## Extract from

### **Gatcombe Roman Settlement**

Geophysical Surveys 2009/2010 Second Progress Report North of the Railway

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### **Aknowledgements**

### YCCCART would like to thank, Stella Clarke, Bridget Mackwood and Bob Smisson, for allowing us to publish this report.

Please note that Gatcombe house and gardens are private land and can only be accessed with the agreement of the owners. The complete area around Gatcombe is also a scheduled ancient monument on which the use of a metal detector is illegal, without appropriate authorisation. We recommend that you arrange a tour of this wonderful house

and gardens by visiting the web site *http://www.gatcombecourt.co.uk.* 

### Magnetometry – How Mead and Car Park – February 2010

#### 4.5.1 Introduction

YCCCART brought the Magnetometer for the first time on 28<sup>th</sup> February 2010 and commenced with a survey of the field called 'How Mead', followed up with the Lower Car Park. These fields, owned by Stella Clarke of Gatcombe Court, straddle the western defences of the Roman settlement.

Previous investigations in the area include a watching brief when a main sewer was laid crossing from west to east in the 1970s. A layer of *Dark Earth* between 75mm and 600mm sealed under a layer of featureless silt, assumed to have been deposited during floods by the River Land Yeo was sampled. Soil analyses showed the organic content of the *Black Earth* was 4% inside the walls, but only 1% in How Mead. The sewer line appeared to cross at least two possible building platforms in How Mead.

The objective of this survey was to determine if there is extra-mural settlement outside the west wall of the Roman town, as has been demonstrated using resistivity in the field east of Gatcombe Farm and the eastern defence wall, and contrast results inside or outside the Roman town.



#### 4.5.2 How Mead - Magnetometry Survey

#### Figure 1– Magnetometry results in How Mead.

The results clearly indicate at least one large rectangular feature near the Tennis court, and a second nearer the stream to the north. Also two circular features in the field can be seen, potentially ditches, and evidence for earlier inhabitation, worthy of an independent investigation. While apparently clear evidence for extra mural settlement, it was recommended to carry out resistivity over the rectangular feature to confirm this result independently. It must be noted that that without dating evidence, it can only be an assumption that these buildings are Roman. Some limited trial hole excavation in this area could confirm this.



Figure 2 – Recommended location for Resistivity Survey

### 4.5.3 How Mead additional Resistivity Survey

3 survey grids in How Mead to check out large building shape located by Magnetometry on 28<sup>th</sup> January as surveyed on 4<sup>th</sup> February 2010.



It is suggested this is conclusive evidence for large buildings in this area of How Mead, outside the walls of the Roman Town.



Scale (M)

# Figure 5 – Summary interpretation - there appear to be two buildings, approx 17m in width and over 40m in length, with evidence for internal divisions, solid floors and one external wall.

The features detected by Magnetometry as a hollow rectangle some 40m x 15m and a disturbance to the west show up on Resistivity to suggest two very large buildings on a similar alignment, outside the walls of the Roman Settlement.

The Magnetometry and Resistivity results combine to provide potential evidence to suggest that the settlement of Gatcombe once covered a larger area of land than that delineated by the defence walls.

While further investigations are necessary, it is suggested this demonstrates that it is likely Gatcombe was a *pagus* and small Roman town that retreated inside defensive walls during the late third and fourth centuries.

#### 4.5.4 Gatcombe Court Car Park

Surveyed by the YCCCART Magnetometer team on the 4<sup>th</sup> February 2010, the area of Gatcombe Court's Lower Car Park had been surveyed using resistivity in September 2009, with results summarised as:-



Figure 6– 2009 Resistivity surveys in Car Park (See section 4.3 above)



#### Figure 7 - Magnetometry Result from Car Park

The Magnetometry survey adds to a picture of dense occupation, with linear features suspected to be roads. That this is the first evidence for a planned town layout at Gatcombe is not surprising as this is the first survey of any of the lower lying flat area of the settlement. All previous work concentrated on sites on the hill to the north, where earthworks were visible. The survey details are attached as Appendix 2.



Figure 8– Plan showing the findings from the resistivity survey superimposed on the Magnetometry results.

These results indicate a complex response from the car park area, similar to that obtained from other Roman towns such as the Roman Town at Charterhouse-on-Mendip. The linear features are likely to have been roads. Magnetometry finds places where the magnetic field varies, such as linear ditches with a different magnetic response, or heaths and areas subject to fire.

#### 4.5.5 Combined Magnetometry Results.



Figure 9 – Combined drawing showing the Magnetometry results from the car park and How Mead to the west.

Combining the results demonstrated that there is a considerable difference between magnetometer results obtained inside the walls of Roman town in the car park and outside the walls in How Mead. The results are consistent with the suggestion that the walled town was heavily occupied.



Figure 10 – Combined results highlighting a linear feature in the car park, and buildings in How Mead.

There is a linear feature in the car park's magnetometry that coincides with a linear hollow way visible on the surface of the ground, a suspected road. It seems significant that the buildings located outside the walls in How Mead appear to be on the same alignment, suggesting they were part of the same urban layout.

The route of the west defence was confirmed by electric pseudosections in September 2009, and in the 1970s by excavation (Branigan 2007). It is interesting that the wall is on a different alignment to suspected roads and buildings. This suggests the wall was built over an earlier town plan.

#### 4.5.6 Conclusions from Magnetometry survey

These surveys combine to demonstrate –

- Geophysical survey within the area of Roman Settlement within the defence walls continues to consistently suggest an area of intense occupation.
- Geophysical survey outside the walls has located at least two very large buildings.
- Magnetometry within the area of the car park, the first systematic survey carried out on the lower lying flat land at Gatcombe, detected unmistakable evidence suggesting a road system in this area.
- The alignment of the possible road features detected in the car park area is the same as that for two large buildings detected by geophysics outside the walls in the field to the west, called How Mead.
- The western defence wall, located during previous excavations by Keith Branigan, and confirmed by geophysics, is on a different alignment to the roads and buildings detected during this survey, suggesting a town layout predated the defence walls.
- The geophysics suggests a the remains of a Roman town survives in this area.
- The condition of any archaeological remains is probably good, as they are under a known build up of soil derived from regular and repeated flooding of the area, as confirmed by the results of a watching brief during sewer construction in the 1970s.