

# A Report on the Geophysical Survey and Trial Excavations at the Site of a Roman Villa near Drayton, Leicestershire 1988

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## INTRODUCTION

During July and August 1988, staff and students of the university archaeology department undertook geophysical survey and trial excavations at the site known as Drayton II Roman Villa in south-east Leicestershire.

The site lies on rising ground on the north side of the Welland Valley, about 100m from the river, overlooking it near the crossing point of the Gartree Road (the Roman road from Leicester to Colchester) NGR: SP 817918. (fig.1)

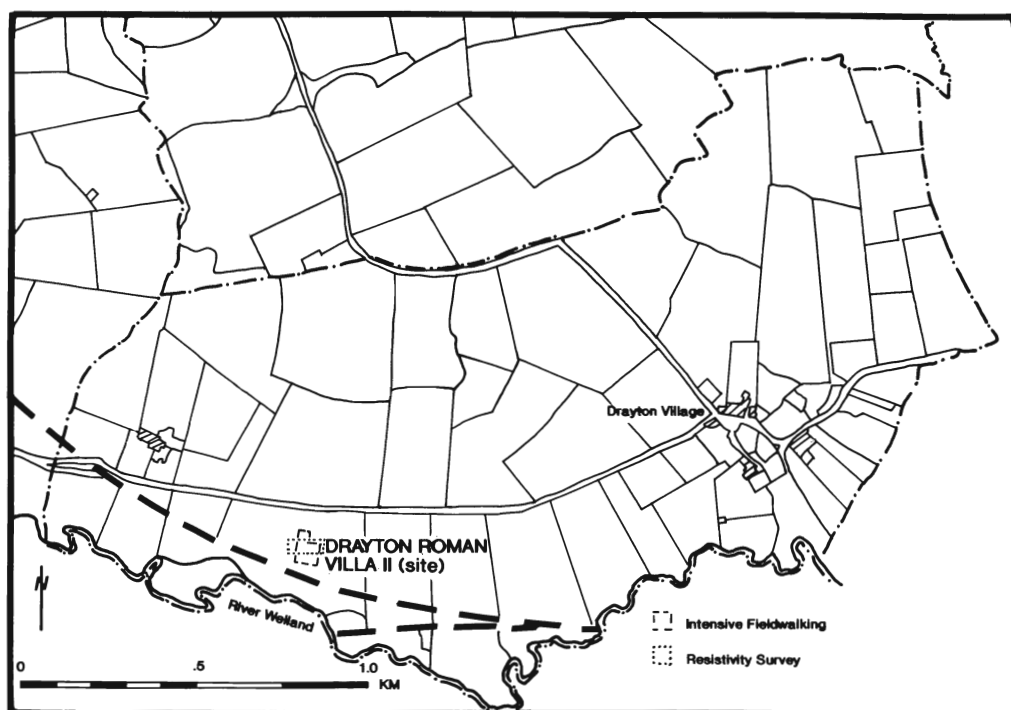


Fig. 1 Location Map

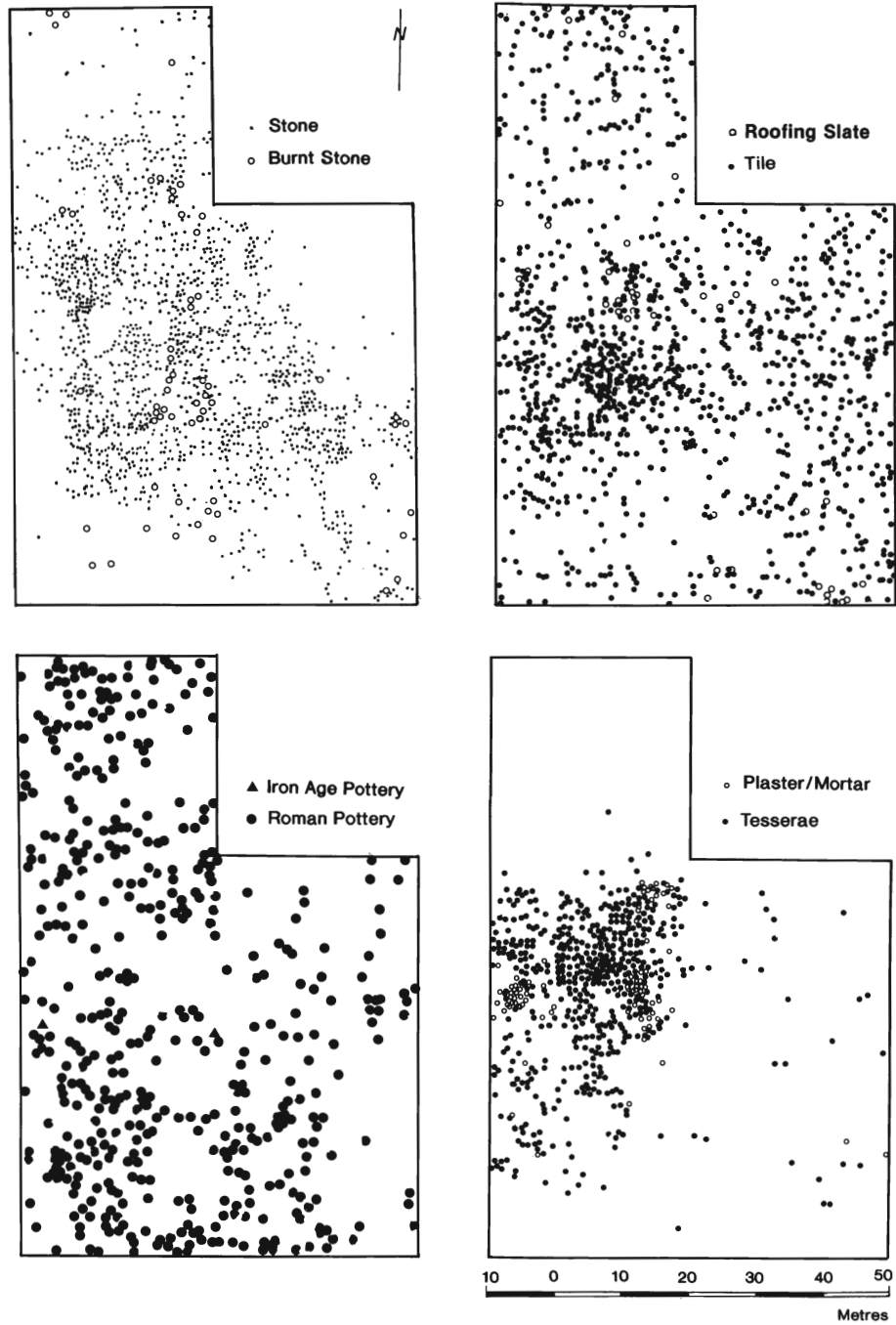


Fig. 2-5 Drayton Roman Villa II: Distribution of Finds from Fieldwalking

The existence of the site in the parish of Drayton was first recorded in Nichols' *History and Antiquities of the County of Leicester*, (1798, vol.2, pt.2, 792). Nichols quotes directly from a letter sent to him by the local antiquarian John Tailby who describes the site in the following way:

On one part of these lands appear to have been some ancient buildings of small extent, the soil being strongly mixed with stone, fragments of brick and Roman pottery, similar to those found in Medbourne field, from which station it is distant two miles.

However the precise location of the site was not confirmed until 1977 when the farmer, Mr William Brooke-Clarke, brought his discovery of large amounts of tile and *opus signinum* to the attention of Jewry Wall Museum after deep ploughing the field for the first time.

### PREVIOUS WORK

The Leicestershire Museums Survey Team first fieldwalked the site in 1977, immediately after Mr Brooke-Clarke's discovery, and by employing an intensive 1 metre grid plotting system over an area 60m×90m, attempted to recover and map accurately all the surface material before further ploughing disturbed the pattern. Though labour intensive, the use of this technique proved very successful (figs.2-5). The distribution of building materials (tesserae, wall-plaster, and *opus signinum*) was concentrated in an area 30m×30m, whilst the pottery was more evenly scattered over the whole survey area, though rather thinly over the suggested area of the building itself, as might be expected.

Examination of the pottery by Dr Richard Pollard of Leicestershire Archaeological Unit, suggested occupation throughout the Roman period, and the occurrence of scratch decorated, hand-made pottery in the Ancaster-Breedon tradition places the origin of the settlement in the middle or late Iron Age. Continuity of occupation into the 6th century is suggested by two sherds of Anglo-Saxon pottery found during traverse-and-stint field-walking carried out in 1980 as part of the Medbourne project.

In 1978 the north-south hedgeline running downslope immediately to the east of the supposed villa building was removed and replaced with a new field drain. Whilst digging the trench for this new drain, a V-shaped Roman field ditch running east-west was exposed close to the building. Further down-field a column base was also discovered during this work, having probably been dumped in the ditch by a farmer in recent times (fig.6).

The work described above is to be discussed more fully by Peter Liddle in the context of the Medbourne Project, the findings of which are to be published in the near future.

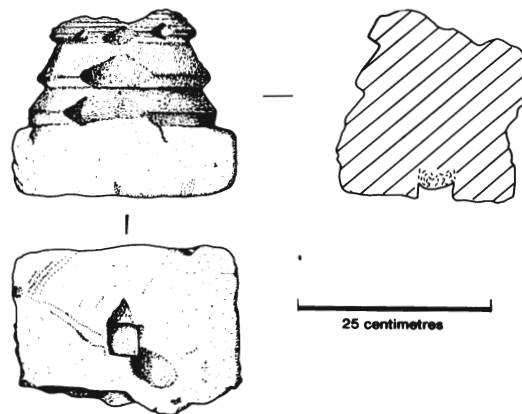


Fig. 6 Roman column base, found at Drayton II Villa before the 1988 excavations

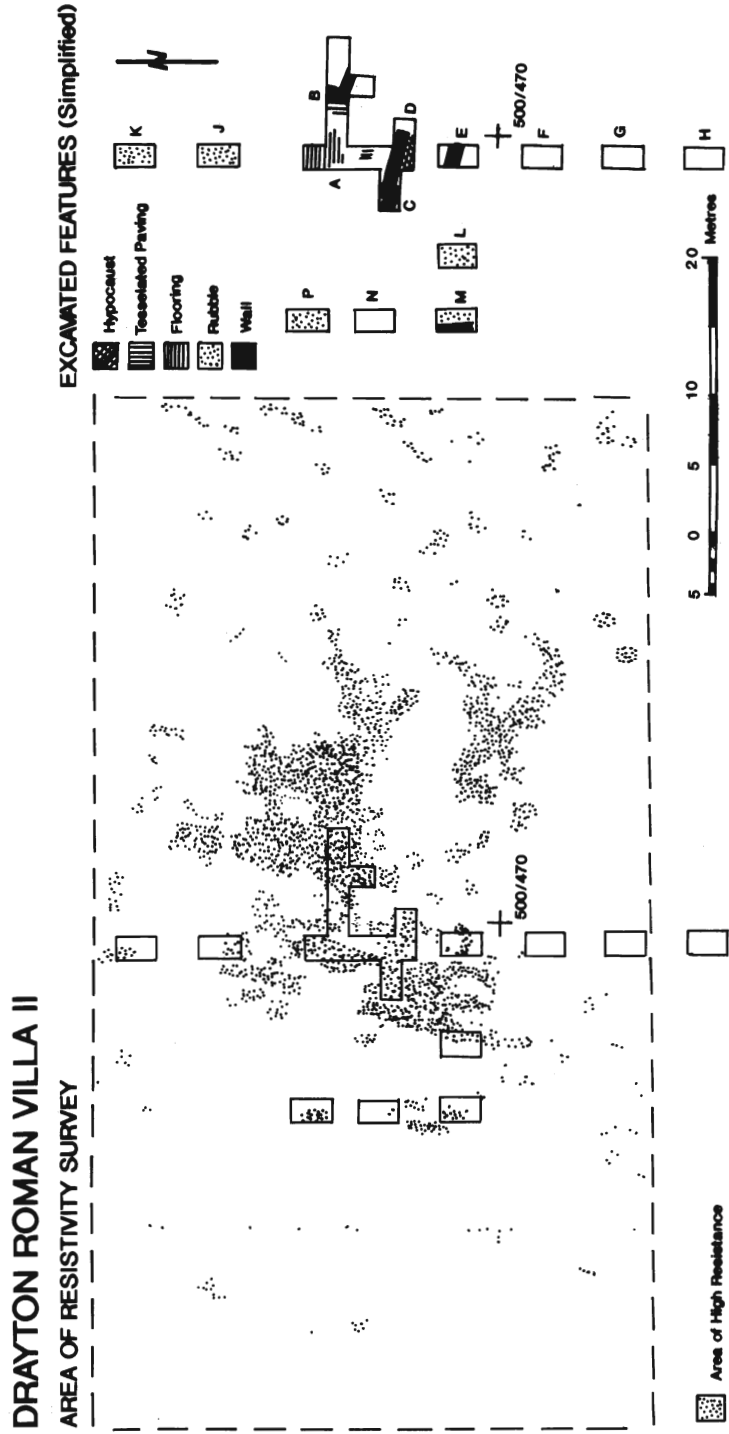


Fig. 7

## RESISTIVITY SURVEY

A resistivity survey was carried out in order to assess the degree of coincidence between the fieldscatter and suggested buried features, and to help identify areas of interest for excavation.

An area of 80m by 40m around the centre of the scatter was investigated using a Geoscan RM 4 resistivity meter, and the results were processed in the field by an Epson H20 computer using Geoplot software. The survey was undertaken in dry conditions on a well-drained subsoil, and the background resistance varied from 14 to 22 ohms, with a slight increase from west to east, which may have been due to a thinning of the ploughsoil towards the old N-S hedgeline. Positive anomalies up to 45 ohms were recorded, but were generally in the region of 25-30 ohms, (fig.7)

## THE INTERPRETATION OF THE GEOPHYSICAL SURVEY

It was immediately apparent that a substantial high resistance anomaly was present in the centre of the site around point 500/480, coinciding with the densest areas of building materials located through fieldwalking. The area of anomaly is best defined by plotting readings between 25 ohms (min) and 35 ohms (max), which indicates the existence of a substantial buried feature or series of features of irregular layout running 30m east-west, and 25m north-south. To the south-east of the main anomaly, centring on the grid-point 515/470, a separate smaller anomaly is indicated, and suggests the presence of a subsidiary stone-founded building.

## THE EXCAVATION PROGRAMME

Limited trial excavations were carried out with two specific objectives in mind. Firstly to record the extent of damage to the site caused by deep ploughing, and in doing so assess the potential for further work on the site within the broad research framework of the Medbourne Project: and secondly to investigate the nature and extent of the structures indicated by the fieldwalking and geophysical survey, and so confirm the effectiveness and validity of employing progressively intensive techniques of fieldwork before sampling small areas for excavation.

## STRATEGY

Initially two slit trenches (A and B), 1.5m×8m, running north-south and east-west respectively, were cut at the centre of the surveyed area where the geophysical anomalies were greatest (resistance averaged 30 ohms in these areas). The 25cms depth of ploughsoil beneath the turf in this area was full of roofing tile, mortar, and tesserae, indicating that destruction debris had been disturbed and the floors themselves damaged by the plough. Its removal exposed ironstone wall foundations, and areas of *opus signinum* and mortar flooring, the latter acting as the bed for a tessellated pavement, fragments of which remained *in situ* in two areas (fig 8).

The intention of the trial excavations was only to remove ploughsoil and expose underlying structures, and not to excavate archaeological features, and so there was no scope for investigating the possibility that timber structures underlay the later stone building.

Once excavation had demonstrated that the major geophysical anomaly belonged to the main dwelling house of the villa establishment, it was decided that only a short time would be spent examining this area further by digging a series of offsets (C and D) from the initial trenches. The remaining time was spent running a series of rectangular box trenches (1.5m×3m) northwards and southwards away from the centre of the anomaly and along

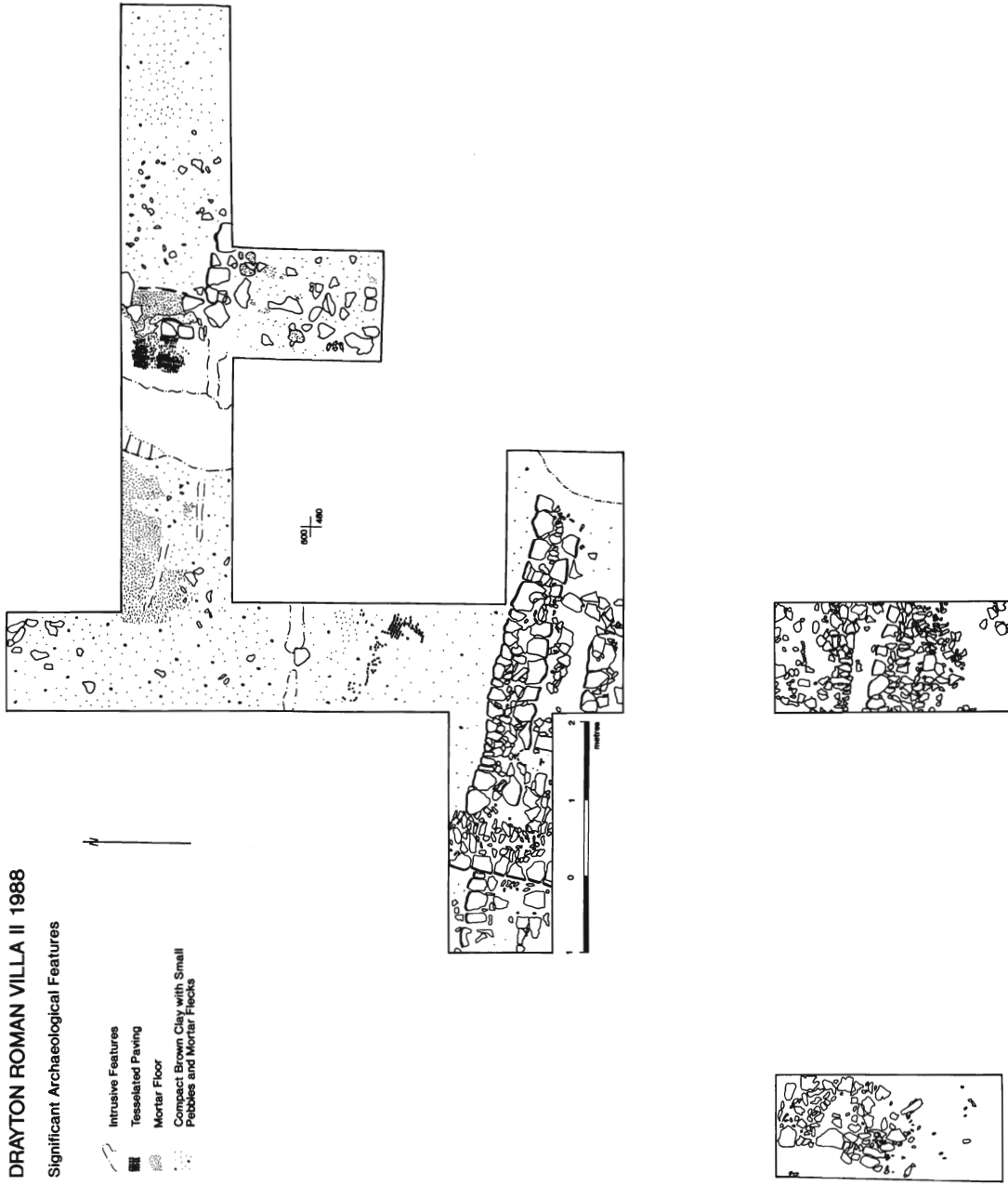


Fig. 8

its western edge. This would hopefully establish the limits of the main building, indicate whether peripheral anomalies belonged to subsidiary buildings, and demonstrate if evidence for timber structures lay in areas where no anomaly occurred.

## THE DESTRUCTION AND INTERPRETATION OF THE EXCAVATED STRUCTURES (see fig.8)

### *Possible Pre-Roman or Early Post-Conquest Activity*

In trench G approximately 20m downslope and due south of the main building, a shallow depression or gully ran east-west across the trench. It was not possible to tell if this was an archaeological feature as the fill was identical to the topsoil, but excavation yielded two sherds of shell-tempered pottery, one of which had regular, vertical scratch decoration and dates to the 1st century AD.

### *The Main Dwelling House*

Although it may seem premature to discuss the detailed layout of the building on the grounds of such limited examination, the description and interpretation of the evidence will be more meaningful if viewed in terms of the three rooms identified.

#### *Room 1*

A small area of this room was uncovered in trench A, and the western half of trench B, along with sections of its southern and eastern walls. The south wall survived only as a substantial ironstone foundation, 0.6m wide, faced on both sides with large blocks and infilled with rubble, whilst the east wall comprised a similar foundation capped with a mortar construction.

At some point after the east wall had been constructed, a semi-circular hearth, 60cms wide and 20cms deep was inserted into it. The original wall mortar had been cut away and the interior surface was faced with mortar of a different colour. The grate would appear to have rested directly on the ironstone foundation facing stones, and both this and the mortar were discoloured by burning.

The effect of plough damage was particularly clear in this room. Narrow furrows about 30cms apart were scored west-east across the floor and hearth and at their eastern extent turned southwards as the tractor turned approaching the later-removed north-south hedge-line. Generally speaking the degree of damage lessened moving eastwards across the room, and this had the effect of revealing the sequence of floors without the need for further excavation.

The earliest visible surface was a layer of rammed clay, packed with flint pebbles, which was then covered in a thin layer of *opus signinum*. Succeeding this, a screed of mortar formed the bed on which a tessellated pavement was laid to form the final episode of flooring in the room. Only two areas of this pavement remained *in situ*: immediately in front of the hearth, and close to the south wall. The pattern comprises parallel bands of red (tile) and grey (stone) tesserae, which may have formed the border around a more complex design. The area of flooring in front of the hearth was cut on its western edge by a trench 75cms wide running due south downhill, which probably housed a later field drain.

Presuming that the hearth is set in the centre of the east wall, a north-south length of 10m (33ft) might be postulated for the room, and if the north-south wall across trench C does represent the west wall of the room then its width is about 5m.

#### *Room 2*

This lies adjacent to room 1 on its eastern side, and only its extreme SW corner was

examined. Its west wall had been plastered on two occasions before a mortar screed had been laid in preparation for a tessellated pavement. No tesserae remained *in situ*, but the large numbers of adjoining small tesserae of various colours and curving shape found in the ploughsoil immediately above indicated a polychrome mosaic of some complexity.

### *Room 3*

Adjacent to room 1 on its south side, this room was heated by a channelled hypocaust system, and none of the overlying floors were preserved. Two wall flues were set into its north wall two metres apart, and fragments of stamped box flue tiles remained *in situ*.

The west wall of the room may represent the outside wall of the building. It appears wide, but is only faced on its western edge, and its rubble bonding with the north wall of the room may have spread.

The southern limits of the room (and probably the building) are fairly clear. A well preserved section of wall foundation was preserved in trench E. It is well faced, but only on its northern side, has the right orientation, and appears substantial enough to be the southern wall of the hypocausted room and the building. This would give the room a rectangular plan with a likely east-west length of 5, and 3.5-4.0m north-south.

An episode of building extension is indicated in trench C where a section of wall foundation abuts on to the west (outside) wall of the building. It is well faced on its northern side, and less certainly on its southern side, giving it a possible width of 0.9m.

Evidence for ironstone wall foundations also comes from trenches L and M, but in only one case does their apparent orientation suggest they belong to the main building. In trench L the section of wall foundation coincides with the south western corner of the main anomaly and should logically belong to the corresponding corner of room 3. The ironstone rubble was badly disturbed by the plough, but some large facing stones remain *in situ* on its western side. The wall foundation in trench M however coincides with a small peripheral anomaly to the west of the main building and may be part of an ancillary building.

Trenches J, K, and P, which also coincide with peripheral geophysical anomalies, exposed areas of a heavily trodden surface with ironstone and flint cobbles, which must represent areas of the yard surrounding the buildings. However, no structural evidence of any kind was apparent in trenches F, H and N, which correspond to areas where no geophysical anomaly occurred; resistance was measured at about 20 ohms.

The orientation of the walls suggests that the main building faced in a south/south westerly direction, and was thus parallel with the Gartree Road running along the valley bottom below it. It would therefore have been highly visible and an impressive sight to passers by.

### THE FINDS

With the exception of the probable shallow gully in trench G, no archaeological features were excavated and so all the site finds retrieved are unstratified. However it is clear from their concentrations that ploughing has not disturbed the pattern greatly, and that they approximately overlie their original positions.

### *Building Materials*

The vast proportion of material retrieved from the excavations comprised building materials including tile, tesserae, faced wallplaster, mortar, roofing slate and iron nails.

At least part of the main building appears to have been roofed with lozenge-shaped Swithland slate tiles from the Charnwood outcrop some 30 miles to the north-west. There are few complete examples but their general dimensions appear to be about 25cms by

20cms, with a single perforation at the end of the long-axis for suspension presumably from wooden rafters using 8cms long nails, of which 32 were found.

However, tiles in a shell-tempered clay fabric, and a hard red clay fabric were also used for roofing and occur in the characteristic *imbrex* (curved) and *tegula* (flanged) forms. Fragments of Collywestern 'slate' also occur and may have been used as roof tiles. Relief-patterned box flue tiles appear mainly to be manufactured in the hard, red clay fabric.

Tesserae of two major types were used in floor construction; firstly in a red clay tile fabric, and secondly in fine grey sandstone. The local ironstone was also occasionally used.

Relatively little faced wallplaster was retrieved from the excavations, and only a few fragments displayed painted decoration, which was of simple design.

### *The Pottery*

224 sherds of pottery weighing 1.38kgs were retrieved from the excavations. 14 of these are post-medieval in date, and are probably the result of the manuring of ploughsoil. The fabrics represented are 'pancheon' ware (11 sherds); midland purple (1 sherd); stoneware (1 sherd); and a sherd with slip-trailed decoration.

The 208 sherds of late Iron Age and Roman date make up the vast proportion of the assemblage, and there is one rimsherd and one body sherd from Anglo-Saxon vessels.

The majority of the sherds are small and heavily abraded, and there are few rims, none of which are worthy of illustration. It was therefore decided to quantify the assemblage by numbers of sherds of identified fabrics, and express this as a percentage, rather than measuring weight or entire vessel equivalents (eves). The following table summarizes the late Iron Age and Romano-British fabrics present and their relative importance.

SHERDS	NO. SHERDS	%
Samian (all central Gaulish)	6	3
East Gaulish (Trier) Colourcoat	1	0.5
Lower Nene Valley Colourcoat	32	15
Whiteware Mortaria (Nene Valley/Mancetter)	4	2
Other Whiteware (Northamptonshire)	5	2
BB1	3	1.5
Greyware	97	46
Oxidized ware	20	10
IA Grog tempered (scratch dec) 1st.cent.BC (Ancaster-Breedon Tradition)	1	0.5
IA Shell tempered (combed) 1st.cent. AD	6	3
Gallo-Belgic type	4	2
Grog (or mixed) tempered ware	15	7.5
Shell-tempered ware	14	7
Total	208	100

The range of fabrics represented is not surprisingly very similar to that from the fieldwalking, and reflects occupation from the 1st century BC to the late 4th century AD, with the possibility of continuity into the Anglo-Saxon period. The six sherds of samian ware all small scraps, with no forms recognizable, and the finewares were dominated by the products of the lower Nene Valley, particularly 4th century forms such as plain-rimmed and flanged bowls (Howe, Perrin and Mackreth 1980 forms 87 and 79).

### *Coin*

The following identification was carried out by R.A. Rutland.

- 1) Ae. Sestertius of Trajan (98-117 AD).

Obverse: legend reads [NE] RVAE TRAIANO AVG.

Reverse: no visible legend. Helmeted standing figure (Minerva) holding javelin in left hand and oval shield in right. Weight 14.3 g.

*Worked Bone* (fig.9).

1) A clasp knife handle, found in three pieces.

Length 78mm. Width 14mm (existing). Height 10mm.

Hinge rivet hole at one end. Three parallel grooves are incised around this end. Although no direct parallels are known, its overall appearance indicates that is of Roman date (Patrick Clay pers. comm.).

*Ironwork* (other than nails)

Of the 35 iron objects to be retrieved, 32 have been identified as roofing nails and are discussed above. The remaining three objects comprised a hook, and two strips set in mortar.

*Animal Bone*

A small quantity of unstratified animal bone probably relating to the Roman occupation was retrieved. A full species list is held in archive.

GENERAL DISCUSSION

The combination of geophysical survey and limited excavation has clarified the picture of this villa establishment, but also serves to confirm the effectiveness of the intensive fieldwalking programme undertaken in 1978, which enabled the efficient implementation of the subsequent fieldwork.

It is clear from the geophysical survey that there is a considerable area of positive anomaly to the east of the excavated areas still to be investigated, and its proximity to the old hedgeline suggests that it will almost certainly have suffered less plough damage.

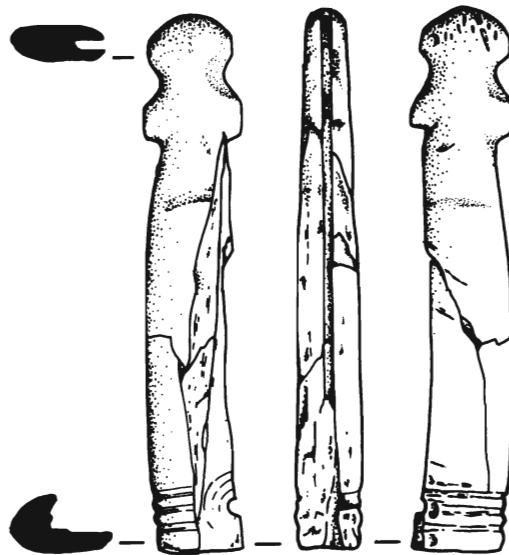


Fig. 9 Clasp knife handle, found in topsoil in the 1988 excavations at Drayton II Roman Villa

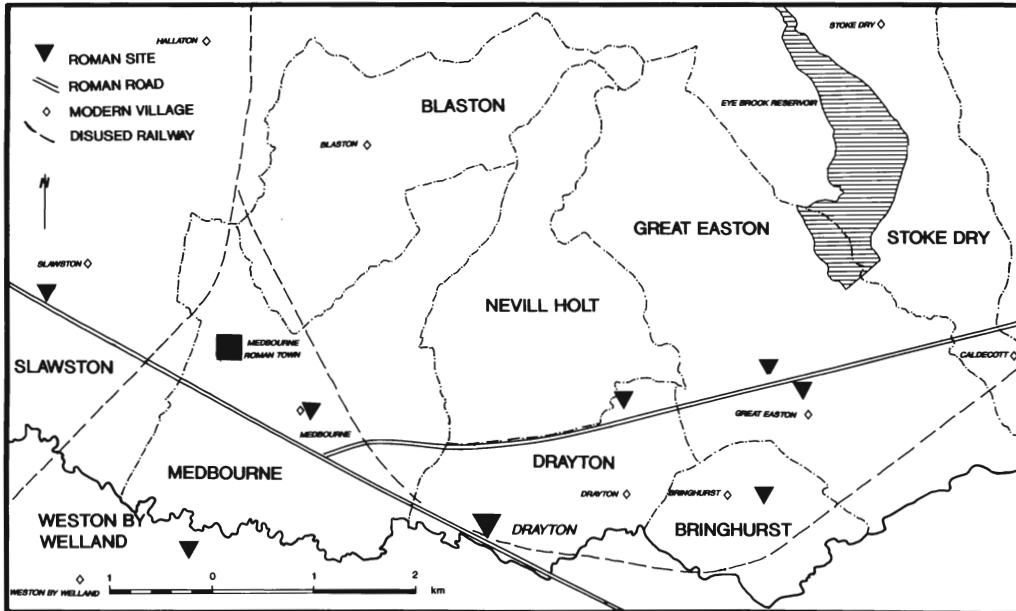


Fig. 10

The villa establishment can be viewed within the changing pattern of settlement in the area of the Medbourne Survey, as one of eight similar sites spaced evenly along or close to the Welland Valley (fig.10). During the later Roman period, these sites appear to act as centres of nucleation, at a time when the boulder clay areas to the north are subject to a change in land-use, and are abandoned by peasant-style settlement. However, unlike Drayton I Roman villa, which saw the addition of a substantial 'peasant' settlement in the late Roman period, Drayton II so far appears to have remained of comparatively modest proportions throughout, (P. Liddle pers. comm).

The department proposes to undertake further geophysical survey at a future date over a wider area of the field, and along the line of the Gartree Road near the point where it crosses the Welland.

#### ACKNOWLEDGEMENT

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