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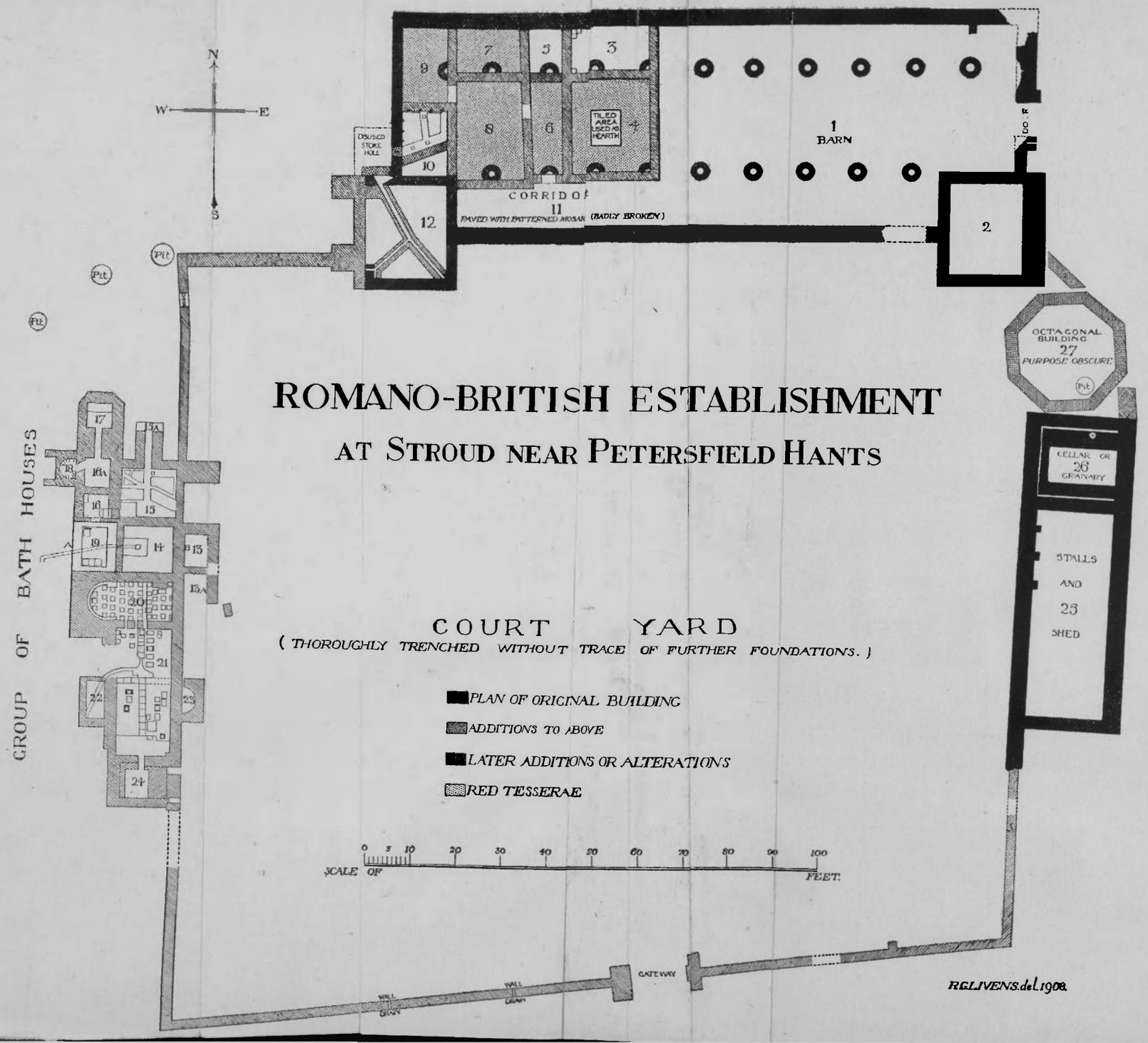


THE ROMANO-BRITISH ESTABLISHMENT AT STROUD, NEAR PETERSFIELD, HANTS.[1]

By A. MORAY WILLIAMS, B.A.

I have the honour of presenting to the Institute my report on the completed excavation of the large Romano-British building at Stroud, near Petersfield, in Hampshire, a preliminary notice of which appeared in the *Archaeological Journal* last year.[2]

From the evidence of many legible coins, ranging from Victorinus to the younger Constantine,[3] we may reasonably infer that this house is typical of the real "villa" period of Roman Britain, belonging, that is, to that period of a hundred and fifty years of immunity from barbarian raid which followed the death, in A.D. 211, of Septimius at York, a period in which the romanization of the native Briton reached its culminating point. There is little or no supplementary evidence in the general character of the smaller finds; for this excavation has yielded no fibulae or embossed Samian pottery, and the one or two pits discovered were quite shallow and contributed nothing of especial interest or value.

This house was further situated in a region where those romanizing influences had been allowed, from the earliest days of annexation, an almost uninterrupted course, the region of the Belgae, Regni and Atrebates, whose early acquiescence in the invader's rule was from both points of view an obvious necessity. From Silchester (Calleva Atrebatum) important highways radiated west and south to Gloucester (Glevum), Bath (Aquae Sulis), Sarum (Sorbiodunum) and Exeter (Isca), Winchester (Venta Belgarum) and Bitterne (Clausentum), the branching roots, as it were, of those greater roads which east and west of them pushed

[1] Read before the Institute, February 3rd, 1909

[2] lxv, 57–60.

[3] A.D. 260–340.

their way to that hub of the Romano-British universe, the Wall.

With the heterogeneous military life that gathered at the Wall this establishment has no concern; for that was the Britain of the provincialized Roman. This Petersfield house belongs rather to a condition which the Wall produced: it belongs to the Britain of the romanized provincial. Here, in the south, the native learnt the benefits of security of life, and here accordingly we must expect to find development proportional to such security. A glance at Professor Haverfield's map in the *Victoria County History of Hampshire*,[1] enables us to realize in some part the extent of that development. In all this district we find traces of a vigorous rural life, fertilized by Roman influence. We find the potter, the fuller and the farmer, together with the more noble native owner of a pretentious Roman name, filling this region with workshop, farm, and private residence. And perhaps the chief feature in these parts was agriculture. Such at least is the evidence of the spade. A large proportion of these excavated Hampshire district homes show buildings which beyond all doubt have served the purpose of a farm. And more than that, they show a certain uniformity of plan. The more we examine these rural habitations in their plan, the less the terms "courtyard" and "corridor" appear to satisfy, and the suggestion comes with increasing force that here, perhaps, we may trace a prototype of both. Any conclusions as to this are doubtless highly premature, but it is because I feel that this house at Petersfield throws further light upon that question that I have thought it necessary to preface its description with these introductory remarks.

Let us pass on to see how far its architectural detail bears them out.

The plan (plate I.) shows three groups of building and an enclosing wall pierced in its centre by the main entrance gateway to the yard that is thus contained. Each of these groups reveals a feature of especial interest and importance, and we will consider each in turn.

[1] i, 266.

A. THE NORTHERN BLOCK.

There is a twofold reason for selecting first the northern block of buildings opposite the gate. In the first place it contains the dwelling-house, and secondly, it is here that I shall seek to justify my introductory remarks. Its western portion was completely excavated in 1907, forming, as subsequent investigation proved, a complete group, in fact, a small house of the "corridor" type, with nine rooms on the ground floor and possibly some more above. To this we will return.

The eastern portion, next attacked, revealed an unfloored oblong space of 84 by 50 feet, with two parallel rows of circular sandstone bases running the whole length of its interior, and with an entrance in its eastern wall. This in itself was not remarkable. It furnished but another instance of such rude columned areas occurring in these rural homesteads of Roman Britain, and more particularly of this Hampshire region. They served no doubt as barns, and we may take it that they point, in the majority of instances, to a farm. Such have occurred at Clanville,[1] Thruxton[2] (no plan extant), Castlefield,[3] West Dean,[4] Holbury,[4] Brading,[4] and Carisbrooke[5] in Hampshire alone (see figs. 1–4); while from examples elsewhere we may select Mansfield Woodhouse, in Nottinghamshire.[6]

Professor Haverfield says[7] that we may suppose a structure of the Castlefield type (fig. 1) to be the germ out of which developed the dwelling-houses found at Brading, Clanville and Carisbrooke (figs. 2, 3 and 4). From the only records of those excavations that I have been able to examine, I have found no statement that the column-bases definitely underlay the later dwelling-house *for the whole length of the building*. Whether this was ascertained or not I do not know. From the plans it would appear that the point was noted but not emphasized. It is at any rate a not unreasonable inference, and one, moreover, which is well supported if we turn once more to our Petersfield plan.

[1] *Archaeologia*, lvi, 2–6.
[2] *Proceedings Arch. Inst, Salisbury*, 241–242.
[3] *Vict. Co. Hist, Hants*, i, 302.
[4] *Ibid*, i, 311–313.
[5] *Ibid*, i, 316.
[6] *Archaeologia*, viii, 364.
[7] *Vict. Co. Hist, Hants*, i, 296.

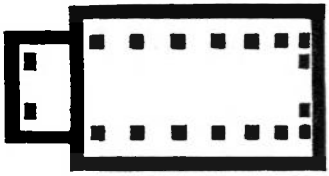


FIG. 1. CASTLEFIELD, HANTS.

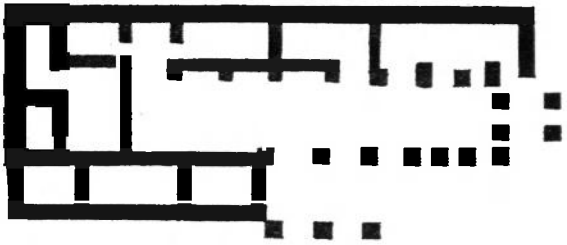


FIG. 2. BRADING, ISLE OF WIGHT

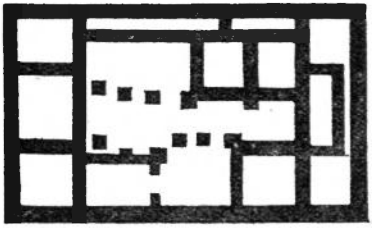


FIG. 3. CLANVILLE, HANTS.

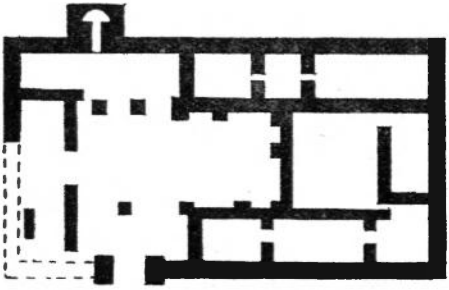


FIG. 4. CARISBROOKE, ISLE OF WIGHT.

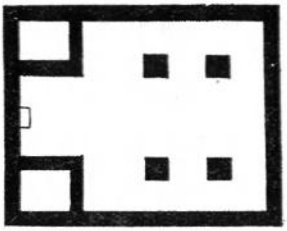


FIG. 5. HOLBURY, HANTS.

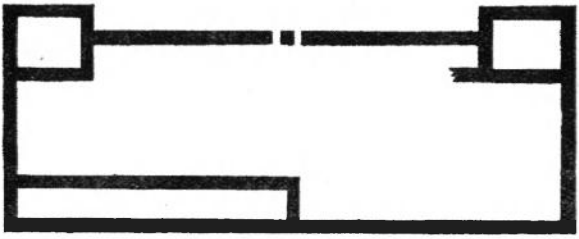


FIG. 6. REDENHAM, HANTS.

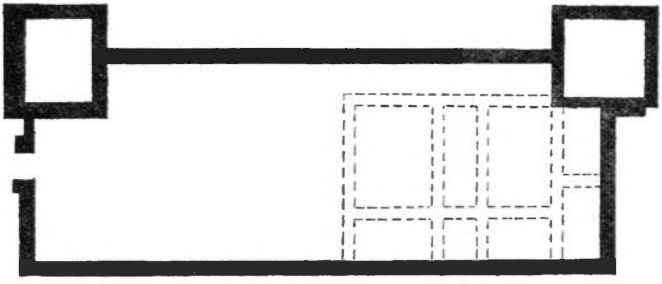


FIG. 7. PETERSFIELD, HANTS.

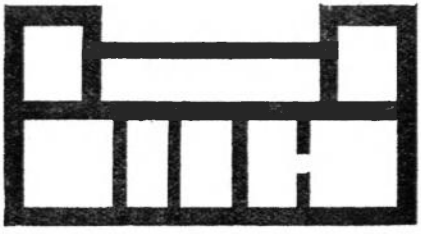


FIG. 8. MANSFIELD WOODHOUSE, NOTTS.

APPROXIMATE SCALE

Here we found evidence which showed beyond all doubt the evolution of our little "corridor" house from an earlier building of the Castlefield type. Quite at the close of the excavation, acting upon a suggestion, we dug deep trenches along the inner longitudinal walls of the later house, and our investigation was at once rewarded by the discovery that the column bases continued not only through the western portion also of this northern block (see plan, plate II.), but along the very alignment of the later walls. In other words, the aisle of the earlier house became the corridor of the later one. This, it will be noticed by a reference to their plans, is what took place at Carisbrooke, at Brading, and, partially at any rate, at Clanville. Other such sites examined from this point of view would perhaps reveal a similar feature. It may be that this transition was a natural one, and that in fact the corridor, as such, was already a feature of the pre-Roman house. Mr. S. O. Addy says that the "basilical" form of house is widespread, and that it was a common type of dwelling-house in Asia Minor as far back as the second century.[1] Also, the late Mr. T. W. Shore, F.G.S, remarks that "the British system of agriculture was of a primitive kind; but in some parts of the country at least barns existed for storing and threshing corn, for Pytheas, a Greek trader who visited the coasts of Britain in the fourth century B.C., says that the corn was collected in sheaves and threshed *in large buildings*."[2]

The somewhat vexed question, however, of Celtic prototypes is an arena which is hardly yet prepared. Certainly I can do no more than contribute to its threshold the evidence of this latest plan.

At the same time, having gone thus far, I feel bound to call attention to a further point, namely, that the two rooms 2 and 12 upon the "wings" belonged to the *earlier* building; and this is an arrangement which appears to be conventional. We find them both "internal," as at Holbury[3] (fig. 5), and "external," as at Redenham[4] and at Mansfield Woodhouse[5] (figs. 6 and 8). The

[1] S. O. Addy, *Evolution of the English House*, Sonnenschein, 89.

[2] *History of Hampshire* (Popular County Histories), 41.

[3] *Vict. Co. Hist*, *Hants*, i, 312.

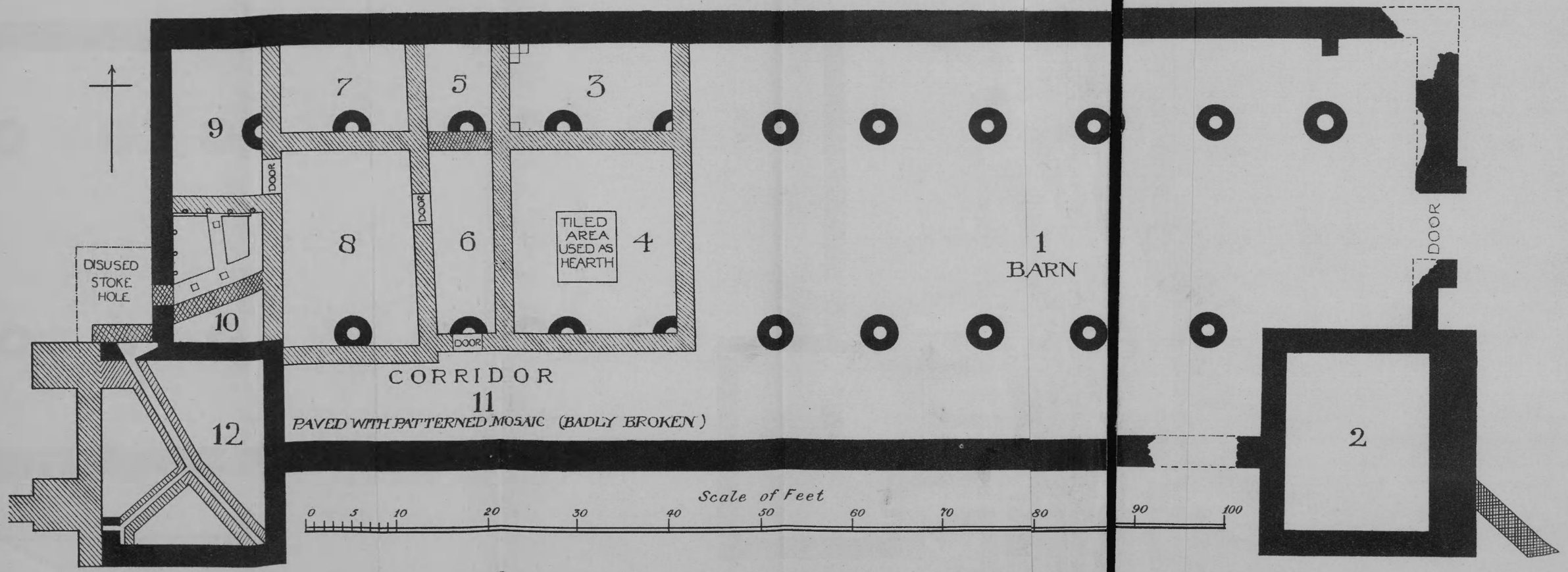
[4] *Ibid*, i, 294.

[5] *Archaeologia*, viii, 364. Excavated in 1786 by Mr. Hayman Rooke.

Plate II.

ROMANO-BRITISH ESTABLISHMENT AT STROUD NEAR PETERSFIELD HANTS

NORTH RESIDENTIAL BLOCK



Plan of Original Building

Additions to same

Later additions or alterations

R.G.Livens Del..1908.

Redenham example furnishes a striking parallel to our own (fig. 7), its dimensions being, with the exception of the depth of the wing-rooms, practically identical. Its plan, moreover, shows suggestions at any rate of two longitudinal corridors. It is further significant that "similar wing-rooms appear in some of the rude farm-houses of Roman Germany and northern Gaul; they mostly contain cellars."[1] This might conceivably account for the thickness of the eastern wall of our room 2, half of which would serve as a ledge upon which casks and other objects rested.

The example of Mansfield Woodhouse is important as illustrating in a single house the combined features of the Redenham and Petersfield blocks. That is to say it consists of two detached buildings at right angles to one another, the northern of which (fig. 8) is like the Redenham block, while the other resembles our Petersfield building in having both external wing-rooms and also a suggestion of pillar bases.

I am also inclined to see the remains of another such "winged" building in the plan of a villa at Frilford in Berkshire.[2]

It remains but to add a few details before leaving this earlier building to consider the later dwelling-house which superseded part of it. The doorway, in its eastern wall 7 feet in width, might represent a later entrance to the altered barn, the original one perhaps being in the south wall, as at Redenham; for all these outer walls showed signs of reconstruction. Embedded in the north wall, for instance, was an architectural fragment with a distinct moulding traceable. It was not large enough, however, to merit further description. Certainly its presence was ill-supported by the general character of the surrounding masonry. It may have belonged to an altar.

The column-bases (plate III.) were fairly regularly spaced, the intervals averaging from eleven to twelve feet. They were roughly circular and were mortised in their centre to a depth of quite two feet. An examination of two of these sockets showed charred matter and burnt mortar. The pillars, therefore, were of wood, and there were signs

[1] Professor Haverfield, *Vict. Co. Hist, Hants*, i, 295, note.

[2] *Archaeological Journal*, liv, 342.

in the surrounding soil as well that they had been destroyed by fire. The average diameter of the sandstone bases was four feet; of the mortise-holes, fifteen inches. We may imagine the roof of this earlier building to have been timbered and thatched.

B. THE LATER DWELLING-HOUSE.

We may now consider the later dwelling-house, which superseded its western half. This was described in my preliminary report last year,[1] and it is only necessary now to add the dimensions of the rooms[2] and a few remarks to supplement or modify the conclusions which that report contained.

The ground-plan showed seven chambers and two corridors, the smaller of which a later cross-wall had divided, thus forming two additional rooms (5 and 6). The arrangement of these rooms and corridor was determined by the main lines of the earlier plan. Thus the "nave" rooms were large, the "aisle" rooms small. In room 4, the tiled area might well represent a traditional hearth spot. It would be centrally situated in the nave of the earlier house. Rooms 10 and 12 were heated from a common stoke-hole, but their bricked *praefurnium* passages had been at a later period blocked up (see plan, plate 11.), and their hypocausts put out of use. In room 10, the box-tiles had been used in a somewhat curious manner to reface its walls, being arranged in a *horizontal* row along the ground level of the *suspensura*. From these, at equal intervals along the north and west walls, were found, in a vertical position and rather broken, seven semi-cylindrical *imbrices*. These must have been the direct channels of communication between the hypocaust and the wall-flues. And it is curious that a similar connection of wall-flues with a *horizontal* box-tile base occurred in the Roman baths at Champvert, near Nièvre, from the account of which, in the *Bulletin Archéologique*, I quote the following:

[1] *Archaeological Journal*, lxv, 57–60.

[2] The internal dimensions of the rooms were as follows: No. 3, 10 × 18 ft.; No. 4, 21 × 18 ft.; No. 5, 10 × 7¼ ft.; No. 6, 21 × 7 ft.; No. 7, 10 × 14½ ft.; No. 8, 22½ × 15 ft.; No. 9, 17 × 10 ft.; No. 10, 14¾ × 10 ft.; No. 12, 21 × 18 ft.

NO. I. NORTH ROW OF PILLAR BASES IN ROOM I.

NO. 2. PILLAR BASE OF EARLIER BUILDING UNDER LATER WALL.

NO. 1. CHANNELLED HYPOCAUST AND PRAEFURNIUM (ROOMS 15 AND 15A).

NO. 2. SEMI-CIRCULAR BATH AND HYPOCAUST (ROOM 18).

"Le mur interieur etait enduit à sa base d'un mortier rougeâtre qui recouvrait, dans une partie seulement du pourtoir de la pièce, plusieurs rangees de tuyaux de chaleurs places *horizontalement* et bout-à-bout. Ne communiquant pas directement avec la voute du foyer voisin, et retrouves pour la plûpart remplis de mortier, ces tuyaux ne pouvaient dans leur etat actuel conduire le calorique dans l'interieur des murs; leur usage reste donc mysterieux si l'on ne voit pas dans ce mortier irregulièrement employé le fait d'un travail posterieur. D'autres tuyaux semblables de formes et de dimensions, etaient fixes verticalement au meme mur interieur; superposes dans divers endroits, et notamment dans la partie nord, ils devaient activer le tirage ou servir au degagement de la fumee."[1]

And I have traced yet another example of this in a villa at Witcombe, in Gloucestershire, where the account[2] tells us that "on three sides (of room 5) were funnels laid *horizontally*, at the height of about two feet from the floor, communicating with others placed upright, for conveying heat from the hypocaust."

We may conclude our consideration of this northern block by noting the alterations by which I would suggest that room 12 was adapted to the requirements of the later dwelling-house. Originally a wing-room of the earlier farm-building, and serving perhaps the purpose of a storage room, its sunken floor was utilized for the hypocaust of the somewhat extended chamber which superseded it.[3] Its western wall destroyed and rebuilt to half its former thickness, the new wall was then supported by two massive buttresses (see plan, plate II.). This room was, therefore, probably *not* a vestibule, as I suggested in my first report. It is not improbable that the buttress-supports and the thickness of the walls point to an upper story here, and indeed, as in the original barn, so in the later house, we should expect an upper floor. At first, no doubt, this was in the nature of an extended loft; later, its floor would become more substantial, and a stairway would replace the more primitive ladder. Such a stairway would be amply accommodated in the fore-shortened corridor 6.

In the northern block, then, of this establishment we may trace yet another evolution of a partitioned dwelling-house from a pillared barn, and I have quoted

[1] *Bulletin Archéologique du Comité des Travaux Historiques et Scientifiques*, 1902, ii, 480. See plan there of room G.

[2] *Archaeologia*, xix, 182.

[3] We may note a hypocaust in a "wing" room in the northern block of the two buildings at Mansfield Woodhouse.

Brading, Carisbrooke and Clanville as analogous examples. At the same time, it must be pointed out that in each of the above three instances the barn, or pillared part, works out in the later building into the semblance of an internal peristyle, whereas in our example here the alteration is simple, rigidly severe and practical. I think the explanation is easy and intelligible. The Petersfield house, or at any rate this northern block of it, retained through its history the unpretentious character which was in accordance with its use. The mosaic everywhere was coarse and badly laid, not least so in the roughly patterned piece which lined the corridor. On the other hand, Brading was a pretentious mansion, while the little houses at Clanville and at Carisbrooke, whatever the occupation of their owners, showed, by inscription and elaborate mosaic, undoubted signs of elegance.

C. THE WESTERN BLOCK.

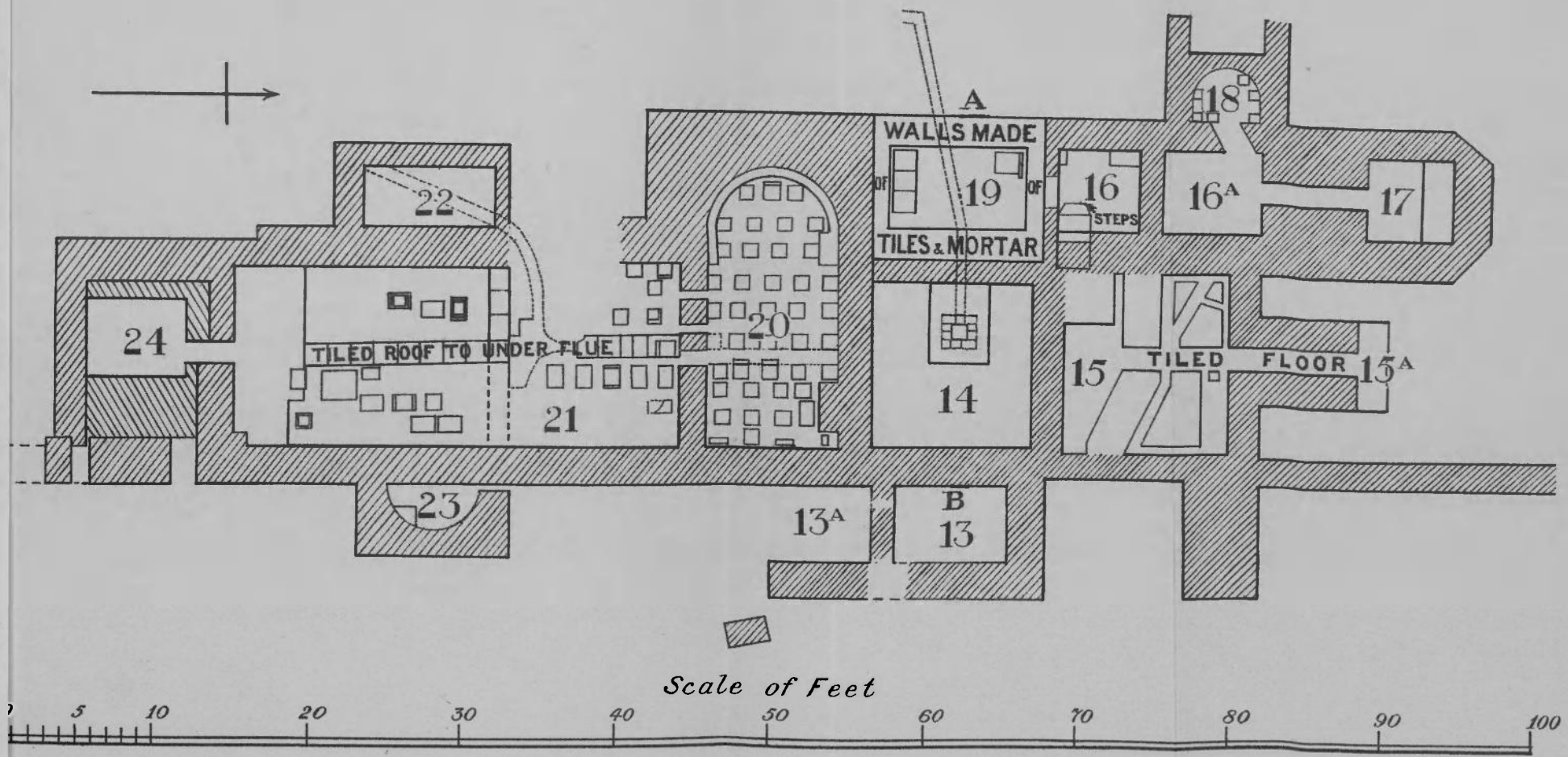
If then this Petersfield residence was a simple farm, how are we to explain the large and elaborate group of bath-houses in its western wing ? This is a question which the limits of our present excavation cannot answer. We can only say of the group as a whole, before proceeding to describe it in detail, that it is formed exclusively of bath-chambers and their necessary adjuncts, and that it is rather large to constitute the baths of the unpretentious little dwelling-house (as represented by rooms 3 to 12) which we have just described. It may be that another residential building lies hid in the unexplored vicinity. We can only say that any such building cannot be traced within the limits of the ground at our disposal, and that if it exists it must lie in an adjoining field. This is a point which I hope to investigate this year. It may be that we may be able to disprove the existence of further buildings, in which case we must infer that these large bath-houses stood alone, as in the Romano-British houses found at Borough Hill,[1] near Daventry, Chipping Warden[2]

[1] *Vict. Co. Hist, Northants*, i, 195. [2] *Ibid*, 200.

ROMANO-BRITISH ESTABLISHMENT

AT STROUD NEAR PETERSFIELD HANTS

GROUP OF BATH HOUSES



in Northamptonshire, Boughton Monchelsea[1] in Kent, Weyhill[2] in Hampshire, Frilford[3] in Berkshire, and in a villa at Chastres[4] in Belgium. Commenting on these detached bath-houses, Professor Haverfield remarks that "they may have been connected with the dwelling-house by a wooden corridor, but no trace of such connection has ever been discovered. Possibly the isolation was considered to be safer for summer use, when the ordinary warming apparatus of the house would not be employed, while the bath would still be required. In summer, too, the awkwardness of passing from a hot bath to the open air would be inconsiderable."

For the present, however, we must leave the point obscure, and proceed to examine, in turn, the various chambers of which the group is formed. If their arrangement is to be in any way coherent and intelligible, I think we must assume that, in a group so large as this, the scheme was on the whole conventional, and that we may expect to trace, with some degree of certainty at any rate, the purpose of each room. We may take it that an establishment of average pretensions such as this contained an *apodyterium*, a *frigidarium*, and one or two warmer rooms of varying temperature, not necessarily fitted with water-baths which we may call generally *tepidaria* and *caldaria*. To these would be added the necessary furnace-chambers and a lavatory. An examination of our plan (plate v.) will show that any such interpretation of this group as a single unit can hardly be intelligible. In fact it appears that we have two separate systems, which either supplement one another or show a difference of period or of use. The dividing line would seem to be the wall which separates room 20 from rooms 14 and 19. It is true that there is little evidence in the masonry to denote a difference of period; and on the other hand in an isolated rural residence we cannot rashly conclude a difference of use. We can only logically conclude, and on the analogy of other plans, that we are dealing with two groups, to which the two rooms 13 and 14 appear to be common. Let us at any rate see, on the detailed evidence of the rooms themselves, how this works out.

[1] *Archaeologia*, xxiv, 414.
[2] *Vict. Co. Hist, Hants*, i, 298.
[3] *Archaeological Journal*, liv, 341, plan.
[4] *Soc. Archéologique de Namur*, xxiv, 27.

The massive base of masonry east of room 15 must have held some structure; a shed, perhaps, or an attendant's room. The entrance to the whole establishment was probably through the little vestibule, 13 (5 × 7 feet), which was separated by a narrow wall from 13A, where we may suppose were situated, as they have not been found elsewhere, the latrines. This vestibule gave access to room 14 (11 × 10½ feet), which seems to have been a central hall leading to the two groups of baths on either side of it. Its floor was of clay, probably at one time paved, but there projected from its western end an oblong area of *opus signinum* over stone, into which was let a small bricked cistern, a foot square at its mouth and 3½ feet in depth, at the bottom of which a drain led up to the floor of room 19. To this we will return. No. 15 (11¼ × 12 feet) contained a channelled hypocaust, heated through an arched *praefurnium* passage from a furnace (15A on plate v.) The main flue was paved with large tiles, but there was no under-flue, as in the case of a similar passage in the southern group. The masonry supports of the hypocaust were formed of sandstone with a course of brick; the springs of the arched passage of large flanged roofing-tiles. The walls of this chamber were exceedingly well built of massive and well-cut sandstone blocks. This room would be a heated *apodyterium* or *tepidarium*. In its south-west corner a doorway opened on to a short flight of quadrant-shaped steps, which have a parallel in a bath at Silchester. These steps led down to the floor of room 16 (5½ × 5 feet), which was originally tiled over a thick bed of *opus signinum*, with which material the walls as well were coated. It was divided by a sleeper wall from 16A (6¼ feet square), a chamber heated from a stoke-hole, 17. The two rooms may, therefore, be taken together as the *sudatoria* of this division, the actual sweating-chamber being in 16A, whose hypocaust piles have entirely disappeared, while 16, which seems to have been waterproof, may have held a warm water bath, as a cooling process before the *frigidarium* in 19. The stoke-hole, 17, contained a ledge, which served doubtless as a seat for the attendant, who would find the stoking of these furnaces no sinecure. The wide masonry walls of the *praefurnium* passage must have held a large tank,

which supplied with water both the warm bath in 16 and also the little semi-circular *caldarium* in the annexe, 18, unless the buttress-like projections of the latter chamber point to its having had a small tank of its own. The bath itself (plate IV, no. 2) was shallow, and was jacketted with box-tiles, fragments of which turned up in the hypocaust below. For this type of small semi-circular hot-bath we may compare Carisbrooke and Brading, while a very perfect example, with the jacketting and hypocaust piles both *in situ*, is to be seen (though when I last saw it in April, 1908, it was getting overgrown and obscured) in a group of baths at the west angle of the Palatine at Rome.

From 16 a doorway led into 19 (6½ × 9 feet), whose walls were built entirely of brick, or rather of flanged roofing-tiles, divided by mortar. It was a sunken and tank-like chamber, and built undoubtedly for holding or for receiving water. Its floor was first prepared with a very thick layer of *opus signinum* and then neatly tiled. Its walls were similarly coated. In fact no less than four distinct coats, each threequarters of an inch thick, had been at different times applied, and each was painted with the usual Pompeian red. This fact presented a serious difficulty. Here was a chamber, undoubtedly made waterproof for the purpose of a bath, and yet with gay distempered walls down to the floor itself. If further proof were wanting as to its use, a neat bricked drain, let into the floor, ran obliquely across (plate VI, no. 1). This chamber must have served the purpose of a *frigidarium*, to complete the arrangement of this division, which is otherwise coherent and intelligible.

May I suggest the following as one solution of an obscure point? Fig. 9 gives a section across rooms 19 and 14 (from A to B on plan), showing the disposition of the drains and their relation to the little cistern in room 14. In 19 there is both an upper and a lower drain, the former running from west to east, and with a continuation pipe to the bottom of the cistern; the latter running from their point of juncture, x, in an opposite direction. At x, therefore, there must have been some control of these three mouths. The lower drain was obviously a waste; the upper, with its continuation, fed the cistern, or, at need, the waste. For what purpose? Room 19, with its painted

walls, was not a reservoir. The shallow cistern could afford in itself no practical supply. But if the cistern was only a pump-well, which worked a fountain over it, or between it and the bath, the water would play upon the bather as he stood in the little bath-like room, the whole arrangement being a shower-bath substitution for the usual *frigidarium*. We may imagine that, under such treatment, the painted walls would need an occasional "re-papering," and of this we have evidence in the four different *painted* layers which I mentioned above. A servant would work the pump and fountain whenever a bather happened to be ready for his splash. As the bather would be fresh from his two warm baths, I can see no serious objection to the economical arrangement which

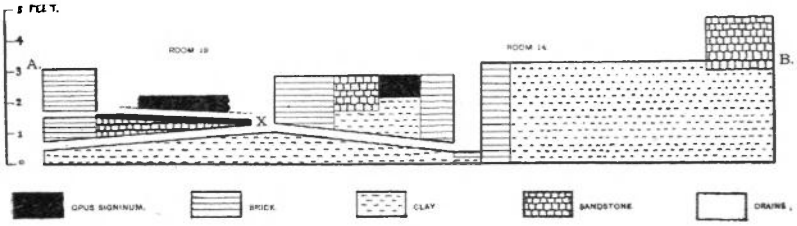


FIG. 9. SECTION FROM A TO B ON PLAN OF BATHHOUSES, SHEWING DISPOSITION OF DRAINS IN ROOMS 19 & 14.

the section shows. Presumably the lower waste-pipe was frequently in use, and a fresh supply forthcoming from another source. In the villa discovered in 1818 at Witcombe in Gloucestershire, the first chamber in a group of baths has a little cistern of practically identical dimensions to our own[1]; no drains, however, appear to have been traced, and the excavators call it the "piscina of a *sacrarium*."

We may now consider the five chambers which make up the southern division of our baths. No. 20 (19 × 8½ feet) had an apsidal end and was fitted with a pillared hypocaust, whose *pilae*, forty-two in number, were well preserved (plate VI, no. 2). This chamber would be the

[1] *Archaeologia*, xix, 182, plan.

tepidarium or *apodyterium*, corresponding to room 15. Its apse in all probability held a bath, which rested on a ledge (see plan, plate v.) nine inches wide. The rest of the room had a geometrically patterned mosaic floor, whose fragments were found in the hypocaust below. Along the eastern wall some of the *pilae* were replaced by box-tiles of a voussoir shape, from whose presence, as well as from the great foundation of masonry around the apse, we may conclude the room was vaulted. Such vaulting of box voussoir tiles is noted as uncommon by Mr. W. H. St. John Hope in describing House No. 1, Insula xxxiv, at Silchester. He quotes further examples from the baths at Chedworth, Wroxeter and Bath. They appear to have been used to form an arch over the entrance to the recess containing the hot bath.[1] Room 21 (12 × 28½ feet) also had a pillared hypocaust, and was divided by a narrow partition into a *sudatorium* and *caldarium*, the latter giving access to a little semi-circular cold bath, 23, which had a tiled floor on *opus signinum* and clay, and was probably vaulted; 22 was a reservoir with a floor of very hard *opus signinum* a foot thick; and 24 was the *praefurnium* (showing signs of alterations), which heated 20 and 21.

But the point of outstanding interest in these baths is an under-flue which runs *below* the hypocausts the whole length of chambers 20 and 21 (plate vii, no. 1). A break three-quarters way through 21 showed the beginnings of another flue, which ran downhill beneath and obliquely across the *opus signinum* floor of 22. The break is too wide to show the connection, if any, between the two. There may have been an inspection-chamber here, but whether the smaller passage was a tributary flue or an independent drain I cannot say. For the main passage, I can only say that such under-flues are extremely rare and, as yet, hardly understood. I may remind you of Mr. W. H. St. John Hope's suggestion in his account of a similar flue in the public baths at Silchester.[2] "The floor," he says, "which overlays the flues was covered continuously, while the baths were in use, with a glowing mass of

[1] *Archaeologia*, lx, 459, and fig. 5 in the same account, drawings by the late Mr. George E. Fox.

[2] *Silchester Report*, 1903 and 1904, 18 and 19.

charcoal and ashes, the heat of which must soon have been diffused through the concrete to the flues below. The air within them would consequently become warmed, and if we may assume that the flues turned upward on reaching the alcove walls, the air would tend to move slowly along . . . . becoming gradually warmer. If the flues were carried a little way up the walls and then left open, they would serve to discharge into the *caldarium* a continuous current of warm air. And this would not be a mephitic compound, like that carried up the wall-flues from the glowing fuel in the hypocaust, but pure air drawn from outside the building along a heated channel without traversing the hypocaust itself." There is another example of such an underflue at Silchester,[1] and also in the baths of Cilurnum.[2]

D. THE BUILDINGS OF THE EASTERN WING.

The description of the remaining buildings of this house will not take us long. From the baths the courtyard wall led south for thirty feet, then turned east, and rather acutely to avoid what is now a little stream, but which, at that time, may have been the main river of this Petersfield valley. Two wall-drains may indicate the position of wooden stalls or sheds. This wall continued for 185 feet, being only broken by the main entrance gateway to the yard. This latter was 13 feet in width, and there was no middle pier to prove a double gate. A section of the roadway was dug out to north and south of it, showing a surface of rough brick rubble. This roadway connected the house doubtless with some *deverticulum*, which may have existed across the downs a mile away, between Chichester (Regnum) and Winchester (Venta Belgarum). It points, at any rate, to an alleged Roman track which passes beneath a British defensive earthwork on those downs. The little stream along this wall once ran parallel, but at some period has been diverted; and its earlier track (how early I do not know) is still marked by

[1] *Archaeologia*, lvi, 109.

[2] *Archaeologia Aeliana*, N.S, xii, 126.

NO. 1. ROOMS 14 AND 19, SHEWING DRAIN AND BRICKED CISTERN.

NO. 2. ROOM 20, SHEWING PILAE AND APSIDAL FOUNDATIONS OF VAULTED SUPERSTRUCTURE.

the modern hedge and a luxuriant growth of water-weed which, curiously enough, breaks with the wall for fifteen feet immediately opposite the gate. I trenched here, therefore, for a bridge, but the stiff hedge prevented an exhaustive search. There was no trace of masonry; but in point of fact, if such a bridge existed, it was probably of wood, and this must long ago have perished. I mention such botanical evidence merely as a coincidence, and with all reserve.

FIG. 10. ROMANO-BRITISH VASE OF NEW FOREST OR SLODEN WARE ($\frac{1}{3}$).

Turning north again, the wall brings us to the buildings of the eastern wing. At forty feet it joins up with what is seemingly an earlier wall, whose thickness and general character, coupled with that of the large building immediately north of it, incline me to date this portion of the eastern wing as of the same period as the original columned barn. This building measured externally 71 by 24½ feet, and was divided into a long rectangular space and a chamber with thick double wall foundations. The former may

have consisted of cattle-stalls and a waggon-shed, three small buttress-like bases in the northern half suggesting partitions. The latter was probably a room for storage, the inner walls representing, as in the wing-rooms of the northern block, ledges to hold casks or sacks of grain. No roofing-tiles were found in this eastern building, a fact which supports its connection with the barn-house north of it.

The last building to be examined in this house is the strange octagonal structure (plate VII, no. 2.) wedged in between these two earlier blocks. Its walls, of which unfortunately the footings alone remained, leaving no clue other than logical inference as to the means of entrance, were three feet thick, and it measured 21½ feet across. That it belonged to the later rather than to the earlier house may be inferred from the neatness of its masonry and the ornate suggestion of its plan. Placed in this north-east corner of the premises, it had been for some reason hedged in by masonry projections from rooms 2 and 26. What was its purpose? It has been suggested that it served the purpose of a reservoir or large cattle-trough. If this is so, we have still to account for the decided contrast in its construction to that of the buildings north and south of it. It is built on sand, and no trace was found of floor or of lead or timber lining, though doubtless these would long ago have been removed or perished. All that was found was a very shallow deposit of rubbish, which contained rough potsherds and about twenty fragments of bevelled window-glass. It has been suggested that this building was a shrine. A further suggestion is that it served the purpose of an *area* or threshing-floor.[1] It only remains, as in the case of other obscure points, to see if there are other known instances of such octangular structures, and, if so, whether in any way these help to solve our difficulty.

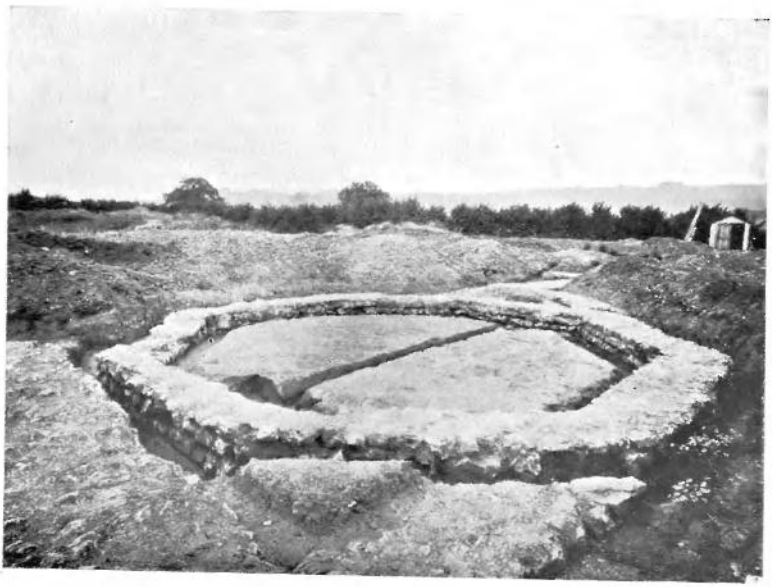
There are two in Romano-British houses which we may compare. The first is at a villa at Witcombe[2] in Gloucestershire, where we have already found an analogous example

[1] Sir Henry Howorth, in the discussion which followed the reading of this paper.

[2] *Archaeologia*, xix, 182, plan.

To face page 51.

NO. I. ROOMS 21 AND 20, SHOWING FLUE UNDERNEATH THE HYPOCAUSTS.



NO. 2. FOUNDATIONS OF OCTAGONAL BUILDING (ROOM 27) IN THE EASTERN WING.

to the little cistern in our baths. Here a very similar octagonal building, 25½ feet in diameter, was built out from a corridor in the "living" portion of the house. This must have been an *exedra*, the conservatory of modern times. The other instance occurs at a villa at Maidstone.[1] Its diameter was 20 feet. It was fitted with a hypocaust and a tessellated pavement, and presumably served the same purpose as the Witcombe example. It seems, then, that neither of these helps us much.

In structure and in elegance our octagon is in keeping with the baths; in position it belongs to the more humble dwelling-house and barn. And so, till further evidence is found, we must leave the real meaning of this house obscure. Its single groups have contributed some points of interest in Romano-British life, but as a coherent whole its architectural story is not yet told.

While conforming in the general character and disposition of its buildings to the main features of the usual Romano-British house, at the same time I think we may conclude that this was no ordinary *villa;* nor on the other hand can it have been, when the baths were built, an ordinary farm. We must call it vaguely an "establishment," whether private or public we have not yet sufficient evidence to say. But we may at least say this, that if this was a private building the style of the *residenz* is strangely disproportionate to that of the adjoining baths. If, on the other hand, this was a public building, then probably we have here an instance of a communal bath-establishment, or even of a *hospitium* like those at Herbord[2] in Poitou, and at Lydney Park[3] in Gloucestershire, quoted in the Silchester Report for 1893 as analogous examples to the *hospitium* at Silchester itself.[4] I would not, however, at this stage lay the slightest emphasis on a theory which only future investigation of this Petersfield neighbourhood can either render plausible or else refute, but merely note that the establishments at Herbord, at Lydney Park, and at Silchester consisted of extensive bath-houses and chambers in close proximity to some

[1] *Arch. Cant*, x, 163, plan.

[2] Le Pere Camille de la Croix, S. J., *Mémoire Archeologique sur les Découvertes d'Herbord dites de Sanxay*, 1883.

[3] Rev. W. H. Bathurst, M.A, *Roman Antiquities at Lydney Park, Gloucestershire.* London, 1879.

[4] *Archaeologia*, liv.

small shrine or temple, and that at Herbord this temple was octagonal.

I would, in conclusion, express my obligation to the many authorities on Roman Britain from whose writings I have quoted, to Mr. J. Butler for information leading to the location of the site, and to many who, by financial and other support, have made this excavation possible.