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An Assessment of a Romano British Villa Site at Chelsham Surrey.

> SITES AND MONUMENTS RECORD SURREY COUNTY COUNCIL

November 1997.

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E.M.DAVIES

Acknowledgements.

I would like to thank J.G.Pearson of the Compton Estate Management Services, David Bird of Surrey County Council and Steve Trow of English Heritage, without whose support this survey could not have been undertaken. I would also like to acknowledge the generous financial support received from the Surrey Archaeological Society in funding the magnetometer survey carried out by Alistair Bartlet Thanks are also due to Jan Clinch, Jim Davidson, Elvira Humphrey, John Matthews, Mike Rubra and Mary Saaler, all members of the Bourne Society, and to Derek Say, for their unstinting work in the field.John Matthews also undertook the recording work and coordinated the fieldwalking survey.Chris Hasler,apart from his on the site, produced the early resistivity plots field work and contributed to the final report. I am also very grateful to Joanna Bird who, with comments from Val Rigby, undertook the assessment of the small finds, to Philip Jones for his advice on pottery and to Jeff Egan, Jenny Hall and Alan Pipe for their advice on artefacts.David Williams undertook the drawing of the small finds and Siriol Davies drew the plan of the bath house. Thanks, finally, to Ken Peters, whose professional help with metal detection contributed in no little to our understanding of the site.

E.M.Davies.

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Summary.

During August/September 1997, an attempt was made, using a range of techniques, to evaluate the current archaeological state of the Roman villa remains, previously identified by aerial photographs of the Chelsham site-Hampton 1996.

A second building, also shown on the aerial photograph, was, as a result of the 1997 work, identified as a bath house. No additional buildings were located. From the evidence of coins, pottery and small finds from

the site, the period of villa occupation seemed to span the second, third and fourth centuries.

Introduction.

Following the publication of J.N.Hampton's interpretation of the A.P.'s of the Chelsham site, it was decided, in conjunction with the County Chief Archaeologist, Dr.D.G.Bird, Inspector S.Trow of English Heritage and J.G.Pearson of the Compton Estate, to carry out an assessment of the site with the following objectives:

a.To identify all R.B.features on the site.

b.To assess the current state of the archaeological remains on the site in view of the fact that the field-site is subject to annual ploughing.

In order to achieve this within the six weeks available in 1997, after ploughing and before seeding, it was decided to use a number of techniques in order to get the maximum information in the limited time. Techniques would include a magnetometer survey, a resistivity survey, field walking, metal detection of the plough soil and selective excavation of key points.

Topography and Geology of the Site.

The Chelsham villa site is in the middle of a cultivated field,approximately 3/4 of a mile west of the Roman London-Lewes road.The site is located on the North Downs at an altitude of about 700'in an open field which slopes gently downwards towards the north and west.

Geologically, the site is located on the Blackheath Beds, a light, sandy soil, saturated with small flint pebbles. See fig. 1.

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Below this strata lies the 600'of chalk of the North Downs with the result that water drainage is very sharp. There is ,as a consequence, an absence of running water in the area and the main source of water for farm animals is the constructed pond, layered with clay. Such a pond is located in the corner of the site-field. <u>Geophysical Surveys</u>.

Three types of geophysical measurements were made:resistivity, magnetometry and magnetic susceptibility.Resistivity surveying and processing was carried by members of the local team and magnetometry,magnetic susceptibility and additional resistivity processing were carried out by A.D.H.Bartlett.See Appendix A for full details of his report.

a.Resistivity Survey.

Resistivity measurements were made at one metre intervals in a grid comprising fifty-six 20m by 20m squares, as shown in fig.2. The equipment used was a Geoscan RM4 in the twin probe configuration with the mobile probes set half a metre apart. The mean resistivity value found was 65.79 ohms, the maximum was 170 ohms and the minimum was 21 ohms.

The main results of the resistivity survey are summarised in figure 2.Full details are in Appendix A.It can be seen from figure 2.that the dominant geology of the Blackheath Beds pebble banks was a major factor in masking the archaeological features of the site and this was further complicated by the tendency for the Blackheath Bed to become far less evident (and less dominant in resistivity terms), as the ground slopes down to the north and west. The villa site is clear enough but

the medium values of the bath house site are indistinguishable from the surrounding geology. The filtered data plot, set out in Plan V(ii)Appendix A, does suggest the possibility of a rectangular enclosure adjoining the villa on its N.E.side and of a circular feature, about 40 metres in diameter, immediately to the north of the villa. This last feature may simply be topographic in origin. b.Magnetometer Survey.

This survey covered a smaller area than the resistivity surveysee Plan No 1.Appendix A-but it included the villa and bath house sites.Full details of the procedures adopted are given in Appendix A.

In terms of results, this survey highlighted three large anomalies. Two of the anomalies were related to the two known buildings.A third anomaly was located between the two buildings.Smaller anomalies may relate to pits and archaeolological debris.See Appendix A-Plans 1,2 and 3.

2.



CHELSHAM ROMAN VILLA

Field Walking 1997

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Tile



The relative weights of tile retrieved from each 20x20m square are indicated by the grey density.

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The villa was centred on squares G3 and H3 and the 'bath house' was centred on squares E2 and E3.



The tile sherds in squares A1 to G6 were all Roman, those in squares H1 to H6 were a mixture of Roman and (mostly) Medieval and those in squares J1 to L6 very nearly all Medieval.

The maximum weight was retrieved was 43Kg in square D3 and the minimum was0.5Kg in square L6. The total weight retrieved was 468.75 Kg (9.23 cwt).

Roman Pottery

The relative numbers of pottery sherds retrieved from each 20x20m square are indicated by the grey density.



CHELSHAM ROMAN VILLA

Field Walking 1997

Tesserae



The relative numbers of tesserae retrieved from each 20x20m square are indicated by the grey density.

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The villa was centred on squares G3 and H3 and the 'bath house' was centred on squares E2 and E3.

The maximum number of tesserae retrieved

from one square (G3) was 168 and the total number retrieved was 402.

Burnt Flints

The relative numbers of burnt flints retrieved from each 20x20m square are indicated by the grey density.

The maximum number of burnt flints retrieved from one square (D5) was 55.

Figure 5.

Summary of Site Trenches-Chelsham.

Note.Each square is 20m.x20m.The trench locations given ^{Can} be related to the resistivity and magnetometer surveys in figure 2. and Appendix A-Plan 2.

Figure 6.

Sketch of Excavations-Chelsham.

c.Magnetic Susceptibility.

All the results are shown in Plans 1 and 6 Appendix A. In general,the areas of magnetic susceptibility corresponded closely to the areas surrounding the two buildings.

3.

The Field Walking Survey.

This survey involved gathering up and classifying all artefacts on the soil surface of the site and recording the distribution of each type of find within each 20m.square. This would enable us to show the density distribution of each artefact type, thus giving us an extra means of plotting the relative human activity level on different parts of the site.

Full details of the survey are tabulated in Appendix B but the main results are summarised in figures 3 and 4. The most widespread artefact on site was R.B.tile.(Nearly half a ton was collected). The highest weight of tile was in squares D3, D2 and E3, slightly downslope of the bath house and the next highest was in G3 which clearly related to the villa centred on G3 and H3. The incidence of tesserae was also significant with 41.8% of all red tesserae being located in a fairly small area of square G3, immediately above the S.W.end of the villa. The extremely localised distribution of the tesserae strongly indicated its recent disturbance by ploughing.

Romano British pottery sherds were fairly uniformally and sparsely scattered over the site.However,23% of all R.B.pottery was located in squares G3,F3,E3 and D4.

Quite a large amount of burnt flint was found on site with a heavy preponderance (66%)being located in those squares which lay adjacent to the pond, perhaps suggesting the possibility of some prehistoric settlement around the pond.

Excavations.

In the light of the evidence from the A.P.'s,backed by the preliminary geophysical results, it was decided to limit the excavations during August/Sept 1997 to the following:

Uncovering only as much of the villa site as would be required to get an idea of the cument state of its archaeological remains. Carrying out sufficient excavation of the second building identified on the aerial photograph to enable us to identify its function, if possible.

Digging trial trenches where the geophysical surveys suggested the possible presence of archaeological features.

Full details of the excavation are set out in Appendix C but the main results are summarised below.See fig.5 for all trench locations.

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1.The villa Excavation.Two 5m.trenches,E and F.were dug,one at either end of the villa.See fig.6.Trench E revealed an area of laid flint cobbles outside the villa, a section of the mortar-and-flint footing of the S.E.wall of the villa and an area inside the villa of large flints and loose mortar,which was interpreted as villa floor foundations. Trench F revealed a section of the N.W.wall footing of flint-and-mortar,much fallen roof tile and flint debris outside this wall and,inside the wall,an area of flint and loose mortar floor foundations.At the innermost end of Trench F was revealed a patch of spread mortar flooring.In neither trench was there any evidence of in situ tesserae despite the existence of a scatter of the red tesserae on the surface above Trench F.

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2. The Second Building. Excavation revealed the northern wall of this building-see fig.6. -a mortar-and -flint footing similar to that of the villa. Outside this wall was a furnace area of burnt clay and chalk. Inside the north wall were floor foundations of flint and mortar with patches of opus signinum and a few large square tiles in situ in the mortar flooring. Evidence of a tiled furnace channel, set below the sub floor, was well preserved. The lines of this channel could also be seen outside the northern wall. See Appendix E Photo No.4. That the building was a bath house, rather than a hypocaustheated villa, became clear when the 20 metres of its western wall were exposed. Three drains, integrated into the wall footing, were exposed, approximately half way along the length of the building. See Appendix E. Photos 5,6 and 7. Pottery.

The pottery sherds came from three sources on the site, the vicinit of the pond, from the field walk survey and from the limited excavation. The quantity found was, by any standards, remarkably modest, amounting to 121 sherds in total. However, there was considerable variety of pottery type within this total. There were only four sherds of Samian fineware found on site and six sherds of mortaria, including three sherds of Samian mortaria. There was a single sherd of Patch Grove ware, some sherds of Nene Valley colour-coated ware, some Oxford ware and some sherds of late Overwey buff ware.

The great majority of the pottery was 3rd and 4th century sandy, grey ware with a preponderance of everted and hooked jar rims and flanged bowls, characteristic of the late Romano British period. <u>Coins</u>.

Only five Roman coins were found on site despite a systematic metal search of the spoil heaps and plough soil.See Appendix Ephoto 8.

a.A sestertius struck under Marcus Aurelius, A.D. 161-175,

commemorating Faustina the Younger.

b.A sestertius struck under Marcus Aurelius and L.Verus, A.D.161-169 commemorating Antoninus Pius.

c.A radiate struck by the usurper, Carausius, A.D. 287-293.

d.Two barbarous radiates struck between A.D.270-290.

<u>Small Finds</u>.

a.A copper alloy strap terminal.See fig 7(i) and Appendix E(9).Complete except for the upperparts of the two attachment

rings.For the type,cf.Henderson 1949,pl.36,no.125,from Richborough (identified as a nail cleaner),which is more elaborate but shares the terminal notch and the dot-and-ring motif.Probably 4th-century date,perhaps into the very early 5th.

b.Copper alloy handle terminating in a rather crudely modelled lion's head.See fig.7(ii).

The round bronze shank-now broken off-is so much narrower than the head that it may have been attached through a bone or wooden handle.Lions'heads were frequently used in the Roman period as decorative terminals to such items as knife and key handles(e.g.Cunliffe 1971,fig. 50, no.144) and for ornamental fittings (Cunliffe 1971,fig.48, no.125). c.Broken copper alloy object.See Appendix E(10) and fig.7(iv).Poss. originally carrying a formal arrangement of leaves probably from an object that was meant to be seen in the round, such as a statuette or ornamental fitting.

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Figure 7.

Drawings of Small Finds.

Fig.7(iii).

Figure 7 continued. Drawings of Small Finds.

Fig.7(iv).

Scale 2:1.

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The modelling is rather coarse but for a generally similar motif cf.the junction of the double cornucopia held by a Lar from Lakenheath in Suffolk (Toynbee 1964,pl.20,a). d.Small lead figure of an animal,now broken and distorted. See figure 7(iii)and Appendix E (11).

The figure may be unfinished with the rough metal at the join of the two-piece mould still in place. The animal cannot be certainly identified and no date is suggested.

e.A small piece of green-tinged flat glass found in the context of silt at the exit of bath house drain.

f.Fourteen pieces of non-local stone were gathered up from the field walking exercise, a number of which could be positively identified as quern stone fragments.

Conclusions.

A.Identification of site features.

1.None of the approaches adopted, aerial photography, geophysica surveys, field walking or excavation gave any indication that there are any more than the two Romano British buildings on site.

2.Unabraided R.B.pottery sherds which were found on the pond banks, suggest that the pond might well have been in use in Roman times.

3. There are some indications from the filtered resistivity results-Plan 5(ii)-and from a single trench,(D),that some feature may exist, as yet undefined, between the villa and the bath house. This contention is also supported by the magnetometer results-Plan No 1.

4. The second building featured on the A.P.s was shown to be a free-standing bath house.

B. Period of RB occupation of the site.

The few coins and limited number of pottery sherds indicate an R.B.period of occupation during the second, third and fourth centuries, with the majority of the sherds reflecting the late Roman period.

C.The present state of site preservation.

The site-field, which is not scheduled, is, as indicated above, subject to annual ploughing. All the evidence suggests that nothing is still standing above the plough-damaged floor and the wall footing. However, below this floor level, the standard of preservation appears quite good, e.g. features like the drains and flue channel of the bath house. But there is also some evidence that the destruction of the remains is an ongoing process, e.g. the tesserae on the soil surface above the villa and the lengths of lead drain pipe in the plough soil immediately over the bath house. See Appendix E-Photo 12.

As a consequence, any recommendation that the remains should be left alone for the future needs to be balanced against the likelihood of a steadily diminishing bank of evidence. This invites the question of what work, given the permission, should be done on the site as soon as possible. My own recommendation would be to examine the area between the bath house and the villa, by removing the plough soil, in order to characterise this area. It is not considered that removing the plough soil from the villa would necessarily tell us any more than we know already about this feature. Excavation in depth of villa foundations might give us information about the development of the villa over a period

of time but this kind of evidence would lie below the villa floor level, and, consequently, have a longer future in terms of survival and hence be less of an immediate priority.

E.M.Davies.

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Appendix A.

Chelsham Roman Villa, Warlingham, Surrey

Report on Archaeogeophysical Survey 1997

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The Surrey Archaeological Society

Chelsham Roman Villa, Warlingham, Surrey

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Report on Archaeogeophysical Survey, 1997

Introduction

The purpose of this survey was to investigate the site of the Roman Villa which is known from cropmark evidence to be present in a field at Chelsham Court Farm, located 2km east of Warlingham, Surrey, at NGR TQ 388585.

A magnetometer survey was carried out on 21 August 1997 during the course of an excavation at the site, which was undertaken with support from the Surrey Archaeological Society. The findings from this survey are described here together with those from a resistivity survey previously carried out and made available by Mr C. Hasler and colleagues.

Plan 1 shows the location and extent of the surveys, together with a summary of the findings. It is based on a site plan supplied to us showing an interpretation of the cropmarks as drawn by Mr J. Hampton in 1992. Initial plots of the survey data similar to those included in this report were supplied for use during the excavation.

Survey Procedure

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The geophysical surveys were located by reference to a 20m site grid established for use during the excavation, and tied to the national grid.

Magnetometer readings were recorded at 0.25m intervals along traverses 1m apart from the area as outlined in red on plan 1 using a Geoscan fluxgate magnetometer. Plans 2 and 3 show the magnetometer results after standard processing operations which include truncation of high readings (usually caused by buried iron) and correction for irregularities in line spacing caused by instrument drift. Linear smoothing has been applied to the graphical plot (plan 2), and 2D low-pass filtering to the grey-scale plot (plan 3) to reduce background noise levels. Selected magnetic anomalies as discussed below are outlined on plan2, and are also shown, together with the resistivity findings, on plan 1.

The resistivity plots are based on readings recorded at 1m intervals using the twin probe configuration. Plots 4i and 5i show the initial data after equalisation where necessary to remove edge effects between the 20m squares. The readings as shown in plots 4ii-iii and 5ii have been smoothed slightly, and treated with a high pass filter to remove large scale background variations and emphasise localised features. Outlines indicating the location of positive resistivity anomalies, together with a schematic outline of the villa based on

features visible in the grey scale plots, have been superimposed on plot 4i, and are shown also with the magnetometer findings on plan 1.

The magnetometer survey was supplemented by a magnetic susceptibility survey covering the same area as the resistivity survey. Readings were taken at 10m intervals using a Bartington MS2 meter and field sensor loop. The results are represented by shaded squares of density proportional to each reading on plan 6. Susceptibility measurements can provide a broad indication of areas in which burnt material and other debris associated past human activity has become dispersed in the soil. The readings are of assistance when interpreting magnetometer findings, and may also provide additional direct evidence for the location or extent of any settlement or industrial remains which may be present.

Results

Magnetometer Survey

A magnetometer survey will usually show an area of disturbed response representing a spread of debris and associated features around the site of an ancient building, especially if bricks, tiles, hearths or other burnt debris is present. It will not usually, unlike resistivity, respond directly to masonry foundations or structural remains. A magnetometer survey may also, in suitable conditions, detect ditches or enclosures and so provide an overall plan of the features present at a site.

The Chelsham Villa site lies on the Upper Chalk of the North Downs, but in an area with a capping of the Tertiary gravels of the Blackheath Beds. Archaeological features cut directly into chalk usually respond well to a magnetometer survey, but this cannot be relied upon on gravels, where there is often a less distinct contrast between the natural subsoil and the composition of the fill. At this site the survey has produced a number of substantial magnetic anomalies, which are indicated by red outlines on plan 1, and other more widely scattered small anomalies which can be seen on plans 2 and 3.

The large anomalies cluster in two groups around the known buildings, and so are of clear archaeological significance. There is one other strong anomaly between the two buildings, which was investigated during the excavation. A number of large flints were seen, but the ground beneath appeared not to be natural, and the deposit causing the magnetic anomaly may be at greater depth.

The small anomalies are more difficult to interpret. Some (represented by sharp narrow spikes on plan 2) are likely to be caused by buried iron of possibly modern origin, and others are of a size which could be caused by small naturally magnetic stones, if any are present in the subsoil. There does, however, appear to be a correspondence between the distribution of these features and areas of enhanced susceptibility readings. A blue outline has been added to plan 1 indicating the approximate extent of dark shading on the susceptibility plot (plan 6). It can be seen to enclose the main villa building, as well as many of the magnetic anomalies represented by small peaks on plan 2. It could therefore be the case that some of the magnetic anomalies represent a scatter of such features as

small pits, together with other small deposits of archaeological debris in the vicinity of the buildings.

No ditches or other identifiable linear anomalies appear to have been detected. This may be due to the limited response obtainable from the gravel soil, but could also mean that some of the features originally present have been eroded by ploughing, the effects of which can also be seen in the resistivity findings.

A pipe was detected and can be seen as an alignment of strong disturbances to the north east of the villa.

Resistivity Survey

The outline of the villa can be seen in both the filtered and unfiltered grey scale plots (5i and 5ii), but there is no clear outline of the smaller building to the north, where the structural remains may be less substantial or more deeply buried. The left hand (NW) half of the main villa building is more clearly visible in the plots than the right hand half, which may have suffered more plough erosion. This part of the survey is shown at a larger scale as a colour image plot (5ii), and as a shaded contour plot of the positive anomalies (5iii), but the full outline of the building remains difficult to identify.

A broad area of high readings is visible to the south and east of the villa in the unfiltered plots 4i and 5i. This breaks down in the filtered version into a cluster of irregularly shaped strong anomalies which appear to be of natural origin, and probably indicate a reduced depth of topsoil on the rising ground at this end of the site. Some relatively isolated anomalies can be seen elsewhere in the survey, but these are also irregularly shaped, and do not correspond to any features detected in the magnetometer survey, except for an anomaly adjoining the cropmark representing the smaller northern building. The cropmarks in each case are displaced from the magnetic and resistivity anomalies, and so it appears that the buildings lie a few metres to the NE of their previously recorded positions.

A clear pattern of linear markings can be seen to run across the survey, especially in the filtered plot 5ii. These lie parallel to the western field boundary and are likely to be a result of ploughing.

Two linear markings were also noted in the cropmark plan to the SE of the villa. One of these aligns with the direction of the cultivation pattern noted above.

Magnetic Susceptibility Survey

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The susceptibility survey gave generally low readings (mean = 11×10^{-5} SI, standard deviation = 3.5; volume susceptibility readings). This suggests that only features containing magnetically enhanced fill associated with past occupation activity are likely to be detectable in the magnetometer survey. The readings do, however, show distinct areas of raised values (as shown by darker shading on plan 6). These areas relate well to the

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locations of the known buildings and the distribution of anomalies as seen in the magnetometer survey.

The relatively low readings obtained elsewhere are consistent with the lack of findings in the magnetometer and resistivity surveys from the remainder of the site.

Conclusions

The survey findings have confirmed the presence and survival of the main villa building, although the indistinct resistivity response from its eastern half suggests the remains here are less substantial than to the west. A cluster of magnetic anomalies was seen close to the recorded position of the smaller building to the north of the villa. There was also a resistivity response here, but no clear outline was obtained. Both buildings appear to be located a little to the NE of the recorded cropmark positions.

There was a scatter of smaller anomalies visible in the magnetometer survey. These perhaps represent a spread of archaeological features or debris near the villa, but no ditches or enclosures were detected. Ditches would not necessarily be detectable, given the low magnetic susceptibility of the topsoil, but the response from such features could also have been weakened by ploughing, the effects of which are clearly visible in the resistivity plots.

The magnetic susceptibility survey produced distinct areas of enhanced readings against a low background, confirming that archaeological activity at the site is likely to be concentrated in the vicinity of the known cropmarks

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(ii) Filtered data

Appendix B.

FIELD-WALK SURVEY.

The field-walk survey was carried out over the same area as that covered by the resistivity survey and the results were analysed into the same 56 squares, each measuring 20m.by 20m.See fig. 2. The objective of this survey was twofold:-

a.To pick up all artefacts in order to get a picture of human activity on the site from prehistory to the present century.

b.To relate the Roman material to the position of the known two Roman buildings to see if there was any evidence of other other buildings on the site which may not have been captured by the geophysical surveys.

The main findingsof the field-walk can be summarised as follows:-1.Pottery.Of the 182 sherds found on the surface, 67 sherds were from the Romano British period,25 sherds were mediaeval and the remaining 90 sherds were post-mediaeval and modern.The location of the R.B.pottery is shown in the tables below.

2.Flint.Only 7 waste flint flakes were found on the site but there were 137 burnt flints with a very high proportion bordering the pond.See below . A further 22 were also found near the bath house. 3.Tile.Nearly half a ton of R.B.tile was registered and its location in relation to the 2 known R.B.buildings is shown in fig. 3. There was an increasing amount of mediaeval tile ⁷ found to the south (i.e.upslope)of the villa.

4.Tesserae. Of the 402 red tesserae found on the site, nearly 50% was located in one square.See the low.

Conclusions.

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a. The absence of any prehistoric pottery and the small number of waste flints found on the site is balanced by the very high proportion of burnt flint in the vicinity of the pond. The latter suggests the possibility of prehistoric settlement around the pond.

b.Broadly speaking, the distribution of the Roman tile, tesserae and pottery fits closely with the evidence that there are only two main buildings on the site.

c.The small amount of R.B.pottery recorded on the site suggests the existence of rubbish pits, still to be located.

d.The fact that nearly half of the tesserae recovered lay close together in an area 10m x 4m.on the villa site strongly suggests that recent deep ploughing is now destroying some of the villa floor level.

Appendix B.continued.

Α.

Distribution of R.B.tile on site by square.

(Expressed as a % of total weight).

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	1	2:	з.	4.	5.	6.
Α.			2.9	1.5		
в.		2.7	2.7	2.4	1.3	
c.		5.2	8.5	1.5	.7	
D.	3.1	7.5	10.1	1.5	.6	
Ε.	3.4	2.1	9.3	2.0	. 4	
F.	2.6	2.6	2.5	1.4	. 8	. 7
G.	2.1	2.9	6.4	.6	.6	. 4
н.	1.8	1.8	1.5	1.3	. 4	. 4
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в.

Distribution of Tesserae on site by square.

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<u> </u>	1.	2.	3.	4.	5.	6.
Α.			1.7	. 2	2	
В.		1.7	1.2			
c.		2.0	6.7		7	
D.		. 5	4.7	2.0).7	
E .	.7	. 3	3.7	4.2	2	
F.	1.0	.7	5.7	6.5	5 2.2	
G.	. 2	1.5	41.8	. 4	2.2	
Н.	.7		6.2	1.2	2.9	. 2
			с.			

Distribution of R.B.pottery sherds on site by square.

	1.	2.	3.	4.	5.	6.
Α.			1			
В.		2		3	1	
C.		3	4	2		1
D.		2	2	5		
Ε.	4		5	1		
F.	1		8	3		1.
G.		1	5	1		
Н.			2	1	1	1
J.	1	1.	1		1.	
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Appenuix B continued.

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D.

Distribution of Burnt Flint on site by square.

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	1.	2.	3.	4.	5.	6.
Α.			3			
В.					1	
C.		1				
D.		7	22	3	55	
E.	3		1		5	
F.		5		2	3	26

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Details of the excavation.

Trench A.(Square J5). See fig.5 for all trench locations. A one metre square pit was dug to a depth of one metre.This revealed a closely-packed,pebbly subsoil below 30 cms of plough soil,devoid of any human artefact.This was interpreted as natural Blackheath Bed.

Trench B. (Square F5).

A one metre pit,dug to a depth of 70 cms,revealed a few tile fragments in the topsoil.Below this lay the natural subsoil of small flint pebbles in a light sandy soil. Trench C.(Square D4).

A one metre pit dug to a depth of 70 cms revealed topsoil with a few tile fragments with the Blackheath Bed below this. Trench D.(Square F3).

Below 30 cms of topsoil containing tile fragments was a layer of large flints,35cms in depth,which was interpreted as courtyard foundations.

Trench E. (Squares H4/3).

A trench was cut,5.5m.by 1m., across the projected S.E.wall of the villa.See photo No.1 in Appendix E.

Below the plough soil, which contained a high proportion of large flints and rooftile fragments, at a depth of about 30/35 cms four separate contexts were exposed:

a.Farthest from the villa lay a section,1.6m.in length, of Blackheath Bed sandy soil and pebbles.

b.Adjacent to this was a section of unmortared large flints,1.7m.in lengthcharacterised by a straight edge on its inner side.See photo No.1 in Appendix E.This was interpreted as constructed walkway,outside the villa.

c.About 10cms from b.was a context of large flintsand-mortar,about 80 cms wide.This was interpreted as truncated wall footing.

d.inside the section of wall footing was the fourth context of large flints, embedded in loose mortar, interpreted as floor foundations.

Trench F(Squares G2/G3).

A trench,5m.by 1m.was cut across the projected line of the villa's N.W.wall.See fig.5 and Photo 2 of Appendix E. The plough soil,30-35cms deep,was characterised by large flints,fragments of rooftile and red tesserae.Below this level,four different contexts were revealed:

At the extreme west end of the trench was a section, 1.3m.long,

Appendix C continued.

of large flints and pieces of roof tile, lying in crumbled mortar. This was interpreted as fallen debris.

b.Next to a.was a section of large flints, solidly embedded in mortar, 1.1m.wide, interpreted as the footing of the villa's S.E.wall.

c.A section of large flints, scattered in loose mortar, 2.2m.in length, interpreted as floor foundation.

d.A section,about 70cms long,of spread mortar,interpreted as an area of floor surface.(Many loose tesserae in soil directly above). Trench G.(Square E3).

An initial one-metre trench was dug over the projected northern end of the other building featured in the A.P.,located in square E3. This revealed a patch of opus signinum,30 cms below the surface. As a result,it was decided to expose the entire end of this building and a rectangle,5m.by 3m.was excavated.This revealed the following features:

a.About 4 metres of the wall footing of the northern end of this building.

b.Outside this wall footing, an area of laid clay and chalk which had been extensively burned.

c.Inside the wall footing, a rough floor of mortar and compacted flint with a few patches of opus signinum and three square tiles in situ in the mortar floor.See figure 8 and photo 3 of Appendix E.This floor inside the northern wall was bisected by a central,tiled channel,set 8 cms. below the surface of the surrounding floor.The lines of the channel sides could also be clearly seen continuing outside the northern wall It was clear that there had been a furnace area outside the northern end of the building and that the warm air had been channelled into the hypocaust area of the subfloor of the northern room.See figure 8 and photo 4 of Appendix E. Trench H.(Squares E2/3).

Trench H.was 22m. by 1m. in dimensions and, effectively, exposed the entire length of the western wall of the bath house which was just over 21 metres in length.

The truncated footing of this wall was characterised by three separate drains which had been structured through the wall footing.All three drains were located in a 3 metre length near the mid point of the western wall.See figure 8 and photos 5,6 and 7 of Appendix E.Two of the drains were box tile in structure and the third was a simple mortared channel which had probably been the seating for a lead pipe.(Two short lengths of lead pipe were found in the plough soil of the bath house).

Appendix C.continued.

Also mortared into the wall footing of this western wall were the lower mandible and ribs of a cow.For location see fig.8.

The evidence of the drains, and their mid-wall location, together with the in situ evidence of the opus signinum flooring, hypocaust tiles and the furnace channel, all pointed clearly to the building having been a free-standing bath house (rather than a heated dwelling).

Trenches J.and K. (Square F2).

Two trenches (one metre)were dug to a depth of 35 cms.These revealed a layer of unmortared flints interpreted as walkway outside the southern end of the bath house.See fig.5 for trench positions.

Trench I. (Square E3).

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A one metre trench was dug to 35 cms which revealed a corner of flint foundations which was interpreted as part of the eastern wall base of the bath house where it met a cross wall.See fig.7 for location.

Appendix E.

Photographs if the Excavation.

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liench E. N. Square d4.

On the left can be seen the edge of the flint cobbles outside the

villa. In the centre is a section of the villa's outer wall footing.

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Feature 2.A section of the villa's S.W.wall and villa interior. Looking South East. In the foreground is tumbled debris outside the villa. Beyond the wall footing.marked by the measuring pole.

at the far end of
the trench is a
section of mortared
floor.
Trench F in Square
33 32.

Appendian S continued.

Feature 3. The Northern end of the bath house. Area 3. Square E3. Theking North East In the foreground is the tiled channel of the still Lum 2 But floog The measuring pole is laid along the N.Suter wall of the path house. Beyond the wall line is the continuation of the furnace tunnel base and an area of burnt clay.

On the right of the channel can be seen a square pilum

Appendix E.fontisled.

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Appendix E.continued.

Feature 7.Drain C.Looking South East.

A second box tile drain integrated into the wall footing Note the hand-combed design on the top of the box tile. A box tile with almost exactly the same design is displayed in Wroxeter Museum.

Photo 9. Small finds-a strap end.

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Photo 11. Lead Casting-animal, Broken .

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