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**Geophysical Survey Report: No. 003**

**Hollywood Motte, Co. Down**

DOW 001:001

J 4008 7921



## 1. Introduction

### 1.1 General

1.1.1 The following report details the results of a resistivity survey undertaken at Holywood Motte in January 2005. The geophysical survey was completed as a field-based equipment test and research exercise.

1.1.2 The survey was completed using a Geoscan RM4 Resistance Meter (Appendix One). The survey data was processed and interpreted using Beta 0.8 software.

### 1.2 Background

1.2.1 Holywood Motte (SMR No. DOW 001:001) is a roughly oval earthwork measuring 30m north-east to south-west and 25m north-west to south-east. The height of the earthwork varies from 3.5m on the south-east side to 5m towards the north-west side – corresponding to the natural topography. The mound summit is flat and measures c.12m in diameter (Plate One). A Victorian spiral path has been cut into the side of the mound, and it appears that some of the north side has been scarped. A set of modern concrete steps has also been added to the south side (Plate One).

1.2.2 Local historian Colm Auld has said that an excavation was done in the 1930's across the mound summit. However, there is no record of any excavation having taken place and the results of such an exercise have never been published. If such work was ever carried out, it is likely that it was done by a local antiquarian rather than part of a programme of archaeological investigation.

1.2.3 Much of the archaeological remains within Holywood are Anglo-Norman in date. Situated to the north-east of the motte are the remains of a 13<sup>th</sup> century parish church which became a Franciscan Friary (Figure One: PlateTwo). The Ordnance Survey Memoirs refer to a monastery, situated on the site of the 13<sup>th</sup> century church remains (Day & McWilliams, 1991, 78). The original place-name from the *Monasticon Hibernicum* is 'De Sacro Bosco' (*Ibid*). There appears to have been variations on this theme, with the Latin 'Sanctus Boscus' also applied (McKay, 1999, 82). Whatever the variation, the Latin name was referring to the wood that was formally connected to the church. The Irish place-name for the town was 'Ard Mhic Nasca' [height of the son of Nasca]. This would have been St Laisrén (*Ibid*).

1.2.2 The earliest historical reference for the Hollywood is from the *Calendar of Documents Relating To Ireland 1171 – 1307*, which state that King John stopped in Hollywood during his campaign of 1210 (Sweetman, 1875, 113). It is reasonable to suggest that he would have visited the motte and its fortification.

### 1.3 Credits and Acknowledgements

1.3.1 Assistance during the course of the survey and in preparation of this report was kindly provided by: Dr Colm Donnelly, Cormac McSparron and Ruth Logue (CAF), Declan Hurl (EHS: Built Heritage), Barrie Hartwell and John Davison (QUB).



**Plate One:** Hollywood Motte looking north-west – the concrete steps and artificial Victorian tier can be seen.

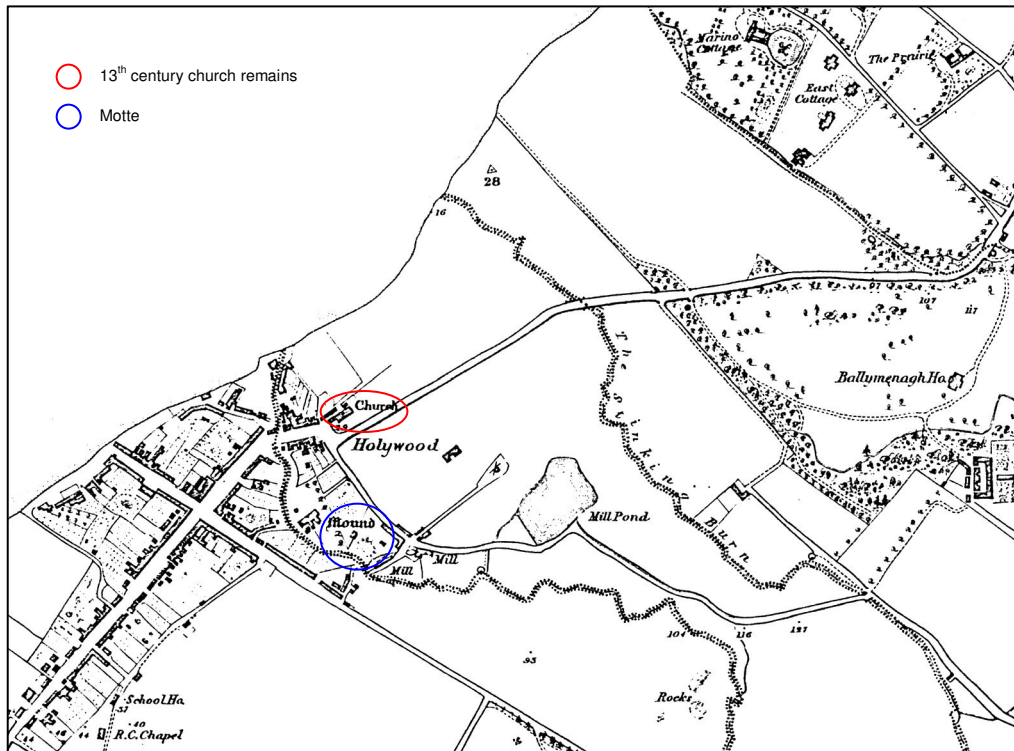


Figure One: Ordnance Survey 2<sup>nd</sup> Edition map of Hollywood



Plate Two: Hollywood Priory Church looking north – the top of the tower is a later addition.

## **2. Geophysical Survey**

### *2.1 General*

2.1.1 The geophysical survey was undertaken over the summit of the motte. This area was selected as there does not appear to have been any ditch or bailey associated with the site. A single 10 x 10m grid was placed over the top of the monument, and was designed to locate any structural remains, specifically post-holes or slot trenches that may have supported any timber building or palisade.

2.1.2 Due to the small size of the mound summit, two 1 x 10m grids were not used (dummy logged) and these appear as solid red in the results images. The results can be seen in Figure Two (a greyscale un-interpreted image), Figure Three (a greyscale interpreted image) and Figure Four (a multi-hue un-interpreted image).

### *2.2 Results*

#### 2.2.1 Anomaly A

This feature was an area of low resistance. This would indicate that it is probably a negative feature – approximately 6m in length and 3.8m in width. This anomaly is positioned towards the north-eastern side of the motte summit. Given its position, it is unlikely to represent a structure, as one would expect this to be located towards the mound centre, it is possible that Anomaly A represents the remains of an excavation trench.

#### 2.2.2 Anomaly B1, B2 and B3

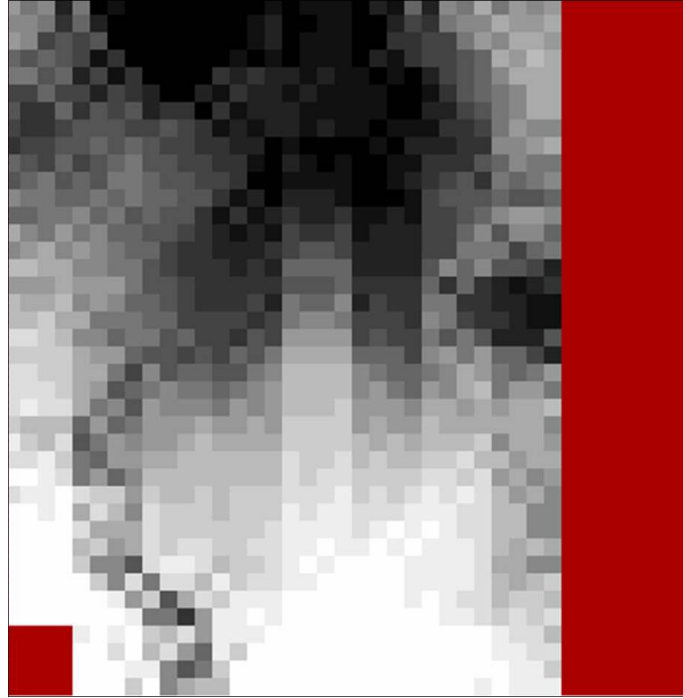
These three anomalies were positioned towards the mound centre, and comprise three areas of low resistance. These features could be interpreted as post-holes, but given their position they are unlikely to represent structural remains. It is more likely that they are three pits, possibly connected to the excavation of the summit.

#### 2.2.3 Anomaly C

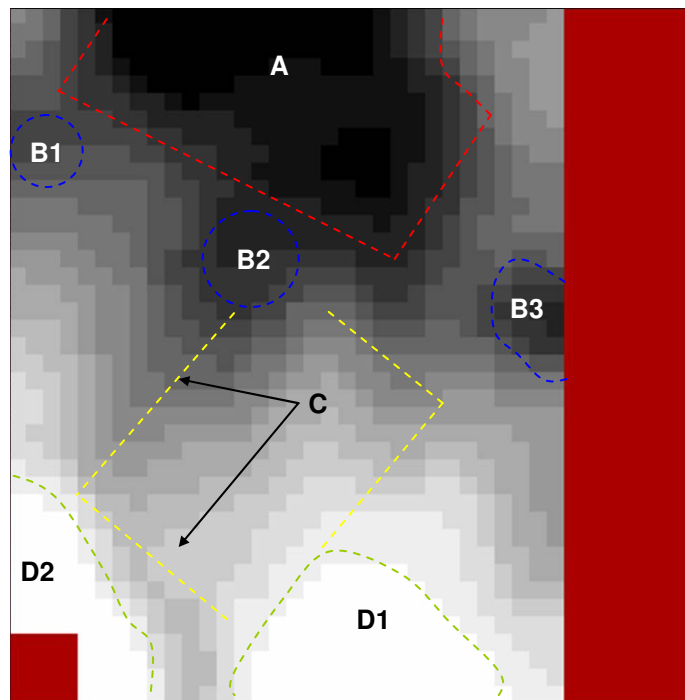
Anomaly C was an area of relatively high resistance approximately 4.5m north-east to south-west and 3.3m north-west to south-east. Roughly rectilinear in shape, it is possible that this could represent rubble, perhaps the core remains of a wall or small building.

#### 2.2.4 Anomaly D1 and D2

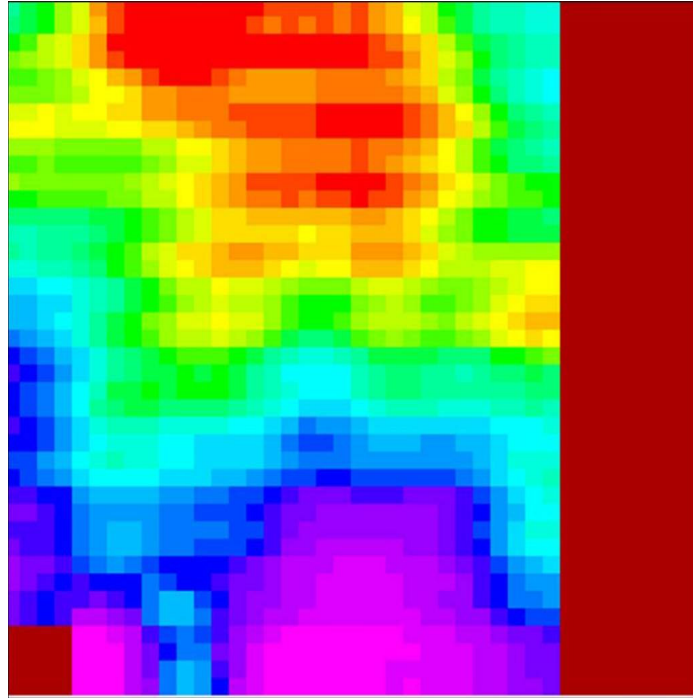
These two anomalies were situated towards the edge of the mound summit and constituted two areas of high resistance. Interpretation of the anomalies without ground-truthing is difficult and it is possible that they are geological in nature (e.g. gravel).



**Figure Two:** Greyscale image plot of the resistivity data.



**Figure Three:** Greyscale image plot (interpreted) of the resistivity data.



**Figure Four:** Multi-Hue image of the resistivity data.

### **3. Conclusion**

- 3.1.1 Without ground-truthing, the interpretation of the resistivity results from Hollywood Motte cannot be proven. However, the location of the areas of low resistance suggest that they do not represent the remains of a structure on the mound summit, as one would expect any tower or building to be located towards the centre of the earthwork. It is more plausible that the largest area represents an excavation trench with three small excavation pits. Although the results of any excavation have never been published, activity on the motte summit is within living memory.
- 3.1.2 Anomaly C is the only feature recorded with archaeological potential. It is possible that this anomaly represents stone or rubble remains, possible derived from a structure that once occupied the motte summit.



#### 4. **Bibliography**

Day, A. and McWilliams, P., 1991: *The Ordnance Survey Memoirs of Ireland: Parishes of County Down II 1832 – 1834*. Institute of Irish Studies. Queen's University Belfast.

McKay, P., 1999: *A Dictionary of Ulster Place-Names*. Institute of Irish Studies. Queen's University Belfast.

Sweetman, H. S., 1875: *Calendar of Documents Relating To Ireland: 1171 – 1307*. Longman. London.

## Appendix One: Hardware Specifications

### Transmitter

Output voltage: 40 V

Constant current ranges: 1 mA (0.33mA - HCR mode)

Max. contact resistance: 40 Kohm (120 Kohm - HCR mode)  
< 0.6%, plus < 0.2 ohm +/- 1 digit

### Receiver

Resistance ranges: +/- 20 ohm +/- 200 ohm +/- 2000 ohm  
(x3 in HCR mode)

Resolution (ohms): 0.01 ohm      0.1ohm      1 ohm  
(x0.33 in HCR mode) < 1% / V

Power supply sensitivity: 137.5 Hz

Operating frequency: 100 Mohm in parallel with 1000 pF

Receiver input: 13 Hz to 700 Hz, -3dB points

Impedance: Approx. 1 second for 0.5 % accuracy

Bandwidth: Approx. 2 seconds for 0.5 % accuracy

Response time-Rural Filt: + / - 2 V

-Urban: + / - 2 V fsd each range

Filt: Logic levels 1 = - 0.7 V wrt battery +ve

0 = - 4.7 V wrt battery +ve