Oxfordshire

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Geophysical Survey in Dorchester-on-Thames, Oxfordshire, 2012.

Introduction

The Discovering Dorchester-on-Thames Project is an archaeological research project involving the local Dorchester community, Oxford Archaeology and the University of Oxford (Booth *et al.* 2012). An important element of the University of Oxford's contribution to the Dorchester-on-Thames project has been the Department of Continuing Education's MSc in Applied Landscape Archaeology programme, which located its one week field survey training course in Dorchester in 2008, 2010 and 2012. The field survey weeks were administered and financed by the Department and directed by David Griffiths. This report provides a summary of an earth resistance geophysical survey undertaken in 2012 in the cloister gardens to the north of Dorchester Abbey.

Previous Investigations in the Cloisters

Between late 1960 and early 1962 three small trenches (I to III) were excavated in the presumed location of the abbey cloisters to determine their limits and any other monastic buildings (Cunningham and Banks 1973). The trenches confirmed the location of the cloister foundations in the west and north but the eastern trench appeared to be outside the cloisters. The foundations had been robbed and replaced with rubble, sand, gravel and broken tile. Although large amounts of Roman material were found, particularly in trench I, there was no firm evidence of Roman structures.

The southern part of the cloister walk was examined in 2001 in advance of a planned boiler room and Pentice to be constructed adjacent to the north wall of the Abbey (Keevill 2004). Three trial trenches (3 to 5) were opened and subsequently trench 3 was enlarged to cover the entire area and depth of the boiler room. A watching brief was maintained over the area of the Pentice where a number of medieval graves were revealed. As in the 1960s, the majority of material recovered was of Roman date, but no *in situ* Roman feature or deposit was located (Keevill 2004, 323).

In 2004 Rush (2004) of Reading University employed a range of geophysical survey techniques over the cloister gardens. His most satisfactory technique was a twin-probe earth resistance survey which was conducted at one metre sample intervals.

Using the above archaeological and geophysical survey evidence together with plans of other Augustinian abbeys, Rodwell (2009, 47, Figure 24) has proposed a plan of the monastic buildings associated with the Abbey in the fifteenth century. The location of the earlier excavation trenches and Rodwell's suggested locations of the monastic buildings are illustrated in figure 1.

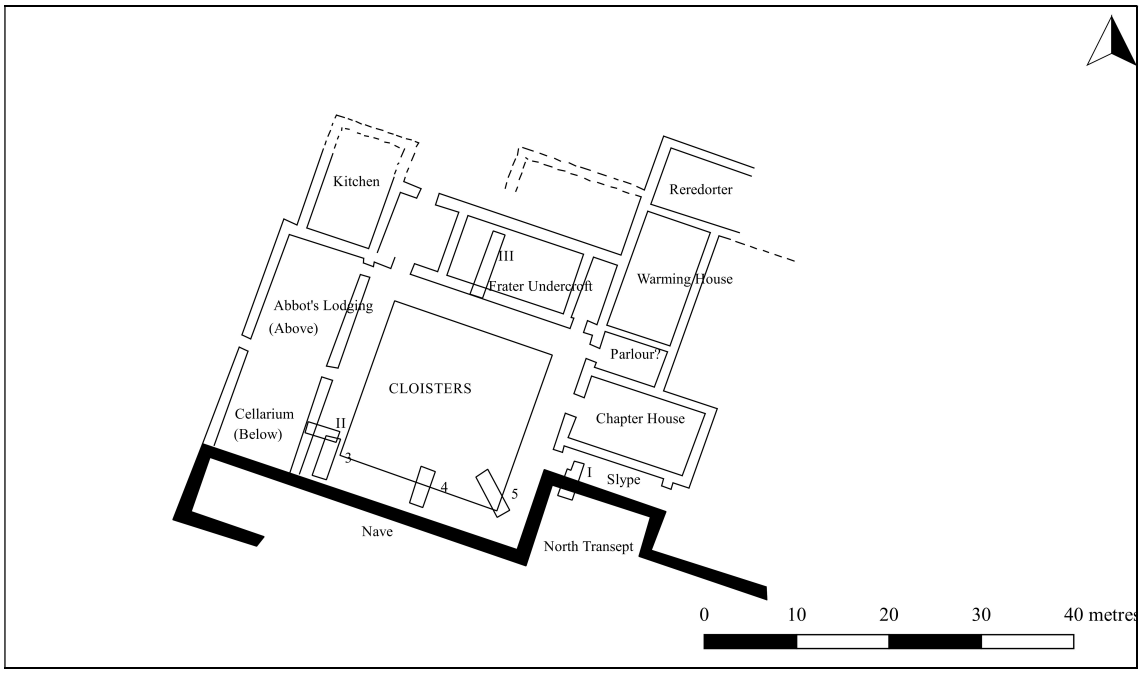


Figure 1 – Abbey Cloisters
Trenches I to III (Cunningham and Banks 1973), Trenches 3 to 5 (Keevill 2004)
Plan of Abbey buildings based on Rodwell (2009, 47, Figure 24)

The Geophysical Survey

It was not possible to survey the entire area of the cloister garden. In the west are a line of large trees while flower beds are situated in the east and north-east. Three grids each 20 metres square were laid out, but not all of this area could be surveyed. The survey was undertaken on the 4th and 5th July 2012 by MSc students Clair Burton, Anni Byard, Clemency Cooper, Iain Dickson, Damon Dennis and Dean Paton using a Geoscan RM-15D Earth Resistance Meter. The three grids were walked in a clockwise "zigzag" pattern with traverses one metre apart and readings taken every 50 centimetres. The results have been processed by ArcheoSurveyor and are displayed in figures 2 and 3 as a block shaded image using a grey-scale.

Directly to the north of the Abbey is an area of low resistance (a dark east-west linear feature) while visible in the north and north-west of the survey area are linear high resistance features marked in white which may represent possible wall foundations or robbed-out wall foundations.

Of the previous excavation trenches, only trench I (from Cunningham and Banks) and part of trench 5 (from Keevill) lie within the survey area.

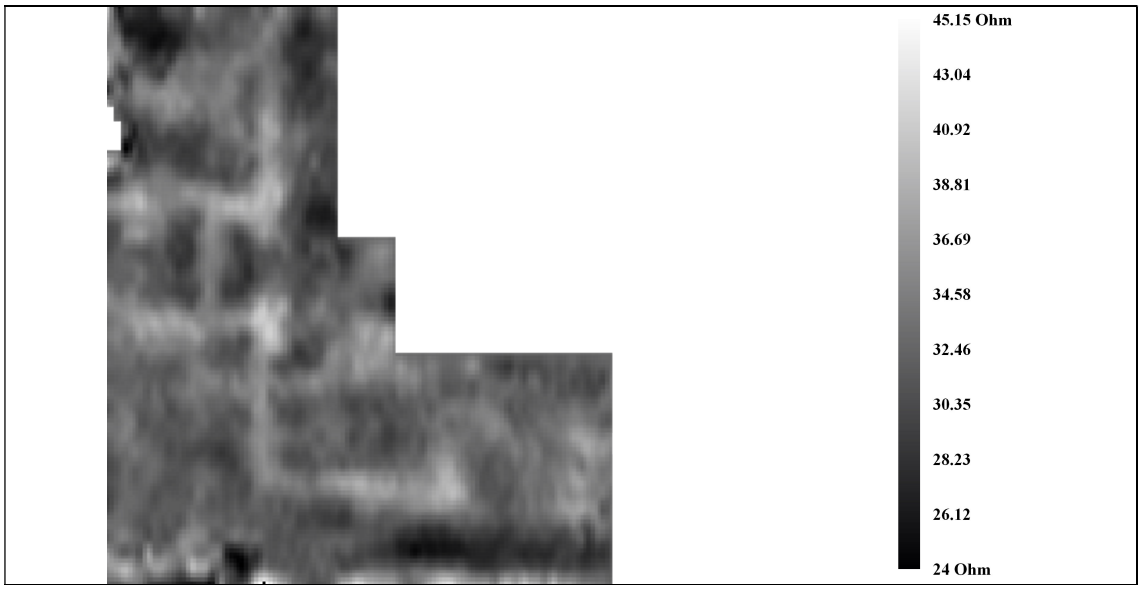


Figure 2 – Abbey Cloisters Resistance Survey (4th and 5th July 2012)
High Resistance = White, Low Resistance = Black

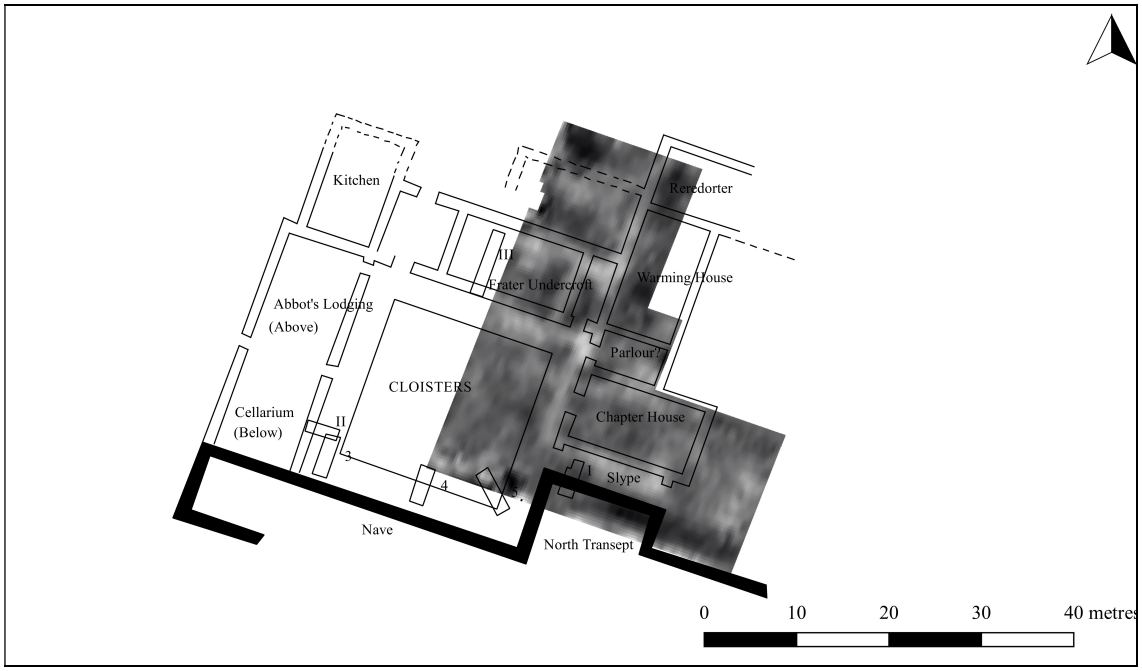


Figure 3 – Abbey Cloisters Resistance Survey (4th and 5th July 2012)
High Resistance = White, Low Resistance = Black
Plan of Abbey buildings based on Rodwell (2009, 47, Figure 24)

Discussion

The results of the 2012 earth resistance survey are compared with Rodwell's suggested monastic layout in figure 3. In general, the agreement in location between buildings and areas of high resistance is good, although the survey cannot shed light on the functions of the buildings. There is an approximately rectangular area of high resistance to the north of the North Transept which corresponds to Rodwell's Chapter House. This is most clearly shown in the south and west. Further north, the west front of the Warming House continues northwards, although with a clear gap between it and the Chapter House (or Parlour). In the north-west of the survey area the foundations of the eastern end of the suggested Frater are visible as high resistance linear features.

The survey becomes less distinct in the north. It did not extend over the western half of the cloisters and the buildings further west due to modern disturbances such as trees and the line of the path and wall adjacent to the vicarage and its garden.

Acknowledgements

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