering of the pool.

#### AREA 4 (Figs. 15, 16, 17 and 18)

This wing fronted the east side of the ornamental garden-court of the palace, and terminated at its south end with a retaining wall forming the edge of the next terrace about 3.35 m below. Although only its foundations had survived beneath the modern concrete cellar floors, the presence of the lower parts of some of the Roman underfloor heating and drainage ducts indicate that the Roman floor did not lie much above the surviving tops of the foundations, perhaps at 6.4 m – 6.70 m above O.D., whereas the foundations foundations survived up to about 5.79 m above O.D.

The wing comprised (Fig. 15) a central range of rooms (Rooms 1–11) bounded on the west side by a corridor (12), and probably by another corridor on the east side (13). The rooms seem to comprise two distinct groups, the large rooms 1–3, and the smaller rooms 4–11 which had been laid out with almost military regularity. It is likely that the floor levels of some of the rooms had been stepped up the terrace a little, as there were marked differences in level of the bottoms of the various wall foundations. Those in the region of Room 1 lay at a base level of 5.18 m – 5.49 m above O.D., whereas the foundations of Room 2 descended to about 4.72 m above O.D., while the bottom of the wall foundations for Rooms 4–11 lay as deep as about 2.74 m above O.D., about 3.35 m below the probable floor level of these rooms. It is likely, however, that the base of the Roman wall foundations largely reflect the slope of the hillside, and that they were constructed to lie on the natural subsoil beneath the dumped clay and gravel forming the terrace.

Unfortunately it was not possible to section the sub-floor deposits of dumped material beneath Rooms 7–11 to determine the sequence of wall construction and dumping, but it seems clear that a considerable amount of dumping must have taken place *after* the foundations had been built on the hillside, as only this will satisfactorily explain the great depth and comparatively narrow width of the wall foundations; also why the foundations were faced; and finally that the dumping could only have occurred after a retaining wall, presumably the south wall of Rooms 10 and 11, had been built (Fig. 17A). As evidence of earlier pre-palace occupation had been found under Rooms 5–6 and northwards in the form of rubbish pits, it is clear that the additional dumping within the walls of this wing must lie south of this and largely under Rooms 7–11.

It might be argued that some of the foundations, which form box-like structures, were constructed to tie the wing together below ground level, perhaps comparable with the wooden waterfront structures found recently in London on the Custom House<sup>34</sup> and New Fresh Wharf sites, and that the pattern of the foundations may not exactly reflect the rooms above ground level. It would seem that this was not so, for wherever they were investigated the foundations of Rooms 4–11 were seen to be separated by straight joints and were therefore not “tied” together. Consequently it is clear that the wing in Area 4 was constructed as follows (Fig. 16): firstly, the four main north–south foundations were built, together with Rooms 1 and 2 which were linked by a dividing east–west wall bonded into the north–south walls of the rooms. Also it seems that the retaining wall on the south side of Rooms 10 and 11 was also built at this primary stage. Secondly, the five east–west partitions on the alignment of the south wing were constructed. Then, finally, the three north–south partitions were added forming the small box-like chambers (Rooms 5, 6, 7, 8, 10 and 11).

Most of the wall foundations of Rooms 1–11 were about 0.61 m thick, though the foundation of corridor 12 was 0.76 m thick, and the east wall of corridor 13 was 0.91 m thick, suggesting that they may have carried a greater weight than the inner rooms. The foundations were constructed of Kentish ragstone set in a brownish-yellow mortar on a base of loose small lumps of ragstone.

#### ROOM 1:

Room 1 was a chamber about 4.57 m wide and at least 6.1 m long. Its north wall was not found even though the area beyond the surviving north end of the room was carefully excavated, and it is clear that the base of its foundation must have lain above the levels of the other three walls surrounding the room. This implies that if there had been yet another room further north, its floor level would be above that of Room 1.

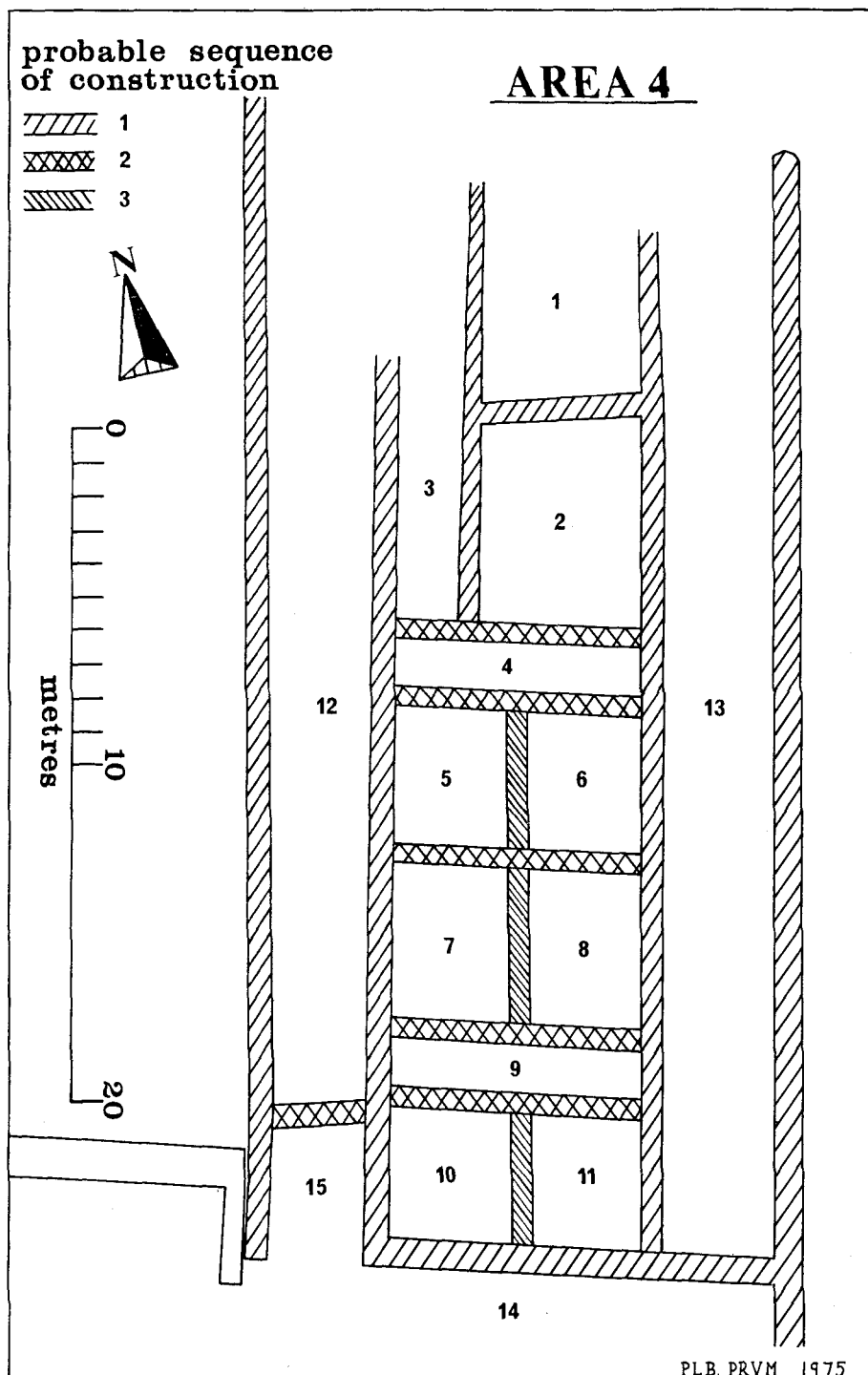


Fig. 16 Roman Palace. Area 4: the probable sequence of construction of the east wing of the palace, based on the evidence of the straight joints between the foundations

It is perhaps significant that the step up in foundation level at the north end of this room approximately coincided with the length of the adjoining Room 2, and that like Room 2, Room 1 was 6.1 m long. No certain evidence of the form of the floors in the wing was found, but in the south-east corner of Room 1 a small area of ragstone rubble lying in a greenish earth about 0.30 m thick was found which also overlay the wall between Rooms 1 and 2, and was located in the north-east corner of Room 2. This rubble, where it overlay the wall, supported a layer of pink *opus signinum* in a rather damaged state.

#### ROOM 2

The foundations of the north, west and east walls of this room were bonded together, showing that they had been built simultaneously. The south wall, however, abutted up against the east wall of the room with a straight joint and, although the junction of the west and south walls had been destroyed by a medieval pit, it may be inferred that here, too, there was a straight joint. More ragstone rubble, similar to that found underlying the *opus signinum* at the north end of the room, was found inside the south-east corner of the room and may indicate the position of another part of the mostly destroyed duct system.

#### ROOM 3

Room 3 was only 1.8 m wide, but it was more than 6.1 m long. Unfortunately, its northern end could not be established in the limited time available for the archaeological excavation. Within this room was a particularly interesting structure which appears to have subsided into the dumped clay subsoil (Fig. 17, Section 12). The structure appears to have been a flue or drain running the length of Room 3, and terminating at the south end of the room in an enlarged hollow against the wall separating Rooms 2 and 3. The foundation of the "duct" comprised a layer of ragstone lying in a greenish-coloured soil very similar to that which was found in Rooms 1 and 2 and, as will be seen, also in Room 4. The ragstone rubble in Room 3 was covered by a layer of pink cement. The east side of the duct was bounded by a retaining wall, faced only on the west side. It was built of roof tiles set in yellow mortar, with the tile flanges lying towards the wall face; and the face was rendered with pink cement. The west side of the duct was destroyed, but may be inferred to have been the west wall of the room. This duct structure was clearly inserted into the underlying dumped clay, judging from the rough unfaced east side of the duct wall, and was no doubt some form of underfloor "service" in the building. Its purpose is not absolutely certain, but it is most likely to have been either a hypocaust flue or drain. If it had been the latter then one would have expected some silt to lie in its bottom, especially in the slightly deeper hollow at the south end of Room 3. Instead the fill at the south end was an ashy earth, which indicates that it was probably a heating flue. If this is correct, then it may be inferred that a furnace was situated beyond the north end of Room 3, and that the flue not only heated Room 3, but also the enlargement of the flue at the south end of the room fed hot air into a hypocaust beneath Room 1. And in view of its similar construction it is reasonable to suppose that the line of ragstone at the north-east corner of Room 2 indicates the position of a flue feeding warm air into a hypocaust beneath Room 1, while the rubble at the south-east corner of Room 2, and at the east end of the passage, Room 4, channelled warm air beneath Room 6 (Fig. 15).

#### ROOM 4

Room 4 was a short passage which measured internally 7.31 m long, and 1.45 m wide. It linked the two main north-south corridors 12 and 13, and perhaps gave access to Rooms 2, 5 and 6. No trace of the walls above foundation level or the floor had survived. A drain of tiles and mortar—Drain "a" (Fig. 17B) — was found passing down through the foundation at the west end of the room into the western corridor, Room 12.

#### ROOMS 5 AND 6

Rooms 5 and 6 were two identical box-like chambers judging from the plan of their foundations, and each measured 3.35 m by 3.96 m. Their floors had not survived, though the discovery of patterned Roman mosaic fragments in the modern rubble make-up below the concrete cellar floor suggests the possible nature of the floors here.

#### ROOMS 7 AND 8

Rooms 7 and 8 measured 4.57 m by 3.35 m and were almost identical in size and shape to Rooms 5 and 6. The interior of Room 7 was occupied by a medieval pit and, although there were fragments of Roman mosaic in the recent rubble foundation for the modern concrete cellar floor overlying that room, it is clear that they could not have been derived from Room 7, since its floor had already been destroyed.

ROOM 9

Room 9 was a short connecting passage between Corridors 12 and 13, almost identical in every respect to the other passage Room 4. No trace of its floor had survived. Apart from connecting the two corridors, it presumably also gave access to Rooms 7, 8, 10 and 11.

ROOMS 10 AND 11

Rooms 10 and 11 were of similar size and shape to Rooms 5 and 6, though only the foundations survived below floor level. Room 10 measured 3.96 m by 3.5 m, and Room 11 measured 3.96 m by probably 3.2 m. These rooms were badly damaged because there was a downwards step in the level of the modern concrete cellar floors approximately across the middle of the rooms.

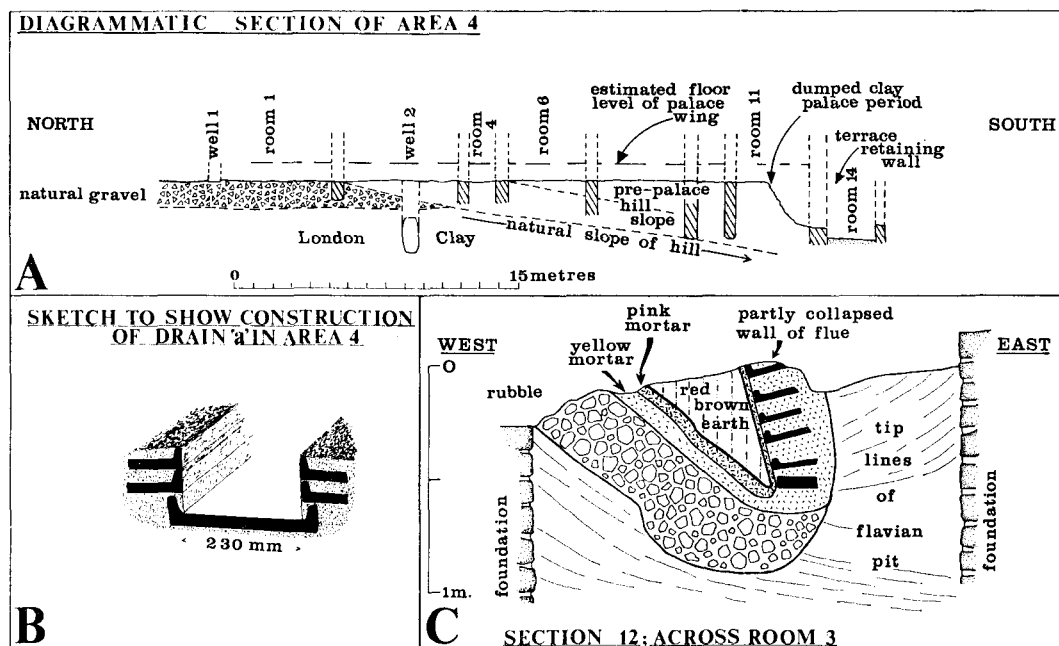


Fig. 17 Roman Palace. Area 4: (A) Diagrammatic north-south section along the east wing of the palace; (B) sketch to show construction of drain "a"; (C) Section 12, across a probable flue in Room 3, distorted by subsidence into an earlier pit

THE CORRIDOR, ROOM 12

The north-south Corridor 12 was situated on the west side of the wing overlooking the garden-court of the palace. It was approximately 2.9 m wide, and at least 21.33 m long and, if it reached as far north as Room 44, it must have been 30.48 m long. Its floor had been destroyed and only its ragstone and mortar foundations remained, the base level of the foundations becoming increasingly shallow the further north they continued until, at the extreme north end of the west wall of the corridor, only the lowest course of stones survived.

Two drains (a and b, Fig. 15) were found which originally flowed through the side walls of the corridor, evidently downwards towards a central drain, which was not excavated, but which can be inferred to have run north-south down the middle of the corridor beneath the floor to issue out through the retaining wall at the lower terrace level in Room 15, where it was discovered. Drain "b" crossed the west wall of the Passage 4, and sloped down towards the middle of the corridor where it had been destroyed by a medieval pit. Only the lower part of the drain had survived but clearly it was originally of substantial size as it measured 0.53 m wide internally. Its sides were constructed of broken roof tiles set in pinkish mortar so that their flanges formed the inside face of the drain, while the bottom of the drain was formed of pinkish mortar—the whole construction being very similar to the probable hypocaust flue in Room 3. Only a very short length of



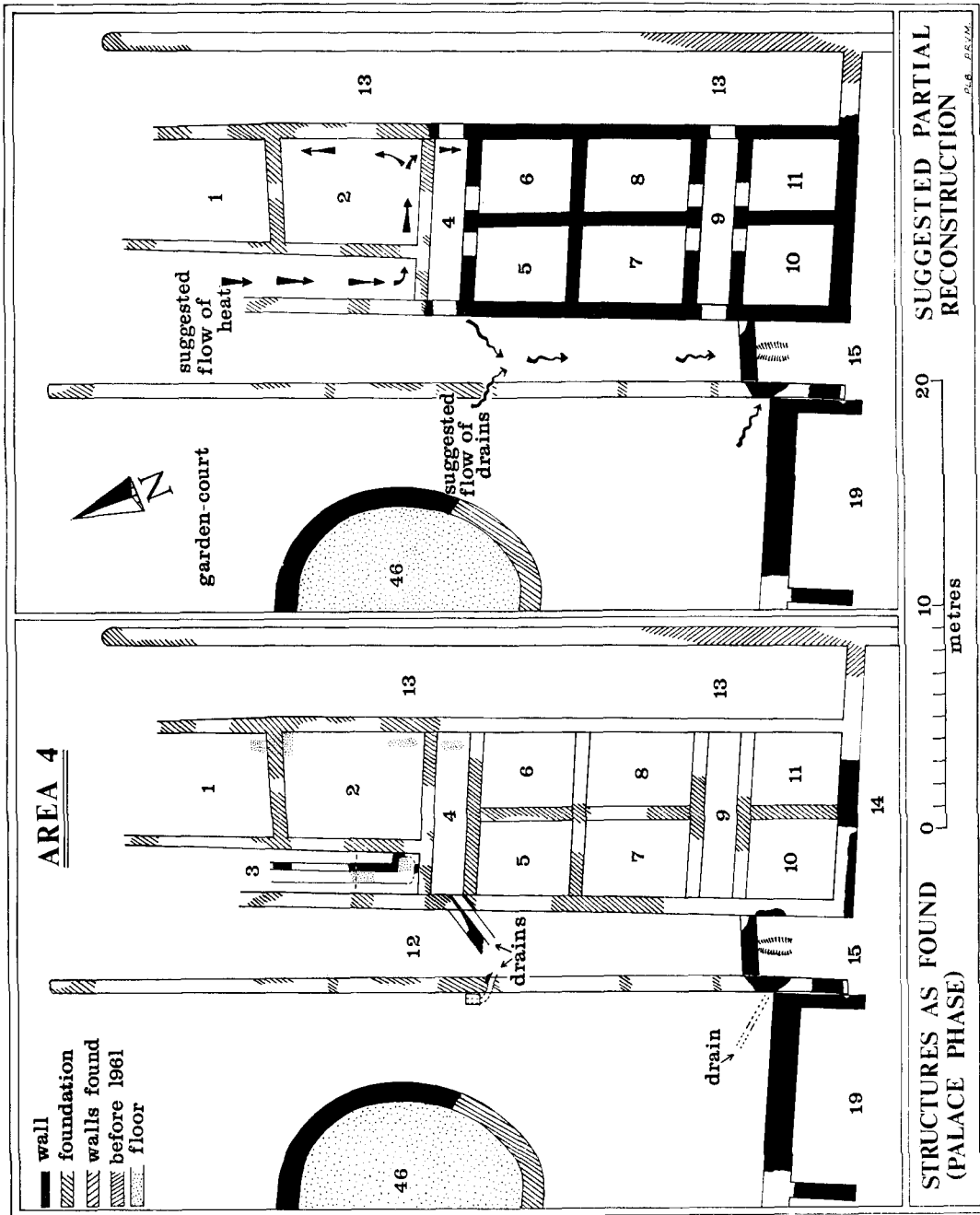


Fig. 18 Roman Palace. Area 4. Plan of palace phase structures as found (left), and a suggested partial reconstruction of the wing (right)

Drain “a” was found, and it survived in two fragments, the first outside the west wall of the Corridor 12, where the drain was found to slope down to the south, and the second where the drain had been built into the foundation of the west wall of the corridor enabling it to drain water *into* the corridor. This latter fragment sloped down towards the middle of the Corridor 12, presumably the join up with the presumed central drain which originally continued southwards down the middle of the corridor. Only the lower part of the drain survived in the wall foundation and its bottom comprised a series of Roman roofing tiles laid endways to each other and set in mortar, while the side walls of the drain were built of fragmentary roof tiles set in brown mortar, and their flanges were so placed as to form the sides of the drain. This drain, which sloped down towards the inside of the corridor, was only 0.23 m wide internally (Fig. 17B), and was clearly a minor drain, the purpose of which was probably to remove surface water from the garden-court to link up with the main drainage beneath the Corridor 12. Unfortunately a medieval pit had destroyed the junction between Drains “a” and “b” but, judging from its size, it is clear that Drain “b” was the more important.

#### THE CORRIDOR, ROOM 13

The corridor, Room 13, was situated along the whole east side of the range of Rooms 1–11 on the 6.4 m terrace, and it was at least 3.48 m long and about 3.2 m wide. Only its foundations were uncovered in the recent excavations at the north end of the corridor, that is from the position of Room 4 northwards. The evidence for its continuation further south is based upon a nineteenth century record of Roman walls discovered while excavating a trench to construct the sewer in Suffolk Lane (Sewer Plan 302, Fig. 20). This records an eastwards continuation of Room 14, situated on the 3.05 m terrace and, significantly, a length of about 9.15 m of the east wall of the corridor. Had there been additional rooms immediately east of Rooms 9 and 11 it seems likely that the associated transverse walls would have been seen and recorded. In the event there is no such record and it is reasonable to conclude that the corridor extended southwards to the southern edge of the 6.4 m terrace.

#### AREA 4—RECONSTRUCTION OF PALACE PHASE

It is unfortunate that the construction of the pre-war cellar had destroyed, without any archaeological record having been made, all of the Area 4 wing above the level of the Roman foundations, thus leaving little evidence of the form of its superstructure.

The plan makes it clear, however, that the range of rooms (1–11) lying between the Corridors 12 and 13, comprised two distinct units which meet at the mid point of the wing opposite the axial line of the great pool A. The plan of the northern group of rooms (1–3) is incomplete, but it seems that this was a suite of heated chambers, from which issued a rather large drain. The size of the drain might be indicative of part of the function of the suite, though on the other hand it may merely have been draining natural groundwater dammed back by the terracing of the hillside. Unfortunately, not enough of the structure of these rooms has survived to allow us to attempt a reconstruction of this group of rooms.

The southern group of rooms (4–11) have a completely different layout, however, for the six box-like chambers of almost equal size have an almost military regularity. They could be interpreted as having been three suites of rooms, each comprising a pair of rooms, but, if this was the case, it might be expected that access would be from one or other of the two main corridors (12 or 13). In fact, if each pair of rooms had been linked in this way it should not have been necessary to have had more than one passage linking Corridors 12 and 13, and the fact that there were two passages (4 and 9), and that these were so positioned that each of the six box-like rooms lay beside one of the passages, perhaps indicates that each room had a separate entrance from the adjacent passages (see partial reconstruction Fig. 18). An alternative explanation of Rooms 4 and 9 and, possibly of the narrow Room 3 in the northern suite, is that they contained stairs to an upper floor.

The rubble foundation of what was possibly an underfloor flue, found at the east end of the Passage 4, may suggest that some of the square rooms in the southern unit were heated, but once again the evidence is inconclusive.

There is little evidence of the form of the flooring in this wing except for the mosaic fragments found re-used as foundation rubble in the pre-war concrete cellar floor. The fragments were presumably found when the cellar was being constructed, though this cannot be absolutely definite. If this was the case, however, it is likely that the fragments were recovered from the Area 4 wing, including the now destroyed north end of the wing beyond Room 1, though the cellar floor did extend over the great apsidal state room F and could have been derived from there also.

The level of the missing floor in this wing is naturally only approximately known (Fig. 17A) but, assuming that the rubble and pink cement lining of the “ducts” found in Rooms 1, 2 and 3 at about 5.79 m above

O.D. comprised the bottom of a hypocaust flue, then, judging from the normal vertical dimensions of hypocausts elsewhere, we might expect that the east wing floor level lay at roughly 6.4 m – 6.7 m above O.D.

#### AREA 4—MODIFICATIONS TO THE “ORIGINAL” PLAN OF THE PALACE (Fig. 15)

The only significant modifications discovered made to the Area 4 wing of the palace occurred in Rooms 7 and 8. These comprised massive foundations of mixed flints and broken Roman tiles in soft deep brown mortar. The full extent of the foundations was not established, but as it seems fairly clear that they were contained within the limits of the two rooms, it seems that the primary phase of the wing was still standing when the foundations were laid. There was no other dating evidence apart from the Roman tiles and, on the grounds of construction, it seems reasonable to conclude that the foundations are of Roman date. It is possible, however, that they are of post-Roman date.

#### AREA 5 (Fig. 19)

The southern end of the east wing, Area 4, terminated with a retaining wall 0.91 m thick, and south of it lay a lower terrace the floor of which lay at 3.00 m above O.D. This means that, although only the lower 0.91 m – 1.83 m of the retaining wall had survived, it must have been at least as high as the terrace on which the east wing was situated at about 6.4 m above O.D.

Traces of four, possibly five, rooms were found on this lower terrace level, but only parts of Rooms 14 and 15 were archaeologically excavated. The structural features were so complicated and the area excavated was so limited that it was difficult to reach any definite conclusions regarding their significance. Nevertheless, a considerable amount of information was recovered, and it is clear that more than one period was represented.

#### ROOM 14

Room 14 was about 2.59 m wide and was traced for a length of 6.84 m from its west end. During 1848, while the Suffolk Lane sewer was being constructed, two walls, each 0.91 m thick, were recorded as being 2.74 m apart. The positions of these are sketched on City Sewer Plan 302 (see Fig. 20) and it is clear that they were situated approximately east, and were a continuation of Room 14. The Sewer Plan also shows a wall, 0.91 m thick, running north of Room 14, which would seem to be the east side of Corridor 13 on the higher terrace. Assuming that the walls found under Suffolk Lane are part of Room 14, then it is clear that the chamber was about 12.19 m long, and was perhaps a corridor.

The north and south walls of this room were, respectively, 0.91 m and 0.46 m thick, and were built of ragstone, whitish mortar, and contained a single course of bonding tiles. The west corner of the north wall was built only of red tiles. The floor of the room excavated in 1965 was of a soft grey mortar overlying an earlier floor of similar character. Opposite Room 10, however, it was mostly of thick, hard, white mortar with what seemed to be a red painted surface. At the junction of this part of the floor and the north, retaining, wall was a quarter-round moulding also painted red. This superior floor may have been a survival of an earlier floor of the room, and its greater elegance may indicate that, when first built, the room served a different purpose from its final one. Only small parts of the grey floor underlying the later grey mortar floor could be cleared in the limited time available, and the few small port-holes which were found covered by the later floor formed no recognisable pattern.

During its latest phase and, perhaps, earlier, the north and south walls of Compartment 14 were covered with plaster. Its surface was painted white, and some narrow red lines could be detected. In the limited time available it was not possible to clean the painted plaster to recover the decoration, but the design appeared to be simple. The west end of this corridor was never closed by a wall, but opened directly into Compartment 15 within which was the small open drainage stream. In the northern half of the west end of Corridor 14 were two mortar piers, and 6.55 m further east there were two more. Each of these was about 0.46 m long and 0.17 m wide, and their broken tops stood about 0.51 m above the latest floor level. In each pair, between the two piers, and between the northernmost pier and the retaining wall, there was a post hole 0.15 m square.

In the floor of Compartment 14 there were two groups of post holes, all apparently in the northern half of the room. In the eastern part were three pairs of circular post holes about 0.076 m in diameter and 0.76 m apart. In the western part were five major post holes, the four outer holes being 0.076 m in diameter, and the central hole 0.152 m.

The piers and post holes show that there was a timber structure in the northern half of the room in its latest phase. The pattern of the post holes is puzzling, and it is difficult to determine the purpose of the structure. Since, however, it lay against the retaining wall, it is possible that it was a staircase from the upper terrace level.

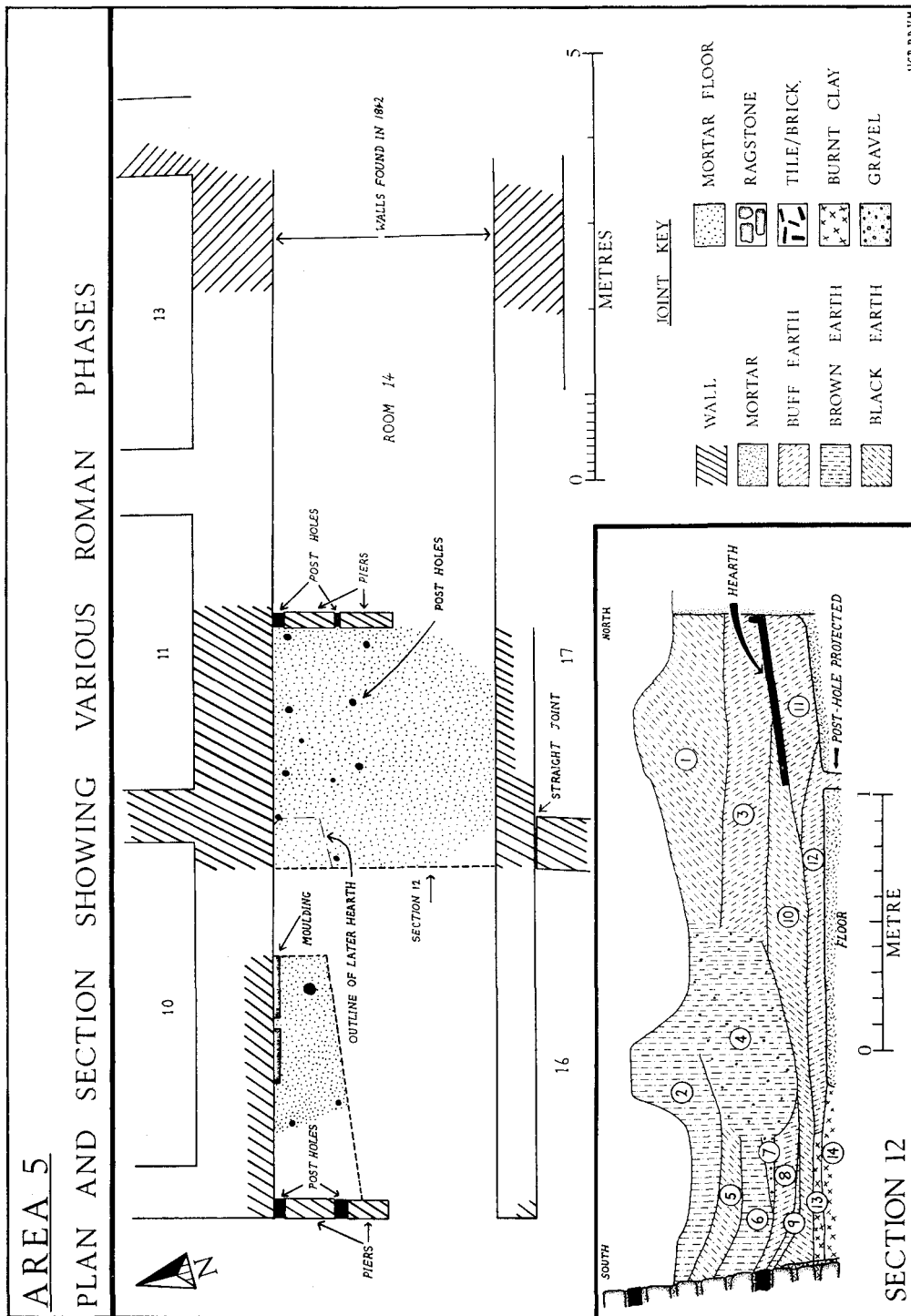


Fig. 19 Roman Palace. Area 5. Plan of room 14, and Section 12 across the room

## ROOM 15 (Fig. 18)

The east and west walls of Room 15 on the lower terrace were southward extensions of the side walls of Corridor 12 on the upper terrace. Its north wall was a retaining wall 0.81 m thick which supported the south end of the Corridor 12; and it was not bonded into the east and west walls. The east and west walls of this room were both very roughly faced, unlike the north wall, suggesting that originally the Corridor 12 may have extended south to a point level with the north wall of Room 14, where it may have ended at a retaining wall or a staircase to the lower terrace. Later, perhaps because more space was needed, the south end of the corridor was excavated out, exposing the foundations of the wide walls of the corridor, and a new and properly faced retaining wall was inserted across the corridor at this lower terrace level. Unlike the east and west walls of Room 15, the north wall contained a single course of bonding tiles. At the base of the north wall was a brick built culvert filled with grey silt. On the south side of this was a narrow unembanked water channel about 0.61 m wide and filled with black silt, with its bottom at about 2.74 m above O.D. This channel passed down the middle of Compartment 15, and may have supplied water for sanitary purposes, presumably derived from the drains which were located on the higher terrace. There was no evidence of any covering for the water channel, but all traces of a wooden structure might have disappeared. It seems possible that Compartment 15 may have been a lavatory, to which access was given by Corridor 14.

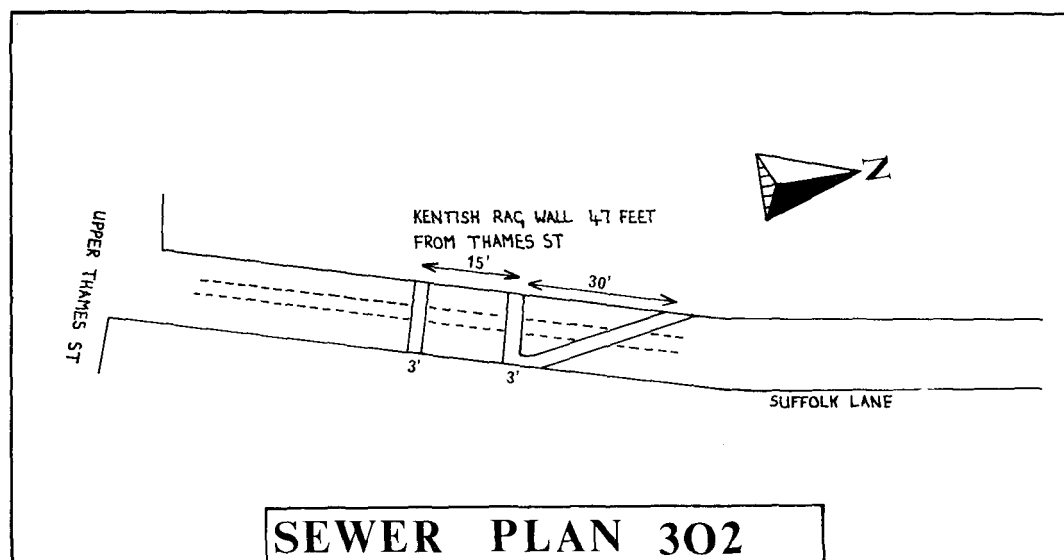


Fig. 20 Roman Palace. Roman walls as recorded on Sewer Drawing 302, c. 1840, re-drawn for publication

## ROOMS 16, 17, 18 (Fig. 28)

A series of rooms lay to the south of Room 14, but they could not be properly investigated. Room 16 apparently had no west wall but opened directly onto Room 15. Only the top of the north end of the wall separating Rooms 16 and 17 was found, built up against the southern east-west wall of Room 14, from which it was separated by a straight joint. The thickness of the wall separating Room 14 from Rooms 16 and 17 was 0.46 m, but the wall separating the eastern end of Room 14 from Room 18 was, according to Sewer Plan 302 (Fig. 20), 0.91 m. This implies that a wall may have existed dividing Room 17 from Room 18, but only further excavation beneath Suffolk Lane can clarify the plan of the palace in this area.

## AREA 6 (Figs. 21-23)

A substantial retaining wall (Fig. 21), 1.14 m thick and built of ragstone set in yellow-brown cement and containing double courses of bonding tiles, separated the upper terrace of the garden-court at about 6.4 m above O.D., from the south wing terrace in Area 6 at about 3 m above O.D. Only the lower 1.83 m of the wall had survived, however, and it was found to be lying on a foundation of timber piles between 1.52 m and 3.35 m in length, and about 0.15 m square, the lower ends of which were pointed, driven into the underlying soft grey silt and clay.

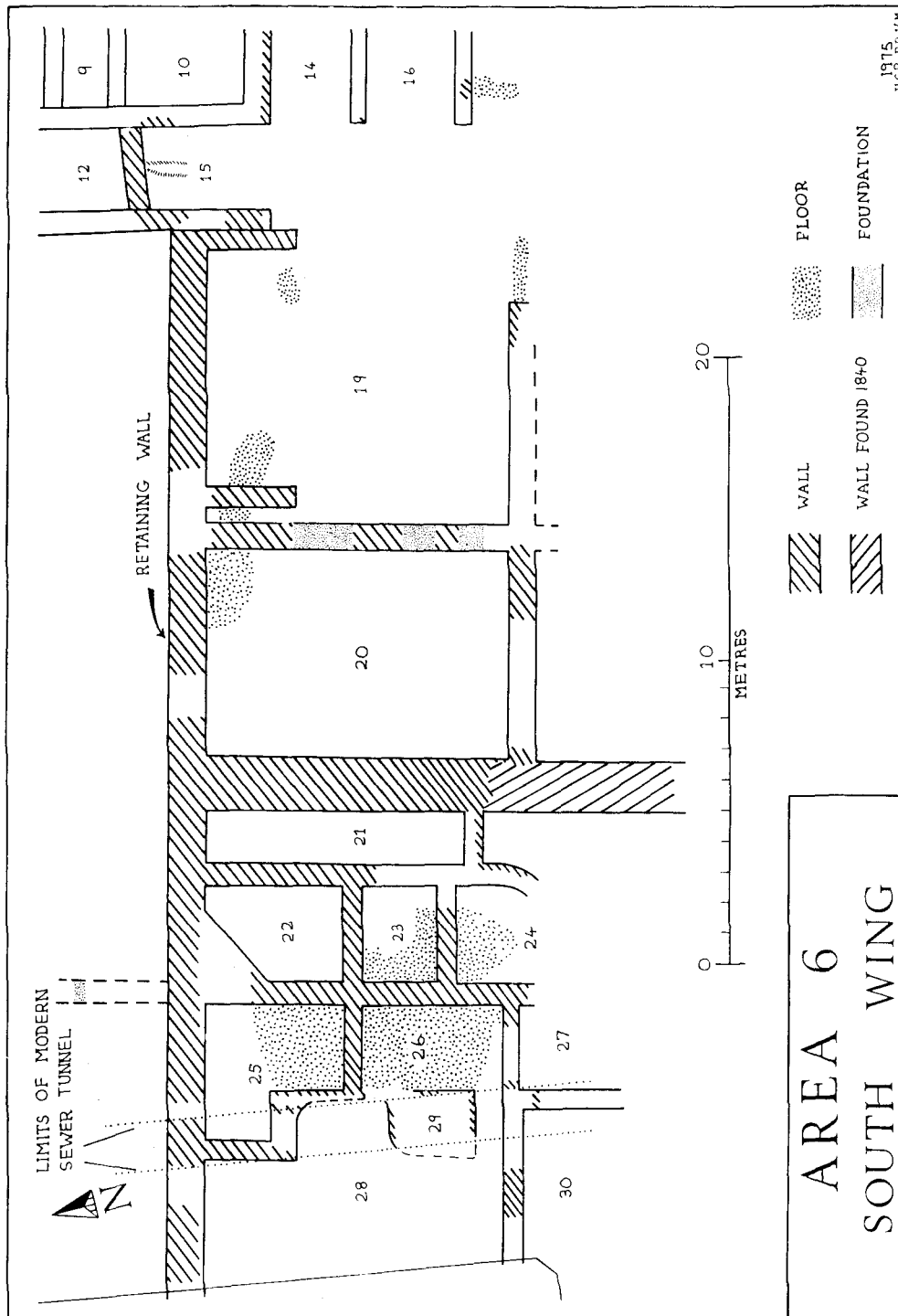


Fig. 21 Roman Palace. Area 6. Plan of the south wing of the palace

Walls of the south wing rooms extended south of this retaining wall and, as they were bonded into the wall, it is clear that the south wing was planned and built as a unit supporting and, therefore, linked to, the garden-court complex on the higher terrace.

It is unfortunate that no archaeological excavation was possible in Area 6 but, by maintaining a very close watch on the contractor's rebuilding excavations, which were carried out both by hand and by mechanical excavator, it was possible to make a record of probably all walls of the primary construction phase. Many details, particularly concerning the positions of doorways, could not be determined however.

The south wing comprised at least two distinct parts, Rooms 19 and 20 and Rooms 21-30, the two groups having been separated by a thick wall, and it is clear that two separate functions are indicated here. Within this layout clear traces of modifications to the original structures were found and, although these could not be traced in their entirety, fairly clear indications of their plan were recovered. Unfortunately, none of the Roman rooms was seen in its entirety, each portion having been separately recorded in the modern builders' trenches in the hope that collectively the portions would form a pattern. Unfortunately, in these circumstances it was not possible to be absolutely certain of all details and further excavation in the future would be particularly desirable.

#### ROOM 19

This large chamber, measuring approximately 9.41 m (east-west) by 9.91 m (north-south) appears to have had an open east side; and at its north end it had two walls each projecting 3 m south of the north (retaining) wall of the room. The walls were all built of ragstone with courses of bonding tiles, except at the extreme south ends of the short projecting walls which were squared off with bricks. Traces of white painted wall plaster were observed near the bottom of the north retaining wall and on the east face of the westernmost projecting short wall. The floor of the room was a rough earthy mortar which lay at about 3.66 m above O.D.

It is difficult to see how this chamber, with its open east side, could have been roofed over; and if it had been roofed then the function of the two 3 m projecting walls would be difficult to interpret, for they were both longer than was necessary to have been mere buttresses supporting the north retaining wall. Indeed, the close proximity of the westernmost short wall to the west wall of the room (a distance of only 0.56 m) also suggests that it was unlikely that the short wall was simply a buttress.

The most likely explanation of the function of the room is that it was not roofed but was an open yard in which the two projecting walls supported a lean-to roof against the retaining wall, thus forming a storage area, perhaps for vehicles, or even an area of stables—the apparent absence of any gravel surface in the room suggesting that the latter may be the more likely interpretation. Alternatively, it is possible that if the chamber had been roofed over then the two projecting walls could have supported an elevated floor of limited extent.

#### ROOM 20

This room measured 6.86 m (east-west) by 9.9 m (north-south), and its walls were constructed of ragstone with courses of bonding tiles. The surviving top of the north retaining wall lay at about 4.57 m above O.D., while its bottom lay at about 3 m above O.D. and rested on a foundation of oak piles. The floor of the room lay at about 3 m above O.D. and where it was observed in the north-east corner of the room it comprised soft gravelly mortar 0.152 m thick. At the base of the east wall traces of a 0.076 m wide quarter-round moulding were observed.

This room, judging from its shape, size and the presence of the moulding, would seem to have been a single roofed chamber, but its proximity to Room 19 and its being separated from Room 21 by a thick wall indicates that its function was unlikely to have been as part of the living quarters of the palace, and that it was perhaps a storage or workshop area.

#### WALL BETWEEN ROOMS 20 and 21:

A surprisingly massive wall, 1.68 m thick, was found lying between Rooms 20 and 21. It was constructed of ragstone with courses of bonding tiles, on a foundation of oak piles. A length of 15.24 m of this north-south wall was observed in 1840-41 when the sewer was built under Little Bush Lane and at its north end it was met by an east-west wall—the retaining wall.<sup>35</sup> The position of this north-south wall can now be accurately located under Little Bush Lane instead of under the south end of Bush Lane—as was suggested in the Royal Commission Report<sup>36</sup>—for, apart from the re-discovery of a considerable length of the Roman wall, it is now certain that the south end of the nineteenth century Bush Lane sewer lay only under Little Bush Lane.

ROOM 21

This long narrow room, which measured about 1.75 m wide by 8.38 m long, was poorly recorded, and no floor could be found. It is possible that it was a passage linking Rooms 22 and 23, or it may have contained a staircase leading up to the garden-court terrace to the north.

ROOM 22

This room was incompletely excavated and apparently measured 4.57 m (north-south) by 3.2 m (east-west). Its west wall seemed to expand at its north end, possibly to form a buttress, perhaps to support the north retaining wall, or possibly to form the masonry base of a staircase leading from the garden-court terrace. No floor belonging to this primary phase of occupation could be found.

ROOM 23

This small room measured 3.2 m (east-west) by 2.44 m (north-south), and it had a pink concrete floor lying at about 2.85 m above O.D.

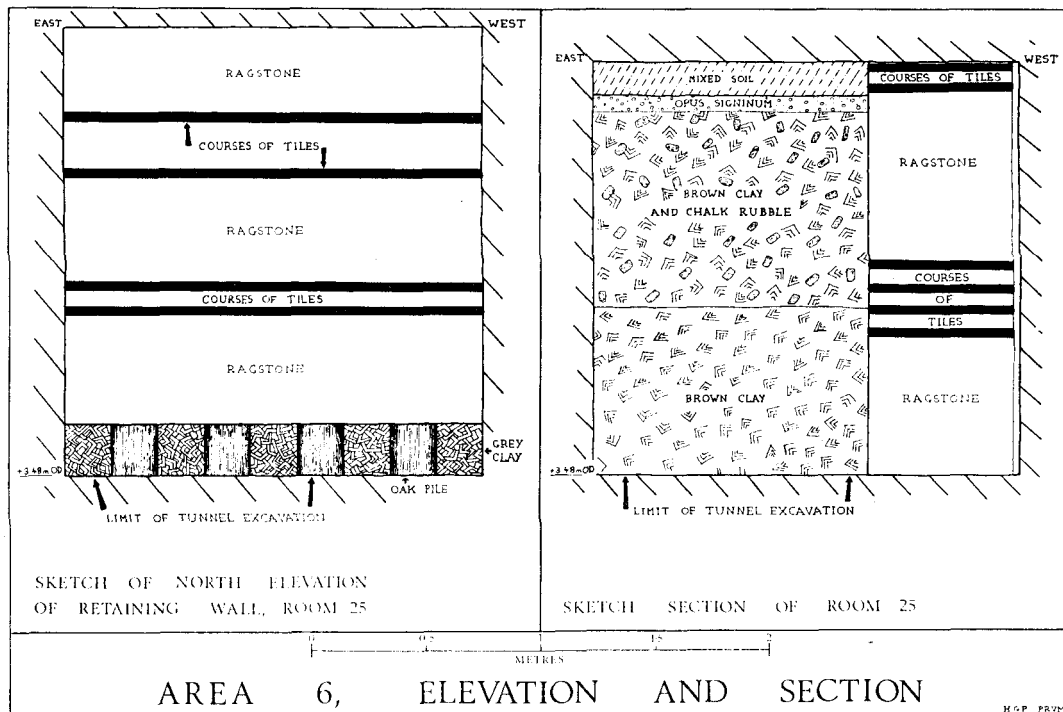


Fig. 22 Roman Palace. Area 6. North face of the retaining wall (1), and a sketch section across wall (3) in the sewer tunnel (see Fig. 23)

ROOM 24

The south end of this room was not excavated and may have been apsidal in form as was apparently the case after its later rebuilding. Room 24 measured 3.2 m wide (east-west) by more than 2.44 m long, and apparently had a pink concrete floor at 2.85 m above O.D.

ROOM 25

This seems to have been an L-shaped room measuring 4.57 m long (north-south), and 2.75 m and 4.42 m wide, with a brown mortar floor which, in the centre of the room, roughly lay at about 3.2 m above O.D. The retaining wall at the north end of this room was very briefly recorded in sketch form in the face of a tunnel dug for a new sewer (Figs. 22 and 23), and was found to be built on a foundation of oak piles sunk into a grey clay. The wall was built of ragstone set in brown mortar and contained in the exposed section two



double courses of red bonding tiles. A little further south in the sewer tunnel another section was revealed which included a cross-section of the west wall of Room 25; also some of the deposits on the west side of the room. Unfortunately, this section seems not to have quite reached the original concrete floor of the room, but it did show that near the base of the west wall of the room there were four courses of bonding tiles instead of the two courses which occurred in the east-west retaining wall, and that the west wall of Room 25 had been rendered in pink mortar.

#### ROOM 26

This room measured about 4.57 m (north-south) by 2.75 m, and had a floor of buff mortar at about 2.67 m above O.D. When found it contained a hypocaust but it was difficult to judge whether or not this was an original feature of the room. However, there was clear evidence of extensive modifications at a later Roman date, in which the hypocaust was a significant feature, and it seems most likely that the hypocaust belongs to that later Roman period.

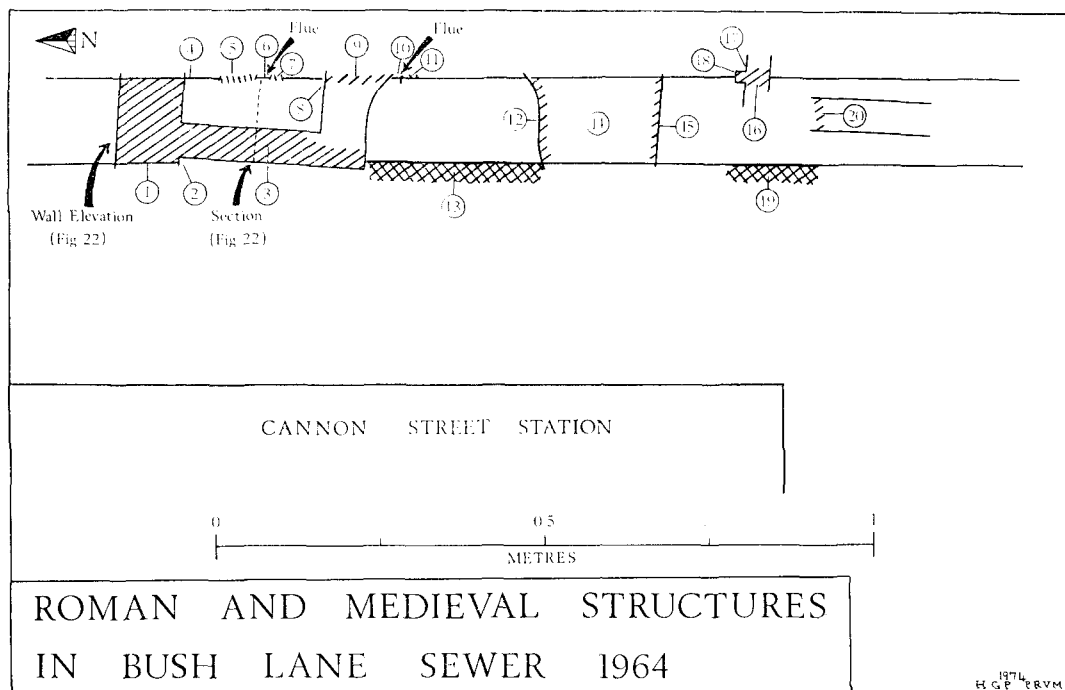


Fig. 23 Roman Palace. Area 6. Detail of Roman and medieval structures found in the Bush Lane sewer (see Fig. 21). The numbered features are:

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Roman retaining wall (see Fig. 22, left) standing on timber piles. Built of ragstone and brown mortar, with two double courses of bonding tiles.</li> <li>2. Bonded joint between the two Roman walls.</li> <li>3. Roman wall of ragstone, brown cement, with double course of bonding tiles at top, and with many courses of tiles near the bottom.</li> <li>4. Possible traces of mortar floor beside Roman wall.</li> <li>5. Side wall of flue or drain built of tiles set in pink mortar.</li> <li>6. Tiled bottom of drain or flue.</li> <li>7. South side of drain or flue, including a box flue tile lying on its side in mortar.</li> <li>8. Pink mortar rendering to the Roman wall face.</li> <li>9. Roman wall of ragstone and tiles set in brown mortar.</li> </ol> | <ol style="list-style-type: none"> <li>10. Flue, 0.15 m wide, containing red burnt ash.</li> <li>11. South wall flue built of tiles and mortar.</li> <li>12. Roman wall of ragstone and buff-coloured mortar containing three double courses of bonding tiles. Pink mortar rendering to the wall.</li> <li>13. Medieval foundation of chalk set in brown mortar.</li> <li>14. Area not observed; workmen report digging through a Roman tiled drain or flue, aligned east-west.</li> <li>15. Roman wall of ragstone and buff mortar, containing triple courses of bonding tiles.</li> <li>16. Roman wall of rubble and buff mortar.</li> <li>17. Pink mortar rendering to the Roman wall.</li> <li>18. <i>Pila</i> of five superimposed tiles.</li> <li>19. Medieval foundation of chalk set in brown mortar.</li> <li>20. Roman wall of ragstone and buff mortar.</li> </ol> |
|---|---|



Plate 1 Roman Palace. Flavian barrel forming the bottom of Well 2.



Plate 2 Roman Palace. Room 14 and late Roman hearth. Scale of feet; view to north.

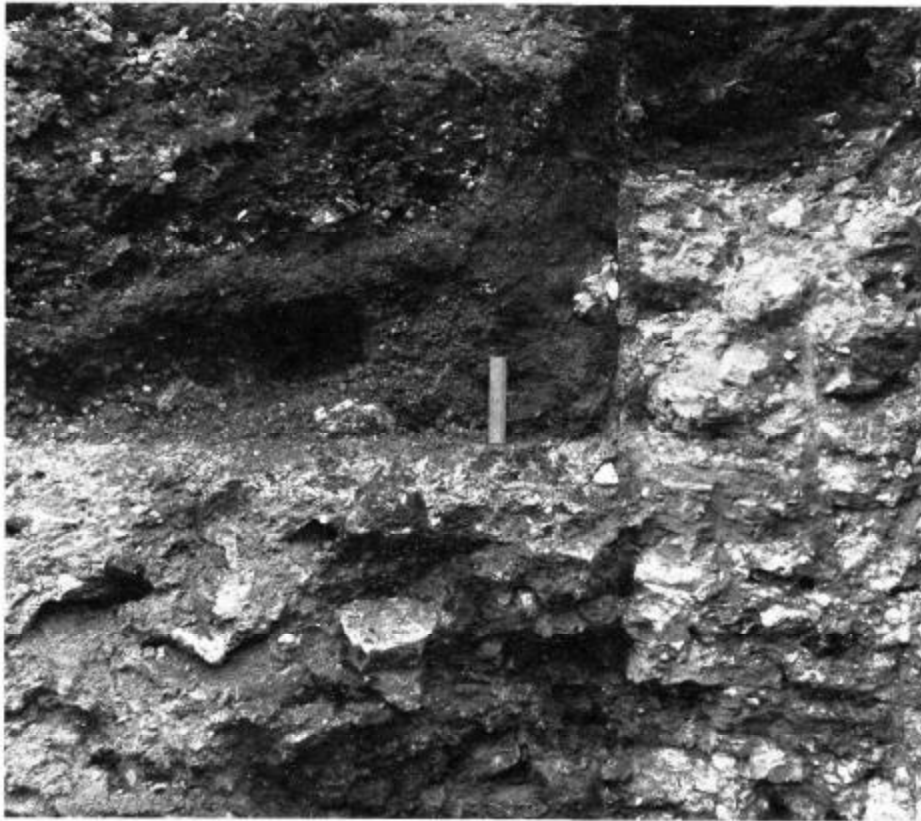


Plate 3 Roman Palace. Junction of north wall and bottom of great pool (Feature 46).  
Scale of 6 inches

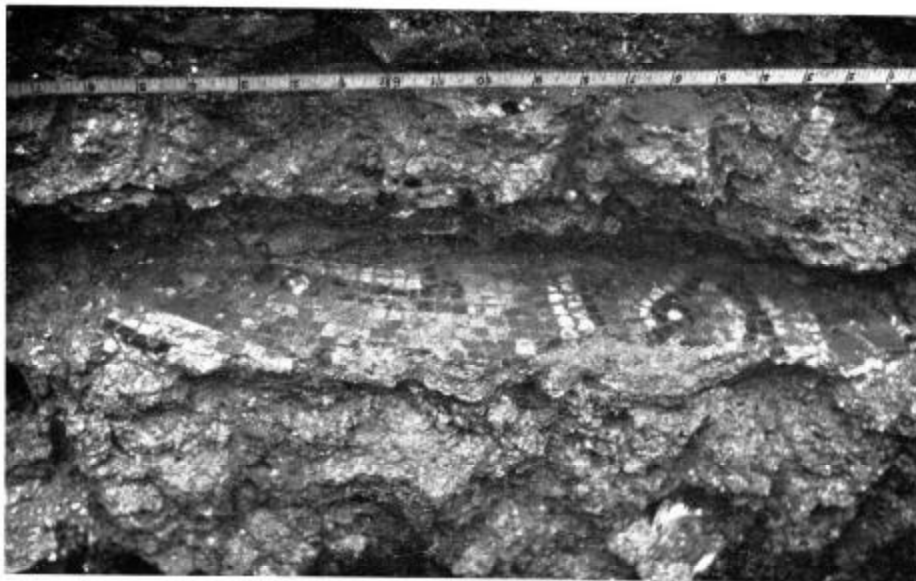


Plate 4 Roman Palace. Patterned mosaic with guilloche border, seen in Room 67  
(see Fig. 44). Scale of inches

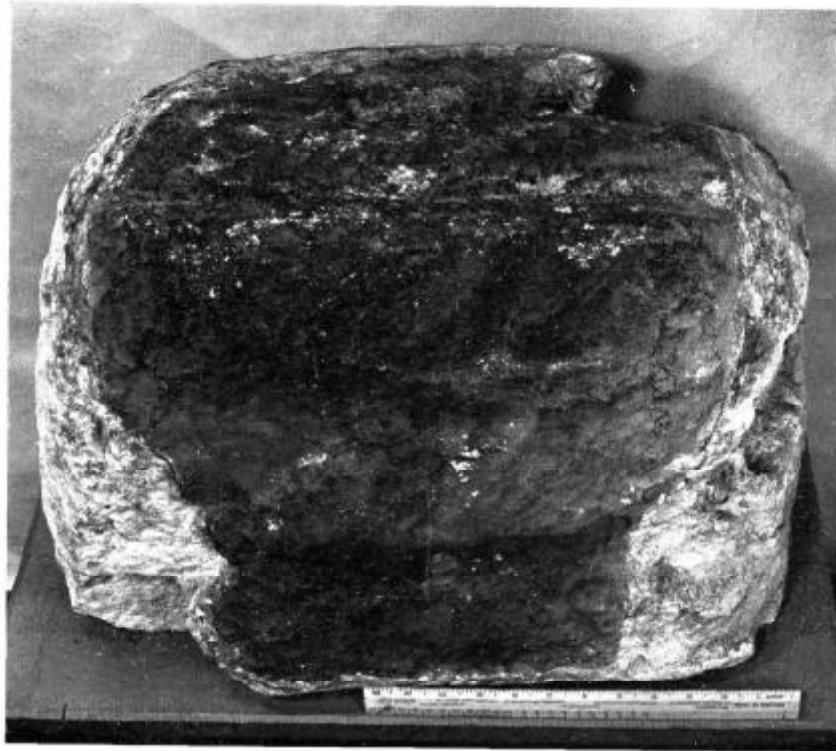


Plate 5 Roman Palace. The top of London Stone. Scale of 12 inches



Plate 6 Roman Palace. Stamped impressions on luting for gold refining  
(No. 331; p. 101) (*T. J. Hurst*)



Plate 7 Roman Palace. Stamped impressions on luting for gold refining (No. 332, above; No. 331, below; p. 101) (*T. J. Hurst*).

The west side of this room almost coincided with the western edge of the excavated area and consequently it was difficult trying to establish the exact form of wall there. At the south-west corner, however, there seems to have been a short passage 0.91 m wide.

ROOM 27

Enough of the north end of this room was discovered to show that it was about 2.74 m (east–west), though its length and floor level are unknown.

ROOM 28

This room mostly lay beyond the limit of modern building operations, and thus it is not possible to be sure of its form. Nevertheless, a hole dug to construct a modern foundation against the wall of Cannon Street Station revealed no walls in the northern part of this room, and it seems unlikely that there were any cross-walls running east–west lying north of Feature 29. Indeed, Room 28 seems to have been a chamber of larger than usual size in this part of the south wing. On its east side was what seemed to be an apsidal recess 3 m wide (north–south) and 2 m deep which was coated with pink cement, with curving walls. Although it is clear that both north and south sides of the recess were curved there is some difficulty in being certain of the exact shape of the recess, as the curve of the wall does not appear to have been regular. No clear evidence of a floor was found in this room, but fortunately much survives unexcavated and ultimately could be available for proper archaeological investigation.

ROOM 29

The interior of this small chamber, if that is what it should be called, was not observed by an archaeologist. A workman who had dug this portion of the tunnel for the new Bush Lane sewer reported the presence of a Roman tiled drain or flue within a wall here. It is quite possible that “Room 29” was nothing more than a block of masonry helping to support the roof of this building.

ROOM 30

This chamber lay on the very edge of the excavated area and no information is available about its form. The east wall of this room, which was standing at least 1.22 m high, was 0.61 m thick, and was constructed of ragstone and brown cement, contained at least two double courses of bonding tiles 0.255 m apart. It was traced for a short distance southwards in the sewer tunnel excavation in 1964.

ROOM SOUTH OF ROOM 21 (Fig. 21)

The extreme north end of this room was found, and in its north-west corner was a small portion of mortar floor. It is impossible to conjecture the shape of this room as its west wall was apparently curving, probably to form an apsidal south end for Room 24.

AREA 6. RECONSTRUCTION OF PALACE PHASE (Figs. 21, 29)

Rooms 19 and 20 and Rooms 21–31 comprised two groups each judging from their form originally having a distinctly separate function.

The large size of Rooms 19 and 20 suggests that they may have formed some kind of working or storage area associated with the day-to-day maintenance of the palace rather than with its functional events. Indeed, that the projecting walls of Room 19 may have supported some kind of lean-to roof in an otherwise open yard may even indicate the presence of stables, though significantly no gravel floor surface was found in the room. This room evidently gave access on its east side to an area where there lay an open main drainage channel which flowed from the garden-court terrace of the palace south to the river, this, too, suggesting that Rooms 19 and 20 were part of an unprepossessing palace maintenance area.

Rooms 21–31 clearly had a separate function, and were separated from Rooms 19 and 20 by a wall 1.68 m thick. Although the great thickness of this wall could have been due to its supporting an upper floor, particularly over Rooms 21–31, this is unlikely to have been the reason for its great size, as there were no other thick walls in the area. Indeed, it was apparently unnecessarily thick to support the building; this is indicated by its being even far wider than the retaining wall of the south wing. It seems most likely, therefore, that the massive nature of the wall may have been due to some purpose such as providing a degree of security between the “official quarters” (Rooms 21–31) and the “maintenance area” (Rooms 19–20).

The function of the “official quarters” is uncertain, though their plan suggests that they may have been residential. None appears to have been heated at this early stage of palace construction, though obvious traces of heating could have been removed during later rebuilding. Similarly, no clear trace of any painted plaster was found adhering to the walls but instead a rendering of pink mortar—though this, too, could have been

a later addition. The purpose of Rooms 21–31 is not clear, though the apparent buttress in Room 22 and the long narrow Chamber 21 may have contained staircases giving access to the upper garden-court terrace. Of particular importance was Room 26, a chamber apparently of larger size than the rest and containing on its east side an apsidal recess. Surely here is a major room, perhaps *the* major room, of the south wing, around which the smaller rooms were arranged, for significantly it lay on the main north–south axis line of the palace passing southwards through the centre of the great hall (Room 42) and the large pool (46).

It is fortunate that parts of the area of Rooms 21–31 survive beneath the new office building occupying the site, and it is extremely desirable that in the future a most careful archaeological excavation is conducted here in an attempt to clarify the many uncertainties still associated with this wing, chief amongst them being the need to define more closely the official nature and function of this group of rooms. That the rooms had some pretensions is indicated by the discovery in Little Bush Lane in 1846 of a Roman column base and a massive east–west wall, hinting at a degree of ornamentation not noted in the recent rebuilding excavations,<sup>37</sup> but which careful archaeological excavation may reveal in the future.

#### AREA 6. MODIFICATION TO THE PALACE STRUCTURE (Fig. 24)

At some stage Rooms 22–26 were extensively modified, the construction taking the form of walls of brick set in pink mortar and of floors of *opus signinum* at a higher level than the earlier floors. It was extremely difficult to record and interpret the evidence for the modifications, and the conclusion given here is not necessarily absolutely accurate—but is the best that could be made from observing the excavations made by the contractors. Fortunately, however, sufficient of the modification phase survives for it to be possible, at some future date, to re-excavate the area under archaeological conditions and thereby to check the conclusions given here.

Essentially the modifications seem to have taken the form of changing five rooms of the earlier phase into three rooms, and of inserting hypocausts into some of the chambers. It seems that the retaining wall and the thick north–south wall which divided Room 20 from Room 21 remained.

#### ROOM a

This had an irregular shape and probably an apsidal south end. Its floor was of *opus signinum*, about 0.3 m thick, on the surface of which had been set large slabs of green micaceous schist (E.R. 1027). The surface of the floor lay at about 3.75 m above O.D., and its level gently sloped down to the south.

#### ROOM b

This was a rebuilt form of Room 26 (Fig. 21), the original east, west and south walls having been retained. The north wall had been rebuilt using ragstone rubble set in yellow concrete. A hypocaust had been built in this room, the red brick *pilae* having been laid on the earlier mortar floor. Part of the west wall had been blocked with red bricks set in pink concrete. The source of the heat is unknown, though it was probably from the west or south, and may have entered the room from the south-west corner. The *pilae* stood up to 0.61 m in height, though the floor that they originally supported had been destroyed. As the surface on which the *pilae* stood lay at about 2.67 m above O.D., it is reasonable to suggest that the surface of the missing floor of this chamber lay at about 3.5 m above O.D.

#### ROOM c

Only the southern part of this small and apparently triangular room was excavated and, fortunately, its northern part still survives beneath the modern office building; its east and west walls were built of tiles set in pink mortar, and its floor was of *opus signinum* 0.076 m thick, the surface of which lay at about 4.42 m above O.D. Although no *pilae* were seen in the exposed section, it was evidently heated by a hypocaust since it lay 0.76 m above a structurally contemporary lower floor of *opus signinum*. This in its turn overlay a dump of clay deposited on the first phase of brown mortar floor, the surface of which lay at 3.2 m above O.D.

The source of the heat for this chamber is indicated by the presence of a flue, with sides and a floor of tiles, on the west side of the west wall of the room (Fig. 22), though it is not clear where the stoke-hole lay.

#### ROOM d

No clear evidence of rebuilding was found in this room, except against the apse wall where a flue 0.30 m wide and with bricks forming its bottom was seen in section. Significantly the flue contained a quantity of red burnt ash indicating its close proximity to the furnace, and it is possible that Room “d” itself had become the furnace area for the new heated quarters.

AREA 6. RECONSTRUCTION OF THE MODIFICATIONS

The curious pattern formed by the rebuilt rooms is probably largely due to their having been inserted into a pre-existing building, and therefore they need not be considered as unusual from this point of view. Nevertheless, Room "a" has one characteristic which sets it apart from all other known Roman structures in London, and this is its floor of micaceous schist slabs set in *opus signinum*. This greenish-coloured floor must have contrasted greatly with the warm pink colouring of the walls of the room to give a pleasing and unusual effect. The significance of this unusual flooring is impossible to determine on the present evidence, and clearly much more excavation is required. It is remotely possible, for example, that the three rooms formed a small bath suite, Room "a" being the *frigidarium*, Room "b" the *tepidarium*, and Room "c" the *caldarium*.

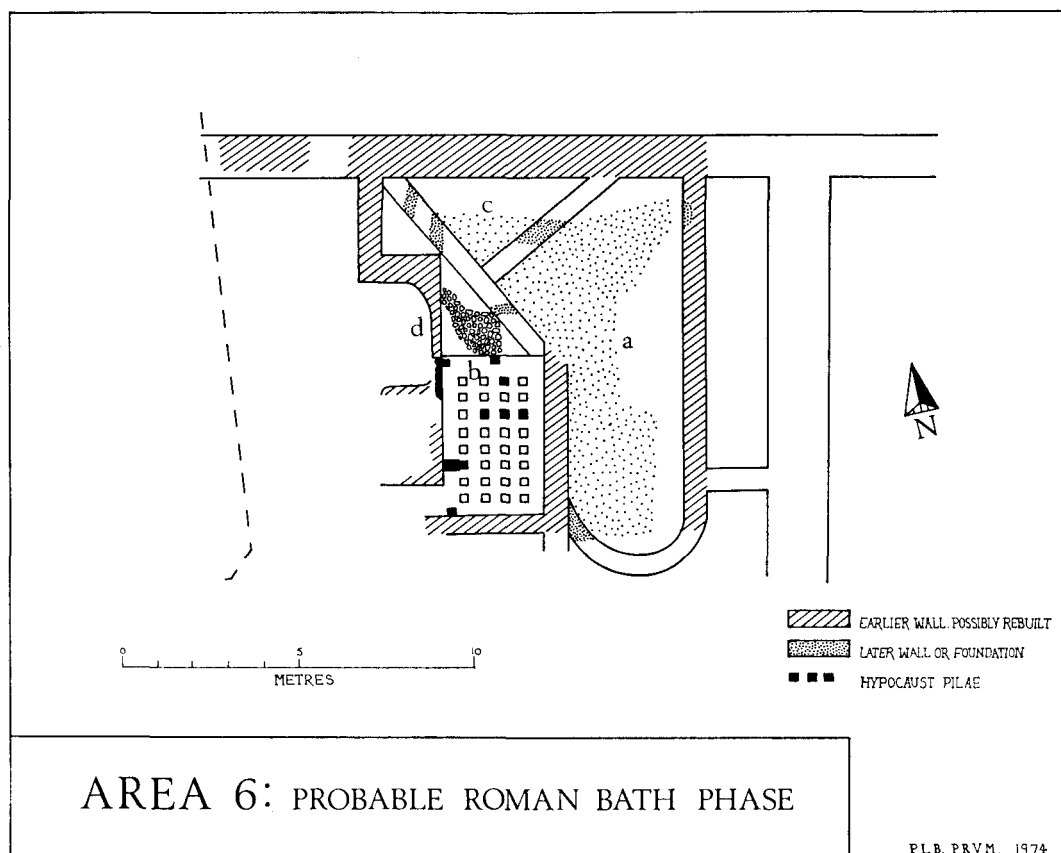


Fig. 24 Roman Palace. Area 6. Evidence of rebuilding in the south wing, suggesting that a small bath suite was inserted

AREA 7. THE ROMAN PALACE UNDER CANNON STREET STATION (Fig. 28)

John Price wrote in 1870<sup>38</sup> that excavations to construct the foundation of Cannon Street Station in 1868 had revealed that Roman "buildings" of great magnitude must have existed, if we may judge from the strength and solidity of these foundations . . . running nearly in line with Bush Lane (*i.e.* roughly north-south) was an immense external wall (*i.e.* the west wall of the palace), some 200 ft (60.96 m) long, 10 ft (3.05 m) high, and 12 ft (3.66 m) in thickness, formed of ragstone, chalk, and a variety of materials bound together with mortar in the ordinary Roman fashion. At an angle were foundations 8 ft (2.44 m) wide, of flint and rubble supporting smaller walls, some 3 ft (0.91 m) wide, composed principally of bonding tiles 18 in (0.46 m) by 12 in (0.30 m), (*i.e.* two periods of construction are presumably indicated here). These were connected by a series of cross walls 2 ft 6 in thick and built of flat tiles 14 in (0.36 m) by 11 in (0.28 m), also set on rubble footings 4 ft (1.22 m) in width (*i.e.* two periods of construction, also presumably indicated here).



Still nearer Cannon Street were the remains of an apartment 50 ft (15.24 m) by 40 ft (12.19 m) floored with a coarse red concrete; this was connected with a second, which had access to a third but smaller room. A long series of smaller apartments were satisfactorily traced, with floors of coarse *tesserae* of red and yellow brick in cubes about 1 in (0.025 m) square. Some little distance in front of the centre apartment in this series was a square piece of paving comprised of oblong bricks on edge, known as "herring-bone pavement". Adjoining a thick rubble wall was a large portion of a mosaic pavement, comprised of  $\frac{1}{2}$  in cubes of black, red, white, and grey *tesserae*, worked into a simple pattern and surrounded by a double border of black and grey stones of a compact nature and from 4 in to 6 in (0.102 m – 0.152 m) square, but varying in thickness. In close proximity to this, human remains were found.

There were evidences of strong timber drains, or waterways, one 5 ft (1.5 m) beneath the foundations of the building, and having a steep incline to the river. This measured 4 ft (1.22 m) across, and was 18 in (0.46 m) deep, the boards forming the sides being 4 in, and those at the bottom 6 in (0.152 m) in thickness. The other channels were of smaller dimensions (*i.e.* perhaps this was the main drain for the great pool).

Within several of the rooms wall paintings remained, the designs in various colours; some divided by lines and bands into panels, others ornamented by a trellis-pattern, or powdering of fancy-coloured spots; besides a quantity of roofing, hypocaust and building tiles; fragments of pottery, glass, and articles of personal and domestic use. On many of the tiles were the letters PP BR LON, such as have been observed before; others were scored with geometrical figures, or small squares worked with a diamond pattern; pieces of flue and hypocaust tiles abounded, and were ornamented in a variety of ways.

A great many objects were found, amongst which were coins of Agrippa, Claudius, Nero, Vespasian, Titus, Domitian, and Trajan.

The Roman remains were exposed in trenches dug to build the pier foundations of the new station, and it is certain that the intervening areas were left unexcavated. In the trenches Price mentions that: "It was interesting to observe how completely the old walls defied the appliances of modern engineering, the necessary dislodgements being only effected by the aid of gunpowder; in some cases, I believe the veritable Roman walls now form foundations for the support of the railway arches".<sup>39</sup>

#### INTERPRETATION OF THE ROMAN MASONRY STRUCTURES FOUND BENEATH CANNON STREET STATION

It is naturally difficult to conjecture the location of these Roman walls, though one or two observations can be made concerning the possible significance of the record. Firstly, the enormous external wall of the palace is of monumental proportions and may have been part of the complex of monumental rooms and other structures in the central area of the palace. Indeed, it may be significant that the 60.96 m length of massive wall found on the Station site is about the same as the distance from the south side of the garden-court to the north end of the great hall, Room 42, the area mostly occupied by the monumental structures.

The second point which is of interest is that the two exceptionally large rooms, each measuring 15.24 m by 12.19 m, are likely to have belonged to the range of very large chambers fronting the north side of the garden-court; and the "long series of smaller apartments" may have been part of the series of rooms represented by Rooms 35, 36 and 41, located to the north of the "state rooms".

In view of the extensive area over which these remains covered on the Cannon Street Station site; also the conjectured western limit of the great pool (Feature 46) in the garden-court, it seems probable that the 60.96 m long wall was located in the western half of the station area. And in view of its massive size it seems likely that a considerable part of it will have survived both beneath and between the foundations of the station.

#### AREA 8 (Figs. 25, 28)

The waterfront area of the Roman palace has not been extensively excavated, except under Cannon Street Station in 1868, the detailed records of which do not survive. Roman waterfront structures have also been recorded in a few small holes and trenches dug beneath and beside Upper Thames Street at various times, and, in spite of this imperfect information, it is possible to draw together some tentative conclusions concerning the location and construction of the Roman waterfront.

#### FEATURE 49

During 1868 when excavations were being made for the foundations of Cannon Street Station, a considerable length of what was believed to have been the Roman waterfront was found on both sides of Thames Street (Fig. 28). The Roman level was found at a depth of from 6.1 m to 7.62 m, and it was while sinking the shafts which were to receive the piers of the railway arches that numerous Roman piles and transverse beams

were found driven into the clay, and extending right across Thames Street, these forming a complete network of timber. Many of the beams measured as much as 0.46 m square, and all were of great strength and durability. John Price, who at the time published an account of the discovery, concluded that "they doubtless formed the old waterline and Thames embankment fronting the southern portion of Roman London. Such beams were observed on both sides of the street, and many had probably been supports for the Roman buildings which so plentifully existed in the neighbourhood of Bush Lane and Scot's Yard".<sup>40</sup>

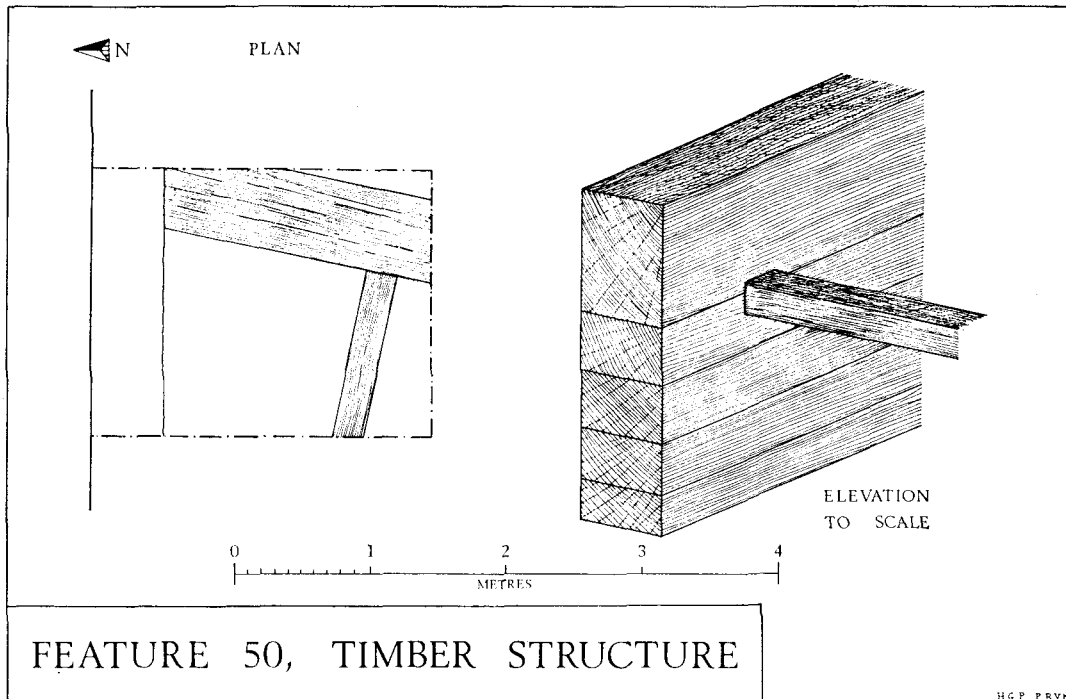


Fig. 25 Roman Palace. Roman timber structure found under Cannon Street Station

FEATURE 50 (Figs. 25 and 28)

Part of a massive Roman timber structure was uncovered in a test hole to examine the foundations of Cannon Street Station in August 1959. Fragments of pottery of the first and second centuries were also found together with a bronze pin (Fig. 45, No. 314), all of which were recovered by workmen. The top of the Roman timber structure lay 4.19 m below the floor of the station vaults. The structure lay on the eastern side of the trial pit, and comprised five enormous timbers, each 0.61 m wide, laid horizontally, one above another. From the west side of the pit a timber beam 0.23 m square projected at a right-angle to the superimposed timbers, and at the level of the junction of the top two beams. There was some suggestion that a vertical pile existed beneath the north end of the horizontal timbers. The timbers rested on grey silty clay.

FEATURE 51

Another small test hole dug against the south side of Upper Thames Street, beneath Cannon Street Station, in September 1959 revealed, at a depth of 7.31 m, a baulk of oak, 0.35 m square, aligned approximately north-south. It was lying in a deposit of grey river silt in which were seen the small shells of freshwater molluscs. Traces of a possible trench in which the oak beam lay were observed cut into the silt in the north face of the trench.<sup>41</sup>

FEATURE 52

The Royal Commission Report of 1928 records that, during the digging of a tunnel in 1927 to lay electricity cables along the north side of Upper Thames Street, there were found on either side of the foot of

Suffolk Lane, at its junction with Upper Thames Street, two heavy composite baulks of timber; they were 20 ft (6.1 m) apart and between 15 ft and 20 ft (4.57 m and 6.1 m) below the pavement level. One of the timbers employed was 26 in by at least 24 in (0.66 m by 0.61 m) and the construction was said to slope towards the river. The suggestion that they formed slips appears to be negated by the fact that they were not at the same level.<sup>42</sup>

#### FEATURE 53

About 35 ft (10.67 m) east of Feature 52 the tunnel dug for electricity cables in 1927 encountered another timber construction of lighter type than Feature 52. It "consisted of timbers running both across the trench (*i.e.* north-south) and longitudinally. Projecting into the trench at this point was the drum of a stone column 2 ft (0.61 m) in diameter and roughly fashioned".<sup>43</sup>

#### CONCLUSIONS

It would seem that the Roman timber waterfront structures described above may have been similar to the Roman quay box-structures recently found on the Custom House site,<sup>44</sup> and at New Fresh Wharf. Particularly significant is the use of several superimposed massive oak beams lying horizontally to form the waterfront and to stabilize the soft silty river bank. It is particularly interesting that the Roman structures extended to the south side of Thames Street, for this shows that the actual waterfront was situated there. Observations on the Public Cleaving Depot site<sup>45</sup> to the west of Cannon Street Station, and recently on the GPO site immediately to the east of the station (see Fig. 29) showed that the river bed in Roman times lay close to the southern frontage of Thames Street, though on neither site were the excavations located sufficiently far north to actually reveal the Roman waterfront.

#### AREA 9. VARIOUS ROMAN PHASES (Figs. 1, 26)

During the construction of the new Norfolk Suffolk House in 1969 a huge area of Roman building was disclosed which, although probably part of the Roman palace complex, was also probably separate major Roman buildings situated immediately to the east of the main palace building (Fig. 26). Unfortunately, no archaeological excavation could be undertaken in the area, and it was not possible to fully watch the clearance of the central part of the site. As a result, the archaeological record is fragmentary, though probably sufficiently complete for an attempted interpretation of the significance of the structures to be made. The area is most conveniently considered in three divisions, some of which may partly reflect the amount of actual recording of the Roman structures, while others reflect the groupings of the rooms themselves.

#### FEATURES 57-62

##### FEATURE 57

This comprised the area immediately north of the north wall of Rooms 58-62, and it clearly formed an elevated Roman hillside terrace, the surface of which lay above 7.92 m above O.D. The terrace surface, and any indications of Roman pits and foundations had all been removed by the deep excavation of modern cellars. Only a small part of the area north of the range of Roman Rooms 58-62 was actually investigated, and it is conjectured that the elevated terrace continued all along the north side of those rooms.

##### ROOM 58

This was a room measuring about 8.23 m long (north to south), which lay on the south side of a Roman retaining wall. The white mortar floor of the room lay at about 6.7 m above O.D., which is below the surface of the terrace to the north of the room (Feature 57). It was only at the north end of both this room and Room 59 that the line of the retaining wall of Rooms 58-62 was excavated, and here it was found that the wall had been destroyed by a nineteenth century foundation only 0.91 m thick. To the north of this modern foundation there were the undisturbed natural deposits of Feature 57, while to the south there lay both Roman deposits and a mortar floor, showing that a Roman retaining wall must have been situated on the line of the modern retaining wall.

The foundations of the south and east walls of this room were constructed of ragstone and buff mortar containing some re-used broken tiles and hard pieces of pink mortar.

##### ROOM 59

This room measured 8.23 m long (north-south) by 7.92 m wide, and it was largely only the core of its walls that had survived. The west wall was 1.07 m thick, as was the south wall, but the east wall, at the single point where it was recorded, was only 0.46 m thick. The foundation of the east wall was not constructed of ragstone but of flint and mortar, suggesting that it was of a different, presumably later, date than the west and south walls of the room.

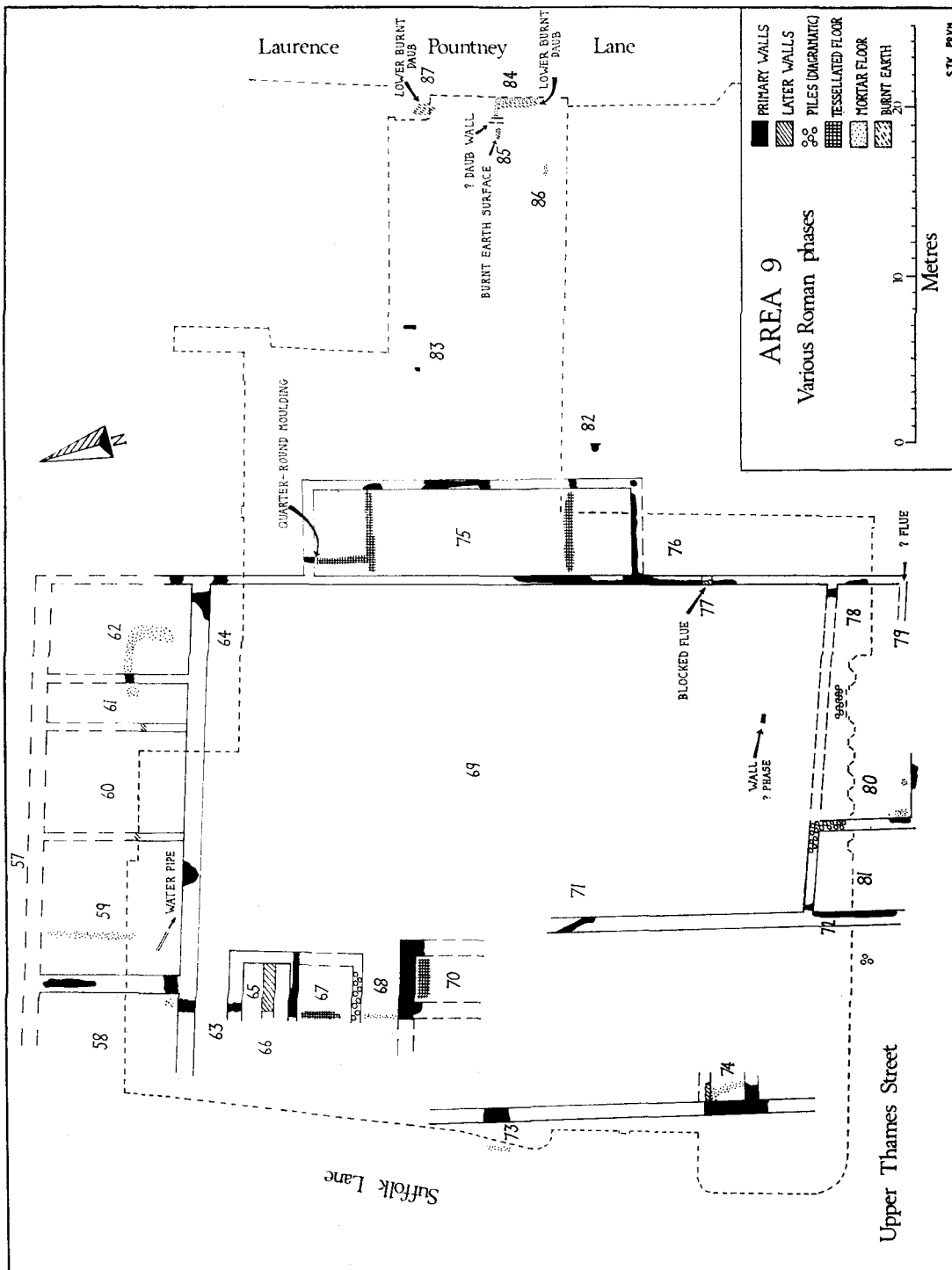


Fig. 26 Roman Palace. Area 9. Roman stone buildings and to the east, beside Laurence Pountney Lane, two phases of wattle and daub building(s)

The floor of the chamber was of buff-coloured mortar between 5 mm and 0.203 m thick. It overlay a dumped deposit of grey gravelly earth containing pieces of Roman building rubble, while the floor was overlaid by a deposit of ash and dark earth, presumably representing the occupation of the room, while above this was a layer of Roman rubble and mortar fragments, perhaps indicating the destruction of the building.

At the south end of the room, and below the level of the mortar floor, was found a short length of circular pottery waterpipe sloping down to the south-east. The pipe was surrounded by sticky yellow clay which was particularly thick around the junction of each length of pipe.

#### ROOM 60

Assuming that the north wall of Rooms 58–62 was parallel with the known south wall of the rooms, it is clear that Room 60 measured 8.23 m (north–south) by 5.94 m. Its floor was not seen, but its east and west walls had foundations of flint and chalk rubble with some Roman bricks all set in brown mortar. Both foundations were 0.46 m wide and were unlike the typically Roman foundations used in the remainder of this group of rooms. Indeed, there is no certain evidence that the two foundations were of Roman date, though the use of Roman tiles, and the Roman level of the foundations, indicates that they were probably of Roman date. It would seem that both comprised a secondary addition to the primary phase of Roman construction.

#### ROOM 61

This chamber was 2.36 m wide (east–west), and perhaps 8.23 m long. The flint foundation of its west wall, described under Room 60, was completely different from the east wall of Room 61 which was built of ragstone set in brown mortar. The floor of the room was of buff mortar about 230 mm thick, and its surface lay about 6.7 m above O.D., but it was not possible to determine if this was contemporary with the flint wall foundation.

#### ROOM 62

This room measured 5.33 m (east–west) and possibly 8.23 m long and its walls were built of ragstone. Its south wall, which was 1.07 m thick, unlike the east and west walls which were about 0.46 m thick, contained traces of courses of bonding tiles. The floor of the room was of *opus signinum* 150 mm thick, which lay at about 6.76 m above O.D. The floor overlay the natural gravel.

#### ROOM 63

This chamber was seen in section only, and was 2.46 m wide (north–south). The southern wall, 0.91 m thick, was built of ragstone and buff mortar.

#### ROOM 64

This was an area of unknown size, situated immediately south of Room 62, where a portion of yellow mortar floor was observed lying about 45 cm below the floor level of Room 62, and with its surface at 6.3 m above O.D.

#### FEATURES 57–62. POSSIBLE SIGNIFICANCE

A deal of uncertainty must exist in the interpretation of this area, because there was absolutely no archaeological control of the method and location of the excavations. Nevertheless, enough has been found for a possible interpretation to be suggested which will make some sense of the archaeological features.

Features 58–62 seem to represent a range of rooms situated immediately south of a Roman retaining wall which once supported a higher terrace. The dam-like effect of the retaining wall on the ground water would seem to have been relieved by at least one underfloor drain, that found beneath Room 59.

It is impossible to be certain of the number of rooms originally occupying this wing, especially as later disturbances have removed traces of walls in the exposed sections. Nevertheless, the indications are that the main foundations of ragstone are of a different and, presumably, earlier phase than the flint foundations. Bearing in mind all of the uncertainties, it may be suggested that during the primary phase Rooms 58–61 comprised one large chamber, flanked at each end by other chambers (Rooms 58 and 62). Room 62 may have been at the end of this range for its south wall was not found continuing eastwards. The west end of Room 58 was not found. At a later stage the large room may have been divided into smaller chambers by walls with flint foundations. No indications of the possible use of the wing were found, though in contrast to other wings of this building there was a marked absence of any hypocausts.

A corridor linking the rooms of this wing might be expected, particularly to the south of the range of the rooms and away from the retaining wall, and this *may* have been the significance of Rooms 63 and 64. It should be pointed out, however, that no sign of a continuation eastwards of the south wall of 63 could be found.

FEATURES 65-74

ROOM 65

This chamber measured 2.75 m from north to south, its north and south walls being built of ragstone with double courses of bonding tiles. The east wall of this room was not found, though its position is suggested by the discovery of an apparent east end to the south wall, and by the apparently complete absence of a continuation of the north and south walls at a point 1.52 m to the east of this point.

At a subsequent date a wall (Feature 66) aligned east-west, was built in the room, its construction being of ragstone, brown mortar, and some fragments of Roman bricks.

ROOM 67

Later Roman rebuilding had destroyed much of this room, though in its earliest phase it appears to have been a chamber measuring about 3.2 m wide (north-south). The north wall had been incorporated in the later Roman rebuilding but, although what is presumed to have been its south wall had been destroyed, its position was indicated by a line of timber piles which had formed its foundation. The east wall could not be located due to the fairly deep modern mechanical digging in that area, though as the east-west walls were not found in the east side of the modern trench, its position seems most probably to be in line with the east wall of Room 65.

The earliest surviving floor of this room was a decorated mosaic pavement at 4.77 m above O.D., which was in part destroyed by the mechanical excavator without any opportunity having been given to record its design. A narrow zone of the mosaic was measured in the edge of the modern excavation to show that originally it had a broad surround of plain red *tesserae*, while the mosaic border itself was a guilloche pattern (Plate 4). Only a very small portion of the interior decoration was seen but this was insufficient to judge the form of the design. The *tesserae*, however, were coloured black, red, white and yellow. Fortunately, part of the mosaic still remains *in situ* and could be excavated in the future.

ROOM 68

In its initial phase this was apparently a small chamber, only 1.52 m wide (north-south) and of unknown length. The identification of this chamber is tentative due to its subsequent later Roman modification. The north wall was completely removed, leaving only the foundation of timber piles; and the south wall which was 1.7 m thick was demolished and rebuilt to only half that thickness.

MODIFICATION OF ROOMS 67 AND 68

At a later date Rooms 67 and 68 were partly rebuilt to form one chamber. It appears that the north wall was retained but the wall dividing the rooms was removed, and the south wall of Room 68 was rebuilt only 0.86 m thick, of ragstone with a double course of bonding tiles. A new floor of *opus signinum* replaced the floors of Rooms 67 and 68. Approximately in the centre of the room there existed an underfloor drain or flue, and there may have been another one at the south end of this chamber.

ROOM 70

The north end of this room was located, its walls being built of ragstone and, probably, courses of bonding tiles. The north wall was 0.84 m thick, and the east wall 0.91 m thick. The thickness of the west wall was not established. The room was 2.85 m wide (east-west), and at its north end was floored with a coarse red tessellated pavement the surface of which lay at 4.00 m above O.D.

FEATURE 71

A portion of Roman ragstone wall 0.90 m thick was found aligned approximately north-south in line with the west wall of Room 72. An area of pink mortar floor was observed immediately west of Wall 71.

FEATURE 72

A length of Roman wall, constructed of ragstone set in pink mortar, was exposed in the side of a modern excavation. It seems to have been a southern continuation of Feature 71, and in a section parallel to its east side but a few feet east of the wall there seemed to be no east-west walls leading eastwards from the north-south wall.

FEATURE 73

A Roman wall was found in a small hole dug to remove obstructions prior to constructing a modern concrete pile. The wall was 0.60 m thick, built of ragstone and yellow mortar, and it had double courses of bonding tiles at intervals of about 0.90 m.

In a section exposed 1.52 m west of the Roman wall a series of archaeological deposits was observed, and these included two yellow mortar floors nearly one metre apart in vertical section. No trace of any gravel metalling was seen in this section.

#### ROOM 74

Only the south-west corner of this chamber was exposed, and it was more than 0.051 m wide (north-south). The west and south walls were constructed of ragstone and yellow mortar and with double courses of bonding tiles. The floor surface of the room was of *opus signinum* which overlay what seems to have been an earlier floor of bricks set in white mortar. The total thickness of mortar flooring was over 0.46 m and the upper surface of the *opus signinum* floor lay at 3.86 m above O.D.

A later Roman ragstone wall, aligned east-west, was found 2.06 m north of the corner of Room 74. It abutted the west wall of the room, and the base of its foundation lay 20 cm above the *opus signinum* floor, showing that the floor had ceased to be used when the modification was made.

#### FEATURES 65-74. POSSIBLE SIGNIFICANCE

The fragmentary plan of Features 65-74 indicates the location of a series of rooms arranged north-south possibly as a wing of the Roman building. The wall, Feature 73, was perhaps the west side of the wing, and, the wall, Features 71 and 72, perhaps the east side. It should be mentioned, however, that the area of mortar flooring to the west of Feature 72 suggests that an additional chamber of the building existed at that point immediately adjacent to the east wing of the palace in Area 4. Unlike the structures in Areas 4 and 5, which were located on two or three terraces, the Roman building in the area of Features 65-74 seems to have been gradually stepped down the hillside, the levels of the rooms ranging from 6.7 m above O.D. (Room 58), through levels at 4.78 m above O.D. (Room 67), and 4.00 m (Room 70), to 3.86 m above O.D. (Room 74).

Generally speaking, the rooms in this part of the palace were amongst the most decorative so far found with at least two chambers having tessellated floors—one with a patterned mosaic. Clearly it would be extremely rewarding to undertake further excavation in this area.

#### FEATURES 75-82

##### ROOM 75

This appeared to be a large chamber measuring 18.60 m long and 5.00 m wide, though it is possible that that there were cross walls in the unexcavated parts of the rooms, which sub-divided it into smaller chambers. The walls of the room were constructed of ragstone, yellow mortar, and double courses of bonding tiles. The floor was of coarse red *tesserae* set into pink mortar, and its level was at 4.5 m above O.D. At its north end a quarter-round moulding of pink mortar was found at the junction of the floor and wall.

##### FEATURE 76

The chamber which presumably lay to the south of Room 75 was not excavated, though the presence of hypocaust flues (Features 78 and 80) in the southward continuation of the west wall of Room 76, indicates that a chamber or hypocaust furnaces did exist in the area of Feature 77.

#### MODIFICATION OF ROOM 75 AND FEATURE 76:

Traces of a later rebuilding in at least part of this area were detected at the south end of Room 75. At this point the south wall of the room had clearly been demolished at a later stage and was overlaid by a floor of *opus signinum*.

##### FEATURE 77

This was the oval opening of a hypocaust flue exposed in the west wall of Feature 76. It was about 0.56 m wide and, although the wall was built of ragstone, the edge of the flue was built of bricks horizontally laid in mortar. At the bottom of the opening was a deposit of ash, and above that a blocking of ragstone set in mortar. The quality of the facing is such as to suggest that access was from the west side and that the furnace probably lay there.

##### FEATURE 78

This was the east end of a chamber of unknown dimension, which was adjacent to the long north-south wall. Its north and west walls were primarily built of Kentish ragstone.

##### FEATURE 79

This structure was probably a hypocaust flue channel with its sides constructed of bricks set in sticky brown clay. The filling of the flue channel was of dark earth, which seemed not to be particularly ashy. The excavation of the area by the modern building contractors was incomplete and messy and it was not possible to determine the relationship of the flue to the ragstone east wall of this chamber.

ROOM 80

Only the south-west corner of this chamber was found. Its walls were built of ragstone and yellow mortar overlying a foundation of oak piles. The floor surface lay at 3.35 m above O.D., and comprised red tiles set in *opus signinum* 0.10 m thick. Beneath this was a layer of buff-coloured Roman mortar supported on oak piles.

ROOM 81

This appears to have been a room which was originally 4.72 m wide (east-west) and more than 5.49 m long (north-south). The face of the west wall was uncovered and comprised ragstone set in pink mortar. Only a small fragment of the north wall survived, this being constructed of ragstone and brown mortar on a foundation of oak piles which were traced as far as the north-east corner of the room. Much of the line of the east wall was indicated by timber piles, but at the south end a small piece of the ragstone wall above had survived.

FEATURES 75-81. POSSIBLE SIGNIFICANCE

Clearly the plan of Features 75-81 is far from complete and it is difficult to interpret. Nevertheless, it seems that as no east-west walls were found extending west of the north-south wall forming the west side of Rooms 75 and 76, this probably indicates that Features 75-77 formed a wing of the Roman building, perhaps on the east side of a courtyard or garden.

Features 78-81 probably formed a south wing, at about 3.00 m above O.D., though the plan is incomplete, and a group of timber piles found in the area between Features 78 and 80, presumably forming a wall foundation, does not fit into the suggested plan as reconstructed in Fig. 26.

FEATURES 82-87

A very limited amount of excavation occurred in the area east of Features 75 and 76 where it seems that the east side of the large Roman stone building was situated. Essentially, the discovered features fall into two categories: those close to the Roman stone building (Features 82 and 83) being of mortared brickwork, and those further east (Features 84-89) being parts of wattle and daub buildings.

FEATURES 82-83

FEATURE 82

A small portion of a Roman brick wall, the bricks set in pink mortar, and the east face of the wall rendered in pink mortar. Between Feature 82 and the east wall of Room 75 a shallow excavation revealed no trace of any flooring, but instead an area of black silty soil.

FEATURE 83

Two small portions of the core of a Roman brick wall or walls, the bricks having been set in pink mortar.

FEATURES 84-87

In this area portions of the floor of a wattle and daub building were uncovered, and were covered by red burnt clay resulting from the building having been destroyed by fire. In places the floors overlay a lower deposit of burnt daub indicating the earlier presence of a wattle and daub building on the site.

FEATURE 84

A room of the later wattle and daub Roman building with a floor of *opus signinum*. The floor surface was burnt, and was overlaid by burnt daub and painted wall plaster. The western edge of the floor was located, thus indicating the probable location of the east wall of this room. A lower deposit of burnt daub lay beneath the *opus signinum* floor.

FEATURE 85

A scorched surface of earth, perhaps outside the Roman wattle and daub building. To the west of the burnt earth surface was seen a deposit of burnt daub, but it was uncertain as to whether or not it was earlier than the wattle and daub building with the *opus signinum* floor.

FEATURE 86

A small portion of white mortar floor was found at about the same level as the *opus signinum* floor (Feature 84). It was overlaid by burnt daub, and so presumably belonged to the wattle and daub building.

FEATURE 87

A deposit of the earlier burnt daub was uncovered at this point, indicating the extent of the earlier wattle and daub building.



## FEATURES 82-87. SIGNIFICANCE

The two walls of tiles and pink mortar (Features 82-83) are of unusual construction in the Roman palace complex, and it is possible that they belonged to an adjacent Roman building. Very little rebuilding excavation occurred here, however, and the entire area is largely undisturbed by modern excavation.

The wattle and daub buildings further east (Features 84-87) presumably lay beyond the palace complex, though no dating evidence was recovered and it is not necessarily certain that the building is contemporary with the palace building complex. The two fire levels, however, may indicate a long period of occupation.

It is presumed that a Roman road bounded the east side of the palace complex, but none was found as the excavations in the area of Features 82-87 were not deep enough.

## DATING EVIDENCE FOR PALACE PHASE

The limited quantity of evidence to date the construction and occupation of the palace is unsatisfactory, and future investigations in the palace region must have as a high priority the recovery of much more dating evidence. Nevertheless, collectively, enough has been found to point consistently to a Flavian date for its construction, and possibly show that the palace continued in use on into the second and third centuries A.D. A description of the dating evidence is given below for each area:

## AREA 1

Dating evidence was very limited indeed. The excavations on the site of Bush Lane House indicated that the masonry structures could not be earlier than the Neronian period,<sup>46</sup> while on the Dyers Arms site two Flavian groups recovered from Pit 6 (E.R. 1117, 1160), (Fig. 33, Nos. 1-11; Fig. 33, Nos. 12-22), and from a deposit through which the pit had been dug in the area of Feature 38 (E.R. 1162) (Fig. 34, Nos. 23-47) were probably earlier than the masonry construction of the palace, because the layer seems to have been located below the floor level of the palace and because it is unlikely that a pit would have been dug inside the palace chambers.

## AREA 2

Very little dating evidence of any kind was recovered from the area of the "state rooms" of the palace. Not only was the area considerably disturbed by later intrusions, and could only be examined during the building operations, but also the "state rooms" had been built on a terrace which, when dug into the hillside, had removed almost all trace of earlier occupation.

Material pre-dating the "state rooms" was only recovered from beneath the floor of the great hall, Room 42. This came from a rubbish pit (Pit 5, Fig. 4) (E.R. 681) (Fig. 35, Nos. 49-50) which had been dug into the gravel underlying the great hall, the pit being both cut by the foundation of the south wall of the hall and overlaid by its cement floor. The pit contained a filling of brown-grey mud-like soil in which were recovered a small number of sherds, all of Flavian date. Also, nearer the middle of the room, one coarse ware sherd (E.R. 680) (not illustrated) was found in a layer of clay 0.10 m thick which lay between the underside of the cement floor of the hall and, at that point, the natural clay below. Although not easily dateable the fabric of the sherd indicates that it would not be out of the place in a first century context.

In conclusion, therefore, the very limited evidence indicates that the "state rooms" are not earlier than the Flavian period.

A bronze object (E.R. 725) (not illustrated) was also discovered in clayey deposits, perhaps dumped layers or a pit fill below the floor of Room 42.

## AREA 3

The dating evidence for the construction of the garden-court is extremely limited, and merely comprises a few sherds found in the gravel and clay dumps below the cement floor of the garden-court. None of these need be later than the Flavian period.

E.R. 689: A single sherd from a layer of clay below the concrete floor of the garden-court. Dated late first century A.D. (not illustrated).

E.R. 691/6: A rim sherd of South Gaulish samian ware of Form 18, from a bed of gravel about 5 ft below the concrete floor of the garden-court. Dated to A.D. 60-80 (not illustrated).

E.R. 695/11: A piece of first century pottery was found in an orange gravel dump underlying the small pool (45) (not illustrated).

## AREA 4

The date of the construction of the Area 4 palace wing is not determined with absolute certainty, though there is some good Flavian *terminus post quem* dating. Essentially, however, the evidence is derived from two sources: deposits pre-dating the construction of the palace wing, and deposits contemporary with the construction of the wing.

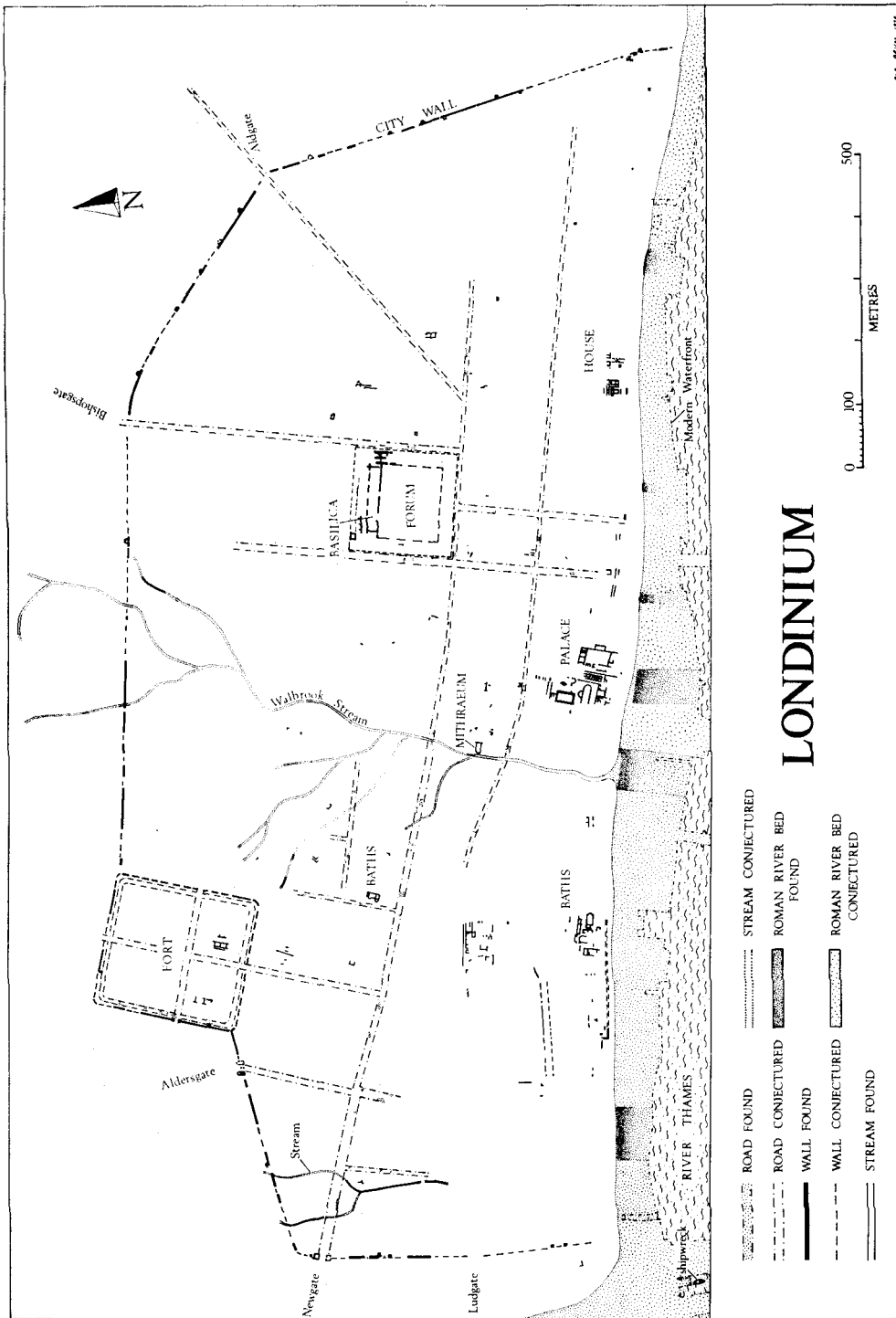


Fig. 27 Roman Palace. Map of Londinium showing the location of the palace in relation to other Roman public buildings and streets

Deposits definitely pre-dating the construction of the wing are those pits whose contents were cut through by the foundations of the wing. These are Pits 1 (E.R. 964, 1020) (Fig. 35, Nos. 53, 62-74; Fig. 42, Nos. 281-86), 2 (E.R. 962) (Fig. 35, Nos. 59-61), 3 (E.R. 965) (not illustrated), and Pit 4 (E.R. 957) (not illustrated). Each of these pits is of Flavian date. In addition, deposits were found in Rooms of the palace through which the Roman walls had been dug and these, too, contained Flavian pottery (E.R. 1022) (Fig. 36, Nos. 75-84). Moreover to this, there are the two wood-lined wells situated within Rooms 1 and 2, in areas which are hardly likely to have been dug after the construction of the palace, and therefore we may assume that they, too, pre-date the construction of the palace. These are: Well 1 (E.R. 1018) (Fig. 35, No. 151), and Well 2 (E.R. 1032, 1033) (Fig. 35, Nos. 54-58). Also a large dish of samian ware Form 18 was recovered from the dumped gravel and clay underlying the north end of the palace wing (E.R. 1026) (not illustrated).

The date range for these groups is Nero-Flavian with nothing of later Roman date, and the absence of any later Roman pits in the area of the palace wing in Area 4 strongly suggests a Flavian date for its construction.

Confirmation of a Flavian terminal date when the area was sealed beneath the Area 4 wing is derived from a small amount of Flavian pottery discovered in the foundation trenches of the palace wing (E.R. 951, 952, 959) (Fig. 36, No. 88). In addition, a number of sherds were recovered from the greenish earth and ragstone rubble foundation of what was probably an hypocaust flue in Rooms 1 and 2. This group (E.R. 958) (Fig. 36, Nos. 86-88) has been dated to the period A.D. 60-80.

#### AREA 6 (Fig. 36)

Due to the circumstances in which the south wing was investigated very little dating evidence could be recovered.

The construction and early occupation of the south wing is indicated by the following deposits: pottery (E.R. 1028) (Fig. 36, No. 93) from a rubbish layer immediately beneath the mortar floor of Room 25 has been dated to about A.D. 80-90. Two sherds (E.R. 1029) (not illustrated) of the period A.D. 55-80 were found lying against the east wall of Room 18. A few sherds of the first century (E.R. 1031) (Fig. 36, No. 89) were also found just beneath part of the floor of Room 19, and one of these cannot be earlier than the mid-second century (not illustrated). In view of the great quantity of pottery consistently not later than the Flavian period associated with the construction of the whole building, however, it seems likely that this later sherd may be intrusive, perhaps as a result of a repair to the floor.

#### AREA 6. DATING EVIDENCE. MODIFICATIONS TO THE PALACE PHASE

The date of the later phase of construction in which Rooms 22-26 were rebuilt is indicated by the discovery of a small *antoninianus* of Gallienus, issued in A.D. 270, which was found in the ash filling the hypocaust of Room "b" (Fig. 24). This coin was presumably lost while the hypocaust was being built and before the upper floor sealed in the *pilae*; and, as the ash and the coin lay beneath the collapsed *pilae* and the demolition debris of the room, it is unlikely that the destruction of the room occurred until long after A.D. 270.

#### AREA 9. DATING EVIDENCE

No dating evidence was recovered from the Roman structures in this area, except a bronze coin of the third century which was found on the mortar floor surface of Room 59.

## DISCUSSION

### THE PALACE PHASE (Figs. 28, 29, 30, 31)

At a date, probably in the second half of the Flavian period (*i.e.* between A.D. 80 and 100), a large palatial residence of more than 1.2 hectares (three acres) in extent was built in the region under discussion. In it were reception halls, residential chambers and an ornamental garden built on a monumental scale on an extensively terraced hillside overlooking the broad meandering flow of the Thames. Immediately to the east of the palace, and also on the waterfront, there seems to have existed a smaller but nevertheless extensive residence which may have been directly associated with the palace.

The location of the building within Roman London (Fig. 27) was apparently made with an eye to its close proximity to main communication routes, and to the excellent vistas to be gained of the Thames valley and of the busy port of Roman London. In addition, the palace, and particularly its garden and state rooms, were well placed to catch the full benefit of the summer sun striking the south-facing hill slope.

Although the river and landward frontages of the palace have not been archaeologically excavated because they lie beneath modern roads, the slight indications that we have suggest that they were fairly impressive. The landward entrance presumably lay beside the east-west Roman road which followed the southern edge of the elevated plateau which forms Cornhill. This Roman road, which mostly underlies modern Cannon Street and Eastcheap, has been found on a number of sites adjacent to the modern road.<sup>47</sup> The Roman road was about 6 m wide and constructed of gravel metalling. In terms of communication this was a particularly significant road for it led eastwards to the northern approach of the Roman London Bridge, probably sited just east of the present bridge.

The imposing nature of the northern part of the palace is suggested by the discovery, after the Great Fire of 1666, of a Roman mosaic in Cannon Street near Bush Lane (see p. 3) and by the discovery on the Dyers Arms and Bush Lane House sites of a range of rooms, probably heated (Rooms 33, 35 and 39), some of which contained traces of mosaic floors. These, however, were set well back from the Roman road and, although the evidence is inconclusive, it is likely that the area north of Room 38 formed an entrance courtyard leading from the street, and that Chamber 38 was the side of a portico or corridor overlooking the court. Whether or not the various walls found underlying Bush Lane (Features 43-47) formed the east wing of an entrance court, or, alternatively, whether they belonged to a stone building pre-dating the palace, is impossible to judge, though the massive wall (Feature 47), because of its large size, is probably part of the palace.

It is possible that London Stone has its origin as part of the monumental entrance to the Roman palace. It was so-called before the Norman invasion, and John Stow, the Elizabethan topographer, described it as "pitched upright, a great stone called London Stone, fixed in the ground very deep . . . that if carts do run against it through negligence the wheels be broken, and the stone itself unshaken".<sup>48</sup> After the Great Fire of 1666 Sir Christopher Wren "was of the opinion by reason of the large foundation, it was rather some more considerable monument".<sup>49</sup>

The Stone, which is now preserved in the south frontage of the Bank of China in Cannon Street, opposite the railway station, was originally located on the south side of Cannon Street (now near the middle of the present street) opposite the south-west corner of St. Swithin's Church,<sup>50</sup> into the south wall of which the top of the Stone was set after its decapitation in 1742. During recent rebuilding on the former church site, now occupied by the Bank, the temporary removal of the Stone made it possible for the first time to obtain a detailed record and establish its origin. It was clearly part of a much larger monolith and a sample examined by the Geological Museum has been identified as Clipsham limestone from the Inferior Oolite zone, extending from Dorset to the Wash.<sup>51</sup> The surviving fragment is 0.53 m wide, 0.42 m high and 0.305 m thick, has rounded corners at the top, and has clearly been artificially shaped. The back and front faces of the Stone are fairly flat and featureless, but the top has two grooves running parallel with its longer axis.

The natural subsoil in the area of the original site of London Stone in Cannon Street opposite the site of St. Swithin's Church, now lies between 2.44 m and 3.05 m below the modern level of Cannon Street and, assuming that the street level in late sixteenth century London, when Stow described the Stone, was lower than at present, it is likely that its base lay in the Roman deposits.

Judging from all the evidence it seems most likely that London Stone has a Roman origin, and perhaps the origin of its veneration and "special" place in London history is due to its

having had a special significance in the Roman city. The recent investigations have highlighted the coincidence not only of the Stone having been situated on the site of a Roman palace, but also, as will be shown, its location on the probably main north-south axis of the palace, and beside one of the main roads of Londinium; and these recent findings are sufficient to strengthen the long-held belief that it is of Roman date.<sup>52</sup>

There is rather more evidence to suggest that the palace had an impressive waterfront. Records of discoveries during the nineteenth century on the site of Cannon Street Station and, more recently, under Upper Thames Street itself, indicate that there was probably a formal quayside of timber of a type which has been found elsewhere in the city and is characteristic of the Roman waterfront in London.<sup>53</sup> Just north of this lay the southern frontage of the palace itself the plan of which has not been recovered. However, excavations in Little Bush Lane in 1846, close to the south end of the palace, revealed the base of a column "of considerable magnitude" and an east-west wall 2.13 m thick, which suggest that a formal colonnade may have formed part of the river frontage.<sup>54</sup>

It has been suggested that the plan of the palace shows that more than one period of construction must be represented.<sup>55</sup> In one sense this is undoubtedly correct, in that the construction of the building and the various terraces must have been carried out in phases, as is indicated by the straight joint at the junction of the east and south wings between Rooms 15 and 19. Nevertheless, it is clear that the two wings must have been part of a unified plan as they both included retaining walls which were necessary to support the terrace on which the garden-court was built with its various pools and other monuments. Confirming this was the fact that the north-south walls of the east wing had been bonded into the retaining wall forming the south side of Rooms 10 and 11, while the retaining wall which formed the north side of the south wing was also bonded into the north-south walls of that wing.

The plan of the palace shows both lines of symmetry and apparently a marked disregard for symmetry, particularly if the layout of the building is considered in terms of it lying on a flat ground surface. However, it lies on a steep slope, and even this is uneven for it is curving northwards from being parallel to the north bank of the Thames to an alignment which, away from the palace site, eventually lies parallel to the Walbrook stream and at a right-angle to the Thames (Fig. 29). Thus the east-west walls of the palace tend to follow the contours of the slope, while the north-south walls in the east wing and in the adjoining Roman building to the east, tend to lie at a right-angle to the Roman waterfront. In the main part of the palace to the west, however, the north-south walls follow the downward slope which is at a right-angle to the hillside contours. Thus, although the design of the palace may not have been made in Londinium or even in Britain, it seems that the architect has adjusted what was a regular design to fit the uneven physical conditions of the site.

Judging from the plan of the palace there seem to be four fairly certain, and one conjectured, axis lines of symmetry used in the original planning of the building, and the identification of these helps in understanding the effect that the architect was trying to achieve.

Line "A" (Fig. 29) follows the central axis of the great pool (Feature 46) which divides the garden-court into two parts, and if this line is extended across the east wing (Area 4) it will be seen that the pattern of rooms to the north of the line in that wing is completely different from the regular pattern of rooms to the south of the line.

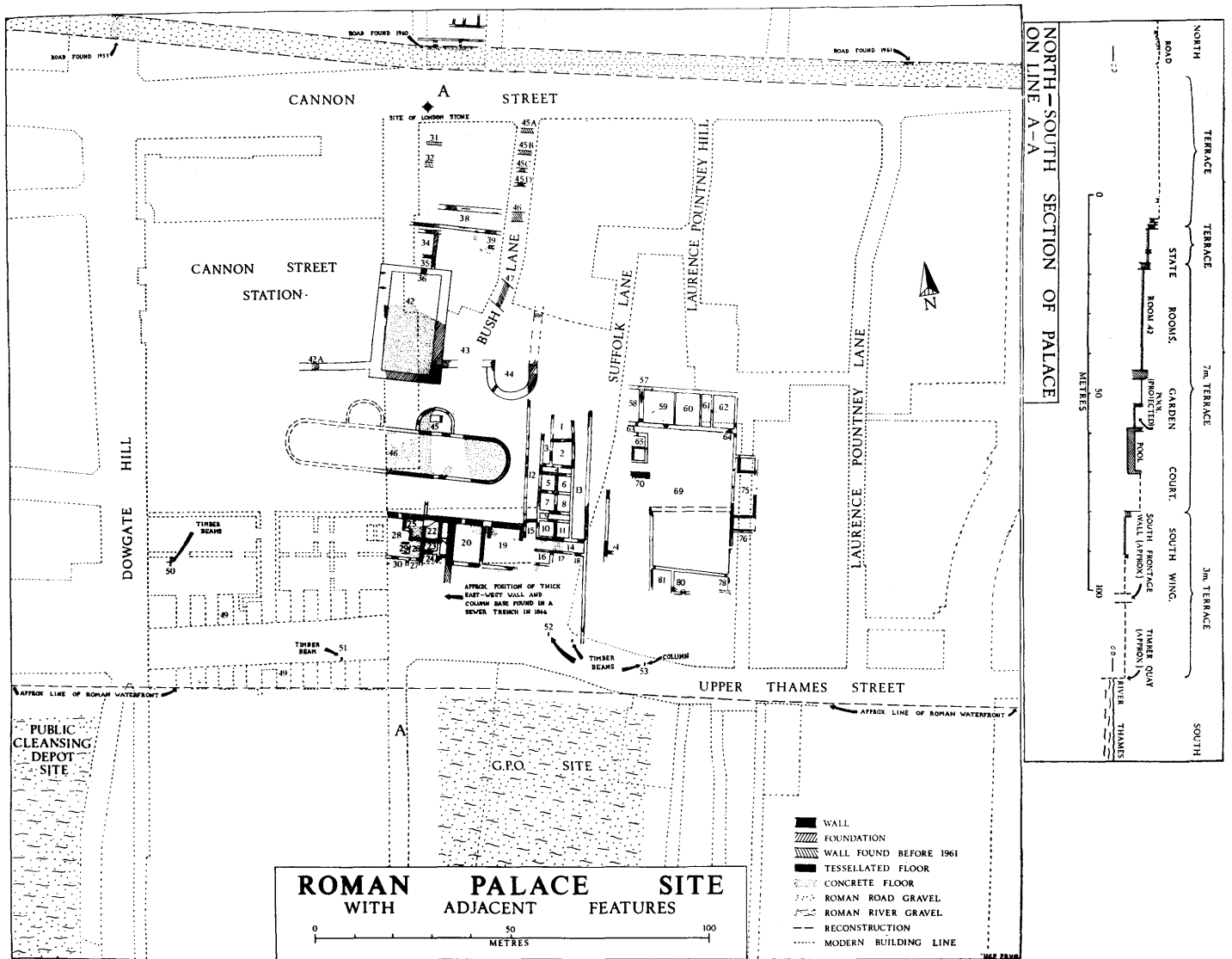


Fig. 28 Roman Palace. General plan of the Roman palace site, and a composite north-south section on line A-A, located just east of Cannon Street Station

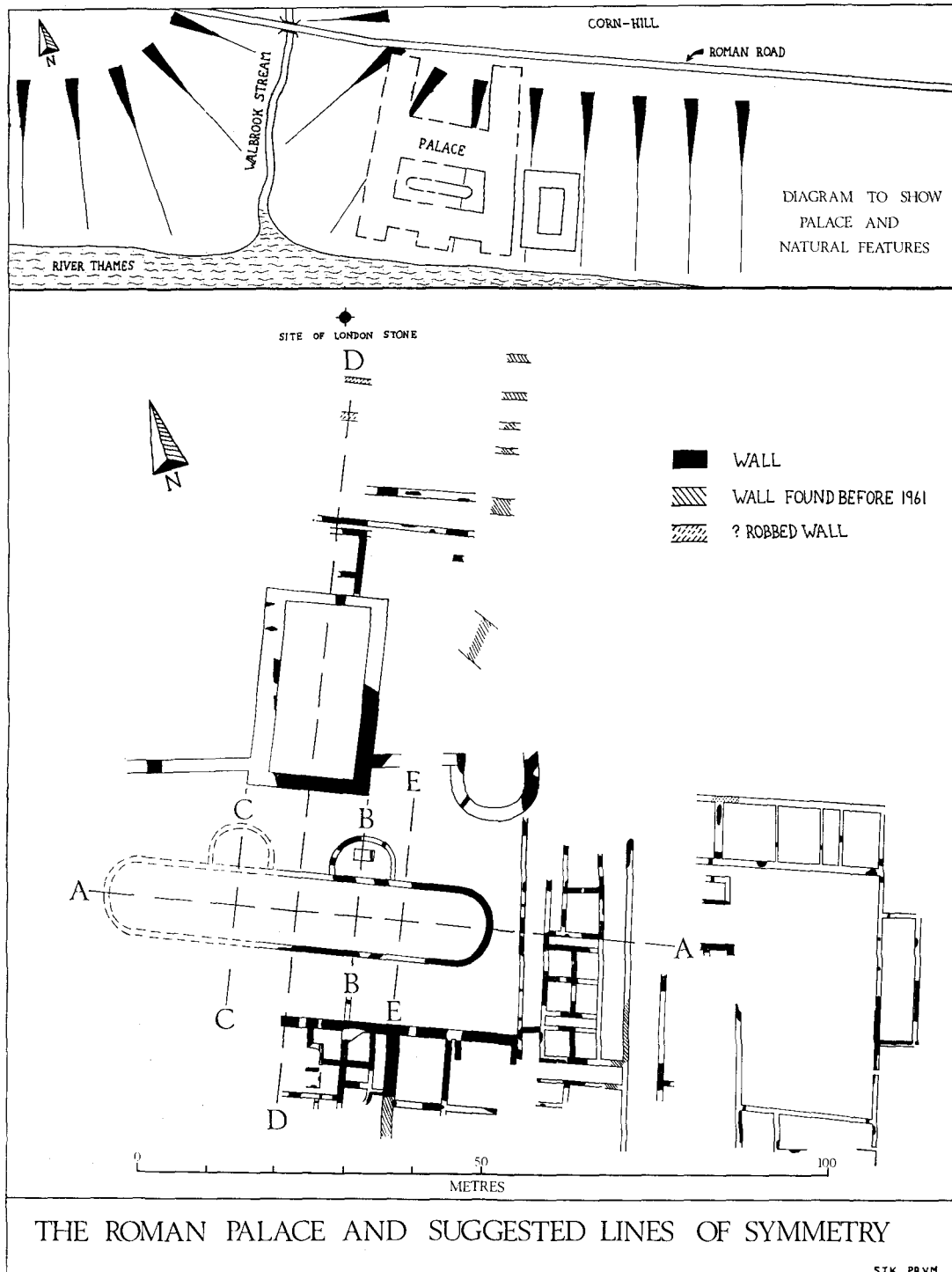


Fig. 29 Roman Palace. Diagram to show the hillside location of the palace, and suggested lines of symmetry

Axis line "B" follows the east wall of the large reception hall (Room 42), and if extended southwards the line passes through the centre of the small pool (Feature 45) and lines up with a major straight north-south wall in the south wing, and also with an extension of this wall up onto the garden-court terrace.

The great hall itself (Room 42) almost certainly held a central east-west position in the palace, for the west wall of the building was evidently found under the western half of Cannon Street Station (see p. 52). In fact, not only did the hall hold a central position but, judging from the dimensions of the largest rooms that were found on the site of Cannon Street Station, the hall was by far the largest chamber in the palace.

It is thus possible to conjecture that, so as to be symmetrical with line "B", there was probably a north-south axial line "C" following the west wall of the great hall and that, based upon this, a second and complementary small pool might have existed on the north side of the great pool to equate with the small pool that has already been discovered. In addition, because the great hall probably held a central position, and the architect presumably planned the state rooms and the garden-court as a unity of design, it seems reasonable to conjecture that the great pool, the main feature of the garden-court, was symmetrically placed in relation to the main reception hall. From this we may estimate the position of the west end of the pool.

Line "D", passing north-south through the centre of and on the alignment of the great hall (Room 42), was probably the main axis of the palace. There is no doubt that this was a significant line, for northwards it lines up almost exactly with London Stone which, as we have seen, is probably a significant feature associated with the palace; while to the south it passes through a large chamber in the south wing, which was probably a principal room with an apsidal recess in its east side.

Yet another axial line, "E", follows the very thick north-south wall separating Rooms 20 and 21 in the south wing for, if this line is extended northwards, it passes exactly through the middle of Feature 43, mid-way between the great hall (Room 42) and the apsidal "state" room (Room 44), where there may have been a large opening of some form leading into the garden-court.

The use of the various rooms of the palace is in some places not difficult to conjecture. The "state rooms" (at least Rooms 42-44) with their distinctive walls of monumental size, were clearly the reception halls and chambers overlooking the garden-court with its pools, and the various fragmentary foundations in the garden itself may have supported decorative features such as statues and fountains. The irregular frontage of the "state rooms" indicates that the garden was probably not surrounded by a stylobate, though only careful excavation on the site of Cannon Street Station can establish for certain that this feature did not exist.

The east wing (Rooms 1-13) appears to have contained some rooms which were probably heated and may have had mosaic floors. Some of these rooms, with their barrack-like layout, were, together with the "state rooms", ideally placed in the palace to capture the full magnificence of the outlook onto the garden-court and its pools, and it seems likely that here there were suites of rooms forming some kind of residential accommodation.

The central part of the south wing (Rooms 21-30) may have formed a residential suite overlooking the river, with the large room containing an apsidal recess on its east side (Room 28) as the main reception area. This range of rooms may have projected closer to the waterfront than the remaining rooms of the south wing (Rooms 19-20) and the purpose of the thick wall separating Rooms 20 and 21 may have been as much for security as for structural support to seal off the working area of the south wing to the east, where it would



seem that perhaps there was some form of storage and even possibly stabling. The southern frontage of this possibly projecting central part of the south wing must have included the 2.13 m thick wall, and the column base "of considerable magnitude" which were found in Little Bush Lane in 1846, these presumably forming part of an impressive entrance façade. Fragmentary discoveries further east (Fig. 28, Feature 52) suggest that the east wing projected south of the general waterfront range, perhaps to form part of a river frontage with three projecting exedra in the form of an E, in which Rooms 21-30 formed the central projection.

#### INTERNAL DECORATION

Much of the archaeological effort has been placed on recovering the plan of the palace, leaving little time to recover detail concerning its interior decoration. Thus the few details recorded here must be interpreted merely as an indication of the decoration of the palace.

Painted wall plaster was found adhering to the walls of Rooms 14, 19 and 42, and in each case it was just above floor level and had been painted white. In Room 14 there were some thin red lines on the otherwise white-painted north wall of the chamber, and in this case there was also a red painted quarter-round moulding. Elsewhere have been found many loose fragments of plaster painted in red, green, black, yellow, and even a most unusual sky-blue colour. In the late Roman dump in-fill of Room 14 were even small fragments of fresco painting but none was large enough to establish the nature of the designs. None of these fragments can be related to individual rooms, and indeed it cannot be absolutely certain that they are all derived from the palace. Other forms of wall decoration are indicated by a piece of white-painted stucco, and also by small pieces of Purbeck marble, none of which were large enough to show the form of the stone, but it is assumed that they were derived from the walls.

The floors of most of the rooms had been destroyed, but of those that have remained it is clear that buff-coloured mortar floors were common, though several floors of *opus signinum* have been found. Scattered throughout the site have been recovered tesserae often in a variety of colours, indicating that mosaic pavements may well have been common in the palace (e.g. in Rooms 2, 5, 6, 35, 36, 40). In spite of the very limited range of evidence it is clear that the decoration was in keeping with the palatial magnificence of the building.

#### THE DATE OF THE PALACE:

The period of the construction of the palace is uncertain due to the limited amount of dating evidence. Nevertheless, the consistent discovery of pottery almost everywhere of not later than Flavian date, both in deposits stratigraphically earlier than and contemporary with the construction of the palace, does indicate that it is fairly certain that the palace was built during the Flavian period. The samian ware found in Pit 1 (p. 96) in Area 4, which was cut across by a foundation of the palace, dates from the latter half of the Flavian period and, on this basis, it is unlikely that the Roman palace was constructed before A.D. 80.

#### OWNERSHIP OF THE PALACE:

The building has been described here as a palace, and this interpretation now requires further explanation. It is based on the assumption that the "state rooms" and adjacent rooms co-existed, in which case they formed part of a complex measuring about 130 m from

north to south, and more than 72 m, but probably about 100 m, from east to west. The only building known in Roman London that is at all comparable in area is the even larger basilica and forum complex, about 152.4 m square.

It is significant that a concentration of bricks stamped P.P.BR.LON or some variant of this has been found associated with the palace. Whatever the meaning of the first P, it is clear that the P.BR.LON or PR.BR., as it sometimes appears, is an abbreviation for *PROVINCIAE BRITANNIAE LONDINII*, and that these tiles were made for official use by some branch of the administration which was concerned with the province as a whole. In other words, they were government bricks made for public buildings, and their presence is a strong indication that the building for which they were used falls into this category. Significantly, none have been found in other towns in Roman Britain, thus indicating that the government department which issued the bricks only operated in Londinium. Although none have been found *in situ* during the recent excavations in London, since stamps on bricks built into walls can seldom be read, it is reasonably certain that they were not derived from any later Roman building on the palace site. They are of fairly early date in the Roman period, as can be judged from the lettering, and is proved by the discovery of a fragmentary stamp of this kind in the primary silt at the bottom of a ditch of the Cripplegate fort at Guildhall, associated with pottery of the early second century.<sup>56</sup>

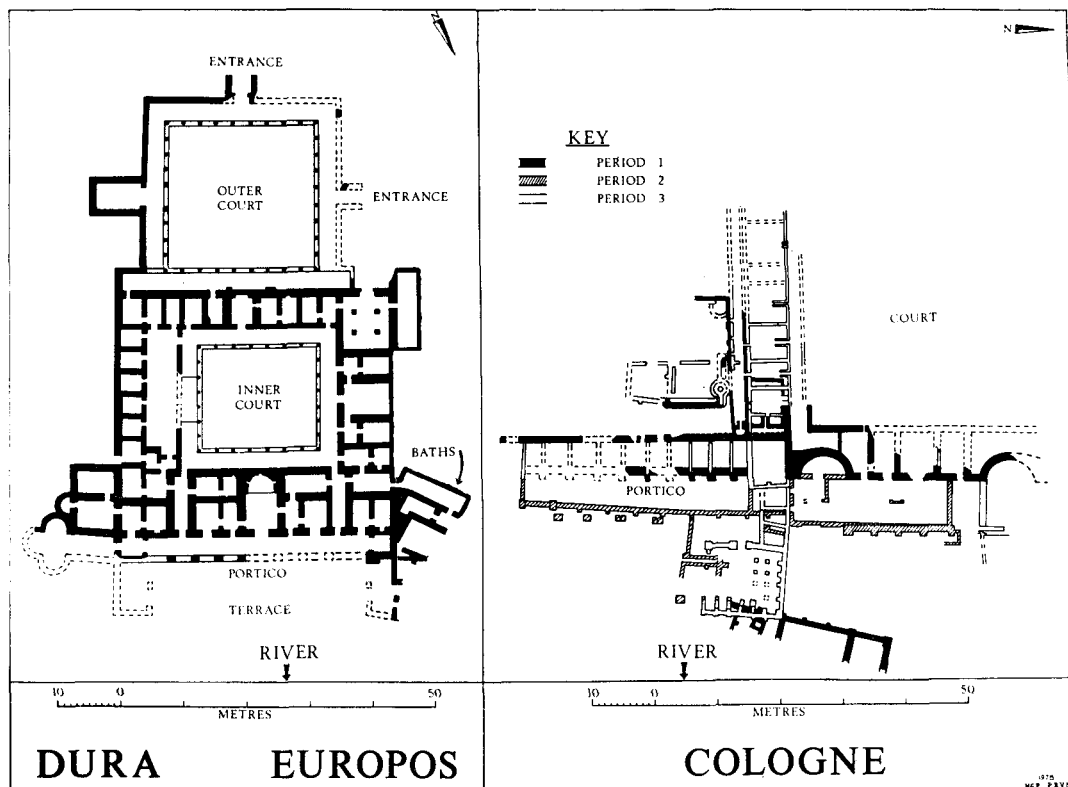


Fig. 30 Roman Palace. Plans of the official Roman palaces at Dura Europos in Syria and Cologne in Germany, showing how the principal residential chambers overlook the rivers

It must, therefore, be accepted that the extensive building underlying Cannon Street Station and Bush Lane was a public building of some kind, as its size alone would suggest, and that it was constructed, like the basilica, forum, bath-houses in Cheapside and Huggin Hill, certain main streets, and the Cripplegate fort, during the period between A.D. 70 and A.D. 125, which was the great age of public construction in Roman London. The discovery of Flavian pottery underlying the building indicates that it was being built some time after the start of the Flavian period, and it would not be surprising if, like the forum at Verulamium, it was during the governorship of Agricola (A.D. 78-85). The completion date of the construction of the basilica and forum may have been a little later, and the building of the Cripplegate fort was even later still (early second century), but all formed part of the great transformation which took place in Londinium primarily between the reigns of Vespasian and Hadrian, and this must reflect the increasing political importance and prestige of the city. There seems little doubt that Londinium, in A.D. 60 merely a great commercial and financial centre had, by the end of the first century, already become the capital of the province.

As such, Londinium must have had an imperial palace or *praetorium*, the residence of the Emperor if he chose to visit the province, and of the *legatus Augusti propraetore* or governor, his representative, in his absence. No other function seems to fit the diverse attributes of the Roman building in Cannon Street, with its considerable architectural pretensions which must have made it an impressive sight in the city, and no other site in London offers an alternative candidate.

The evidence for the provincial administration having its headquarters in Londinium at the end of the first century A.D. has been given convincingly by Ralph Merrifield<sup>57</sup> and essentially shows that both the *procurator* and the governor had their headquarters there. Although the only certain evidence of the presence of the *procurator* is the tomb of Julius Classicianus,<sup>58</sup> who held the office after the Boudiccan uprising of A.D. 60, there are further, but less certain, indications of his existence in London. An inscribed writing tablet issued by the *procurator's* administration has been found in the Walbrook stream, and it has been argued that the bricks, from various sites in the city, bearing the P.P.BR.LON stamps (p. 71) may have been issued by the *procurator's* department acting as a kind of ministry of public works in control, as that official was, of the natural resources of the province. Indeed, gold refining activity on the Roman palace site prior to the construction of the palace may also be indicative of procuratorial activity in London during the Flavian period (p. 100), just as Merrifield suggested in connection with an iron punch found in the city and evidently used for the official marking of a soft metal such as gold. Although more certain evidence is required to support the suggestion that the *procurator* had been established in Londinium before A.D. 60,<sup>59</sup> it is clear that between A.D. 60 and 100 the *procurator* was active there. Additional evidence for the provincial government in Londinium has been identified by Hugh Chapman,<sup>60</sup> though it is not linked to any particular department of the administration. This evidence comprises three official seal-boxes bearing on their lids the imperial eagle and the portraits of the Emperors Domitian and Vespasian. The seal-box bearing the portrait of Vespasian was found at Aldgate in a deposit of Nero-early Flavian date, while the other two were found in the Walbrook stream on the site of Bucklersbury House, just a short distance from the Roman palace.

While no inscription or reference in classical literature has been found stating that the governor had his *praetorium* in Londinium, there is nevertheless some indirect evidence. A tombstone referring to soldiers with the office of *speculator*<sup>61</sup> is perhaps the most important,

for this office only occurs amongst the immediate staff of the governor.<sup>62</sup> It has been pointed out<sup>63</sup> that Roman inscriptions found in the city describe persons from three of the legions serving in Britain, a circumstance which probably reflects the presence of the governor who drew his staff from all of the legions in the province. Moreover, the existence of the permanent residence of the governor in London would explain why the Cripplegate fort was added to the existing Roman city in the early second century, at a time of peace, stability and prosperity, and when there would be no obvious need for a fort.<sup>64</sup> Thus it is likely that the fort was the base for the personal corps of troops which the governor would require in a politically and militarily active province such as Britain was at that period. Indeed, the impetus for the construction of the fort could well have been as a prelude to the visit of Hadrian to Britain in A.D. 122, for the discovery of a bronze head of Hadrian in the Thames at London Bridge<sup>65</sup> indicates that the emperor may have stayed in the city and instituted various public works there, as was his policy in Britain generally. It has been pointed out<sup>66</sup> that the fort in London was too large to contain the (approximately) one thousand men that would comprise the governor's guard, and that it may have housed legionaries also serving in the capital. On the other hand, since Londinium was a focus of land routes in the province, it is possible that it included barrack space for transient troops travelling to other parts of the province.

#### THE PALACE, AND PROVINCIAL GOVERNMENT ACTIVITY IN LONDON

The use in London of bricks bearing the P.P.BR.LON stamp made by the provincial government is not surprising, and certainly a marked concentration of them has been found on the palace site over a very long time. What is surprising, however, is that if the scattered find spots of all tile stamps in London are plotted out on a map, the distribution that results (Fig. 31) shows that there are three other concentrations—and that these coincide with the basilica, the Cripplegate fort, and the waterfront region in the south-western part of the city.

The discovery of several PP.BR.LON stamps on tiles during the rebuilding of the site of the old Leadenhall to construct Leadenhall Market in the 1880's was recorded by Mr. Brock, and it is to one of these that perhaps Henry Hodge referred in the annotation to his plan of the Roman basilica when he mentioned that there was a stamped tile in a brick-built pier on the south sleeper wall of the nave of the basilica.<sup>67</sup> Another stamp was found in 1923–24 in Cornhill just north of St. Michael's Church.<sup>68</sup>

Several stamped tiles have been found in the area of the Cripplegate fort, though the context of only one has been established. This was found in the primary filling of the fort ditch in Aldermanbury in 1965.<sup>69</sup>

The other scatter in the south-western part of the city coincides with an area where there seems to have been a series of important buildings, but the precise context of only one stamp is known for certain. This was an almost complete roof tile found in the Roman baths at Huggin Hill in 1969.<sup>70</sup> Other monumental buildings are suggested by the massive walls, formal terraces, and the re-use of shaped and sculptured stones in later Roman walls in this area.<sup>71</sup>

From this distribution it would seem that the provincial government was not only concerned with the construction of the palace, but also with a more general programme of public building. And it is interesting that wherever the buildings have been dated they fall into the late first–early second century date range of the great period of public building in

London. It is generally agreed that the construction of the basilica and forum in the City began during the Flavian period, thus indicating the period at which Londinium received her municipal charter; but the suggestion that this was a result of the prosperity and general progress towards romanization rather than because the City was elevated to the status of provincial capital<sup>72</sup> is hard to justify in the light of these latest studies. Judging from scattered traces of occupied Flavian London it is fairly clear that during this period the City had probably doubled in size, and that, at the same time, important public buildings were constructed not just by the City itself, for the stamped tiles in some of them indicate that there was some central provincial government aid. These are surely the effects of Roman government policy in actually creating a capital city, not only by massively enlarging its population, but also by constructing at least some of its administrative buildings on a huge scale in keeping with the new status of Londinium.

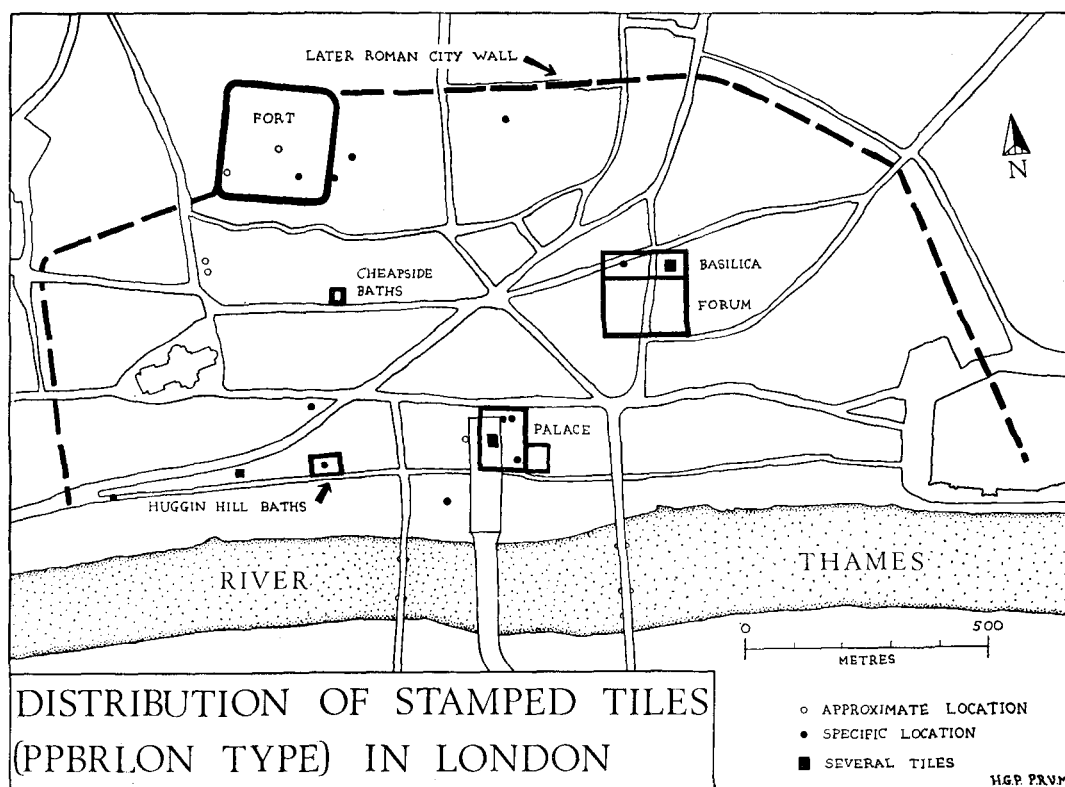


Fig. 31 Roman Palace. Distribution of find spots of tiles in London bearing the PP BR LON stamp or some variant

Against this background the palace is seen to be in keeping with the new status of Londinium, for its hillside location, in the latest style of wealthy Roman residences, was definitely created to impress. Orientated to gain the maximum light, air and scenic view its layout was not strictly in keeping with the more traditional plan of residences in which the principal rooms looked inwards upon an enclosed garden or court. Instead there were two groups of principal rooms in the palace each on a separate terrace, the upper giving a view across and

beyond the roofs of the lower. On the upper level the semi-public state reception rooms with their grandiose proportions enhanced the dignity of the office of provincial governor; while the visitor, on entering the garden-court, would gain an impression of imperial luxury implanted, as it were, in this outer province of the Empire. In the foreground the contrived garden with its long pool, probably holding about 200,000 gallons of spring water, and the smaller pools and ornamental monuments must have contrasted with the superb natural vista of the meandering River Thames, the broad riverside marshes, and the distant Surrey hills. On the lower terrace were probably located the private apartments of the governor himself, the colonnaded river frontage framing an unencumbered view of the Thames with its shipping from many lands, while beyond was an excellent view of the riverside marshes of Southwark, no doubt teeming with wild life.

Although no exact parallels to the London palace are known, its general style of architecture is well known from other Roman palaces. The Flavian palace at Fishbourne<sup>73</sup> has elements reflecting both the traditional inward-looking design, and the more up-to-date view outwards towards the sea. But even the inward-looking view was partly reflected in the latest style for, instead of a central court, there was an extensive ornamental garden artificially creating a superb vista.

The style of outward-looking building with a portico frontage is better represented by the *praetorium* of first and second century date which was built on a terraced hillside at Cologne overlooking the Rhine.<sup>74</sup> Unfortunately the excavations there have mostly been restricted to the waterfront area and it is not possible to make a definite comparison with the imperfectly investigated comparable part of the London palace. Nevertheless, the plan of the Cologne palace (Fig. 30) clearly shows that the terraced outlook was across the Rhine, and that the southern wing beside the river was at least partly fronted by a colonnade or an arcade behind which lay rooms which possibly comprised the residential chambers of the governor. A more complete plan of a governor's palace of somewhat similar design to that at Cologne has been found at Aquincum where the apartments of the governor of Pannonia Inferior had been designed to take advantage of a magnificent view of the River Danube.<sup>75</sup>

An almost complete plan of a building of this type existed at Dura Europos in Syria, where a palace of the early third century A.D. was excavated in 1935-36 (Fig. 30). It was probably occupied by an important Roman military official who was also a civil governor of the Middle Euphrates region.<sup>76</sup> This, too, was built in an elevated position, and had a magnificent view of the nearby Euphrates and the surrounding desert. The palace had two courts, a public entrance court and a semi-private inner court, and around the latter were arranged domestic and staff chambers as well as some official reception rooms. Of particular importance, however, was the location of the private apartments of the Roman official, for these opened onto a portico terrace overlooking the Euphrates—once again looking outwards to a broad vista of the surrounding countryside. The Dura palace clearly shows the double court arrangement which also seems to have existed in the London palace, a feature which is again in the best tradition of Hellenistic and Roman houses and villas. There is no doubt, therefore, that the palace in London was comparable with the provincial palaces of the Roman world, and in its ornamentation which, in the central garden-court at least, is matched by the imperial palaces such as the villa at Piazza Armerina in Italy.

#### THE BUILDING IN AREA 9 :

Finally the Roman building in Area 9 must be considered. There is little doubt that it was a separate building with its own wings surrounding a terraced garden or court, and its

walls were similarly aligned with those of the neighbouring palace, while the column (p. 54) suggests that it may have had a portico frontage beside the Thames. Because it was a separate building, however, there is doubt as to whether it should be considered as part of the palace complex. The significant area lies between the two buildings where, unfortunately, only one small trench was dug during the recent redevelopment. The space between the two Roman buildings, in Feature 57, is only about 4 m wide and, instead of finding gravel metalling between the two buildings, the single trench revealed mortar floors, indicating that the Area 9 building lay immediately alongside the palace. It is on the basis of this limited evidence that it is suggested that it was part of the palace complex. Perhaps it was the residence of other Roman officials, or an official residence for private use, but these and other problems may be solved only if it is possible to carry out adequate investigations on all sites in the palace area in future.

#### THE DESTRUCTION OF THE PALACE AND REBUILDING ON ITS SITE

Clear evidence of the destruction of the palace was found during the excavations, and in one place definite traces of subsequent rebuilding. Because it is uncertain that all parts of the palace ceased to be occupied at the same time it is most convenient to describe the fragmentary evidence for the post-palace phases in one place.

##### AREA 1 (Fig. 6)

Post-Roman disturbances had removed much of the Roman structure and deposits on the site of the Dyers Arms public house, and the only certain evidence for post-palace occupation was a drain, aligned north-south and internally 0.43 m wide, built of tiles mortared together on top of the east wall of Room 34. Clearly for this to have been built the Roman wall must have been demolished, though at what period is unknown as no dating evidence was found.

Beneath Bush Lane House an undated sunken room with ragstone walls (Fig. 6, Room 41) constructed in Roman style, was cut through the site of the earlier palace structures, and it is possible that this chamber contained a hypocaust (p. 18).

Yet another presumably post-palace feature was the white tessellated floor and hypocaust found partly overlying the massive palace period foundation, Wall 47, and extending to the north of it under Bush Lane (p. 20).

##### AREA 2: STRUCTURES REPLACING THE ORIGINAL PALACE BUILDING (Figs. 11, 32)

Extensive traces of the demolition of at least part of the Roman "state rooms" and their subsequent rebuilding during the Roman period were found in the area of the great hall, Room 42, and in the area immediately to the east. The sequence of events seems to have been as follows:

1. The dumping of clay and other material inside the "state rooms" presumably to raise the land level to form a new terrace surface.
2. Demolition of the "state rooms" and the removal of the rubble presumably for re-use elsewhere.
3. The robbing of some of the walls of the "state rooms", perhaps to provide some building materials for the next major building on the site.
4. The construction of a later Roman building with hypocausts and chalk floors.
5. The re-flooring of at least two rooms in this later Roman building, preceded by the filling-in of their two known hypocausts.
6. The robbing of the walls of this later Roman building, presumably after it had been abandoned.

##### 1, 2. DEMOLITION OF THE "STATE ROOMS"

No layer of demolition rubble overlay the floor of the great hall, Room 42, and indeed nowhere was there seen any clear trace of dirty occupation debris. This indicates that, during the use of the building, the floor was kept particularly clean, and that some explanation must be found for the obvious absence of demolition debris. Instead of a demolition layer in every uncovered section of Room 42 the mortar floor of the room was found to be immediately overlaid by a layer of yellow clay brickearth which contained many lumps of Kentish ragstone scattered throughout the deposit in a random fashion (Fig. 11, Section 3, Layer 7). The nature of the

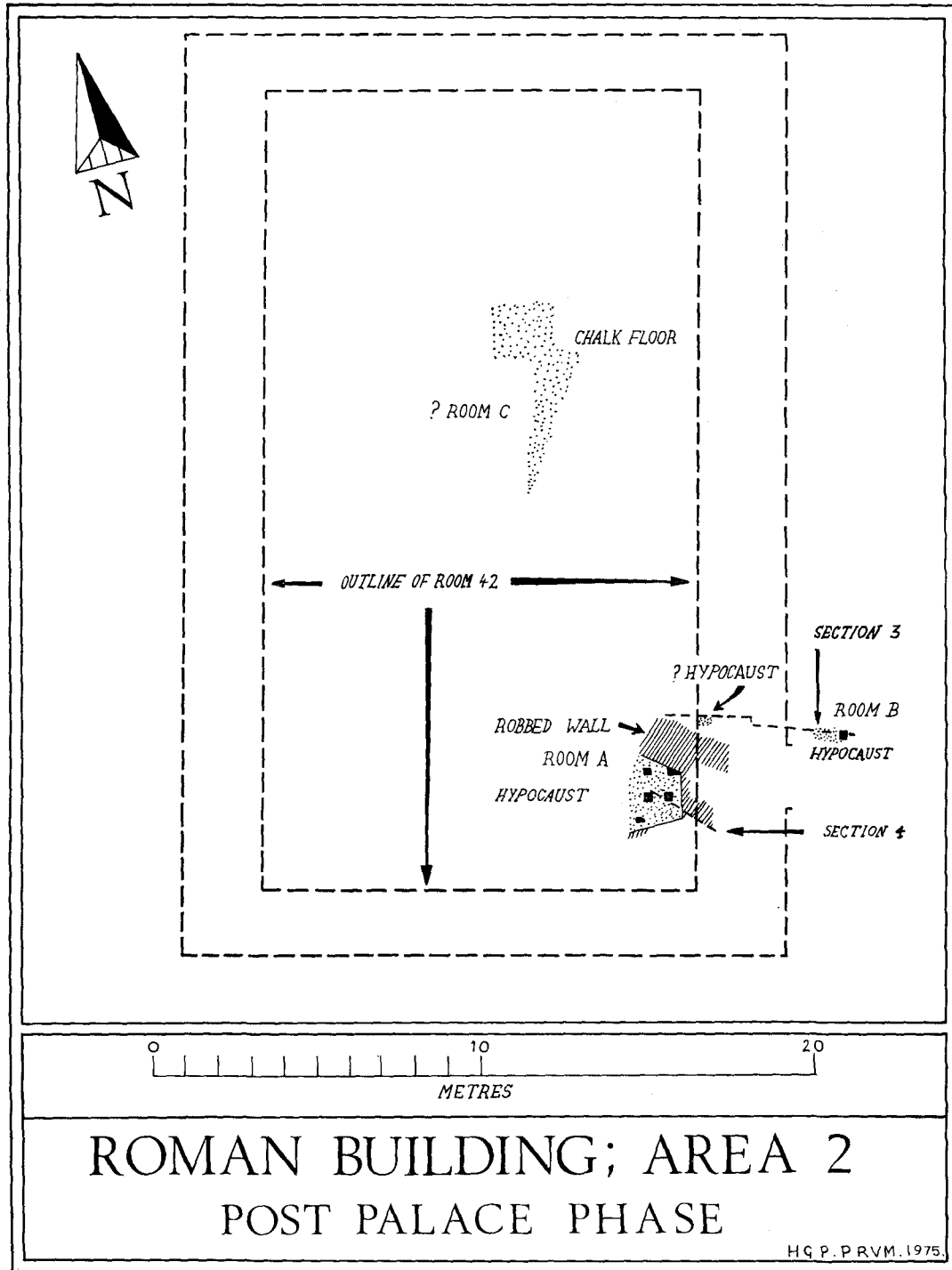


Fig. 32 Roman Palace. Area 2. Traces of a building post-dating the palace. Rooms A and B were heated. Sections 3 and 4 are shown in Fig. 11



dump suggests that the clay and the rubble had been brought to the site from excavations elsewhere in the city (no natural brickearth occurs in the area of the "state rooms"), and that this was dumped into the great hall prior to the general demolition. A similar sequence of dumping clay inside a Roman building prior to its demolition was discovered in the public baths in Huggin Hill, further west in the city,<sup>77</sup> perhaps suggesting that it was normal practice for the demolition of Roman public buildings on the terraces sloping down to the Thames.

### 3. ROBBING THE "STATE ROOM" WALLS

At a later stage some wall robbing occurred in the "state rooms" area, the only clear evidence of this being found in the east wall of the great hall, Room 42 (Fig. 11, Section 3, Layer 5). It is impossible to judge from the archaeological evidence whether or not this robbing was an extension of the general demolition of the "state rooms", or if it was a separate event, though the former explanation is probably more likely (see p. 24).

### 4, 5. CONSTRUCTION AND USE OF A LATER ROMAN BUILDING

Extensive but fragmentary traces of a later Roman building were found overlying the great hall, Room 42, and in 1961, during a small controlled archaeological excavation, part of one room, Room A, was examined in detail (Fig. 32). It was impossible to trace its plan during the building operations as its walls had been completely robbed in later times, though traces of three, perhaps four, rooms were found. This was not enough, however, to give a sufficient indication of the nature and purpose of the building though it is clear that its plan bore no relationship to the plan of the earlier palace building. The extent of the building is unknown, though as no traces of the building were found to the south of the south wall of Room 42 of the palace it is unlikely that the building extended into that area.

The most distinctive feature of the construction of this building was the floors which were of pure white rammed chalk containing numerous flint pebbles which had been burnt cherry red, thereby making the floor most attractive. The pebbles do not seem to have been included to decorate the floors, because they were buried in the chalk, and occurred in at least two lower floors of hypocausts which, of course, would not have been seen normally.

#### ROOM A

The walls on the east side of this room had been robbed (Fig. 11, Section 4), and the western part of the room had been destroyed. The form of the wall robber trench on the east side of the room, however, indicates that the chamber had multi-angular sides, though this may have been merely a recess in the side of a much larger room. The rammed chalk floor (Fig. 11, Section 4, Layer 3) which included the cherry red pebbles was 0.10 m thick and overlay a foundation of large slabs of ragstone (Layer 4) lying on top of the floor were a series of red burnt brick *pilae* of an hypocaust.

At a later stage the hypocaust was filled in with two layers of red burnt rubble and clay (Fig. 11, Section 4, Layer 2) which were in turn overlaid by a floor of yellow mortar (Fig. 11, Section 4, Layer 1).

#### ROOM B

Evidence of this chamber, which was adjacent to Room A, was recorded during the building operations, and was seen only in section. It comprised two portions of rammed chalk flooring containing numerous cherry red pebbles (Fig. 11, Section 3, Layers 3 and 6), which partly overlay the demolished earlier east wall of the great hall, Room 42, of the palace, and partly overlay a floor or foundation of pink concrete containing large portions of Roman bricks, some ragstone, and many red burnt flint pebbles (Fig. 11, Section 3, Layer 4). It is impossible to judge whether or not the concrete foundation was an earlier phase of flooring or merely a foundation for the chalk floor. In the easternmost portion of floor of this room part of a brick *pila* was found lying on the floor, while around and overlying it was a dump of brownish red burnt clay (Fig. 11, Section 3, Layer 2). This was in turn overlaid by a deposit of building debris comprising fragments of cement, broken bricks, and a number of white tesserae which may have formed a floor (Fig. 11, Section 3, Layer 1). It seems likely that these two deposits may be equated with the dumped filling and subsequent floor over the hypocaust in Room A.

#### ROOM C

An area of chalk flooring containing cherry red pebbles was found during the building operations to the north of Room A, and may indicate a room in addition to Rooms A and B. In the rubble debris immediately overlaying this floor, was found a loose piece of *opus sectile* (Fig. 42, No. 287) a form of decoration rarely found in Britain, but when found *in situ* it is usually on very early Roman sites (p. 96). In this post-palace

phase it is clearly out of context and is most likely derived from elsewhere in the City. A flagon was also found (E.R. 792) (Fig. 36, No. 100) in the rubble, and its mid-first century date confirms that the rubble was introduced from elsewhere and does not represent the debris of the post-palace building.

#### AREA 2: STRUCTURES REPLACING THE ORIGINAL PALACE BUILDING

##### DATING EVIDENCE

##### OCCUPATION OF THE BUILDING

Dating evidence was almost completely absent from this building. In the burnt debris filling the hypocaust of Room A (Fig. 11, Section 4, Layer 2) were found fragments of a Flavian coarse ware pot (E.R. 673) (Fig. 36, Nos. 90–91). Since these sherds come from a modification to a building that replaced the palace “state rooms”, themselves of Flavian date, the sherds seem to have little value as dating evidence.

##### ROBBING OF THE BUILDING:

The only other evidence to be found connected with this building was recovered from the earth in-fill of the robbed wall of Room A (E.R. 674) (Fig. 11, Section 4, Layer 5). This included two sherds of medieval coarse pottery which are not precisely dateable but presumably indicate that the wall-robbing occurred during the Middle Ages.

#### AREA 3. DATING EVIDENCE: FILLING-IN OF THE GREAT POOL (46)

The great pool was filled in primarily by dumping debris from the north side, judging from the tip lines; and, although the deposits were all rapidly dug away by mechanical excavators during the recent rebuilding, it has been possible to establish that the earliest dumped deposits were of building debris, suggesting that the demolition of a Roman building, perhaps some of the “state rooms”, had taken place. The filling of the great pool could only be examined in two places which are indicated on the plan (Fig. 12, Sections 10, 11; Fig. 13, Sections 10, 11).

##### SECTION 10 (Fig. 13)

The lowest layer of dumping (Layer 1) appeared to comprise building debris (E.R. 723) containing fragmented wall plaster, rubble, and tiles lying in a mass of loose red cement. The finds included three Roman sherds of indeterminate date. In the demolition debris wall decoration was represented by wall plaster mostly painted white, some pieces painted grey, and one piece painted bright blue. One small piece was painted pale mauve and had traces of some grey over-painted decoration, while another fragment was a piece of moulded stucco-painted white (Fig. 43, No. 294). Flooring was represented by one white tessera and, perhaps, by a piece of Purbeck marble.

Above this was a layer of black mud (Layer 3) which mostly overlay the floor of the pool south of or beyond the dump of E.R. 723. This mud contained various sherds (E.R. 724) (Fig. 36, No. 99) none of which need be later than the early second century; a reeded rim bowl fragment being the latest dateable object.

A deposit of sand (Layer 4) overlay E.R. 724, which, from the way the sand particles were stratified, appeared to have been water deposited. The finds (E.R. 727) included pottery, none of which need date much later than the end of the first century A.D. (not illustrated). Building debris was also included, and comprised a piece of painted red wall plaster, one or two pieces of shattered Purbeck marble, and a number of white and dark grey tesserae, most of which still bear traces of the pink cement into which they had originally been set. The dark grey tesserae appear to have been specially made of fired baked clay. A few fragments of glass were also found which included a piece of pale green window glass.

##### SECTION 11 (Fig. 13)

A series of dumped rubbish deposits was investigated near the east end of the great pool. They were lying on the floor of the pool and were lying against its north side. The objects recovered are very similar to the contents of the dumps in Section 10, indicating that they are all contemporary.

The main dumps had to be rapidly investigated and only a small collection of objects was recovered (E.R. 1023, 1024) (Fig. 36, No. 98). These include a few sherds, none of which need be later than the end of the first century A.D., a few tesserae of chalk and dark grey fired clay, pieces of Purbeck marble, and a few fragments of sandstone.

##### CONCLUSION

On the evidence recovered it is clear that the great pool was filled in not earlier than the early second century A.D., but, as this date is so soon after the date of the construction of the palace, it seems most likely that the pool was filled in considerably later than the dating evidence suggests.

AREA 5. END OF PALACE PHASE. LOWER TERRACE (Fig. 19)

The abandonment of the east wing is well dated by a considerable quantity of pottery, all of which points to the late third or fourth centuries A.D. The final phase was fully examined only in Room 14, where considerable dumpings occurred (E.R. 874, Fig. 36, Nos. 102-114) (E.R. 976, Fig. 38-41), but other scraps of dating evidence were recovered from the higher level of the east wing on the 6.4 m terrace.

The section across Room 14 (Fig. 19, Section 12) shows that the latest mortar floor was partly overlaid by a buff silty soil, Layer 11 and 12. The post holes which did not protrude through this deposit were found, in the mortar floor, showing that a timber structure, possibly a staircase, had been destroyed before the silt was deposited. Pottery from Layer 11 (E.R. 967) (not illustrated) has been dated to the late third or early fourth century A.D. This silt layer appeared to be the result of a gradual accumulation over a period of time. It is also clear that the building was in a state of decay during the deposit of the silt, because it contained many small fragments of white painted plaster, presumably from the walls of the room.

Immediately overlying the silt was a roughly-built hearth constructed of fragments of bricks and tiles against the north wall of the corridor (Plate 2). One of these fragments was stamped retrograde P.P.B. (R.LON) (E.R. 968) (Fig. 42, No. 293). This had clearly been re-used because, although the hearth was not built with mortar, the tile fragment had mortar adhering to its surface. The upper surface of Layers 11 and 12 was trampled down as a crude floor level.

Parts of the faces of both the north and south walls of this corridor had been scorched by fires which had been built against them. The crude hearth, the scorched walls, and the trampled earth surface all indicate that, after decay had set in, the room was occupied by squatters.

Overlying Layers 11 and 12 were a number of thick deposits of black earth containing large quantities of rubbish. These are Layers 10 (E.R. 969), 2 (E.R. 970), 1 (E.R. 973) (Fig. 36, Nos. 94-95, 101), 5 and 6 (E.R. 971) and 4 (E.R. 972), all of which contained pottery of the fourth century. These deposits had evidently been deliberately dumped at one time and it was not always possible to determine the limits of each, and, for this reason, they have been described under the group reference E.R. 976 (Fig. 37, Nos. 115-49; Fig. 38, Nos. 150-74; Fig. 39, Nos. 175-212; Fig. 40, Nos. 213-44; Fig. 41, Nos. 245-80).

In Layer 2 was found a large quantity of fragments of brightly painted wall plaster, the predominant colour of which was yellow. The plaster had clearly been dumped in from the north side of the corridor since it was, for the most part, piled up against the north wall (not shown in section). It is likely that it was derived from some of the rooms of the east wing on the 6.4 m terrace. The deposit of plaster was at its thickest below Room 11. If it had been derived from the upper part of Room 14 itself, one would expect a few fragments to have occurred in Layers 11 and 12, but none were found.

It is of interest to note that in 1848, while the sewer in Suffolk Lane was being built, and parts of Rooms 13 and 14 were being excavated, Roach Smith also discovered painted wall plaster, one of the chief colours of which was yellow. One fragment had a "winged youthful head" painted upon it.<sup>78</sup> It is reasonable to suggest that these might have been found in a continuation of Layer 2 in Room 14, for this was the only deposit to contain brightly painted plaster.

It would seem that, after decay had set in and squatters had occupied Corridor 14 for a short while, it was filled with rubbish in the fourth century. Room 15 was also filled with similar large quantities of dumped rubbish which contained pottery (E.R. 977) (not illustrated) of the fourth century. Probably predating the dump was a well-preserved coin (*sestertius*) of Marcus Aurelius, minted in A.D. 176-77<sup>79</sup> which was found in the silt filling of the culvert in the north wall of Room 15 (E.R. 1020). Excavation south of Room 15 disclosed further late Roman dumped deposits overlying the structure of the palace, and in these were late Roman sherds (E.R. 980) (see Fig. 36, Nos. 96, 97).

## SIGNIFICANCE

The destruction of the palace certainly occurred during the Roman period, for the "state rooms", the most obvious indication of the presence of the palace, were demolished and replaced by a later Roman building. Indeed, the robbing of the east wall of the great hall (Room 42) prior to the rebuilding was presumably to obtain building materials for re-use. This destruction seems to have been a deliberate move which did not follow an accidental destruction such as by fire, but rather probably reflected a major change in the policy

or structure of the provincial government. Deliberate destruction also occurred in the rooms to the north of the great hall (Room 42), while to the south the pools in the garden-court were deliberately filled with rubbish.

It is significant that the evidence of deliberate demolition and rebuilding was only found in the "state rooms" region and not on any part of the south wing, and it is possible that the rooms of the south wing continued to be occupied, perhaps as residential accommodation, long after the destruction of the "state rooms".

The only possible dating evidence was recovered from the south wing, where in the ash filling of the hypocaust of Room C (Fig. 24), presumably deposited while the hypocaust was in use, was found a small antoninianus of Gallienus issued about A.D. 270. Rubble and collapsed *pilae* of the demolished room overlay the ash, and clearly this destruction could not have occurred before about A.D. 270. In the south-eastern part of the palace, particularly in Room 14, large-scale dumping of rubbish occurred during the fourth century, evidently following a period of decay during which, it would seem, squatters had occupied the room.

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- <sup>24</sup> *Ibid.*
- <sup>25</sup> *Ibid.*
- <sup>26</sup> *Ibid.* "F.5".
- <sup>27</sup> *Ibid.* Fig. 31A, "F.6".
- <sup>28</sup> *Ibid.* Fig. 30, Layer 6.
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<sup>67</sup> Noted in *J Brit Archaeol Assn* 38 (1882) 206; 39 (1883) 389; *Victoria County History of London* 1, 108.  
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#### THE FINDS DATING EVIDENCE

The finds from the Roman palace site primarily comprise the dating evidence for the structure, as the investigation was mostly undertaken in a rescue situation. Some of the material recovered is not suitable for publication, but nevertheless the references are given here to the Museum of London "Excavation Register" (e.g. E.R. 1117) in which groups of excavated objects are catalogued. This will enable the significance of the finds to be re-considered in the future in the light of later excavations in the area. These Excavation Register groups are available for study on application to the Director of the Museum of London. In the absence of a detailed study of Roman pottery types and their dates in London it has been difficult always to give certain dates for some of the deposits, particularly those of the third and fourth centuries. For this reason the pottery content of the large fourth century dump in Room 14 is given more fully, as large late Roman groups are not often found.

(Fig. 33) PRE-PALACE GROUPS:  
 E.R. 1117 Area 1: Pit 6 (p. 16):

1. Bead rim jar. Fine, hard, light grey, sandy fabric with darker surfaces. Burnished zone just below rim.
2. Bead rim jar. Fine, hard, dark grey, sandy fabric. Polished zone just below rim.
3. Jar. Fine, hard, light grey, sandy fabric. Polished exterior (cf. Chapman, 1973, Fig. 10, No. 81, dated Neronian-early Flavian).
4. Jar. Hard grey fabric, with dark surfaces. Exterior is smoothed on rim and just below (for type see No. 3).
5. Necked jar. Fine, hard, light grey ware, with slightly darker surfaces. Exterior is polished.
6. Jar. Soft, fine, brown micaceous fabric. Black surfaces, the exterior having a zone of shallow grooves.
7. Bead rim jar. Small size. Soft, brown, sandy ware with black surfaces.
8. Bowl? Hard, light grey ware, with dark grey, lumpy surfaces. Groove on top of rim.
9. Bowl. Hard, light grey ware, very similar to No. 8, with dark grey/black surfaces. Incised wavy line decoration on body. Groove on top of rim.
10. Bowl. Hard, light grey ware, similar to No. 9, with dark grey/black lumpy surfaces. Groove on top of rim.

11. Bowl. Fine, hard, light grey fabric with dark grey surfaces. Groove on top of rim.

*Dating:* This is a typically Flavian group, the necked jars being of a particularly distinctive Flavian type, which possibly continued to be produced in the early second century; cf. Cunliffe (1971, ii, 237, Nos. 317-19, dated first to early second centuries); Kenyon (1959, 53, Fig. 16, Nos. 1-5, dated mostly Flavian-early second century).

E.R. 1160. Area 1, Pit 6:

12. Bowl. Soft, pale grey, lumpy fabric of native type.
13. Flagon. Hard, sandy, buff ware; cf. Cunliffe (1971, ii, 202, type 14, dated late first-early second century).
14. Bowl. Hard, pale grey ware with darker grey surfaces; cf. Kenyon (1959, Fig. 15, No. 8, dated Flavian).
15. Beaker. Fine, hard grey ware.
16. Bead rim jar. Pale grey, sandy ware with darker grey surfaces. Smoothed rim and zone immediately below rim.
17. Bead rim jar. Soft, lumpy, pale grey ware with darker surfaces. Smoothed rim and zone immediately below rim.
18. Bead rim jar. Soft, lumpy, pale grey ware, including some flint tempering. Darker grey surfaces.

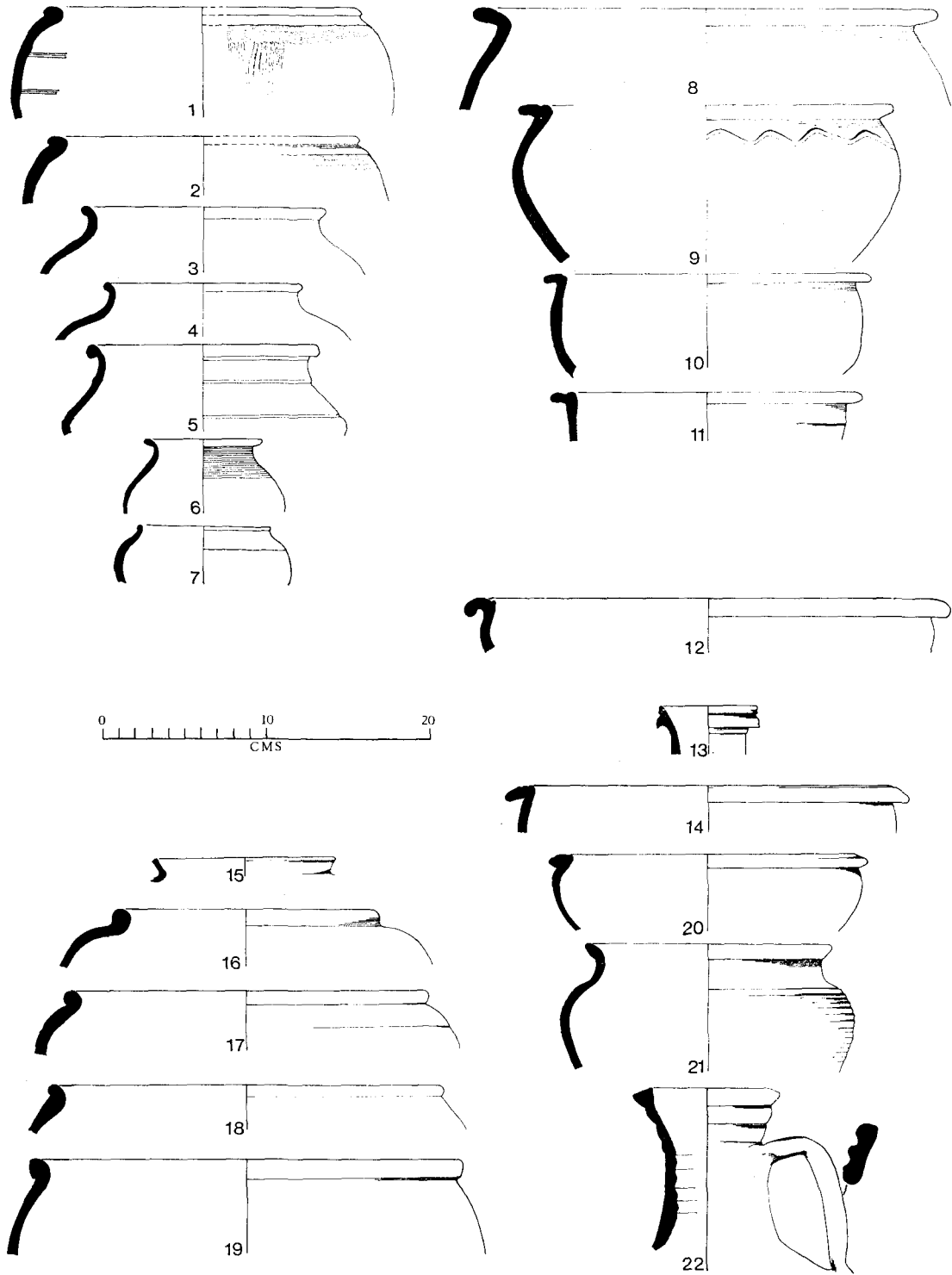


Fig. 33 Roman Palace. Roman pottery Nos. 1-22 from Pit 6, probably pre-dating the palace ( $\frac{1}{4}$ )

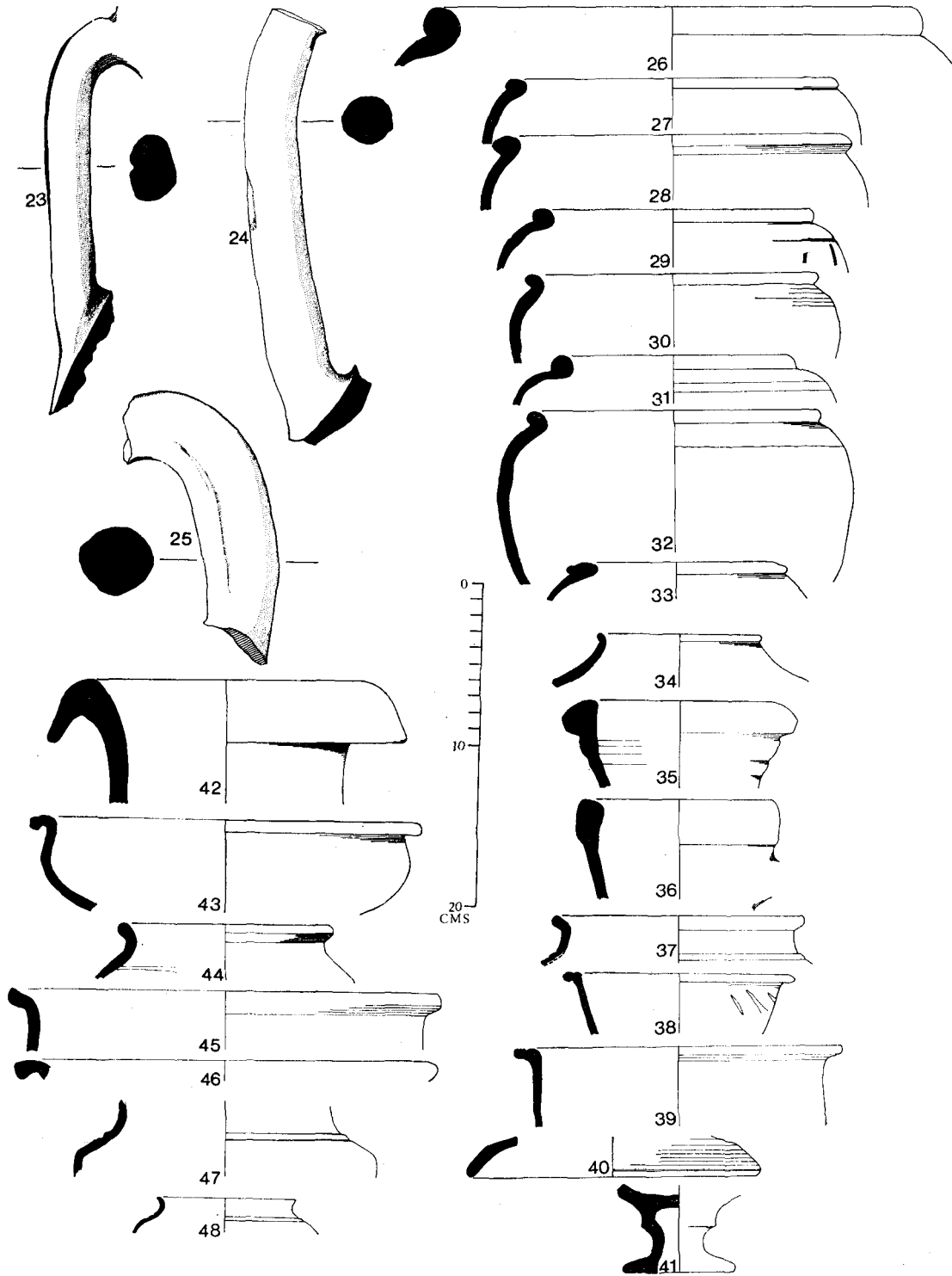


Fig. 34 Roman Palace. Coarse pottery Nos. 23-48 from a deposit, cut by Pit 6, probably pre-dating the palace ( $\frac{1}{4}$ )

19. Bead rim jar. Soft, lumpy, pale grey ware with flint tempering. Dark grey inner surface, pale grey outer surface. Smoothed zone immediately below rim.
20. Bowl. Pale grey, soft lumpy ware. Two grooves on top of rim.
21. Necked jar. Hard, pale grey, sandy ware. Body below neck is closely rilled; *cf.* Cunliffe (1971, ii, Fig. 103, Type 181, dated not later than Flavian).
22. Flagon, ring necked. Hard, buff, sandy ware; *cf.* Chapman (1973, Fig. 14, No. 167, dated Flavian); Frere (1972, i, Fig. 107, No. 241, dated A.D. 85–105).
- Dating:* Although the date range of this group is late first-early second century, the bulk of the group is Flavian, perhaps latter half, which should be considered to be the date of the deposit.
- E.R. 1162. Area 1. Pre-palace deposit cut by Pit 6 (p. 16). Fig. 34:
23. Amphora handle. Pinkish-buff ware. Cream slip on exterior surface.
24. Amphora handle. Fine, buff ware, with cream slip on exterior surface.
25. Amphora handle. Brownish-buff, soft, sandy ware, with pale grey core and coarse quartz grits; *cf.* Cunliffe (1971, ii, Fig. 99, Type 145, dated pre-A.D. 75).
26. Bead rim jar. Brown-grey ware with black surfaces. Coarse sand grit.
27. Bead rim jar. Fine, hard, grey ware.
28. Bead rim jar with groove on rim. Sandy, pale grey ware with dark grey surfaces.
29. Bead rim jar. Fine, pale grey, sandy ware. Smoothed rim and zone between rim and body groove.
30. Bead rim jar. Soft, lumpy, grey ware with sandy grit. Smoothed zone below rim.
31. Bead rim jar. Hard, sandy, dark grey ware. Smoothed exterior surface.
32. Bead rim jar. Soft, light grey, lumpy ware with some grit. Dark grey surfaces.
33. Jar, with flat bead rim. Soft, pale grey-brown ware with black grit.
34. Beaker, possibly of carinated type. Hard, sandy, pale grey ware, with dark grey surfaces; *cf.* Cunliffe (1971, ii, Fig. 89, Type 69, dated first century).
35. Amphora neck. Soft, buff, sandy ware.
36. Amphora neck. Pale pink, sandy ware, with pinkish-buff slip.
37. Necked jar. Brown-grey, sandy ware, with dark grey surfaces. Cordon at base of neck. A common Flavian type; *cf.* Cunliffe (1971, ii, Fig. 103, Type 180).
38. Bowl? Hard, dark grey, sandy ware. Groove on top of rim.
39. Bowl. Hard, sandy, grey ware, with dark grey surfaces. Groove on top of rim.
40. Lid. Hard, fine, pale grey ware, with pale grey polished surfaces.
41. Pedestal base of tazza. Hard, sandy, buff ware with pinkish surface. Traces of burning inside bottom of bowl.
42. Amphora with outflaring rim. Soft, buff-pale yellow ware; *cf.* Cunliffe (1971, ii, Fig. 99, Type 146, dated first century A.D.).
43. Bowl. Hard, coarse gritted, pale grey ware with dark brown surfaces. Shallow groove on rim; *cf.* Kenyon (1959, Fig. 15, No. 8, dated first-early second century).
44. Jar. Soft, sandy, micaceous, dark pink ware with pale brown surfaces.
45. Bowl. Hard, sandy, pale grey ware, with darker grey surfaces. Smoothed outer surface.
46. Bowl. Soft, pale grey-brown, gritted ware with dark grey-brown lumpy surfaces.
47. Necked jar. Sandy, grey-brown ware, with dark grey surfaces, the outer surface being burnished. Cordon at base of neck; *cf.* Cunliffe (1971, ii, 103, Type 180, dated first century).
48. Jar. Fine, hard, grey ware, with a pale grey slip on exterior.
- Dating:* Flavian.
- FIG. 35:  
E.R. 681. Pit 5 (Fig. 4):
49. Jar. Coarse, soft, grey-brown ware with much shell tempering.
50. Flagon base. Fine, sandy, pale pinkish-brown ware, with small red inclusions. Well formed underside of base.
- Dating:* first century.  
E.R. 1018 Well 1 (Figs. 4, 5):
51. Carinated beaker. Fine, grey ware.
- Dating:* This is a characteristic first century type; see Cunliffe (1971, ii, Fig. 89, Type 69).
- E.R. 957. Pit 4 (Fig. 5):
52. Necked jar. Fine, grey ware.
- Dating:* Flavian type.  
E.R. 1021. Pit 1 (Fig. 5):
53. Necked jar. Fine, grey ware.
- Dating:* Flavian type.  
E.R. 1032–33. Well 2 (Fig. 5):
54. Beaker, possibly carinated type. Fine, flakey, grey-brown, micaceous ware, with black surfaces. Incised lattice decoration on shoulder.
55. Bowl. Rim sherd only. Fine, grey-brown ware with a little flint grit. Black surfaces.
56. Jar. Grey, gritty ware with dark surfaces.
57. Jar. Dark, grey-black micaceous ware with black surfaces.
58. Mortarium. Sandy, pink-buff ware. Pale grey-blueish area on surface of rim. Burnt flint grits in bowl. This is a characteristic first century form particularly common during the Flavian period; *cf.* Cunliffe (1971, ii, Fig. 97, Nos. 136–37; Fig. 111, Nos. 279–82, dated Nero-mid Flavian); Frere (1972, i, Fig. 106, Nos. 223–25, dated Flavian).
- Dating:* Flavian.  
E.R. 962. Pit 2 (Fig. 5):
59. Jar. Fine, grey-brown micaceous ware. Smoothed grey outer surface. First century type.
60. Jar. Grey ware. First century type.
61. Jar. Hard, pale grey-brown, sandy ware. Dark grey surfaces, the outside and the rim burnished. Cordon at neck.
- Dating:* First century, probably Flavian.  
E.R. 964. Pit 1 (Fig. 5):
62. Bowl. Brown ware with grey core, and with a dark grey, lumpy surface. Black and brown inclusions in the core. Lower part of the body is smoothed.
63. Beaker. Fine, hard, grey micaceous ware, with a decoration of applied pellets; *cf.* Cunliffe (1971, ii, Fig. 90, Type 73.2, dated first century, particularly Flavian).
64. Jar. Hard, pale grey, sandy ware, with darker surfaces.
65. Jar. Cordon at base of neck. Pale grey-brown ware, with slightly darker surfaces. Polished outer surface.
66. Bead rim jar. Rim and shoulder polished. Hard, pale, sandy, grey ware with medium grey surfaces.
67. Jar. Grey, sandy fabric.
68. Flagon. Hard, buff, sandy ware.
69. Flagon. Hard, buff, sandy ware.
70. Storage jar. Soft, grey-brown ware, with coarse shell tempering. Smoothed rim and neck.



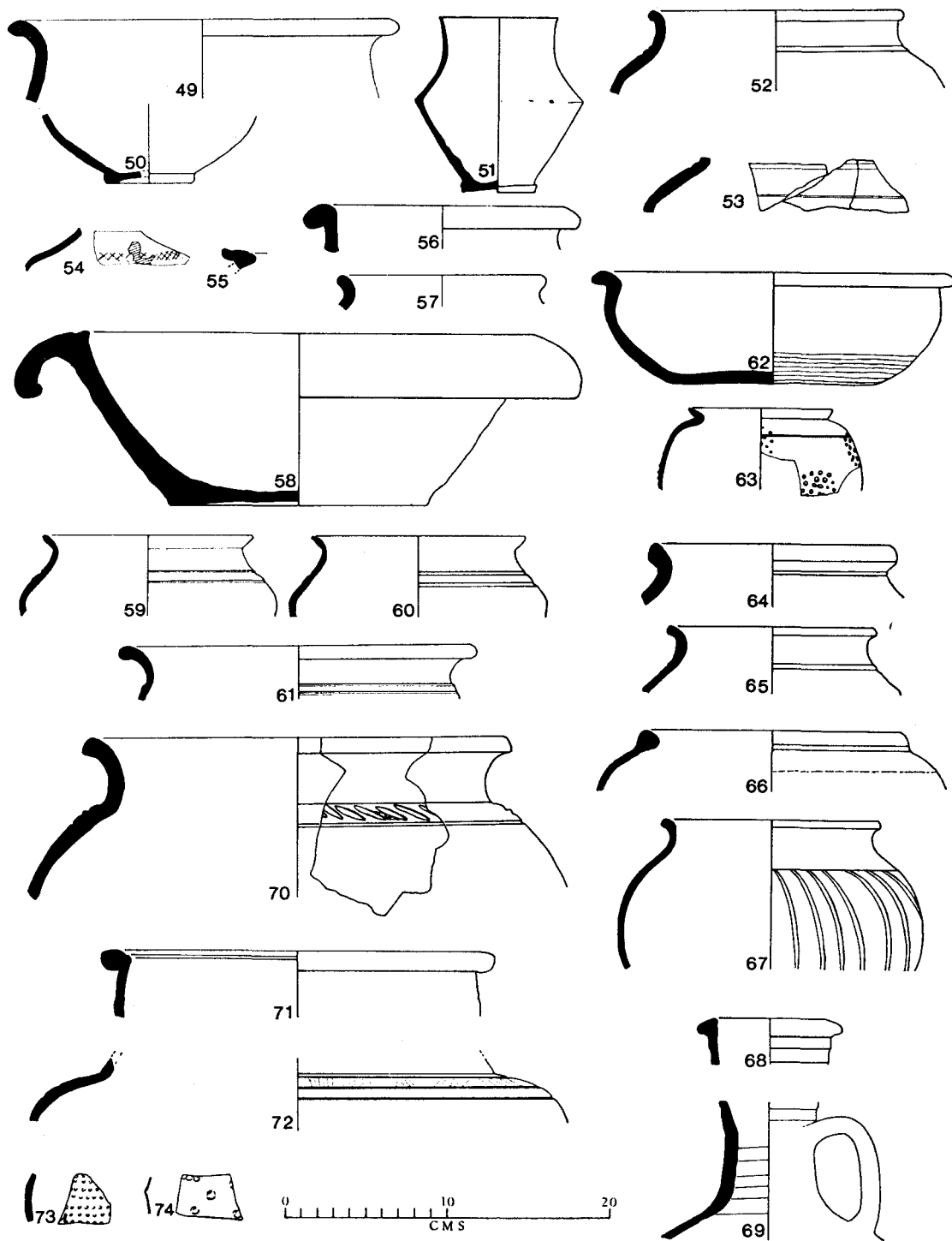


Fig. 35 Roman Palace. Coarse pottery Nos. 49-74, from deposits pre-dating the palace ( $\frac{1}{4}$ )

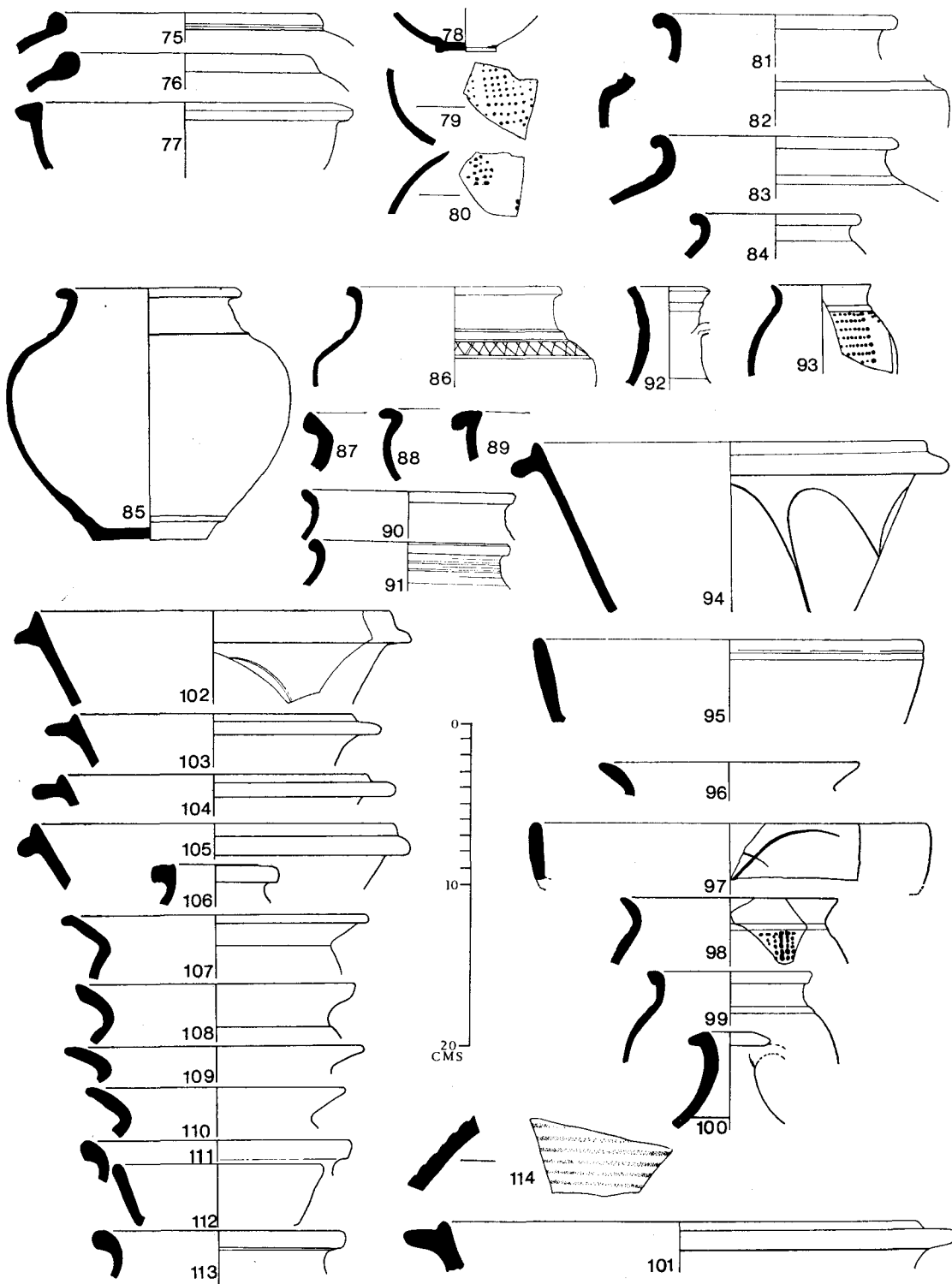


Fig. 36 Roman Palace. Coarse pottery Nos. 75-93, from deposits probably pre-dating the palace. Pottery Nos. 94-114 from deposits dating from the end of the palace (1/4)

71. Bowl. Fine, grey ware. Burnished lines on body; *cf.* Kenyon (1959, Fig. 15, No. 10, dated Flavian-Trajan).
72. Necked jar. Pale, sandy, grey ware with darker surfaces. Zone of decoration between cordon at base of neck and cordon on shoulder.
73. Poppyhead beaker, with applied pellets. Fine, grey ware with polished exterior surface. These vessels are characteristic of the later part of the Flavian period and of the first half of the second century; *cf.* Cunliffe (1971, ii, Type 267).
74. Beaker, decorated with bosses pushed from inside the vessel before firing. Fine, hard, red ware, the exterior yellow-brown in colour and mica dusted. This is a typical Flavian-early second century type; *cf.* Cunliffe (1971, ii, Fig. 10, Type 274).
- Dating:* The parallels and pottery typology indicate a date in the latter half of the Flavian period. The samian ware (Fig. 42, Nos. 281-86) indicate a date after A.D. 80.
- (Fig. 36):
- E.R. 1022 (Pre-palace deposits in Room 5, p. 38):
75. Bead rim jar. Pale grey, sandy ware with medium grey surfaces.
76. Bead rim jar. Medium grey, sandy ware, with pale core.
77. Bowl. Brown ware with grey core. Grey, lumpy surfaces with traces of burning inside and outside.
78. Jar? Brown ware with a dark grey core. Surfaces are black.
79. Poppyhead beaker. Hard, fine, grey ware, with a pale grey slip outside. Applied barbotine dots.
80. Beaker? Fine, hard, grey, micaceous ware, decorated with clusters of applied barbotine dots; *cf.* Frere (1972, Fig. 103, No. 126, dated A.D. 60-75).
81. Necked jar. Hard, sandy, brown ware with a grey core. Exterior surfaces are dark grey.
82. Necked jar. Pale grey, hard, sandy ware with dark grey surfaces.
83. Necked jar. Hard, brown, sandy ware with a grey core. Surfaces are dark grey, the outer being smoothed.
84. Necked jar. Hard, pale grey, sandy ware, with a darker grey exterior surface.
- Dating:* The bead rim jars, necked jars and poppyhead beakers are all characteristic of the Flavian period, which is the date of this group.
- E.R. 959 (Foundation trench of east wing of the palace, Area 4):
85. Jar. Fine, micaceous, pale orange ware. Cordon at base of neck and just above base.
- Dating:* first century.
- E.R. 958 (Rubble foundation of possible hypocaust in Rooms 1 and 2, Area 4):
86. Necked jar. Fine, grey ware, with cordon at base of neck, and zone of decorative lattice design on shoulder.
87. Jar. Grey ware. This had a diameter of about 255 mm.
88. Bowl. Dark brownish-grey ware.
- Dating:* Flavian.
- E.R. 1031 (below floor of Room 19):
89. Bowl. Greyish-brown ware with a dark grey slip.
- Dating:* Flavian.
- E.R. 673 (Fig. 11, Section 4, Layer 2):
90. Necked jar. Pinkish-brown ware with a grey slip.
91. Necked jar. Grey ware.
- Dating:* Flavian.
- E.R. 951 (foundation trench of east wing of palace, Area 4):
92. Flagon. Buff, hard ware. Single handle.
- Dating:* late first-early second century type.
- E.R. 1028 (below floor of Room 25):
93. Poppyhead beaker. Fine, pale grey ware with dark grey inner and outer surfaces. Rows of decorative applied dots below the cordon at the base of the neck.
- Dating:* late first-early second century.
- DESTRUCTION OF PALACE GROUPS:
- (Fig. 36):
- E.R. 973 (Room 14, Fig. 19, Section 12, Layer 1):
94. Flanged bowl. Brownish-grey sandy ware, with dark grey surfaces. The inside and rim are burnished, and the exterior has a burnished wavy line decoration.
95. Dish. Grey, sandy ware, with black surface.
- (See also No. 101).
- Dating:* fourth century.
- E.R. 980 (Late Roman dumping in Area 5, p. 77):
96. Jar. Grey, sandy ware, the upper surface of the lip burnished.
97. Dish. Brown, sandy ware; smoothed rim and interior. The exterior surface is decorated with burnished lines. Discoloured by burning.
- Dating:* third-fourth centuries A.D.
- E.R. 1024 (Dumps into the great pool, Feature 46):
98. Beaker. Poppyhead type. Hard, light grey ware, the outside with a light grey slip. Decorated with applied dots of clay.
- Dating:* late first-second century.
- E.R. 724 (Fig. 13, Section 10, Layer 3):
99. Jar. Hard, fine grey ware, with a dark burnt exterior surface.
- Dating:* Flavian.
- E.R. 792:
100. Flagon. Pinkish ware; *cf.* Cunliffe (1971, ii, Fig. 95, Type 120, dated end first century A.D.).
- Dating:* the date of this deposit is unknown but certainly much later than the pottery.
- E.R. 973 (Also Nos. 94-95):
101. Flanged bowl. Pale grey, hard, sandy ware with a dark grey burnished rim and interior surface.
- Dating:* fourth century type.
- E.R. 974 (late Roman dumping into Room 14, p. 77):
102. Flanged bowl. Hard, grey, sandy ware. Burnished inside and on rim. Outer decoration of curving burnished lines.
103. Flanged bowl. Grey, sandy ware, with black surfaces. The rim and interior are burnished.
104. Flanged bowl. Hard, grey, sandy ware, with black surfaces. The rim and interior are burnished.
105. Flanged bowl. Grey, coarse, sandy ware with cream slip on rim and interior.
106. Flagon. Hard, pale grey ware, with dark grey surfaces. The rim and exterior are burnished.
107. Jar. Soft, brown, sandy ware, with black surfaces. The upper surface of the rim is burnished.
108. Jar. Hard, dark grey, sandy ware.
109. Jar. Hard, grey, sandy ware with black surfaces. The upper surface of the rim is burnished.
110. Jar. Hard, mid-grey ware with black surfaces. Burnished top of rim.
111. Jar. Dark grey, fine, sandy ware.
112. Dish. Black, sandy ware, with black burnished surfaces.
113. Jar. Hard, pale grey, sandy ware, with traces of black burning on exterior of rim.

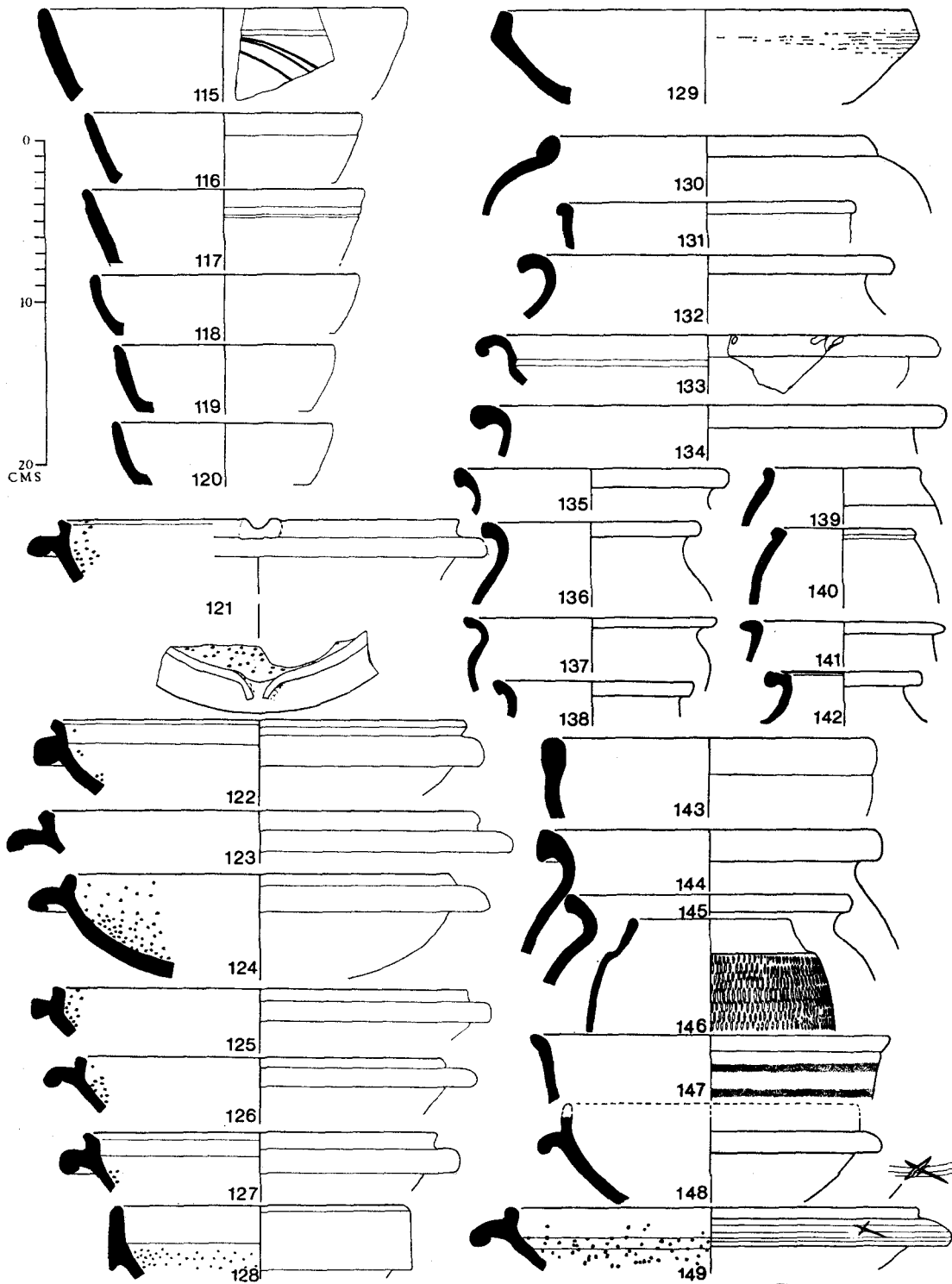


Fig. 37 Roman Palace. Coarse pottery Nos. 115-149 dating from the end of the palace ( $\frac{1}{4}$ )

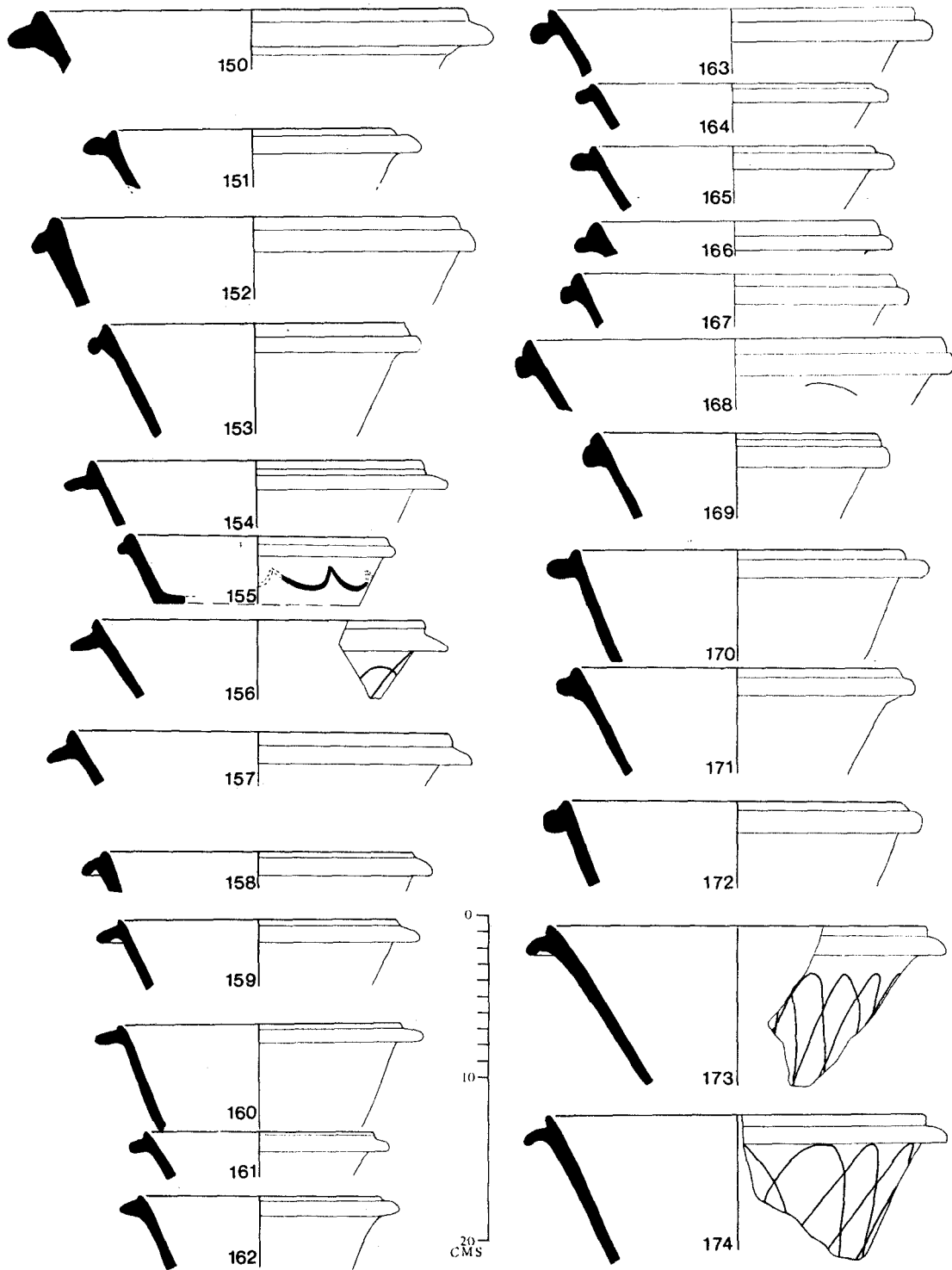


Fig. 38 Roman Palace. Coarse pottery Nos. 150-174 from deposits dating from the end of the palace ( $\frac{1}{4}$ )

114. Amphora. Hard, pink, sandy ware. Exterior surface has a series of parallel grooves cut at an angle to the surface of the vessel so as to slightly undercut the surface. The resulting ribbed surface is coated with a cream slip.

(FIG. 37):

E.R. 976 (late Roman dumping into Room 14, p. 77):

115. Dish. Hard, pale grey, sandy ware. Burnished inside, and with a black slip inside and covering rim only outside. Lightly scored decorative lines.
116. Dish. Pale grey, hard, sandy ware. Burnished black inside, with outer surface black.
117. Dish. Hard, grey, sandy ware. Burnished black inside. Outer surface black.
118. Dish. Fine, hard, sandy ware with burnished silver-grey surface.
119. Dish. Dark grey sandy ware. Burnished black inside and on lip outside.
120. Dish. Hard, sandy, grey ware. Burnished grey inside and on lip outside.
121. Mortarium. Hard, white ware with pink, flint grit inclusions; cf. Frere (1972, i, Fig. 138, No. 1277, dated fourth century).
122. Mortarium. Hard, fine, sandy, buff ware, with an orange surface on bead and flange of rim.
123. Mortarium. Hard, fine, sandy, buff ware, with orange surface on bead and flange of rim. Soot from burning on underside of rim. Orange grit internally.
124. Mortarium. Hard, fine, sandy, buff ware, with an internal scatter of pinkish flint grit; cf. Sheldon (1971, 59, No. 4, dated fourth century).
125. Mortarium. Pinkish-buff, fine, hard ware, with internal surface scatter of pinkish flint grit. Black soot from burning on rim.
126. Mortarium. Fine, hard, buff ware, with an internal scatter of pinkish grit. Orange and bluish exterior surface.
127. Mortarium. Fine, hard, buff ware, with a scatter of pinkish grit on its internal surface. Traces of soot from burning.
128. Mortarium. Fine, hard, red, sandy ware with a grey core, and with red burnished outer and inner rim surfaces; cf. Cunliffe (1971, ii, Fig. 118, Type 366, dated late third-early fourth century); Sheldon (1971, 59, No. 1, dated fourth century).
129. Dish. Pinkish buff ware with much grey-pink grit (not flint). The surfaces are lumpy, and of a chocolate brown-grey colour.
130. Bead rim jar. Pale, sandy, grey ware with darker grey surfaces. Burnished rim and zone below. This is a residual find of the first century A.D.
131. Bowl. Reddish, sandy ware with a grey core, and polished interior and exterior surfaces.
132. Jar. Hard, fine, pale grey, sandy ware. Grey slip on upper surface of rim.
133. Dish. Fine, pink, micaceous ware with red slip, and cream-coloured paint on rim. Oxfordshire type; cf. Bushe-Fox (1928, ii, Plate XXXII, Nos. 176-77, dated probably late third or fourth century).
134. Jar. Fine, grey, sandy ware with dark slip on rim and exterior surface.
135. Jar. Fine, hard, grey, sandy ware.
136. Jar. Fine, hard, grey ware; cf. Sheldon (1971, 59, No. 24, dated fourth century).
137. Jar. Fine, hard, grey, sandy ware, with a burnished lip and zone on the shoulder.
138. Jar. Dark grey, sandy ware.
139. Jar. Grey, sandy ware, with dark grey, burnished zone around the rim and just below.

140. Jar. Pinkish-creamy coloured, hard, sandy ware, with small areas of orange colouring on the outer surface.
141. Jar. Soft, dark-grey ware, with burnished rim and exterior surface.
142. Jar. Fine, dark-grey ware, with burnished rim. Two grooves on rim.
143. Bowl. Hard, sandy, red ware with a grey core; cf. Sheldon (1971, 62, No. 3 for type; dated fourth century).
144. Jar. Pale, fine, grey, sandy ware.
145. Jar. Brown, sandy ware, the exterior and rim heavily burnt black.
146. Jar. Fine, pale, pinkish-grey ware, with a chocolate-brown colour coat which has a silvery sheen on the surfaces. The body of the jar is rouletted.
147. Bowl? Fine, white ware, the exterior surface decorated with two horizontal painted orange-brown lines.
148. Flanged bowl. Sandy, red ware with a grey core. The exterior is covered with a red colour coated slip.
149. Mortarium. Fine, hard, white ware, with pinkish grit on inner surface of the bowl. There is a scratched *graffito* in the form of an X on the flange of the rim. The exterior, particularly the flange, is burnt black.

(FIG. 38):

150. Flanged bowl. Hard, pale grey, fine, sandy ware, with burnished interior and top of rim.
151. Flanged bowl. Fine, pinkish-buff ware, with orange slip on surfaces. The rim a little burnt. ?Oxford ware.
152. Flanged bowl. Medium grey ware, the surfaces burnished.
153. Flanged bowl. Hard, grey, sandy ware with interior and upper part of rim coated with a black slip.
154. Flanged bowl. Ware and slip similar to No. 153.
155. Dish. Grey-brown, sandy ware with black slip on interior and on top of rim. Exterior surface decorated with smoothed wavy line. Traces of burning.
156. Flanged bowl. Grey, sandy ware. The interior and top of flange burnished black. The exterior is decorated with burnished curving lines.
157. Flanged bowl. Ware and burnishing similar to No. 156.
158. Flanged bowl. Black, sandy ware, the top of the rim and the interior surface (?) being burnished black.
159. Flanged bowl. Grey-brown, sandy ware, with black surfaces, the interior and rim being burnished black. The exterior surface is also black, though not burnished.
160. Flanged bowl. Ware and burnishing similar to No. 159.
161. Flanged bowl. Fine, hard, pale grey ware, the exterior surfaces having been smoothed to a darker grey.
162. Flanged bowl. Fine, pale grey ware, the interior surface and the rim being burnished to a pale grey.
163. Flanged bowl. Fine, hard, pale grey ware, with smoothed medium grey surfaces.
164. Flanged bowl. Soft, pale grey ware, with darker grey, smoothed surfaces.
165. Flanged bowl. Hard, pale grey ware, with slightly darker grey, smoothed surfaces.
166. Flanged bowl. Dark grey, sandy ware, with smoothed black surfaces.
167. Flanged bowl. Hard, pale grey ware, with medium grey surfaces, the interior and upper surface of the rim being smoothed to dark grey and possibly coated with a slip.
168. Flanged bowl. Medium-grey, sandy ware, with black burnished surfaces and exterior decoration which included a burnished curving line.
169. Flanged bowl. Pale grey, hard ware, with smoothed, dark grey-black surfaces.

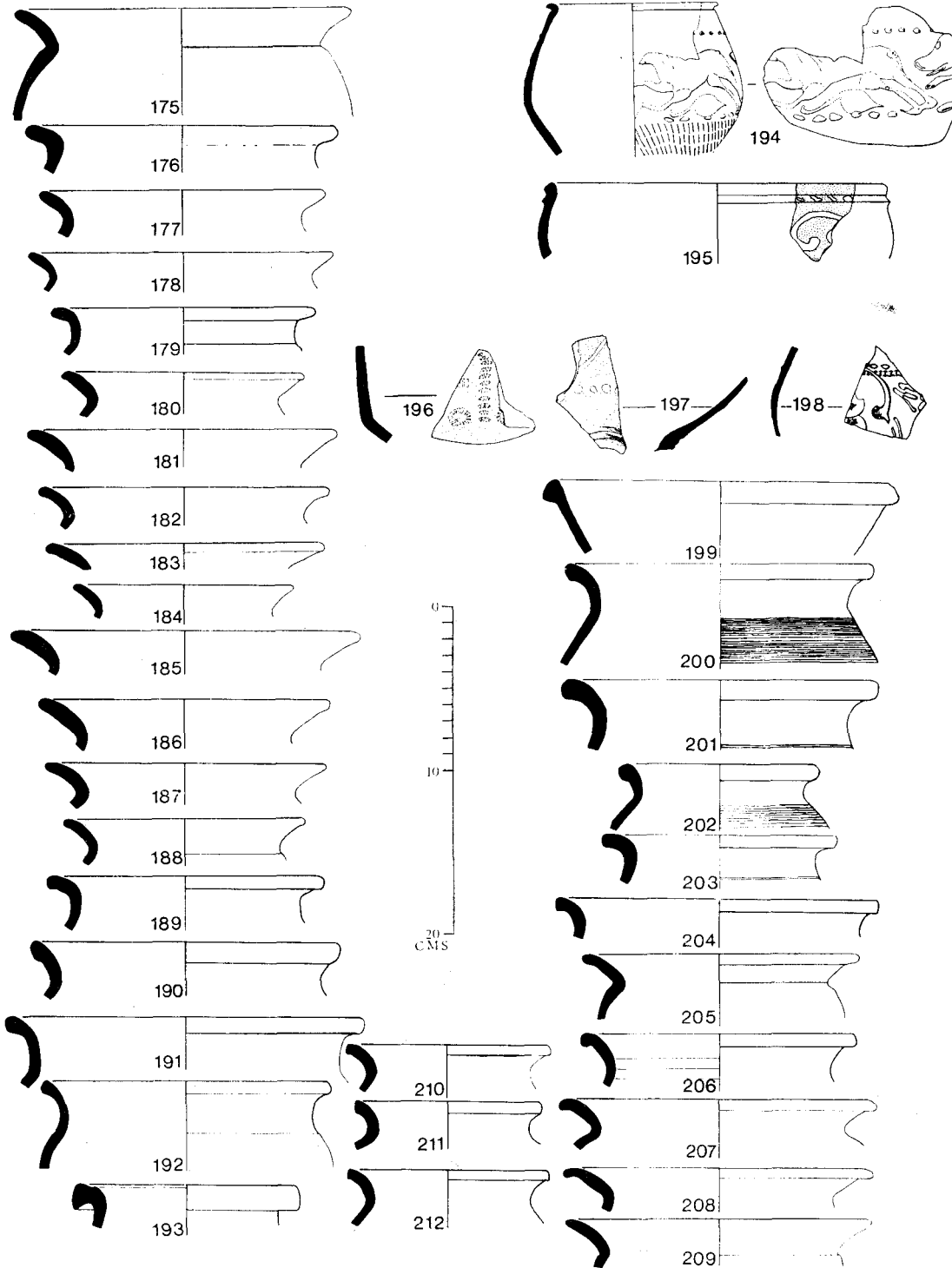


Fig. 39 Roman Palace. Coarse pottery Nos. 175-212 from deposits dating from the end of the palace ( $\frac{1}{4}$ )

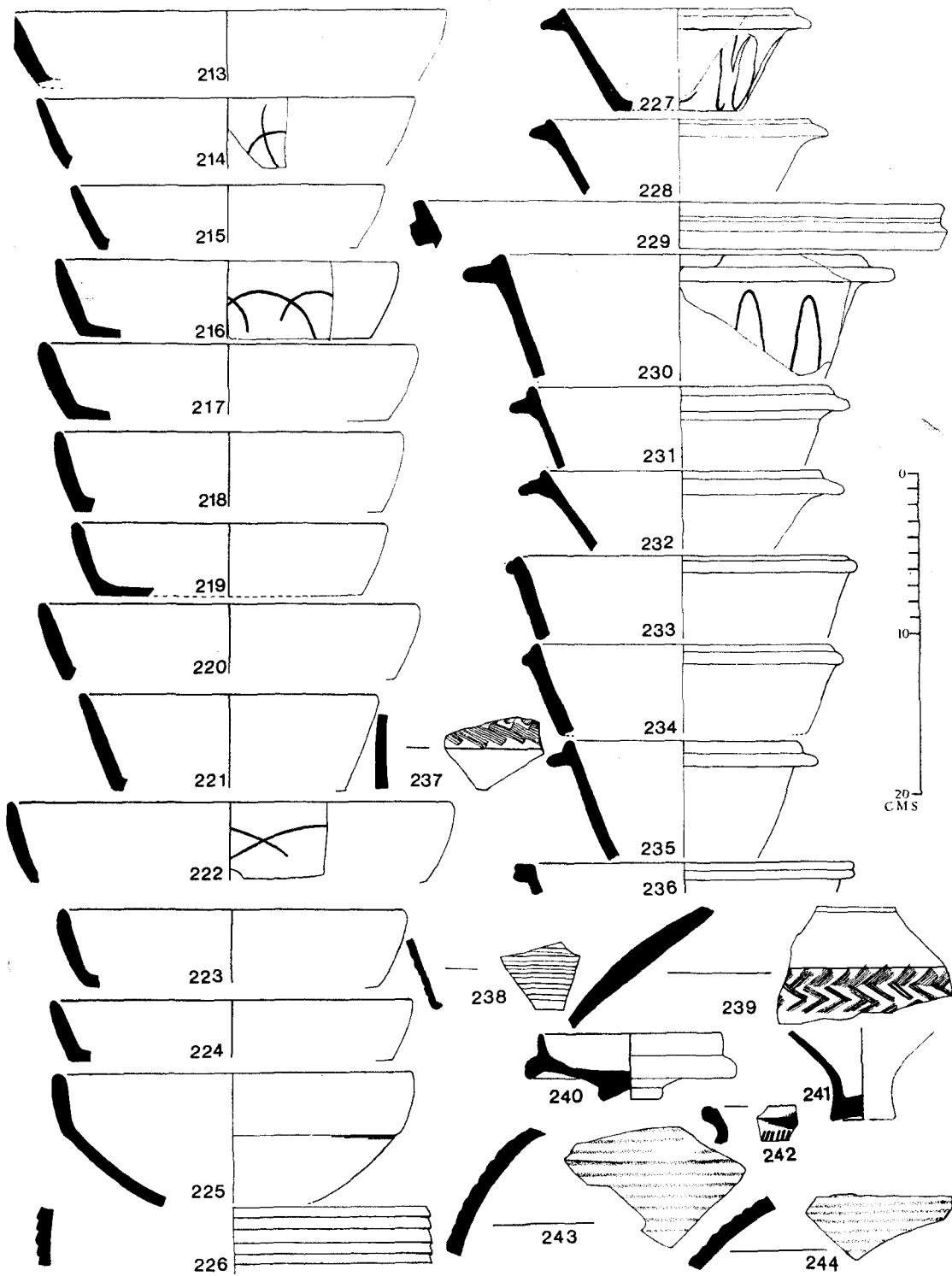


Fig. 40 Roman Palace. Coarse pottery Nos. 213-244, from deposits dating from the end of the palace ( $\frac{1}{4}$ )



170. Flanged bowl. Hard, fine, pale grey ware, the surfaces being dark grey and possibly coated with a slip.
171. Flanged bowl. Hard, pale grey ware with a darker grey core. The interior surface and the upper surface of the rim are covered with a black slip.
172. Flanged bowl. Hard, pale grey ware, the inner surface and the top of the rim having been coated with a dark grey slip.
173. Flanged bowl. Dark grey, sandy ware, the inner surface and top of the rim having been roughly burnished. The exterior surface is decorated with burnished curving lines.
174. Flanged bowl. Ware, burnishing and decoration similar to No. 173.
- (FIG. 39):
175. Jar. Hard, pale grey, sandy ware. The exterior and upper surface of rim are burnished and coated with a medium grey slip.
176. Jar. Hard, pale grey, sandy ware, with a medium grey core.
177. Jar. Soft, dark grey, coarse, sandy ware with lumpy surfaces.
178. Jar. Hard, fine, brown ware with pale grey surfaces.
179. Necked jar. Hard, grey ware, with burnished exterior and top of rim. Cordon at base of neck. This is a Flavian type.
180. Jar. Pale grey, hard ware. Top of rim is burnished; also the base of the rim on the exterior.
181. Jar. Hard, pale grey ware, with medium grey slip on upper surface of rim.
182. Jar. Medium grey, hard, sandy ware with black surfaces. The upper surface of the rim is coated with a black slip.
183. Jar. Pale grey, sandy ware, with black burnished surfaces.
184. Jar. Grey, sandy ware, burnished pale grey on exterior surfaces.
185. Jar. Dark grey, soft, sandy ware with black surfaces. Burnished black on upper surface of rim.
186. Jar. Hard, pale grey ware, with black burnish on upper surface of rim.
187. Jar. Soft, medium grey, sandy ware with black surfaces. Burnished black on upper surface of rim.
188. Jar. Hard, pale grey ware. The upper surface of rim is burnished grey.
189. Necked jar. Hard, pale grey, sandy ware.
190. Jar. Medium grey, sandy ware.
191. Necked jar. Hard, brown ware, with dark grey surfaces. The neck is decorated with three parallel black burnished lines.
192. Necked jar. Medium grey, fine, sandy ware. The outer surface is roughly burnished.
193. Jar. Pale grey, fine, sandy ware, with a burnished rim.
194. Beaker. Hard, fine, white fabric, with grey-brown slip inside and outside. The exterior surface decorated *en barbotine* with a hunting scene in which a dog is chasing, probably, a deer. Below this and just above the base is a zone of rouletting. This is probably of Antonine date; cf. Frere (1972, Fig. 122, Nos. 791-93, dated Antonine).
195. Bowl. Fine, hard, pink ware, with red colour coat on the surfaces. The exterior is decorated with cream-coloured lines, above a zone of rouletting; probably Oxford ware; cf. Cunliffe (1971, ii, Fig. 117, Type 349.1 dated late third-early fourth century).
196. Bowl. Fine, hard, pink ware with red colour coat on surfaces. Stamped and rouletted decoration on exterior. Probably Oxford ware; cf. Cunliffe (1971, ii, Fig. 117, Type 349.2 dated late third-early fourth century).
197. Bowl. Fine, hard, grey and pink ware, with external orange slip. White-painted exterior decoration.
198. Beaker. Hard, fine, pinkish-grey, Rhenish ware with grey, glossy surfaces. Decoration of rouletted lines and applied fine, white clay.
199. Bowl. Hard, fine, white ware, with orange-brown slip; cf. Chapman (1973, Fig. 10, No. 60, dated Antonine).
200. Jar. Soft, grey-brown ware with much shell grit of small size. The exterior below the neck bears a lightly combed horizontal decoration.
201. Jar. Soft, grey-brown ware with much shell grit of small size. Below the neck the exterior surface bears lightly combed horizontal grooves.
202. Necked jar. Hard, pale grey ware with lightly combed horizontal lines below neck on exterior surface.
203. Jar. Similar ware to No. 200, but with a different rim form.
204. Jar. Hard, pink ware with dark grey surfaces.
205. Jar. Fine, brown-grey ware with dark grey surfaces, the exterior below the rim and the upper surface of the rim are burnished; cf. Cunliffe (1971, ii, Fig. 119, Type 385, dated as late third-early fourth century).
206. Jar. Hard, pale pink, sandy ware, the rim burnt black.
207. Jar. Hard, grey ware, the upper surface of the rim burnt black.
208. Jar. Grey, sandy ware, the upper surface of the rim burnished black.
209. Jar. Grey, sandy ware, burnished as No. 208; cf. Cunliffe (1971, ii, Fig. 116, Type 329, dated late third-fourth century).
210. Jar. Grey, sandy ware, the lip burnt black.
211. Jar. Similar ware to No. 210.
212. Jar. Similar ware to No. 210.
- (FIG. 40):
213. Dish. Grey-brown, sandy ware, with black surfaces. The inner surface is coated with a black slip.
214. Dish. Hard, grey ware with black surfaces. The inner surface is burnished, and the outer decorated with curving burnished lines.
215. Dish. Hard, grey, sandy ware, with black surfaces, the interior being burnished.
216. Dish. Sandy, grey ware with black surfaces, the interior and the rim being burnished.
217. Dish. Hard, sandy, grey ware with black surfaces, the interior being burnished.
218. Dish. Hard, sandy, dark grey ware with black surfaces, the interior being burnished black.
219. Dish. Hard, grey-brown, sandy ware with black surfaces. The interior and rim are coated with a black slip.
220. Dish. Black, sandy ware, with black surfaces, the interior having been burnished.
221. Dish. Grey, sandy ware with black surfaces, the interior having a black slip.
222. Dish. Black, sandy ware, with dark grey surfaces, the interior having a dark slip.
223. Dish. Grey-brown, sandy ware with black surfaces, the interior having a black slip.
224. Dish. Hard, grey ware with black surfaces, the interior and upper half of the exterior having a black slip.
225. Bowl. Hard, pink ware with a grey core.
226. Amphora. Hard, sandy pink ware, the exterior half being buff coloured. The exterior surface is scored with obliquely-cut grooves.
227. Flanged bowl. Pale grey, sandy ware with dark grey surfaces, the exterior being decorated with burnished curving lines. The top of the rim and the interior surface are burnished.

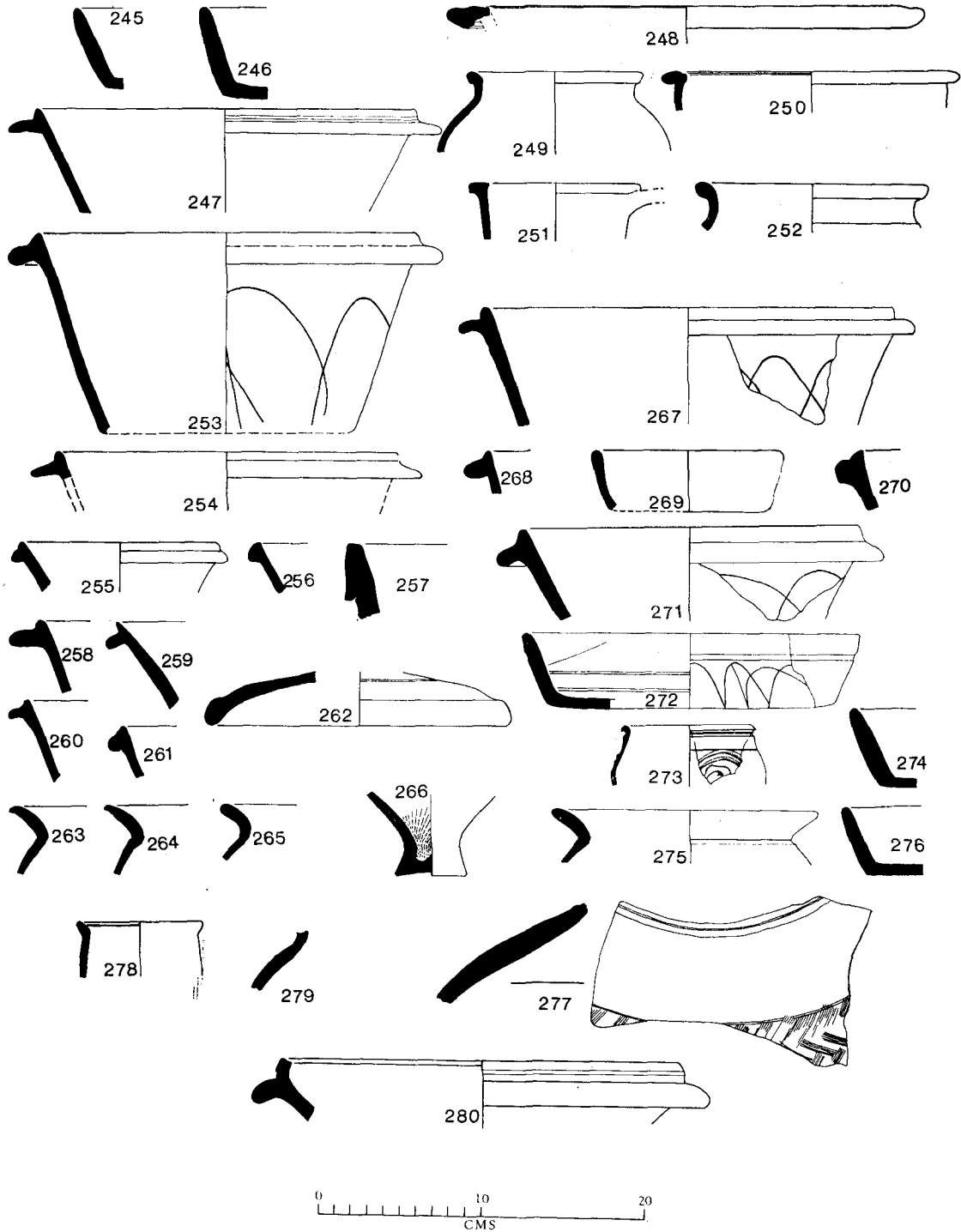


Fig. 41 Roman Palace. Coarse pottery Nos. 245-280, from deposits dating from the end of the palace ( $\frac{1}{4}$ )

228. Flanged bowl. Grey ware with dark surfaces.  
 229. Bowl. Hard, pink ware.  
 230. Flanged bowl. Pale pink ware with brown exterior. Pale grey slip on interior and top of rim. Exterior decoration of burnished curving lines.  
 231. Flanged bowl. Grey-brown, sandy ware, with dark grey surfaces.  
 232. Flanged bowl. Pale grey, fine, sandy ware with black surfaces, the interior and rim having been burnished.  
 233. Bowl. Pale grey, fine, sandy ware with black surfaces, the interior and rim having been burnished black.  
 234. Bowl. Pale grey ware, with grey exterior surface, the interior and rim having a pale grey slip. Burnt.  
 235. Flanged bowl. Hard, grey, fine, sandy ware with a pale core. Dark grey surfaces, the interior and top of the rim having been burnished.  
 236. Bowl. Hard, pale grey ware, with brown slip on rim.  
 237. Jar. Fine, grey, sandy ware with pale grey core. The exterior has a combed decoration (see also No. 239).  
 238. Barrel-like pot. Fine, hard, pinkish-grey ware with brown slip.  
 239. Jar. Fine, grey, sandy ware with a pale grey core. Cordon below broken neck, and combed decoration on the body of the jar (similar ware to No. 237).  
 240. Flanged bowl. Fine, sandy, pale pinkish-brown ware with a grey core, the rim bearing traces of a possible grey slip.  
 241. Beaker. Castor ware. Pinkish ware with a grey core, with a brown-dark grey slip on the surface.  
 242. Bowl(?). Fine, micaceous, burnt, grey ware with a red slip. Rouletting below the rim.  
 243. Amphora. Hard, buff-pale yellow ware, with a sandy grit. The exterior surface has rows of horizontal grooves each cut obliquely into the surface by a flat instrument.  
 244. Amphora. Hard, pink, micaceous ware with a scatter of sandy grit. The exterior surface has parallel grooves and the outer 1 mm is pale yellow-buff coloured.
- (FIG. 41):  
 245. Dish. Light grey, fine, sandy ware. Highly burnished internally and over rim.  
 246. Dish. Light grey, fine, sandy ware. Black-burnished and slipped internally and over rim. Roughly burnished externally with a medium grey surface.  
 247. Flanged bowl. Light grey, fine, sandy ware. Evenly slipped and black-burnished internally and over rim and flange. Roughly burnished externally.  
 248. Reeded rim of large bowl. Pale orange, fine, sandy ware with sparse, dark orange grogging and buff/pale orange upper surface. Patch of burning below rim.  
 249. Jar. Pale-medium grey, fine, sandy ware with dark grey external surface.  
 250. Bowl. Pale grey, fine, sandy ware with darker grey surfaces.  
 251. Flagon. Pinkish-buff, fine, hard, sandy ware with orange core. Strap-handle applied below rim.  
 252. Jar. Pale grey, fine, soft, sandy ware. Patchy grey-black burnishing externally and over rim. Pale brown surface internally.  
 253. Flanged bowl. Pale grey-buff, coarse, hard, sandy ware. Evenly black-burnished internally and over rim. Burnished decoration externally.  
 254. Flanged bowl. Pale grey, hard, sandy ware with dark grey surfaces. Burnished internally and over upper rim-surface.  
 255. Flanged bowl. Similar ware to No. 254.  
 256. Bowl. Fine, buff, very hard, sandy ware. Reddish brown, glossy colour-coated surfaces.
257. Amphora. Patch, orange-grey, hard, coarse, sandy ware. Thin white slip applied to external surface.  
 258. Flanged bowl. Medium grey, hard, sandy ware. Burnished internally and on upper surface of rim. Rough burnishing externally.  
 259. Flanged bowl. Fine, hard, pale grey ware. Medium grey surfaces burnished overall.  
 260. Flanged bowl. Orange, fine, sandy ware with reddish-brown burnished surfaces.  
 261. Flanged bowl. Buff-grey, fine, hard, sandy ware. Black-burnished internally and over rim.  
 262. Lid. Fine, hard, grey, sandy ware. Grey-black surfaces burnished externally.  
 263. Jar. Pale grey, fine, slightly micaceous, sandy ware with buff-pink core in parts. Buff-grey, smooth surfaces with traces of burnishing on upper rim surface.  
 264. Jar. Pale grey, fine, hard, sandy ware. Slipped and highly burnished silver-grey over upper rim surface and externally.  
 265. Jar. Pale grey, fine, hard, sandy ware, burnt on rim. Burnished grey over upper rim-surface and externally.  
 266. Beaker. Pale orange, very hard ware with fine sand. Reddish-brown, glossy colour-coat externally.  
 267. Flanged bowl. Dark grey, sandy ware with black surfaces. Burnished internally and on upper surface of rim. Burnished decoration externally.  
 268. Flanged bowl. Pinkish-grey, coarse, sandy ware. Traces of grey burnished slip overall.  
 269. Dish. Grey, fine, hard, sandy ware. Black burnished slip internally and over rim. Burnishing externally.  
 270. Flanged bowl. Pale grey, fine, hard, sandy ware. Deep grey burnish internally and over upper rim. Other surfaces medium-grey.  
 271. Flanged bowl. Dark pinkish-grey, fine, hard, sandy ware. Black burnished and slipped internally and over upper rim-surface. Grey-black externally with burnished decoration.  
 272. Dish. Grey, fine, hard, sandy ware. Black slipped and burnished internally and over rim, with burnished decoration externally.  
 273. Beaker. Very hard, greyish-pink ware with fine sand. Dark buff finely slipped external surfaces, deep grey internally slipped surface. Applied barbotine decoration. Burnt (?) Castor (?) ware.  
 274. Dish. Pale grey, coarse, hard, sandy ware. Black burnished slip internally. Deep grey surfaces externally.  
 275. Jar. Dark grey-buff, hard, sandy ware. Black burnished on rim and external surfaces.  
 276. Dish. Pale grey, fine, hard, sandy ware, burnt in patches. Traces of burnished slip internally and over rim. Burnished linear decoration underneath.  
 277. Storage jar. Pale grey, hard, fine, sandy ware with medium grey external surface. Combed decoration on body.  
 278. Beaker. Pale orange, soft, fine ware, with reddish-brown surfaces. Upper rim and external surface finely burnished.  
 279. Jar. Coarsely gritted, hard, grey ware. Hand-made. Lumpy surfaces, patchy buff-orange to grey with rough external burnishing. (?) Saxon type.  
 280. Mortarium. Creamy-buff, hard, sandy ware. Buff-orange surfaces with coarse flint grits internally.
- Dating:* This group contains jars and bowls of types which can be paralleled elsewhere in fourth century deposits (e.g. Sheldon 1971), a date which is confirmed by the inclusion of red colour-coated ware probably from the Oxford region. The types generally do not look too developed, and the dumping probably occurred during the fourth century.

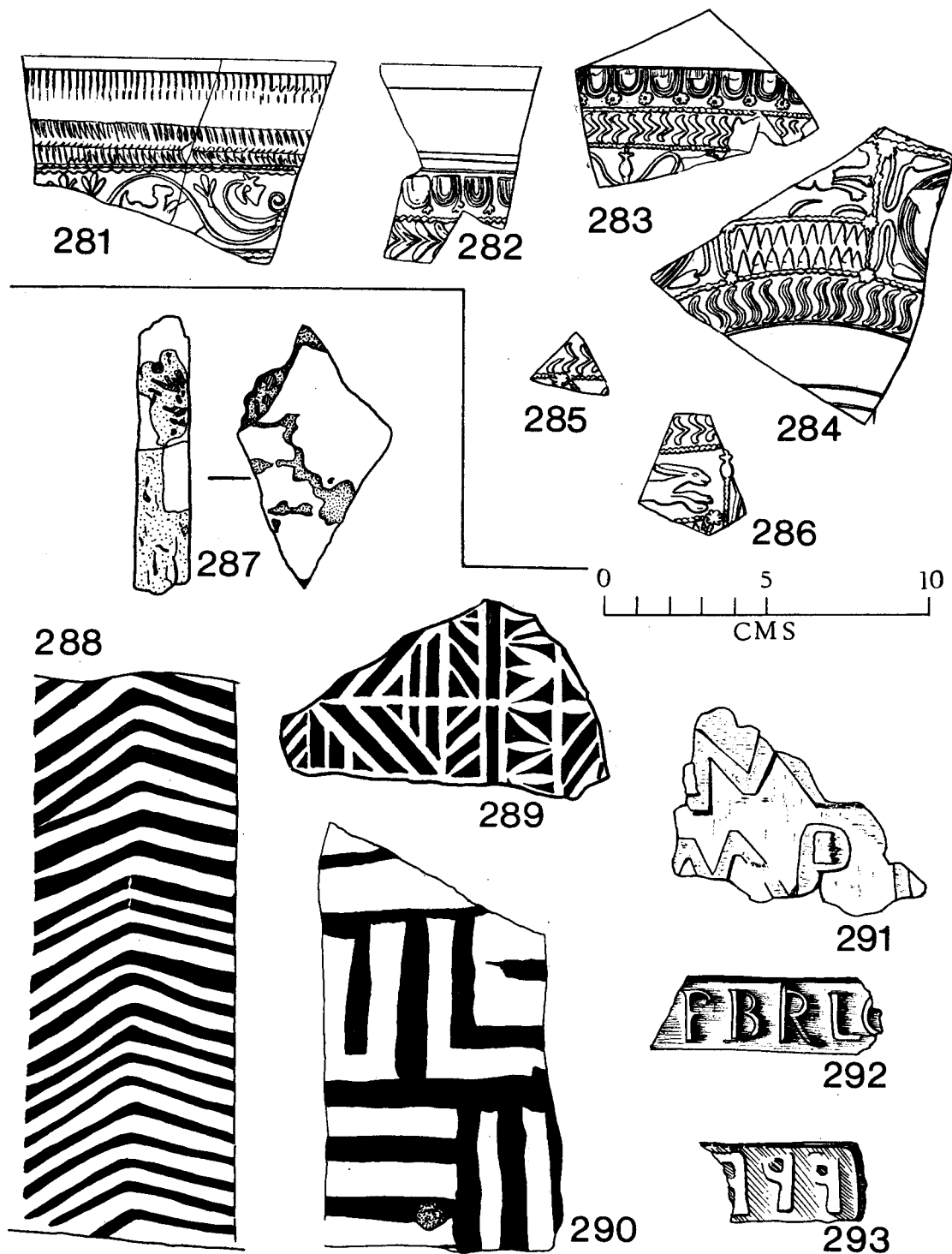


Fig. 42 Roman Palace. Samian ware Nos. 281-286. Building materials and stamped inscriptions Nos. 287-293 ( $\frac{1}{2}$ )

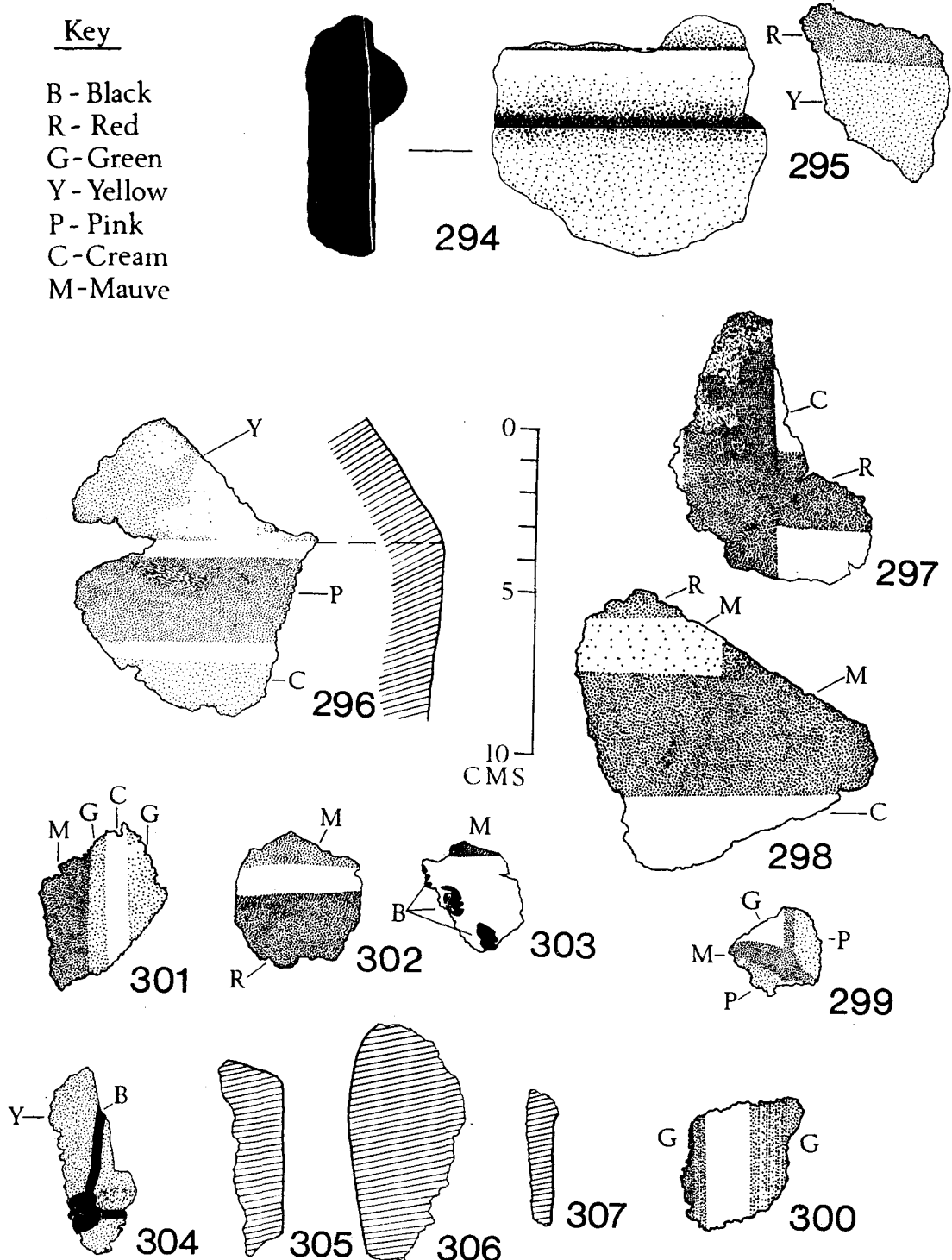


Fig. 43 Roman Palace. Wall decoration Nos. 294-307, stucco (294), painted wall plaster (295-304), and plaster mouldings (305-307) ( $\frac{1}{2}$ )

## SAMIAN WARE (Fig. 42):

E.R. 964 (Pit 1, Fig. 5):

## SOUTH GAULISH WARES:

## DECORATED:

281. FORM 29. Portion of rim, with running scroll and dog in upper frieze; cf. Oswald (1936, Type 1970). Moniform binding. Early Flavian. Eight other fragments of Form 29, all Flavian and earlier.
282. FORM 37. Portion of rim; double ovolo with trifid tongue, wavy line below; below this is a zone of "double leaves". Mr. B. R. Hartley states that this particular ovolo does not appear in the Pompeian hoard of A.D. 79, but is found at Inchtuthill, A.D. 83-90. It is likely, therefore, to be after A.D. 80.
283. Portion near rim; double ovolo with tongue ending in eight-pointed rosette, with hollow centre; zone of debased "double leaves" below, between beaded lines; below this in central zone is formal device with loops and terminal bud, probably alternating with panels. Mr. B. R. Hartley states that this ovolo with large rosette is common to the Pompeian hoard of A.D. 79 and Agricola's fortresses, including Newstead and Inchtuthill. It should, therefore, be dated A.D. 75-85.
284. Portion near base, apparently of same bowl, has in central register panel with running animal above panel of "arrow-heads", alternating with roundels; below is a frieze of S-shaped gadroons. Early Flavian.
285. Small piece of frieze of debased "double-leaves" with rosette on cable below. From same bowl. Flavian. Seven other fragments of Drag. 29; three of Drag. 37; seven of Drag. 29 or 37; one of Drag. 30 or 37; one of Drag. 35.
286. Portion of central zone with hare running to right in panel defined by cable with terminal bud, rosette near corner below; above is frieze of debased "double-leaves". From same bowl as No. 283.

## UNDECORATED (not illustrated):

Plain forms include Drag. 18 (four, possibly seven); Drag. 27 (three, possibly five); Drag. 33 (two). None of these seem to be later than the Flavian period.

## CENTRAL GAULISH:

There is one sherd of early Lezoux ware, featureless but possibly part of a bowl, with a light buff body and a brilliant orange glossy surface, comparable in quality with the best South Gaulish samian.

## BUILDING MATERIALS (Fig. 42):

287. Diamond-shaped white stone element of *opus sectile*. Pink and white mortar adhering to the stone. Although found in a deposit (E.R. 792) post-dating the Roman palace (p. 75) this item is likely to be of early Roman date, probably even pre-dating the palace itself; cf. Cunliffe (1971, ii, 34-35).
288. Roller design impressed into a red flue tile. Note the flaw in two adjacent V hollows. This was found in the rubble filling in the hypocaust of Room A in the post-palace building in Area 2 (p. 75); also Fig. 11, Section 4, Layer 2). This is Lowther's patterned flue tile Group 9, Die No. 36, examples of which have been found at Verulamium and Elstree; Lowther (1948, 17, 35).
289. Roller design impressed into a fragmentary flue tile. Found in the fourth century dumped filling (E.R. 976) of Room 15 (p. 77). This is Lowther's patterned flue tile Group 1, and a variant of Die No. 3 which has also been recorded in London and Silchester; Lowther (1948, 17, 25).

290. Roller design impressed into a fragmentary flue tile. Found in the fourth century dumped filling (E.R. 976) of Room 14 (p. 77). This is Lowther's patterned flue tile Group 6, and is similar to Die No. 24 which is found at Cobham in Surrey, Angmering and High Down in Sussex; Lowther (1948, 17, 31).

291. Stamped, ligatured inscription on a fragment of red tile which Mr. R. P. Wright has identified as follows:

[D] MVAL  
[D] MP

and it is a variant of a similar stamp found at Bishops-gate and on Treasury Green in London, though the letters on the tile from the Roman Palace are narrower. The tile was found in the general fourth century dumped filling (E.R. 974) of Room 14 (p. 77).

292. Stamped inscription on a red brick, which reads: [P]·P·BRI·LO[N]. Found with a large group of Flavian pottery (E.R. 1121) in a deposit in Room 34, which seems to have been disturbed but little contaminated during the early medieval period (p. 16). It is highly probable, therefore, that the stamped tile dates from the first century A.D.
293. Stamped retrograde inscription on a red brick, which reads P P B [R LON]. This broken tile was found re-used in a rough hearth in Room 14 (p. 77). White mortar is adhering to the tile and, as the hearth was not mortared, it is clear that the mortar relates to the former use of the tile.

## WALL DECORATION (Fig. 43):

## STUCCO:

294. Portion of moulded stucco, found in one of the dumped deposits (E.R. 723) in the great pool, Feature 46, the deposition of which presumably dates from the end of the palace phase (p. 76). The stucco moulding was laid on coarse, white, sandy mortar with an even surface, the surface layer and the rib moulding being formed of a very fine, white cement. This was covered with a thin layer of white paint, the brush strokes following the moulded rib. Similarly moulded stucco has been found in the audience chamber of the Roman palace at Fishbourne; Cunliffe (1971, ii, Fig. 26, No. 4).

## PAINTED WALL PLASTER:

Small fragments of painted wall plaster were found, few of which give any significant indication of the interior decoration of the palace, if that is the building from which they are derived. Nevertheless, a sample is illustrated here as an indication of the decorative schemes.

295. Red zone adjoining a dirty yellow zone (E.R. 975). Found in the fourth century dumped filling of Room 14 in a deposit overlying a rough tile hearth (Fig. 19, Section 12, Layer 3).
296. A carinated plaster moulding (see drawn section), with a white line following the ridge. On one side a yellow surface, and on the other a secondary pointing of a pale pinkish-mauve zone is separated from a cream-coloured zone by a thin, white line, all of which has been painted over a yellow primary colouring (E.R. 895). Found re-used in the curved wall forming the north side of Room 29 in the south wing of the palace (Fig. 21).
297. Two broad, red bands on a white background, suggesting a wall decoration of panels framed by red borders (E.R. 674). Found in the filling of the robbed wall of the multi-angular Room "A" of the post-palace building in Area 2 (see Fig. 11, Section 4, Layer 5; and Fig. 32).

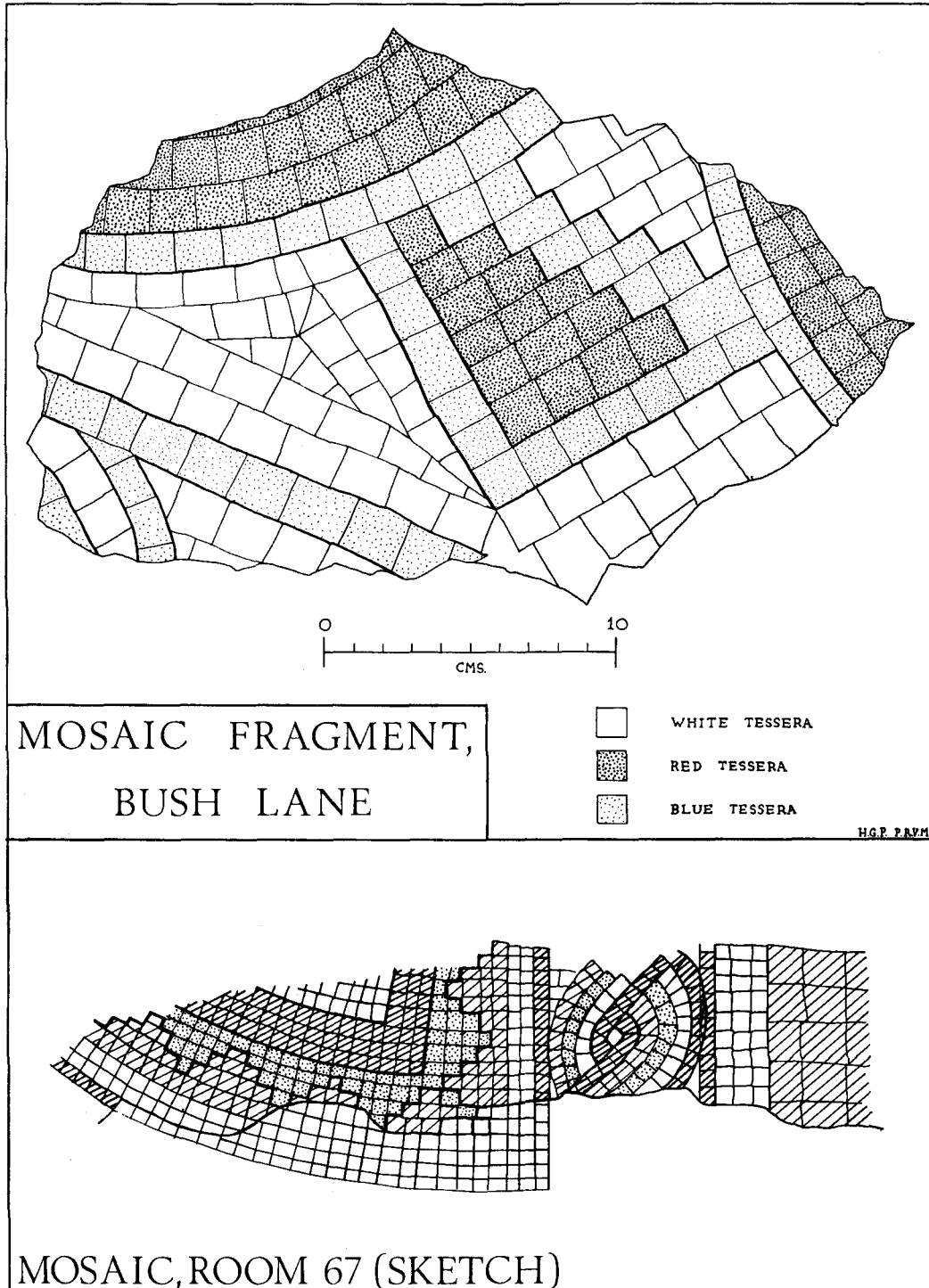


Fig. 44 Roman Palace. Mosaic fragment found in Bush Lane in the seventeenth century (p. 99), and sketch of mosaic fragment found in room 67 (Fig. 26 and Plate 4)

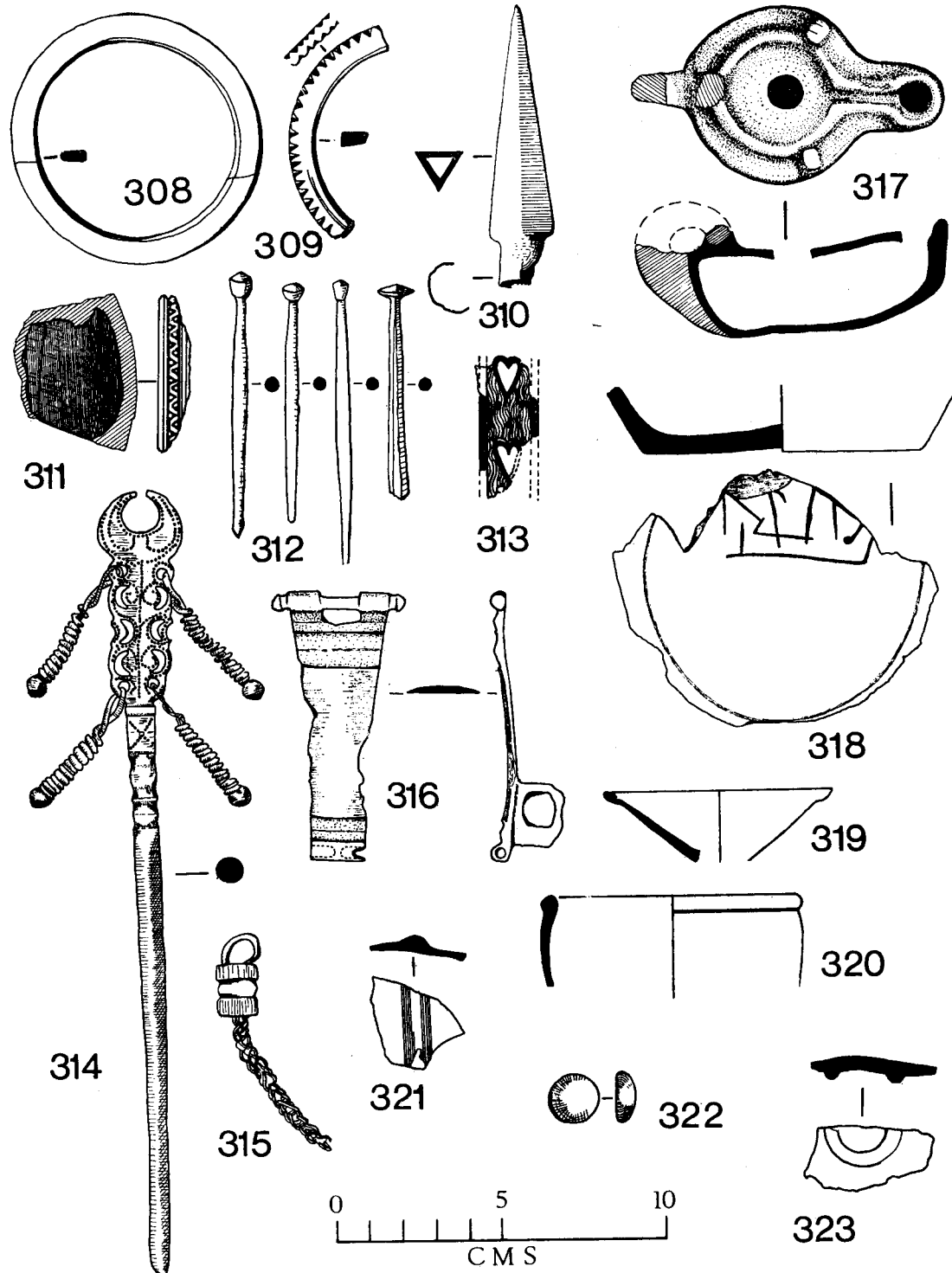


Fig. 45 Roman Palace. Miscellaneous small finds, Nos. 308-323, including glass (319-323) ( $\frac{1}{2}$ ) except 314-315 (1/1)



298. A broad, mauve band with a zone extending at a right-angle. On one side of the band a thin, mauve wash over a white ground beyond which lies a red zone; on the other side a cream colour painted over mauve (E.R. 673). Found in the rubble filling of the hypocaust of the post-palace building, Room "A", in Area 2 (Fig. 11, Section 4, Layer 2).
299. A green ground on which pink and mauve zones have been painted (E.R. 673). Found in the same deposit as No. 298.
300. A white ground on which two pale lime green zones have been painted (E.R. 673). Found in the same deposit as No. 298.
301. A deep mauve ground on which has been painted a muddy, pale green zone, and on that a thin, white line (E.R. 673). Found in the same deposit as No. 298.
302. A white ground on which a pale mauve zone and a red zone have been painted (E.R. 976). Found overlying the mortar floor of Room 14 (Fig. 19, Section 12, Layer 12).
303. A white ground with three black-painted splashes, and the edge of a mauve zone (E.R. 976). Found in the same deposit as No. 302.
304. The corner of a decorative panel delineated in black on a yellow ground (E.R. 975). Found in the same deposit as No. 295.
- PLASTER MOULDINGS:**
305. An acute-angled corner, the angle painted red with an adjacent white and green zone on one side (E.R. 996). Found in the same deposit as No. 302.
306. A rounded moulding painted white (E.R. 895). Found in the same structure as No. 296, though possibly not re-used.
307. A right-angled corner, coated with red which obscures an earlier yellow colouring (E.R. 976). Found in the same deposit as No. 302.
- MOSAIC FRAGMENT, FOUND IN BUSH LANE ON UNLOCATED SITE (FIG. 44):**
- Details of a fragment of a Roman mosaic found long ago are recorded in Aubrey's manuscript volume *Monumenta II* in the Bodleian Library (MS. Top Gen. C.25, p. 108); and grateful thanks are extended to Julian Munby and Dr. Martin Henig for sending details, including a copy of the manuscript. The fragment is re-drawn here for reproduction (Fig. 44). The handwritten annotation which accompanies the original drawing is as follows:
- "In London in Bush-Lane, about twenty foot deep, was found this pavement of opus tessellatum, which was bedded in playster, which lay on large square bricks, equilaterally square; and that was bedded in a chalke mortar. Two pieces whereof are preserved in the Repository at Gresham-College, from whence I tooke this draught: first of the bigness: but whereas the partition black; there they are white . . ."
- "The red Tessella are little pieces of Brick. The blew Tessilla are little pieces of blew Lyass: which should have been coloured with a dirty blew, as Indico. The white Tessilla, little pieces of hard white marle."
- If the depth of 20 ft (6.1 m) is correct then this will rule out the possibility of the pavement having been found near Cannon Street, and, indeed on this basis, it could not have been significantly north of Scott's Yard.
- MISCELLANEOUS OBJECTS (FIG. 45):**
308. Shale bracelet. From the fourth century dumped deposits (E.R. 974) in Room 14 (Museum accession No. 24797).
309. Jet bracelet. Unstratified Roman period from the palace site (Museum accession No. 21826).
310. Iron pilum head(?) triangular in section and socketed at one end, probably for a wooden shaft. Unstratified Roman period from the palace area (Museum accession No. 21827).
311. Jet plate or dish with an incised internal decoration, and an incised external decoration just above the base. Found in the fourth century dumped deposits in Room 14 (E.R. 976) (Museum accession No. 24854).
312. Four bone pins, found in the fourth century dumped filling of Room 14 (E.R. 976) and Room 13 (E.R. 977). From left to right the deposits in which they were found are: E.R. 977, E.R. 976, E.R. 977.
313. Knife handle(?), formed from a central iron plate 2 mm thick, which has been pierced to take two hollow heart-shaped, bronze decorative fittings, and covered between the hearts with plates of horn riveted to the central iron plate. Found in the fourth century dump in Room 15 (E.R. 977).
314. Pin of bronze, decorated with an openwork head and four hanging pendants. This was found unstratified in the test hole which disclosed the timber structure Feature 50 (Fig. 29) (Museum accession No. 21664). Similar pins have been found in London in the past though not from a dated context; (*cf. London in Roman Times*, Fig. 32, No. 3 for a pin found at Poultry; and *Guide to the Antiquities of Roman London*, Fig. 14, No. 13, for a pin found in Walbrook).
315. Bronze chain, 0.274 m long, with a ring terminal at one end, the other end being broken. Roman, found unstratified in the palace area in Upper Thames Street (Museum accession No. 21236).
316. Decorative bronze hinged lock fitting, possibly for a box. Found in the grey, loamy soil, overlying the natural gravel, which was cut by the east foundation of the corridor, Room 13. This, therefore, predates the palace and is of first century date.
317. Lamp. Fine, pale yellow ware with a light brown slip. Unstratified find from Upper Thames Street in the palace region. This is Type 111A in the London Museum type series (*London in Roman Times*, Fig. 15) and is dated to the Flavian period (Museum accession No. 21679).
318. Base of a soft, dark grey ware cooking pot, on the underside of which is the *graffito* identified by Mr. R. P. Wright; Wright (1967, 210), as:
- ARIIA
- Found unstratified on the Dyers Arms site (E.R. 1123) (p. 14). Probably first century A.D.
319. Glass. Rim or base of clear glass vessel, with folded lip. The glass surface is crazed into roughly square or rectangular segments. Found in Pit 2 (E.R. 962) of first century date (p. 13).
320. Glass. Rim of straight-sided bowl. Colourless, somewhat milky glass; *cf. Tatton-Brown* (1974, Fig. 35, No. 8). Found in Pit 2 (E.R. 962), of first century date (p. 13).
321. Glass. Side of green glass, pillar-moulded bowl. Found in the fourth century dumped filling of Room 14 (E.R. 976), though the glass type is characteristic of the late first and early second century. (p. 77).
322. Glass. Small, pale blue glass counter. Found in the grey-black silt (E.R. 724) immediately overlying the concrete floor of the great pool (Feature 46, p. 76).
323. Glass. Foot ring and flat base of a clear glass vessel. Found in the fourth century dumped filling of Room 14 (E.R. 976) (p. 77).

## THE GOLDSMITHS DEBRIS (Fig. 46)

Prior to the construction of the east wing of the Roman palace (Area 4) a goldsmith seems to have set up a workshop in the area. No structural remains of this were found, apart from the timber-lined Well 2 (p. 12) and Pit 1 (p. 12), the pottery from both indicating a date in the second half of the Flavian period for their filling in (p. 85). Thanks are extended to Miss Mavis Bimson of the British Museum Laboratory who examined the goldsmith's debris and from whose notes this description has been written.

Part of the filling of Pit 1 (E.R. 964) consisted of a layer of wood ash, and in this were found most of the objects connected with gold working. These consisted of parts of two crucibles and three crucible lids. One of the crucibles (Fig. 46, No. 330) was examined at the British Museum Laboratory, and was found to be impregnated with gold. The other (Fig. 46, No. 324) had clear traces of gold on its inner surface. Large crucibles and the three lids (Fig. 46, Nos. 327, 328 and 330) were partly covered with traces of the baked clay luting which had originally sealed the lid to the crucible making a gas-tight joint. On these fragments of baked sealing clay were found impressions of a mould with representations in relief of a lion facing a boar within a rectangular panel measuring 20 mm by 69 mm (Fig. 46, No. 332). Another mould was represented by a more fragmentary impression representing a double fish tail, probably of a hippocampus (Fig. 46, No. 336). These moulds show detail of a high quality and may well have been for the production of decorative plaques in precious metal. Their use on the clay luting may have been for amusement in an idle moment, or, as they were mostly located at the junction of the lid and crucible, they are more likely to have served a practical purpose as a seal to protect the refining crucible with its valuable contents from pilferers.

The method of refining was one which was still in use in the sixteenth century, and is described by Ercker in his *Treatise on Ores and Assaying*. A layer of brick-dust or similar absorbent material called "cement" was placed on the bottom of the crucible, and on this was laid the gold which was to be refined. A further layer of "cement" was placed over and around the gold.

Additional alternative layers of gold and "cement" could be laid above this. Organic acids such as urine were then added, and the lid was hermetically sealed to the crucible by a clay luting. The crucible was then heated for a considerable time, during which the impurities present in the gold were dissolved by the acid fumes and were absorbed by the "cement", leaving pure refined gold. The small crucible (Fig. 46, No. 324) does not have any trace of luting, and was most likely used for melting the refined gold.

## OBJECTS SHOWN IN FIG. 46:

324. Small cup-shaped crucible with traces of gold on its interior surface (Museum accession No. 24503).
325. Fragmentary top of a crucible lid in which a hole has been plugged by the clay luting. The clay is burnt pink and contains the impressions of fine blades of grass or similar plant material (Museum accession No. 24511).
326. Lid of crucible, the top of which is missing (it was not No. 325). Burnt to a pale mauve-pink colour, particularly internally, and the exterior surface bearing traces of brown-buff clay luting which has the impressions of grass or similar plant material (Museum accession No. 24510).
327. Crucible, burnt to a mottled dark mauve colour on the external surface, while the interior is burnt to a pale pinkish-mauve. There is a trace of baked clay luting on the external surface of the rim (Museum accession No. 24507).
328. Crucible, similar ware to No. 327, but with rather more baked clay luting on the external surface. The clay contains the impression of much grass or similar plant material (Museum accession No. 24508).
329. Lid of crucible which is a pale mauve-pink colour and internally the surface is crazed by heat. The exterior surface has portions of clay luting with the impression of grass or similar plant material (Museum accession No. 24509).
330. Crucible, similar to No. 327, but with much baked luting adhering to the external surface, the clay containing grass or similar plant material. There are traces of gold on the lower internal surface of the crucible (Museum accession No. 24506).
331. Luting of baked clay mixed with grass or similar plant material. This is one of two pieces found in Pit 1, and each bears the external impression of the crucible and also the form of the crucible lid. The fragments show that the luting was placed in position around the crucible and its lid in two stages. Firstly, the body of the crucible below the rim was covered with a layer of clay luting its thickness being equal to the projecting rim. And, secondly, another layer of luting was applied to the outside of the crucible and up and over the lid. The final stage was the impressing of a series of rectangular moulds around the junction of the crucible and the lid (see also Plate 6, 7), the individual moulds being shown in Nos. 332-36 (Museum accession Nos. 24514, 24515).
332. Stamp impression of a lion (right) facing a boar.
333. Stamp impression of a boar probably facing a lion.
334. Stamp impression of a lion probably facing a boar. This is a different stamp from Nos. 332 and 335, as the lion's tail is shown in a straighter line.
335. Stamp impression of a lion, probably facing a boar.
336. Stamp impression probably of a hippocampus.

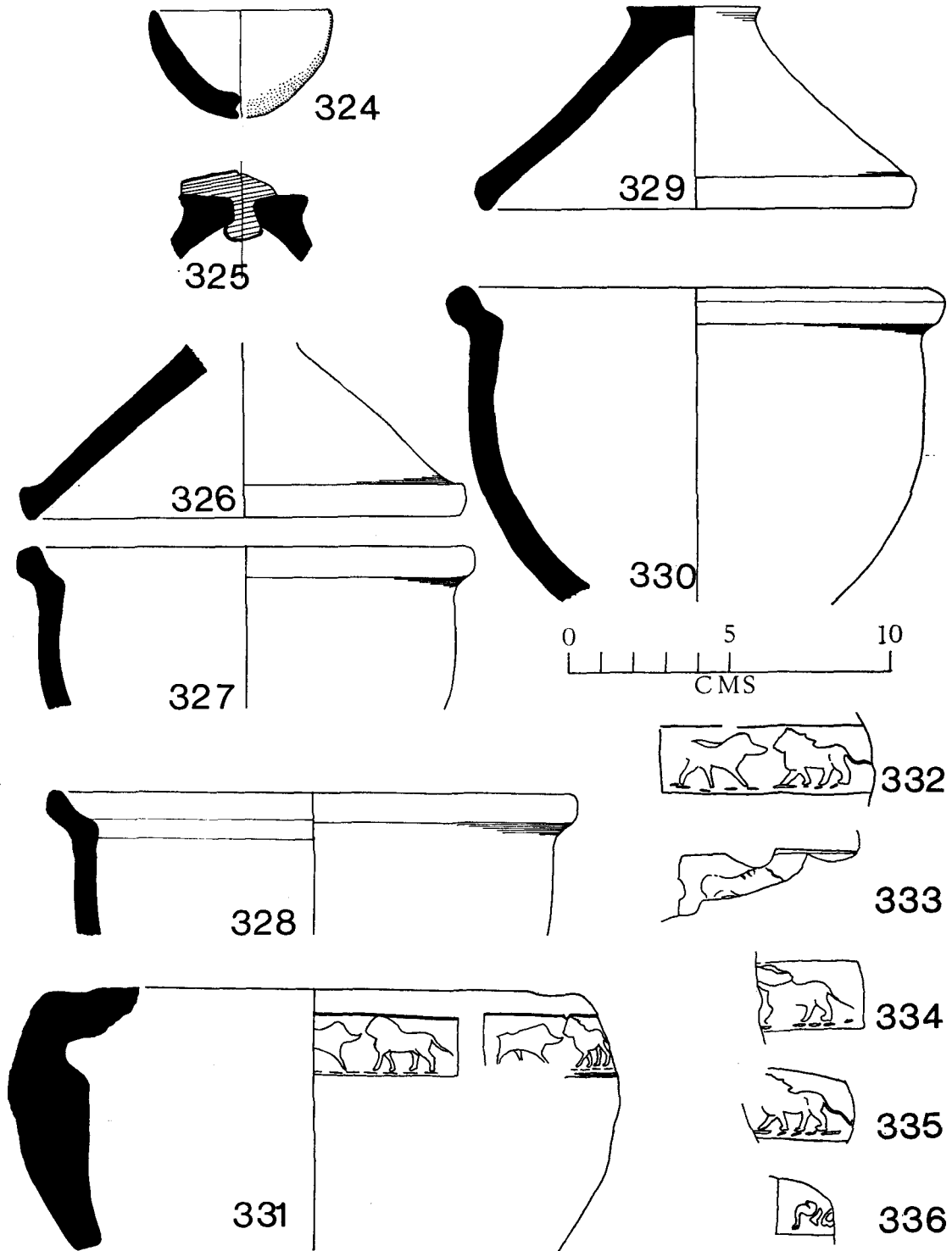


Fig. 46 Roman Palace. Debris from goldsmith's workshop of Flavian period, from Area 4, Pit 1 (½)

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