

**SURVEY RESULTS**

**2005 / 45 Withington, Gloucestershire**

**1. Survey Areas**

- 1.1 Approximately 4.4 ha of gradiometer survey (using a Bartington grad 601-2) and 0.6 ha of resistance survey (using a Geoscan RM15) was carried out over three fields. The location of the survey areas can be seen in Figure 1 at a scale of 1:2500.
- 1.2 The survey grid was set out and tied in to the Ordnance Survey (OS) grid by Dr Henry Chapman using a Trimble real time differential GPS system.

**2. Display**

- 2.1 Figures 2 to 5 are summary greyscale images and interpretations of the gradiometer and resistance data shown *in situ* on the OS map at a scale of 1:1500.
- 2.2 On the Archive CD, in the front of the report, the resistance results are displayed as greyscale images and gradiometer data as XY trace plots and greyscale images. All the data have accompanying interpretations. The display formats are discussed in the *Technical Information* section, at the end of the text.
- 2.3 Numbers and letters in parentheses in the text of the report refer to anomalies highlighted in the relevant interpretation diagram.

**3. General Considerations - Complicating Factors**

- 3.1 Conditions for survey were generally good as the ground was gently sloping and under only a short cover of grass.

**4. Results of Survey**

**Area 1 – Western Field – Withington Villa**

**Magnetic**

- 4.1 The magnetic survey revealed a complex of anomalies scattered throughout the area investigated and the majority reflect features of archaeological interest. There are two clearly non-archaeological responses. The first is represented by two narrow bands of suppressed magnetic response (1 and 2) associated with high voltage electricity cables that cross the field. As might be expected, the influences are greatest where the height of the cables is lowest; thus there are minimal effects in the eastern end of the survey where the ground falls away and taller pylons are in position. The second non-archaeological response (3) is a linear anomaly associated with a former path or boundary marked on OS maps.

- 4.2 The clearest archaeological anomalies comprise a series of well-defined linear and curvilinear, ditch-type anomalies that indicate trackways, enclosures and field systems (e.g. anomalies 4 to 9). Their shape would tend to suggest a prehistoric date for the features but this is perhaps a simplistic interpretation; there is no *a priori* reason why the responses cannot be associated with Withington Villa, the precise location of which remained uncertain prior to this survey.
- 4.3 Villa buildings, because of their brick and tile construction and their hypocaust systems, with associated burning, tend to produce localised areas of strongly, magnetically enhanced readings. One such area of increased response (10) is highlighted on the interpretation plot and this was defined as the footprint for the villa building, even though there is no clearly defined room plan visible in the data. Resistance survey was carried out in order to try to resolve the ground plan (see Paragraphs 4.5 and 4.6). It is perhaps interesting to note that compared to other Roman villas we have investigated (e.g. Waltham Villa and Dinnington Villa) there is a lack of rectilinear ditches and an obvious formal layout of the immediate estate grounds apart from a possible wall line in the data and highlighted on the interpretation (11).
- 4.4 Elsewhere in the magnetic data are several (e.g. 12 to 16) unusually large pit-type responses, with the anomalies varying in size from 3m to possibly 10m in diameter. Apart from being probable pits the interpretation remains perplexing. Throughout the remainder of the survey area there are numerous anomalies indicative of a variety of features either associated with the villa or perhaps earlier activity on the site. Only the south-east corner of the survey appears to have a distinct lack of archaeological type responses

#### **Resistance**

- 4.5 Unfortunately, ground conditions were very dry on this upper field due to a general lack of rain during the weeks preceding the survey; also there is only a thin covering of topsoil over the bedrock that exacerbated the situation. Moisture contrasts were minimal and it was difficult to get a good electrical contact.
- 4.6 Despite these problems there are some suggestions of linearity in the data that are likely to be indicative of wall foundations. If comparisons are made between the old excavated plan, the new Time Team trenches and the resistance data, some of the walls clearly do coincide. However, there is not a totally clear match with the old excavated evidence and the archaeology in the trench; all that can be said with confidence is that the general location of the villa building has been established.

#### **Area 2 – Eastern Field - ‘Ancillary’ building**

##### **Magnetic Survey**

- 4.7 Bounded by a stream in the north and east and steeply sloping ground in the south and west, this field contains several earthworks of archaeological potential. Survey was confined to the lower slopes and produced a complex of magnetic responses.
- 4.8 There is a clear area of increased magnetic response (17) similar to that found over the Scheduled villa (Paragraph 4.3) though in this instance the area is larger. There are negative responses that coincide with wall lines and some very strong responses which probably indicate small furnaces, or similar, associated with the heating of the rooms.
- 4.9 To the north of the building there is evidence of ridge and furrow (18) and to the south, probable alluvial deposits (19).

**Resistance Survey**

- 4.10 The resistance survey was carried out in two stages; initially work concentrated on prominent earthworks to the south, close to the stream and only continued after survey had been completed in Area 3.
- 4.11 The early phase of work identified a number of elements of the so-called ancillary building, which at this stage of the investigation was believed to be a bath house. Walls identified in an excavation trench, dug by Time Team before the resistance survey was carried out, were seen to continue to the south in the data (A). There were clear limits to the building that coincided with topographic changes and one other particular response of interest. A high resistance rectangular anomaly (B) was thought to be indicative of a plunge pool or a similar sunken room. At first, a second excavation trench confirmed the existence of a large pit at this point but it was believed to be a stone quarry; further digging demonstrated that it was in fact a plunge pool that had been filled with building debris.
- 4.12 During the second phase, the resistance survey was expanded to the north and a further complex of walls was identified (C). These suggest that the building is far greater in size than was originally thought; in fact when a comparison is made with the Scheduled villa the ‘ancillary’ building is larger. Dimensions of the Withington Villa are in the order of 46m x 15m according to the excavation report, while the resistance survey suggest that the building here is some 60m x 40m; even allowing for a spread of material the core of the building is on a par with the Scheduled villa. As such, there must be a case for arguing that the ‘ancillary’ building is a villa in its own right.

**Area 3 – Middle Field****Magnetic Survey**

- 4.13 The results from this field are perhaps the most surprising in that prior to the survey no known or suspected archaeology had been recorded in this area. The magnetometer has detected a wealth of responses that comprise, in the main, linear ditch-like anomalies.
- 4.14 The ditches (20 and 21) at the western end of the field clearly relate to those mapped in Area 1 and it is perplexing that the modern road masks the relationship and plan of all of these features.
- 4.15 Further land divisions and boundary type anomalies (e.g. 22, 23 and 24) are also visible, but perhaps the most unusual are the linear responses (25) which appear to form an avenue leading to a ‘well’ marked on the OS map. It is uncertain whether these responses are associated with ditches or perhaps even water conduits. There is a concentration of anomalies (26) close to the location of the ‘well’ and investigation of the site established that there is in fact no well but rather a spring; though whether this is natural or fed by a series of conduits remains unclear. Given its position close to the Roman buildings it is tempting to see this as being the site of a shrine or perhaps a temple.
- 4.16 While the presence of a pylon in the field has severely affected some of the results (27), it is clear that the survey has not defined the limits of the archaeology.

**Resistance Survey**

- 4.17 Two sample 20m grids were surveyed over the site of the possible shrine. High resistance readings were noted (D and E) and these correlated well with the magnetic results. Although excavation confirmed the presence of a stony feature at this point (D) it was not possible to establish the nature of the archaeology in the time available.

## 5. Conclusions

- 5.1 The geophysical survey was successful in not only pinpointing Withington Villa but also in identifying an extensive complex of archaeological features, including a possible second villa at the site of what was believed to be a bath house.
- 5.2 While the wall foundations associated with Withington Villa do not show particularly well in the resistance data, the footprint of the villa is visible as an area of magnetic noise. In addition, there are several ditches forming rectilinear enclosures and a complex of curvilinear ditches and substantial pits, all indicating multi-period occupation.
- 5.3 The 'ancillary' site provided some exciting results, particularly with regard to the resistance survey, as it became clear that a much larger building was present; in fact the scale suggests that this must be a villa building in its own right.
- 5.4 The third survey area also revealed surprising responses, in particular a series of linear anomalies apparently linking Withington Villa with the 'ancillary' site. The latter may in fact be the site of a temple or shrine; resistance survey suggested the presence of stone structures though the exact nature remains unclear.

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**Date of Report:** 2<sup>nd</sup> November 2005

### References:

Woodhead, R 2005 Proposed archaeological evaluation at Withington, Gloucestershire, Project Design, July 2005, unpublished.

## SITE SUMMARY SHEET

2005 / 45 Withington, Gloucestershire #

**NGR:** SP 031 148 (SAM GC 200) and SP 035 150 ('ancillary' site)

### Location, topography and geology

Three pasture fields were investigated to the south of Withington village, Gloucestershire. The lowest field is enclosed by the River Colne and a tributary to it, while the higher fields lie on gently sloping ground to the west. The soils belong to the Sherborne (343a) Association and the geology comprises Cleeve Cloud Member, Ooidal Limestone.

### Archaeology

The first field contains Withington Villa, a Scheduled Ancient Monument (SAM GC 200), though there are no visible remains except for a sparse scatter of small fragments of Roman tile. It was originally discovered by ploughing the fields during the 18<sup>th</sup> century and partially excavated by Samuel Larsons in the early 1800s. Several rooms and mosaics were unearthed; the Orpheus mosaic now resides in the British Museum. The second field is thought to be the site of an ancillary building, believed to be a bath house connected to Withington Villa; a local amateur archaeologist, Roger Box, has collected tesserae and roof tile from molehills and there are numerous earthworks that could be interpreted as building platforms. The third field contains no known archaeology apart from a 'Wall Well' marked on OS maps.

### Aims of Survey

It was hoped that geophysical survey would pinpoint the 'lost' Withington Villa and place it in its wider context and also provide some information on the second 'ancillary' site. The work forms part of a wider evaluation undertaken as part of *Channel 4's Time Team*.

### Summary of Results

The geophysical survey was successful in not only pinpointing Withington Villa but also in identifying an extensive complex of archaeological features extending across all three fields investigated.

The actual wall foundations associated with Withington Villa do not show particularly well in the resistance data, due to a lack of moisture contrast; but the footprint of the villa is visible as an area of magnetic noise. There are several ditches forming rectilinear enclosures that presumably relate to the villa and there is a complex of curvilinear ditches and substantial pits of uncertain date.

The 'ancillary' site provided some exciting results, particularly with regard to the resistance survey. At first it was believed that the site was a bath house complex but as the survey expanded it became clear that a much larger building was present; in fact the scale suggests that this must be a villa building in its own right.

The third field also revealed surprising responses. A series of linear anomalies, perhaps associated with ditches and/or culverts, cross the field apparently linking Withington Villa with a known 'well'. The latter may in fact be the site of a temple or shrine; resistance survey suggested the presence of stone structures though the exact nature remains unclear.

# Background information taken from Woodhead, 2005

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