



Fig. 1: magnetic abnormality caused by modern building rubble

A geophysical survey at Bruce Castle Park, Tottenham

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In February 2006 the LAARC (London Archaeological Archive and Research Centre), in conjunction with Bruce Castle Museum, commissioned a geophysical survey from Engineering Archaeological Services Ltd, to undertake a mix of resistivity and magnetometer survey of Bruce Castle Park. This was, in part, a prelude to the LAARC's annual community excavation, which was originally testing hypotheses about the antecedents of the present-day building. The building on the site dates from the 16th century and was altered during the 17th, 18th and 19th centuries.¹ The first record of a manor house at Tottenham was in 1254, when there was a manor house, granges and fish ponds.²

Despite the urban nature of the park, the results appeared to be very successful. There was an area of high resistance to the north of the Mansion, and to the north-east an area of high magnetic abnormality. In addition there were various responses that can be explained by pathway metallurgy and field drains (Fig. 2).

The geophysicists were particularly pleased with the returns considering the urban environment; initial thoughts were that the area of high resistance was the predecessor of the current building. In fact with the eye of faith a double courtyard building was being plotted out, similar in layout to Old Gorhambury in

Hertfordshire, although the size and scale were out of kilter, as well as the date. Old Gorhambury was built 1563–8, and this was an attempt to find the pre-16th-century manor.

The underlying reason for the area of high magnetic response was thought to be an area of either burning or ceramic building material. The figure-of-eight shape of the response led to a presumption that it was possibly the remains of a brick kiln or clamp. Brick-making in the Tottenham area is known since the mid-15th century,³ and was commonplace throughout the 18th and 19th centuries, which saw the rise of the manufacture of tiles and horticultural pots, the presence of brickearth making Tottenham ideal.

Therefore a geophysical survey indicated that the environs of Bruce Castle would be ideal to answer a series of research questions regarding the antecedents of the existing Manor House and its place in the landscape; in fact, worries started to set in about the scale of the undertaking! A return to the site was needed to test evaluate these features in May 2006.

The area of high resistance actually proved to be an area of natural gravel, with quite clearly defined edges. The area of magnetic abnormality proved to be a thin layer of modern brick rubble (Fig. 1). There is a possibility that it is associated with a World War II

BRUCE CASTLE PARK

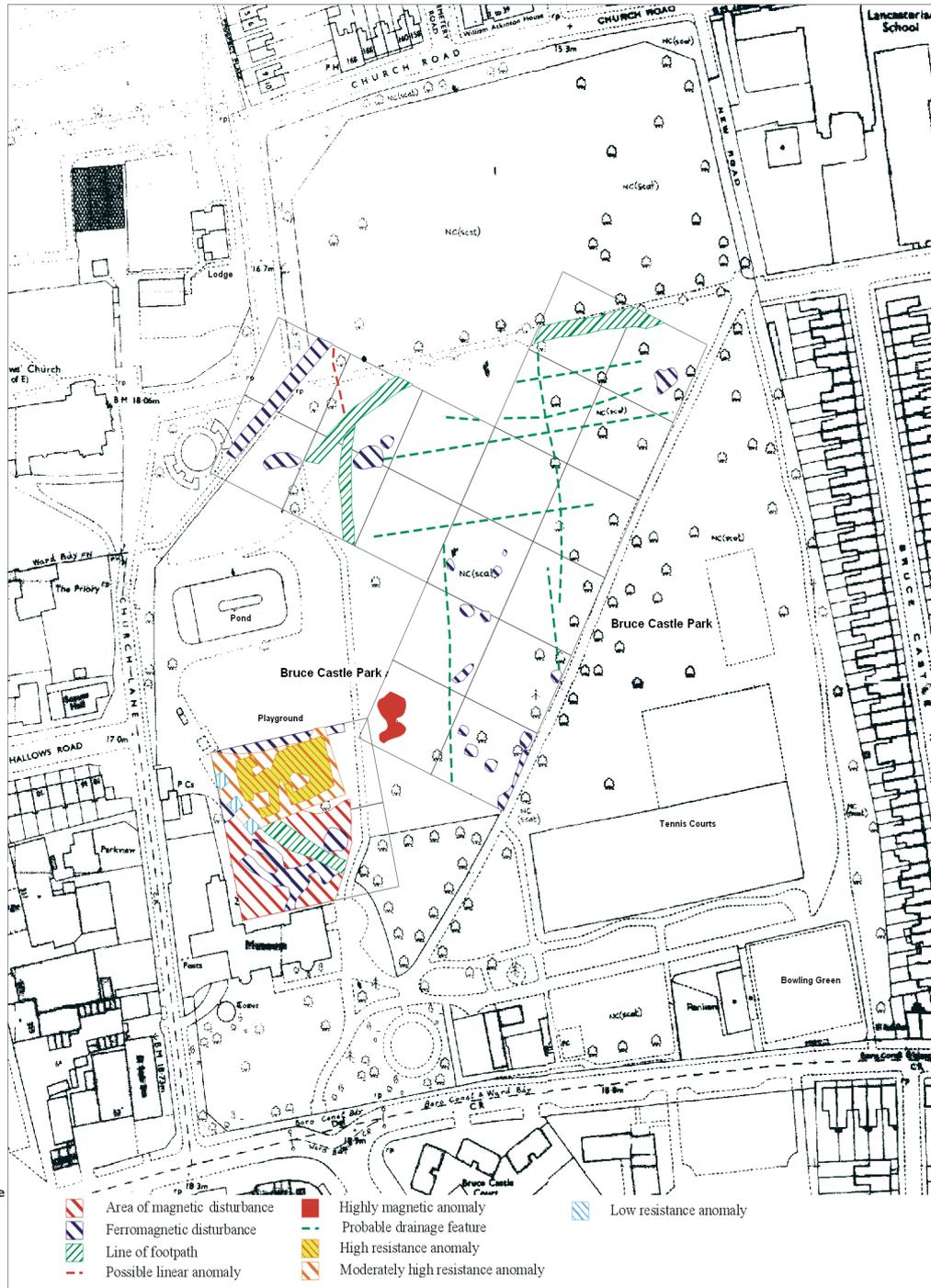


Fig. 2: location of Bruce Castle and simplified responses from the geophysical survey (based on Ordnance Survey map, with permission of HMSO. Crown Copyright AL100017626)

tethering point for a barrage balloon, with two round areas of the responses reflecting a hard-standing on either side of the tethering point.

Despite this setback, the community excavation did go on to fruitfully investigate other features identified to the immediate north of the building and near the isolated tower to the south-east of the

building (which gave fascinating insights into the use of the building as a school by the social reformer and inventor of the Penny Post Sir Rowland Hill), and the south-east corner of a chalk-founded medieval building.⁴

So why did the geophysical survey bring back such positive results? Contributory factors include the

shallow nature of the causes of the responses and saturation caused by above-average rainfall in the first three weeks of February 2006. Despite this apparent setback, Haringey Parks Department have received accurate data about the location of field drains.

In addition, the Central London Young Archaeologists Club visited the park to learn the theory and practice of geophysical survey from Dr Ian Brookes and Kathy Laws from Engineering Archaeological Services Ltd. Both members of the YAC and their parents, as well as Friends of Bruce Castle Museum learnt the theory (Fig. 3) and contributed to the data collection (Fig. 4) of the resistivity survey, adding another skill to the YAC's portfolio, which expands their awareness of the whole archaeological process.

Grateful thanks are expressed to the City of London Archaeological Trust (CoLAT) for funding the geophysical survey, to all staff at Bruce Castle Museum, particularly the curator Deborah Hedgecock, and Robert Waite, to Haringey Parks Department, and to Museum of London LAARC staff Adam Corsini, Dan Nesbitt and especially Faye Simpson; also to Ian Blair of MoLAS for carrying out the evaluation. The results of the geophysical survey are held at the LAARC.



Fig. 3: Dr Brookes explains the theory behind geophysical survey



Fig. 4: members of the Young Archaeologist Club gathering resistivity data

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3. 'Tottenham: Economic history', *A History of the County of Middlesex: Volume 5: Hendon, Kingsbury, Great Stanmore, Little Stanmore, Edmonton Enfield, Monken Hadley, South Mimms, Tottenham* (1976), pp. 333-339. URL: <http://www.british-history.ac.uk/report.aspx?compid=26989>. Date accessed: 30 December 2007.

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