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P.R. SCOTT

ROMAN VILLAS IN THE NORTH OF ENGLAND

M.A. Thesis

April 1973

ABSTRACT OF THESIS

The physical area covered by this thesis consists of the ten northern counties of England ; although villa sites have only been discovered in four of them, a calculation has been made of areas in Lancashire and Cheshire where a search might prove rewarding.

For the purpose of this study the sites have been divided into eleven groups. This is based on physical distribution and has no archaeological significance. A synopsis of each villa or site is given, based on the original excavation report, followed where appropriate by a criticism or re-appraisal. A further section is devoted to a discussion based on the findings from all the sites including distribution, mosaics, large circular buildings, economy, 'fortified' villas, post-Roman occupation and recommendations for further study. At the end is a tabular analysis giving the sites with map references, heights above mean sea level, period of occupation, incidence of mosaic pavements, and post-Roman activity.

A second volume contains plans of the villas, where available, together with illustrations of some of the mosaics.

ROMAN VILLAS IN THE NORTH OF ENGLAND

**A thesis submitted for the Degree of Master of Arts in the
Faculty of Social Sciences in the University of Durham.**

VOLUME 1 : TEXT

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April, 1973

**P.R. Scott
Graduate Society**

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INTRODUCTION

The area of study comprises Northumberland, Cumberland, Co. Durham, Westmorland, Yorkshire, Lancashire, Cheshire, Lincolnshire, Derbyshire and Nottinghamshire. Although there are no known villas west of the Pennines, this has been commented upon in the discussion at the end of the paper and areas worth investigating have been suggested. For convenience the thesis has been bound in two volumes ; the first contains the text comprising a summary and, where appropriate, a re-appraisal of the known sites, followed by a discussion based on the findings from all the sites.

The grouping of the villas by areas is merely for convenience of treatment, has no archaeological significance, and will almost certainly be subject to change in the future in the light of new discoveries. On the distribution plan and in the analysis I have classified the site as Certain, Probable and Possible ; this, again, is an arbitrary arrangement and will be subject to revision in the future.

For the convenience of students referring to the thesis I have placed a bibliography pertaining to individual villas or groups of villas at the head of each section and a composite bibliography appears at the end of volume I.

The second volume contains figures of the villa plans and mosaics. In most cases the plans are taken from the published reports or from plans prepared for reports to be published in the future. For the sake of clarity I have drawn or redrawn three of the figures ; a composite site plan of Old Durham incorporating the findings of three excavations spread over several years ; a revision of Harpham showing the 'workshop' as circular instead of polygonal, and a plan of Kirk Sink showing the excavations of both Villy and Hartley.

I have visited many of the sites still in existence and can write with personal knowledge about the Holme House villa at Piercebridge (Yorks) where I worked with Dr. D.W. Harding during the two years he excavated there.

Since the completion of this thesis Professor S. Applebaum's work (The Agrarian History of England and Wales, 1, ed. Finberg, 1972) has been published. I have not, however, incorporated any of his findings in this paper. He mentions Cawood (Yorks) as though it was definitely a villa site but I do not think that this is necessarily so as the only features mentioned in the report (Corder, P., 1935) are two ditches of civil type from which were recovered considerable quantities of Roman pottery ; no structures or mosaics were found.

GROUP 1. THREE NORTHERN VILLAS

OLD DURHAM (Co. Durham) NZ 2841

Richmond, I.A., Romans, T. and Wright, R.P., (1944), A.A. XXII, 4th series, 1-21.

Wright, R.P. and Gillam, J.P. (1951), A.A. XXIX, 4th series, 203-212.

Wright, R.P. and Gillam, J.P. (1953), A.A. XXXI, 4th series, 116-126.

The site, now totally destroyed, lay on land being excavated for gravel and as the quarrying encroached from the south-west three areas of habitation were exposed between 1941 and 1951. The first area, excavated in 1941 contained part of a bath-house ; the second, in 1948, a complete circular structure and part of another ; and the third, in 1951, two paved areas. (Fig. 2).

The bath-house, (Fig. 3), comprised a cold bath, a vestibule, a heated room of laconicum type with a channelled hypocaust and stoke hole and a heated room of caldarium type with a pillared hypocaust and a stoke hole partly built over an earlier ditch.

The cold bath.

This measured 4ft. 10 $\frac{1}{2}$ ins. by 3ft. 11ins. internally and was originally surrounded by walls approximately 2ft. 6ins. wide. The west wall and much of the floor and south wall had already fallen into the quarry, but the north-west internal corner still survived. All the walls in the building were of hammer-dressed sandstone facing blocks with a rubble core. The entrance to the bath was thought to be in the north wall (sic) which was 2ft. 10ins. wide, the extra width allowing for steps. As it is unlikely that entry would be from the stoking area, the entrance was probably in the east wall. The floor, 14ins. thick, was formed of a 4ins. foundation layer of broken sandstone, supporting 10ins. of white concrete, including a thin layer of pink cement. Cement of pounded tile $\frac{3}{4}$ ins. thick coated the sides of

the bath and remained in places to a height of 5ins. It thickened into a watertight joint at the junction of walls and floor, though not into a quarter-round moulding. The floor was covered with earth and fallen rubble, much of it severely burnt, amongst which was a heavily burnt samian sherd of Drag. form 33 in Lezoux fabric, datable to Hadrian or Antonius Pius (A.D. 117-161). Part of a roofing tile was found embedded in the masonry at the south-east corner of the bath.

Vestibule.

"The cold bath was entered from a narrow eastward room measuring 5ft. by 12ft." The report is somewhat contradictory here, as in the description of the cold bath (above) it states that the entrance was at the north. It was, in fact, almost certainly from the east, through the vestibule and the remainder of the bath-house. Sleeper walls, 6ins. high, projected from the north and south walls to carry a suspended floor but this was not a hypocaust.

The pillared hypocaust.

South of the vestibule and not quite in the same orientation as the cold bath, this room measured 15ft. by 13ft. at the north end, externally, but tapered slightly down to 12ft. wide at the south end. From the south wall projected two massive piers of masonry, roughly 3ft. square, between which passed the main flue, 18ins. wide. The piers had probably supported a hot water tank. A single flagstone 27ins. long and cracked by heat formed the floor of the furnace, and the cheeks, of dressed sandstone blocks, had also suffered heavily from fire. Most of the north wall remained but the east wall had been robbed out although its position could be depicted by the edge of the floor of the hypocaust which remained.

The bottom floor of the hypocaust was composed of 5ins. of pitched sandstone covered by 4ins. of hard lime mortar. The remains of four pilae composed of stones 9 or 10ins. square and 2ins. thick set in hard cement still stood, while the remainder were traceable from the imprint on the floor. A draught passage extended inwards

from the furnace giving a total flue length of 9ft., and all had been reddened by fire.

The lower floor of the hypocaust was thickly covered with a mass of burnt wall stones, pieces of the upper cement flooring and wall-plaster. The wall-plaster had been decorated with curving stems and broad leaves in green on a cream ground, and also red stripes on a cream ground. Other finds comprised two iron hold-fasts, two fragments of window glass, two or three samian fragments and some pieces of 4th century coarse ware. One of the samian fragments, probably of Drag.form 31, with an illegible stamp, probably belonged to the 2nd century.

The channelled hypocaust.

The room north of the vestibule measured approximately 11ft. 6ins. by 12ft. internally, and the remains were very scanty and most of the foundations had either been robbed or ploughed out. In the southern wall were the furnace cheeks of another hypocaust, represented by a faced channel, 12ins. wide, heavily reddened by fire. A large natural boulder which lay immediately north of the outside of the stoke-hole had also been heavily burnt. Rakings of black wood-ash from the flue, 1ft. deep and 4ft. wide, extended 12ft. to the west of the furnace but produced only one sherd of black ware, while an ash pit exposed in the quarry face north-west of the stoke-hole yielded a fragment of 4th century lid.

Within the room, the furnace served a channelled hypocaust of cruciform design, now reduced to a trench in the gravel subsoil. The trench was 2ft. wide by 1ft. deep and filled with black ash. The original lining had disappeared, except for one stone next to the furnace which indicated that it had been formed of flagstones on edge. ?

The only finds directly associated with this room were a fragment of grey ware and an iron nail, both from the stoke-hole. Unstratified material from the surface soil produced a fragment of a samian Antonine dish and another from a late 2nd century samian

mortarium †, two fragments of a 4th century mortarium and part of a late 3rd or early 4th century flagon with a frilled rim.

An earlier boundary ditch.

The ash from the stoke-hole south of the furnace of the pillared hypocaust overlay an earlier V-shaped ditch, 10ft. wide by 4ft. deep, running east-west. This ditch was picked up again in the quarry face 30yds. to the west. 6ins. of top-soil covered a 15ins. stratum of tumbled rubble and dressed stone, mostly heavily burnt and associated with fragments of mortar, plaster and wood-ash. Next came a pocket of wood-ash, 18ins. thick at deepest and spreading back 6ft. from the furnace, in which were mussel shells, fragments of wall-plaster, part of a 4th century mortarium datable to A.D. 300-370, and several fragments of cooking pots and a jar certainly not later in date. Below this was a 2½ft. stratum of clean gravel and sand interspersed with broken dressed stone. This broken stone appeared at the same level in the ditch section 30yds. to the west. Finally, silted mud and occasional stones formed a 15ins. layer at the bottom of the ditch and contained large pieces of an Antonine samian cooking-pot and a rim sherd of Drag. form 33. From the same level of another section 6ft. to the west was recovered another sherd of Drag. form 33 of Antonine date together with a native hand-made cooking pot, heavily coated with soot, of crystalline-gritted fabric and of a shape suggesting a 1st century date.

From various parts of the site three or four small flints of Neolithic type were also found.

The excavators considered that this was a small civil Roman bath-house with two periods of occupation, the first marked by a boundary ditch of non-military type, associated with 2nd century pottery and debris from buildings, the second by an actual building, with which is associated pottery dating from the 2nd century to the 4th.

The circular building (Fig. 4)

Five years after the excavation of the bath building, mechanical stripping in preparation for further quarrying, revealed, 40yds. north-west of the cold bath of the bath-house, the foundations of an almost

circular building varying from 33ft. 6ins. to 35ft. 6ins. in diameter and a small segment of another obviously of roughly the same dimensions 15ft. further east ; most of the latter had already been destroyed by the quarry.

The north-west building foundation varied in width from 2ft. to 2ft. 4ins. and was partially faced with sandstone ; the core varied from broken sandstone to much weathered yellow limestone, and on the east side, water-worn cobbles. Evidence showed that the foundation had supported at least one course of sandstone blocks as a large quantity of these were visible on the quarry spoil-heap nearby. The floor was composed of pitched re-used building stones, and in some places of cobbles ; smaller pieces of grey limestone had been used to fill the crevices and on the western side of the pitching there remained a thin layer of gravel giving a smooth top surface.

A cross section cut through the building showed traces of earlier work. The pitched floor averaged 9ins. thick and lay on undisturbed sand but at two points the pitching had sunk slightly where it overlay a pair of trenches 12ft. apart. The east trench was 3ft. 9ins. wide and had vertical sides cut 1ft. 3ins. into the sand subsoil ; it contained large sandstone slabs at the bottom and some mortar near the top. The west trench was 3ft. wide by 1ft. 8ins. deep and had cobbles at the bottom, the sandstone slabs, and then a filling of earth and gravel. Unfortunately there was not time to follow the course of these two trenches.

On the north side of the section and sealed beneath the pitching lay a small area of sandstone slabs and beyond them a circular patch of slaked lime, 3ft. 6ins. in diameter, standing 6ins. high on the east side but scooped away elsewhere. It seems to have been a lime slurry for providing plaster.

The south-east circular building had a well-laid foundation wall, 2ft. 4ins. wide, with a single course surviving. Large dressed unmortared sandstones formed the faces of the wall with rubble packing between.

The finds from this area fell into two groups. Seven fragments from four vessels were found sealed below the pitched floor of the north-west building in association with the lime slurry. One of the vessels was undatable but the other three were all of 2nd century date and belonging to the later rather than the earlier part of the century. The second group consisted of unstratified fragments from above and near the circles and was largely of 2nd century date.

The excavators interpreted these two buildings as unroofed threshing floors.

Two paved areas. (Fig. 5)

In 1951 two paved areas were discovered lying partly exposed 40yds. north-east of the site of the two circular buildings excavated three years previously. The larger paved area was 21ft. long and varied in width from 3ft. to 4ft. ; a few feet to the north-east lay another patch 5ft. by 3ft. 10yds. to the south-west lay a smaller area of stones 9ft. long and 4ft. wide ; a small patch of these stones had been packed with clay but there was no evidence of clay-packing elsewhere.

The stones in both areas were mainly substantial slabs of sandstone ; they did not form the foundations of a wall and had not been laid along a straight line ; they seemed to have been part of a paved yard. One of the stones in the larger paving proved to have been an inverted upper bee-hive quern-stone. At the west end the paving lay over a shallow pit 13ins. deep, the lower 6ins. of which was composed of sand and black burnt wood, and the upper 7ins. of sand, gravel, stone blocks and thirty-seven sherds of 3rd century pottery.

Conclusions

From the sparse evidence available it appears that the earliest Roman feature on the site was a substantial ditch dug sometime in the second quarter of the 2nd century. Probably about the same time a stone building must have been constructed somewhere on the site but unless the wall trenches found under the floor pitching of the circular building were part of it, it was not discovered. This

building subsequently either collapsed or was dismantled, providing the pitching material for the floor of the 2nd century circular building and accounting for the dressed stone discovered towards the bottom of the ditch. It certainly did not burn down as there is no record of burnt stone for this period.

In the 2nd century the circular buildings were constructed and although there may be some doubt as to their purpose there can be little about their date. The paved areas may also belong to this period or they may be later.

The bath-building was almost certainly of 4th century construction. There is no serious evidence for any building on this part of the site before this date and the filling of the ditch indicates that there were no stoking activities earlier than the 4th century. The five or six fragments of samian (other than that found in the ditch) all came either from the topsoil or unstratified filling and could easily have got there by chance since the site was almost certainly occupied in the 2nd century ; structural evidence for the 3rd century is virtually non-existent although the sherds found in the 'paved area' hint at occupation at that time ; but there is unmistakable evidence, for instance, from the rakings of the furnace, of 4th century use.

There seems little doubt that the site was occupied more or less continuously from about the middle of the 2nd century until the middle of the 4th.

HOLME HOUSE (Yorks) NZ 221152

- Harding, D.W. (1969), Unpublished summary report
 Harding, D.W. (1970a), Unpublished summary report
 Harding, D.W. (1970b), Britannia. II, (1971), 251-2
 Allen, G.W.G. (1936), Air-photograph in C.A.R. Radford, Oxoniensia, 1,
 (1936)
 Salway, P., (1965), The Frontier People of Britain, (1965), 147-8.
 Stead, I.M. (1966), 'Winterton Roman Villa': interim report. Ant. J.,
 XLVI, (1966), 72-84
 Ward-Perkins, J.B. (1938), 'The Roman Villa at Lockleys, Welwyn,'
Ant. J., XVIII, (1938), 339-76 and Plate LXX
 Wright, R.P. (1944, 1951, 1953), 'The Roman Buildings at Old Durham,'
A.A., XXII, (1944), 1-21. A.A., XXIX, (1951), 203-12
A.A., XXXI, (1953), 116-26

The site, (Fig. 6), was first recognised some years ago from air-photographs taken by Dr. J.K. St. Joseph (DU 84 ; JK 75-7), which revealed an irregular, sub-rectangular ditched enclosure measuring some 87yds. by 98yds., the outline of which was particularly distinct along its northern and eastern sides. The enclosure appeared to be approached from the east by a roadway or track, itself flanked on either side by ditches. Fainter linear markings on this side of the site suggested the possibility of an annexe or substantial forecourt area, comparable to the ditched extension to the villa-enclosure at Ditchley Park, Oxfordshire, (Allen, 1936). On the basis of this comparison, and the discovery of tesserae in the ploughsoil at Holme House, Salway (1965, 147-8), suggested that the site might prove to be that of a villa or temple enclosure. By comparison with the air-photographs of Ditchley, however, internal features were by no means so apparent within the Holme House enclosure, though upon close inspection, two building complexes could be faintly discerned. At the north end of the site, only a few yards inside the perimeter ditch, traces of rectilinear buildings were visible, while nearer

the centre of the enclosure crop-marks indicated the presence of a circular structure.

In advance of excavation, a magnetometer survey was conducted at Easter 1969 in an attempt to define the limits of the enclosure and in the hope of identifying internal structural features. Two main traverses across the site from south to north located the perimeter ditch at its northern end without difficulty ; towards the south and west of the enclosure, however, readings were less easily interpreted and the precise extent of the enclosure has yet to be determined. The position of the entrance causeway on the east side was tentatively defined, though these results have yet to be proved by excavation. A further geophysical survey was made in the summer of 1970, using soil conductivity meter and magnetometer. The areas selected were just north of the bath-suite and in the south-east corner of the site. In the former area results were negative while in the south-east corner further post supports were detected in line with, and to the west of, those already discovered in the trial trenches. A search for the enclosure ditch in this area was unsuccessful. The relative lack of success with the geophysical survey in both years may perhaps be attributed to the weather and soil conditions ; in 1969 the weather was very wet and the ground saturated, while in 1970 it was very dry and rock-hard.

The basic stratification revealed by the excavation over the interior of the enclosure was fairly uniform. Below the ploughsoil a layer of fine brown sub-soil with clayey texture, averaging 12ins. in depth, became progressively lighter in colour until it gave way to natural cobbles over-lying gravel at a depth of about 18ins. With the exception of the hypocausted rooms the cobbled foundations of the buildings were bedded into the clayey sub-soil at a relatively shallow depth. In consequence, where walls and floors had not been systematically demolished or dismantled in antiquity, they have not survived damage from the plough in more recent times.

The enclosure ditch.

The northern perimeter ditch was excavated in two places about

33yds. apart and sections showed that the broad linear crop mark on the air-photographs of the site in fact concealed two parallel and overlapping ditches of comparatively meagre proportions. Both were of shallow U-profile, with a maximum depth of 4ft. below modern ground surface, and approximately 5ft. 6ins. broad. Their filling was a uniform gravelly brown soil, and on the basis of stratification there was no evidence to indicate the chronological priority of the one over the other. Since the well-defined gravel ridge between the two would scarcely have survived had they been open simultaneously, however, there is good reason for assuming two construction phases. Furthermore, from their similarity of construction, little advantage seems to have been achieved by re-cutting into virgin gravel, rather than cleaning out the primary ditch. The solution to the problem of chronological order of the two ditches hinges on their purpose, and this we do not know. If they were for boundary demarkation in the Iron-Age tradition the ditch would have been on the outside and the bank of the inside ; in this case it is probable that the outer ditch was secondary, as the reverse sequence would have entailed digging through what remained of the bank with the expenditure of greater labour. If, on the other hand, the ditch and bank were to keep stock in, then probably the bank was on the outside and the ditch inside, in which case the order of construction would have been reversed for the reasons given before. Excavation of the entrance to the compound might disclose the correct sequence. There was no evidence for the exact position of the bank, which had been completely levelled by ploughing ; nor was there any trace of post-holes or other means of revetment on the inner lip of the ditch.

Dating evidence for the ditches was slight. No pottery was found in the trench cut through the ditches west of the bath-suite in 1969 though from the trench cut the following year just north of the bath-suite some sherds were recovered. From the layer above the infill of the ditches in this trench and the adjacent trench to the west, 33 pieces of an amphora were taken, 28 of which were later reconstructed to form part of the body, neck and one handle. From the infill itself there was a fragment of samian, possibly Drag. form

18/31, a fragment of calcite-gritted native ware and a small iron nail. There was no sensible stratification.

The function of the perimeter ditch was evidently not defensive, nor, as the settlement was situated on the gravel terrace, would it have been necessary to dig extensive drainage ditches. Therefore, as elsewhere on Iron-Age and Roman-British sites, the ditch appears to have served only to define the limits of the settlement or possibly to form an enclosure within which livestock could be paddocked at night.

Excavation showed that the ditch had been deliberately filled and levelled by the time the bath-suite was built. That the builders knew about the ditch is proved by the fact that where the stone drain from the baths passed through the ditch the walls had been built a little thicker ; even so they had sunk and converged slightly. Room 14 had also been built partly over the ditch and it too had subsided in one corner. The cobble foundations of a field wall lay along the centre of the line of the ditch, 18ins. above the ridge, for at least 16yds. and was probably contemporary with the bath-suite. The enclosure ditch had therefore fallen into disuse by the second century. Whether either or both of its phases were contemporary with the simple primary villa, or whether it represents a pre-Roman period of occupation of which no other internal structures have yet been located, remains in doubt.

Trial trenches at the south-east and south-west of the site failed to yield any trace of the ditch which was surprising since in the south-east the trench, approximately 3ft. deep, was taken right across the area where the air-photographs strongly hinted at crop markings of the ditch.

The rectilinear building complex.

At the northern end of the site a substantial rectilinear building was exposed ; it comprised three main phases of construction, the middle of which could be divided into two sub-phases. Of the earliest house (Rooms 1, 2, 3 and 15) only the foundations survived ; they were

between 1ft. 9ins. and 2ft. 6ins. in width and were composed of river cobbles bound with stiff red clay. They consisted of only a single course and had suffered little damage from the plough. Along the north and part of the west side of the building, approximately 3ft. outside the foundations, and parallel to them, were a series of post supports which suggests that in the first period of occupation there may have been a veranda. There were post holes in Rooms 1 and 15, again parallel to the foundations. The only indication of flooring within the building was a small patch of light cobbling in Room 3. Material remains from this building were few and from its design and construction it would appear to have been relatively unpretentious.

To the northern end of this building was added a bath-suite. This was of much more substantial construction and although the walls had been extensively and systematically robbed, sufficient remained to show that they were built of shaped and mortared limestone blocks on foundations once again composed of river cobbles which this time were bound in stiff yellow-grey clay. Most of the foundations of the bath-suite were rather deeper than those of the Phase 1 building. Quantities of tesserae in a variety of shapes and colours, together with painted wall plaster and painted opus signinum, were recovered from the bath area generally and from the apse in particular.

Rooms 4, 5 and 10 were evidently the cold end of the bath as no evidence of hypocausting was discovered. The apse (Room 8) was probably a cold plunge from which the water was channelled away through the latrines, situated between Rooms 4 and 5. The floor of the apse was badly damaged but was bedded on a foundation of substantial river boulders ; this solid foundation was contiguous with the footings of the apse wall which were considerably more substantial than the wall foundations elsewhere on the site. The width of the apse wall could be determined from the damaged edge of the floor which survived after the robbing of the wall itself. Since the foundations of the apse were somewhat deeper than the adjacent rooms of the bath-suite, debris from these rooms could well have fallen into it. The concentration of red, white and blue tesserae in this material, including conjoined fragments of up to a dozen tiles in their mortar

backing, argues convincingly that the apse boasted a patterned floor, at least over part of its area. The shapes of the individual tesserae indicate a fanning design, which seems particularly appropriate for this room. The building rubble in the apse also contained quantities of red painted opus signinum including one fragment of quarter-round moulding internally painted, and painted wall plaster in a variety of colours. Around a centrally patterned, tiled floor, therefore, there may have been a border and skirting of opus signinum which served as the edge of the bath itself, above which the walls were surfaced with painted plaster in the conventional manner.

From the east side of the apse, the main drain (9) led away through the latrines. Although there was no direct evidence that the latrines were situated here it is difficult to imagine where else they could have been and remains of faeces were discovered further down the drain. After leaving the building the drain turned through a right angle northwards, passed through the perimeter ditch and terminated just outside the perimeter wall in a soakaway channel which led away towards the river. With a maximum depth of nearly 3ft. it had for its entire length a floor of large and well fitted slabs of tabular sandstone and, originally, capstones of the same material.

North of the drain as it led away from the apse was a narrow rectangular room (5) ; its floor was composed of a fine but fragmented mortar, and at foundation level there was no visible means of access. Immediately adjacent to Room (5) on its north side was the tepidarium (Room 6) which in turn led into the caldarium (Room 7) to the west. The basal floor level of both these rooms consisted of rough opus signinum upon which the lowest courses of baked tile hypocaust pilae were located in situ. The suspended floors which they supported had evidently been above modern ground level but quantities of tesserae in the collapsed debris indicated that these too had been patterned floors. West of Room 7 was the stoke-hole (Room 12) and west of this again was a room at the end of this wing with its own independent drain leading away to the north. This room had the appearance of a structural afterthought as it was neither properly aligned nor joined to the main suite.

South of the drain further structural modifications appear to have been made in the bath-suite. Within the original rectangular room (4), two oven-like structures were built which occupied most of its width. Two floor levels were noted in this room, the one superimposed a few inches above the other. The fact that these horse-shoe shaped features were built upon the later of the floors and incorporated hypocaust tiles in their construction, suggests that they were secondary features. Their true function remains obscure. Though they most closely resemble ovens, neither showed signs of internal firing and their situation, with flues facing one another, with only a narrow channel dividing them, would have led to considerable difficulties in stoking. A further length of faced wall situated in the south-west corner of this room with its faced surface towards the line of cobbled footings, reinforces the view that secondary building had taken place in this area.

To the west of Room 4 was an anteroom (Room 10) enclosed on its north and west sides by a wall of which the bottom course and fragments of its inset second course survived above foundation level. The fact that this wall was not bonded into the wall of the apse, but was evidently designed to adjoin its semicircular plan, suggests that this too was a later extension. That this piece of construction was later than the primary building to the south was apparent from their structural relationship. To the north-west corner of the primary rectangular building had been added a length of rather ragged wall footings whose purpose was clearly to accommodate the extension of the anteroom of the bath-suite. Failure to bond in or align this wall accurately with the original north-west corner of Room 2 lends to it the appearance of an afterthought, but since the anteroom itself is probably a later modification, this factor cannot be used directly to establish the relationship between the primary domestic buildings and the bath-suite.

At the southern end of the primary building a further wing projected eastward. This suite comprised two hypocausted rooms (Rooms 17 and 18), an independent stoke-hole area (Room 16) and a semi-circular apse (Room 20). The hypocaust pillars in Rooms 17 and 18

were significantly different from those of the hot rooms of the baths, being constructed of stones rather than baked tiles. Furthermore, the technique of construction differed in the two rooms. In Room 17 the pillars were formed of ashlar blocks approximately the same size as the tiles of the bath pilae, while in Room 18 the pillars were much larger and composed like a wall of many individual stones bound with clay. Like the bath-suite, these rooms contained a good deal of painted wall plaster, including some fragments which showed that replastering had taken place, but neither room gave evidence of mosaic or tessellated floors. A narrow channel through the wall on the north side of Room 18 apparently permitted a through-draught for the hypocaust. This opening was shielded by an external wall (19), which prevented a north-easterly wind from blowing directly back down the hypocaust.

There is no direct dating evidence for the primary building, but the discovery in the debris in the drain (9) of two complete samian vessels, one a cup of Drag. form 33 by the potter Peculiaris and the other a bowl of Drag. form 37 decorated with a free-style hunting scene, but lacking a potter's stamp, together with a Castor ware cup and substantial fragments of coarse ware vessels, convincingly date the abandonment of the building to the end of the 2nd century. The only other stratified find of significance was a silver denarius of Nero (A.D. 66), in good condition from the foundation of the wall of Room 18. While this coin must have evidently been in circulation for some time before the construction of the villa, it would be consistent with an initial date for the occupation of the villa early in the 2nd century.

In summary, the structural sequence of the northern building complex apparently involved three main phases. To the first phase belongs the simple cottage-type house represented by Rooms 1, 2, 3 and 15 reminiscent of phase one Lockleys, Hertfordshire (Ward-Perkins, 1938, 339-76), possibly incorporating a fair amount of timber in its construction above foundation level and with a veranda along its north and west sides. The suggestion has been made that the post holes in these rooms could indicate an even earlier, wooden building,

phase but during excavation there was no hint of any building connection between the holes so this seems unlikely. Subsequently, with the increasing prosperity of the settlement, a bath-suite was added at the northern end (Phase 2a) and what may have been a dining room at the southern end (Phase 2b). It is unlikely that these two extensions were built at the same time because of the variation of the forms of the hypocaust pillars, but it is not possible to determine the sequence of their construction. Perhaps it could be suggested that the baths came first, because of the neat, rather military type baked tile pilae ; so far north and at such an early date one might expect a local builder, with no previous experience of hypocaust construction, to emulate the only pattern he could see and that would be military. A little later, when the dining room was built, maybe the cost or difficulty of obtaining baked tiles was too great and this, together with the builder's growing confidence, led to the use of slightly different construction in other materials. An alternative possibility is that the intense heat required in the bath-suite necessitated the use of baked tile pilae, whereas the more moderately heated dining room allowed the use of stone pilae in Room 17, next to the stoke-hole, and even less durably constructed pilae in Room 18 which was away from the direct heat of the fire. The assumption that the southern extension was a dining room seems reasonable. Heated dining rooms were fairly common, certainly in later times (North Leigh, Oxon., Chedworth, Glos.) and it would not seem unreasonable that in the cold northern climate such an additional comfort would occur to the occupant when he had discovered the pleasure of his bath-suite. So far as the apse, or bow front, is concerned, Engleton, Staffs. had two such rooms, in the Mediterranean manner, though these were subsequently modified into rectangular rooms ; Winterton 4th century building G, room 12 was also apsidal.

The abandonment of the site at the end of the 2nd century was evidently accompanied by the systematic dismantling of the buildings and the removal of almost all the dressed masonry. There were no traces of robber-trenches in the rubble filling of the bath-suite

area, and the demolition had therefore clearly taken place before the building debris had collapsed into the shell of the deserted baths. Whatever change in economic fortune or political circumstances provoked the abandonment of the site, there is no evidence that it was accompanied by a violent sack or military disaster. Large fragments of pottery lay broken but without trace of burning and there are no signs of firing other than that which would be consistent with hypocausted heating systems. That the stone-robbing took place at the time of the abandonment of the site or shortly after might itself be taken as evidence of a deliberate and calculated move, rather than a precipitate and calamitous end to the occupation of the settlement.

The only other occupation was probably temporary, by itinerant squatters sometime after the building had been demolished, and the oven-like features in Room 4 may well be of this period.

The circular building

An area opened centrally in the main enclosure, just south of the rectilinear villa, exposed a large circular structure approximately 45ft. in diameter and constructed with footings of river cobbles bedded in the natural sub-soil. These foundations were on average 3ft. 9ins. in width, and were continuous round the circumference of the building ; on the south-west side they had sunk but been covered by lighter cobbling giving a definite impression of an entrance-way. Removal of the cobbled foundation in the south-east quadrant revealed two further courses of large cobbles beneath ; the entire construction was dry and not bound with clay but nevertheless afforded a very solid footing for the external walls of the building. An indication of the nature of the superstructure was provided on the north-east side of the circle by a single course of roughly dressed limestone blocks which survived above the cobbled footings. In the western part of the building a further length of cobbled wall footings formed a chord to the circle. These foundations were narrow and less substantial than those of the circular wall but they appeared to be an integral part of the building. Even so, it overlay the

edges of several post-pits and it may be that it was a later modification to the internal design of the building, perhaps forming a revetment for a raised platform and dais.

Within the structure a complex series of substantial post-pits was uncovered, most of which displayed several phases of re-cutting. Four of these post-pits were particularly outstanding, being arranged to form a 14ft. square in the centre of the structure, very like the central tower of the pre-Roman Iron-Age house at Little Woodbury in Wiltshire. These four post-pits were further distinguished by their filling of massive river cobbles beneath which lay large flat heel-stones, nearly 3ft. in breadth. Detailed study of the internal plan of this building may reveal a coherent sequence in the construction of the peripheral pits, but it is evident that this central setting of four provided the principal support for what was presumably a substantial timber and thatched roof.

Sealed in the filling of one of the post-pits which the chord-wall overlay was a coin of Trajan, providing a terminus post quem for the phase of construction represented by this modification.

It is interesting to compare this circle with the similar ones at Winterton, Lincs. (Stead, 1966, 72-84) which were of approximately the same size, date and construction. One is led to the conclusion that this structure was indeed a domestic dwelling in the Iron-Age tradition. Its dating is not firmly resolved by the quantities of coarse hand-made pottery recovered from several of the internal pits, though this could be consistent with a Roman native context. A further problem relating to the dating of the circle had been posed in the early stages of excavation by the fact that the cobbled foundations apparently intersected a narrow stone-lined channel which extended north-south across the area opened. Since this channel had the appearance of a water supply to the villa from a spring on higher ground to the south (still active and in a direct line with the channel) its relationship to the circle seemed to argue a dating for the latter after the abandonment of the villa itself at the end of the 2nd century. With the discovery of the dining extension this

water channel can be seen as the supply for the earliest rectangular house, and not for its more grandiose successor. This view would equally explain why the channel was not found emerging from the round house on its north side to join the dining area, having been removed to make way for the extension, and being replaced by another water supply somewhere outside the excavated area. This structural sequence, if valid, suggests that the round house was contemporary with the second phase of the villa, an interpretation which is at the same time consistent with the evidence of the pottery and the coin found within it.

Ancillary structures and later occupation

Two trial cuttings, both over 100yds. in length were excavated down the eastern and western sides of the enclosure. The western cutting revealed several stretches of cobbled wall footings, some only a single stone in width, to the west of the circular building but they were all too insubstantial to have been foundations of major buildings. They may have been the foundations for paddocks or small enclosures within the settlement. In the south-eastern corner of the site, however, the eastern trial cutting intersected more substantial wall footings and post supports associated with later 4th century pottery. Unfortunately, time and resources did not permit an extensive examination of this area, but it seems probable that a later occupation of the Holme House settlement still remains to be uncovered.

Conclusions.

The perimeter ditch at Holme House has been discovered physically on the north side, and with fair certainty from air-photographs on the east and part of the south sides. Who cut this ditch, and subsequently recut it? The primary ditch must have been unknown, or practically indiscernable, to the recutters for had they known exactly where it was they would surely have cleaned out the original ditch with far less expenditure of labour than recutting through gravel would entail. It seems unlikely that the inhabitants of the primary house cut either ditch because otherwise it would have seemed

more logical for them to have built their house more centrally in the enclosure. On the other hand, no earlier habitation of the site has so far been recognised.

The round house and the second phase of the villa were almost certainly contemporary, and the villa was abandoned and dismantled by the end of the 2nd century ; there is no evidence for the date of the abandonment of the round house but a complete absence of 3rd century pottery from anywhere on the site may lead one to suppose that it occurred at the same time as the villa. Why was the site left unoccupied at the end of the 2nd century ? It is generally thought that Albinus, then governor of Britain, realised in A.D. 194 that Septimus Severus had no intention of honouring a tacit understanding between them that Albinus should be proclaimed emperor ; in A.D. 196, therefore, he collected as many troops as he could muster in Britain and took them to the continent in an endeavour to establish his claim by main force. He was not successful and killed himself. Meanwhile, the Maeatae from southern Scotland took advantage of the depleted garrisons to overrun Hadrian's Wall and ravage the military installations as far south as York and Chester, though these two fortresses never fell ; there is, however, little or no evidence for extensive raidings or destruction of civilian dwellings in the richer parts of the north. Perhaps the inhabitants of the Holme House villa, a small but comparatively luxurious dwelling so far north at such an early date, realised by A.D. 194 or shortly after that serious trouble was imminent and decided to evacuate their home, even though their fears of fire and sack subsequently proved not to have been borne out in fact. e/

Supporting evidence for such a sequence of events can be found at Old Durham, Co. Durham (Wright, 1944, 1951 and 1953). Old Durham is the most northerly villa in Britain to have been excavated (Holme House is the second most northerly) and there we find a similar situation ; 2nd century structures and occupation, light occupation in the 3rd and a new villa built in the 4th. One must not assume too much from the evidence of just two sites but if other villa sites could be located and examined in the "Tyne-Tees" area, the point could be put to the test.

Much remains to be done at Holme House. The extent of the 4th century occupation should be determined ; the water supply for the second period of the villa should be located ; a search for rubbish pits and an examination of their contents might prove highly profitable ; it would be interesting to find the perimeter ditch on the remaining three sides and the enclosure entrance, and any evidence of dwellings prior to the primary villa might provide a clue as to who dug the ditches. It is not yet known what type of farming the inhabitants were engaged upon, nor its magnitude, nor the market it supplied. The owner must have acquired a relative degree of opulence during the 2nd century judging from the material remains of the villa, so it is reasonable to suppose that he was probably supplying the army. If an early fort could be found in the area this might be the answer.

CATTERICK (Yorks.) SE 2497

Hildyard, E.J.W., (1955), Y.A.J. XXXVIII, (1955), 241-5.

In June 1939 workmen digging foundation trenches for a new ammunition store at the R.A.F. Station at Catterick uncovered the walls of a building, and a skeleton with which was associated a large Anglian cruciform brooch datable to the middle of the 6th century. Before the excavator could begin an organised examination of the site a further skeleton was found and two more were reported from earlier excavations for cable laying nearby.

The building, 20ft. wide and more than 40ft. long, proved to be the northernmost chamber of a range of rooms running north and south. The first room measured 14ft. by 15ft. internally (all the rooms measured 15ft. across internally, the outside walls were of an average thickness of 2ft. 6ins. and the partition wall 1ft. 6ins.) and the walls, laid on footings of one row of cobbles set in the gravel sub-soil, stood five courses high and were composed of roughly squared blocks and occasional large cobbles, liberally mortared. A considerable quantity of coarse plaster remained in the north, west and south walls but it had no trace of colouring. In the south wall was a doorway 2ft. 10ins. wide with spaces in the masonry for wooden door jambs ; one large flat stone formed a doorstep.

The second room was not excavated but the four internal angles were ascertained ; it was an irregular quadrilateral, the west wall measuring 9ft. 8ins. and the east wall 9ft. 11ins. The north-west and north-east angles of a third room were also found, the partition wall being 1ft. 7ins. thick.

The floor of the first room was badly damaged but in the better preserved parts it consisted of cement laid on small, flat, unworn flags. Above this lay an occupation layer mixed with collapsed walling stones and containing animal bones, various iron objects and two lumps of lead. A coin, thought to be of Valentinian I (364-75)

was also found. The pottery appeared to fall mostly within the first half of the 4th century.

Conclusions

The building seems to have been of rough construction and contained no heating arrangements and this, taken together with the iron objects found, suggests that it was the workers quarters or workshop attached to the villa. The skeleton discovered in the first room was almost certainly Saxon and the excavator remarks that "... a black occupation layer, containing Roman pottery, overlay a spread of mortar suggesting the existence of a floor which had been broken through by the burial." A parallel exists at Denton (Lincs.).

GROUP 2. THREE NORTH-WEST YORKSHIRE VILLAS.

MIDDLEHAM (Yorks) SE 1387

Topham, J. (1882), Supposed Roman remains found near Middleham,
Y.A.J., VII, (1882), 459-64.

In about 1881, while digging a hole in which to bury a dead horse some quarter of a mile east of the castle, workmen came upon building foundations. They formed a room 20ft. by 14ft. externally with walls approximately 2ft. 6ins. thick. Inside was a cruciform hypocaust, the flues of which were 2ft. 6ins. deep and 15ins. wide, the walls being formed of squared rock. Over the flues lay well burnt flat tiles 2ft. square and 2ins. thick covered by flagstones. The floor between the flues was of concrete composed of lime, brickdust and gravel. Over this and the flue coverings was laid a concrete floor of the same materials, about 4ins. thick. At the north side an opening through the wall and into the flue was an arch of tile which projected outside the north wall. Inside the walls were box tiles in situ in groups of three wide spaced approximately equidistantly, three in the north and south walls and two in the east and west walls. Both flues and box tiles appeared to have been plastered inside with a mixture of lime and brickdust but showed no trace of blackening by smoke. The plaster on them had, however, fallen off due to the damp and may have removed the traces of smoke.

The threshold of the door, of freestone, 8ft. 6ins. long and 13ins. wide, was in the centre of the east side of the room. There would seem to have been folding doors, as there was on each side of the doorway a hole for the door-hinge to be let into, and hollows had been cut into the stone for the receptacle of two pieces of iron on which the doors ran. The width of the stone threshold entering the room was 4ft. 9ins. ; there had been a step from it onto the floor of the building.

The walls appeared to have been robbed to within a foot or so of the floor, on which was found tegulae and imbrices. Many of the roof and box tiles had the impressions of the feet of deer, fawns, pigs and dogs upon them. The remains of a small bowl or basin of unglazed black pottery was also found. The writer (who was not an archaeologist) thought that less than one-third of the site was excavated.

Conclusions.

This is certainly part of a bath-house, probably the laconicum. The reference to a 'folding' door is somewhat puzzling. The excavators' hint that they were sliding doors is off-set by the discovery of holes for hinges on each side of the doorway. 4ft. 9ins. is not an unreasonable width of doorway to be closed by double doors and the hollows cut in the threshold stone were probably not for iron runners but merely the lip against which the doors closed.

WELL (Yorks) SE 2681

Gilyard-Beer, R. (1951), The Romano-British Baths at Well
Y.R.A.C. Research Report No. 1

Joliffe, N. (1941), 'Dea Brigantia', Arch. J., XCVIII, (1941), 36-61.

Lucis, W.C. (1882), Y.A.J., VII, (1882), 284

Pritchett, J.P. (1886), J.B.A.A., XLII, (1886), 433-4

Webster, G. (1969), The Roman Villa in Britain, Ed. Rivet, (1969), 247

Although it seems unlikely that this was a villa site in the usual definition, a brief description is included here mainly because of the evidence it affords of very late occupation - rebuilding was taking place c. A.D. 370. Much of the site had been badly mutilated by stone-robbers, water engineers and intensive excavation at the end of the 19th century (Pritchett, 1886) of which no records whatever were kept, and it was from such an unpromising situation that Mr. Gilyard-Beer in the years between 1938-47 discovered evidence of a small house, hot baths, a large plunge bath and other structures. (Fig. 7).

The Dwelling House (Fig. 8).

This was the most badly damaged building in the whole complex having had its walls and floors cut through between 1858 and 1876 for the sinking of a water storage tank and the laying of four sets of water pipes ; a modern wall and fence crossed the site, a small pond overlay the north end and Holly Hill lodge with its outbuildings stood on the south end. The long axis of the building lay approximately north to south. The northern part was built directly on a magnesian limestone outcrop, without any other foundations and the southern end stood on a deposit of tufa with pockets of clay here overlying the limestone, where a single foundation course of rough-hewn limestone blocks was occasionally used. The building was a simple corridor house with a single range of rooms and a corridor down the east side ; the total external width, including the corridor was 33ft. 4ins. and the total excavated length was 46ft. 3ins.

although the building extended further south under the outhouses. The walls varied in width from 2ft. to 2ft. 3ins. and the outer wall of the corridor was 1ft. 9ins. wide.

The northern room measured 19ft. 5ins. by 19ft. 6ins. internally and its north-west angle stood three courses high ; the outer face of the wall showed a thin coating of plaster and there was a patch of red cement floor near the north-west corner.

The central room, 17ft. by 19ft. internally, had considerable remains of a tessellated pavement in its south-west corner and smaller fragments elsewhere. The south and west walls survived to a height of 3ft. and still retained their painted wall plaster but the east wall had been totally robbed away.

The southern room could only be examined at its north-west corner where a little pink wall plaster remained in the angle and a few rows of grey tesserae extended along the north wall. The rest of the floor in this part of the room had collapsed into a water channel 1ft. 6ins. wide with its floor 1ft. 7ins. below the floor-level of the room, which ran north-west to south-east beneath the west wall and the floor. Where it passed beneath the west wall that wall was supported on a large stone lintel ; it was traced externally for 3ft. 6ins. but could not be found outside the east wall due to modern disturbance of the ground. It pointed in the general direction of the west end of the plunge-bath and since its construction was very similar to that of the feed spout of the bath it is likely that it carried the water supply there.

The corridor was very fragmentary, though small pieces of a tessellated floor remained.

Dating evidence from the house itself is scarce ; part of a Drag. form 27 cup incorporated in the red cement flooring of the central room, which the excavator regarded as a survival, and part of a 2nd century jar from beneath the footing of a plinth outside the west wall near the water channel. But the water channel itself can help to narrow the date ; it could not be later than the house walls under which it passed as the lintel is of one build with them ;

it is reasonable to suppose that the house, water channel and plunge-bath form part of the same building programme, so from evidence obtained from the bath the date for the construction of these three features can be narrowed down to the later part of the 2nd century.

Against the northern end of the west wall of the house a shallow builders' level, devoid of datable material, was covered by some 6ins. of occupation earth tailing off to the west ; this contained pottery of 3rd or early 4th century date and represents a period when the building was still occupied. There were no signs of reconstruction and the latest stage of the house in Roman times is probably indicated by sherds belonging to the last thirty years of the 4th century found trodden into gaps of the tessellated pavement at the north end of the corridor. No explanation could be found for two shallow and isolated post-holes found 29ft. south-east of the corridor wall in the tufa of the valley floor. Above the Roman levels part of the building had been covered with a rough cobble pavement containing 13th and 14th century pottery.

The building represents a simple corridor house with no provision for heating any of the known rooms, although other rooms to the south could not be excavated. It had tessellated pavements, part of one of which is now preserved in a wall in Well church. It evidently continued in use from the latter part of the 2nd century to the end of the 4th century.

The Hot Baths. (Fig. 9)

This building measured 51ft. in length by 26ft. 9ins. wide lying with its long axis east to west. Its walls, like those of the house, were of roughly squared and coursed magnesian limestone with rubble cores set in yellow mortar, and were 2ft. 6ins. thick. It had five principal rooms and wherever possible the limestone floor of the valley had been planed level to form a foundation for both walls and floors though towards the south-east an artificial surface had had to be made of limestone boulders packed in earth.

The easternmost room occupied the full width of the building but had been severely robbed, only a few foundation stones remaining ; but from its position in relation to the other rooms it would have been the entrance hall or dressing room.

Adjacent to the apodyterium on the west, two smaller rooms divided the width of the building between them. The southernmost approximately 10ft. square retained some of the lower courses of its walls and had originally possessed a solid floor of tightly rammed yellow sand. A thin layer of this remained but its disturbed surface showed that the upper levels had been removed together with any pavement it may have supported. Separated by a cross wall 3ft. 9ins. in width was a smaller room to the north, 10ft. by 7ft. 9ins. which had its floor at a considerably lower level ; this was the cold bath. The north wall was pierced for a drain made of imbrices joined in pairs to form a pipe. The cemented floor supported a tessellated pavement and the walls were covered with pink wall plaster from 1ins. to 2ins. thick with a quarter-round fillet of pink plaster between walls and floor. The north wall of this room showed signs of the incorporation of an earlier wall well made of ashlar but quite unlike any other work found on the site.

The next room to the west, like the apodyterium, occupied the full width of the building and measured 8ft. 10ins. by 21ft. 5ins. ; this would have been the tepidarium. The floor had a thin covering of coarse cement reinforced in one place with flags to cover a natural fissure and was pitted in places, probably from the removal of hypocaust pilae. The furnace, 1ft. 6ins. wide, was in the centre of the north wall and its cheeks projected 4ft. north of that wall and stood to a height of 2ft. 9ins. The floor of the furnace passage was of cobbles bedded in a mixture of pebble and plaster. It had subsequently been re-floored, above an accumulation of charcoal, with tiles set in mortar. The prae-furnium was roughly floored with cobbles.

The last room to the west, the caldarium, also occupied the full width of the building, measuring 9ft. 6ins. by 21ft. 4ins. The rough cement floor bore clear traces of soot and of the former

presence of square hypocaust pilae. At the north end of the room marks on the floor indicated that here the pilae had been closer together than elsewhere, presumably to support the weight of a hot bath immediately over the furnace in the north wall. Small buttresses had also been built against the east and west walls in this area, presumably to give additional support. The furnace opening was 1ft. 8ins. wide and the furnace passage walls stood to a height of 4ft. 9ins. outside the north wall of the room. The walls of the caldarium above the hypocaust chamber had originally been faced with a $\frac{3}{4}$ ins. coat of deep red wall plaster covering a thin layer of mortar applied direct to the masonry, and had later been covered again by an application of pink plaster of the same thickness. The prae-furnium was 11ft. wide and the floor consisted of 2ft. 6ins. of cobbles set in clay with a top surface of 6ins. of cobbles. A deposit of charcoal 1ft. 3ins. thick had accumulated on this floor. The arrangement of prae-furnium for the tepidarium and caldarium shows that both could be heated independently although Gilyard-Beer considered that the difference in floor levels indicated that that of the caldarium was a later addition, in which case, presumably, the two rooms were then heated in the normal way with the tepidarium taking secondary heat from the caldarium furnace.

No dating evidence was obtained from the hot baths, largely due to the removal of all stratification by previous excavations and by the construction of a kiln and oven in the north ends of the two hot rooms during the 18th century. A flanged bowl of 3rd or 4th century date was recovered from the furnace room of the caldarium; the most that can be said is that the building was constructed earlier than the middle of the 4th century when the first annexe was built. Similarity of masonry and construction technique suggest that the baths were contemporary with the dwelling house but this cannot be proved.

The Annexes

Annexe 1 was built against the south wall of the frigidarium and traces of a mortar floor indicated that, like the floors of

of annexes 2 and 3, it had been approximately level with the floors of the hypocaust chambers in the heated rooms and was therefore some 3ft. below the level of the main floors of the building. The south wall had subsided due to being built over a large, deep rubbish pit sealed by a mortar spread $\frac{1}{2}$ in. to 1 in. thick. Pottery and glass from this pit show that the sealing took place about the middle of the 4th century and the annexe was therefore built after that date.

Annexe 2 had been built against the west wall of the caldarium and measured 13ft. 4ins. by 13ft. 9ins. The walls were substantially built of limestone, 1ft. 6ins. thick and on the north side stood seven courses high. The walls were not plastered and there was no sign of hypocausting. There was no furnace, nor even a vent to any other heated room and in the south wall stood a doorway opening at ground level. The foundations of this building rested on a massive foundation of limestone blocks built over a pit some 6ft. 6ins. deep which had been used for quarrying the natural limestone but immediately refilled after the quarrying had finished and before any silt had accumulated on its floors. Sherds recovered from the filling showed that the work was not carried out before c. A.D. 370 so the building of the annexe did not take place until the last quarter of the 4th century. Other material from the filling consisted of pieces of tile, building stones (as many as three courses adhering together, complete with wall plaster), large quantities of wall plaster including jambs and angles, many tesserae and seventeen small pieces of mosaic representing parts of two pavements, one of which was superior to any found in situ at Well. Many of the stones had been damaged by fire. The history of the eventual decay of the building was reflected by stratification outside the north wall. The filling of the quarry pit had been covered with a spread of red cement topped by yellow mortar. Above this had accumulated some 15ins. of fairly clean silt mixed with a little debris over which lay a thick deposit of roofing tiles, both tegulae and imbrices forming a mound towards the centre of the wall. These must have slid in an avalanche over the north wall when the roof timbers rotted away.

Annexe 3 consisted only of the south face of a wall built at right angles to the east wall of the apodyterium and no evidence of date was discovered.

Courtyard Pavement

To the south and east of the hot bath a pitching of limestone slabs and pebbles had been laid to form a crude pavement covering a number of small pits filled with charcoal and debris. In several places the pavement had been covered by a second layer of pitching, similar in character. Both pavements respected the south and east walls of the baths which were presumably standing when they were laid. A single sherd from below the bottom pavement showed that it could not have been laid before the 2nd century and sherds from between the two pavements show that the upper one belonged to the 4th century.

The Plunge-bath (Fig. 10)

Some 19yds. south and slightly west of the hot baths a rectangular structure was found which had its long axis parallel to them. Its floor was in places as much as 7ft. below present ground level and had been well below ground level in Roman times. Measuring 39ft. 10ins. from east to west and 15ft. from north to south, its walls were of fine and massive magnesian limestone ashlar, the average size of the upper courses being as much as 4ft. 6ins. long and 1ft. high. The workmanship was excellent, the stones being faced on all sides except the back, and in their ruined state the walls varied from two to eight courses in height and their inside faces were slightly but accurately battered. The foundation trench outside the wall was filled with blue clay. The top course of stone had a moulded cornice below which was found a very thin coating of plaster on the face of the west wall.

The floor was made of rectangular slabs of magnesian limestone, about 6ins. thick, bedded on the tufa of the valley floor and irregular in size and alignment, though accurately fitted together. The slabs had been covered with from 1in. to 2ins. of coarse tile cement much worn away in the centre of the floor and a quarter-round skirting of plaster masked the junction of floor and walls. Access to the

structure was by means of a flight of three heavily worn stone steps in the north-west angle.

The bath was fed by a spout which appears to have stood 1ft. 5ins. above the cornice of the west wall. The width and position of the spout suggest that it was the end of the aqueduct which passed beneath the walls of the dwelling-house although attempts to trace the aqueduct between the two buildings were unsuccessful due to disturbance of the ground in recent times.

The level of the floor of the bath dropped 5ins. from west to east and 3ins. from the north and south sides to the centre to empty into a circular drain 5ins. in diameter cut in the lowest course of the east wall where the skirting was interrupted. After passing through the wall its channel was cut in the tufa of the valley floor, flanked by massive limestone walls 6ft. long, up to 2ft. wide, and 2ft. 6ins. high capped by two courses of limestone slabs. In passing through this channel the level of the drain dropped another 6ins. and on emerging it discharged into a pit cut to a depth of 6ft. into the valley floor and extending at least 9ft. to the east. The total length and width of the pit were not discovered.

At a distance of 8ft. 1in. from the west wall and almost in the centre of the west end of the bath one of the flooring flags had been pierced by a roughly circular hole 5ins. in diameter. It was not a second drain as, when the flag was lifted there was no channel and the tufa had been stained only to a depth of 2ins. by leakage through the hole. That the hole was not bored intentionally was shown not only by the irregular outline of its upper edges but also by the presence of a series of similar circular depressions, none piercing the stone, on the same flag and on two adjacent ones to the west. Further west again a perfectly cup-shaped depression 2ins. in diameter had been made in the tile cement. The excavator considered that the most likely explanation was that they were made by a revolving vertical post, perhaps metal shod, the position of which was changed from time to time as the floor became worn by its friction. No traces of supports for such a post were found in the

floor or walls. A possible explanation, if the bath was used for ritual or healing rites as postulated below, is that the sockets were part of some crane-like machinery for lowering the infirm or incapacitated into the bath. In this connection it is worth bearing in mind Webster's interpretation of the use of the socket hole in the stone in the circular structure at Langton (Webster, 1969).

This bath was the only structure on the site which had not suffered previous disturbance so a considerable amount of stratified material remained for examination. The clay filled foundation trench for the north wall had cut through the lip of an older pit dug into the tufa of the valley floor. The coarse pottery found therein belonged mainly to the second half of the 2nd century so the walls cannot have been built before the latter half or even the end of the 2nd century. The bath had later been deliberately filled up with a mixture of silt, clay and building debris and the pottery from the filling provided a late 3rd or even early 4th century date. The filling had been carefully done and levelled off to an even surface ; in one place an additional layer of yellow river gravel had later been added to make a flat surface. The pottery from this yellow gravel was of late 4th century date. The bath was therefore in use for only a hundred years or a little more.

The Reconstructed Building (Fig. 11)

Between the hot baths and the plunge-bath were the fragmentary remains of two rooms - so fragmentary that it was not possible to determine whether both had belonged to the same building. Neither was connected with the hot baths, and, as their south sides had been completely destroyed it was not known whether they were connected with the plunge-bath.

The western room measured 19ft. 6ins. by 8ft. 9ins. and as originally built its walls had been 2ft. thick and it had possessed a hypocaust, the furnace passage of which was near the south end of the west wall. The reconstruction affected the west, north and east walls and the inner face of the west wall was rebuilt 1ft. 2ins. east of its original line, and the furnace passage was therefore

blocked at the mouth. It was replaced by a new furnace in the centre of the north wall, and the northern half of the east wall was rebuilt to a width of 2ft. 3ins. instead of 2ft. The floor was of two layers of white cement with a thin layer of sand between them. No traces of hypocaust pilae were found.

Only the north side of the eastern room survived. In its original form it measured 19ft. 2ins. from east to west. The wall of squared and coursed limestone was about 2ft. in width and an open drain made of imbrices, starting from a point some 2ft. within the north wall, passed through that wall and discharged to the north. Reconstruction of this room amounted to almost complete rebuilding ; the north wall was dismantled down to its bottom course which was incorporated in the floor of the new room. The new north wall, 2ft. 2ins. wide and of very rough construction was laid on a new, more northerly line and blocked the northern end of the open drain. Some 11ft. west of the north-east angle a partition wall ran south from the north wall but had been completely robbed after a distance of 4ft. 9ins. The new north wall projected west of this partition, but it is doubtful whether it extended as far as the old north-west angle which had been left standing well above floor level. Remains of two floors were found in the eastern part of the room. The lower one, of tiles packed in earth, was level with the bottom of the lowest course of the original north wall and probably belonged to it. The upper one, of cobbles, was level with the top of the same course, which now served as part of the floor. Two patches of burnt cobbles indicated the positions of temporary hearths here.

Sparse pottery dating suggested that the original buildings could not have been erected before the 2nd century, but the purpose of the rooms and the date of their reconstruction remained obscure.

The Quarry Pits

Two large shallow quarry pits were discovered west of the plunge-bath. The first, 16ft. away, measured 21ft. by 18ft. and had been excavated into the rock to an average depth of 3ft. The second, about 50ft. west of the bath, was approximately 13ft. long and had been

excavated to an average depth of 2ft. The western pit had been disturbed during the 19th century and no datable material was recovered. The filling of the eastern pit had not been disturbed. Its floor was covered by 6ins. to 1ft. of grey earth containing a few burnt stones. The level surface of this deposit was covered in places by a very irregular cobble pitching and this by a layer of burnt occupation material amongst which were fragments of an amphora and a bowl and sherds of hand-made and rustic wares. Above this rough floor were masses of limestone blocks, some hammer dressed, covered by occupation material containing a few sherds of early 2nd century pottery. This in turn had been covered by a rough floor of rammed limestone rubble and gravel, associated with 13th and 14th century pottery.

The approximate dating of this pit was shown as pre-Hadrianic from the pottery beneath the limestone blocks, whilst the pottery above them showed that the pit had been abandoned and filled not earlier than the early 2nd century. It seems that the stone from these quarries must have been connected with some earlier activities in the valley and not with any of the building uncovered during the excavations of 1938-47.

Conclusions

Geological considerations and evidence provided by the charcoal from the Roman levels agree that the major arboreal growth in the area was ash with a little oak and that it was succeeded by an undergrowth of alder, hazel, hawthorn and willow. The valley bottom was marshy and waterlogged. The pottery evidence from the pits suggests an initial dating of c. A.D. 70-80 for Roman-British activity on the site and enough Trajanic and Hadrianic pottery was recovered to suggest that a slight but continuous occupation may have linked the early quarrying with the later building activities. The major building campaign, however, belonged to the second half of the 2nd century and it was preceded by the filling of the quarry pits, the burning of the undergrowth on the site, and the disposal of the ashes and debris in irregularities in the valley floor covered by rough

pavements. This building campaign left behind all the buildings already mentioned, including, presumably, the undated hot baths ; it is on the remains of these that any appreciation of the significance of the site must be based.

None of the buildings except the plunge-bath can claim to be monumental in scale ; their walls and tessellated pavements were of efficient workmanship and uninspired design, adequate for their purpose but no more. In contrast, it is clear that more than ordinary care and effort went into the construction of the plunge-bath. Its walls of fine masonry and the suggestions of embellishment that remain in its moulded cornice show that it was a structure of some architectural pretensions.

The antiquaries of the 19th century who only knew about the tessellated pavements of the dwelling-house, and the hot baths, assumed - not unnaturally - that they had found a villa ; but the discovery of the plunge-bath causes one to doubt this. There are no signs of barns or outhouses, nor of any field system related to the site. Moreover, it seems unlikely that such an elaborate plunge-bath would have been required by a comparatively small dwelling-house and if it is suggested that it served a larger occupation area it should be remembered that the nearest other known villa was at Castle Dykes, $4\frac{1}{2}$ miles to the south. It seems, on the evidence available, that the house was intended to serve the bath rather than that the bath served the house. One explanation could be that Well was a small spa or the shrine of a water deity. Well lies in Brigantian territory and Brigantia herself was originally a water goddess. Water cults had an especial vogue in her territory and may have been connected with healing. (Joliffe, 1941).

In support of such a theory, although there is no direct evidence that the spring was regarded as being sacred or possessing special healing powers in Roman times, it is significant that it was so regarded in the Middle Ages, and perhaps the regard in which it was held at that time derives from a memory of earlier sanctity. Perhaps the dwelling-house and hot baths were the priest's or caretaker's quarters and the plunge-bath had some ritual use.

Against this, no evidence has yet been discovered of any shrine or temple or votive offerings or of the guest-house which often formed part of a spa complex.

We do know that the active life of the plunge-bath continued for no more than 150 years and that it was then (in the late 3rd or early 4th century) deliberately dismantled and filled in. The dwelling-house and hot baths, however, continued in use - perhaps different use - after this time as is seen from the small additions made during the middle and late 4th century. No date is available for the final abandonment of the site in the Roman period nor any signs of occupation between the end of the 4th century and the middle of the 13th century.

CASTLE DYKES (Yorks) SE 2975

Lucis, W.C. (1875), Arch.J., XXXII, (1875), 135-54

Heslington, T.C. (1867), Roman Camps in the Neighbourhood of Ripon, (1867).

Castle Dykes, (Fig. 12), is an enclosure of some $5\frac{1}{2}$ acres surrounded on the west, south and east by a ditch with a bank on each side, and on the north by a brook known as the Lightwater. In the spring of 1866 a brief excavation of a somewhat patchy nature was undertaken, the results of which are summarised below.

The Ditch

A section cut across the two banks and the ditch near the south-west corner of the enclosure revealed a flat-bottomed ditch with slightly sloping sides approximately 17ft. 6ins. wide at the top and 15ft. wide at the bottom, cut through 7ft. of solid limestone. The depth of the excavated section from the tops of the banks, perpendicularly down to the flat surface of the rock at the bottom of the ditch was 17ft. 6ins. and the width between the two highest points of the banks was 46ft. The ditch had been filled to a depth of nearly 7ft. with rough walling stones, to some of which mortar still adhered, and several bore the marks of burning; there were also lumps of mortar and fragments of roofing tiles. No datable evidence was recorded.

South-West Building (Fig. 13)

Within the south-west angle two heated rooms were discovered. The larger measured 25ft. by 21ft. 6ins. with walls 3ft. thick; the smaller, 16ft. 6ins. by 14ft. 6ins. with walls 2ft. 3ins. thick; a flue pierced the separating wall. A furnace flue was found in the south wall of the smaller room. In many places the walls had been removed but a few of the grit pilae remained in rows upon a floor of hard rammed and compacted earth. A few pieces of the thick, grey flagging of the upper floor were discovered together with a number of fragments of painted wall plaster. The building evidently had a timber superstructure, laid internally with bundles of straw reeds upon which the plaster had been spread. Many pieces of the plaster

were sharply impressed by the reeds showing that these had been tied together in narrow bundles, 2ins. wide, and presumably nailed to the walls. Some of the plaster fragments were richly decorated with stripes, others with a twelve pointed star or petal of deep chocolate colour on a white ground and also the same device reversed.

A trench 5ft. wide was excavated round the interior of the large room though the centre was left undisturbed. From this trench came bone pins and parts of two human skulls ; pieces of a large coarseware vessel ; many pieces of thin grey roofing slates, some with rusty nails still in the holes ; tiles bearing the imprint of a dog's feet and a child's hand, and the bottom stone of a quern.

Near an opening in the south wall, opposite the large room, was the site of an ash pit. From this were removed fragments of a mortarium and an amphora and quantities of broken black coarseware. There were fragments of Castor ware together with ox bones broken to extract the marrow ; pieces of coal, glass and samian ware ; oyster, mussel and whelk shells.

The North Building (Fig. 14)

In 1870 and 1874 extensive excavation in the north of the field brought to light a large complex of buildings which included six hypocausted rooms. The buildings were in two blocks, that to the east comprising a somewhat complicated two phase bath-suite with modifications having taken place within these phases, the western block being a dwelling. In the early phase there was a 6ft. space between the two blocks but later they were joined by a wall.

East Block

The foundations showed that the room measurements were as follows : Room 12, 18ft. by 9ft. with a 4ft. recess at the northern end ; Room 13, 10ft. 8ins. square ; Room 14, 9ft. by 4ft. ; Room 15, 7ft. by 5ft. 3ins. ; Room 16, originally 10ft. by 12ft., later 9ft. by 7ft. with a bath at the south end. The foundations of the two main building phases were quite distinctive ; the newer walls were less solid, laid upon a layer of cobbles, and built in irregular courses, the stones not being always carefully squared, the older

walls were thicker and built of squared stones on a foundation course of red sandstones.

The information contained in the report is somewhat sparse with regard to the relationship of the various phases of the rooms one to another, but a possible interpretation can be attempted. Room 12 may have been the entrance and cold room with a cold plunge at the north end emptying through the small external room to the east which was perhaps a latrine ; in a subsequent modification the cold bath was filled and a rough mosaic pavement laid over it. Room 13 was a hot room. Room 17 could have been a furnace room for stoking the fire to heat Room 16, a caldarium and Room 14, a tepidarium. The excavator concluded that in the first phase Room 15 was "an apartment" and there is no real evidence for the use either of this room or the other small room to the south of it. In a later modification it became a hypocausted hot room perhaps with a furnace in the smaller southern room.

At some period after the construction of the original bath-suite the building was at least partially destroyed ; to quote the excavator, "... a picture of violence, conflagration, and at length bloodshed, vividly arose before us." Large quantities of wood ash overlaid the pavement ; the smoke-blackened wall plaster showed burning to a depth of half an inch ; in places the pavement had been badly damaged by falling masonry, as for example in Room 13 where a large piece of the stone vault measuring 6ft. 6ins. by 4ft. had fallen, crushing and overturning some of the hypocaust pilae and wholly obscuring the flue. The skeleton of a child about 13 years was also found. In Room 12 even more dramatic evidence was discovered. The skeleton of a young man, down on one knee, with a hole in the left side of his head caused by a sharp instrument was found under the collapsed masonry of one of the walls. The skeleton of an infant was found outside the north wall. In the hypocausts were the skeletons of two lambs or goat kids which, presumably frightened by the noise and fire, had entered the furnace openings and perished in the far corners of the system.

The bath-suite was then rebuilt on a smaller scale. Rooms 12 and 13 which had been totally destroyed were never rebuilt but the foundations of the remaining rooms were used as a base for the reconstruction. Room 14 now became a passage, perhaps a small entrance hall ; Room 15 became a hot bath or sweat room with a reservoir built in the small adjoining room heated by a newly built external furnace. An extension to house a new furnace room and walled ash pit was constructed south of Room 17 which, with a hot bath added in its southern end became the caldarium ; Room 16 would then have served as a tepidarium.

A great amount of wall plaster was discovered in the debris, some of it showing three layers, each with a different pattern ; but the three plasterings do not, of course, necessarily represent three periods of building. The excavator makes a point that the older buildings were covered with flanged tiles, and the newer with Pateley flags, and also mentions, en passant, the presence of bases of stone columns.

West Block

In dealing with this building we must rely solely on the plan, as the excavator gives no textual report at all except to mention that Room 3 was the first room to be found. Both phases seem to indicate courtyard villas and in parts the first phase foundations have been used as a base for subsequent rebuilding, though not always, as can be seen from the centre wall of phase 2 diverging slightly from the south wall of phase 1, over most of which it is built. In other places the phase 2 wall ran on completely different lines. In phase 2, two heated rooms seem to have been added, the more westerly of which projects northward from the north walls of both the 1st and 2nd phase villas.

The Tiles

The excavator spends much wordage in the report on the various shapes and sizes of tiles found, together with the marks found upon them. The pilae tiles were 7ins. to 8ins. square and the hypocausted room floors were suspended on tiles about 20ins. square. Many bore

the impressions of human feet of various sizes, both shod and unshod, and also the footprints of dogs, cats, sheep, lambs, goats, kids and pigs.

Conclusions

The Reverend Mr. Lucis evidently felt that a plan (without a scale) and an imaginative textual reconstruction of the more blood-thirsty aspects of the history of the site constituted all the recording which was necessary, except, at the end of the report, to mention that quantities of pottery, iron objects, coins, column bases etc. had been found. Unfortunately, he does not tell us what part of the site any of them came from, far less give a hint as to their stratigraphy. It is also interesting to note that he was convinced to the last that he was digging a military installation, thus, " ... now I come to the question why this particular site was selected for a fortified post." However, it is still possible to find a few clues. Heslington, in his monograph on the south-west, two-roomed, building, gives a list of material found in an ash pit, which included Castor ware. This provides us with a 3rd century date with leeway each side. He does not mention the discovery of any coins (which, judging from the rest of his writing, he certainly would have done if any had been found) and we may therefore assume that the 4 coins came from the north building. They were Volusianus, 3rd brass (c. 240), Postumus (258+), Constantius Chlorus, 2nd brass (296-303) and "Gallus"; if this was Constantius Gallus, then 351-54.

Lucis's plan shows the phase 1 villa foundations tailing off to the south and the foundation of phase 2 continuing into the unknown both to south and west. It is therefore fair to assume that the villa extended to the south and possibly the west. If we take the further step, admittedly unsupported by any evidence, of supposing that the two-roomed building found in 1866 was part of the same villa, a plan of a large courtyard villa emerges with a resemblance both in size and layout to the villa at Chedworth (Glos.) (with the north point exactly reversed).

Unfortunately there is only a minimum of dating evidence, but it seems reasonable to postulate a large courtyard villa (which the minimum of excavating could prove or disprove) with somewhere and at some time an open veranda (vide the column bases), existing during the 3rd century and possibly extending from the late 2nd to the 4th century. At some time it was either attacked and partially sacked, or accidentally burnt down, and then at least partially rebuilt. The enclosure ditch is almost certainly pre-Roman so a lengthy occupation of the site could be expected.

GROUP 3. SEVEN VILLAS NEAR MALTON

HOVINGHAM (Yorks) SE 6675

Stukeley, (1887), Publications of the Surtees Society, LXXX, (1887),
354-6

Clark, M.K. (1935), G.R.R.E.Y., (1935), 88-94

During the construction of ornamental gardens, streams and fish-ponds at Hovingham Hall in 1745, the remains of a bath-suite were found ; the main building contained three or four rooms and measured 53ft. long by 15ft. wide. The prae-furnium was broken and indefinite. Parallel with this portion were double flues leading into a small apse, approximately 7ft. in radius, which in its turn led into the side of the main range. Adjoining, but not communicating with the apse was another room, very fragmentary, with cross walls which might indicate a reconstruction.

All the rooms were hypocausted and brick pilae 9ins. square and 21ins. high were discovered. A tessellated floor had been laid over the pilae and pieces of this had collapsed into the hypocaust among the ash ; some flue tiles remained in situ against the lower courses of the walls.

Across 12ft. of cobble paving was a plunge-bath 11ft. 11ins. by 10ft. 9ins., lined with cement and rendered with a thin layer of plaster, but there is no evidence to indicate whether it was joined to the main building or had been covered.

74yds. west of the "Bath" was found a tessellated pavement measuring 15ft. 10ins. by 8ft. within walls 18ins. thick ; it had two panels within a border, one a 'Greek key' pattern and the other an interlace or plait design.

The nineteen identifiable Roman coins which were preserved at Hovingham Hall (Clark, 1935) and which presumably came off the estate,

though not necessarily as a result of the landscaping activities in the 1740's, form an interesting picture. The list is as follows:

| | | | |
|------------------|---------|------------------|---------|
| 2 Antoninus Pius | 138-161 | 3 Constans | 337-350 |
| 1 Victorinus | c.265 | 2 Constantius II | 337-361 |
| 1 Claudius II | 268-270 | 3 Valens | 364-378 |
| 1 Carausius | 287 | 3 Valentinian I | 364-375 |
| 1 Constantine I | 308-337 | 1 Theodosius | 379-395 |
| 1 Constantine II | 337-340 | | |

Conclusions

The indication from the coins is of possible light occupation of the site in the 2nd century, although since the two Antonine specimens are so far outside the general range they may be strays. Certainly there was occupation in the second half of the 3rd century. The 4th century seems to have been the time of maximum activity on the site ; from the second quarter there is a swift build-up of coins reaching a peak in the third quarter and then diminishing to the end of the century. There may have been a re-building or extension programme carried out c. A.D. 330-40. It should be remembered that at some periods there were more coins in circulation than at others so the number of coins discovered does not always represent the intensity of occupation.

OULSTON (Yorks) SE 5673

Clark, M.K. (1935), G.R.R.E.Y., (1935), 119

Whellan, T. (1859), History and Topography of the City of York and the North Riding of Yorkshire, II, (1859), 661-3.

In 1854, workmen digging a hole for the purpose of fixing some posts, came upon a hard surface which broke up into small square pieces. This, together with the discovery seven or eight years earlier of some pieces of tessellated pavement and a floor resembling wall plaster, led to a further examination of the area.

This revealed a mosaic pavement, (which Whellan, probably incorrectly, called 'the corridor'), 35ft. long by 10ft. 6ins. wide. The pattern was divided into five parts, from the outside, geometric, then plait, and in the centre a medallion enclosing a head. A suite of six rooms adjoined the 'corridor', and an apse, raised 6ins. above the 'corridor' at the side and at right angles to it, contained a mosaic depicting a cantharus surrounded by a Greek key border. The centre of the corridor floor was covered with concrete 1½ins. thick, cemented firmly to the tesserae below. It is possible that this apse belonged to a later phase and lay on the axis of another set of pavements, of which the concrete was the only remaining evidence. 'Roman urns, bricks, tiles and flues' were found.

MUSLEY BANK and ROWBOROUGH (Yorks) SE 7670

Clark, M.K. (1935), G.R.R.E.Y., (1935), 111

Walker, J. (1838), Archaeologia, XXVII, (1838), 404

Whellan, T. (1859), History and Topography of the City of York and the North Riding of Yorkshire, II, (1859), 618

The farms of Musley Bank and Rowborough, a mile from Malton in the direction of Castle Howard, were the sites of 19th century

discoveries which at that time were supposed to represent two villas. At Musley Bank in 1817 were found a tessellated pavement and substantial foundation walls but the owner had them covered over again with a view to having them properly excavated in the future ; this was prevented by his death. Evidently they were re-discovered some years afterwards and "a Roman pavement, Urns and Coins" were recorded (Walker, 1859, 618). Whether Walker was literally referring to an urn, or some other pottery, or whether he was writing about the design on the pavement (a cantharus ?) as Whellan was, is not certain. Whellan also mentions the discovery of another Roman pavement on the adjoining farm of Rowborough. It seems likely that this is a case of one villa extending into both farms.

CRAYKE (Yorks) SE 5569

Hayes, R.H. (1959), Y.A.J., XL, part 157, (1959), 90-8

Hildyard, E.J.W. (1959), Y.A.J., XL, part 157, (1959), 99-111

Sheppard, T. (1939), Y.A.J., XXXIV, 273-81

Random finds in the Crayke area suggest that there may have been a villa site in the vicinity. In 1956 a farmer ploughing a field known as Toad Close estimated that he had removed 50 tons of stone from the southern half of the field although the remainder was practically stoneless. Among this material were two quern stones. Trial trenches revealed extensive patches of rough paving at a depth of 12 to 15ins. below field level together with more quern stones, roofing slabs and flue tiles, and a few 4th century pot sherds.

In 1958 a drainage trench approximately 200yds. long to the north-west produced a small group of sherds of late 3rd and 4th century pottery.

A Roman box tile (Hildyard, 1959), and four sherds of pottery (Sheppard, 1939) datable to c. 370-95, were found during excavations near the Hall and the reservoir in the village of Crayke.

The area has evidently been occupied for a long period as prehistoric and medieval material has also been discovered.

LANGTON WEST (Yorks) SE 8167

Clark, M.K. (1935), G.R.R.E.Y., (1935), 97-8

Langton West lies some 400yds. to the west of Langton villa and was first located in 1863 during ploughing. Upon further examination, part of a tessellated pavement, tesserae, tiles, pottery and ash were found over a wide area, and stone foundations were discovered at a depth of 1ft. to 16ins. The longest wall ran due north and south, on the west of the pavement, for about 40yds., and at the southern end was a large, square, dressed block of sandstone with a shaft hole. The pavement was evidently part of a dwelling house, the wall either a boundary or building wall, and the "shaft hole" a door or gate socket. The relationship between these structures and the villa is not known at present.

BEADLAM (Yorks) SE 634842

Stead, I.M. (1967), J.R.S., LVII, (1967), 179

Stead; I.M. (1971), Unpublished typescript interim report

The villa (Fig. 15) is situated in a pasture field $1\frac{1}{2}$ miles west-south-west of Beadlam on the south side of the road from Helmsley to Kirkbymoorside. The remains survived as grass and weed covered mounds and the farmer had dismissed the building as "old cart sheds." The field had not been ploughed within living memory until 1964 and 1965. Walking over it after the second ploughing a local archaeologist, A.L. Pacitto, collected fragments of flue tiles, pottery, several pieces of opus signinum and a large lump of sheet lead, proof that the buildings were Roman-British. The Inspectorate of Ancient Monuments was informed and steps were taken to ensure that the site was not ploughed again until the buildings had been investigated.

A brief trial excavation in 1966 confirmed the Romano-British date, and uncovered part of a mosaic pavement ; this was followed by a full-scale excavation in the summer of 1969, directed by A.L. Pacitto and Dr. I.M. Stead of the Ministry of Public Building and Works.

On the surface the Romano-British buildings appeared to occupy three sides of a square, and were on low ground a little above the level of the River Riccal which is less than 98yds. away. The sub-soil is a sandy alluvium covering Kimmeridge Clay, but only 220yds. to the north there is an east-west fault, and beyond that outcrops of Corallian limestone and sandstone providing ideal building materials.

The Roman buildings were obviously standing above floor level, and there was little sign that the walls had been robbed. Hence from an early stage the possibilities of preservation and display had been considered. In order to assess these prospects fully it was decided first to strip the two most prominent mounds to the final phase of the buildings' occupation.

The North Building (Fig. 16)

The north building is basically rectangular, 105ft. long by 24½ft. wide. A wide entrance in the centre of the south wall opens to a room with an earth floor which crosses the width of the house. The rooms on each side of this central area are similar in plan - a passage leads to a room with a concrete floor and painted walls, and there is another room in the angle between the two - the only difference is that on the east side the passage is at the back, whereas on the west side it is at the front. Outside, two successive boundary or veranda walls were demolished before the end of the occupation, and a square annexe, on the front at the west end, had also been levelled. Otherwise this building is in an excellent state of preservation.

Room 1 has an opus signinum floor and may originally have had a quarter-round moulding. The walls stand up to six courses high (3ft.) and fragmentary painted wall-plaster survives on all internal faces. At the south end of the west wall are the remains of steps up to Room 2, whose floor level is about 1ft. 4ins. higher, but this is a secondary feature and it covers traces of an earlier tessellated floor. An oven, or fire-place, has also been inserted in the west wall, apparently covering the site of an earlier door, and it seems that most of this wall has been rebuilt.

In its final stage Room 2 had a mosaic floor covering a hypocaust heated from a furnace in Room 4. Unfortunately the floor has collapsed under the weight of fallen masonry, over the central flue, and over a branch flue at the west end. But the pavement had been damaged before this, for an area towards the centre had been patched with cement. There are flue tiles in the west and north walls.

The entrance to Room 4 was originally 7ft. 6ins. wide - quite sufficient to allow a vehicle to enter - approached by a road 9ft. 10ins. wide ; but subsequently the door was reduced to 5ft. 3ins. wide and there are indications that a flimsy porch was added at the same time. The floor, as in Room 3, is a patchwork of earth, clay and stones, although the walls in the passage had been plastered and even painted.

Subsidence indicates the line of a trench under the floor of Room 4 - and beyond, for it had been cut through the centre of the road which had been made good. This trench may have been for a drain, or it could perhaps have held a water pipe - it was not excavated.

Room 5 is a passage with an earth floor, similar to Room 3, but it differs in being divided from Room 4 by a door, and there is no trace of wall plaster. A door through the north wall leads to Room 6, which again has a rough floor, mainly of clay. Against the west wall is a furnace to heat the hypocaust in Room 7, and the flue-arch through the wall survives in good condition. Two collections of iron tools were found in this room, and a considerable number of coins were scattered over the floor.

Room 7 has an opus signinum floor, indifferently preserved, and in places there are holes into the hypocaust chamber. There are wall flues - but not flue tiles - in the west, north and east walls, and the only other notable feature was a human skeleton, found amongst the fallen masonry over the floor. The walls of Room 8 had been levelled, and its gravelly, decayed concrete, floor had been trenched, possibly for the timber foundations of a subsequent annexe.

The north-east corner of the building, with well-cut quoins, is beyond the north-east corner of Room 1, allowing a 6ft. 7ins. wide corridor outside that room. But the south-east corner of the building, with similar quoins, is the south-east corner of Room 1. Unfortunately the outer east wall is in poor condition, but it seems to extend well to the south of the building and then returns to stop at the east side of the approach road. This feature was replaced by a narrower 'veranda' which ends on the east side of a blocked door in the south wall of Room 1. Another curious feature outside the building is the substantial stone platform, 5ft. 11ins. by 5ft. 3ins., outside the north-east corner of Room 1. It survives three to four courses high, and recalls a somewhat similar feature at Langton, (Corder and Kirk, 1932). It could conceivably have been the support for wooden stairs to an upper room.

The West Building (Fig. 17)

The west building is similar in size, being basically rectangular, 77ft. 9ins. long by 24ft. 7ins. wide. This plan is embellished by a

room projecting eastwards at each end, linked by a 'veranda' wall, and other rooms annexed at the south end. The northern part of the building seems to have been for general domestic accommodation, but the southern part was a bath-suite. The west building is not as well preserved as the north building, and in particular the main walls forming the rectangular plan have been completely robbed on the north, east and south sides, and in part on the west side.

Room 1 is the entrance to the baths, apparently with a door at the end of the corridor, Room 14. Three successive concrete floors survive, and a bench round three sides of the room is contemporary with the second but covered by the third. Little survives of Room 2, which also had a concrete floor. Room 3 seems to have been a cold bath, with a concrete floor and benches placed across the corners of the room to produce an octagonal plan. Towards the south-west corner a hole through the floor, which would no doubt originally have accommodated a lead pipe, revealed a drain which originated in Room 2, where there might have been a hand-basin, and then passed under the walls and floors of Rooms 3 and 8 to discharge towards the south-west.

Room 4 had at some stage been heated by a hypocaust, with tiled pilae now completely removed or cut down to the lowest course. In its final stage, however, there was no flue leading into the room and the hypocaust chamber had been filled with rubble and covered by a concrete floor. Similarly Room 5 had had tile pilae, now completely dismantled, and there was some indication that it had finally been used as the furnace to heat Room 6. Previously, however, its hypocaust had been heated via Room 6, and originally it might have been served by a furnace on the site of Room 9 - for one edge of a flue-arch is just visible, blocked by the wall between Rooms 4 and 5. Such a furnace could have heated both Rooms 4 and 5, perhaps in origin a single room.

Room 6, linked by two flue-arches with Room 5, also had tile pilae but apart from two linked rows in the south-east corner (perhaps supporting a greater weight) they had been demolished. The area of Room 7 has been thoroughly robbed - neither walls nor floor survive. But on its west side a robbed apsidal feature must surely have been a hot bath, and on its south side is Room 8, a furnace with a boiler-stand.

The original arrangement of this bath-suite would seem to have been apodyterium (Room 1), frigidarium (Room 2) with a cold plunge-bath (Room 3) ; then the tepidarium (Room 6) and caldarium (Room 7) with a hot apsidal bath heated from the one furnace (Room 8). Rooms 4 and 5, which seem to have formed a single room originally, are additional to this arrangement and have a separate source of heat - perhaps this was a laconic^eum.

One of the features of the northern part of the west building is the condition of Room 10, whose walls are at least three courses high and in one place survived up to 2ft. 8ins. This is in sharp contrast to the walls of the adjoining rooms, and it may well be that Room 10 retained a function after the rest of the building had been demolished. This is suggested, in particular, by the way in which the walls have been robbed to points immediately adjoining three of the corners of the room. Room 10 has a well-preserved concrete floor with traces of a quarter-round moulding and red painted wall-plaster in a shallow fringe above. The room had originally been heated, with wall flues subsequently blocked, but the floor was not removed to reveal the hypocaust.

Rooms 9 and 11 are narrow, floored with concrete, but otherwise featureless. The floor in Room 9 has subsided towards the centre, possibly over the soft filling of an earlier furnace. Room 12 also has a concrete floor, but it is in poor condition and has been patched. There are two secondary features over the floor, an oven, or cooking range in the north-west corner, and an L-shaped wall enclosing the south-west corner. This wall rested on earth on top of the original concrete floor, and in the earth was a coin of Constantine I in excellent condition.

Room 13 stands in front of the building, to balance Room 1 in plan, and it was originally heated by a hypocaust with stone built flues. The original east wall has been replaced on the inside, and the final concrete floor over the west of the room ends along a straight stone-edged line in the centre of the room - two features for which there is no obvious explanation. Finally, Rooms 1 and 13 had

been linked by a corridor, Room 14, which had an impressive central entrance, paved and bordered by large stones each with a central shallow rectangular recess for a pillar. This corridor did not survive to the end of the occupation, for its levelled wall is covered by several rough surfaces, and at the south end it is crossed by a drain from the angle between Rooms 1 and 4.

Several other walls were discovered, one to the north of the west building in the form of an irregular curve and another to the east of the north building, which appears to be part of a circle ; although only a small part of this wall was excavated it seems likely that it was part of a circular building about 33ft. in outside diameter.

Of the coins discovered 17 are of the 2nd and 3rd centuries, 185 are of 4th century and 8 are uncertain, but late. It therefore appears at this early stage that the main period of occupation occurred in the 4th century but this supposition may have to be modified in the light of further excavation. After the 1969 excavation the Inspectorate of Ancient Monuments recommended that the site should be taken into Guardianship, and it has now been purchased.

The 1969 excavations have been backfilled, and the area of the Roman buildings is being grazed. Clearly much more excavation is needed in the two buildings already excavated, quite apart from the examination of the third mound, covering the east building, and the exploration of the rest of the site for features without surface indications.

Conclusions

In its latest phase Beadlam was a well appointed courtyard villa with heated rooms, painted plaster walls and mosaic floors. Although the main occupation appears to have been in the 4th century, it was occupied to some extent in the 2nd and 3rd centuries, and stone buildings stood on the remains of earlier timber structures (Stead, 1967). The site awaits thorough excavation before any more definite conclusions can be reached, and this may be some time ahead, as, now that the land has been purchased by the Department of the Environment thus ensuring that no further damage will be done, there is no great urgency to complete the excavation.

LANGTON (Yorks) SE 8167

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The villa is situated about three quarters of a mile east of Langton village, on the left of the road to North Grimston just after it crosses that from Malton to Birdsall. To avoid confusion, it should be stressed at once that there is evidence of two villas quite close to one another in the area, the second one lying about 400yds. to the west and known as Langton West.

The site (Fig. 18) was discovered during January 1899 by a plough-boy who ploughed into a large flat stone which subsequently proved to be part of the suspended floor of Hypocaust 1. The owner's agent excavated in the vicinity and unearthed several rows of pillars built of pieces of local rag-stone about the size of a building brick ; in the soil filling between the pilae he discovered bits of burnt wood, a bronze coin of Trajan, sherds of Roman pottery and fragments of animal bones. Numerous tesserae were found though these presumably came out of the plough soil above the suspended floor. A further search was made in September of the same year and this time more pillars and flues came to light together with tesserae, pottery, portions of flue and roofing tiles, bones, oyster and mussel shells, painted wall plaster and fragments of thin glass from a small vessel. The lower part of a blue vase stood jammed in one of the flues. For a more detailed account of both the Langton sites up to this time see Mortimer (1902, p.71). The exact position of these activities seems to have been forgotten

for some years until the hypocaust was rediscovered by Mr. C.V. Collier in March 1926 together with a small chamber to the east of it and part of Hypocaust 2 to the north, (Collier, 1926). He also found a considerable piece of tessellated pavement showing a cable pattern border. In 1929 Collier died, and in 1930 Drs. Corder and Kirk commenced their excavations (Corder and Kirk, 1932).

The Ditches

At the south-west of the site lay an oblong enclosure bounded by a V-shaped ditch 9 to 10ft. in width by an average of 6ft. 6ins. deep from the present surface, with a flat bottomed, rock-hewn channel at the bottom. The area enclosed by the ditch was approximately bisected by a smaller ditch just over 3ft. deep running north and south but stopping short of the enclosure ditches. South of the southern enclosure ditch was another, smaller ditch running from the entrance to a point level with the west ditch. No trace of ramparts was found associated with any of these ditches. The footings of a large building overlay the western end of the south enclosure ditch and from beneath these came an interesting collection of pottery ; the excavators considered that the whole collection was probably deposited between A.D. 71-80 and that this was consistent with the suggestion that the ditches were those of a small pre-Malton military post. But Dr. Graham Webster (1969) cites the work of Mr. George Jobey (1960, 1961, 1963) on the native sites of the Roman period in Northumbria, for showing that these ditches are more likely to belong to a native farmstead. Webster also considers that two pieces of the pottery (Nos. 1 and 12) are later than the Flavian period and should more properly be redated towards the middle of the 2nd century. Jobey's discoveries, by removing the necessity for a military context, permit a wider dating to be considered so this pottery collection can now be attributed to the 2nd century.

A long ditch ran east to west along the south of the site passing through the earlier enclosure ditch and also under the large rectangular building ; it was not possible to trace its termination at either end. A similar ditch started north-east of the dwelling-house and ran eastwards for approximately 330ft., beginning to bend southwards,

but excavation had to cease before its end was found so, unfortunately, it is not known if the north and south ditches joined. The cutting of both these ditches was inferior to that of the enclosure ditch so they may well have been the settlement boundary ditches. Nothing datable was found in either.

Where the north ditch began to turn southwards it was cut by another enclosure ditch, the south-west and south-east corners of which were completely cleared as well as its crossing of the north ditch, and a number of sections were cut. Trial trenches within the area of the enclosure showed traces of occupation.

Running from north-west of the dwelling-house for approximately 300ft. eastwards, parallel to and 15ft. south of the north ditch, were the footings of a substantial wall. At a point north of Hypocaust 2 a metalled surface underlay the wall foundations.

The Dwelling House (Figs. 19 and 20)

The main house, 52ft. long by 19ft. 6ins. wide, faced south-south-west and three phases of its evolution were traced. The earliest house had footings constructed of stone set on edge with an average width of 27ins., and even these had been removed at the east end when Hypocaust 4 was later added. No flooring could be traced nor were there any signs of burning. In a very late period coarse 'farmyard' paving, consisting of broken stone trodden in without any system, had been placed over most of its interior. On the south side a short length of the first course of masonry rather less than 2ft. wide survived. No pottery at all was found under the 'farmyard' paving. At the north-east corner was a large external buttress, the purpose of which is unknown although a similar structure has since been found at Beadlam. The east flanking wall was traced almost to the south ditch but that on the west was more fragmentary and if it had ever extended as far as the east wall it had later been removed for other buildings.

After the destruction of the original building the Phase 2 small corridor house 77ft. 6ins. long by 25ft. 6ins. wide was constructed about 10ft. to the north on a slightly different alignment. It contained two hypocausted rooms (Nos. 1 and 5). Hypocaust 1 was that

which had been discovered previously, and by this time was so badly damaged by sheep and weather that for the purposes of their report the excavators were compelled to use the notes of their predecessors. The room was almost square, 19ft. by 19ft. 6ins., the tessellated floors being originally suspended by 42 pillars approximately 14ins. to 16ins. square, and built of flat stones laid in courses like bricks, as were the pillars of Hypocausts 2 and 5. The pillars averaged 2ft. 4ins. in height. The stokehole had been on the south side of the house, presumably to catch the prevailing wind, and the flue and walls were much discoloured by the intense heat ; it had been deliberately filled with stones, earth and oyster shells at the time of the building of the Phase 3 veranda. No other furnace was built for this room nor was any flue discernable between it and the later hypocaust (2) to the north which had its own stokehole ; one must suppose, therefore, that during Phase 3 this room was not heated. Opening eastwards was a smaller rectangular chamber 7ft. long by 5ft. 2ins. wide, the opus signinum floor of which lay 2ft. 3ins. below the level of that of the hypocaust and the adjacent corridor ; it had probably been a cold bath.

The plan of the east end of the house is somewhat obscure as only a part of the west wall of Hypocaust 5 remained, together with the stokehole. The pillars were much larger than in Hypocausts 1 and 2 but were of similar construction. Sherds of pottery from the stokehole and among the pillars belonged to the late 3rd - early 4th centuries.

In Phase 3 two hypocausted rooms and a veranda were added. Hypocaust 2 was situated immediately north of Hypocaust 1, measuring 12ft. by 11ft. 3ins. and having walls 2ft. 3ins. thick. The construction of the walls was different from that of the rooms previously mentioned in that they were faced on both sides and this form of stonework was taken down to the footings. At ground level they were capped by a course of larger stones. Four rows of five pillars all survived to a height of 1ft. 6ins. which had probably been the original floor level. Five box tiles were discovered in situ in this room. Hypocaust 4 was built at the south of the east end of the house and measured 20ft. by 16ft. with walls 27ins. thick. Unlike the other

three hypocausts it had roughly cut monolithic pillars which varied considerably in girth and length ; there were probably originally twenty-eight although only twenty-five were found. Among them was a broken lathe-turned pillar with its square base with a central dowel hole uppermost.

Abutting on the west wall of this room and running westwards for 44ft. were the foundations of a wall parallel to, and 7ft. from, the south wall of the house ; in all probability this was the base of a lean-to veranda.

Buildings South-West of the Dwelling House (Fig. 21)

South-west of the dwelling-house were two long rectangular buildings approximately 3ft. apart. Only the footings of the western building survived and these were of stones laid on edge 4ft. wide. The building was 32ft. 4ins. wide by 86ft. 6ins. long and its western side lay exactly along the inner lip of the enclosure ditch ; the filling of the latter ditch was removed where it was sealed by these late footings and it was here that much of the pottery illustrated in Fig. 7 of the report was found. No trace of dividing walls, post-holes, flooring or occupation level could be detected nor was any sign of an entrance found on the north or east walls, although a single socket stone was found in the ditch near the north-west corner, so there may have been a doorway in the west wall which was not located.

The eastern building was 38ft. 8ins. wide by 80ft. long and had been divided into two by a wall 28ins. wide. There was an entrance in the east side just south of the dividing wall with a roadway leading in, the surface of which contained hundreds of large tesserae. A small hypocausted chamber (Hypocaust 6) originally stood against the south wall but this had gone out of use and been considerably modified when the building was subsequently rebuilt. Two periods of wall building, both using the same foundations, were distinguished and because of the great quantity of 'Signal Station' pottery found on the site and because these two buildings were approximately aligned with the corridor house, the excavators concluded that both were originally of the Constantinian period and were probably rebuilt towards the end of the 4th century.

Circular Building

9ft. from the north-east corner of the east long building was a circular structure with an internal diameter of 15ft. 9ins. The footings were 24ins. wide composed of a single course of pitched stones 5ins. deep. Two courses of the wall remained on the north side made of flat stones 3ins. thick and 25ins. wide ; the lower course overlapped the foundations on the inside by 1in. and the second course overlapped the first by a further $1\frac{3}{4}$ ins. suggesting a 'beehive' form of construction. The floor was of trampled sand and in the centre lay a patch of rough paving 32ins. in diameter with a round hole 5ins. in diameter in the centre, the stone surrounding of which appeared worn. The excavators were unsure of the purpose of this building but thought it might have been a small mill ; they ascribed a 4th century date, contemporary with the second phase house.

East of the Dwelling House

The east wall of the house continued 9ft. north-east then turned eastwards for 59ft. Here it encountered a north-south wall at right angles, to which it was not bonded. This wall ran 17ft. north of the junction and 6ft. south when it suddenly broadened to 3ft. 6ins. and continued on a somewhat curved course for a further 25ft. The footings appeared to be constructed like the other late foundations of pitched stones. This wall stopped a few inches short of a north-west - south-east wall 35ft. long and formed of good dressed stones.

The Bath Building

A small bath house lay 55yds. east of the dwelling house. It had been constructed at the east end of a long rectangular building of earlier date measuring 25ft. wide by 61ft. long, internally. It had heavy footings 3ft. wide but its west end was only a partition wall of lighter construction. The building had once been much longer as its north-east wall was traced 36ft. westwards of the partition wall. The south-west corner had been removed by a heavy platform but there were indications that its south-west wall had once continued beyond the west side of this. The well built south-west corner of an earlier building had survived the construction of the platform and this was the best piece of masonry on the site.

In the bath house a long narrow channel ran parallel to the north-east wall and 4ft. from it. It had sides of stone, six or seven courses high and 20ins. deep and was 18ins. wide at floor level narrowing to 16ins. at the flat bottom. It stopped 28ft. from the partition wall. It had an earth floor and no covering and its purpose was unclear.

Within the south-west wall was a rough rectangular pit, 4ft. deep, in which were found 53 flints ; four of the flints were finished scrapers, the rest mere flakes. This was the only evidence of pre-Roman occupation on the site.

The construction of the hypocaust had involved excavation below the foundations of the earlier building and it was, therefore, later. It was a simple structure consisting of a single small hypocaust chamber measuring 5ft. 6ins. by 13ft. 9ins. with 18ins. walls standing nine courses high. The floor of the room had been carried on a ledge in the wall 28ins. above the hypocaust floor. Two stone built pillars were found in the centre of the room but there was some suggestion that these were not part of the original plan. The filling consisted of red and white wall plaster, pieces of window glass, square tiles, broken box tiles, opus signinum and some shapeless lumps of tufa ; the sherds found were predominantly of late 4th century type.

The furnace flue, 9ft. long, was faced with well made tiles. It contained a large quantity of black wood ash and the sherd list showed no late 4th century types and nothing that need be later than the early 3rd century. Over the flue had been built a rectangular recess, 4ft. 3ins. wide by 3ft. 9ins. deep internally, which may have contained a hot bath.

To the north of the hypocaust lay a small room 5ft. square, perhaps the entrance lobby, and north of this again was a semi-circular structure with 16ins. walls pierced at the back by a short lead pipe ; in the opinion of Professor Richmond (Corder and Kirk, 1932) this, by analogy with similar structures in Hadrian's Villa, was a latrine. Lying outside the east wall of the earlier building was a rectangular cold bath, 4ft. 9ins. long by 2ft. 4ins. wide.

The "Threshing Floor" platform lay partly over the south-west corner of the rectangular building containing the bath house just described. It was a rectangle with rounded corners, 30ft. by 35ft., shaped like a flat bottomed pit with sides that sloped slightly inwards, dug approximately 5ft. into the ground and filled with stones roughly coursed, herring-bone fashion. No filling had been used between these stones. The platform was not compact enough to have been a foundation and no structures or post-holes were found. The only motive for such construction would appear to have been ready drainage and the excavators, for want of a better suggestion, considered that it may have been a threshing floor. In support of this they cited the discovery of a quantity of burnt wheat on the floor of the adjacent building (L), two widely separated furnaces (K1 and K2) which they thought had been used for drying corn and the circular building which was possibly a mill.

There is no positive evidence for the "threshing floor" theory. If it had been, one would have expected considerable quantities of grain to have accumulated between the stones of the floor, but none was reported. Nor was there any evidence that the kilns had been used for drying corn, nor that the circular building was a mill. The purpose of this floor will be discussed later.

A well (Fig. 23) was found to lie south of the "threshing floor" ; 4ft. in diameter at the top, it widened out to 6ft. and had a depth of 44ft. 6ins. The filling of the well was in three distinct layers ; the top 13ft. 6ins. was composed of mixed rubbish towards the bottom of which were the bones of several red deer which appeared to have fallen in alive sometime after the well was abandoned and before the site was levelled. Next came approximately 6ft. 6ins. of sticky black soil containing charcoal and decayed vegetable matter which sealed what lay below. The bottom layer consisted of broken stone, tesserae, tegulae, imbrices, roofing tiles and pottery, and, of special interest, a circular moulded stone 19½ins. in diameter broken into several pieces ; the excavator did not know its purpose but it has since been identified as a pewter mould (Goodall, 1972). The dating evidence shows that the well was either dug or last cleaned out soon after A.D. 335 and was in use, though probably as a rubbish pit until

c. A.D. 395. Extensive burning then occurred and surface water must have washed the charcoal off the site into the well which accounts for the black layer. The abandoned site became overgrown and finally, when it was levelled for cultivation, rubbish and building material was thrown in to fill the well up.

Lying south of the south-east corner of the "threshing floor" was a rectangular building 53ft. long and 26ft. wide internally with a small room in its north corner on the floor of which was a considerable quantity of burnt wheat.

Immediately south of this building was a furnace and a few feet further south was a short length of wall. It seems likely that the furnace was under cover of a small lean-to shed. Nothing was found to indicate the use to which the furnace was put but in the undisturbed ash the rim of a late 4th century cooking pot was discovered. Remains of a similar furnace were found in the north-west corner of the site.

About 30ft. east of the cold bath a small room with a flattened apsidal south end had been built on to the south end of a building (M) 23ft. wide and more than 45ft. long. Almost nothing of the east wall of this building survived but a considerable length of the west wall footings remained. This wall must have been standing at the time of the construction of the bath building, for a wall had been built joining it to and continuing the line of the north-east wall of the bath building.

A length of well built wall was traced for more than 50ft. south from the south-east corner of the bath building. This wall was exactly on the same alignment as Building M and at its south end terminated in a room (Q), 19ft. wide, containing patches of good cement floor. From the slight evidence obtained the excavators considered that building M was the earliest building on the site and suggested a late 2nd - early 3rd century date for the beginning of its occupation.

South-east of building M traces of a rectangular building (J) 21ft. 6ins. wide and probably 47ft. long were uncovered. It appeared

to be late in construction and was approximately aligned with the Bath Building. East of this building was the north-west wall of another (R) 28ft. long. The east end of the building appeared to have been removed when the east ditch was dug. North of building J lay the remains of still another building (U), aligned with R and of similar construction.

Conclusions.

Mention has already been made of Mr. George Jobey's work in Northumbria which allows us to take Langton out of any early military context ; the south "military" enclosure can now be interpreted as a native farm. The pottery found in the ditch underneath the large rectangular building in the western corner of the site is of mid-2nd century type and it therefore seems reasonable to assume that the site was occupied, with many changes, from approximately A.D. 150 until the end of the 4th century. Dr. Webster (1969) reinterpreted the site in the light of more recent knowledge and concluded that the "Bath House" was originally a byre, as indicated by the gulley along the main axis, and that the added 'hypocaust' and baths were respectively a corn-drying oven and wool washing tanks ; this certainly seems more likely than the 'bath-house' theory. He thought the circular building was a "pigeon house with a revolving wooden post bearing projecting arms which functioned as a ladder to give access to wall recesses." Taken in conjunction with the beehive form of construction noted by the excavators this is probably the correct interpretation. Finally, Webster suggests that the 'threshing floor' was, in fact, a rick-stand as several of these have been found at Barnsley Park.

It is evident that Langton was the centre of a mixed farming economy. The wool washing tanks indicate considerable sheep herding ; the corn drying ovens show evidence of arable cultivation. Cattle would have occupied the byre and eaten the hay preserved on the rick-stand. Mr. Goodall's researches have now shown that the casting of pewter plates and possibly other vessels took place on a scale greater than that needed to supply the requirements of the inhabitants of the villa ; indeed, there are here significant signs of a pewter casting industry.

GROUP 4. FOUR EAST YORKSHIRE VILLAS

HARPHAM (Yorks) TA 090635

- Sheppard, T. (1905), Roman Villa at Harpham. East Yorkshire. H.M.P.,
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The site has been partially investigated ; early in this century three mosaics were discovered and published (Sheppard, 1905 and Collier, 1907). Since that time, unfortunately, recording and planning seems to have been minimal and publication is almost non-existent. The plan (Fig. 24) is constructed from a sketch plan by Mellor, augmented and corrected from Collier's plan of the mosaics, drawn by Goodall and now slightly altered by the writer in the light of verbal information received from Mr. C. Grantham. It is intended for general guidance only. The site has now been taken into custody by the Department of the Environment.

The villa lies 2 miles south of Rudston and a dwelling house with mosaic pavements, ditches and outlying structures has been traced. The house was in the shape of a reversed E with three rooms in the south block being connected to a large central room by a corridor, which was connected by another corridor to the three small rooms in the north block. The large central room projected eastwards of the down-stroke of the reversed E, but how far is not certain. The two courtyards faced west. As the walls had been heavily robbed before excavation the surmised plan of the villa depends largely upon the extent of surviving mosaics and cement floors.

The pavement in Room 1 measured roughly 16ft. by 17ft. The centrepiece was a quatrefoil of very small red, white, blue and yellow tesserae and the rest of the pavement was made up of bands of brown and white tesserae forming a maze, framed in broad bands of the same colours. On this floor were found sandstone roofing slabs with nail holes, and many nails with large flat heads. There was also a quantity of wall plaster showing that the walls had been plastered and painted twice. In the first place a pattern of pink, green, red and yellow bands ran horizontally and when the walls were re-decorated bands of yellow, green, red and white ran perpendicularly. A quantity of charcoal was found, together with a saucer-shaped vessel of yellowish pottery decorated with brown lines arranged chevronwise, oyster shells, a three-sided iron arrow head, another saucer-like vessel of black pottery, fragments of black coarseware, bones of ox, sheep, pig, dog and birds, a lump of lead and a coin of Gallienus (A.D. 253-68).

Corridor 4 measured 21ft. by 7ft. The pavement design consisted of a series of broad bands of red and white tesserae, the inner ones ending at a central square of white with a broad border of red. Three coins were found while uncovering this floor, one of Victorinus, one of Tetricus (c. A.D. 265) and one unidentifiable. There were also more fragments of coarseware, a broken bronze buckle, bits of glass, a small twisted piece of lead, oyster shells, nails and hooks, stone tiles, lumps of mortar and small portions of wall plaster painted reddish brown.

In Room 5 the pavement only survived in the northern part although the cement flooring remained for some distance southwards. The mosaic which survived measured 27ft. 6ins. in length (east-west) by 5ft. at the widest, tapering to 1ft., and was composed of red and white tesserae. The pavement had been patched with a layer of coarser tesserae than the originals. In the earth removed to expose this floor were found bones of red deer, coarse black pottery, oyster shells, broken stone roof tiles and some plaster coloured mainly green and red.

The pavements in Rooms 2, 6 and 9 were too badly damaged to assess the patterns, and ploughing had badly blurred the outlines of the cement floors in the remaining rooms. In the mortar foundation for the mosaic in Room 2 was found a coin of Constantius (c. A.D. 305). As the mosaics were all of similar, geometric, design they were probably all laid in the 4th century.

Approximately 40ft. north-west of the north end of the house a circular workshop building was discovered with chalk brick foundations laid on cement. In it were discovered iron and bronze nails, limpet and oyster shells, fragments of pottery and two fire areas. About 40ft. north of the house and an equal distance east of the workshop the remains of a hypocaust were found, and the north wall of Room 9 had been built on top of a filled in hypocaust, suggesting an earlier phase of building. East of the main building lie other structures but these have not yet been examined.

A ditch some 10ft. wide and 6ft. deep ran round the north, east and south sides of the area but it has not yet been identified to the west. From the workshop and that part of the ditch adjacent to it has been recovered evidence of a metal industry. Crucible fragments and moulds for the manufacture of bronze studs and rings, and numerous fragments of bronze sheet and wire suggest scrap for melting down and recasting. Fragments of glass found in this deposit were perhaps intended for crushing and use in enamelling. Copper, iron and lead slag was also claimed to have been found but as this has not yet been analysed its identification remains unproved. There is no firm dating for the metal working equipment but a disc brooch found in association is of a type which occurred in the 2nd and 3rd centuries (Brewster, 1956, 55).

Various domestic finds, also from the north ditch, included bone bodkins, spindle whorls, a bone point, a decorated piece of jet, an ear pick, cosmetic palettes and two carved pieces of marble. Iron objects included a sickle, a saw, a knife, hinges, latch lifters, rings and nails.

Conclusions

From the relatively slight evidence available it seems that this villa not only supported a mixed agricultural economy as indicated by the animal bones, spindle whorls and quern stones, but also a bronze working industry, the scale of which is not yet possible to assess. As far as can be judged at present the occupation of the site lasted from the 2nd century until the 4th ; the only reason for suggesting an opening date as early as the 2nd century is the evidence of dating for other circular buildings in the north which is discussed later. Organised excavation in the future should produce more definite dating.

RUDSTON (Yorks) TA 089657

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The site was first discovered in 1839 during agricultural operations and a small amount of excavations took place. Thereafter it lay forgotten until 1933, when deep ploughing revealed tesserae lying loose in the soil and the farmer uncovered three mosaic pavements ; very public spiritedly he erected a wooden shed over the two best preserved to protect them from damage by weather and human agency. Further excavation laid bare the remains of two apsidal hypocausted rooms and a fine stretch of wall 15ft. long and standing seven courses high. At this stage an organised programme of excavation was instituted under the direction of A.M. Woodward in 1933-4, A.M. Woodward and K.A. Steer in 1935 and K.A. Steer in 1936-7. Work then ceased until, in 1962, it was decided to lift the mosaics and remove them to Hull Museum, after which further excavation was undertaken in 1962-3 by Dr. I.M. Stead. (Fig. 25)

The small Roman house (Fig. 26) faced west, towards the other stone-based buildings of the farm. Its plan was simple. At one end was a large living-room whose length covered the full width of the building. From the side of this room a corridor crossed the front of the central part of the house, and then turned a corner and crossed the width of the building. This corridor separated the three domestic

rooms to the north from the bath-suite to the south.

The L-shaped corridor was 6ft. wide measuring 32ft. along the front, and 23ft. across the width, of the house. The outside wall had not survived, but its course was indicated by a robber trench and chalk foundations. The front corridor floor had probably been on the same level as the borders of the Venus pavement in the most northerly room, and would thus have been destroyed in ploughing. The floor survived ploughing only where the corridor crossed the building, because here it had subsided, like the mosaic pavements in Rooms 2 and 4, into the ditch below. However, this area was cleared in 1933-4, and no floor was recorded.

Room 2. The Venus Pavement (Fig. 27)

Apart from a 4ft. length of west wall, 1ft. 9ins. wide, the walls round this room had been completely robbed and neither footings nor foundations had survived. A group of half a dozen tesserae in the south-east corner of the room remained in situ, but otherwise both ends of the Venus pavement had been wrecked by ploughing. Fortunately the centre of the pavement had been protected by subsidence into the filling of an earlier ditch. If the design had been symmetrical it would have extended across the entire width of the building, and as the surviving part extends over the projected inner wall of the corridor it may be assumed that there was no corridor in front of this room, and that the pavement originally measured 23ft. 6ins. by 15ft. 6ins. It seems likely that there would have been an entrance from the corridor at the west end of the south wall. A 15ft. length of the pavement survived, but most of the destroyed area had consisted of two 4ft. 9ins. deep borders of white tesserae. A rectangular panel of figured design at the west end had disappeared almost completely, and a single figured panel in the central design had also been destroyed. The area above this pavement was excavated in 1933, and no finds were recorded.

There was a curious addition outside the north-west corner of this room, where a broad stub of wall, 5ft. wide, projected 7ft. from the front wall of the house. It was certainly contemporary with this

building, but its purpose is obscure. It may have been a buttress, but there seems to be no good reason for one in this position ; or the base of stairs, but it is unlikely that there was ever an upper floor because of the slight wall foundations. This feature is similar to those found at Langton and Beadlam but the purpose of the buttresses is not yet clear.

Room 3 was a small room, 15ft. by 7ft., with a red plaster floor. A short length of the west wall had survived, but otherwise the walls had been robbed. The walls between Rooms 3 and 4 had also been robbed.

Room 4. The Geometric Pavement (Fig. 28)

The greater part of the geometric mosaic pavement survived in this 15ft. square room, for only a piece of the eastern border, about 2ft. wide, had been destroyed by the plough. A short length of the west wall stood two courses high, over a foundation of rough chalk blocks ; the lower course of faced chalk was some 6ins. deep, and the course above only 3ins. deep. Another stretch of masonry survived at the west end of the south wall and a 2ft. 4ins. length of wall plaster was preserved on its inner face. A considerable amount of wall plaster was found in the robber trenches around this room.

Room 5 was the only room in the house where reconstruction had involved the demolition of a wall. Originally, in Phase 1, there had been two small rooms.

Room 5A, 12ft. long, but no more than 5ft. wide, seems to have served as an ante-room to the plunge-bath (Room 8), and the two were separated by a substantial wall. The walls on the east and west sides had been robbed. The north wall, which separated 5A from 5B, and continued the line of the partition between Rooms 6 and 7, was a flimsy structure, 1ft. 10ins. wide with no foundations.

The floor of Room 5A had been covered by a tessellated pavement constructed on a compact layer of red mortar. This pavement survived in the north-east corner of the room, where there was a border of large white tesserae, and the corner of a rectangular panel defined by a broad red band. The white tesserae also paved a 2ft. 8ins. wide

doorway at the east end of the north wall, ending at the northern edge of that wall in a straight line which was slightly angled, and not parallel with the rest of the pavement.

Apart from the north-east corner, the rest of the pavement had been destroyed in Roman times and replaced by the deep foundations for the second phase. It is possible that the destruction of the western part of the pavement was due to its position over, and possible subsidence into, the earlier ditch.

Room 5B, some 9ft. 3ins. by 12ft., had neither tesserae nor a mortar floor. Instead there was simply a layer of earth, but judging from the straight edge of tesserae at the doorway into Room 5A, it was probably covered by a wooden floor originally. Despite the absence of a tessellated or mortar floor, there had been coloured plaster on the walls, for a fragment about 6ins. by 18ins. was still in situ against the face of the robbed east wall. This plaster had a white background with splashes of colour on the surface - a poor quality 'imitation Marble' effect. The Phase 2 floor had not survived as far east as this, but it was obvious that the painted plaster was well below its level and could belong only to Room 5B.

The Aquatic pavement (Fig. 29)

In the second phase the partition between 5A and 5B was demolished, and a larger ante-room 16ft. by 12ft. was formed. The new floor, about 10ins. higher than the old, was covered by a mosaic pavement with an aquatic scene. Only the western half of this pavement, some 15ft. by a little more than 5ft., had survived, and the destruction of the eastern part could have been caused by ploughing. As in Rooms 2 and 4, the surviving portion of the mosaic pavement had subsided slightly in the filling of the earlier ditch. The western border of the mosaic had collapsed into the robber trench of the adjoining wall, where several groups of tesserae were found in vertical positions.

Room 6, the tepidarium of the bath-suite with the adjoining caldarium (Room 7), had suffered badly at the hands of earlier excavators. It seems that this room held the tessellated pavement

found in 1839 (Clark, 1935, 123-5), whose tesserae were "laid in lines and forming diamonds" - a motif not present on the surviving mosaics. This identification is supported by the references to a hypocaust and pieces of a porous substance "having a great semblance to the encrusted moss from the Dropping Well at Knaresborough" - both found only in this part of the villa ; and above all, by Woodward's discovery of an earlier excavation trench cutting across Rooms 6 and 7 (I.R.1. 1933, 371). Even before 1839 this area had been disturbed by "some labourers, who dug it up in the hope of finding treasure." (Clark, 1935, 124).

The tepidarium had suffered rather more than the caldarium, for its north and east walls had been robbed and nothing survived of the apsidal end. Part of the 2ft. wide wall between Rooms 6 and 7 survived, including the tile facing on the east side of the flue linking the two hypocaust chambers. The lower floor of the hypocaust, like that in the adjoining room, consisted of a layer of reddish concrete, with some surviving tile pilae and impressions of others now removed. This room had been at least 8ft. 6ins. wide, and was presumably similar in length to Room 7.

Room 7, the caldarium had an apsidal end which was still standing five courses high, and was covered on the inside, in the hypocaust chamber below the floor, by a layer of pinkish plaster. The apsidal shape was not apparent on the outside, where the masonry formed a right-angle. The room had measured 15ft. 6ins. by 9ft. internally, and the red concrete floor at the base of the hypocaust chamber was intact throughout. The lowest tile of each pila measured 11ins. square, and the upper courses were some 7ins. square. Woodward found several pieces of plain concrete flooring in the filling of the hypocaust (I.R.1, 1933, 372), and he assumed that the caldarium had not been tessellated. He does not appear to have found any tesserae either in Room 6 or 7, which is odd in view of the 1839 discovery.

The eastern part of the caldarium was extended to the south, towards the furnace. This extension measured 7ft. wide and could have been 9ft. long - but pilae survived only in the northern half

of that area. As all the walls had been robbed without trace, the exact plan in this area is not clear.

Room 8, although described in the Interim Reports as a 'Boiler Stand' (I.R. 1, 1933, 373), was undoubtedly a plunge-bath. Two superimposed levels of the bath floor were found, the one 10ins. to 12ins. above the other, and this corresponds with the difference in floor level between phases 1 and 2 in Room 5. The original bath measured 5ft. 6ins. by 7ft. 6ins. This floor was probably tiled but the surface had been ripped away during the construction of the second phase. There survived a solid reddish concrete base on a cobble foundation with some flat limestone slabs below. The surrounding area had been too badly disturbed to determine whether these slabs had been laid as the first course in the foundation of the bath, or had survived from the destruction of an earlier feature.

The bath appeared to have been bordered on all sides by a quarter-round moulding, and behind this was the remains of 1in. thick layer of reddish plaster which had covered the walls. Along the north edge, beyond the plaster facing, there had been a channel formed out of a row of flue tiles joined end to end. Only the lower parts of these box tiles survived, so it was not clear whether they had originally been complete or whether the broken halves had been used as the base for a deeper flue. This channel was slightly lower than the floor of the bath, but it had not served as a drain because traces of a conventional waste-pipe were found towards the north end of the east wall. It seems that this was a heating flue, carrying hot air from the hypocaust, and it is likely that it would have been covered by a step, or ledge, from which the bath would have been entered and on which the bather could sit.

In the second phase the level of the bath was raised, an operation which was probably contemporary with the construction of the aquatic mosaic in Room 5. The original floor in Room 5A was 11ins. above the floor of the bath, and this difference was maintained after the reconstruction. The bath would have been deeper than 11ins., but the greater depth could have been achieved by steps at the entrance through the wall. The upper bath floor was covered with tiles, each

16ins. by 11ins. by 1½ins., and there was room for a quarter-round moulding on all but the north side, where the tiles appeared to have been directly adjacent to the step.

The only surviving piece of wall was on the north side, where it was 2ft. 3ins. wide on a 3ft. wide footing. Resting on the footing on the south side, and between the wall and the flue channel, was a 16ins. wide additional 'wall' or ledge - possibly part of the step over the flue. The walls on the other three sides had been robbed, and the robber-trenches cleared in the 1930s, so the exact positions of the walls is not clear.

Room 9, Apart from uncovering the remains of the south wall, this room was not investigated during the Ministry's excavation. It had been left outside the wooden hut which protected the other remains of the House, and the hole which had exposed it had been used as a rubbish tip.

Although originally described as a kitchen (I.R.1., 1933, 373-4), it was later identified as a praefurnium (I.R.2., 1934, 215 ; I.R.4., 1936, 322-3). Three floor levels were found inside the room, and considerable evidence of burning. In 1933 the east wall survived to a height of 2ft. 6ins., and the north wall also seems to have been well preserved. The south wall, not found until 1936, (I.R.4., 1936, 322), had no facing stones intact, and the west wall, as planned was a slight construction which appeared to have belonged to a different period - it is possible that this was merely rubble from a wall destroyed in the 1839 excavation-trench (I.R.2., 1934, 215 ; see also plan, I.R.1., 1933, opposite 366). Details of the flue through the north wall were described, but not planned. This extremely wide north wall, 4ft. 6ins., was presumably used in part to support a water-tank over the flue.

This domestic building had been designed and built as a separate entity. It was built on the same site as an earlier barn, one of whose walls was reused as the main east wall of the house, but in function it had no immediate predecessor either here or elsewhere within the excavated area. The house was very small, and its

living and sleeping quarters are unlikely to have been adequate for more than a single man, or a couple at most. Clearly the main labour force for the farm must have been housed elsewhere. It is quite possible that this was not the main domestic building on the site, and indeed its position immediately adjoining the main entrance into the compound, as well as its size, invites comparison with the Lodge of an estate.

The dating evidence is very slight. Five coins were found during the excavation of this building in 1933 (I.R.4., 1936, 338), three late 3rd century radiates and two Constantinian, but their exact positions have not been recorded. The only coin found in 1963, another radiate, was in an ambiguous position on the edge of a robber-trench, but possibly sealed by the Venus pavement. The only coins from the great well suggest that it, and presumably the house as well, was still in use in the third quarter of the 4th century.

Building 2, The Workshop (Fig. 30)

The 'workshop' was discovered in 1934, and excavated in that season and the two following (I.R.2., 1934, 216-7 ; I.R.3., 1935, 81-4 ; I.R.4., 1936, 323-4). It was a rectangular barn-like building which had a number of 'ovens' on the floor, and piles of sorted tesserae against the west wall. Following the excavations a wooden shed, similar to that covering the remains of the House, was built over the western end of the workshop, so that the finds could be preserved and displayed. This resulted in a certain amount of re-organisation, during which 'ovens' were moved and restored. One of the prime objects of the Ministry's excavations in 1962 was to discover the full extent of the workshop, and to search for more 'ovens' in an attempt to define their purpose and to discover how they had operated. The west and north of the building had been uncovered between 1934 and 1936, but the south-eastern corner had been left, and this was the area excavated in 1962.

A length of the west wall was fairly well preserved, and stood three courses high above a wider course of footings. The north-west corner was intact, and the north wall, though robbed in parts,

had been followed for 60ft. in 1936. For a 12ft. length at the east end of this, the north wall was represented only by "a kerbing of small chalk slabs," and in view of this, and the absence of a north-east corner or signs of an east wall, the excavators suggested that the east end of the workshop might have been quite open (I.R.4., 1936, 323). However, in 1962 the central part of the east wall was found standing 4ins. high, so it seems likely that the "kerbing" discovered in 1936 was the remains of a robbed wall. It was virtually impossible to recognise a robber-trench on this site, and the plan of the building has been restored by linking lengths of surviving masonry. The south wall was represented by a 6ft. length two courses high, with no foundations, found in 1962, in line with a shorter stretch found in 1935.

The building thus defined was some 61ft. long by 30ft. wide at the west end, and 32ft. wide at the east end. The previous excavators recognised two successive floors, and this was confirmed in the south-eastern corner of the building. Each floor was composed of a layer of chalk blocks with a gravel surface on top. The surviving piece of east wall appeared to have been rebuilt when the second phase floor was laid, for the second gravel layer continued over its lower courses into the very core of the wall. This stretch of east wall was of more solid construction than the rest of the workshop, and it may be no coincidence that it was in the centre of the wall, where it might have supported the end of a ridge-beam. Further support for this form of roof construction came from a group of chalk blocks which had been carefully arranged and seemed to have been used as a post-setting. This setting was midway between the north and south walls of the workshop, and 12ft. from the centre of the east wall - a spacing which would allow for three similar posts down the centre of the building. But this surviving post-setting belonged to the second phase only, and as it was immediately above an 'oven' of the earlier phase the same pattern of roof support cannot have been used in both phases.

The west end of the north wall had an additional stretch of wall on the inside. This may have been used to buttress the original wall, for there would have been a danger of it slipping towards the

line of an earlier ditch, or it could have been the base for a bench. In the south-west corner of the building there were partitions for a small room, 14ft. by 6ft. 6ins., whose north wall covered one of the 'ovens' used in Phase 1. The 1934 excavators also refer to a second room, in the north-west corner of the workshop, but this was never plotted. (I.R.2., 1934, 216).

The 'Ovens'

Inside the workshop were a number of hearths, or 'ovens', the best preserved of which, No. 15, had an approximately circular burnt surface, some 4ft. in diameter, surrounded by pieces of chalk. Very little of the burnt surface remained intact, but the central part had been a tile some 24ins. square, and there were other burnt tiles to the north and west of it. Leading from this hearth on the north side was a narrow flue, 6ins. to 9ins. wide. It was lined, for the first 2ft. at least, by chalk blocks standing two courses high in one place. The entire length of the flue was over 5ft., but at the northern end it was unlined and had expanded into a basin-like hollow about 20ins. in diameter and filled with grey ash.

The presence of a long flue invites comparison with the Roman-British corn-drying kiln, but there are certain differences. Whereas the typical Roman-British corn-drying kiln has a T-shaped flue, the Rudston example has a single channel without a cross flue. But well-built features consisting of a single heated channel have been found at Langton (Corder and Kirk, 1932, 56-7), and Winterton (Stead, 1966, 77-9), and interpreted as corn-drying kilns. A more significant difference lies in the prepared hearth at the end of the channel, for it was usual to have a stoking area, frequently in a hollow, whilst the fire itself would have been in the channel. At Rudston, feature No. 15, the fire had been on the circular tiled hearth, and then, apparently, the heat was drawn along the flue.

There seems to be no parallel for a tiled hearth at the end of a long flue, and yet this is the feature which links No. 15 with the other 'ovens' at Rudston. Each of the others seem to have had a fire on a circular tiled or chalk-based floor surrounded by chalk-

blocks, but if the flue was also a constant feature it had survived only in No. 2. Most of the 'ovens' belonged to the first phase in the building, so it is possible that any superstructure was deliberately removed when the second floor was laid. There were fourteen other 'ovens' but several were moved and reconstructed for display after the earlier excavations.

The excavators of the 1930s, although concluding that these were corn-drying kilns, suggested that, with one exception they had been heated from below the tiled surface. This would have been impossible in the examples examined during the 1962-3 excavations, and as most hearths bore signs of intensive burning on the upper surface it seems probable that the earlier excavators were misled by 'flues' which were really animal holes. Although they all could be interpreted as parts of corn-drying kilns similar to No. 15, it should be noted that simple tiled or stone-based hearths have been found elsewhere in comparable buildings. (Great Casterton, Corder, 1954, 15 (Hearth B) ; Winterton, Building B, Phase 1, Stead, 1966, 76, fig. 4).

The Tesserae

Along the inside of the west wall of the workshop, and covered by the phase 2 floor, a number of piles of tesserae were found in 1934-5. They had been sorted according to size and colour and were arranged, from north to south : large red, small red with a few small blue, large white, small blue, small white, and sandstone. The explanation of these sorted piles may be that they were arranged for the construction of a mosaic which was never started. But it is equally possible that they were spares left after a mosaic had been completed, and retained there for general repair and upkeep. Clearly they were piled there when mosaic construction was in progress, but they cannot be linked with the construction of any particular pavement. It seems unlikely that it was intended to have a mosaic in the workshop, so the piles may perhaps have been linked with one of the two phases of mosaic construction in the House (Building 1). On the other hand there could have been mosaics elsewhere on the site, and the discovery of a large pile of unsorted tesserae in Building 4 is a warning against

the assumption of a simple link between these tesserae and the mosaics already discovered.

A series of coins were removed from each floor (Claudius II found in 1935, I.R.3., 1935, 85 ; others in 1936, I.R.4., 1936,324), but they were found above the floors. Not one was found below the first floor, but between the two were coins of Gallienus (260-8), Claudius II (268-70), Vistorinus (268-70), Tetricus II (270-3) (two), and Allectus (293-6). Above the floor there was a single coin of Valens (364-78) and two Gratian (367-83). Although this evidence is not conclusive, it suggests that the workshop was built in the later 3rd century. Constantinian coins are absent, so whilst the upper floor might have been laid as early as A.D. 300, it could have been half a century and more later.

Building 3.

Building 3, west of the workshop, had been exposed in 1935 (I.R.3., 1935, 84-5, (Building II)), and although the 1962-3 excavators could find no trace of the north-east corner then recorded, the western end of the building had survived well. Much of the 1ft. 9ins. wide west wall was still standing four or five courses high. Outside the south wall, at the west end, was a small rectangular annexe, 2ft. 9ins. by 6ft. - possibly a porch, whose 1ft. 6ins. wide walls survived several courses high. The junction of the walls of this annexe and those of the main building had been destroyed by an earlier trench. Although this building was clearly 15ft. 6ins. wide, its length is uncertain for the east wall recorded in 1935 could have been merely a partition, and the wall which was then found only 5ft. west of the workshop could have been the main wall. This wall near the workshop had suffered badly, but two new lengths of wall were found at right-angles to it - the southern length being in line with the south wall of Building 3, whilst the northern piece could perhaps have belonged to another building.

No features were found within this building, but it is interesting to note that, like the workshop and the house, it had been built immediately above the ditch, into which its floor had subsided.

Building 4.

This lay to the west of Building 3, and these walls had also been exposed in 1935 (I.R.3., 1935, 84-5). The surviving remains consisted of a single course of north-south orientated wall which clearly crossed a second length of wall at right-angles to it. This 'building' (or at least its east wall) was stratigraphically later than Building 3, and any associated floor would have been too high to have survived ploughing. It is possible that the two walls are merely unrelated lengths of boundaries.

To the east of Building 4 is a curved stretch of wall which appears to have sprung from the east-west wall of that building, and which links it with the north-west corner of Building 3. Its curve may be a segment surviving from a circular building similar to that found on the road-verge to the west of Building 5.

Building 5.

Building 5 had been discovered in the final season of the earlier excavations, but the work in 1937 was reported only briefly in a note (I.R.3., 1937), and no plan has survived. The most substantial remains comprised a single 26ft. square room. Much of its south wall survived in the form of a footings course 2ft. 8ins. wide, and the footings of the west wall were 2ft. 6ins. wide. The north wall had been covered by the modern hedge, but the north-east inside corner survived. The outer angle at the south-east corner was intact, but apart from a short length near the north-east corner the east wall had been destroyed. The walls had been built of chalk, apart from one place in the west wall, 8ft. from the north-west corner, where sandstone blocks had been used in both faces of the footings - possibly an indication of the position of a doorway.

To the east of the square room low mounds composed mainly of stones, which had survived in the 1937 excavation trenches, appeared to indicate the position of less substantial walls. Facing stones were found only at the south end, and at a point in line with the north wall of the square room. A similar piece of crudely constructed wall was found immediately to the north of the hedge, but it had not

survived beyond the limits of the hedge-line bank. Excavation on the road-verge to the north of the hedge failed to locate any extension of this building.

Both stratigraphically and structurally the poor-quality walls to the east seemed to belong to a later period than the square room. The evidence is slight, but it seems that an original square building was extended to the east by the addition of a 6ft. wide corridor which perhaps terminated in a small rectangular room at either end.

In parts of the square room a patchy layer of mortar appeared to mark the original floor level, but the corridor had a floor of chalk stones. Within the square room, and 8ft. from both the north and west walls, was a stone post-setting, with reddish mortar round the socket, which may have been used to support some partition wall. Immediately adjoining the west wall, towards the north-west corner, was a pile of 1743 assorted tesserae - without mortar, and resembling the piles found in the workshop in 1934.

There was no indication that the floor of this room had ever been tessellated, nor any sign that its walls had had painted plaster. Apart from two infant burials found beneath the floor, the only other feature within the building was a possible corn-drying kiln in the south-west corner. It had been excavated during the first campaign of excavations, and as it survived in 1962 it was a feature 8ft. long whose east end - 1ft. 9ins. wide - was rounded and lined with a wall of chalk blocks standing up to two courses high and discoloured by heat. The chalk 'wall' extended no more than 3ft. from the east end, and at that point the feature appeared to have had a narrow 'neck' from which it expanded into a 2ft. wide rectangular hollow at the west end.

Within the square room, and particularly in its western half, were masses of roofing slates on top of the floor. There had been no attempt to clear these after the roof had fallen, which suggests that this building was in use towards the end of the occupation of the site.

Building 6

This building was found by the 1930s excavators, and its later examination was restricted because it was partly within the garden of the Caretaker's bungalow. Its 24ins. wide south wall of faced chalk blocks was followed for 32ft. without a break. No mortar had been used in its construction, and for most of its length it survived to two courses, with the lower course immediately on ground level. At the west end the wall ended abruptly, and 18ft. to the north the end of a similar wall was located, although only a 3ft. length of it was exposed. It is clear that this second wall was the north wall of the same building, and within it were two superimposed chalk floor levels, the lower one being found only in the southern part of the building. The west wall had not survived, but there was a slight trace of a robber-trench at the western edge of the floors, better defined on its outside edge where some larger stones had fallen against the line of the wall. Immediately inside this robber-trench, and exactly central between the north and south walls was a post-hole which had presumably been a major roof support.

Building 7

This was an earlier structure lying beneath the house (Building 1). The principal surviving wall, between two and four courses high, was a 42ft. length partly under the corridor of the House and partly under the Venus pavement. About the centre of this wall there was an entrance which had clearly undergone reconstruction. In its final form this was a 3ft. 6ins. wide doorway, but to the north of it was 18ins. of rough packing, and on the south side there had been more substantial rebuilding with a new piece of wall between 2ft. 4ins. and 4ft. long bonded into the original south face of the entrance. Thus originally the doorway could have been as wide as 7ft. 6ins. At the south end this main wall was lost where it had been disturbed by major excavations carried out in Roman times to insert the hypocausts for the bath-suite of the House. At the north end it appeared to have stopped abruptly, just short of the end of the later House. The extreme north end of the wall had been robbed.

To the east of the main wall, and just to the south of the doorway, a surviving L-shaped piece of wall indicated the position of a room 7ft. 3ins. wide against the side of the main wall. There was a 3ft. 4ins. wide entrance in the north-west corner, and immediately within was a low niche in the west wall.

The only other masonry which would appear to have belonged to this building is a curious arrangement of four walls under Room 5 of the House. These walls were excavated originally in 1934 (I.R.2., 1934, 214) and as the area to the west and south had been cleared in Roman times (for the hypocaust and the plunge-bath) it was impossible to retrieve more of the plan.

To the east of the main wall was a fairly compact chalk floor which had subsided into the filling of the earlier major ditch. The only feature in this area was a hearth, or 'oven', very similar to those found in the workshop. It had a chalk floor, roughly circular (4ft. diameter) whose central part had been discoloured blue and the surface of the chalk fused, by intense heat. The circumference of the feature had not been heated, and the distinction between heated and unheated was so sharp that there must have been some sort of wall. Furthermore, this sharp distinction was quite circular, and there was no suggestion that there had ever been a channel leading away from it. A second feature, very similar to this, was found opposite the end of the main wall of this building. In this second example the surrounding chalk wall survived and from this point of view it was the best preserved feature of its type found at Rudston. But unfortunately it was almost on the line of the main north wall of the House and its southern half had been completely wrecked when those foundations had been constructed.

Building 7 presents many problems. The disturbance caused by the later House ruined the plan, and also disrupted the stratigraphy, but it seems likely that all the features described above (with the possible exception of those under the later Room 5) were contemporary. As there is only one major outside wall, there is uncertainty as to which is the inside and which the outside of the building. The position of the small room attached to the wall does not help this

matter for it could have been an annexe or a partition, but oven 1 is more likely to have been inside than out judging from the comparable features in the workshop. A minor feature which supports this was a slight gulley which had been worn in the floor and which led from the side of the door to the centre of subsidence over the ditch. The position of a building over a major ditch is certainly not without parallel at Rudston. The east wall of such a building would have been formed by a wall on line with the boundary, at the side of the main entrance which might well have been in existence at that period. Furthermore, such a building would have had its doorway towards the other buildings in the compound, in precisely the same position as that adopted by its successor, the House.

However, the position of oven 2 is an obstacle to this, and apparently to any other interpretation. One would expect this oven to have been under cover, but its position opposite the butt-end of the wall not only seems to exclude this possibility but also prevents the interpretation of the butt-end as the side of the doorway. Even if the two features were not contemporary each of them separately is a problem. It may be that the oddities in this corner are in some way related to the 'buttress' adjoining the House - another unexplained feature in the same area - but no satisfactory solution can be suggested.

But in spite of the uncertainty about its precise plan it is clear that Building 7 with a wide original entrance and oven(s) was a barn-like structure resembling the workshop rather than a domestic house.

The Great Well

An enormous well, 99ft. deep was discovered immediately west of the House, and excavated in 1965 and 1966. The mechanics of the excavation make fascinating reading and the ingenuity of the excavators in keeping the water at bay and coping with numerous other difficulties - including digging and drawing in permanently saturated clothing - reflect great credit upon them. Towards the end, for example, a 100 kilowatt generator was powering two lines of four pumps each, discharging water at the rate of 30,000 gallons an hour.

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A

The inverted weathering cone had a diameter of 22ft. at a depth of 3ft. to 4ft. below ground level ; this gradually reduced until it was 10ft. across at 20ft. deep ; for the next 7ft. it remained constant and then gradually decreased to just under 9ft. which was maintained until about 86ft. deep ; from there to 93ft. it was 8ft. in diameter, then the sides sloped more sharply until the base was some 3ft. across at 99ft.

The lining was of limestone blocks and each had a smooth concave face and was chiselled on the top, bottom and sides. Invariably the backs of the stones were only roughly finished. The ends were angled so that the ring of stones would fit together tightly, and no mortar had been used. The large stones all had ^{ey}leis-holes in the upper surface and some had a slight hollow to take a pebble-dowel.

The filling can best be described by starting at the bottom and working upwards. From 99ft. to 93ft. the filling was predominantly chalk lumps and a quantity of ironwork - bucket fragments, chains etc. - considerable amounts of pottery, and two radiate coins, one of Victorinus (A.D. 268-70) and the other of Carausius (A.D. 287-93). Above this was a layer of yellow-brown clay in which was found a near-complete pot ; from 92ft. to 87ft. was a layer of peat-like material containing wood, moss, leather, insect remains, well preserved wood and a large stone weight. Between 87ft. and 85ft. the filling was similar but included chalk and clay ; at 85ft. this was covered by an overall layer of clay.

Between 85ft. and 81ft. was a layer of blue-grey clay mixed with chalk fragments and containing vast quantities of pottery which tended to be concentrated round the edges of the shaft. There were also three coins of Valentinian I (A.D. 364-78) corroded together. At about 81ft. came the first signs of the collapse of the sandstone lining from the top of the well including a block carved with a figure of a deity and pieces of three stone troughs. The stones became fewer until the last one was found at 73ft. As the majority of pottery came from below the collapsed masonry it may be supposed that the 81ft. mark represented the termination of the regular use of the well. A further collapse of stones from the lining started at

66ft. and diminished until it ended at 50ft. Above this lay clay and chalk, presumably the detritus from the weathering-cone. Between 35ft. and 28ft. the partly articulated skeletons of three animals were found. At 30ft. quantities of building rubble, tesserae and wall plaster were found, probably from the bath-suite, the walls of which would by then have been very close to the edge of the extending weathering-cone.

Above this level subsidence caused by the weight of building stones falling into the middle of the shaft created distorted strata, some quite vertical. There was little building material above 11ft., although at approximately 9ft. 6ins. a crouched articulated human skeleton was found, apparently deliberately covered with two large chalk blocks ; there were no grave goods and no dating evidence. From this level to the surface the filling consisted of featureless clay - earth and chalk stones.

Conclusions

In the lower part of the well were signs of two phases of use. The earlier, distinguished by remains of buckets and chains and including the two coins A.D. 268-93, represents the main period of use. The later phase had no buckets or chains, nor even ropes, so it may then have been used as a rubbish dump ; on the other hand a high proportion of water-jars among the finds suggest that it was still used to provide water. The general impression is that the well was excavated at least by the beginning of the 4th century. Its siting, immediately outside the baths indicates that it was used for domestic purposes, and the discovery of the drinking troughs showed that it also provided drinking water for stock.

The most surprising feature of the well is its large diameter, between 8ft. and 9ft. across ; for practical purposes there seems to be little point in digging a well of greater diameter than is necessary to accommodate a single man excavating it. A possible explanation is that if a very large quantity of water was required for baths and stock and if it was drawn up manually, and in view of the length of time each bucketful would take to get up from such a depth, the large

circumference of the well head would allow for a large team of water drawers to work at the same time.

From the dating evidence available the well appears to have been constructed at the same time as the 4th century house to provide water for the bath-suite which, like hypocausts and mosaic pavements, came to Rudston late in Roman times.

The Gateway

North of the line of the east wall of the House, two large sandstone blocks were found in 1933 and were identified by Richmond as the corner-stones of that building (Richmond, 1933, 4), but Woodward thought that they were merely part of a wall which he found continuing to the north (I.R.1., 1933, 371, note 1). The correct explanation appears now, after further excavation, to lie between these two suggestions. On the one hand these stones are some 9ft. north of the probable north end of the House, and there is no evidence that they belonged to it ; on the other hand, sandstone was used on this site only in exceptional circumstances, and these blocks are unlikely to have been undistinguished members of the wall. Further excavation to the north of the House showed that the wall there was not continuous, and that the sandstone blocks were on the southern face of a major Gateway.

The wall found by Woodward appears to have been no more than a boundary. Its 3ft. wide footings course had no foundations, but rested immediately on a layer of chalk paving. In some places a second course had survived above the footings, and this was immediately below the present surface. An 18ft. length of wall was exposed, and came to an end some 30ft. north of Building 1. South of this a short length of wall had been robbed, but beyond that compact pitched chalk foundations were found over an area 4ft. wide and at least 4ft. 6ins. long. There were two layers of these pitched blocks, the upper some 18ins. below ground level, and they were bordered on three sides by successive floor levels. It is apparent that the boundary wall terminated at this point, and that the pitched stones were the foundations for the northern edge of the Gateway,

whose sandstone blocks had been robbed. The entrance would have been between 9ft. and 10ft. wide, and a number of chalk blocks and a large sandstone lump towards the centre of this entrance could have been the remains of a door-stop.

Immediately to the west of the foundations for the north side of the Gateway was a channel some 12ins. wide and 18ins deep. A 4ft. length of it was exposed, running parallel to the line of the boundary wall ; the possibility of its continuation to the north could not be explored because of the disturbance of the 1930 excavation trench, although if it had continued it must have been considerably shallower than at the entrance. At its south end the channel formed a T-junction with a similar channel whose west arm was 2ft. long whilst its east arm was disturbed by the later foundations. It seems clear that these channels had been bedding trenches for the timbers of an earlier wooden entrance.

Approach Roads

East of the Gateway were successive layers of road metalling, and it was found that two roads had converged on the entrance. The road surfaces were immediately below the present ground level so it is possible that higher levels had been destroyed, but the uppermost surviving surface was of a road entering from the north-east. The metalling of this road was distinctive because it was composed entirely of pieces of sandstone. At least three earlier surfaces of the same road were found, but these were made of rammed chalk. The sandstone road was 16ft. wide, but the exact width and orientation of the earlier surfaces was not so clear.

The second road, which was stratified below the sandstone surface, approached directly from the east. Two chalk surfaces were recognised, the lower being some 9ft. wide and the upper, off-set slightly to the north, was 8ft. wide.

The Circular Huts

The earlier phases of occupation at Rudston are still very inadequately known, although the pottery and brooches indicate that the site dates back to the first century A.D., and apparently

occupation started before the Roman conquest of Yorkshire. The three early brooches from Rudston, a Hod Hill type, an inscribed Aucissa, and a small Colchester brooch, were found to the west and south-west of the Central Enclosure, but a number of circular huts of this period were found to the east of the Enclosure. These huts were associated mainly with native pottery, with the very rare intrusion of sherds from a single butt-beaker and from a white flagon. Thus the huts might well be earlier than the conquest in A.D. 71.

East of the Central Enclosure

The main area of huts, to the east of the Central Enclosure and the later House, had been covered by the terrace adjoining the House, and disturbed only by the 4th century boundary ditch. In this area there had been at least six different circular huts, three of which could have been occupied at the same time, although structures must belong to three phases in all. The phase, and the outlines of the buildings, are given only by the surrounding drainage ditches, which enclose areas between 16ft. and 22ft. in diameter. Within this area a number of post-holes were found, but in no case was it possible to recognise a pattern among them. The position was complicated by the fact that some of the gullies cut across the lines of earlier ones, showing that huts had been built partly on the sites of previous structures, and under these circumstances it was impossible to relate post-holes to one particular hut. Furthermore, it was clear that in some cases it had not been necessary to excavate a drainage trench round the entire hut, and quite isolated areas were found. Apart from the curved gullies there were several shallow linear ditches and these could have been used either to take surface water away from the huts, or possibly to drain approaches. The excavated huts consisted of :-

Hut A. An approximately circular area, 17ft. by 19ft., bordered by a shallow penannular ditch with a 12ft. wide gap on the east side.

Hut B. Immediately to the north of A, and concentric with it, the arc of a second ditch which stopped on the east side at about the same point as the inner arc ; on the west side it could have run into

the southern arc of A - the position was confused by the crossing of Hut - Circle C. Thus B could have been a semi-circular arc for a completely different hut ; or the northern drainage gulley for a larger hut on the same site as A - in which case the hut platform would have measured 22ft. by 24ft. In either case it was clear that B was later than A.

Hut C. Also clearly later than A was a hut circle defined by curved gullies to north and south. The two areas were separate, but at the western side both became gradually more shallow, and ultimately disappeared, whereas at the eastern side both ends were sharply defined. Thus there had certainly been an entrance to the east ; possibly also an entrance to the west.

It seems clear that the platform enclosed by the circular gullies had been occupied by huts, and in an effort to retrieve the plan of one the entire area within Hut - Circle A was stripped. A number of post-holes were found, but they did not form any definite pattern, and the position was confused by the fact that the northern half of the circle could have included posts from Hut B as well as A ; whereas the southern part could have included not only A and B, but C as well. Only the two post-holes disturbed by the northern sector of Hut - Circle A could reasonably be assigned to one particular hut, and that would be Hut B. Any post at the centre of A or B might well have been disturbed by C. The absence of a clear pattern of post-holes rather suggests that the structures were not originally built on an arrangement of major posts, whilst the discovery of burnt daub in the northern part of the ditch round Hut A suggests that wattle and daub were used in its construction. No floor levels were recognised apart from the fact that the upper part of the southern arc of Hut - Circle A (i.e., at the centre of the later Hut C) had been consolidated with chalk.

In the area of these huts 12 post-holes were excavated, and none of them had stone packing. The deepest post-hole had been cut 21ins. deep into natural - and six others were between 12ins. and 17ins. deep. There was also a line of square-cut stakes, each 4ins. by 3ins. and 22ins. apart.

Hut G. was not completely excavated because it had been disturbed by the 4th century boundary ditch and it was thus clear that a complete plan was impossible. No break was found in the ditch, which enclosed an area between 16ft. and 17ft. in diameter. H was a curved gully to the south of G, about 6ft. away and concentric with the southern arc of G. D and E were curved gullies of other huts.

Hut F to the east of the others seemed to be undisturbed by later rebuildings so its entire area was cleared. Unfortunately its excavation was complicated by the difficult subsoil, for in this area the clay capping over the natural chalk was only patchy. The clay layer was continuous only over the south-west part of the hut, and elsewhere the archaeological layers rested immediately on weathered chalk. Thus not only had it been unnecessary to have a drainage gully round more than half of the circumference, but within the area of the hut dark occupation earth had penetrated the natural loose frost-cracked chalk leaving a confused picture for the excavator. The only feature within this part of the hut which could be identified with certainty was a central hearth whose heat had discoloured the natural chalk. On the west side of the circle, particularly the south-west where it had been excavated in clay, the drainage channel was clearly visible, but it was only 3ins. to 5ins. deep in the natural.

Five infant burials were found in the area of these particular huts, and they appeared to have been contemporary with them. On the other hand an extended adult skeleton, found in the southern margin of Hut F, might well have been later. It was orientated north-south, in a shallow grave in which the iron nails of a coffin or bier were found, and there were no grave goods other than a number of bird-bones found over the left femur. This is the only Rudston burial found in a coffin, although there is no dating evidence, it is perhaps worth noting that it is outside the 4th century boundary ditch ; the burial was found in the corner of the area excavated and it is possible that it is at the edge of a cemetery.

The only other features of note within this area were some pits containing animal bones. One, within the arc of Hut B but disturbed by A, measured 3ft. 8ins. by 3ft. 6ins. and 18ins. deep, and held the articulated skeleton of a pig. A second pit, in that part enclosed by A, B and C, was 1ft. 5ins. by 13ins. and 15ins. deep, and contained the articulated skeleton of a calf. A third, on the line of the gully of Hut F, measured 2ft. by 14ins. and was 12ins. deep in the natural. It contained both burnt and unburnt bones on its floor. A fourth, within the arc of Hut D, held the complete skeleton of a young pig, and two other pits further south held respectively an articulated skeleton and cremated bones of young animals. Such pits were found only in this area to the east of the later House. They were clearly more than just rubbish pits, and it is tempting to regard them as some kind of foundation - or ritual-burials.

West of the Central Enclosure

Gullies which closely resembled those round the circular huts were found at two points within the central enclosure, near the Great Well and under Building 6, but in neither case was any length exposed. However, to the west of this enclosure there were rather different remains of circular buildings in the vicinity of Building 5.

In the search for a northern extension of that building, on the grass-verge at the side of the road, a length of single-course stone wall was found. The wall was just under 2ft. wide and curved, forming a 20ft. long segment of a circle approximately 26ft. in diameter. Immediately to the south of this wall was a band of clay, also curved, with an arc very similar to that of the stone wall. It seems possible that both these features were parts of the walls of circular huts - if so, about half of the stone-based hut would be under the modern road to Kilham. Enclosed within the arc of the curved stone wall was a rough chalk floor, and in the earth over this, and over the line of the wall, was a quantity of painted wall plaster clearly derived from later buildings.

Excavation under Building 5 also produced two arcs of circles - in this case slight gullies worn in earlier chalk floors. It seems likely that these gullies, too, indicate the existence of circular buildings - they could have been drip-channels worn by rain water falling from the roofs - but nothing was found of any structure. Apart from the chalk floor worn by these gullies there were also a number of pits under this building, but the area was not completely excavated.

The present study is restricted to the area south of the road, although in 1972, excavation to the north of the road revealed further structures in alignment with the villa containing two more mosaic pavements, (Figs. 31, 32 and 33).

GRINDALE (Yorks) TA 1371

Clark, M.K. (1935), G.R.R.E.Y., (1935), 85

Bulmer's Directory, (1892), 268

"Some fragments of tessellated pavement were found here in 1839 and in 1858 were discovered the foundations of a Roman building which appears to have been of considerable magnitude" (Bulmer, 1892). Nothing further has been discovered during this century but it is worth noting that Grindale is only about 3 miles from Rudston.

KILHAM (Yorks) TA 0664

Gent. Mag., (1839), Part II, (1839), 410

Library of Romano-British Remains, II, 364

In 1839 a piece of tessellated paving was found in a field adjoining the road leading from Rudston to Kilham. It measured about 12ft. by 9ft. and was composed of tesserae of $\frac{1}{2}$ in. to $1\frac{1}{2}$ ins., in red, white and blue ; these were "laid in lines and forming diamonds." (see also Rudston, Building 1, Room 6). The pavement was subsequently destroyed in situ.

GROUP 5. SIX SOUTH WOLDS VILLAS

BRANTINGHAM (Yorks) SE 932288

Slack, P.E. (1951), Y.A.J., XXXVII, (1951), 514-20
Stead, I.M. (1971c), Unpublished typescript report.

The villa site lies about half a mile south-west of Brantingham. It consisted of the lower parts of the walls and tessellated floors of two rooms of a villa originally discovered in September 1941 during the removal of topsoil for quarrying operations by a mechanical grab ; consequently, substantial damage had been done. When found the mosaic pavements were cleaned, photographed, then re-covered and left as an island while quarrying continued in the rest of the area. Aerial photography revealed no further signs of the villa on this site but indicated another building in an adjacent field.

In 1948, arrangements were made for the excavation of the site under the direction of Mr. P.E. Slack, and the removal of the mosaic to Hull Museum.

The outer measurements of Room 1 were 16ft. by 11ft. The bottom layer of the wall, 2ft. wide, was laid on 1in. of mortar and was composed of two facing walls made of stones measuring about 16ins. by 8ins. by 6ins. with an 8ins. core of small stones laid in herring bone pattern, and mortar. On top of this foundation were four courses of smaller stones, approximately 11ins. by 8ins. by 3ins. again with the same type of core. Above this lay two courses of smaller stones, the inner line being smaller than the outer, leaving a ledge 3ins. wide and 6ins deep running round the whole of the inner side of the wall.

Within the walls, and level with the foundation mortar, was a layer of red mortar 1ins. thick which reached up to, but not under, the walls. On this mortar stood twenty three pillars each consisting of four carefully shaped stones ; the pillars were of equal height but varied in width and breadth from 9ins. by 9ins. to 18ins. by 11½ins.

From east to west they were arrayed in five rows of four and one of three, those in the south and west rows being butt-joined to the wall but those on the north being 8ins. clear of the north wall. The top of the pillars came about to the same level as the ledge in the walls, and on them, and the ledge, were laid large flag-stones of irregular shapes except that those at the corners were carefully cut to fit the right-angles and those at the edges approximately fitted onto the ledge. These flags formed the base of the pavement and any discrepancy in level between the top of a pillar and its surmounting flag-stone was made good with broken flue tile and mortar. The flags lay free in the ledge and were not mortared. Upon the flag-stones was a 2ins. layer of red mortar covered with $\frac{1}{2}$ in. of cement and finally the pavement itself, measuring 12ft. 6ins. by 7ft. 10ins. From a slot running round the wall, let into the central core, portions of decorated wall plaster were recovered.

In the eastern wall was the entrance from the stoke-hole in which was found a complete tile and several fragments of tile together with a little ash from which came a fragment of white painted Castor ware pottery and a coin of Constantine I, c. A.D. 330-5. Another coin was found in the footings of the eastern wall but it is not clear from the report if this was also of Constantine I. There was very little carbon in the hypocaust.

In the northern wall were set two flue pipes and between these was the cement threshold of a doorway leading to Room 2 to the north.

Most of the walls of Room 2 had been destroyed by quarrying though it was clear that they had not been keyed to those of Room 1 but simply butt-joined. The pavement, at the time of excavation, measured 12ft. 6ins. by 11ft. 6ins. but an estimated 20% to the north was missing.

There was no heating system in this room. Below the pavement was a $\frac{1}{2}$ in. layer of red mortar, then a $\frac{1}{2}$ in. layer of white mortar followed by 3ins. of red mortar and small pebbles, followed by a stratum of sandy soil and stones in which were a dozen or so ox bones and vertebrae. This layer varied in thickness from 6ins. in the

centre to 9ins. at the edges. Towards the bottom of this layer the excavator encountered four post-holes, one 4ins., two 2ins. and one 1in. in diameter. The three smaller holes were approximately 7ins. deep but the larger one penetrated a mortar floor 3ins. thick laid in two layers, then a 4ins. layer of stones, irregular in size but roughly shaped and laid, then a $3\frac{1}{4}$ ins. layer of loamy soil and coming to an end on top of a $\frac{1}{2}$ in. layer of black ash which overlay 1in. of bright red clay below which was natural. From the loam were recovered two iron nails, a fragment of glass and a small sheet of lead.

Below the western edge of the floor, extending to a depth of $4\frac{1}{4}$ ins. below the ash, was a pit from which were recovered six iron objects, two hones, a spindle whorl, a fragment of glass, and a small piece of bronze sheet.

Regrettably, before the mosaic in Room 1 could be removed to Hull Museum, it was stolen and the foundations were badly damaged, though what remained of the pavement in Room 2 was successfully dealt with.

In 1961 local archaeologists walking in the field north-west of the Cockle Pits saw quantities of tesserae on the surface, suggesting that another pavement was being ploughed up. An exploratory hole revealed part of a figured mosaic and after the 1962 harvest a rescue excavation was organised under the direction of Dr. I.M. Stead of the Ministry of Public Building and Works. (Fig. 34).

The pavement (Figs. 35, 36 and 37), proved to be on the floor of a large room 36ft. 6ins. by 25ft. 6ins., whose walls had been almost entirely robbed with the exception of a small area of masonry in the south-east corner on the site of a door, with a central step leading into a corridor. The pavement lay from 12ins. to 20ins. below present ground level and therefore beyond reach of the plough. However, the floor was not in perfect condition due to collapse into hypocaust flues. Short lengths of quarter-round moulding survived against the lines of the west, north and east walls.

The Lime Kiln

Adjoining the inside of the west wall of the room, and resting on the pavement, was a circular 'oven', about 4ft. in diameter built of limestone blocks still standing up to three courses high. It was neatly faced on the inside, but the outside was merely rubble which appeared to cover the edge of the robber-trench of the west wall. There was a funnel-like entrance on the south side with a large vertical slab on each side and the whole of the interior had been heavily burnt. There was no evidence of the purpose of this feature, nor any dating evidence except that it was later than the destruction of the room ; possibly it had been a lime-kiln operated when the walls were robbed.

Wall Plaster

Over the rest of the room, immediately on top of the mosaic pavement, there was a large quantity of painted wall plaster. It had undoubtedly decorated the walls of this room, and perhaps the ceiling too, and it shows that these surfaces were in good decorative order when they collapsed and the room was abandoned. As the painted designs were related to the mosaic, and there was no evidence of an earlier phase of plastering, it seems likely that the room had quite a short life. Some of the plaster had been burnt, and there was much charcoal and burnt stones in the same layer, together with nails and roofing tiles. After the wall-plaster had been removed, the mosaic was cleaned and recorded then removed to the Hull Museum.

The Hypocaust

Most of the damage to the pavement had occurred through collapse into the long narrow flues of the hypocaust, Y-shaped in plan and stemming from the north-west corner of the room where the furnace was discovered. A main flue swept diagonally across the room towards the eastern end of the south wall and on the north of it were three branches. The central branch still had its capping stones and the pavement above was intact, but the cap stones over the other two branches had collapsed, carrying the pavement with them. Judging from the pattern of damage there had been another flue from the stem to the western end of the

south wall but this was not checked by excavation. It is unlikely that such a system was ever very successful in heating such a large room and this appears to have been admitted as the entrance from the furnace had been blocked by a large vertical slab.

The south-east corner of the room had been extensively disturbed where it had fallen into an earlier hypocaust. This was built of limestone and had a central flue with three or four branches on each side, covering an area of about 12ft. by 8ft. The furnace had been at the east end, where the stones had been reddened by fire, but that end had subsequently been cut by the foundation trenches for the east end of the large room.

Other rooms

The door in the south-east corner of Room 1 led to a corridor (Room 2), 6ft. 9ins. wide and over 30ft. long. The tessellated pavement on its floor was undoubtedly one of the sources of the tesserae scattered over the field as it had much less depth of topsoil cover than Room 1. The eastern end of the floor had completely disappeared and there were deep linear scars cut into the central part from the south side. A 28ft. length of the pavement survived, the eastern end covering paving slabs apparently from an earlier floor, and 8ft. further east there was an isolated fragment which might well have been the end panel.

Room 3, in the angle between Rooms 1 and 2, had also been floored with mosaic but here, unlike Room 1, the hypocaust was built of tile pilae and little had survived the collapse. The only part of the floor remaining, 6ft. 9ins. long but only 1ft. 2ins. at its widest point, was found in several pieces on the south side of the room.

The furnace for Room 3 was on its east side (Room 4) and was approached down two stone steps from the eastern end of the north wall of the corridor. It had a clay floor covered with ash.

East of the corridor were the remains of another channelled hypocaust but there was no trace of the floor of that room. No attempt was made at full excavation in this area.

Finds

Little pottery was found and none of it was significantly stratified, but useful dating evidence was provided by the only coin from the excavation, a Constantinopolis issue of A.D. 330-46 found on the west side of the west wall of Room 1, below a mortar layer contemporary with the wall. This suggests that the room housing the mosaic was built after A.D. 330, and it is interesting that the coins recorded from the Cockle Pits site excavated in 1948 belong to the same period.

The rooms discovered in 1941 are about 70yds. south-south-east of the present excavation. It seems certain that the discoveries of 1941 and 1962 belong to the same villa but little is known of its plan or its history. Brantingham is the only known villa to be centred on Petuaria and judging from the size of Room 1 and the quality of its mosaic it is much superior to other Yorkshire villas. Only Harpham, where the main excavated room measured 21ft. by 30ft., comes within reach of the 25ft. by 36ft. room at Brantingham ; the mosaics from other East Yorkshire villas - Beadlam, Langton and Rudston - are all under 20ft. square and come from less ambitious houses.

BISHOP BURTON (Yorks) SE 9940

Clark, M.K. (1935), G.R.R.E.Y., (1935), 67
 Gent. (1733), History of Ripon, (1733), 77

In about 1720 a ploughman "in Bishop Burton field, two miles distant from Beverley" (Gent, 1733), happened to go deeper than usual and hit something unusually hard. Upon investigation he discovered "a curious Pavement of red, white and blue Stones ; each about an Inch Square, placed in a beautiful Order ; And soon after coming to a Field, next but one to this, he perceived another Spot, under which was the like curious pavement, as before mentioned."

Conclusions

Whether these were the remains of one building or two it is not possible to say but it seems as though there were surface indications in the second field.

WELTON WOLD (Yorks) SE 974279

Mackey, R.W. (1972a), 'Roman Britain. Welton Wold. Britannia, III,
 (1972), 311
 Mackey, R.W. (1972b), Yorkshire Archaeological Register. Welton E.R.
Y.A.J., 44, (1972), 218

Excavation has revealed a corridor villa with chalk foundations inside a ditched enclosure, 197ft. square in the middle of a complex of enclosures, buildings, agricultural and industrial features covering some 19 $\frac{3}{4}$ acres. The whole complex was bounded by a double ditch, which has been traced for as much as a mile without turning. Two aisled barns were found, one measuring 49ft. by 24ft. 6ins., and the other 65ft. 6ins. by 32ft. 9ins. The latter was probably built in the late 2nd century and was still in use in the late 4th century.

The villa complex had been preceded by Iron-Age occupation from which four inhumation burials were found, one accompanied by a pot, and there was substantial evidence to suggest a possible post-villa phase of occupation.

Conclusions

Work continues on the site and little has so far been published. Once again we find evidence of post-Roman activity although its nature is not disclosed. This is discussed later.

MILLINGTON (Yorks) SE 8352

Clark, M.K. (1935), G.R.R.E.Y., (1935), 109-11

Half a mile north-east of Millington stone structural remains were found early in the 18th century. These consisted of a circular foundation 45ft. in diameter internally and 5ft. wide ; just to the south were two rectangular buildings in one of which was an entrance slightly less than 2ft. wide very heavily burnt. Inside the building was a layer of ash 18ins. thick containing small pieces of burnt wood and animal bones. East of these structures, foundations of a square building were discovered in which were found pavements and two coins, of Titus (71-81) and Gratian (367-8). Also found on the site were two pillar bases, a piece of a stone pillar 6ft. in length, tiles, bricks, a bone comb and a clay coin mould. Lewis (1966,86) thought it might be a massive temple but only classed it as a 'possible.'

Conclusions.

While this may be a temple, there is nothing inconsistent with it being a villa. The width of the foundations of the circular building, 5ft., compares with more than 5ft. for the foundation trench of Building E at Winterton and foundations 4ft. 3ins. wide at Holme House. The very burnt 2ft. wide entrance to one of the buildings

might well be a stoke-hole. Finally, tessellated pavements so far found in Britain are almost always associated with villas, or otherwise appear in an urban context. (Smith, D.J. 1965, 95).

NORTH NEWBALD (Yorks) SE 9036

Corder, P. (1940), Two Fragments of a Roman 'Votive Lantern' or 'Lamp Chimney' from North Newbald, East Yorkshire.

Ant. J. XX, (1940), 282

Corder, P. (1941), P.L.P.L.S., V, part IV, (1941), 231-8

Early in 1939 Roman pottery was observed in a roadside trench in Hotham Lane, to the west of the Brough - Weighton road, near North Newbald. The surrounding fields were sherded and this led to further discoveries.

In August 1939 Mr. Barley trenched the site on both sides of Hotham Lane but the war necessitated the closing down of the excavations after about a fortnight. Buildings extended at least 65ft. south of Hotham Lane and 95ft. north of it, and for a much greater distance east and west. Stone walls, laid floors, roof tiles, box flue tiles, tesserae and abundant wall plaster indicated a substantial villa.

No close examination was possible in the time and earlier layers were not excavated, but some interesting coin and pottery finds were made. The coins, all in good condition, were a Denarius of Maximinus I, A.D. 235-6; an Antoninianus of Tetricus I, A.D. 270-3 and an AE3 of Constantine II, A.D. 337-40. The pottery, unstratified, consisted of samian, Throlam and Crambeck ware; the common Huntcliffe type, which is usually found on sites in the north occupied after A.D. 370 was conspicuous by its absence.

Other finds included bone pins, glass, bronze objects and numerous iron nails. Of particular interest were two pieces from a red frilled votive lantern or lamp chimney of a type rare in Britain. (Corder, 1940).

Conclusions

It seems from the pottery evidence that the site was occupied in the 2nd century ; that the maximum occupation lay in the 3rd and 4th centuries, and that the site was abandoned in the third quarter of the 4th century, as only one sherd among many hundreds appeared to be later than this.

SOUTH NEWBALD (Yorks) SE 904378

Green, D. (1958), 'Roman Yorkshire' ; 'South Newbald and Sancton'.
Y.A.J., XXXIX, (1958), 335

A building was revealed during the cutting of a trench for a water main close to the Brough-Malton Roman road. To the south was a well-built sandstone wall and two floors of clay and chalk, one covered with burnt ash containing Roman pot sherds. At the north, on the same level as the floors, were three flat pavers in situ. The upcast from the trench contained dressed sandstone, fragments of red tile, and pottery, and in the fields nearby pottery, tiles and mortar have been found.

GROUP 6 THREE OUTLYING YORKSHIRE VILLAS

KIRK SINK (GARGRAVE) (Yorks) SD 939536

- Whitaker, T.D. (1878), History of Craven, 3rd edition (1878), 229
- Villy, F. (1912), Bradford Antiquary. (N.S), III, (1912), 353-68
- Hartley, B.R. (1968), Typescript Preliminary Report
- Hartley, B.R. (1969a), Typescript Preliminary Report
- Hartley, B.R. (1969b), J.R.S., LIX, (1969), 207
- Hartley, B.R. (1970), 'Roman Britain in 1969 : Kirk Sink.'
Britannia I, (1970), 280-1

In 1910 Dr. Francis Villy carried out some preliminary investigations to try to determine whether the visible banks and ditches at Kirk Sink were of Roman military, or civil, origin. He discovered three main enclosure ditches, two, (A.B.C.D) ran as a parallel pair and the third, (E.F.G.H) enclosed a smaller area within the outer pair. A short length of ditch (G-I) connected the inner ditch with the nearest outer ditch. When Hartley started excavating he called these ditches A, B and C, starting from the outside, and this is a more simple designation even when discussing Villy's work. (Fig. 38).

Villy cut sections across ditch C ; on the north, west and south it had a uniform V-section, 9ft. across at the top and 4ft. deep ; it had been dug through about 3ft. of clay resting on a bed of gravel. On the east side the ditch was 13ft. across and 5ft. 6ins. deep, and at the bottom was a stone drain with built up sides, a gravel bottom and flag covers. This still carried a stream of water southwards and was overlaid by a 3ft. thickness of silting, charcoal and ashes, all of which Villy considered to be Roman. Hartley found that part of ditch B, at least, had been recut and that ditch C was later than the recut ditch B. Both were open in the late 4th century from the pottery evidence. Ditches A and B averaged 8ft. wide and 1½ft. deep.

Villy discovered two structures ; at K there was the north-east corner of a building from which two parallel walls, 1ft. 3ins. apart and 2ft. 6ins. high, ran for at least 10ft. to the east. The space between these two walls was half full of ashes but there were no signs of burning or soot on the stones. The western end of this feature was blocked by the main wall. The second feature, at L-M, was a 30ft. length of concrete 2ft. thick resting on the subsoil. An even pink surface in one area led Villy to believe that it was part of a passage or room ; no connection was discovered between this feature and K except that they were in alignment. Roofing tiles and wall plaster were found in abundance in this area. In the region of J a trench dug in search of a road revealed a distinct black layer containing charcoal, and roof and flue tiles ; a cobbled road 13ft. wide, probably of relatively recent construction, was found to overlies the Roman material.

In 1968 Mr. Hartley commenced work at the western end of the enclosure bounded by ditch C, and discovered a range of three narrow stone buildings roughly parallel to the west ditch and ranging from 50ft. to 120ft. east of it ; their south walls were some 90ft. north of the south ditch. Four periods of occupation were distinguished in these buildings. First, an extensive layer of burnt daub and charcoal resting on the subsoil, indicating timber buildings for which no structures were located, but containing late 2nd and early 3rd century pottery. The Period 2 stone building cut through the burnt layers of the first period and a corridor in one building was floored with mortar.

In the third period the original stone building was completely replaced by a rectangular stone structure partly overlying the previous one but extending further west. Traces of a mortar floor were found and coarse tesserae in the construction trenches of the next period suggested that some tessellation existed in Period 3. Pottery suggested that Period 3 belonged to the late 3rd century. This building was notable for the large blocks of red sandstone used in its foundations, but the quality of wall facings was inferior to that of Periods 2 and 4.

Complete replacement of the building again occurred in Period 4. The walling was extremely neat and the debris of the south wall yielded much painted wall plaster though the floor no longer existed. To the west of this building were two successive timber framed structures with clay walls and patches of irregular stone flooring. The first of these had burnt down. In the later, subsidiary, phase, a flagged corridor 6ft. wide was formed along the east side of the main building and later still this was raised 15ins. and repaved with rough slabs. Phase 4 was considered to belong to the late 4th century.

30ft. south of these buildings was another, mainly of one period and probably constructed early in the 3rd century. This would make it contemporary with Phase 2 of the buildings previously described. It was a simple rectangular structure, facing north, 73ft. long by 28ft. wide, with a large room at each end with, between them, a corridor on the north side fronting two smaller rooms. The original floors of lime mortar had everywhere been replaced at least once and in the final phase the two eastern rooms had been embellished with mosaic panels bordered by coarse tessellation. All the rooms had garishly painted walls. The only addition to this building was a room at the west end, giving a total length of 85ft. in the 4th century phase. Under the original floors, at the east end of the building were two wall foundations at right angles to each other but on a different alignment from the overlying building. These foundations were associated with much burnt daub and a few tesserae, but no dating evidence was forthcoming.

35ft. north of two of the narrow buildings, another complex was discovered, so far all of one, undated, period, but cutting through the Phase 2 rear wall of the longest of the narrow buildings. Two rooms were partly uncovered, one unheated though apparently with a mosaic floor in its final phase, the other heated by a channelled hypocaust. The walls had almost everywhere been robbed to their foundations and one of the hypocaust channels had been partly robbed. This was a major building and the heated room had had a mosaic of good quality, of which many fragments were found in the hypocaust channels. So far the fragments are all of guilloche borders and key

pattern but further excavation in the middle of the room may produce a panel.

A plan is being prepared of the field system and enclosures surrounding the buildings.

Conclusions

It is evident that the site was occupied from at least the end of the 2nd century to the late 4th, but since the excavation is at such a comparatively early stage, conclusions drawn from the existing evidence may well be proved wrong in the light of future work. However, it seems now that there was a southern building from the early 3rd to the 4th century, overlapping, in time, the existence of the central range, while the northern building also appears to have overlapped the central range. Since Mr. Hartley does not think that the northern rooms are part of a bath building it seems that there were either two houses existing contemporaneously or that future excavation may show three sides of a courtyard house. It would have been helpful to have had a plan of Mr. Hartley's work but unfortunately one was not available.

COLLINGHAM (DALTON PARLOURS) (Yorks) SE 4044

Procter, W. (1854), P.Y.P.S., (1854), 270-81
 (1949), Y.A.J., XXXVII, (1949), 237-9

The exact date of the excavation of this site is not certain although it must have been in the early 1850's. Remains of the villa were supposed to have been found over an area of 7 or 8 acres but because part of the site lay under an adjoining plantation and a corn crop was growing over much of the remainder, the area excavated was relatively small. (Fig. 39).

Hypocausted rooms

The first two rooms to be investigated were those marked A and B on the plan. They were separated by a well-built sandstone wall 2ft. 4ins. high. Room A measured 8ft. 6ins. by 8ft. 2ins. ; it contained twenty five pilae in five rows of five. The pilae consisted of flat tiles from 8ins. to 10ins. square, cemented together and set on a floor of cement composed of brick and lime. When originally discovered this room was longer than it appears on the plan but evidently no guard was mounted on the excavations and much of the north-west end was destroyed by sightseers before it could be planned. Procter mentions, however, that when it was first opened there was a furnace at the north-west end containing a large quantity of wood ash. A flue through the wall dividing rooms A and B had been stopped up on one side by a concrete filling.

Room B was on the same level as the first and measured 8ft. 4ins. by 7ft. 10ins. It again contained twenty five pilae in five rows of five, fourteen of which were of tile and the remaining eleven (shaded on the plan) of sandstone. A flue on the north wall of this chamber passed into the large room, L. Flat tiles laid across the tops of the pilae and covered with a thick layer of concrete formed the suspended floor and a large quantity of decorated wall plaster was found.

Cold room

East of room B lay room C, of the same width as the hypocausted chambers and 18ft. long. Trenches were dug in this room which yielded large quantities of chalk and tile tesserae an inch square, presumably the floor covering, but nothing else. 2ft. 4ins. beyond this room, to the east, lay a slab of concrete 7ft. long by 2ft. wide with raised edges and a groove in the south corner. A stone channel led from near this groove 26yds. to the north where it entered a stone cistern (F), 1ft. 6ins. deep, 1ft. 10ins. wide and 2ft. 3ins. long made of flags one on each side and end and two to the bottom. Opposite the entrance channel were two small openings ; one connected with a channel Ef similar to Ee, which was traced for a further 40yds. northward. Nothing appears to have been connected to the other opening. Both the channels Ee and Ef appeared to have a fall towards the tank, F.

Building G

To the east of tank F, a large area of foundations formed of the best stonework that was met with and measuring 30ft. by 54ft., was excavated. The west wall was strongly marked by fire and displayed the remains of a fire-place. The floor was covered with a coarse pavement composed of tile and stone embedded in mortar.

Room L

This room lay to the north of the hypocaust rooms A and B, measured 28ft. by 27ft. and was connected with room B by a flue through the wall. The floor was on the same level as rooms A and B which suggests that this room, though large, was also hypocausted ; no evidence of this is reported except that round the lower part of the wall was a ledge which might have formed part of the support for a suspended floor, and a quantity of coloured tesserae were dug out. A later child burial together with several large nails with small pieces of wood adhering to them was discovered near the eastern corner of the room.

The tessellated pavement

Approximately 100yds. north of room A, an elaborate tessellated pavement was discovered in a room with an apsidal end at the north-east.

The length of the whole room was 37ft. 11ins. and it was 20ft. 6ins. wide internally. The room - and the pavement - was divided by the foundations of a wall 1ft. 10ins. wide, the rectangular, southern, part of the room being 22ft. 6ins. long and the northerly portion being 13ft. 7ins. from the wall to the end of the apse. The designs were composed of red, white, blue, brown, black and yellow tesserae and from the drawing appear to have been of good workmanship. The room did not appear to have been hypocausted.

Some 20ft. to the east of this pavement was a wall, K, part composed of stone and the other part of brick which had been marked by smoke.

Conclusions

Procter lists some of the finds but not where they came from. These included large quantities of flue tiles, roofing tiles, (tegulae and imbrices) some with the remains of nails still in, and quantities of decorated wall plaster. The pottery fragments consisted of coarse red ware and slate coloured ware of better quality. Large quantities of oyster shells and broken fragments of querns were discovered, "and large masses of stone 5 or 6ft. long, having the appearance of being parts of doorways, and retaining marks of ironwork, and one with the peculiar depression for a lousis ..."

He also lists nine coins found on the site "at the present and for some time past." These comprise three silver denarii, of Antoninus Pius, Severus Alexander and Postumus. The bronze coins range from Constans to Valentinian.

It is possible that we have here part of a villa with building G a barn or outhouse and the remainder of the villa itself lying to the south or west of the structures so far uncovered. No dates can be offered for the buildings themselves but judging solely from the somewhat tenuous coin evidence it seems that the site was occupied from about the middle of the 2nd century until the end of the 4th century.

DRAX (Yorks) SE 690261

Wainwright, F.T. (1954), Y.A.J., XXXVIII, (1954), 398-402

Wilson, K. (1966), Y.A.J., XLI, (part 164), (1966), 670-86

The farm is on low-lying land not more than 15ft. to 18ft. above sea level and 600yds. south of the right bank of the River Ouse. A field known as The Stannels, in the south of the site, has been 'warped', or dressed with water and silt from the river, as an aid to cultivation at various times.

The solid geology of the area is Bunter Sandstone and it lies ten miles east of the magnesian limestone belt running north and south roughly parallel to the carboniferous coal measure further west. Five miles east is Keuper Marl and then come the chalk wolds of the East Riding. The 'natural' is blue clay above which is a stratum of brown clay, and over this a layer of fine, almost white, delta sand overlaid by about 18ins. of silt brought in by warping.

Magnesian limestone and sandstone were used for building and were most likely brought by water transport, as in Roman times the River Aire was probably navigable to within a short distance of the site. The quality of the soil must have been poor in Roman times ; the swampiness of the area would not have been conducive to stock breeding, and this was indicated by the scarcity of domestic animal bones. It is probable that a small cereal crop was grown and supplemented by fish and wild fowl.

The excavation (Fig. 40) was planned on the basis of crop marks noted in a crop of oats during 1961. Wall foundations or robber trenches were found 1ft. 9ins. below the surface, forming a building with an external corridor or veranda facing a walled courtyard at the south-east. The foundations of the outer walls were 3ft. 9ins. to 4ft. wide and those of the internal walls 3ft. The south-west room (A) measured 19ft. by 20ft. 6ins. internally and the sand above the brown clay was overlaid by a 4ins. layer of ashy brown sand, which

tapered away almost to nothing to the north and south of the room. This room adjoined a pair (B and C) measuring internally 11ft. 6ins. by 10ft. and 11ft. 6ins. by 5ft. respectively. The smaller room looked like a passage communicating with another large room (D) measuring 19ft. 6ins. by 18ft. 6ins. The foundations of the wall at its south corner were not pitched at the same angle nor bonded with the original work ; the corner contained a large quantity of charcoal and wood ash and the foundation stones showed signs of burning. In the centre of the room charcoal and ash lay in an irregular trench cut through the sand to a depth of 6ins. down into the clay beneath ; below the charcoal was a channel of clay 4ins. wide which seemed to have been used as a flue, but the purpose of this ruined feature could not be determined.

At the south-east end of the building was a small room (E) measuring 8ft. 6ins. by 9ft. internally. This was bonded with the rest of the building but was only about two thirds of the width of the main block. South-east of this room lay another (F) measuring 10ft. 6ins. by 10ft. internally. In the north-west corner were two post-holes 9ins. square and a foot apart ; the floor had been paved with sandstone cobbles after the posts had been removed.

Running parallel with the main building on the south-east side were two walls each 3ft. thick. The first was 4ft. 6ins. from the building and formed a corridor (H) running the full length of the building. The north-east end of this wall stopped abruptly 5ft. from the south-west wall of room F and the other end joined at right angles a wall running south-east from the north-west corner of the main building forming another corridor (G) along the south-west wall of room A. There was a break of 8ft. in the wall opposite room C where two short walls extended south-east to form an entrance (K) which measured 8ft. by 7ft. The second wall ran parallel with the first and 5ft. from it. This also stopped 5ft. from the wall of room F and at the other end joined the wall running south-east making a second corridor or veranda (J). The corridors G and H and the entrance K were paved with sandstone cobbles but the veranda J was not. Two large post-holes were found in J and three more were positioned in

line between the ends of the parallel walls and room F ; these were below the cobbles. The removal of the wall in the south corner of the entrance K revealed a pit about 6ft. in diameter and 5ft. deep. It had been lined with vertical timber posts about 3ins. in diameter and on the south side were two large post-holes 3ft. apart. An inclined channel ran into the pit from an unexcavated area to the east. The pit had been filled in and the wall built over it ; no dating evidence was obtained.

The courtyard formed a rectangle 81ft. by 21ft. It was bounded to the north-west by the main building, to the north-east and south-west by walls 2ft. 6ins. thick, and to the south-east by a wall of the same thickness which had a gap in it of 25ft. The gap was not central and the courtyard was cobbled. The spaces at the north-east and south-west ends of the courtyard may have been open ended cattle stalls or barns but no post-holes for roof supports were found.

The wall foundations were of three courses of pitched stones all slanting in the same direction. The outer wall foundations were set in the clay of foundation trenches dug through the sand ; the internal foundations were laid on the sand itself. A 6ins. layer of clay was rammed over the top course and between the stones and in the clay a well-formed bed, perhaps formed by pressing with a plank, was filled with a 2ins. layer of pink mortar into which the masonry of the wall had been set. The foundations were about 6ins. wider on each side than the wall. Except for the cobbled areas of the courtyard, corridors, veranda and room F, no other floor levels were found, the areas enclosed by the walls being of sand overlying the natural clay.

The pottery evidence, taken together with the structural remains, indicate three main phases for the life of the villa. Phase I, c. A.D. 250 ; construction of the main building comprising rooms A,B,C,D and E with a timber veranda and timber outhouse near the north-east corner. In front of the veranda was a timber lined water storage pit fed by a channel from the north-east. Phase II, undatable ; demolition of the wooden buildings and filling of the water storage pit. Construction of the corridors, stone veranda, room F and the

wall surrounding the courtyard, all paved with cobbles. Phase III, c. A.D. 370-400, abandonment of farm. Later phases indicated at least two stages of robbing and finally the warping and flooding which obliterated all traces of occupation.

Of the 1,093 pieces of Roman pottery found, nineteen were of samian ware, of which one had a stamp. The remainder were coarse ware mostly from Crambeck. Other finds included a spindle whorl, an iron knife with tanged blade 6ins. long, a hinge, a piece of iron 6ins. long and a number of 2ins. nails with large heads.

Conclusions

As none of the pottery except the stamped piece of samian was earlier than A.D. 250 it is probable that the first settlers arrived about that time bringing the samian vessel with them. In the 3rd century the place would have been singularly inhospitable, being largely surrounded by water, and it is difficult to imagine why a dwelling was built here at all. The presence of mortaria indicated that a cereal crop may have been grown but no traces of quern were found. Bones of domestic animals were scarce and there were no bones of wild fauna. There were a few oyster shells. Cereal and fish probably provided the staple diet, and a flax crop may have been grown and processed ; this is discussed later.

In Phase II, although a date was not determined, the main building was enlarged in stone after pulling down the timber buildings. All these new additions were paved with sandstone cobbles levelled off by ramming in a hard packed mixture of sand and clay. The Phase I rooms may have had wooden floors which subsequently were robbed or rotted, and the later warping had washed away all evidence. No nails were found in these rooms so if they had had wooden floors, presumably wooden pegs were used for fixing.

GROUP 7 FOUR NORTH LINCOLNSHIRE VILLAS

Goughs Camden. (1806), 11, 378

Knowles, C. (1967), Worlaby. L.H.A., I, No. 2 (1967), 37

Knowles, C. (1972), Private letter to the writer

Lysons. (1813), 1, 1-14

Proceedings of the Society of Antiquaries London, (1876), VI, (1876),
114-5

Publications of the Surtees Society, (1869), LIV, (1869), 212

Smith, D.J. (1969); The Roman Villa in Britain, ed. Rivet, (1969), 102-9

Trollope, E. (1872), Sleaford and the Wapentakes of Flaxwell and
Aswardhurn, (1872), 57-62

HORKSTOW (Lincs) SE 9819

Lysons (1813) mentions the villa and so does Trollope (1872) giving only a description of the mosaic pavement (Fig. 41), which is ascribed by D.J. Smith (1969) to the Petuarian school and is particularly interesting for its spirited representation of a chariot race.

ROXBY (Lincs) SE 9216

Trollope (1872) records that in the 18th century a labourer repairing a fence in a small field lying to the south-west of Roxby church discovered part of a tessellated pavement, subsequently drawn by Fowler in 1799 (Fig.50), large stones, roof tiles and red and yellow painted wall plaster. Roman coins were later found in the vicinity. D.J. Smith (1969) considers that the mosaic was a product of the Durobrivan school of mosaicists.

WORLABY (Lincs) TA 017143

In 1967 a field to the west of the village was ploughed up and a number of human bones were found. Mr. Christopher Knowles (1967),

directed an excavation of several 6th century Saxon graves. Two of the burials overlay the debris of a Roman-British building with pitched chalk wall footings, in places over 4ft. wide ; much of the foundations had been robbed out. Floors of mortar and opus signinum were seen, together with fragments of painted plaster, York stone perforated roof tiles and box flue fragments. From the ploughsoil came one tessera and two pieces of window glass. There was no dating evidence for the building and lack of resources prohibited further work.

WINTERTON (Lincs) SE 933189

(Figs. 42 and 43)

- Stead, I.M. (1966a), 'Winterton Roman Villa. An interim report', Ant. J., XLVI, (1966), 72-84
- Stead, I.M. (1966b), 'Roman Britain in 1965: Winterton', J.R.S., LVI, (1966), 202
- Stead, I.M. (1971d), Winterton, Unpublished draft report.

Building A. (Fig. 44)

The rectangular building on the south side of the site was about 85ft. long by 25ft. wide and was later almost entirely demolished to make way for Building B. Dating evidence is provided by samian ware from an earlier ditch under the west end of Building A and these sherds are Hadrianic and early Antonine, so the building was not constructed before c. A.D. 150. A sherd of samian c. A.D. 150-80 from the filling of a trench inside the south wall confirms its Antonine occupation.

Building B. (Figs. 45 and 46)

This was a much larger building than Building A though constructed on the same site and incorporating some of the same wall footings, particularly at the western end. It was an Aisled House 116ft. long by 55ft. wide divided across its width into a central 'nave' (22ft.) flanked by two 'aisles' (each 13ft. 6ins.), and along its length into an 'upper end' at the west, whose separate rooms had concrete floors and plastered walls, and a larger 'lower end' at the east which was essentially an open area. This eastern end of the building had a simple rough floor and was interrupted only by the massive posts supporting the roof ; in this area furnaces and hearths were found, suggesting the working quarters of the farm in contrast to the living quarters at the western end of the building.

During its life the interior arrangements of the building were constantly altered, with individual rooms being re-decorated, re-organised, added or demolished as need arose and it is impossible to date or even plan in chronological sequence, these changes. Coin and

pottery evidence suggest that Building B was built about A.D. 220-50 and continued to be used into the final quarter of the 4th century.

Building C. (Fig. 47)

This is not a single building, but a complex of perhaps three different buildings and two boundary walls, to the east of Building B. Building C.1. had been demolished to make way for a road approaching the centre of the east end of Building B - precisely the same as the entrance to Building D. The main building line followed by the south wall of C.1. and C.4. suggests that they may have been contemporary with Building A, and this is consistent with the 'road' covering the demolished C.1. and apparently approaching Building B. The earlier ditch, centred about 14ft. north of this wall belongs to the same, or an earlier, period - certainly it was earlier than C.2., which was annexed to C.1. The position of the first of the 'boundary' walls, C.6., suggests that it was contemporary with Building B, and thus C.5. which is certainly later than C.6., is the latest construction in this corner of the site. There were no constructed floors in any of these buildings.

Building D. (Figs. 48 and 49)

Very closely resembled Building B, being partitioned into a 'nave' and two 'aisles' whose measurements, respectively 22ft. and 13ft., correspond almost exactly to those of the other Aisled House. However, it differed from its opposite number, not only in its greater length (152ft.), but also in grandeur, for throughout both its phases it sported a bath-suite and in the final phase one aisle was devoted entirely to domestic and bath rooms while four rooms at the west end of the building had mosaic pavements. Nevertheless, this building also had a 'lower' end where were hearths and furnaces as in Building B.

No earlier building had been demolished to make way for this house which fits exactly between two earlier circular houses. Not only its position, but also its alignment seemed to have been influenced by the circular buildings for it was parallel with a hypothetical line linking the centre of the two circles. Rooms 1 and 2 had concrete floors as had room 3 on which, in phase 2, was laid the "Orpheus"

pavement. (Fig. 50). This mosaic had been excavated in the 18th century but had later suffered badly ; most of the damage had been caused by the plough, but the central figure of the Orpheus had been deliberately removed and in its place there was a shallow pit containing a fairly complete 18th century chamber-pot. In phase 2 the room had been extended eastwards suggesting that the total length of the pavement was 42ft. Room 4 was a furnace feeding the hypocaust in room 5 ; in the centre was the remains of a tiled floor.

Room 5 had been badly disturbed in post-Roman times. In its original phase it had been heated by a hypocaust, apparently contemporary with that in room 6, although instead of tiled pilae there were traces of masonry and it may have had a channelled hypocaust. The masonry, red plaster facing and the floor of the hypocaust chamber survived intact at the east end of the room but at the west end a large pit had been cut through the floor and its foundations, completely wrecking a mosaic pavement - of which three large fragments were discovered - though not in situ for they had been tipped at sharp angles during the back-filling of the pit.

Room 6 had been heated by a hypocaust, some of the pilae of which were still 4 courses high ; they were built of 11ins. square tiles and there were six rows with four pilae in each row. The room had been entered from room 3 by a central doorway in its north wall ; on its south side was a furnace, room 7. The original floor in room 6, above the pilae, had been destroyed in a reconstruction. This phase 2 reconstruction had been a major operation in which the hypocaust, along with the rest of the bath-suite, had been abandoned and party walls demolished to make a room 36ft. long along the south aisle. This room had been paved with a mosaic whose small central panel depicted the head of Ceres holding ears of corn. Like the Orpheus pavement this mosaic had suffered plough damage. Room 7 was an annexe and contained the furnace which had heated room 6. Room 8, also an annexe, was a cold plunge-bath with a paved stone floor based on a 6ins. layer of opus signinum below which stone foundations extended for 2ft. 6ins. The levels above the bath floor had been recently disturbed, having probably been excavated along with the mosaic pavements in the 18th

century. Room 9 had been heated but here the pilae were of masonry, surviving up to two courses high. This room as it survived was an addition to the original plan.

Rooms 10, 11 and 12 in the north aisle of the building underwent several changes. The earliest phase is represented only by deep foundations defining a room rather narrower than the aisle and some 10ft. long in which no contemporary floor was found. In the next phase there were three separate rooms each with a concrete floor on a hard core foundation. Finally, room 12 was demolished and that area returned to the open lower end ; the wall between rooms 11 and 12 was also demolished creating a single room 16ft. 6ins. long.

Room 13, a 9ft. length of the south aisle, had been part of the lower end of the building until it was finally walled and paved with a mosaic floor which had a central circular panel showing Fortuna holding a cornucopia (Fig. 51). This pavement may well have been constructed at the same time as the Ceres mosaic with which it had certain structural affinities. The pavement had been damaged by a land-drain and by a modern field ditch, but not by the plough. Room 14 had had at least two successive floors of concrete without any hard-core foundations.

From this point on the south wall eastwards the rooms were on average 2ft. narrower than those to the west. Room 15, the furnace which fed the hypocaust in room 17, was divided from that room only by a massive tile-constructed tank-support with a long central flue. Under the floor was the stone-capped drain from the hypocaust - it passed centrally under the flue and then turned towards the south-west corner of the room, where it was lost at the edge of the robber-trench. Room 16 was a small phase 1 plunge-bath with a tiled floor, which had been destroyed in Roman times, probably when a new bath-suite was constructed in the south-east corner of the building. Room 17, some 15ft. long and heated by a hypocaust, extended eastwards from the tank support which alone divided it from the furnace. The pilae were built of 7ins. and 10ins. square tiles. The room had been entered from a central door from room 18 and immediately inside the door the floor was supported in the hypocaust chamber by a buttress,

above which was a concrete foundation and part of a tessellated floor. This consisted of a 10ins. strip of white tesserae adjoining the wall ; then a 4ins. width of blue ; and finally a single row of white - beyond that point the flue had collapsed into the hypocaust chamber. All the tesserae were about 1in. square so it seems likely that the floor had been simply tessellated without any elaborate design. Below the floor of the hypocaust chamber was a drain capped by stone slabs ; its course passing under room 15 had already been noted.

Room 18 was 20ft. 6ins. long and separated from room 17 by a 2ft. wide wall. A step 8ins. deep between the two rooms had been achieved by raising the level in the doorway with three courses of tiles. At the eastern end, the floor, of smooth pinkish concrete was slightly raised ; the rest of the floor was paved with large stone slabs set in concrete and had a concrete border on the east and part of the south sides. Apart from the door into room 17, already mentioned, there was a door into a small plunge-bath (room 19) and on the east side into a large plunge-bath (room 20). The main entrance door was immediately opposite to the entrance to room 19.

Room 19 was a small cold plunge built out from the south side of the building ; the floor of the bath was of slates set in concrete and the sides had been plastered. Towards the centre of the west wall was a lead waste-pipe 1ft. 6ins. long still in situ which was directed into a stone-capped drain. Room 20 had two distinct phases during the Roman period. The first phase was marked by pitched foundations of the walls of a room 16ft. long which had preceded the bath-suite. The floor of this earlier room, a patchy spread of clay and mortar had survived for about 4ft. at the west end, but elsewhere it had been destroyed during the construction of a large plunge-bath 10ft. 6ins. by 7ft. 6ins. in the second phase. The floor of the bath was tiled and the sides had been plastered ; there was a break for a waste-pipe in the west end of the south wall. In the rubble filling of the bath was a considerable part of a stone pillar which probably decorated and supported some part of the bath-suite, and in the same layer were found two skeletons which belonged to what the excavator refers to as the 'Medieval' cemetery.

Room 21, the north-east corner room was originally 11ft. long by 14ft. wide. Later the dimensions were modified, with the width slightly reduced and the length increased to about 16ft. The room had a concrete floor without a hard-core foundation, and this had twice been replaced with similar floors. In use with the second of these floors was a large pit 3ft. 6ins. wide by 9ft. long and 1ft 9ins. deep, with fairly sharply cut sides and a cleanish filling. In the final phase the pit had been filled and covered with concrete to bring it to the level of the surrounding floor. In this concrete was found a small hoard of five coins (A.D. 330-41). Above the final floor was a quantity of tesserae and chippings from tesserae - apparently the room had been used for their manufacture. These tesserae could well have been used for repairing the pavements at the other end of the building - that in room 13 had certainly been patched. Room 22 was a small annexe built on to the north wall of Building D. The walls had no foundations and there was no recognisable floor.

The lower end of the building resembled that of Building B, not only in its layout, but in the nature of its floor, and in the type of feature found here. The floor was rough and the west end had a uniform stratification with two successive clay floors above a layer of mortar which seemed to have been a construction-spread rather than a floor - In the middle several large stone slabs were found but no extensive area of paving survived. A major entrance in the centre of the east gable is indicated by a broad road crossing Building E, but it had been completely destroyed by stone robbers. There were seven hearths and trench furnaces ; hearth B in the middle of the nave towards the western end was built of stones set in clay and was roughly circular, 6ft. to 7ft. across. It had been re-surfaced three times and apparently survived throughout the history of the building. Trench furnace F had been excavated into the earliest clay floor and had been covered by a later clay floor and finally by the Fortuna pavement. One stone-lined channel-furnace, H, was of unusual form in that it had two parallel channels, both fired from the north end. A single animal burial, a sheep or goat, was found in a pit against the outside of the west wall of room 21. Seven infant burials were found

in the building, four of them at the lower end where they had been buried against walls.

The Phases

Most of the rooms had two floors but at least one major reconstruction can be recognised and that was when the bath-suite at the east end of the south aisle was built - several inter-related rooms were constructed at a fairly late stage in the history of the building. The phase 1 bath-suite comprised rooms 5 - 8 and probably also room 9. The second phase was the construction of the eastern bath-suite. Rooms 9 and 16 belong somewhere between the two phases and may have been contemporaneous with either or both at some period.

Coin and pottery evidence suggests that the building was erected before the end of the 2nd century and that the major reconstruction distinguished as phase 2, took place shortly after the middle of the 4th century. The mosaics were probably constructed at the same time as the eastern bath-suite c. A.D. 350 and these baths and the mosaics were used together shortly after this date. The final phase of room 21 took place no earlier than A.D. 340.

Medieval Cemetery

Five human skeletons were found buried in the rubble over the building ; they had the same east-west orientation, none was in a coffin and there were no grave-goods. The burials were not only later than the destruction of the building but later than the robbery of its walls as well, as was shown by the fact that two had been part-cut into robber-trenches and one was wholly in one.

Circular Building E (Fig. 52)

This building, some 57ft. in diameter, was in the north-east corner of the site, immediately adjoining the east end of Building D. In the north-west sector a single short stretch of wall survived but elsewhere it had been so thoroughly robbed that little even of the pitched foundations had been left, Where the ashlar survived the foundation trench was 3ft. 6ins. deep and it varied in width around the circuit from 2ft. 6ins. to over 5ft. Over most of the building

the floor had disappeared though in one part there were fragments of decayed concrete and hard-core ; adjoining these fragments a large piece of remarkably solid floor about 9ft. long had tipped into the robber-trench in the course of the destruction of the building, showing that it had had not only a solid concrete floor but also a quarter-round moulding.

Four groups of pitched stone foundations were arranged symmetrically as the corners of a square in the centre of the building. Each group of foundations was in a square or rectangular trench measuring between 4ft. square and 4ft. by 6ft., and approximate mid-points would have formed a central 16ft. square ; these foundations had been used for major pillars or posts to carry the roof. There had been another circular trench 40ft. in diameter within the large circle and the southern sectors of both coincided. The smaller trench had obviously only been open a short time and had then been abandoned at an early stage, presumably to enlarge it. It had been back-filled with a mixture of earth, clay, sand and stones. The coincidence of the two lines in the southern sector may well indicate the entrance as it is directly opposite one side of the central square of pillar foundations and is in a similar position to the entrance of another circular building, H.

Below the remains of the floor, and cut by both circular trenches, were two converging stone-lined trenches. These were probably water supply trenches leading from a paved pit in the northern sector which may have been used for water-catchment. There are springs just to the east of this building. A road 12ft. wide leading to the east gable of Building D had later been constructed across the circular building from the east.

The pottery, although only a few sherds were significantly stratified, provides a useful indication of date. There was a Trajanic or Hadrianic samian sherd in the stone-lined trench below the floor and a Trajanic-Hadrianic sherd below the level of the floor (not sealed) ; together they suggest that the building was constructed no earlier than c. A.D. 130. The building may have survived until

the construction of Building D, when it was covered by a road, so its life span would seem to be c. A.D. 130-80.

Building F. (Fig. 53)

A bath building in the north-west corner of the site, which overlay Building H. The foundations were two large and separate platforms of pitched stones, one 20ft. by 24ft. and the other 16ft. by 56ft., which served as the base for both walls and floors. The two platforms were ultimately, but not originally, linked to form an L-shaped building. The only original floors to survive were in room 5 (the plunge-bath), room 6 and room 8 (a furnace).

Room 1, 17ft. by 15ft. 6ins. was built on an isolated platform of pitched stones and the walls had been heavily robbed. Inside the remains of the walls, the pitched stones had been covered with a thin layer of mortar, above which was a jumbled layer of mortar, sand and stones, 1ft. 4ins. deep with fairly clear earth extending from that level to the present plough-soil. To the east of this room was a substantial layer of stones at least 6ft. wide which may have been a path from Building D.

Room 2 had no surviving floor, but unlike the other rooms there were no pitched foundations. Originally this 'room' was an area about 9ft. wide between the two pitched stone platforms and its enclosure by walls to the east and west, forming a room 16ft. 6ins. long, was a secondary development. In contrast to the clear layers covering the foundations of rooms 1, 3 and 4, this room had an accumulation of rubbish, including 3rd century pottery.

Room 3, 12ft. by 11ft., at the east end of the longer foundation platform, resembled room 1 in that its original floor had not survived; there was a rough pink plaster floor but this was a later feature contemporary with the widening of the east wall - apparently to support Building D - and the demolition of the partition wall between this room and room 4.

Room 4, 12ft. by 14ft. 3ins. was originally divided from room 3 by a partition wall which was later demolished. As the pink plaster floor does not extend north or south of the room it would appear to

indicate that room 3/4 was used when the building was adjoined to Building D.

Room 5 was a plunge-bath annexed to the south side of room 4, secondary to the main building in construction but probably part of the original plan. The floor had been tiled but the only original surface was in the south-west corner where it had been protected by subsidence. The tiles had been set in reddish concrete below which were layers of gravel and sand and then heavier stone foundations which had also been built as a platform with one foundation serving for both walls and floor. The foundations were about 2ft. higher than in room 4. Also in this corner were the remains of quarter-round moulding and traces of two drains, each having a lead pipe through the wall. The earlier outlet was in the west wall and the pipe had been removed and the hole blocked when it was replaced by the second, in the south wall. This second outlet was stone-capped and clay packed immediately outside the wall but beyond it became a single open drain running through the then abandoned Building K. Originally there had been a ledge along the north side of the bath, then 6ft. 3ins. square, indicating that it had been entered from room 4, but subsequently another ledge was added along the west side reducing the bath to just over 5ft. in length.

Room 6 resembled room 5 in being a secondary feature constructionally and may have been added at a later date ; it seems possible that it had a similar function as well. It measured 8ft. 3ins. by 9ft., was absolutely level and had a quarter-round moulding with a single break in the west wall, perhaps for a drain. Beneath the floor were traces of an earlier phase with a plastered ledge but the floor had been almost completely wrecked during the reconstruction. There is reason to suppose that in the second surviving phase it was not a simple plunge-bath ; unlike that in room 5 and the four baths in Building D, room 6 is on the north side of the house, which is unusual and also complicates the plumbing ; the floor lacks any lining, and the walls had been plastered, with a bathing scene, down to the floor and this plaster had collapsed and not been disturbed. In its final phase the room appears to have served some bathing purpose, but perhaps not as a plunge-bath.

Room 7 occupying the western end of the long foundation was 9ft. 6ins. wide and 22ft. long. It had been heated by a hypocaust which at some time had been completely reconstructed at a slightly higher level. In both phases the pilae were constructed of tiles, an 11ins. base with 8ins. square tiles above. In the first phase there were many features similar to those in room 17 of Building D ; a 'buttress' on the north wall, indicating a door ; two other 'buttresses' further west, perhaps to support an arch or partition, and, finally, below the hypocaust floor was a stone-capped drain passing centrally down the room and under the furnace. None of these features was repeated in the second phase hypocaust chamber.

Room 8 was the furnace which fed the hypocaust in room 7, It was of slight construction, annexed to the west end of the building and beyond the limits of the pitched stone platform. There were three stratified floors, the first a mortar-spread and the others made of clay. Beyond the first floor was the stone-capped drain from under the hypocaust which was traced to the west of room 8 for a further 12ft. as a stone built feature, and as a simple open drain it was visible almost 50ft. away.

Dating

The most useful dating is provided by the structural sequence of the buildings. Circular Building H, with Antonine pottery in its foundations and destruction levels, had been destroyed before Building F was built. Antonine remains were also found below rooms 5 and 8. It seems likely that this building was constructed at about the same time as Buildings D and G, c. A.D. 180. The only possible addition to the original plan, room 6, had little different dating evidence - the latest sherds being late 2nd or early 3rd century. The east wall was still standing in the middle of the 4th century when it was used to buttress Building D, but at that time the north wall of room 3 was dismantled and presumably Building F was then demolished.

Building G. (Fig. 54)

The main domestic building at Winterton lay on the west side of

the site. It was 175ft. long, though for part of its life this was extended to 203ft., and its plan was a basically symmetrical arrangement of two wings linked by a long corridor. The original first phase was built, according to Antonine pottery finds, c. A.D. 180., and the phase two complete reconstruction, kept largely to the same plan. Judging by a small group of pottery in room 7, this seems to have taken place at the end of the 3rd century or early in the 4th.

Room 1, 14ft. 6ins. by about 12ft. 6ins. had a reddish concrete floor on a hard-core foundation and its walls had been plastered and painted ; a quarter-round moulding bordered the surviving masonry except where the phase 1 south wall had been destroyed during the construction of the phase 2 north wall of the building, and where it was covered by a small quadrant shaped feature in the north-east corner of the room. Approaching room 1 from the east was a band of stones, 3ft. wide with neatly faced edges which extended for 15ft. beyond the wall. It may have been a path but if so, it was certainly earlier than room 1, as traces of it were found below the floor.

Room 2, about 12ft. by 6ft. 6ins. had a simple plaster or concrete floor whose hard-core foundation was less solid than that in room 1. The floor was about 6ins. lower than that in room 1 so there must have been a step through the wall, and there was no quarter-round moulding.

Room 3, measured 14ft. by about 26ft. with a rough floor of gravel, mortar and clay ; most of it was burnt, this being related to three furnaces or ovens similar to those found in Buildings B and D. The first, a stone-built channel-furnace, was L-shaped and adjoined the west wall towards the middle of the room. The second, a simple trench-furnace lay in the north-west corner of the room and the third, another simple trench-furnace, lay partially under furnace 1 and had obviously been filled up before the construction of the stone-channel furnace. Below the floor were two stone-lined drains which joined at a T-junction ; the drain entering from the east had been deliberately diverted from an earlier course slightly to the north and the side stones and some of the capping of this earlier

drain had been left under the surface of the road. The west wall of room 3 had been some 3 or 4ft. west of the building line used further south and it continued, beyond the building, to the north, where it was directly in line with the 'boundary' wall discussed under Building K. About 12ft. north of room 3 the foundations of this wall were then covered by the road. This was perhaps the site of a gateway through the boundary wall. The road was earlier than room 3 as the road had been cut by the foundation trenches for its walls and also by the trench for the diverted drain. In part this area must have taken the road traced through the site, south of Building D, from the Gate-house, Building L. There was also a cross-route from Building K to Building G, and the area may have been a small courtyard rather than two intersecting roads.

Room 4, 12ft. by about 14ft. long was one of two small rooms at the east end of the north wing. It had a solid concrete floor on hard-core, a quarter-round moulding and painted, plastered walls. The masonry of the north, east and south walls was in good condition, but the west wall and part of the adjacent floor had been completely removed for the construction of the phase 2 wall. In the centre of the south wall was a door 3ft. wide communicating with room 5.

Room 5, 13ft. 6ins. by about 14ft. had a similar floor and walls in the same condition.

Rooms 6, 7 and 8 are the phase 1 partitions of a larger room corresponding with room 14 at the southern end of the house and in phase 2 the partitions were demolished. In the three rooms the only surviving floor was a thin layer of mortar and plaster with no foundation. On top of this floor in room 7 was a layer of earth with pot-sherds which must have been sealed by the phase 2 floor. Against the east wall of room 8, at the south end, was a shallow pit containing the calcined bones of an animal, resembling similar features in Building B. In the phase 2 reconstruction of the house, the partition walls were removed, creating a large room 27ft. wide by 34ft. long; the north and east walls of this room now became outside walls and were completely rebuilt, wide trenches being cut through the phase 1

floors and walls to allow this. Only the north-east corner of the phase 2 room had surviving masonry and there, up to five courses of neatly tooled and pointed stone-work formed the best piece of wall yet found at Winterton ; this is remarkable as it was entirely below ground level. No floor was found in this room.

Room 9, about 10ft. wide by 20ft. long, occupying the angle between the northern wing and the corridor was the only room in the house with evidence of under-floor heating, but it appeared that the hypocaust had never been finished. Whether the hypocaust had subsequently been filled and levelled for a floor, or just abandoned, was obscure.

Room 10 was a corridor 104ft. long by 12ft. wide in phase 1, increased to 21ft. wide in phase 2. Stretches of the east wall survived, set on pitched foundations and with wall plaster but no quarter-round moulding. There was a concrete floor based on a single layer of stones, below which was a scatter of plaster and mortar, but this was probably construction debris as it was found elsewhere in this building. In the centre of the corridor the floor had been disturbed, apparently because of subsidence in the area originally occupied by circular Building J. Where necessary the builders of the phase 2 wall had cut trenches through the floors of phase 1 rooms 9 and 13, but not room 11. There were two features outside the west wall of the corridor ; a wall, whose robber-trench crossed the wall of Building J and the pitched foundations of which continued westwards for about 16ft.; and, 23ft. south of this, a small platform of pitched cobble foundations 4ft. by 4ft. 6ins., attached to the west wall and built over the foundation trench.

Room 11, 10ft. 3ins. by 11ft., was an addition to the phase 1 corridor with a concrete floor on stone foundations. Room 12 had subsequently been added to the east end of room 11 and during its construction a length of road, 10ft. to 11ft. wide, had been removed. Sections of this road were picked up right across to the east side of the site. The road had originally crossed the site of room 12 and led to room 11, which was apparently a small porch added as an afterthought to

the phase 1 corridor. Room 12 was wider than the porch being built out against the face of its east wall ; thus the west wall of room 12 covered the footings of the porch wall, and the structural sequence was clearly preserved. The entrance to the new room was marked not only by a breach in the east wall of the porch whose foundations were now covered by a concrete floor, but also by an 8ft. wide opening in the newly constructed west wall of room 12. This large central room had an apsidal end and measured 18ft. wide by 29ft. long to the centre of the apse.

There was a cross wall at the base of the apse, so that the room had been divided into an almost square room and an apse. The cross wall survived two courses higher than the apse wall suggesting that in the final phase the apse may have been cut off and disused. The straight wall was not an original feature, for it linked a pair of earlier 'buttresses', each projecting some 2ft. from the side wall, forming a 14ft. wide entrance to the apse. No floor was found in this room except at the west end where the footings of the porch wall were crossed by a later concrete floor. From this point there must have been a step up to the floor of the main room which had since been destroyed. The surviving masonry in room 12 was, therefore, below ground level and this together with the neat tooling and pointing recalled the stonework of phase 2 at the north end of the building. Although the east wall of the phase 2 corridor did not cut room 11, a single course of masonry, narrower than the footings did cross room 11 on this line and was probably a partition with access between the phase 2 corridor and room 12.

The final feature in this part of the site was an open drain which passed over the apsidal wall, cut through the straight wall at the base of the apse and continued down the field.

Room 13, 14ft. 6ins. by 16ft. 6ins. occupied the angle between the south wing and the phase 1 corridor and in phase 2 it was disused and bisected by the new east wall of the corridor. A 3ft. band of mosaic pavement was found adjoining the phase 1 east wall, the remainder having been destroyed by ploughing, although originally it

must have been wrecked by the foundation trench for the phase 2 corridor. The tesserae, some cut from samian vessels, were arranged in a scroll-pattern, to form the best preserved piece of mosaic flooring in Building G.

Room 14, measuring 26ft. wide by some 31ft. long, had had a tessellated pavement but because of plough damage this had been destroyed except at the west end of the room, where there was a border of blue, 8½ins. wide and in the north-east corner where this blue band was followed by a narrower strip of white and then more blue.

Room 15, 9ft. 6ins. by 12ft. was one of a pair at the east end of the south wing. Like the corresponding rooms in the north wing the masonry and floors were reasonably preserved at the eastern end although at the western end they had been destroyed by the deep foundation trench for the phase 2 wall. All walls had patches of painted wall plaster still adhering but there was no quarter-round moulding which is odd in view of the fact that the floor had been tessellated and the tesserae had been deliberately though only slightly dipped towards a tile-lined drain which ran through the wall, indicating that the pavements were swilled. This room was also disturbed by a large drain of 18th or 19th century construction which cut through this corner of the building.

Room 16, 12ft. 3ins. by 15ft. resembled room 15 in having well-preserved masonry at the east end, some fragments of painted plaster on the walls, and a tessellated floor and a drain through its eastern wall. Tesserae survived in the south-east corner where they formed alternate bands of blue/white/blue each band some 9ins. or 9½ins. wide. From the south-east corner of this room a narrow wall apparently linked Building G with Building B but its course was marked only by a robber-trench. This may indicate that it was used as a boundary wall throughout the occupation of Winterton as the south wall of room 16 had also been robbed.

The earliest feature at the south of the site was a ditch 18ft. wide and 5ft. to 6ft. deep running north-south below room 14 which produced a few sherds of Bronze Age pottery ; two flint implements were found nearby.

The Phases

There are two main building phases in Building G and the construction of phase 2 was a major operation involving almost total destruction of the earlier building. In the north building wide trenches were cut through the floors of rooms 1 to 8 so that new walls could be built on the old foundations. Even deeper trenches were cut through rooms 9, 13, 15 and 16. The building then constructed formed a simple symmetrical plan with two large rectangular rooms linked by a long, wide hall with room 11 in the middle giving access to room 12. Rooms 1, 2, 3 and 11 were additions to phase 1 and room 11 was common to both phases. A major difference between the phases seems to be that in phase 1 the approach road and porch suggest an entrance from the east, in phase 2, the building of room 12 over the old road indicates an entrance from the west.

Dating

Samian was found in useful contexts under the floor of room 4 and in the foundations of the wall between rooms 7 and 9. This indicates an Antonine date for the original construction of Building G, similar to that of Building D, and the two would seem to have been built c. A.D. 180. The small hoard of pottery on the floor of room 7, presumably sealed by the phase 2 floor, suggests that the rebuilding of the second phase took place at the end of the 3rd or in the 4th century.

Building H. (Fig. 55)

This circular, or irregular oval-plan building measured some 55ft. in diameter (south-west / north-east) and resembled Building E. The full plan could not be recovered because almost half of it had been destroyed by the foundations of Building F. The mortared wall was of slight construction - its footings were in a shallow trench and there were no foundations. Above the footings a single course of stone survived only in the south-west sector and in places even the footings had disappeared. Both footings and first course were faced on the outside only and the stonework had a noticeable incline from the outside down to the inside. The lack of inner facing stones

could not be explained by robbing as in two places the rubble on the inner face had been plastered. Two lengths of plastered face were excavated and two plasterers tools were found ; a pointing trowel lay against the eastern plaster and a plasterers flat trowel was found on the floor near the south-western face. Both tools were found amid quantities of burnt wood and it seems possible that the building was destroyed by fire during redecoration. The surviving plaster suggests that the wall varied in thickness from 2ft. wide in places to 1ft. 2ins. in others.

An entrance in the south sector had curious features quite in keeping with the rest of the building. There was a break in the wall for a distance of 13ft. 6ins. but no sign of any door-posts. Immediately inside was a trench 3ft. wide and 11ft. long filled with pitched stones set in clay which was approached from outside by a low ramp of weathered stones some 10ft. wide by 4ft. to 5ft. long. In the surface of this slope four wheel tracks were clearly discernable. On the top of the pitched stone foundation were the remains of a large charred timber, 12ins. wide and almost 9ft. long, presumably part of the door-frame, and several smaller pieces of charred wood were found in the vicinity. Outside the building the ramp was not continued by a road ; there were road surfaces here but they were later than this entrance and related to Buildings G and K. Within the building was a uniform floor of yellowish mortar and clay ; towards the centre it was 5ins. or 6ins. thick but this thickness diminished towards the walls and in places had completely disappeared. Above the floor, over the entire area, were traces of a substantial fire and although there were several layers above this they seemed to relate to the construction and occupation of Buildings D and F and it seemed that Building H had not been re-occupied after the fire.

Two post foundations were found, closely resembling those in Building E. There were probably two more to the north but these had been destroyed by the foundation raft for Building F. The eastern foundation was 4ft. 4ins. by 3ft. 6ins. and 2ft. 6ins. in depth ; it was capped by two large flat stones. The western foundation measured 4ft. 9ins. by 3ft. 6ins. with a maximum depth of 3ft. but no cap stones ;

it was found underneath the foundations of the bath, room 5 in Building F.

The only other feature was a furnace or oven 7ft. 4ins. long by 2ft. 4ins. wide by 12ins. deep. More than half the trench had been lined with vertical slabs and there had been a fire at the bottom. Later, the slab lined area had been filled with clay surmounted by horizontal paving slabs and had again been fired.

This building must have been built about the same time as Building D, for the pottery beneath the two buildings was indistinguishable. Antonine samian was also found in the demolition levels and it seems that the building had quite a short life c. A.D. 180. Although the plasterer's tools amongst the burnt debris might suggest that the construction was never completed, this is disproved by the wheel ruts in the entrance and by the two phases of firing in the furnace.

Building J. (Fig. 56)

Another circular building some 38ft. in diameter was found beneath the central part of Building G. Its mortared walls, 2ft. 9ins. wide stood in places two courses high above pitched foundations in a trench some 2ft. to 2ft. 6ins. deep. Both walls and foundations had been completely removed on the line of the west wall of Building G but elsewhere it seemed that it had merely been levelled and then surmounted by the later walls and floors.

There was no surviving floor and no pillar foundations. A sherd of Flavian samian from the foundation of the wall allows this to be the earliest building so far uncovered at Winterton. On the strength of this single sherd it could have been built as early as c. A.D. 80, although, of course, it might well have been later. It certainly did not survive the Antonine period, when its site was occupied by Building G.

Building K. (Fig. 57)

This small building, almost 16ft. wide, had been obliquely annexed to circular Building H so that its length was 39ft. on one

side and 46ft. on the other. Its walls, about 1ft. 6ins. wide were two, three and, exceptionally, four courses high although in places they had been breached. The surviving floor was of mortar, sand and gravel and at the east end was a straight cross wall which crossed over a ledge one course high which ran round the walls. This wall may have been an original partition or alternatively could indicate that Building K continued in occupation after the destruction of Building H. Two infant burials were found just west of the cross wall and ultimately it was breached to allow a drain from the bath, room 5, Building F to empty into Building K, so K was clearly abandoned while F was in use.

In the south was a doorway with a beam-trench 6ins. wide and just less than 6ft. long through the mortar and gravel floor and two iron nails were found in it. Behind the beam-trench, the masonry door-jambs were 5ft. 4ins. apart. This wide door was, however, not an original feature, for below it were traces of an earlier entrance only 3ft. 6ins. wide between the masonry. Within the doorway, on the left on entering, a complete pot had been deliberately inserted into the ledge. Immediately outside the south wall were layers of mortar and gravel above much larger stones, which formed part of a road or courtyard extending 27ft. to the south towards Building G.

In the north-west corner of the room a stone built channel-furnace survived, three courses high, parallel with the north wall of the building. The channel was about 1ft. 4ins. wide and 6ft. long, and later it was filled and levelled, being then used as an open hearth. Outside the north wall, opposite this furnace, was a rectangular feature 2ft. 9ins. by 4ft. 3ins. composed of stones roughly set in clay. Similar features occur at the villas at Beadlam, Rudston and Langton.

Some 4ft. 6ins. west of this building was a 'boundary' wall, 1ft. 8ins. wide and running north/south. Beyond this wall was the neat edge of a road 8ft. 6ins. wide. Antonine samian was found below the floor of the building, between the two phases of the furnace and in the destruction level, and it seems to have been built at the same time as Building H, to which it was annexed. Like H, it seems to

have had a fairly short life ; it may have survived H, but not for long.

Building L.(Fig. 58)

On the eastern side of the site a substantial gate-house was discovered comprising two rooms, each approximately 12ft. square, separated by a 12ft. passage. The massive construction of the east wall indicated that there was an elaborate facade facing up the hill. About 30ft. west of the gate-house the road diverged, the northern road passing over the top of Building E and leading to the end of Building D, and the southern leading towards the gap between Buildings K and G.

To the east of the building was a ditch 6ft. to 7ft. wide and about 3ft. 6ins. deep which appeared to have been dug and quickly refilled. It had been dug into the road, but this may have been for the insertion of a drainage pipe and the road rebuilt again. A coin of Tetricus I from the ditch showed that if the ditch had been excavated and back filled immediately, the work was done no earlier than A.D. 270. It is possible that that was contemporary with the construction of Building L, for if it had belonged to the Antonine period one would expect such an impressive entrance to be linked with the road to the centre of Building G.

Conclusions

The circular buildings (E,H and J) and the building attached to H,(K) seem to have had a relatively short existence in the 2nd century. By about A.D. 180 they had been destroyed for living purposes, E by the construction of the roadway to Building D, H and K by the bath-house F, and J by the house G. Building A had also been superseded by Building B.

The middle of the 3rd century seems to have seen the hey-day of this impressive courtyard villa but by the middle of the 4th century it had been reduced in size and much modified.

GROUP 8 THREE VILLAS NEAR CAISTER

- Allen, T.H. (1834), History of Lincolnshire II, (1834), 208
 Dudley, H.E. (1931), History of Scunthorpe, (1931), 33
 Philpot, W.B. (1861), L.A.A.S.R.P., VI o.s., (1862), 135-8
 Trollope, E. (1872), Sleaford and the Wapentakes of Flaxwell and
 Aswardhurn, (1872), 57-8

WALESBY (Lincs) TF 146926

This site was partially excavated in 1861 (Philpot, 1861; see also Gentlemens Magazine, 1861, 527). A hypocausted room was uncovered ; the pilae, constructed of stones, square bricks and mortar, stood on a concrete floor. Among the pilae were discovered pottery, roof and flue tiles and pieces of concreted lime and rubble from the suspended floor, but no tesserae. The rooms were small and appeared to be connected and there was a furnace at the northern end. An ash pit (sic) was also examined ; "At the depth of about sixteen feet it narrows, and a quasi-circular shaft descends still deeper, protected by a stone lining". This was almost certainly a well and its contents included samian and coarse ware pottery, a bronze brooch, an iron chisel, spindle-whorls, nails, bones and oyster shells.

About 70yds. to the south-west another furnace was discovered and near it an urn containing cremated human bones. Twenty yards further away some 20yds. of substantial wall foundations were uncovered. Coins found ranged from Gordian to Constantine II, indicating an occupation of the villa from the middle of the 3rd century to the middle of the 4th.

It is apparent from Philpot's paper that a plan was made together with drawings of some of the artifacts and pottery, but these cannot be traced.

In 1959 two fragments of a large lead tank were turned up by the plough in the vicinity of the villa area (L.A.A.S.R.P., (1961), IX, part 1, (1961), 13-5). With a diameter of a little over 3ft. and a depth of 1ft. 9 $\frac{1}{2}$ ins., and bearing a Chi-Rho monogram, it may well have been part of a baptismal font.

CLAXBY (Lincs) TF 111946

A piece of tessellated pavement approximately 5ft. square and lying at a depth of 3ft. was discovered prior to 1834, (Allen, 1834). It was composed of blue and white tesserae forming oblong figures about 4ins. by 2ins.

STURTON-BY-SCAWBY (Lincs) SE 96 04

Two tessellated pavements were discovered about 1818 and were engraved by Fowler. One was composed of a light grey or white ground, having an oblong compartment in the centre filled with a scale pattern of black, red and white tesserae. The other had four central squares, filled with alternated devices, surrounded by a guilloche pattern, a wider border of the same device, a strip of chequered work on the sides, and then a narrow white and then a broad red border, beyond which were coarser light grey tesserae. (Trollope, 1872, and Dudley, 1931).

GROUP 9 THREE VILLAS NEAR LINCOLN

NORTON DISNEY (Lincs) SK 859603

Oswald, A. (1937). Ant. J., XVII, (1937), 138-78

The villa (Fig. 59) is situated some nine miles south of Lincoln at a site known locally as Potter Hill and was not suspected until the discovery in 1933 by the farmer, of a mosaic pavement. Potter Hill is a long ridge of land 100ft. higher than the surrounding plain and the position is bleak and commanding. A dozen or so flint flakes indicated a pre-Roman occupation of the site. There is an abundance of good water at a depth of 4ft. to 6ft. trapped by a layer of clay some 6ft. below the sandy surface soil.

Essentially Norton Disney consists of a winged corridor villa with one wing missing, (the south building) and a basilican building at right angles, the two structures being connected in the late 3rd or early 4th century by a suite of baths. In many ways it is comparable in outline to the villa at Mansfield Woodhouse (Notts). The excavator found five periods of construction, and within these periods, alterations and additions. The main entrance was on the east side.

Period 1

This period is represented by a series of drainage ditches and pits and by the post-holes in area K. The complex of ditches and pits represented at B contained much 1st century material in their filling and evidently went out of use before the end of that century. The same dating applied to the southern drainage ditch, C, and from the shallow ditches around the well and under the bath-house. The eastern ditches were also probably constructed in the Flavian period but they continued in use for considerably longer than those to the west. Most of ditch D remained open until the beginning of the 3rd century. The building represented by the post-holes in area K was almost certainly a 1st century structure drained by ditch E which yielded

pottery from the end of the 1st and beginning of the 2nd century. In the second period, c. A.D. 140 a stone paving on mortar was laid over this area. The actual extent of the first phase occupation is not certain, particularly in view of the find of 1st century pottery in rubbish dump X, to the south-east of the site, outside the 3rd century ditch system. A heavy deposit of charcoal over all the first period features indicates their destruction by fire.

Period 2

Shortly after the buildings of period 1 had been burnt down, c. A.D. 110-20, the villa was reconstructed partly in wood and partly in stone. Lack of time prevented complete excavation and only traces of this building period remain. However, it appears that there existed a small stone building on the site of the later dwelling-house and one or more wooden buildings on the site of the later basilican structure. The well between the two was dug at this time the stonework of which rested on a square wooden framework at the bottom. The three small ditches north of, and parallel to, the basilican building are of this period ; on the west they bent round southwards, crossed the 1st century latrine ditches and ended in a post-hole, stone lined and filled with charcoal. The buildings of this period seem to have been occupied between c. A.D. 120 and c. A.D. 175, when they, again, were destroyed by fire.

Period 3

The dwelling house took the shape of a simple winged corridor house in this period, with the northern wing either omitted or built of wood. The walls and even the foundations of this period had been robbed out in antiquity and because the robbing respected the edges of the mosaics it is probable that these were visible at the time of robbery. Pottery indicated a closing date for this period of about A.D. 230. The dating of the mosaics is extremely tenuous as there was no datable evidence below either of the mosaics. It would appear that because the small mosaic showed traces of fire and crude repair, while the larger did not, the small mosaic was in use for a longer period and that the large mosaic may have been subsequent to period 3, i.e., later than A.D. 230. During this period a latrine in a wooden

outhouse was constructed to the north of the dwelling house and pottery dating evidence suggested that it came into use in the latter half of the 2nd century and fell into disuse early in the 3rd century.

The basilican building appears to have been rebuilt with masonry foundations, two ovens of an earlier phase were covered with a floor of opus signinum and an oven with furnace-walls of reused tile was substituted. Pottery from floor levels of this period might all be dated early 3rd century. The large drainage ditch D remained open but silt was allowed to accumulate from which came an abundance of 3rd century pottery and a denarius of Septimius Severus in mint condition.

On the east a road made of coarse concrete was driven over this ditch, in which were fragments of late 2nd and early 3rd century samian pottery, and in the silt below was pottery of similar date. A small gate-house further east may be ascribed either to late in this period or early in the next. It was built over a pit containing much builder's rubbish, mainly wall plaster and pottery of 3rd century date. No wall plaster was found in the period 2 levels. Burnt material lying on all floor levels of period 3 indicate destruction by fire yet again. Possibly after this destruction, certainly in the first two or three decades of the 3rd century, the buildings were surrounded by two ditches, and a suitable approach and gate-house made.

Period 4

The basilican building seems to have been rebuilt with few alterations shortly after its destruction ; the brick oven of period 3 was overlaid by a concrete floor, and a stone hearth in the corridor substituted ; the interval was insufficient to allow any accumulation of soil between the floor levels. The main alterations seem to have taken place near the well where a layer of green clay was placed on top of the concrete floor of period 3 and covered with a thin layer of concrete. Bedded in this clay were the diagonal stone footings for a wall which served to screen the well from the dwelling-house ; a further refinement was the placing of a 6ft. square stone slab on the west side of the well so that surplus water drawn from the well

would drain back again. To fit in with these refinements round the well, the period 3 latrine went out of use early in the 3rd century. To the west of the well were some excessively heavy foundations 19ft. square and 4ft. thick for which the excavator could find no satisfactory explanation ; the foundation of a look-out and beacon tower has been suggested as this is the highest ground on the site.

Period 4, covering practically the whole of the 3rd century, marks the growth of some slight luxury in the villa. Probably the larger mosaic was constructed in this period ; the site was drained and possibly fortified by a system of enclosure ditches, and was provided with a suitable entrance. Destruction was again by fire. On all floor levels lay a heavy deposit of burnt material and the well was choked with burnt tile and building stone, and pottery. The date of destruction rests on two coins, of Carausius and Allectus, and on the pottery from the well, and indicates that the close of this period belongs to the last decade of the 3rd century.

Period 5

The chief interest of period 5 lies in the fragmentary remains of a bath-suite linking the dwelling-house and the basilican building both of which were rebuilt in this period. The bath-house had been almost completely wrecked in the late 1920's by the farmer removing vast quantities of stone to level a field. On the north was a gravelled yard bounded by a foundation 5ft. wide of reused stones set in a bed of mortar resting on the natural soil ; this wall was stepped back to a width of 3ft. and was evidently designed to carry a heavy roof. In the yard was a drain made of roofing tiles carried across the period 3 latrine pit by lead piping. In the eastern corner a small area of undisturbed floor remained which had been laid over collapsed pilae. Fragments of 4th century pottery were obtained from this floor indicating that the bath building fell into disuse in the Roman period and before the villa was finally evacuated. Two small annexes opened from this structure, the one on the south having a good opus signinum floor, and that to the west, though almost totally destroyed, yielding fragments of wall plaster with a 'jazz'

pattern in greens, black and yellows. The general impression of dating from the pottery is of an opening date towards the end of the 3rd century and a continuation of use certainly to the mid-4th century.

Also in this period a luxurious suite of rooms was built in the smaller corridor of the basilican house. It consisted of an entrance hall decorated with exceptionally fine wall plaster with foliage patterns. West of this hall was an unheated room with a well-built floor of opus signinum on which was found a coin of Constantius II (337-61), again decorated with fine wall plaster, mainly in blues and greens ; this floor overlay two earlier concrete floors. Still further west was a room heated by a channelled hypocaust but owing to modern robbing the position of the stoke-hole could not be ascertained ; the wall plaster in this room was again remarkable for its quality. Pottery and coin evidence suggest that these improvements were carried out at the end of the 3rd century or possibly a little later.

A mosaic in the west corner of the central western room was probably laid at this time but it had been so ruined that the pattern was indistinguishable. In the north-east corner of the room was a large hearth, 6ft. square, made of re-used building stone, on the eastern side of which was a structure made of tegulae, possibly an oven. Fragments of a human jaw and toe bones lay on the floor together with plain wall plaster and heavily packed roofing tiles, as opposed to the slates of the corridor. It is evident that there was in this period a large tiled central roof with pent slate-roofed corridor on either side.

At the dwelling-house the well was filled in and a concrete floor laid over it to form a small courtyard. The corridor was enlarged and a new eastern entrance built. Good white concrete floors were laid over the earlier levels. A room was built out on the west side, again with a white concrete floor ; citing a marked resemblance to the fifth period of the villa at Mayen, the excavator wondered if this might have possibly served as a granary. If the late floor over the ruined hypocaust of the baths, and the tesserae re-used in the later concrete floor of the oven area are taken into consideration it is

perhaps possible to assume that the dwelling-house fell into ruin before the end of the occupation of the site, though this is by no means certain.

End of the occupation

In connection with the closure of the Roman occupation of the site arises the problem of three outer ditches discovered on the west. They were poorly made with unlevel sides and bottoms and appeared to have been open only a very short time. There was no silt in the bottoms and only a little pottery, none of which could have been earlier than the 4th century.

All the evidence points to a terminal date for the occupation of the site of about A.D. 360. The method of final destruction, as before, was fierce fire, this time evidently claiming human victims. Three skeletons were discovered on the north of the basilican building. The skull of one skeleton rested on a large fragment of 4th century plaster and stones of the wall lay above and below ; another had fragments of wall masonry intermingled with and on top of the bones ; the third had a knife buried just below the right ribs. Human remains were found elsewhere on the floor levels of this period. The adjoining rooms and all the levels of the period bore traces of severe fire and it is possible that some at least of these people were crushed by the collapse of the outer wall, which had subsided sideways in a northerly direction. There is no evidence that the site was ever occupied again.

Conclusions

In his introduction to the excavation Oswald notes that the villa stands on a marshy eminence known as Potters Hill and that this marshiness is caused by a layer of green clay below 4 - 6ft. of sandy topsoil. He found a number of wasters and two kiln stands.

This straight away suggests that the economy of the villa was more likely to have been based on pottery manufacture than agriculture. It also explains the number of ditches discovered - drainage must have been a major problem. Unfortunately the interpretation of the ditch system is made very difficult because of having only a stated scale

and not a drawn scale on the section drawing on plate XLVI of the report. The so called defensive ditches were either 2ft. 6ins. deep or about 10ft. deep, and this situation is reviewed more fully in the discussion section. In period 1 the large ditch B is said to have been split into four channels before entering a large drainage pit ; this is very unlikely. A more plausible explanation is that this was a case of digging and re-digging, each successive drain running into and overlapping the previous one throughout the length of B. The period 1 drainage system probably surrounded a timber building on a more exactly east-west alignment which was not traced - the excavator says he did not clear to bottom everywhere. Drain D seems to be aligned with the period 2 timber building and probably belongs to that period. The phase 4 ditches in the north-east were recut and although this phase lasted about 60 years one might have expected clearing out rather than re-cutting ; perhaps these drains were in existence before period 4.

The walls of the gatehouse had no foundations whereas all other period 3 structures had close packed diagonal footings. Taken in conjunction with the fact that it was constructed over a pit containing plaster (which was not present in period 2 levels, but was in period 3) this suggests that the gatehouse probably belonged to phase 4.

There seems no reason why the mosaics in the dwelling house should not be regarded as contemporary with the rooms which they adorned in period 3. To take stratigraphic sequence from another building on the site to support an admittedly tenuous suggestion that these mosaics were considerably later (which Oswald does) is not permissible.

Finally, the conclusion that all five periods terminated in conflagration is very suspect. 'Charcoal' in post-holes is not necessarily an indication of fire but can equally be the result of natural carbonisation of the stumps in wet conditions. Period 2 may have ended in fire, note the badly burnt skull and the thick layer of charcoal in parts of the basilican building, but if pottery was being fired there would be a lot of charcoal from that process as well.

The evidence for destruction by fire at the end of periods 3 and 4 is also not very convincing when the pot firing is remembered. The final disaster does, indeed, seem to indicate fire and violence but not all the bodies necessarily perished as a result of this ; possibly the three discussed at length did but the other seven may have been post-Roman burials. The whole question of post-Roman intrusive burials is discussed later. When the excavation report of Mansfield Woodhouse is taken into consideration one cannot help feeling that Oswald was obsessed by fire.

SCAMPTON (Lincs) SK 955785

- Illingworth, C. (1808), Topographical account of the parish of Scampton, (1808), 6-13
- Margary, I.D. (1967), Roman Roads in Britain, (1967)
- Rivet, A.L.F. (1969), The Roman Villa in Britain, (1969)

Illingworth's account of the excavation of this building in 1795 is tantalizing in the extreme ; in common with other excavators of his day he was content to draw a plan (Fig. 60) of the first phase he arrived at without attempting to describe any stratigraphy or to record where any of his finds came from. For instance, there are no less than thirteen rooms with tessellated pavements but no attempt was made to discover if any were hypocausted.

The walls were, in general, 2ft. 6ins. to 3ft. thick with the exception of those in the area of room 15 where they were 4ft. to 5ft. 6ins. The main entrance to the building, indicated by a massive threshold stone with slots for the door pivots, lay in the centre of the west wall and opened into a long gallery 140ft. long north to south, 15ft. wide at the north and 8ft. at the south end. The excavator presumed that a suite of small chambers lay opposite the entrance at (2) dividing the interior of the building into two courtyards surrounded by rooms.

Beyond room (3), 14ft. by 10ft., was a long narrow apartment (4a) measuring 50ft. by 10ft. This contained a very fine tessellated pavement, (Fig. 61), 31ft. in length and 10ft. wide indicated by the dotted line on the plan. It was composed of four large compartments of square and oblong forms having at the south end part of a large circle. The inner compartments were made of slate-blue, white and deep red tesserae half an inch square. These were surrounded by a border of circles in which were quarter circles inverted, of deep red against a pale yellow ground. Beyond the circles were several rows of plain pale yellow tesserae 1 to 1½ins. square. When first discovered the colours were extremely bright but even though a shed

was erected over it the pavement was soon spoilt by souvenir hunting sightseers.

Room 4b appears to be a corridor 30ft. by 4ft. leading to the south-east complex of apartments. Room 5 measured 20ft. by 10ft. Room 6, 70ft. by 18ft., had a pavement of cruder type, composed of larger tesserae, but it had been almost completely destroyed ; at the southern end were four abutments. The limits of rooms 7 and 8 were not excavated but they both had crude and broken pavements. Rooms 9, 24ft. by 6ft., and 10, 18ft. by 7ft., contained nothing significant. Room 11, 8ft. by 4ft. had the remains of a coarse tessellated pavement and appeared to lead into room 12, 24ft. by 5ft., which, again on the south side, had five abutments ; at the east end of this apartment, 5ft. below ground level, was discovered an arch 3ft. high and 2ft. wide ; the base and wall were of stone and the arch was built of bricks, each 11ins. long.

Rooms 13 and 14 also had the remains of somewhat poor tessellated pavements, that in room 13 being 1ft. lower than the floor in room 14. Room 15, measuring 15ft. by 10ft., was remarkable for the thickness of its walls, 4ft. on the east side, 5ft. 6ins. on the west and 4ft. 6ins. on the south. Room 16, 30ft. by 9ft., and room 18 each contained fragments of coarse pavements and the wall between these two rooms, 3ft. thick, was erected upon a tessellated pavement, as were also the walls on the north and east of room 20. Room 17 contained nothing of interest but rooms 19, 41ft. by 30ft., and 20, 12ft. by 10ft., both had coarse pavements.

Room 21, 12ft. by 10ft., had a much better pavement, curved at the east end, though it had been considerably damaged. Room 22, 30ft. 6ins. by 18ft. had a coarse pavement with a slope from north to south of 8ins. towards a round aperture in the floor at (f) as if for a water outlet, but no drain was found. The north side of the foundation wall was backed by a strong body of clay. The floor of this room was considerably lower than in the other apartments which led the excavator to suppose that it had been a bath. Part of the shaft of a small round pillar was discovered.

Room 23, 8ft. square adjoined No. 22. Rooms 24, 20ft. by 6ft. and 26, 20ft. by 10ft. had incomplete walls. On the western foundation of room 26 was discovered a large complete human skeleton lying east - west with the feet towards the east. Room 25, 10ft. by 8ft. contained nothing remarkable. Rooms 27 to 34 exhibited nothing except that on the south foundation wall of No. 28 lay another skeleton in the same position as that in No. 26. It appears doubtful whether No. 35 was a room at all ; a wall (h) extended more than 100ft. to the south and may have been a field or garden wall.

Room 36 was 16ft. and room 37, 13ft. square. No. 38 was a passage 3ft. wide and No. 39, 6ft. by 2ft. 6ins. may have been a continuation of it. In room 40 were visible marks of fire.

The walls of several rooms, and particularly room 4a, contained decorated wall plaster, some green, others with stripes of red and white, and blue and white. Quantities of pottery, tiles and glass were discovered together with fibulae, the head of a lance and "several copper coins of the late empire." particularly one of Constantine I (308-37). The appearance of fire and fragments of burnt timber and tiles lying on the pavements suggested that the building had eventually been destroyed by fire. More than twenty skeletons were found, mostly on the foundations of room 1.

A chalybeate spring lies within a few yards of the entrance of the building and was still, in 1795, called St. Pancras well ; records state that a chapel, dedicated to St. Pancras existed near the well at the beginning of the 12th century. The skeletons may be burials of this period.

The excavated area of the building measured approximately 208ft. north to south and 145ft. east to west and while there were no further signs of buildings to the north, west and south it is probable that they extended to the east. The road from Scampton to Lincoln, just over five miles to the south, passed close down the west side of the building.

Conclusions

The plan of this building makes one wonder what sort of establishment it is. There appear to be two courtyards Ea and Eb separated perhaps by a suite of rooms, though to the west this is conjectural, and in any case the true extent to which the rooms on the north and east sides of Ea impinged into Ea is not known. We are told that room 18, forming the south side of courtyard Eb had a tessellated pavement ; was the whole of Eb thus paved ? If so, it must have had a roof and measured c. 50ft. by 70ft. - a huge room, yet it would hardly have been a barn in the middle of the villa and with a decorated floor.

Room 4a was obviously considered important as it had a very fine mosaic floor which D.J. Smith attributes to the Durobrivan school of mosaicists (Rivet, 1969, 108). Rooms 9 to 12, with furnace arch c, could have been a bath-suite, but if this is so, why was room 13, which would have had to have been the praefurnium, the possessor of a tessellated pavement, even though of "rude materials and execution"? The buttresses at a.a.a. in room 6 are also puzzling ; had they risen from a concrete floor one would have suspected supports for a hypocaust system, but again, the floor had a tessellated pavement.

Room 22 seems to have been part of a bath, possibly a large plunge, which may have included rooms 20 and 21. One thing we do know is that we are dealing with two phases of construction in view of the walls d.d.d. between rooms 16 and 18 and between rooms 17 and 20, as these walls are stated to have been built on top of tessellated pavements.

The building lay a quarter of a mile north of the main road (Margary's 28a) from Ermine Street to Littleborough. It may well be an example of the headquarters of a country estate owned by a rich citizen of Lincoln.

If one is to take the dating evidence of one known coin and a mention of a few others 'of the late empire' the building was in use in the first half of the 4th century, but only re-excavation with modern techniques might elucidate the true use and length of occupation of the structures.

GREETWELL (Lincs) SK 9971

1891. Associated Architectural Societies Reports, XXI, (1891), 48-52
 Venables. (1891), Arch. J., XLVIII, (1891), 187
 Venables. (1892), Arch. J., XLIX, (1892), 258-62
 Coppack, G. (1971), Letter to the writer

In 1884 part of this villa was exposed during the course of ironstone quarrying. In 1890 a further portion of pavement with a plain pattern of red and white tesserae was uncovered and removed to the Lincoln museum. Fortunately the resident manager for the quarrying firm, Mr. Benjamin Ramsden, was a surveyor and drew a ground plan to supplement the brief description he made of the remains. (Fig. 62). The villa site lies just to the east of Lincoln and is now covered by a housing estate.

According to Ramsden's report the first part of the villa to be found was the bathroom A near to the well ; the floor of this room was of pink concrete and measured approximately 28ft. by 10ft. The bath itself had a small patch of tesserae remaining inside. The well was 18ft. deep, its inner diameter being 3ft. 6ins. Room B measured 19ft. by 10ft. 6ins. and was paved with red tiles each about a foot square. Corridor C ran north and south, 30ft. long by 10ft. wide ; this had a concrete floor with a hard, smooth surface, without any tesserae. There was evidence of a fire having been kindled on this floor and a considerable quantity of charcoal was found.

Parallel with C ran another long room D, 33ft. long by 8ft. broad. It was about 18ins. higher than C with which it was connected by two steps at the northern end. This room had a tessellated pavement with a border of red tiles $1\frac{1}{2}$ ins. square across the north end. The tesserae were made of white limestone and red tile from 1in. to $1\frac{1}{2}$ ins. square. The red tesserae formed a pattern of a hollow parallelogram with a stripe running up the middle, each 9ins. wide. Room E ran at right angles to the east of D, the width of the dividing wall, which no longer remained, being about 2ft. It measured 27ft. by 10ft.

and was again decorated with bands of red tesserae 9ins. wide on a white ground. The levels of D and E were "different" but no connecting steps were found.

East of E, and at right angles to it, the wall space being about 18ins., lay chamber F, 27ft. long by 11ft. wide. This floor also had a pattern of red bands on a white ground. Running north from F was a long corridor G, 132ft. in length by 13ft. wide. The floor had a gradual rise from south to north of about 6ft., following the inclination of the ground and the pattern of the tessellated pavement " ... was intricately worked. The centre of blue and white tesserae showed the well known 'key' pattern, with red and white stripes running down the whole length on each side." The blue tesserae were only about $\frac{1}{2}$ in. square. About 8ins. below this floor lay another concrete floor extending for only about three-quarters of the length of the later floor, clear evidence of alterations and extensions in Roman times.

Running east and west from F and G was another corridor, H, 100ft. in length by 16ft. 9ins. wide. At the time that Ramsden's notes were published in 1892 the full extent of this corridor had not been uncovered. Although Ramsden drew a later plan, (Fig. 63) showing more of the villa exposed he did not publish any further explanatory notes. The floor of this corridor was also laid on an incline, with a drop of 1ft. 4ins. from west to east ; at its junction with corridor G, it was about 18ins. lower than G. No steps are mentioned.

Room I, lying in the corner of the junction of the two corridors measured 45ft. by 21ft. ; it was floored with concrete which was considerably decayed. Room J, some 14ft. to the east was 27ft. long by 13ft. wide ; the tessellated floor had seven stripes of red tesserae and eight stripes of white, varying in width from 9ins. to 2ft. 6ins. There was also a square of white tesserae in the centre of the floor, 4ft. 6ins. across, bordered with a band of blue tesserae 4ins. wide.

A large quantity of roof and floor-tiles were discovered on the site together with a lead spoon, a bronze ear-ring, parts of a human

skull, human and animal bones, fragments of glass and black pottery, iron nails and large quantities of oyster shells. In nearly all the rooms fragments of wall plaster were turned up painted in various colours. There was evidence of fires having been kindled on the floors in nearly all the rooms, and charcoal was plentiful.

Further fragmentary glimpses of the villa have been caught from time to time but not published (Coppack, 1971). Between 1912 and 1925 part of another (or the same) Roman building was discovered c. 100yds. south-east of the previous discovery, during the building of Jellicoe Avenue across the site - which, as previously mentioned, now lies under a housing estate ; rough sketch plans survive in Lincoln Museum but add little to our knowledge of the site. In 1945-6 further building revealed more pavements and Dr. Graham Webster made some sketch plans and section drawings but no trace survives of any accurate drawings or of his note-books.

Conclusions

Judging from a later isometric drawing by Ramsden, the villa appears, at least in its latest phase, to have been of courtyard type and of considerable size and opulence judging, for example, from the mosaic in corridor P, (Fig. 64), and it is very regrettable that no proper excavation was possible. The evidence of fires on the floors of many of the rooms may hint at subsequent squatter occupation. Except to enable us to say that a large villa existed on the site the evidence adds little to our knowledge of villas in general.

GROUP 10 FIVE SOUTH LINCOLNSHIRE VILLAS

- Broke Vere, C. (1831), Archaeologia, XXIII, (1831), 385-7
 Greenfield, E. (1971), L.H.A., I, No. 6, (1971), 29-57
 Hindley, R. (1961), L.A.A.S.R.P., IX part 1, (1961), 16
 Langton, A.C. (1929), Journal of the Royal Air Force College,
 Cranwell, IX No. 2, (1929), 140-3
 Stukeley, W. (1719), Philosophical Transactions XXXV, (1719), 428-32
 Turnor, E. (1805), Collections for the History of Grantham, (1805), 126
 Turnor, E. (1829), Archaeologia, XXII, (1829), 26-32

NEWTON AND HACEBY (Lincs) TF 019369

In 1818 the walls of five rooms were laid open and pieces of stucco of various colours, glass, tesserae and some coins were found among the rubbish. About 70yds. further down the hill were discovered the remains of a hypocaust and baths and the foundations of five more rooms (Turnor, 1829). Over a century later, in 1928, a group of cadets and officers from the Royal Air Force College, Cranwell, excavated a bath-house in the area, (Fig. 65), though whether it was the same one is not certain ; in view of the remarks in the preface to the report (Langton, 1929) about the 'feet of solid clay which was heavy and clogging' which the excavators had to penetrate, it was probably not, as this material is unlikely to have collected in the 100 years since the site was previously excavated. Although Langton quotes that coins ranging in date from A.D. 96 to A.D. 364 had been found at Haceby in about 1800, presumably the villa described by Turnor, there is no record of any finds in 1928-9 ; the excavators were evidently interested only in structures and the mosaics 'in some of the rooms'. There were evidently either two villas in the area or, perhaps more likely, two bath-houses possibly in use at different periods, in one villa.

GUNBY AND STAINBY (Lincs) SK 926 227

7/11/19(i) 222
 Lincs account
 of 9 Aug 1818

The Stainby villa was discovered in 1815 by labourers employed getting stone to repair the old post road ; they struck upon walls which, being followed, by the direction of the Rev. G. Osborne, Rector of Stainby, part of a Roman villa was brought to view ; also the remains of a hypocaust and a passage paved with tesserae. Because of damage being done to the site it was then backfilled. (Turnor, 1829).

NORTH STOKE AND STOKE ROCHFORD (Lincs) SK 930 288 and 929 290

These two bath-houses are about half a mile apart. In 1824 vestiges of a villa were noticed at North Stoke (Broke Vere, 1829) but nothing satisfactory could be made out. Nearby, however, a bath building was excavated measuring approximately 63ft. by 46ft., (Fig. 66). Room A was hypocausted with pillars B about 3ft. high to carry the floor ; the area b, round the apse was blackened and contained flue tiles and a lot of ash. Passage C was paved with yellow tesserae and led to Room D which was about 3ft. below the level of C. F appears to have been a square flue, blackened and containing wood ashes. The ducts, G, led under the wall to Room H where the excavators, peering down the ducts, could see unblackened pillars ; they also seemed to lead towards Room A. Rooms M are probably baths ; paved with tiles laid on a thick cement floor they had red painted plaster walls and steps on the western side. Only a small part of Room N was examined but some yellow tesserae remained in situ on the floor. Rooms H and O were also only partly examined. No partition wall was discovered separating Rooms A and I. Room L was examined but no suggestion as to its use was made.

Conclusions

There is but little factual evidence in the report on which to base an assessment of the uses of the various rooms but it seems possible that this may be the 'hot' end of a large bath building. Room A was hypocausted and probably I was as well, making one large heated room with P a cold plunge. Room D was probably also hypocausted to form another hot room judging from the comparative levels of A and C, and the blackened flue F, although the excavators either did not recognise or did not find, any evidence of the remains of pillars in this room. Room H was also apparently hypocausted, though the pillars were not blackened so this was probably the tepidarium. If the foregoing is correct, Room O must have been the stoking chamber. We do not know whether Rooms N and L were hypocausted or not. There is insufficient evidence to say whether Rooms D and A/I were in use at the same time or whether Rooms A/I (and possibly south M, and L) were a later addition.

This building was rediscovered in 1959 or 1960 (Hindley, 1961) and exploratory trenching revealed a structure of some complexity, several different periods being apparent ; but evidently no further work had been done.

Half a mile away lies another bath at Stoke Rochford. In October 1828 (Broke Vere, 1829) after field work had indicated the presence of a building, workmen cut a trench across the site and the walls of two rooms were discovered. The first was floored with cement and had had painted plaster on the walls ; the second was a long narrow rectangular chamber also floored with cement containing a double row of square pillars ; the cemented walls were blackened and there was a quantity of charcoal and ash in the chamber. To quote the excavator, "Amongst the rubbish thrown away were fragments of tiles and brick of every variety ; small pieces of black pottery of different forms and sizes, and one small piece of very fine pottery ware: also, some parts of stone bottles of a fine ware." One cannot help regretting that Sir Charles Broke Vere was such an enthusiastic digger.

GREAT PONTON (Lincs) SK 925 306

Turnor, 1829, records that in 1823 a villa was discovered here. A tessellated pavement 12ft. square was exposed ; the tesserae were half inch squares of red, white and blue. The pavement was shortly afterwards covered again.

DENTON (Lincs) SK 876309

Greenfield, E. (1971), L.H.A., I, No. 6, (1971), 29-57

Smith, J.T. (1964), L.A.A.S.R.P., X, (1964), 75-104

Our earliest knowledge of the site comes from Stukeley (Stukeley, 1719) who reported that ploughing had revealed a mosaic pavement in a room about 30ft. square and 'foundations of other rooms adjacent.' In 1800, William Fowler, looking for Stukeley's pavement in order to draw it, discovered another pavement nearby (Turnor, 1805), (Fig. 67).

Through the ridge on which the villa stands runs a bed of ironstone which has now been removed by opencast mining, destroying the villa and its bath house. Forewarned of these activities the then Ministry of Works undertook the excavation of the villa site in 1948-9 (Smith, J.T., 1964). Examination of the site showed three phases of construction.

Phase 1 (Fig. 68)

An aisled timber house supported by posts set in 18 post-holes arranged in pairs. The structure was approximately 98ft. long by 40ft. wide and judging from coin evidence was built not earlier than the late 3rd century and continued in use until the phase 2 reconstruction c. A.D. 370.

Phase 2 (Fig. 69)

In its second phase the western (domestic) half of the villa was rebuilt with stone footings, while the eastern half remained wholly in timber. From evidence provided by the stone footings the excavator deduced that they were not foundations for a wall but merely formed a base on which to set timber uprights, securing them from the decaying action of damp soil. During either phase 2 or 3 a separate bath house was added approximately 100yds. south-west of the house. (See below).

Phase 3 (Fig. 70)

In this phase stone foundations were introduced at the north-east end of the house, distinguished by being 'pitched' and set in blue clay which had not previously been used. Again, the purpose of these footings was to support posts. It seems that the east end of the building was the 'working end' as there was a doorway approximately 11ft. wide in the east wall, while the west end contained the domestic accommodation, as is shown by the tessellated pavements in three of the rooms. There is no close dating for the duration of occupation of this phase of the villa but it may well have extended to the end of the 5th century.

Phase 4

This phase, though lacking any structural development provides evidence of the villa's existence into the 5th century. In the middle of the mosaic floor in the main room was discovered a grave in which a man had been interred, together with a Saxon pot. Another interment had been made in the hearth which was virtually the focus of the house's social life. That the two Saxons were buried while the villa still stood is proved by the absence of tile or slate fragments from the grave fillings. No other Saxon pottery was found on the site and it seems that the successors of the Roman British farmer of the late 4th century villa maintained the villa as a working agricultural unit up to the time when a group of Saxons arrived who terminated the existence of the house by burying two of their number in it.

The mosaic pavements

Although five rooms probably had tessellated pavements, only three contained decorated panels and these were added during the re-construction of the western end of the house in phase 2, c. A.D. 370. Two of the panels, in Rooms 2 and 7 had disappeared before the beginning of the 1948-9 excavation but their patterns were known from engravings by Fowler. Four colours were employed in the patterns, red, blue, grey and white, the red presumably of tile and the remainder of local limestones. In Rooms 2 and 7 the tesserae appear to have

averaged $\frac{3}{4}$ in. square, while in Room 9, possibly a partly open veranda, they averaged $1\frac{1}{4}$ ins. square, as did the tesserae forming the plain surround in all three rooms.

Room 2 measured 10ft. by 7ft.; its decorated panel, 8ft. 10ins. by 3ft. 2ins., showed an arrangement of red bands, outlined in blue, forming a pattern of intersecting octagons and half octagons. The background was white relieved with small red squares and bands.

Room 9 measured 32ft. 6ins. by 7ft.; its decorated panel 18ft. by 2ft. 6ins. was the plainest of the three and consisted simply of a rectilinear grid formed of red bands, two tesserae in width framing twenty-six 1ft. white squares.

Room 7, evidently the most important, measured 23ft. by 17ft. and contained a decorated panel 8ft. square, with perspective boxes decorated with stippling and duplex knots, forming a central eight-pointed star.

Of the villas considered in this thesis the patterns in Rooms 2 and 9 have parallels at Roxby and that in Room 7 at Scampton and Mansfield Woodhouse. The Denton mosaics are probably late products of the Durobrivan school of mosaicists. (Smith, D.J., 1971).

The Bath-house

The bath-house and other features were discovered in 1959 (Fig. 71), when the topsoil had been removed preparatory to quarrying and the excavation was undertaken by Mr. Ernest Greenfield for the then Ministry of Works.

The bath-house, (Fig. 72) was of rectangular plan with a furnace and stoking pit at the western end leading into the main hypocaust beneath the caldarium and the apsidal hot bath immediately adjacent to the south. The hot air then passed on to the tepidarium with its associated warm bath. At the east end was the entrance room and the cold bath.

The main hypocaust

The length of the caldarium and the tepidarium together was 15ft. 3ins. and the width 7ft. 6ins.; the average depth was 1ft. 3ins.

from the scraped surface to the floor level. The north wall had been breached in antiquity but where undisturbed it consisted of three courses of wall slab laid horizontally. The south wall had two oblique apertures to conduct heat to the hot and tepid bath hypocausts. The west wall, containing the centrally placed entrance from the furnace, consisted of the burnt remains of four courses of slab ; the northern part of the wall had been burnt blue and reduced almost to powder form. The floor of the hypocaust was composed of hard pink cement 1 to 1½ ins. thick. Bedded on the floor were the remains of 8 pilae of square red clay bricks (10 x 10 x 2 ins.) and the remains of 9 others were indicated by cement patches. Originally there had been 28 pilae in seven rows of four, equally spaced. Evidence of repair was seen at two places at the west end ; against the west wall on the south side where there were 6 courses of dissimilar tile and brick forming a roughly constructed replacement, and two pilae to the east where a patch of pink cement at three course height had sealed grey ash. They had been sheathed with pink cement facing. A coin of Valentinian I (364-75) was found in the soot on the floor.

The furnace and stoking pit

The furnace tapered from the stoking end where it was 2ft. 5 ins. at the top and 1ft. 8 ins. at the base, to the hypocaust end where it was 2ft. 11 ins. at the top and 1ft. 7 ins. at the base. The average depth was 1ft. 3 ins. The walls of the channel were composed of two courses of sandstone blocks, very burnt. The stoking pit consisted of a shallow fan-shaped hollow cut in the natural limestone. Heavily charcoal-flecked ash covered the floor containing two coins of Valens (364-78) together with grey pottery sherds, animal bones, clinker, fragments of window glass and parts of two iron spikes or nails.

The entrance room

The whole of the east wall and parts of the north and south walls had been removed by the scraper, as well as the internal floor level. It is usual for there to be a stepped approach into a cold bath so there had probably originally been a considerable difference in level between the floor levels of this room and the cold bath.

The hot bath hypocaust

This consisted of four courses of limestone slab above an internal off-set of 4ins. to 5ins. in width and 3ins. above the level of the pink cement floor. The average height of walling above the off-set was 1ft. 4ins. Four equally spaced pilae were found in situ, which were of the same construction as those in the main hypocaust. The base of a patch of pink cement was found on the south wall of the hypocaust which was interpreted as the bedding of the water pipe or channel (not found) to convey waste water from the bath to the drain outside. The bath had been composed of hard pink cement tinted sea green. The rubble filling of the bath hypocaust comprised many pieces of the hot bath which had been broken up when it was robbed, together with pieces of quarter-round moulding, painted wall plaster, mosaic and larger tesserae and a large T-shaped iron spike.

The tepid bath hypocaust

This was similar to the hot bath hypocaust with 6 courses of limestone slab above an internal off-set of 6ins. in width and 3ins. above floor level. On the west side the off-set was covered with pink cement which extended up the wall for 10ins. Three equally spaced pilae were found in situ and the positions of two others were seen by patches of cement on the floor. A large hole had breached the north wall to floor level. The rubble filling contained pieces of broken up bath which had been constructed of hard pink cement - not tinted ; a few pieces of wall plaster and tesserae were also found.

The cold bath

This was of apsidal shape like the other baths, but showed two phases of construction. The first phase was secondary to the rest of the bath-house and consisted of a D-shaped wall attached to the outside face of the south wall of the entrance room. The wall was formed of four remaining courses of thin limestone slab. The walls and floor of the bath were rendered in similar hard pink cement to the other baths and the concave floor averaged 2ins. to 2½ins. in thickness laid on the natural limestone. The cement sides of the bath averaged a thickness of 1in. A crack was discovered in this floor which had

necessitated a re-surfacing with 2ins. to $2\frac{1}{2}$ ins. of buff-coloured sandy mortar and 5ins. of hard pink cement to form a new floor ; this was carried up the walls with a thickness of $\frac{1}{2}$ to $\frac{3}{4}$ in. A patch of pink cement on the south wall indicated the position of the waste pipe (not found) or channel leading to a drain on the outside.

The wall trenches

Both north and south wall trenches were excavated and the filling proved to be a charcoal-flecked mixture of brown clayey soil with a great deal of limestone rubble ; a piece of thick lead sheet was recovered from the filling of the north trench. In the south trench pieces of blue Estuarine Clay were found which would indicate that the walls were constructed at the same time as the well was dug (see below) as this clay occurs naturally some 17ft. below the surface of the limestone. Also from the south trench were recovered 4th century pottery sherds and a coin each of Valens (364-78) and Gratian (367-83).

The two phases of the bath-house

The primary phase consisted of the whole bath-house less the cold bath and the exterior secondary walling of the hot and tepid bath hypocausts. The secondary phase was the addition of the cold bath and the additional outside walling on the south of the existing baths. The original wall of these baths was 2ft. 3ins. thick with an external rendering of $\frac{1}{2}$ in. of pink cement ; to this was later added another wall of 1ft. thickness of limestone with, again, a $\frac{1}{4}$ in. to $\frac{1}{2}$ in. thickness of pink cement rendering on the exterior face.

The Well (Fig. 73)

This was found 26ft. south of the cold bath. 3ft. square at the top and 19ft. deep from the scraped surface of the quarry, it was constructed of limestone blocks down to a depth of 9ft. At this level it continued as a roughly circular hole through heavy limestone slab and an underlying band of soft sand, to the surface of the blue Estuarine Clay at 17ft. in which a basin shaped reservoir had been dug to a depth of 2ft. to form a well base.

The filling of the upper 17ft. consisted mainly of limestone rubble some of which was burnt pink-red ; broken red clay roof tiles, pieces of flat brick and fragments of box flue tiles. At about 17ft. was a deposit of some 20 blue slate roof tiles of normal pointed type with nail holes in their upper ends, and also a few cattle bones. A few pieces of hard pink cement were seen in the top 4ft. of filling together with some sherds of pottery. At a depth of 8ft. was found the base part of a lathe-turned stone pillar but this was broken by the mechanical digger during excavation.

The well base filling consisted of two deposits. The upper, composed of sandy, black and orange streaked mud and limestone pieces held broken pieces of red clay roofing and box flue tiles ; a piece of thick sheet lead (part of a tank) ; a bone spindle whorl ; a shaped piece of flat bone ; part of a turned wooden spindle ; a fragment of cinder and fragments of coarse pottery. The lower filling was darker in colour, closer in texture and contained less limestone and pieces of tile. Within this general filling were discovered a second, smaller piece of lead ; three iron bucket side plates ; two iron nails and an iron bloom and pottery fragments. Also in this level occurred a quantity of preserved wood, leather, animal bones, a deer antler and one piece of a bucket stave. The pottery from the well was mid-to-late 4th century.

Other features (Fig. 74

An examination was made of the whole of the scraped area of the quarry and various features were cleared and recorded. These included a ditched enclosure of rectangular plan with rounded corners and a well-defined entrance on the south side ; a curving length of V-shaped ditch ; three pits ; an oven base with no indication of use ; an H-shaped wall foundation with no evidence of original plan or use ; a short length of gully ; the bottom 3ins. of a post-hole and two areas of rough paving. From none of these features was there any datable evidence.

Conclusions

The bath-house was well planned and well built, in keeping with the best in domestic Roman-British bath construction. The dating evidence suggests that it was constructed c. A.D. 360-70 which would be contemporary with the reconstruction carried out at the villa which Smith has dated to A.D. 370, his villa phase II. The two coins of Valens and Gratian found in the south wall trench could have been deposited either during the original construction of the baths or when the trench was reopened for the addition of the modifications in phase II.

Of the three pieces of thick lead sheet discovered by the baths and in the well, two are considered likely to have come from the same tank and one from another. This suggests that there may have been a hot water tank situated over the furnace between the stoke-hole and the caldarium which was later replaced ; this replacement would have necessitated the removal of part of the structure around the furnace and could explain the replacement of at least one pila referred to above.

Although the foundations had been mechanically scraped down to below floor level over the whole structure, with the exception of the cold bath and the stoking pit, the rubble in these two features was considered by the excavator to represent the deliberate destruction of the bath-house at the conclusion of its useful life.

The general soil and ecological analysis of material from both the villa and the bath-house suggests the proximity of a mixed forest with bracken undergrowth, with both grass covered and cultivated clearings. Red (and probably roe) deer were evidently hunted and dung beetle remains indicate that domestic animals were kept in the grounds. The bone remains, probably represented by meal residues, consisted of 38% ox with considerably smaller quantities of horse and sheep and even less of pig. The plant analysis provides no evidence of crop production.

GROUP 11 FOUR VILLAS FROM SOUTH YORKSHIRE AND NOTTINGHAMSHIRE

STANCIL (Yorks) SK 610961

Whiting, C.E. (1939). Y.A.J., XXXV, (1943), 261-9

The site lies approximately two miles north-east of Tickhill, south of Doncaster in the fields of Stancil farm, and overlooks the River Torne.

In 1938 a large trench for a water pipe was being cut through the farm and a skeleton was discovered ; it was also reported that a buried wall had been seen. In September, 1938, the Curator of the Doncaster Museum and Dr. C.E. Whiting made a preliminary examination of the site and decided that further work was desirable. In the following year more intensive excavation was undertaken but this was incomplete when the war started and no further work was done. (Fig. 75)

A long wall 3ft. 6ins. in height and 1ft. 10ins. thick discovered in 1938 proved to be the north wall of a building measuring 28ft. by 8ft. 3ins. internally ; the south wall was 2ft. 2ins. thick and both walls were covered with plaster on the inside. The eastern ends of both walls had been broken away by the mechanical excavator but enough of the footings remained to determine that an east wall had existed as was shown by a 6ft. length of plaster which remained standing 1in. to 2ins. above the floor level. At the west end of the building was a hypocaust 7ft. square containing twelve baked brick pilae ; it was lined with a wall not bonded to the surrounding masonry. 9ft. eastwards of the hypocaust was a cross wall 6ft. 6ins. long and 1ft. 5ins. wide ; there was a gap of approximately 1ft. between the ends of this sleeper wall and the north and south walls. The inner sides of all these walls were coated with rough plaster and were thickly covered with soot up to 15ins. from the ground. Beyond the sleeper wall there appear on the plan to be three more pilae but no mention is made of them in the report.

The whole room including the hypocaust was filled with stones, broken pieces of roof and flue tiles, coloured plaster from the walls, burnt material and two fragments of floor tile with a yellow pattern on red glaze. Cement had been poured into this mass forming a concrete 2ft. 6ins. deep over which was laid a cement floor for a new building.

Against the outside of the north wall another wall was built to the same height, 3ft., which was not bonded to the first. Their tops formed a platform 3ft. 10ins. wide on which had been built another wall 2ft. 3ins. in thickness. This wall, together with the upper cement floor seem to indicate at least the beginning of a new building.

The double north wall finished at the west end of the hypocaust. Westward from the end of the double wall another wall continued in line with the new wall built on top of the double one. It was of inferior workmanship, built chiefly of strong rubble, 2ft. 7ins. wide and was traced for 17ft. There were various walls within the area south of this with a small floor of thin flagging at the western end. The whole complex seems in accordance with the arrangements for the stoke-hole of a hypocaust.

About 11ft. beyond the east end of this building was a semi-circular wall 2ft. 6ins. high (building 2) inside which was a red cement floor. This feature had been much damaged by the mechanical excavator. In line with and approximately 12ft. south of this apsidal structure was a corner of a rectangular building (building 3) with walls of good masonry about 2ft. wide.

The pottery finds consisted of three mortaria, eleven cooking pots and seventeen platter rims, all of good quality and all attributed by the excavator to the 3rd century. There was no samian ware and none of the signal station types. Unfortunately, no stratification is indicated for the pottery except that " ... some of them were certainly found in connection with the second period of the building."

The whole structure is certainly a bath-suite with a clearly discernable hot end at the west and cold plunge at the east.

Although the excavator attributes almost everything west of the west end of the hypocaust to a second period there must have been at least the cheeks of the stoke-hole present when the hypocaust was in use, and from the amount of burnt material discovered it must have been used for a considerable time. On the pottery evidence he suggested it was rebuilt in the first half of the 3rd century and remained in use until, at latest, the early part of the 4th century.

Conclusions

In fairness to the excavator, he intended to resume work in 1940 but the war intervened and this was not possible. However, in the first report there are some very tantalizing omissions and discrepancies. No description is given of the construction of the outside north wall of the large room ; in the plan it is shown merely as "second building" and indicated in the same way as the westward extension of the north wall (inferior workmanship, strong rubble) and also the apsidal building (2) (good masonry). Building 2 would almost certainly have been contemporary with the hypocaust of building 1 which itself is described on the plan as "added to the first building" and in the report as "belonging entirely to the first building." As noted above the cheeks of the stoke-hole, marked on the plan as "second building" must, in fact, have been contemporary with the hypocaust.

An alternative interpretation of the complex may be that buildings 1, 2 and possibly 3 were built in the late 2nd or early 3rd century as a complete bath-suite ; that the walls at the west end of the large room became damaged by the intense heat necessitating the inseting of a secondary protective wall in that area and that the same thing may have happened to the stoke-hole cheeks requiring a secondary building of these also. Since the entire room and hypocaust was later filled in and floored, and a new north wall built on a foundation provided by the two previous walls, it seems that for some reason the bath was abandoned as such at the end of the 3rd century and a new use for the building was found, or at least projected. There was evidence of other buildings in the field which are most likely part of the villa, but even re-excavation of the site already examined would probably solve a lot of outstanding questions.

SOUTHWELL (Notts) SK 70 53

- Daniels, C.M. (1966), Transactions Thoroton Society, LXX, (1966), 13-54
 (1910), V.C.H., Notts., II, (1910), 34
 Hartley, B.R. (1959), Records of Bucks, XVI, (1959), 234

The site lies near the centre of Southwell, mainly in the garden of the Provost's Residence. When it was decided to include much of the Residence garden within the grounds of a new Grammar School, excavation was undertaken in the summer of 1959. In 1787 Major Rook noted remains found at a depth of 5ft., comprising stones, painted stucco, 2 - 3 tesserae and pieces of Roman tile. In 1793 a tessellated pavement was discovered and in 1901 a considerable area of tessellated pavement, the foundations of one of the walls which bounded it, together with stone, pottery and bone. The mosaic is described as " ... coarse work and simple in design, viz., square spaces of about 11ins. each way, composed of stone tesserae of a greyish blue colour surrounded by a double row of red tesserae made of chopped up tile, relieved by four of the blue tesserae at each corner square." It is also recorded that about 1870 " ... some workmen came upon a tessellated pavement ... and two skeletons lying on the pavement in a north and south direction, but unfortunately the pavement was destroyed without any drawing or description of it being preserved." Finally, several coins have been recorded from the area, two dating from Constantius and Magnentius (A.D. 291-312).

In 1959 two wings of the villa were discovered, (Fig. 76), to be known as the east wing and the south wing ; work on the south wing was somewhat hampered by a shrubbery. After the excavation had finished a contractor's trench cut across a further part of a building to the south of the area.

The east wing (Fig. 77)

Trenching revealed part of a large room, somewhat robbed, and a cold bath displaying three periods of building. The large room proved to have measured 34ft. by at least 18ft. with foundations 3ft. 6ins.

wide. To the north, a 15ins. thick make-up of broken stone and mortar bedding showed where its floor had lain and a random scatter of tesserae and painted plaster indicated its probable decoration. Although no stratified pottery was found some sherds were recovered, those of Roman date ranging from late 2nd to early 4th century, and those of medieval from the 13th to 15th centuries inclusive ; all lay in disturbed soil. Although the relationship of the large room to the bath was not clear, the two structures show a 10° difference in alignment which contrasts with the almost identical alignment of the bath and the south wing. The general impression gained was that the room was earlier than the bath.

The cold bath measured 24ft. by 15ft. 6ins. internally, being smaller than that at Well, but roughly comparable to the late bath of the villa at High Wycombe which measured 22ft. by 12ft., and also appeared to have been decorated with painted wall plaster. (Hartley, 1959).

The earliest period of work here survived in the form of an outer eastern wall 3ft. 6ins. thick which was earlier than the bath as shown by a small fragment of painted plaster in situ on its western face ; the fragment was white with a horizontal red stripe along its upper edge. The second period was marked by the building of the bath. Red clay had been put down to take the mortar floor and was also packed between the bath wall and the outer, earlier wall. The floor of the bath consisted of a mixture of tiles and stone slabs. The walls had been largely demolished by post-Roman robbing but at one point, on the east, stood to a height of 2ft. 6ins. This was rendered with two coats of water-proof mortar, almost 3ins. thick, with a quarter-round moulding at the angle of the wall and the floor. A step 2ft. 3ins. high and 8ins. wide survived at the south end, and in the north end an almost centrally placed outlet hole was preserved, though no trace of an outflow pipe. In the third phase the upper surface of all four of the room walls which had been decorated with painted plaster were stripped away and a considerable amount of plaster thrown face down into the bath, covering much of the floor area. The bath was then filled with debris and more plaster to a

depth of at least 18ins. Rough stone and river cobbles were then laid over the whole to act as a foundation for a hard mortar floor, sealing off the bath completely. All the plaster was collected for re-assembling. The final floor which had been damaged by robbers and later trenches for two drains and a water pipe, was bounded on the east and west, apparently by the original walls of the bath, now reduced by post-Roman robbing. To the north the floor extended across the bath wall for a distance of 2ft. 6ins. to 3ft. and a new north wall was built. Details of the southern limit of the room were lost. Fragments of pottery stratified beneath the later floor were of the late 2nd or early 3rd century and the unstratified material for the area as a whole included a portion of Hadrianic to late-Antonine stamped samian mortarium and several pieces of 2nd to early 4th century date.

The south wing (Fig. 78)

Trenching revealed two Roman pits which yielded Antonine pottery, and a 2ft. 6ins. robber trench filled with wall plaster, stone, tile and more Antonine pottery. This robber trench would seem to indicate demolition carried out during the life of the villa. The material recovered from this trench and lying on the subsoil generally, i.e., plaster, tiles and glass, suggest a dwelling of some sophistication.

Across the Roman remains, at some unknown later date, two narrow trenches had been dug and filled with human bones, mostly moderately complete limbs or other sections of the body, rather than whole skeletons. One exception was a complete skeleton with an additional leg and lower arm bone ; it was pierced at the right ankle, left shoulder and heart with iron studs. This sort of treatment was sometimes accorded to bodies which had died unnaturally or when there was some reason to fear the supernatural. The rest of the bones may represent the remains from burials cleared out of the Minster for some reason.

The most westerly trench dug encountered part of the south wing of the villa. Almost certainly the wing had continued east but a search showed it to have been robbed away and all trace of floor to

have vanished. Mosaic 4, (Fig. 79), continued under the grounds of the Palace but trial trenching to the south showed that no trace of the wing extended in that direction. Parts of six rooms were discovered, four of which contained tessellated pavements. Some thirty burials had been made, almost all over or into the floors of rooms 1 and 6 ; in contrast with the treatment of the other skeletons mentioned above, all these appeared to be regular Christian burials and clearly at some time this area had been consecrated ground. A modern land drain had damaged three of the mosaics.

Room 1

Robber trenches of three walls indicate a room measuring 27ft. by 9ft. or 10ft., although as the mosaic floor continues further north than the party wall between rooms 2 and 4 it may well be a corridor. What little of the mosaic survived post-Roman damage shows a pattern of simple bordered squares in red and blue-grey tesserae similar to that found in 1901 but with the colours reversed. (Fig. 79).

Room 2

Measured 27ft. by 11ft. although the walls had not survived. The mosaic floor, about half of which remained, consisted of three square central panels surrounded and divided by a guilloche border, and in its turn surrounded by areas of plain blue-grey and red tesserae. (Fig. 80). Only one later grave had been cut in the floor but bones from several skeletons had been dumped into the robber trench between this room and room 1.

Rooms 3 and 5

Assuming that the line of the north wall of room 2 was also that of room 3, the latter was 14ft. 6ins. square. The mosaic only survived as a fragmentary corner ; its design might have been a circle within a square panel with a wide red border, (Fig. 81). The make-up on this pavement was examined and consisted of a base of pitched stone covered by a layer of mortar, covered in turn by a layer of finer, harder mortar on top of which the tesserae were bedded ; the whole being about 14ins. in depth.

Room 5 occupied the rest of the width of this wing, a space of some 10ft. 6ins. by 14ft. 6ins. No sign of the floor survived but it had at some time contained a hypocaust which had been stripped out almost completely. The flue survived in the south wall but no trace of pilae or suspended floor remained. The ditch, or depression, below the room was filled with clean brown material containing a band of red clay. On top lay a thin patch of charcoal, the only, rather unsubstantial evidence for there ever having been firing. The flue had a hard red floor but did not display much sign of fire.

Rooms 4 and 6

A trench was cut a short way into the Residence garden to find the north wall of room 2 and to see whether any other room lay beyond it. The robbed wall trench was found and, beyond, some 10ft. of a further mosaic but it was not possible to extend the trench to find the northern limit of this pavement. Room 6 was extremely robbed and no trace of its floor surface survived although from its make up, it too had been tessellated.

Contractor's trench

After the excavation had finished, a contractor's trench a little to the south cut through the robber trenches of two walls and what was either a coarse floor or a well-laid yard between them.

No stratified datable pottery was obtained from this wing but the bulk of the material recovered dates from the late 3rd and early 4th centuries ; a certain percentage was unlikely to be earlier than the middle of the 4th century and two pieces were datable to the second half of that century.

Later history

Fragments of a pagan Saxon urn, dated tentatively A.D. 500-25, were preserved in the soil lying over room 3 and the bottoms of seven post-holes had been dug into the surface of the mosaic itself. The post-holes were clearly cut through an accumulation of earth as only their very bottoms had cut the mosaic. The Saxon remains obviously did not represent squatting within the six rooms of the

southern wing. A piece of tap-slag, the product of iron smelting, recovered from beside a burial in room 1 indicates iron smelting somewhere in the vicinity in either Roman or medieval times.

Conclusions

The pottery from the east wing, and from a scatter over the whole site, indicated that occupation began in Hadrianic - Antonine times (A.D. 117-92), with the possibility of demolition and rebuilding in the south wing at least, at about the beginning of the 3rd century. The bulk of the material found in both wings is of 3rd and early 4th century date within which period alterations also took place. The sherds from beneath the floor sealing of the cold bath, though not closely datable, indicate changes in the 3rd century, while the mosaics in the southern wing suggest embellishment probably in the 4th century. A trickle of pottery runs on into the later half of the 4th century and then stops until the Saxon urn of c. A.D. 500, and the post-holes.

The villa must have been of considerable size if the finds in the 18th and 19th centuries are considered, together with the 1959 excavation and the subsequent contractor's trench. When all these are put together a picture appears of two ranges of tessellated living rooms with the 1901 pavement part of a western range joining them ; a size of about 240ft. by 300ft., possibly a courtyard villa not unlike North Leigh. (Oxon).

MANSFIELD WOODHOUSE (Notts) SK 523647

- Rooke, H. (1787). Archaeologia, XIII, (1787), 363-76
 (1910). V.C.H., Notts., II, (1910), 28
 (1939). J.R.S., XXIX, (1939), 206
 Oswald, A.(1953). Trans Thoroton Society, LIII, (1953), 1-14

This villa was first excavated in 1786 by Major Hayman Rooke ; one hundred and fifty years later Mr. Adrian Oswald re-excavated part of the site and found Rooke's plans, (Fig. 82), to be extremely accurate although fortunately his investigations had not been carried below the top-floor levels. Oswald's work indicated an occupation from the 1st century to the 4th. The villa complex consisted, in its latest period, of a winged corridor house with an aisled building set almost at right angles but not connected ; very similar to Norton Disney. In order to describe the site in chronological sequence it is necessary to refer to the later report first, as it describes much the most comprehensive excavation. (Fig. 83).

The initial date of the first dwellings on the site, on pottery evidence, was about A.D. 80 and they consisted of oblong and circular huts of wood, surrounded by a drainage ditch, forming an enclosure. Traces of these huts occurred in areas A and B. (Fig. 84). In area A were found two clay ovens with a large pit. (P and O1). This pit was cut 4ft. into the limestone and showed no traces of burning. The function of this feature is uncertain but the impression of the excavator was that they had formed rough pit dwellings. Post-holes of early huts were found in area B and although later buildings had obscured the plan an entrance was apparent on the east side (Hut 1), where rustic ware of c. A.D.80 was found buried in a pit below the possible floor level (P.1). Similar small pits of the same period, with remains of burnt pig and sheep were found at (P). In area A, below the lowest habitation level, the unburnt bones of a cat or polecat were discovered (P.1) ; the animal had been buried in an oblong wooden box whose shape was revealed by the nail plan and this was certainly a planned burial.

In area A the large pit and its ovens (P and O1) were filled in c. A.D. 110 and a round wooden hut built (H.1A). The plan of this hut and its hearth, was nearly complete. It was formed by a series of post-holes connected by a shallow channel which probably marked the edge of wattle walls. The clay floor was covered with a burnt deposit containing a denarius of Hadrian in fine condition, struck A.D. 119-22 which, taken in conjunction with the pottery evidence suggested that the hut was destroyed by fire about A.D. 125. In area B, contemporary with this hut on pottery evidence, was a small oven (O.1A), and close by a cremation burial in a flagon of the early 2nd century.

The ditch, enclosing an area of about 4 acres, which surrounded these huts, was cut in a 'V' section to a depth of 5ft. in the limestone with an average width at the top of 8ft. The bottom deposits of the ditch contained pottery contemporary with that found in the large pit and two ovens, and from the floor of the round hut in area A. Apparently the ditch was allowed to silt up from about A.D. 110 when the remains of the clay oven (P and O1) in area A were thrown into it. The ditch evidently drained a spring on the south-west.

About A.D. 130 these primitive huts were replaced by larger wooden buildings and the plan of these structures was followed, in the main, by the later buildings in stone, for example Rooke's room F. The massive post-holes of this square hut were cut 3ft. 6ins. into the limestone and had an average diameter of 2ft. at the top. Two clay ovens supplied this room with its cooking apparatus (O.11). The hut had a clay floor and an entrance at the east.

In area A two large post-holes at (Z) were thought to belong to another hut of the same type. Some of these huts had tiled roofs. In the charred material on the floor levels a coin of Pius, A.D. 150-60, late 2nd century pottery and flint scrapers were found. In the north-west corner of area A a small iron smelting furnace of clay was discovered containing a quantity of iron slag ; nearby was a quantity of roughly smelted iron nuggets and at (Y) a clay-lined depression served as a water container for cooling the molten iron.

In the ditch, which was allowed to silt up during this period, samian brooches and mortaria gave a date range of c. A.D. 130 to c. A.D. 180.

Fire marked the end of these structures and the debris was cleared into the ditch to make way for the first stone building at the end of the 2nd century. This was a rectangular building with no corridor or wings, surrounded by roughly paved yards, and possessing concrete floors and painted plaster walls. Various additions were made to this building between c. A.D. 180 and c. A.D. 230 as was proved by pottery recovered from interstices of the wall footings.

The first additions were probably two narrow walls, possibly sleeper walls, flanking a courtyard or veranda with a concrete floor on the east of the building. Soon afterwards the two wing rooms were added, the southern of which contained a channelled hypocaust. Two other buildings were constructed at this time ; one, to the north-west of the house, was built over the ditch and was probably a small detached bath-house. The other, with a concrete floor and tiled roof, lay to the south-east of the main block ; no close examination of this building could be made as it was under a rhubarb crop but pottery evidence suggested an occupation from the end of the 2nd century to sometime in the 4th. Sometime in the middle of the 3rd century the main building was destroyed by fire.

Occupation was quickly resumed, the house was rebuilt, and a tessellated corridor (Rooke's room C) was added on the east and probably the mosaic (Rooke's room A) (Fig. 85) was laid at the same time. The square room on the south (Rooke's room F) was built of stone and the stone oven (O.1VA) was in use in this room towards the end of the 3rd century. Stone pavements were constructed to make the approaches to the house more dry. In area A the slight remaining depression of the ditch was levelled with the original upcast, and, finally, the square room in area B was joined to the main block by a passage.

The Basilican building

In the late 3rd or early 4th century the basilican building was constructed 30ft. to the north-east of the villa and partially overlying the ditch. For a description we have to rely on Rooke as Oswald did not re-excavate the structure totally. The three rooms (L) at the west end were probably later additions as it appears that a four walled unit was built against the previous west wall judging by the thickness indicated in the plan ; the floors were of concrete and there were no wall or floor decorations. Rooms (M) and (N) had concrete floors and painted wall plaster. At the eastern end, on the north side was a channelled hypocaust heated from room (S), immediately to the west ; the hypocaust floor was made of large flat stones and the flues below were filled with earth. They were, however, well preserved, 1ft. 6ins. deep and 1ft. 2ins. wide at the entrance, growing narrower towards the walls where they led into box flue tiles. On the south side was another hypocaust (R) with baked clay pilae and four hollow stone flues at the east end ; an arched flue led from the furnace in room (S). At (U) was a cold bath with cemented sides and floor from which a lead pipe 2ins. in diameter passed into a narrow trough (Y) whence, the excavator thought, the water ran off through fissures in the rock, visible in the bottom.

Room (O) had painted walls, the colours of which were remarkably bright. From the two small rooms (T) fifteen coins were recovered, three of them of the reign of Constantine, though which Constantine is not stated. In the inside wall of (T) at (Z) were two oblong pillar bases, possibly for altars. Projecting from the outside of the north wall of hypocaust (Q) were two walls, 6ft. long but no connecting wall was found. Roofing tiles were found in abundance throughout the building.

About 200yds. south-east of the villa Rooke found three stone sepulchres which Oswald failed to re-locate, though he did discover two other graves which had been extensively robbed in antiquity.

Conclusions

Although Rooke's exploration of the top-floor levels had destroyed any dating evidence for the termination of the occupation of the villa, its history seems remarkably similar to that of Norton Disney, 22 miles away. At both villas (according to the excavator) destruction by fire took place in c. A.D. 110, c. A.D. 170-80, and c. A.D. 220-30. In addition, major reconstructions took place at both sites c. A.D. 300.

Oswald's obsession with destruction by fire (see also Norton Disney) is very peculiar. There are other ways in which burnt material can accumulate in a ditch ; from the rakings of furnaces, kilns or ovens for example, particularly over a long period of occupation

OLDCOATES STYRRUP (Notts) SK 592885

Nicholl, S.J. (1871), Arch. J., XXVIII, (1871), 66-7
 (1886), Arch. J., XLIII, (1886), 32-4
 (1910), V.C.H., Notts., II, (1910), 34-5

In 1870, works in connection with St. Helen's Church at Oldcoates revealed a series of tessellated pavements. Unfortunately the architect, although describing the mosaic patterns in considerable detail, made no drawing of either patterns or structures.

The principal room excavated was 20ft. north to south by 17ft. wide ; close to the south end of the west side was the entrance, marked by a step down and a threshold. There seems to have been a slight slope from all sides to the centre of the room. The description of the mosaic floor is very complicated but it seems to have consisted (perhaps at each end) of a chequer pattern of 12ins. squares, red and grey alternately, 7ft. in width followed by a band 14ins. wide, of smaller tesserae, arranged in scrolls and squares. The centre part of this band was imperfect and it was thought that a column supporting the roof may have stood there. The remainder of the design consisted of a 'labyrinth' 9ft. 6ins. square which had on two sides a 7ins. wide margin of white tesserae, the whole surrounded by a border of triangles, alternately grey and red and leaving a broad margin of coarser grey to fill out to the sides of the room. The centre, 2ft. 7ins. square, contained part of a human figure, one arm extended holding a short broad sword pointing downwards, and over the shoulder an oval shield.

At the south end of the room, towards the west, was a projection with rounded corners, perhaps an altar base. This and the sides of the room had been finished with a plaster quarter-round moulding coloured red, to form a plinth. The whole pavement rested on solid concrete.

Parallel to this room, and 2ft. 6ins. lower, was another room paved with grey tesserae. Part of this appeared to have been covered

with coarse concrete to form a passage next to the wall of the 'labyrinth' room and at the same level. Other walls were discovered and partly traced and the soil in the vicinity showed abundant traces of charred wood, fragments of coloured plaster including portions of a human figure, and roofing tiles. Another discovery was a rough trough formed of stone slabs and filled with a hardened mass of lime, perhaps intended for a replastering of the walls.

Conclusions

No dating evidence was recorded and no plan drawn. The impressive amount of charred wood found might lead to the tentative conclusion that the final destruction of the villa was by fire, although with such a small area opened this was by no means certain.

DISCUSSION

DISTRIBUTION and SITUATION

The criteria used for a villa in this thesis is that it should be a Roman British building, not a town house and not a native hut. While most of the villas were probably the headquarters of an agricultural complex, secondary activities took place in some of them, as will be seen later.

Of the 45 sites considered, 23 are certainly, or virtually certainly, villas. Of the rest some are bath-houses and some only patches of tessellated pavement, which together constitute 13 probable and 9 possible villas. The only remaining site, which is difficult to classify, is at Well ; this does not seem to be a villa, yet it was not a military establishment, and undoubtedly it was occupied for a long period. However, it has been included here for interest.

Villas have so far been discovered in only four of the ten northern counties, Durham, Yorkshire, Lincolnshire and Nottinghamshire. Northumberland and Cumberland constituted a heavily fortified area so one would not expect to find the kind of agricultural and economic structure which the villas represented, and it is possible that Westmorland and perhaps Derbyshire were considered too rugged for agriculture ; but it seems incredible that no sites have been found in the fertile plains of Cheshire and west Lancashire. However, we have a good guide as to where we may expect to find them if they are there but this requires a statistical explanation.

It will be seen from the distribution map (Fig. 1) that many of the sites are close to the 200ft. contour, in fact 24 of the 45 are between 150ft. and 250ft. The average height of all the sites is 194ft.; the highest, Denton (Lincs) lies at 460ft. and the lowest, Drax (Yorks) at 16ft. above mean sea level. The following chart summarises the overall pattern.

| County | No. of sites | Sites between 150 and 250ft. sites | Higher sites | Lower sites | Average height all sites. (feet) |
|------------|--------------|------------------------------------|--------------|-------------|----------------------------------|
| Co. Durham | 1 | 1 | | | 150 |
| Yorks. | 26 | 16 | 5 | 5 | 190 |
| Lincs. | 15 | 7 | 3 | 5 | 203 |
| Notts. | 3 | | 1 | 2 | 192 |
| Total | 45 | 24 | 9 | 12 | 194 |

Although the total average height figure at the bottom right of the chart appears anomalous, it is correct. The total height of all sites, 8733ft., divided by the number, 45, produces a figure of 194ft.

It therefore becomes apparent that any aerial search for villa sites can most profitably be made by flying the 50ft. on each side of the 200ft. contour ; thereafter by flying between the 150ft. contour and the coast, and finally by examining the area between 250ft. and 450ft. This calculation has been most interestingly justified by air photos (Nos. SE. 7865/2/374 and 375) taken by the National Monuments Record. These show what appears to be a villa complex at Fox Covert near Kennythorpe (Yorks), SE. 783658, only a few feet from the 200ft. contour.

ECONOMY

Most of the villa sites are on good agricultural land and their primary function was probably to provide the army with grain and hides. The surplus would have been sold to the civilian population or even exported. Evidence of iron working does not necessarily imply an industry but rather the facility to manufacture and maintain farm equipment and tools. At Langton, however, there appears to have been a pewter casting industry, although no finished articles were found on the site, and Goodall (1972) shows that this could have been on quite an extensive scale. At Harpham the discovery of small crucibles and bronze moulds indicate a bronze working industry. At both these villas, however, agriculture was probably the main occupation.

At Drax, lying low in the marshes on the south of the Humber, one might expect wildfowling, fishing and quite possibly flax growing which requires abundant water for the soaking of the plant to separate its fibres. (Richmond, 1966, 84-5). At Norton Disney, where there is abundant clay, the discovery of a number of wasters shows that a pottery existed although whether on a commercial scale or only for estate use is not known.

The purpose of the site at Well presents difficulties of interpretation. The excavator of a large bath at Gadebridge near Hemel Hempstead (Current Archaeology, March, 1967) is, I am told by Dr. D.J. Smith, seriously considering its purpose as a fish breeding tank and Heinz Cüppers (Gallorömischer Bauernhof bei Horath, Krs Berncastel. Trierer Zeitschrift, 30 Jahrgang (1967), 114-43), evidently thinks the same. However, their baths (or fish tanks) are not constructed in quite the same way as that at Well nor are they so finely finished. For the time being the supposition that it had a ritual or religious purpose seems to be the most logical.

'FORTIFIED' VILLAS

There are ditches on most of the villa sites, usually 3ft. or 4ft. deep, but in a few cases they are much larger and have been regarded by the excavators as fortifications. When considering these sites, distinguished by their abnormally large ditches, it seems worth while to ask three questions ; were they dug as defences in the Roman period ; were they dug as defences in an earlier period - for instance the Iron-Age ; or were they drainage ditches of the Roman period ? At Castle Dykes the enclosure ditch was 17ft. 6ins. wide at the top and cut through 7ft. of limestone ; in fact the excavator thought to the last that he was digging a military site. We have shown that this was probably a large courtyard villa ; also the site slopes down to a swamp on the north side so there may have been a drainage problem. No Iron-Age structures or materials were found, which is not surprising as excavation was very cursory. The massive ditch may have been either an Iron-Age fortification or a Roman drainage ditch and though it is not possible to say for certain which at this stage, as an hypothesis I prefer the former. Re-excavation would probably provide proof one way or the other.

At Norton Disney we are bedevilled by ambiguity in section 5 on Plate XLVI of the report. The legend for this section states, "Horizontal scale : 1 inch - 10ft. Vertical scale twice the horizontal." By cross reference from section 2, which has a drawn scale, onto the plan (Fig. 59), one must conclude that the scale in the published plate is nearer 1 inch - 14ft. What does 'Vertical scale twice the horizontal' mean? Either that the deepest ditch is about 2ft. 6ins. deep or that it is about 10ft. 6ins. deep. Why did the excavator have two scales for his section at all? There is ample space on the plate to have drawn the section to the same horizontal and vertical scales. However, since he postulated a fortified villa, perhaps we must assume that the ditches were 10ft. 6ins. deep as 2ft. 6ins. ditches would patently be no fortification at all. Whichever depth is accepted, the probability is that in the geological circumstances, they were drainage ditches.

At Langton there was also an enclosure ditch 9ft. to 10ft. in width and 6ft. 6ins. deep but Jobey, quoted by Webster in Rivet (1969, 246) shows that this is not inconsistent with a settlement enclosure.

Some of the south Wales sites may have a bearing on the general question of fortification of villas. At Whitton, for instance, (Jarrett, M.G. (1969), Roman Britain in 1968. J.R.S., LIX, (1969), 200) a very large ditch indeed was found but the Roman villa was built over the tail of the internal upcast bank indicating that the ditch predated the buildings. Further work on these villas, and their possible removal from a fortified context, could be an additional indicator to the situation in the north of England.

MOSAICS

Three-quarters of the villa sites considered here had tessellated pavements and some had a considerable number; at Scampton, for example, thirteen were found. Dr. D.J. Smith (1969) has identified the work of four schools of mosaicists in England, two of which concern us here, those of Petuaria (Brough on Humber) and Durobrivae (Water Newton).

The Petuarian school seems to have flourished in the second quarter of the 4th century and is distinguished by the use of a wheel-like motif divided radially into eight compartments. So far, three

examples of its work have been identified. At Winterton the central panel contains an Orpheus and in each of the eight compartments stands an animal with a tree behind it. The same scheme is to be found at Horkstow but here there is further embellishment including, in a third panel, the famous depiction of a chariot race. At Brantingham the centrepiece consists of the head and shoulders of a figure (not Orpheus), from which extend eight spokes each terminating in a lunette ; between each spoke is a somewhat ungainly amphora and each lunette contains a reclining nymph.

The work of the Durobrivan school, operating in the third quarter of the 4th century has been identified at eleven sites of which four are at villas in our area ; of the remainder, four are in Northamptonshire, one in Leicestershire, one in Huntingdonshire and one in Rutland. The main identifying characteristic of this school is the use of a geometric pattern based on a star of eight lozenges, repeated to form an all-over pattern with the square and triangular interspaces containing various simple filling motifs.

In the north the mosaic at Scampton is thought to be the earliest, followed by the pavements at Roxby and Mansfield Woodhouse ; the ultimate degeneration of the pattern is seen at Denton in its semi-obliteration by a chequered treatment.

Most of the mosaics found in the north were laid in the 4th century, the exceptions being at Holme House, 2nd century ; Well, 2nd century ; Winterton, possibly 2nd century and at Kirk Sink, 3rd century. However, the statistical evidence in this connection could be very misleading as the majority of the excavations took place many years ago, often with indifferent techniques, and in many cases the excavators stopped when they got to the top (latest) levels and did not look to see if there were any others below. In some cases this is a good thing as it will permit further examination in the future, but where a villa has been destroyed for industrial purposes the evidence has been lost for ever.

Dr. Smith kindly informed the writer, in March 1973, that he had not identified any further examples of the two schools here mentioned, since the publication of Rivet (1969).

POST MAIN OCCUPATION ACTIVITY

At no less than 15 of the 21 certain villas, evidence of squatter occupation occurs after the termination of the original use of the buildings. Burials and skeletons occurred at Catterick, Collingham, and Beadlam in Yorkshire, at Denton, Winterton, Worlaby, Scampton and probably Norton Disney in Lincolnshire and at Southwell in Nottinghamshire. Ovens were found at Brantingham and Holme House (Yorks), and Winterton (Lincs) ; an urn, c. A.D. 500 was discovered at Southwell (Notts), and severe burning on a mosaic pavement was recorded at Greetwell (Lincs). At Welton Wold (Yorks), 'substantial evidence' of post-villa occupation exists but of what it consists we do not yet know.

Although it is tempting to describe all this as 'post-Roman occupation' since usually these intrusions are found in or on 4th century levels, the oven-like structures at Holme House, Piercebridge prohibit such a definition in every case. The villa was abandoned at the end of the 2nd century so these features could have been built anytime thereafter and, regrettably, no dating evidence was forthcoming.

It seems likely that although the later comers had no intention of maintaining the houses in their original state, they were prepared to occupy parts of them, to construct kilns or ovens and to light fires on the mosaic floors, and in at least one case, at Denton, to dig a grave through the mosaic. They evidently had no appreciation of the attractiveness of the pavements as such and regarded the buildings merely as shelters and a source of cut stone from which to construct their ovens. This provides a very clear warning to excavators of villas in the future to watch carefully for signs of Anglo-Saxon or other intrusions at, or in, the upper Roman levels.

LARGE CIRCULAR BUILDINGS

A number of foundations of circular stone features have been noted on the villa sites and they fall roughly into two categories ; small ones under 20ft. in diameter and large ones over 30ft. across. The small circles have been variously described as 'threshing floors' by Richmond (Rivet, 1969, 69) and Wilson (revised Collingwood, 1969, 151), and one, at Langton, as a pigeon-house by Webster (Rivet, 1969, 247).

Either, or both, of these suggestions may be correct but so far no conclusive evidence has been found to prove the point. There very probably were threshing floors at most of the villas but the construction of the Langton example, with each course of walling stones overlapping the one below on the inside to form a beehive shaped structure could well have been a pigeon-house.

When we turn to the larger circles more conclusive evidence for their use can be produced. The foundations of eight large circular, or nearly circular, buildings have been found at five of the sites under consideration. Two, at Millington and Harpham, have been omitted from this discussion as not enough is known about them to make a serious contribution (although that at Harpham may be useful in the future). The remainder comprise two at Old Durham (Co. Durham), three at Winterton (Lincs) and one at Holme House (Yorks). Apart from being round they have one thing in common - their existence appears to have been confined to the 2nd century, with the exception of building J at Winterton which could have been built any time after A.D. 80. All these buildings have been described above but a brief summary here may be helpful in refreshing the memory of the salient factors involved.

Old Durham. Complete circle

Average external diameter 34ft. 6ins. The foundation walls varied in width from 2ft. to 2ft. 4ins. The construction of the foundation varied in different parts of the circumference from partly broken sandstone to much weathered yellow limestone to river cobbles ; there was no trace of mortar. The floor, on average 9ins. thick and lying on undisturbed sand was of pitched re-used building stones or in other places, cobbles ; smaller pieces of grey limestone had been used to fill the crevices and in the western part a thin layer of gravel had been spread to give a smooth surface. Presumably the whole floor had once been surfaced thus. The whole building gave the impression of having been mainly built of re-used material from a previous structure. A cross section through the building, cut north-west, south-east, disclosed a pair of earlier trenches with the centres approximately 15ft. 4ins. apart. They were square cut, the eastern

being 3ft. 9ins. wide by 1ft. 3ins. deep containing large sandstone slabs at the bottom, the western 3ft. wide, 1ft. 8ins. deep and having cobbles at the bottom, sandstone slabs and then a filling of earth and gravel. Seven fragments from four pots were sealed below the floor of this building. The group is small and cannot be closely dated but taken as a whole appears to be of 2nd century date, later in the century rather than earlier.

Old Durham. Part circle

Only a small part of this circle still remained when the excavators arrived but it is probable that it was slightly smaller than the other, perhaps about 32ft. in diameter. It had a well laid foundation 2ft. 4ins. wide and a single course of dressed sandstone walling with rubble packing. Again there was no trace of mortar. The floor consisted of slabs of sandstone laid flat. There was no dating evidence significantly associated with this building.

Winterton. Building E

Average diameter 57ft. Mostly heavily robbed even to the foundations but in the north-west a short stretch of mortared ashlar survived two courses high and 2ft. 6ins. wide. The foundation trench varied in width from 2ft. 6ins. to more than 5ft., and where the ashlar was found, was 3ft. 6ins. deep. Most of the floor had disappeared but in one place a large slab of solid concrete was discovered indicating that there had been a solid concrete floor with quarter-round moulding. There was an entrance on the south side. Below the floor were four groups of pitched stones arranged symmetrically as the four corners of a square; each group was in a square or rectangular trench measuring between 4ft. square and 4ft. 6ins.; the mid points were 16ft. apart. Also below the floor, and cut by both circular trenches were two converging stone-lined trenches considered to be for water supply from springs just east of this building in an earlier phase. Two Trajanic-Hadrianic sherds below the floor suggest construction no earlier than c. A.D. 130 and as at the time of construction of Building D, c. A.D. 180 a road was laid across the site of the circular building, a life span of c. A.D. 130-80 seems reasonable.

Winterton. Building H

Average diameter 55ft. Almost half of it had been destroyed by the subsequent massive foundations of Building F. The mortared wall was of slight construction - its footings were in a shallow trench with no foundations. Above the footings a single course of stone survived in the south-west sector. Both footings and first course were faced on the outside only and the rubble on the inner face had been plastered ; two plasterers tools were found. The wall varied in width from 2ft. to 1ft. 2ins. A break in the wall of 13ft. 9ins. on the south side indicated the entrance and a large timber, 9ft. long, found here was probably part of the frame. An area 3ft. inside and 4ft. to 5ft. outside the entrance had been paved with pitched stones set in clay ; the outside ramp was not continued by a road but in its surface were four clear wheel tracks. The floor of the building was composed of a yellowish mixture of mortar and clay 5ins. to 6ins. thick in the centre but diminishing towards the walls. Two pillar foundations were found, closely resembling those in Building E, and there had obviously been two more to the north but these had been destroyed by the construction of Building F. The eastern foundation measured 4ft. 4ins. by 3ft. 6ins. and was 2ft. 6ins. deep ; the western was 4ft. 9ins. by 3ft. 6ins. and 3ft. deep. An oven was found showing two phases of use. There were many charred timbers on the floor and much evidence of destruction by fire. This building must have been built at the same time as Building D, as the pottery from both is indistinguishable, and thus probably had quite a short life, c. A.D. 180.

Winterton. Building J.

Average diameter 38ft. Mortared walls 2ft. 9ins. wide stood in places two courses high on pitched foundations in a trench 2ft. to 2ft. 6ins. deep. There was no surviving floor although sinking in parts of the corridor floor of the building later built over it hint that there had possibly been timber joists to support a wooden floor. There was no evidence of any pillar foundations. A sherd of Flavian samian from the wall foundations shows that this building could have been built as early as A.D. 80, although, of course, it might well have been later. It did not survive the Antonine period when its site was occupied by Building G.

Holme House, (Piercebridge)

Average diameter 45ft. Foundations of three layers of river cobbles bedded in the natural sub-soil, varying from 3ft. 3ins. to 4ft. 3ins. wide supported, in the north-eastern sector, a single course of roughly dressed limestone blocks with a rubble core. An entrance lay in the southern sector. In the western part of the building was a straight length of cobble wall footings, narrower and less substantial than the circular wall, forming a chord to the circle. This chord wall did not cut the circular wall nor continue outside it ; it also covered a number of post pits ; so must have been a later addition. Four large post foundations which had been re-cut several times formed a square with 14ft. centres. No floor remained although running north-south in the eastern sector was a stone-lined water channel - as in Winterton Building E - cut by the circle foundations in the south, which led presumably from the still existing spring south of the site to the first phase villa. From a post pit sealed below the chord wall was recovered a Trajanic coin so the modification cannot have taken place before A.D. 98, and may well have been later. No terminal date for the use of this building could be established.

Although all these buildings were in existence in the 2nd century their specific purpose is obscure. It may be suggested that they were Iron-Age type structures built by the indigenes to house themselves while they built the rectangular buildings ; but this is certainly not so in two cases, at Old Durham where the floor of the circle overlay two earlier straight wall trenches and the flooring itself was composed of re-used building stones, and at Holme House where the circle was built later than the water supply channel to the first phase rectangular villa. It is therefore evident that the circular buildings were not necessarily the first stone buildings on the site. A suggestion that they may have been the foundations of temples is equally unlikely. In no case is there the profusion of coins which could be expected nor has a single votive artifact been discovered in or near any of these buildings.

The remains which have been discovered almost certainly represent the stone sleeper walls of otherwise timber structures, supported internally, in three cases, by massive timber uprights requiring heavy foundation bases in some instances more than 3ft. thick. Winterton Building H certainly had a timber superstructure to judge from the amount of burnt material and charred timbers which marked its termination.

For want of further evidence, we may assume that large circular buildings with stone bases, timber superstructures and a 'four-poster' arrangement for supporting the roof were a modified continuation of the 'Little Woodbury' type Iron-Age structure and existed concurrently with rectangular stone based buildings in the 2nd century. They were used as store houses and dwellings, and ceased to be built after the 2nd century.

There is no evidence, so far, that these circular stone foundations superseded all-timber circular buildings but this is a possibility and should be borne in mind in future excavations. It should be possible, for example, to re-examine the Holme House circle prior to gravel quarrying.

FUTURE STUDIES

Three main lines of investigation should be undertaken. First, a search for more villa sites. In the Tyne-Tees area the discovery and excavation of further villas might shed more light on the odd situation at Holme House where some of the rooms had mosaic pavements, comparatively rare in northern villas in the 2nd century, painted wall plaster, and a general impression of sophistication which is unexpected so early and so far north. There is also the question of why the villa was abandoned and at least partially dismantled at the end of the century. Does this indicate fear of raiding parties from Scotland? After all, no structural evidence was found for the 3rd century at Old Durham. Had it a local domestic cause, for instance a case where the owner had only a daughter who married another landowner and moved out of the villa? Was the masonry removed to build another establishment nearby? Light in all these dark corners would be welcome.

There should also be a search for villas in Cheshire and west Lancashire. An indication has been given elsewhere of where they would be likely to be found and it seems impossible that there should not have been any villas ; vast tracts of this fertile land must have been under cultivation to supply the needs of the extensive Roman installations in the area.

Second, knowledge of the extent of villa lands would be interesting. In some parts they are widely isolated, for instance, Kirk Sink, Stancil and the three Nottinghamshire villas. On the other hand, in the Rudston, Grindale, Harpham, Kilham area there is quite a cluster only two or three miles apart. It might be possible here to find some form of boundary between the various estates. How were these marked ?

Third, a re-excavation programme of some of the villas which have been only poorly excavated in the past. In these cases we know where the sites are and instead of having a long list of 4th century villas we might, in many cases, be able to push back the occupation dates into the 2nd century giving a much broader view of villa occupation in the north. We might even find more 2nd century mosaics which would quite alter the present concepts on this subject.

ANALYSIS

| Site | Classification | Map ref. | Height(feet) | Mosaic(s) | Period of Roman-British occupation | Subsequent activity |
|---------------|----------------|-----------|--------------|-----------|------------------------------------|--------------------------------|
| Old Durham | C | NZ 28 41 | 150 | | mid 2nd - mid 4th | |
| Holme House | C | NZ 221152 | 193 | Yes | 2nd | ovens |
| Catterick | PROB | SE 24 97 | 175 | | 4th | skeletons and 6th c. brooch |
| Middleham | PROB | SE 13 87 | 400 | | | |
| Well | C | SE 26 81 | 250 | Yes | 1st - late 4th | |
| Castle Dykes | C | SE 29 75 | 160 | Yes | late 2nd - 4th | |
| Hovingham | PROB | SE 662757 | 140 | Yes | 3rd - end 4th | |
| Oulston | PROB | SE 56 73 | 260 | Yes | | |
| Musley Bank | POSS | SE 76 70 | 150 | Yes | | |
| Crayke | POSS | SE 55 69 | 150 | | late 3rd-end 4th | |
| Langton(West) | POSS | SE 811674 | 200 | | | |
| Beadlam | C | SE 634842 | 187 | Yes | 2nd - 4th | ? skeleton, oven |
| Langton | C | SE 816675 | 200 | Yes | mid 2nd - end 4th | |
| Harpham | C | TA 090635 | 200 | Yes | 2nd - 4th | |
| Rudston | C | TA 089657 | 150 | Yes | 1st - late 4th | |
| Grindale | PROB | TA 134713 | 200 | Yes | | |
| Kilham | POSS | TA 06 64 | 200 | Yes | | |

ANALYSIS

| Site | Classification | Map ref. | Height(feet) | Mosaic(s) | Period of Roman-British occupation | Subsequent activity |
|-------------------|----------------|-----------|--------------|-----------|------------------------------------|------------------------|
| Brantingham | C | SE 932288 | 52 | Yes | 4th | ? kilns |
| Bishop Burton | POSS | SE 99 40 | 200 | Yes | | |
| Welton Wold | C | SE 974279 | 200 | | 2nd - late 4th | Unspecified occupation |
| Millington | POSS | SE 83 52 | 300 | Yes | 4th | |
| North Newbald | C | SE 90 36 | 200 | Yes | 2nd - late 4th | |
| South Newbald | POSS | SE 904358 | 125 | | | |
| Kirk Sink | C | SD 939536 | 350 | Yes | 2nd - late 4th | Burial |
| Collingham | C | SE 403446 | 260 | Yes | mid 2nd-end 4th | |
| Drax | C | SE 690261 | 16 | | 3rd - end 4th | |
| Horkstow | PROB | SE 98 19 | 60 | Yes | 4th | Burials skeletons |
| Roxby | PROB | SE 92 16 | 150 | Yes | 4th | |
| Worlabby | C | TA 017143 | 200 | | 4th | |
| Winterton | C | SE 933189 | 60 | Yes | 1st - 4th | |
| Walesby | PROB | TF 146926 | 450 | | | |
| Claxby | POSS | TF 111946 | 175 | Yes | | |
| Sturton by Scawby | PROB | SE 968047 | 75 | Yes | | |

ANALYSIS

| Site | Classification | Map ref. | Height(feet) | Mosaic(s) | Period of Roman-British occupation | Subsequent activity |
|--------------------------------|----------------|-----------|--------------|-----------|------------------------------------|-----------------------|
| Norton Disney | C | SK 859604 | 120 | Yes | 2nd - late 4th | Skeletons |
| Scampton | C | SK 955785 | 175 | Yes | 4th | Skeletons |
| Greetwell | C | SK 99 71 | 100 | Yes | | Burning |
| Newton and Hacey | PROB | TF 019369 | 225 | Yes | | |
| Gunby and Stainby | PROB | SK 926227 | 350 | Yes | | |
| North Stoke and Stoke Rochford | PROB | SK 930288 | 250 | Yes | | |
| Great Ponton | PROB | SK 925306 | 200 | Yes | | |
| Denton | C | SK 876309 | 460 | Yes | 3rd - end 4th | Burial and pot |
| Stancil | PROB | SK 610961 | 40 | | 4th | |
| Southwell | C | SK 70 53 | 100 | Yes | 2nd - late 4th | Burials and Saxon urn |
| Mansfield Woodhouse | C | SK 523647 | 400 | Yes | 1st - 4th | |
| Oldcoates | C | SK 592885 | 100 | Yes | | |

Notes. C. Certain villa ; with the possible exception of Well
 PROB. Probable villa
 POSS. Possible villa

In many cases where only a 4th century date is given, proper excavation might reveal earlier occupation.

ABBREVIATIONS

| | |
|---------------------|--|
| A.A. | Archaeologia Aeliana |
| Ant. J. | Journal of the Society of Antiquaries |
| Arch. J. | Archaeological Journal |
| C.N.R.S. | Centre Nationale de la Recherche Scientifique |
| E.R.A.S.T. | Transactions of the East Riding Antiquarian Society |
| G.R.R.E.Y. | Malton and District Report No. 5, "Gazetteer of the Roman Remains in East Yorkshire." |
| H.M.P. | Hull Museum Publications |
| J.B.A.A. | Journal of the British Architectural Association |
| J.R.A.F.C. | Journal of the Royal Air Force College, Cranwell |
| J.R.S. | Journal of Roman Studies |
| L.A.A.S.R.P. | Lincolnshire Architectural and Archaeological Society Reports and Papers |
| L.H.A. | Lincolnshire History and Archaeology |
| P.L.P.L.S. | Proceedings of the Leeds Philosophical and Literary Society |
| P.Y.P.S. | Proceedings of the Yorkshire Philosophical Society |
| R.M.D.R. | Roman Malton and District Report |
| T.T.S. | Transactions of the Thoroton Society |
| V.C.H. | Victoria County History |
| Y.A.J. | Journal of the Yorkshire Archaeological Society |
| Y.R.A.C. | Yorkshire Roman Antiquities Committee of the Yorkshire Archaeological Society |

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