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# ARCHAEOLOGICAL INVESTIGATIONS OF A MAJOR BUILDING, PROBABLY ROMAN, AND RELATED LANDSCAPE FEATURES AT BOURNE PARK, BISHOPSBOURNE, 2011-12

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Following a successful 2011 season (see Johnson and Wallace 2012), a further geophysical and topographical survey (22 July to 3 August 2012) was arranged with the owner of Bourne Park (Fig. 1), with funding provided by the Faculty of Classics, University of Cambridge, The Association for Roman Archaeology and the Kent Archaeological Society. The focus was on the remainder of the field containing the cricket pitch<sup>1</sup> where cropmarks representing a probable Roman building had been observed by Mr Chris Blair-Myers in aerial photographs of 1990<sup>2</sup> (TR 15 SE 326) and by Dr Ben Croxford in a Google Earth image from 2003<sup>3</sup> (Fig. 2), as well as on the nearby park area where metal detectorists Messrs Gawler and Sewell had found Roman coins and other artefacts (TR 15 SE 328-331) between 1986 and 2002. This area is hereafter referred to as 'Field 1 West' (see Fig. 1). Following the observation of a rectilinear enclosure (TR 15 SE 155) and associated trackway (TR 15 SE 156) in aerial photographs from 1976 (CUCAP BXK 78-81) across the valley near Bridge Hill Road, a small additional area was also investigated with magnetometry on the final day of fieldwork (referred to as 'Field 2').

This contribution is an interim report of the geo-magnetic results and not a synthetic, interpretative piece. The results of ongoing interpretations of the site based on nearby archaeological work, artefacts (including metal-detected finds), antiquarian investigations, documentary evidence, topographical survey, earth-resistance survey, Ground-Penetrating Radar, and aerial photographs will follow in future volumes of *Archaeologia Cantiana*.

## Geology and Topography

Bourne Park is an area of open parkland between the villages of

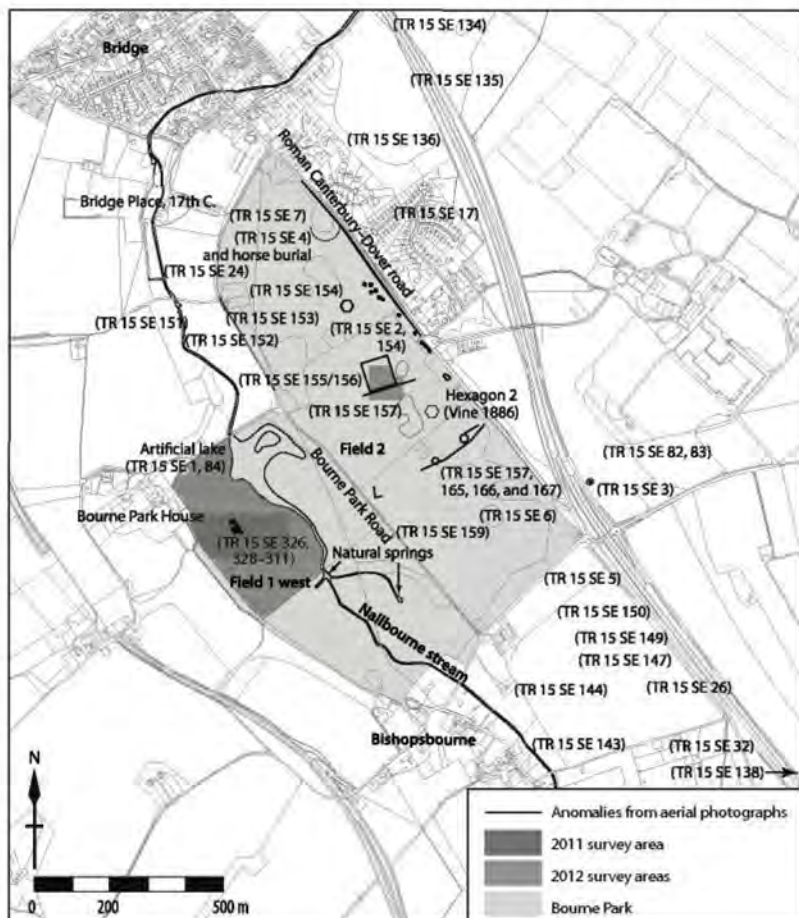


Fig. 1 Bourne Park 2011 and 2012 survey areas, relevant features known sites, and modern roads and settlement, scale 1:20,000 (background map © Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service).

Bishopsbourne to the south and Bridge to the north, *c.*6km south-east of the centre of Canterbury. The Park lies in a chalk valley, called the Elham Valley, shaped by the Nailbourne Stream, which is now only seasonal.<sup>4</sup> The Nailbourne, rejuvenated in Bishopsbourne by two springs in the Park, runs from the south-east up to the north-west through Bourne Park, east of Field 1 West. An artificial lake fed by the stream was created in

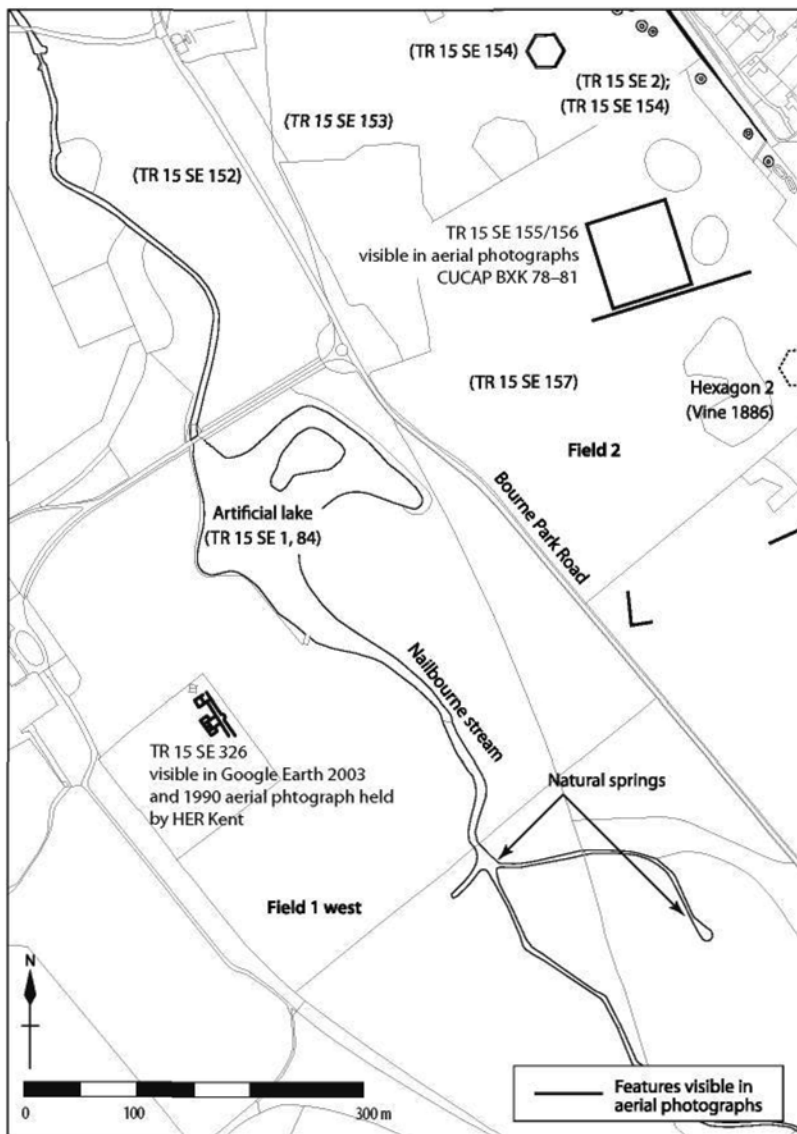


Fig. 2 Fields 1 and 2, Bourne Park, relevant digitised crop marks, features, and known sites, 1:6,666 (background map © Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service).

the Park in 1846 by owner Matthew Bell. The valley slopes up away from the stream towards Bridge Hill Road (along the approximate line of the Roman road between Canterbury and Dover) and the A2 to the north-east. The Park is bounded by the grounds of Bourne Park House to the west,<sup>5</sup> the drive of Bourne Park House and Bridge Village to the north, by Bridge Hill Road to the east, and the village of Bishopsbourne to the south. The British Geological Survey records the local geology as White Chalk.

### Aims and Objectives of Geophysical Investigation

The primary objective of the 2012 survey was to investigate the landscape surrounding the probable Roman structures, to collect data that will make it possible to analyse the relationship between this site and the Roman town at Canterbury and the possible significance of its proximity to the town, as well as to the Canterbury-Dover road and the many burials along the road at the crest of the valley. By undertaking survey over a large area, the interpretation of the landscape context of the known features, in addition to the character and function of the buildings, could be begun.

Many synthetic works on Roman Britain and Roman Kent (e.g. Mattingly 2006, 386; Millett 2007, 151-56, 170) note the lack of high-status Roman rural sites in the vicinity of Canterbury and suggest that the ruling elite of the *civitas* capital were not engaged in the same use of architectural elaboration and exploitation of dramatic landscape settings for the communication and differentiation of identity, as can be seen in the Darent and Medway valleys. Such differences suggest cultural distinction between different groups in the Roman administrative unit of the *civitas*. Clearly, however, the late pre-Roman Iron Age and Roman use of burial ritual and monuments for the display of status was common near Canterbury, as elsewhere in Kent. The results of the fieldwork may be important in assessing the divergent responses of cultural groups to the new social and political structure of the Province, and in particular how they negotiated their relationship to it. We propose that the supposed absence of high-status Roman rural sites, particularly those in connection with significant burial areas and dramatic landscape settings, can be reconsidered through the survey of more sites in the hinterland of Canterbury. Many Iron Age and Roman enclosures, structures, and other rural settlement sites have been identified through aerial photography (RCHM 1989) which are worthy of further investigation. Bourne Park is an ideal place to start as it is a large open area, suitable for geophysical survey, with known cropmarks, funerary significance, and a sweeping view from the Canterbury-Dover road at the crest of the valley on the east side of the park.

Several burials from the Bronze Age through to the Anglo-Saxon period attest to the Park's character as a significant funerary landscape over a long period,<sup>6</sup> and the siting of a large Roman rural settlement here is

likely to be related to this prior land-use. Other features (e.g. cropmarks, earthworks, Roman road, etc.) visible in aerial photographs and as anomalies on the ground suggest a complex landscape.<sup>7</sup> Hundreds of artefacts found in the Park and the immediately surrounding area support the dating of burials and occupation from the Bronze Age through to the late Medieval periods.<sup>8</sup>

In the Domesday Book, Bishopsbourne is listed as 'Burnes', a manor held directly (*in demense*) by the Archbishop of Canterbury. It had 64 villeins and 53 bordars with 30.5 ploughs as well as a church and two mills. The manor rendered £20 in geld (tax) in 1066 and £30 in 1086. The royal estate at Faversham was of comparable size and Eastry (for which Bishopsbourne was exchanged in 811) was actually smaller in 1086. Only Dartford, Aylesford, and Milton Regis (held directly by William the Conqueror) were significantly larger in 1086. Bishopsbourne was, therefore, one of the most important non-royal rural estates of the early Medieval period in Kent.<sup>9</sup> The 13th-century church of St Mary the Virgin lies c. 500m south-east of the cricket pitch and an earlier building (i.e. one standing in 1086) is mentioned in the Domesday Book. The village has been dominated by the manor of Bourne Park since at least the Tudor era. Manorial rolls and a 19th-century manuscript written by the then-owner Matthew Bell, held by the current Lord, will be examined and evidence related to the development of the landscape will be included in future reports.

This report presents the results and a basic initial interpretation of the 2011 and 2012 gradiometer and topographical survey.

### Survey Methodology

As the nature of the superficial geological background is primarily fluvial/alluvial sedimentary deposition and the expected features were of varied nature (i.e. ditches, stone walls), the decision was taken to employ gradiometer survey for the 2011 evaluation of the site, which proved effective. This method is efficient and suitable for detecting buried remains of a range of materials based on differences in their magnetic characteristics as compared to the geological background of the area (Gaffney *et al.* 1991, 6), although the results are severely restricted in areas of modern disturbance and by the presence of ferrous material (Geoscan Research 1996, Scollar *et al.* 1990, 362ff).

The area identified for survey in 2012 was determined by the density of features identified in 2011, and the decision was taken to survey the western half (as defined by the stream-bed) of Field 1 (i.e. Field 1 West) completely with both geo-magnetic and topographical survey. The location of the geo-magnetic survey in Field 2 was chosen based on the presence of the rectilinear enclosure and trackway in aerial photographs. The geo-magnetic survey was undertaken using a Bartington Instruments

Grad 601-2 Dual-Sensor Fluxgate Gradiometer. This equipment allowed the survey to be conducted rapidly, using a gridded-collection strategy, as the area was relatively free of obstructions. In accordance with the aims of the project, readings were taken at 0.25-metre intervals along traverses of 0.5-metre spacing. This enabled a high density of data to be collected over the survey area while retaining a rapid coverage of the area overall. The geophysical survey grids of 30 x 30m were set out using a Leica 1200-series GPS with SmartNet aligned to compass north as this provided an alignment which expected to cut archaeologically interesting features at 30°. In combination with the sample-density of the survey, this alignment provided sufficiently close spacing of readings to recover traces of the expected features.

### Geophysical Survey Results

The survey covered an area of approximately 9ha in Field 1 and 0.72ha across Bourne Park Road in Field 2 (Fig. 1). Field 1 is largely flat and, for the most part, free from obstructions; Field 2 lies on the valley slope. There were, however, some limitations to the survey: the area of survey in Field 1 West was bounded to the north, west, and south by a metal fence, effectively reducing the area available for survey by *c.* 3m along these edges; electrical and water pipes and cables produced strong responses; several iron utility covers, fenced-off saplings, an old iron roller, and a heavy steel sheep-pen base also had to be avoided, as had trees and other vegetation (e.g. dense nettles, etc.); the brick foundations of a 19th-century lake-house also disrupted the survey; dense flint nodules and metal debris cast up from recent dredging of the artificial pond also appear to have had a strong effect in the north-eastern part of Field 1 West. Within the area where survey was possible the site exhibited a good response to the gradiometer and, where present, buried features showed clearly against the geological background (**Figs 3 and 4**). In general, positive anomalies appear to result from cut/filled features such as ditches and pits, whereas negatively magnetic responses are interpreted as built features such as walls.

### Description of anomalies

In the northern part of Field 1 West a high concentration of dipolar anomalies was observed (**Figs 5 and 6**). The character of the responses in this area differs from those to the south, giving the impression that they represent an area of related features, and so are collectively referred to as 'Enclosure 1'. On the surface there was a dense spread of flint nodules [1], and although there is faint evidence for the presence of rectilinear features within this area, there was such a large amount of iron both on the surface and buried (e.g. a long fence runner) in the topsoil that they



are too obscured to interpret. A quiet area separates [1] and [2], which could indicate a possible terrace associated with the building of Bourne Park House and/or landscaping of this part of the park, which included the creation of the artificial lake in *c.* 1846. Other linear dipolar anomalies [3] and [4] are likewise separated by quiet areas and appear to be aligned both to [2] and to Bourne Park House, further supporting the likelihood that they are remnants of landscaping in brick construction, such as ha-ha walls. This area appears to be bounded to the south by a perpendicular dipolar anomaly [5]. Within this 'enclosure' are four sub-rectangular dipolar anomalies [6], [7], [8], and [9]. Parch marks in satellite images from 2003 (Google Earth) show a complex of linear and rectilinear features in this area. Outside this 'Enclosure 1' to the south/south-east are three dipolar anomalies—[10], [11], and [12]—which are seemingly associated with linear feature [5] and could represent ornamental buttresses of a brick wall [5].

In the central part of Field 1 West lies a second enclosure, 'Enclosure 2', bounded by positive linear anomalies (i.e. probable ditches) [13] and [14] on the north, [15] on the west, and by 140m-long [16] on the south; the eastern side is bounded by the 110m-long negative linear anomaly [17], which defines what appears to be the edge of a river-terrace (boundary wall?) which delimits the magnetically active area to the south-west from the significantly quieter zone to the north-east and terminates at a large dipolar anomaly [17a]. A low-response 75m-long positive anomaly [18] crosses through this enclosure, terminating at an irregular dipolar anomaly [19], which probably results from the presence of ferrous material on the ground-surface. There are two separate structures represented by negative linear anomalies clearly visible within this enclosure, a western range at [20] and a southern range at [21]. The northern end of the western range is visible through aerial photographs and earth-resistance (begun in March 2013 and continuing later in the year, results to be published separately). A large dipolar anomaly [22] is situated at the external corner of the western side of the western range [20] and could represent a large hearth or furnace. The western range comprises at least 500m<sup>2</sup> and the southern range at least 400m<sup>2</sup>. Features in the northern part of this enclosure are unclear, but do not seem to represent a northern range of structures similar to the other two.

West-southwest of this enclosure there is a large, linear dipolar feature [23] representing the line of a power-cable for outside lighting. A second large dipolar anomaly [24] represents the effect of the large iron-roller which was impossible to remove from the survey area. Approximately 35m to the north-east of Enclosure 2 linear positive responses [25] represent a possible structure, at the far edge of the area of alluvial deposition; it is possible that [25] is a continuation of ditches [16] and [26] to the south-west.

To the south of Enclosure 2 lie two small areas enclosed by ditches [16],



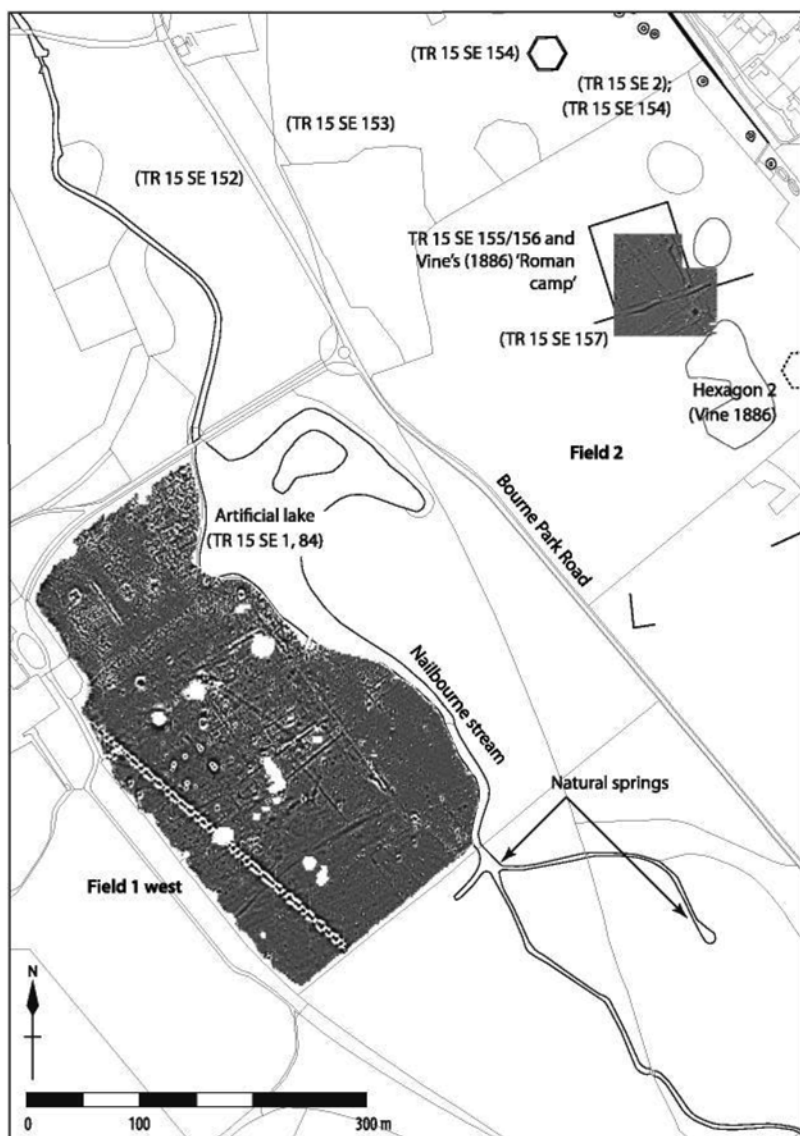


Fig. 3 Fields 1 and 2, Bourne Park, gradiometry results from 2011 and 2012, digitised relevant crop marks, features, and known sites, 1:6666 (background map © Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service).

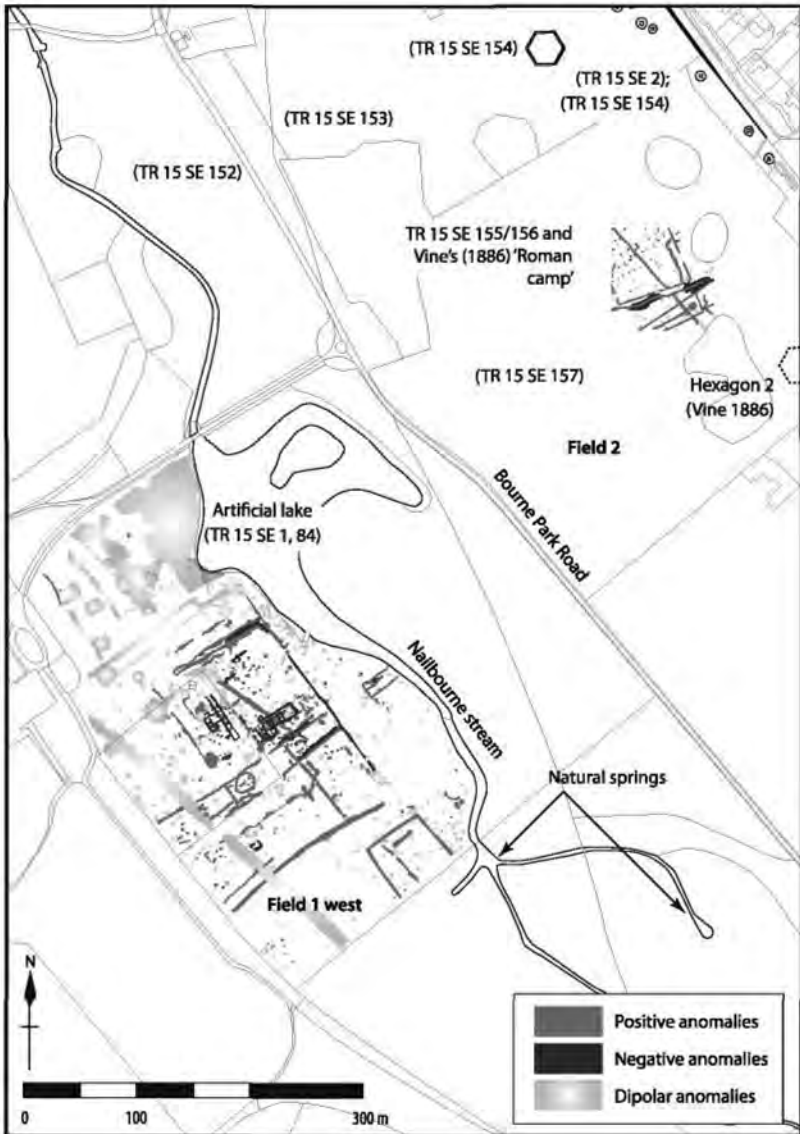


Fig. 4 Fields 1 and 2, Bourne Park, digitised interpretation of gradiometry results from 2011 and 2012, digitised relevant crop marks, features, and known sites, 1:6666 (background map © Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service).

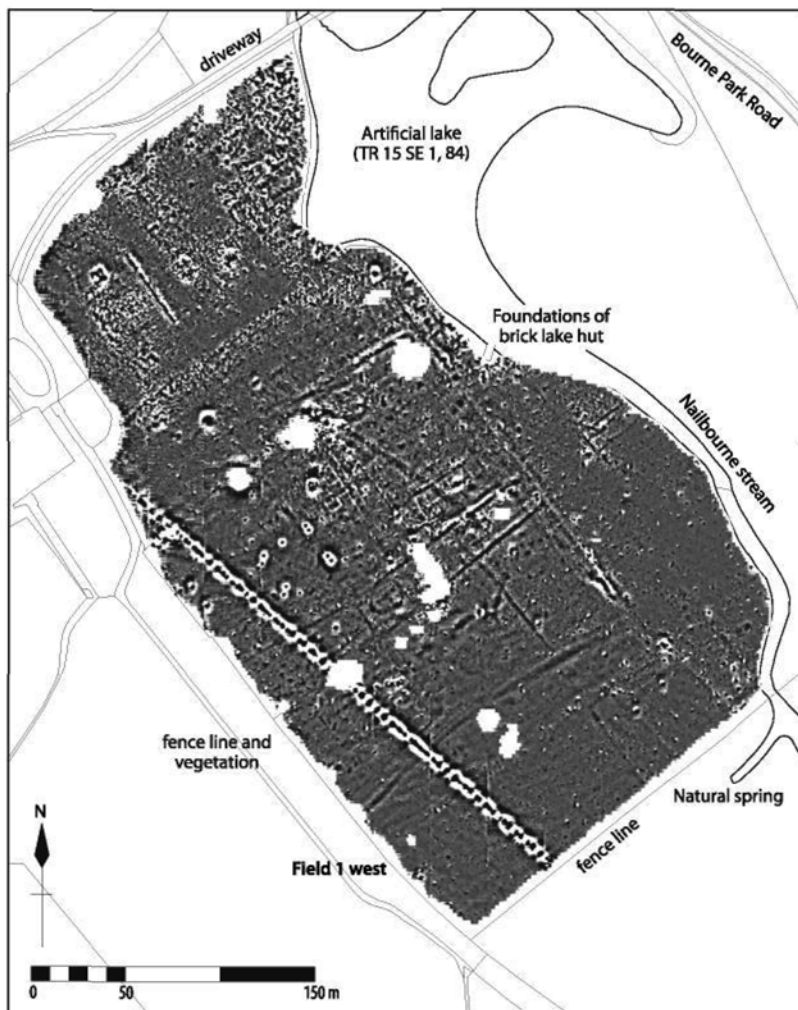


Fig. 5 Field 1, Bourne Park, gradiometry results from 2011 and 2012, 1:4,000 (background map © Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service).

[26], [27], and [28]. In the north-eastern area there is a positive macula [29] which may also be of archaeological significance, probably to be interpreted as a large pit. The southern area encloses a 21 x 16m, annular positive anomaly [30]. This feature is consistent with a ditch and, given

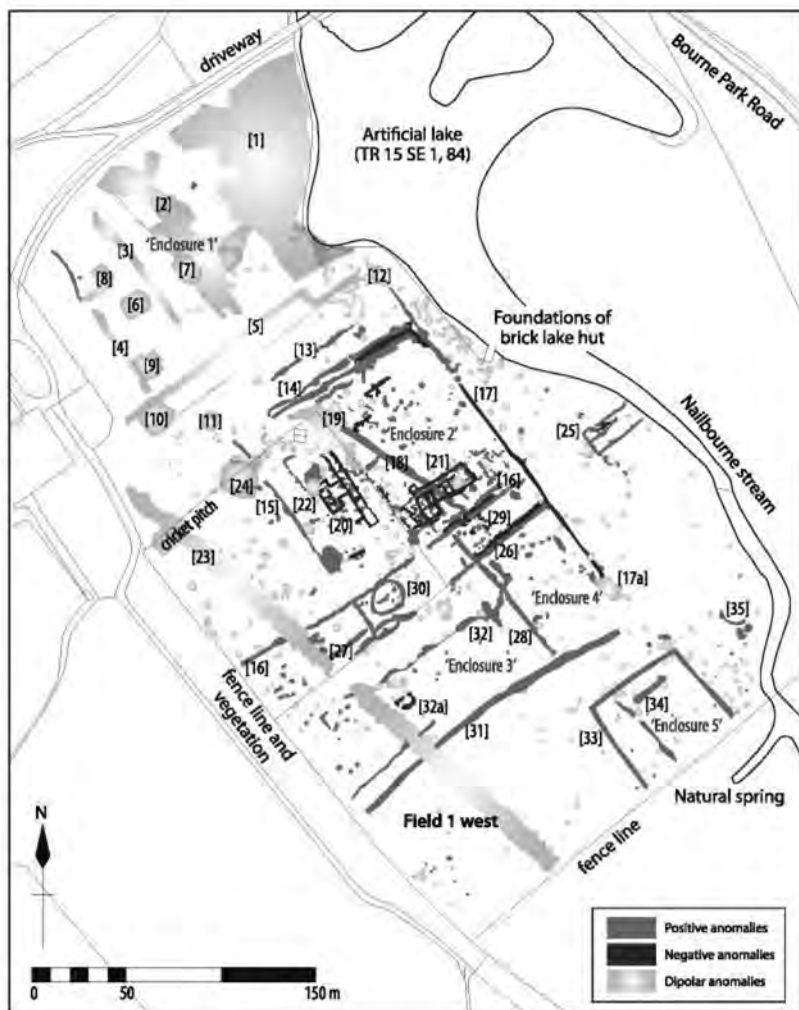


Fig. 6 Field 1, Bourne Park, digitised interpretation of gradiometry results from 2011 and 2012, 1:4,000 (background map © Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service).

the context, it most likely relates to a barrow or similar burial mound.

Ditches [26] and [27] also form the northern sides of Enclosures 3 and 4, which are separated by [28] and bounded by [31] on the southern side; Enclosure 4 is bounded by the continuation of [17a] on its eastern side. A

positive magnetic anomaly (possibly representing a drainage ditch or geological feature) [32] divides Enclosure 3 and intrudes into Enclosure 4.

The positive linear feature [28] is aligned to the western side of [33], which bounds Enclosure 5, to the south. Within Enclosure 5 lies a possible structure or smaller enclosure [34] represented by positive linear anomalies

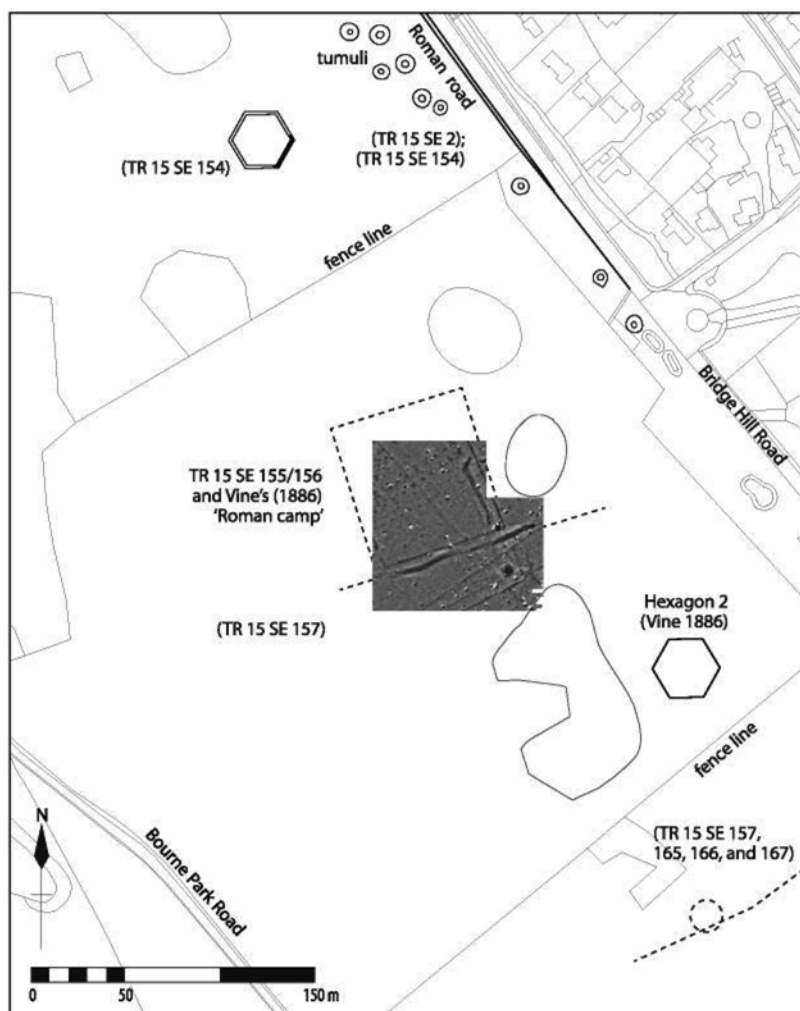


Fig. 7 Field 2, Boume Park, gradiometry results from 2012, 1:4,000 (background map © Crown Copyright/database right 2013.

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and two dipolar anomalies at the inside of its northern corners. North-east of the fifth enclosure is a faint semi-annular positive anomaly [35].

In Field 2 (Figs 7 and 8), slightly less than 1ha was surveyed with magnetometry as a trial in order to investigate the rectilinear enclosure and 'trackway' visible in aerial photographs. This area is on the steeply-

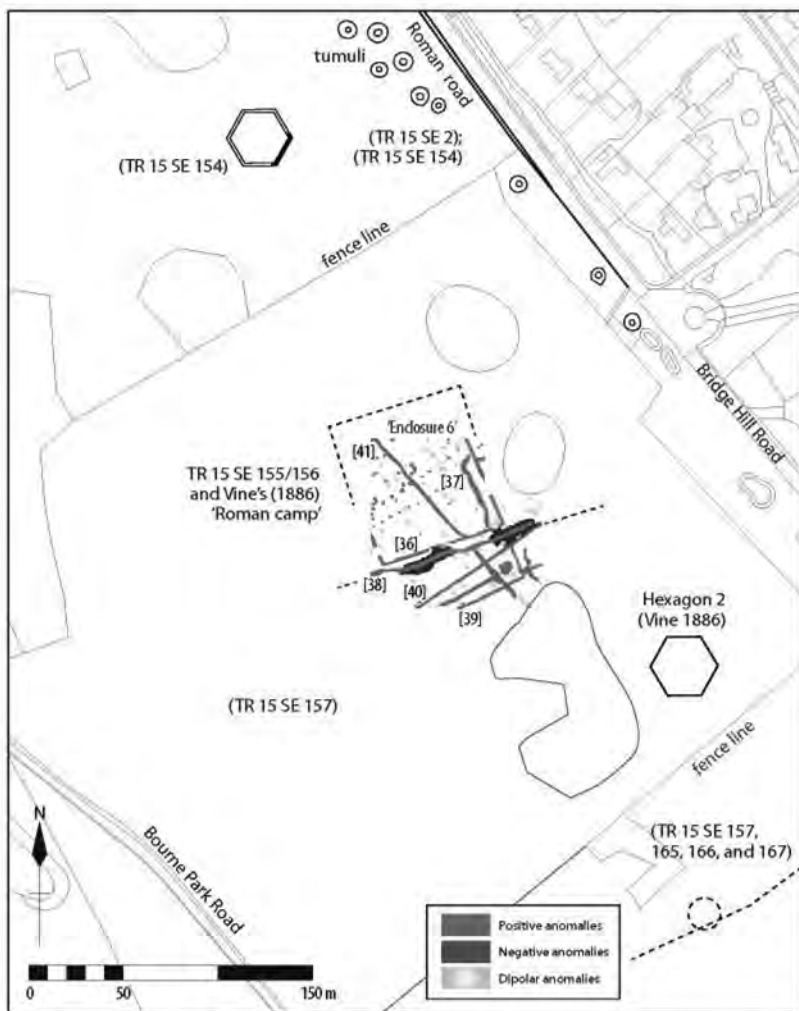


Fig. 8 Field 2, Bourne Park, digitised interpretation of gradiometry results from 2012, 1:4,000 (background map © Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service).



sloping side of the valley. Three sides of an enclosure ('Enclosure 6') are represented by positive linear anomalies [36], within which are a scattering of small positive and dipolar anomalies as well as a wide positive linear anomaly [37] parallel to the eastern side of the enclosure. Positive linear anomaly [38] runs parallel to and south of [36]. Positive linear anomaly [39], aligned approximately to the enclosure [36] to its north, could represent the corner of an earlier phase of the enclosure. Perpendicular positive linear anomalies [40] and [41] appear to cut through this complex; they are, however, the only features apparently aligned to the Roman road, *c.* 100m to the north-east.

The majority of the area surveyed demonstrated small, scattered dipolar responses (not numbered here), likely a result of the presence of ferrous materials on or near the ground-surface.

### Basic Interpretation and Discussion

The sides of Enclosure 1 are formed by the drive of Bourne Park House, the artificial lake, and a possible brick wall represented by [5]. Within this enclosure are remains of walls and structures probably associated with 19th-century ornamental landscaping, such as ha-ha walls. Enclosure 2 is formed by ditches (or double ditches) on three sides and a possible stone wall on the fourth eastern side. Within this enclosure lie two wings of a structural complex (the western wing covers an area measuring *c.* 52m NW-SE X 19.5m SW-NE; the southern wing covers an area measuring *c.* 33.5m SW-NE X 21.5m NW-SE), probably Roman, and a possible third wing on the northern side which is unclear in the geo-magnetic results. The dipolar anomalies associated with the wings could represent hypocausts or furnaces. Sub-rectangular positive anomalies within this enclosure could represent large pits or, perhaps more likely, Anglo-Saxon sunken-featured buildings. Artefacts recovered by metal detectorists within Enclosure 2 and to its east were primarily of Iron Age, Roman, and Anglo-Saxon date, which suggest a possible date range for the use of the structures. A ring-ditch [30] appears to respect the boundaries of Enclosure 2, and may possibly, therefore, be later; perhaps a ditch surrounding a burial. Enclosure 3 could be divided by a ditch [32] across its centre, and may contain a structure [32a], but it is too obscured by the strength of the dipolar anomaly [23]. Enclosure 4 contains several large sub-rectangular positive anomalies which could, again, represent Anglo-Saxon sunken-featured buildings or possible evidence of other post-built structures such as long-houses. Enclosure 5 is separate from the other attached enclosures and appears to contain a structure, or secondary ditch-system, within it. The proximity of this enclosure to a still-existing natural spring might suggest a function related to the use of water. Enclosures 1-5 all lie approximately parallel to the Roman road. Enclosure 6, however, lies

at an angle to the road (as well as the possible trackway to its south), although it is much closer to it. Such a difference in alignment could indicate that the enclosure is from a different period. Enclosure 6 seems to have two phases, having been shortened or moved northward in a second phase, perhaps related to the construction of the trackway perpendicular to the Roman road, which may be the approach road to the structures in Enclosure 2. Enclosure 6 Phase 1, may, therefore, pre-date Enclosure 2 and Enclosure 6 Phase 2 may be of the same or later date.

It will be necessary to extend the survey between Field 1 West and Field 2 in order to clarify relationships between the features observed to date and to understand fully the relationships between the supposed settlement area and the Roman road. It is also clear that some features visible in aerial photographs do not respond well to geo-magnetic survey and a complementary campaign of earth-resistance and Ground-Penetrating Radar survey has begun in areas where there is strong evidence for structural remains.

#### ACKNOWLEDGEMENTS

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#### ENDNOTES

<sup>1</sup> The cricket pitch is an historic feature in its own right: referred to as 'Bishopsbourne Paddock', it was home to first-class matches of the Bourne Cricket Club, the county team patronised by Sir Horatio Mann in the 18th century, which drew huge crowds and made Bourne Park a significant sporting venue (Ashley-Cooper 1929); the cricket pitch is no longer in use.

<sup>2</sup> Kent County Council 1990 aerial photograph, run 19, photo 279.

<sup>3</sup> Copyright 2013, Infoterra Ltd. and Bluesky.

<sup>4</sup> In earlier times the stream may well have had a permanent flow if the water table was significantly higher, as is likely. See, for example, the number of watermills recorded in Domesday Book along this stretch of the Little Stour (Lawson and Killingray 2004, p. 63).

<sup>5</sup> Bourne Park was once the grounds of Bourne Park House (English Heritage Building ID: 170984), a Grade I listed building to the west, but the house has been divided from the Park and is under separate ownership. The Park is now a pasture used for sheep grazing and a recreational area for walkers.

<sup>6</sup> TR 15 SE 1 and TR 15 SE 84, see Bell 1848, 47-48; Haverfield *et al.* 1932, 147;

TR 15 SE 2 and TR 15 SE 154, see Faussett 1856; Meaney 1964; Smith 1908; Wilkinson 2008 and Wright 1845:

TR 15 SE 3, see Ashbee and Dunning 1960;

TR 15 SE 4 (at or near), see Vine 1886, 173;

TR 15 SE 5, see Jessup 1943, 69;

TR 15 SE 6, see Faussett 1856; Meaney 1964;

TR 15 SE 7, see Jenkins 1956, 248; Haverfield *et al.* 1932, 148; Wright 1845, 279;

TR 15 SE 26, see DOE 1973; Webster and Cherry 1974;

TR 15 SE 32, see DOE 1973; Journ. B.A.A. 1856; Webster and Cherry 1974;

TR 15 SE 83, see Macpherson-Grant 1980; KAS Newsletter 2013, No. 95.

<sup>7</sup> TR 15 SE 17, 134, 135, 136 151, 152, 153; TR15 SE 154, see Vine 1886; Wilkinson 2008:

TR 15 SE 155, see CUCAP (Cambridge University Centre for Aerial Photography) BXK 78-81;

TR 15 SE 156, see CUCAP SU 1;

TR 15 SE 157, 158, 159, 161, 164, see Vine 1886;

TR 15 SE 165, 166, see CUCAP BXK 76-77;

TR 15 SE 167, see CUCAP BSK 76-77;

TR 15 SE 169, see Vine 1886, 173; MacPherson-Grant 1980, 136;

TR 15 SE 326; and others noted by Vine 1886, 170-173.

<sup>8</sup> TR 15 SE 328, 329, 330, 331; MKE56901, MKE56902, MKE57032, MKE57196, MKE57281, MKE57282, MKE57284, MKE57302, MKE57306, MKE57315, MKE57316, MKE57357, MKE57371, MKE57372, MKE57381, MKE57382, MKE57441, MKE57442, MKE57574, MKE57575, MKE57582, MKE57771, MKE57772, and MKE57776.

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