

**CPAT Report No 1294**

# Caerau Roman Fort Environs, Beulah, Powys

**ARCHAEOLOGICAL INVESTIGATIONS 2014-15**



Llywodraeth Cymru  
Welsh Government



**YMDDIRIEDOLAETH ARCHAEOLEGOL CLWYD-POWYS  
CLWYD-POWYS ARCHAEOLOGICAL TRUST**

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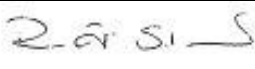
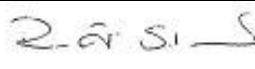
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Prepared by:	Checked by:	Approved by:
		
Richard Hankinson Project Archaeologist	Bob Silvester Head of Field Services	Bob Silvester Head of Field Services
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**The Clwyd-Powys Archaeological Trust**  
 41 Broad Street, Welshpool, Powys, SY21 7RR  
 tel: 01938 553670, fax: 552179  
 email: [trust@cpat.org.uk](mailto:trust@cpat.org.uk)  
[www.cpat.org.uk](http://www.cpat.org.uk)

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Cover photo: Excavation of the practice camp to the west of the fort (CPAT 3930-0040)

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## 1 INTRODUCTION

- 1.1 In July, October and November 2014 and January and February 2015, the Field Services Section of the Clwyd-Powys Archaeological Trust (CPAT) carried out further investigations in the fields around the Roman fort at Caerau, near Beulah, Powys. The work followed on from investigations of the *vicus* at Caerau undertaken in 2012-13 and 2013-14 and was designed to determine the extent, nature and dating of a range of sites thought to represent early activity associated with the fort, by means of excavation and geophysics. This formed part of the on-going programme of work which CPAT has been carrying out on Roman military sites in eastern Wales which is designed to enhance the management and protection of these important monuments. Financial assistance was provided by Cadw.
- 1.2 The work herein described utilised similar methods to those employed in the investigation of the *vici* at Brecon Gaer in 2009 and 2010 (Hankinson 2009; 2010), Hindwell in 2011 (Hankinson 2011) and Castell Collen also in 2011 (Hankinson 2012a). The work was informed by results from geophysics and trial excavations carried out at Caerau in 2012 and 2013 (Hankinson 2012b; Hankinson 2014), work which revealed evidence of Roman activity in addition to that provided by earlier geophysics undertaken around the fort in 2004 (Silvester, Hopewell and Grant 2005).
- 1.3 The geophysical survey was carried out in a number of localities, each designed to investigate an element of the site complex under study. These included a large marching camp to the north-west of the fort and a group of intermittent cropmarks to the west of the fort; the latter, it was thought might relate to some form of Roman settlement or defensive site (see Fig. 1). In addition, a small area in the eastern corner of the field to the north-east of the fort was examined; this had escaped attention in previous survey programmes and the work there concluded the investigation of this part of the Roman *vicus*.
- 1.4 In concert with the geophysics, further excavation was also carried out to elucidate the nature and dating of the northern of two probable Roman practice camps (see Fig. 1), located some 200m to the west of the fort. A second excavation was placed to examine the nature of a large rectangular geophysical anomaly, identified in 2013, in the field to the north-east of the fort.

## 2 THE FORT AND ITS ENVIRONS

- 2.1 The Roman fort at Caerau (SN 9239 5016) lies about half way between the forts at Llandoverly and Castell Collen and around 1km south-east of Beulah in south-west Powys. It lies on a low hill immediately adjacent to the Roman road (known in Margary's terminology as RR623a) and overlooks the Afon Cammarch, a tributary stream of the Afon Irfon, to the north-east. The fort lies at an elevation of approximately 220m OD, about 30m above the adjacent river level; it has clear views towards Mynydd Epynt to the south and south-east, with rather more restricted views of the hills on the west and north. The locality is one of rolling topography, covering an undulating strip of land about 6km in overall width, sandwiched between the ranges of Mynydd Epynt to the east and the Cambrian Mountains to the west, both of which exceed 450m OD in elevation.

- 2.2 The fort was conclusively recognised only as recently as the 1950s through the work of the late Barri Jones (Jones 1957, 126), although it is perhaps surprising that it was missed by the Ordnance Survey in the late 19<sup>th</sup> century, especially as there was apparently a local tradition that it was the site of a Roman camp (Jones 1923, 156). Additionally, there are references to Roman ceramic material being found here before the 1950s, firstly during drainage work at the farm in the late 1870s (Banks 1879, 151) and again in 1914, as a result of ploughing (Jones 1923, 156). The latter reference mentions that ‘many cartloads of pieces of earthenware vessels, of varying sizes and thickness were turned up’ when a field called ‘Cae Pen y Bont’ was first ploughed; the mid-19<sup>th</sup>-century Tithe map reveals that this was the field which runs down to Black Bridge on the Afon Cammarch, to the north-east of the farm. The place where the ceramics were found was described by the Breconshire antiquary Theophilus Jones (1923, 156) as a ‘small flat area’ of the field and he commented that ‘pieces of concrete’ were found at the site in 1914, which he supposed to have been the floor of a factory, although it might be more realistic to consider this evidence as indicative of a bath-house. The medieval castle mound known as ‘Twadin’ was first recorded here by Jones (1805-9, 267), and its presence on the south-western part of the Roman defences seems to have either diverted attention away from the possibility that this was the site of a Roman fort or at least to have introduced a level of doubt about the site as a whole. This is typified by Banks (1879, 151), who, while discussing the mound, mentions that ‘from the discovery of rubbish and ruins, and from the place being called the encampments, some have concluded that it was a Roman station’.
- 2.3 The fort has been described in detail in Burnham and Davies (2010) and much of the following summary is drawn from that source. It was first surveyed in 1958 (Jones and Thomson 1958) and trial excavations took place in 1965 under the direction of Barri Jones identifying two phases of construction. In both phases the fort was slightly trapezoidal in outline, the earlier measuring c.167m by 117m on the west and 110m on the east, (1.9 hectares), the second measuring c.106m on the north side, 113m on the south, 117m on the west and 115m on the east (1.3 hectares). The 1965 excavations investigated the north-western defences, demonstrating that the earlier fort rampart was built of clay with a turf facing resting on a cobble foundation, the rampart being fronted by two ditches. The defences of the second fort were of similar construction, although the original two ditches were infilled and replaced with a single ditch. Only limited excavations were undertaken in the interior, which revealed part of a phase 1 timber building that was later replaced by a stone-built granary. Finds suggested that the site was occupied in the period c.AD 75-120, with abandonment early in the reign of Hadrian. The date of the reduction in size could not be determined on the basis of the 1965 finds but a Trajanic date seemed appropriate.
- 2.4 The *vicus* to the north-west of the fort was initially recognised in 1958, when two small, semi-circular terraces were noted, together with marks that were claimed to represent the foundations of four rectangular buildings. Pottery, brick, tile and other material were scattered by the plough. The linear earthwork examined in 2013 was also recognised at that time, as was a split-level shelf on a terrace above the river to the north-east of the fort. A prominent ledge in front of the north-east gate was considered to be the site of the military bath-house, although this interpretation is perhaps questionable.
- 2.5 Small-scale evaluation (see Fig. 3) and a ground survey were conducted by CPAT in 1990 within the area of the *vicus* in response to an application for scheduled monument consent to rotavate the field (Jones 1990). Fourteen test pits, each 1m square, were

positioned to investigate obvious earthwork features, or to provide data on the depth at which archaeological deposits occurred within the field as a whole. The ploughsoil varied in thickness between 0.2m and 0.3m, except where it overlay the Roman road, which was covered by only 0.15m of ploughsoil. Two test pits were positioned along the Roman road, revealing a solid metallated surface composed of compacted fine gravel. Pottery and/or brick and tile fragments were recorded in ten of the test pits, including the rim of a mortaria which had been stamped DOCI, representing the name Docius or Docilis, who was one of the most prolific potters working at Wroxeter in the period AD 100-150 (identification by Kay Hartley).

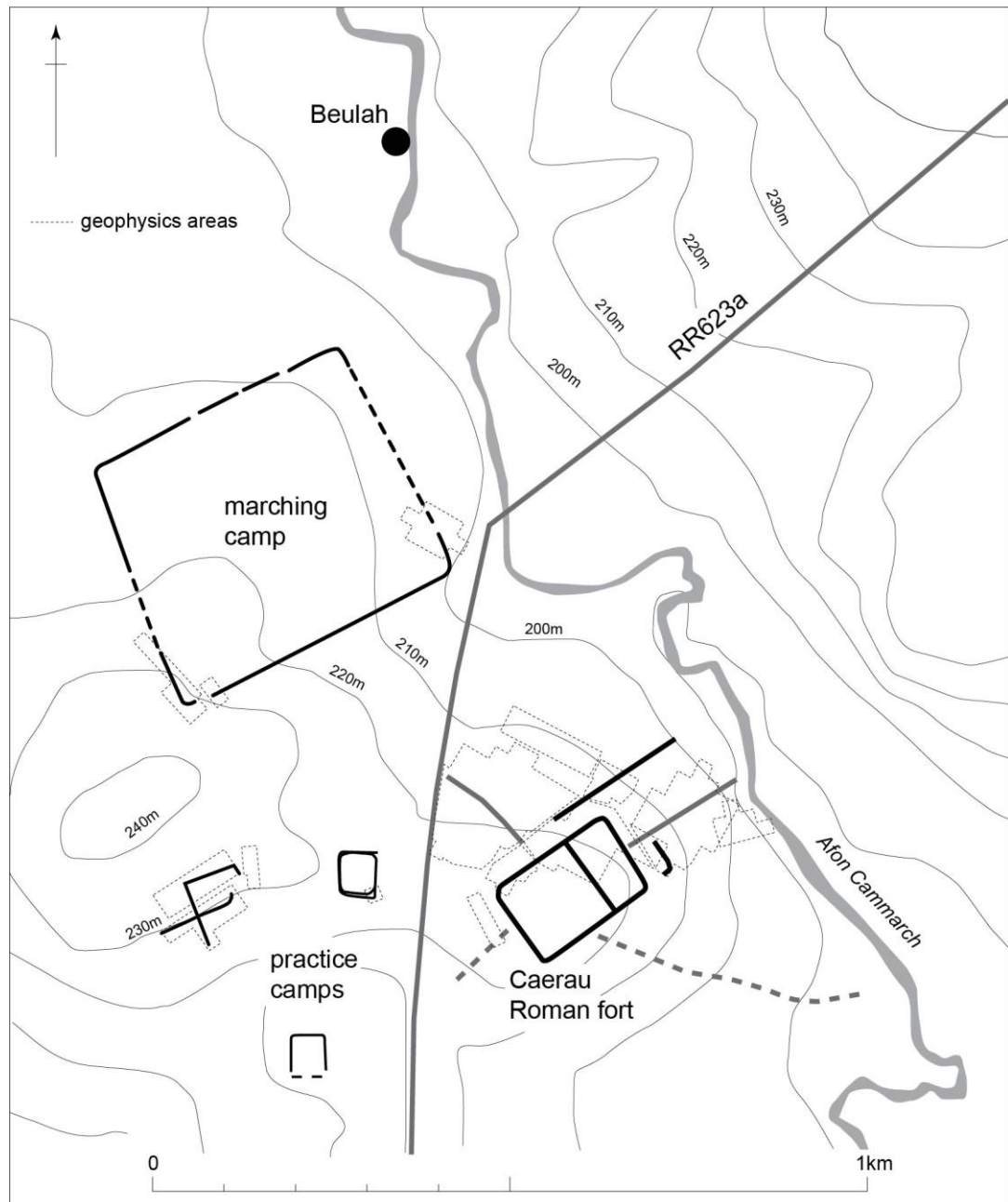
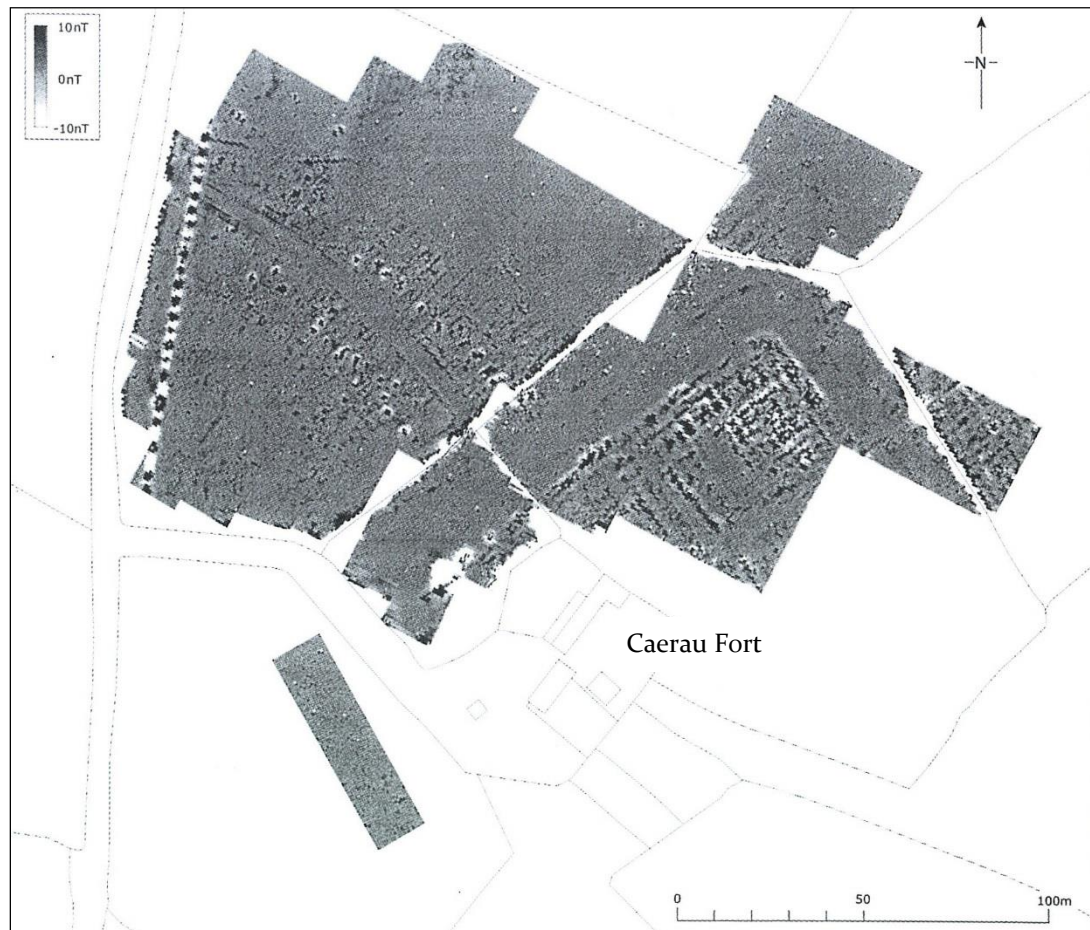


Fig. 1: The location of Caerau fort in relation to other Roman sites in the vicinity and the modern settlement of Beulah, also showing areas examined by geophysics (indicated by pecked lines)

- 2.6 The 1990 ground survey identified the Roman road heading north-west from the fort, as well as a number of other, potentially Roman, earthworks and several linear features which were assumed to be modern field drains. A large platform was identified to the north-east of the road, cutting into the slope and measuring around 40m by 35m. Two of the three test pits located within the confines of the platform produced evidence for occupation in the form of a compacted surface, possibly a floor, and fragments of brick and tile. Previous plans of the site (Jones and Thomson 1958; RCAHMW 1986, 131) had identified the positions of presumed buildings within the field, although, with the exception of the large platform, the survey was unable to confirm their presence.

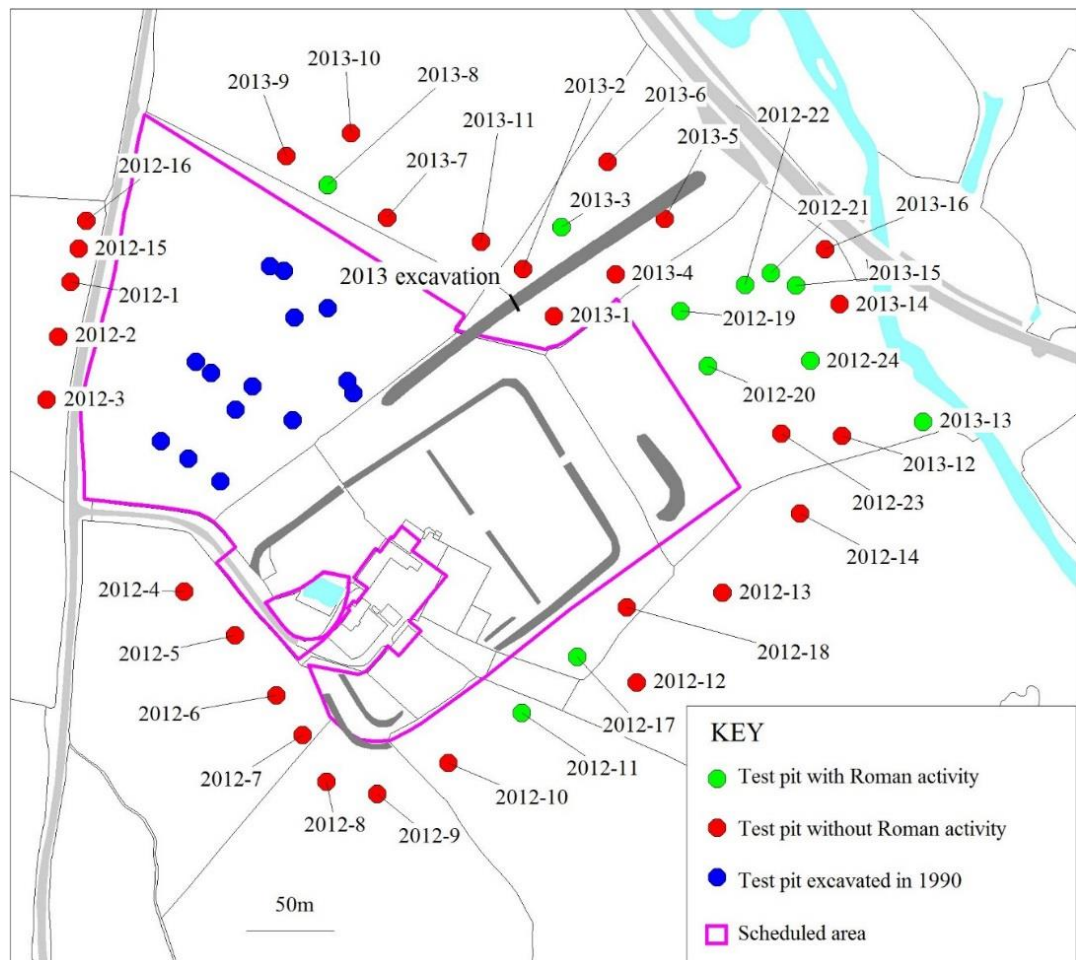


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Fig. 2: The results of the 2004 geophysics

- 2.7 Geophysical survey in 2004 (Silvester, Hopewell and Grant 2005; see Fig. 2, below) confirmed the presence of settlement to the north-west of the fort, demonstrating a regular layout of buildings on either side of the Roman road, although no clear plan could be deduced. The positions of buildings were suggested by thermoremanent anomalies, probably representing hearths. Evidence for rectangular buildings was also found outside the north-east rampart of the fort, although an adjacent earthwork bank suggests the possibility that this was a small annexe to the fort, rather than part of the *vicus*. Unfortunately, the remainder of the field to the north-east was not surveyed so it was not determined whether activity extended further on this side. The geophysical survey also failed to identify any evidence for extra-mural activity in a sample area to the south-west of the fort.

- 2.8 Further geophysics was undertaken in 2013 (Hankinson 2014), to assess the possibility of extra-mural settlement to the north and north-east of the fort. This involved the examination of all but a small portion of the field to the north-east (Area 1), also part of the field immediately to the north of the *vicus* on the north-west side of the fort (Area 2). The latter was unsuccessful in revealing significant traces of settlement, as all that was evident in the results was a series of drainage features. However, the former (see Fig. 3) was more productive and revealed what seemed to be a building with a number of rooms arranged around a central courtyard, together with a large rectangular thermoremanent anomaly whose size and appearance was suggestive of a bath-house. Further anomalies were probably pits or linear drains/gullies of Roman date.



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Fig. 3: Test pits excavated in 1990, 2012 and 2013, also showing the linear earthwork excavated in 2013, and highlighting positive and negative evidence from the recent work

- 2.9 Forty small-scale test pits (Fig. 3) were excavated around the fort and known *vicus* in 2012 and 2013; collectively, these have added significantly to the definition of extra-mural activity around the fort. No evidence for activity was revealed beyond the known *vicus* to the north-west and the situation was the same to the south-west of the fort. Activity contemporary with the fort was revealed on its south-east side, but this was in close proximity to the fort gate, and there was no conclusive evidence of settlement there. The ground elsewhere on this side is steeply sloping and unsuitable for



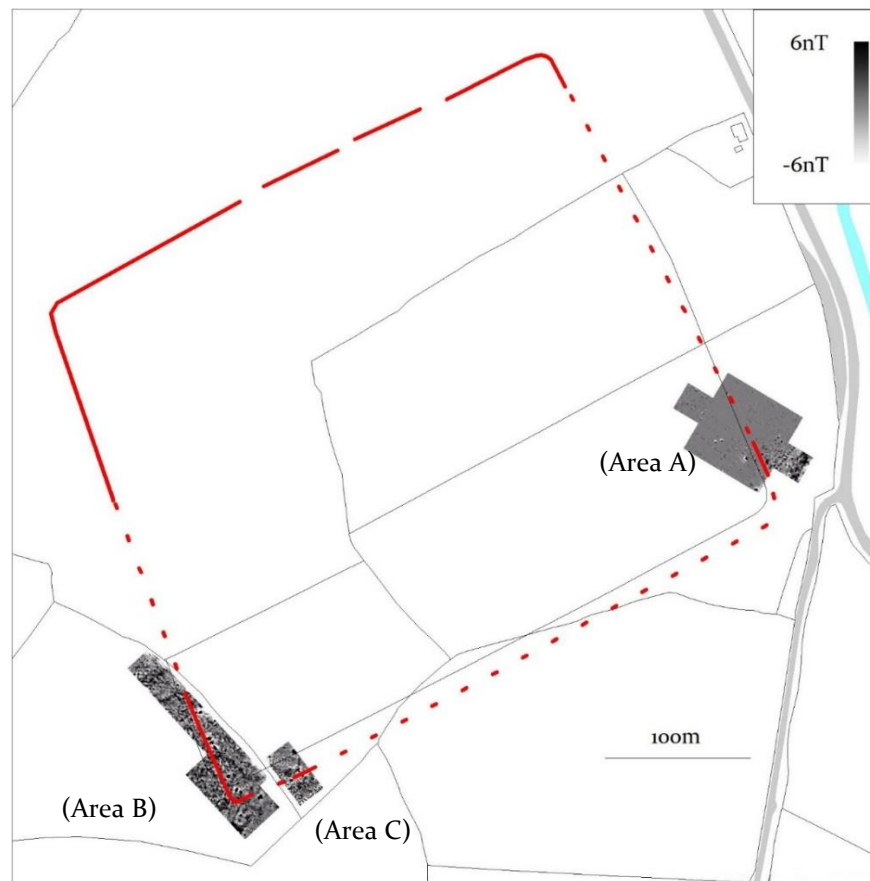
settlement. The area to the north-east of fort revealed an apparent concentration of activity alongside the road which exited the north-east gate, with randomly distributed evidence of Roman activity in the wider area, and this was supported by the geophysics results. It now appears that sufficient information is available broadly to determine the extent of extra-mural settlement at Caerau, which lies on both the north-west and north-east sides of the fort.

- 2.10 In 2013, the linear earthwork depicted on Fig. 3 was investigated in a trench across its course. This proved conclusively that it was of Roman date, comprising a bank, berm and ditch, whose function appeared to be defensive. It may represent part of the boundary of an annexe on the north-east side of the fort, perhaps associated with the north-west/south-east aligned ditch revealed in test pit 24 in 2012. Recent analysis of the material from the excavation suggests that the earthwork dates to the early 2<sup>nd</sup> century AD and it may, therefore, be contemporary with the reduction in the size of the fort mentioned above and attributed to the reign of Trajan; it is perhaps also significant that its south-west end matches the extent of the reduced fort.
- 2.11 The area around Caerau contains a number of other earthworks and cropmarks which are likely to relate to Roman activity during the conquest period (see Fig. 1). A large marching camp and other potentially military earthworks lie 500m to the north-west, while two possible practice camps have been identified, one 200m to the west and the other 320m to the south-west, respectively (Davies and Jones 2006, 91-2); cropmarks further to the west have been suggested as relating to one, or perhaps two, additional camps. It is the investigation of this group of sites in the environs of the fort which forms a large part of this report.

### 3 GEOPHYSICS

- 3.1 The aims of the 2014 geophysics were twofold; the first was to complete the assessment of the settlement evidence in the field to the north-east of the fort, by examining an area that had escaped investigation in 2013. The second aim was to see if it was possible to glean further information regarding the nature and extent of the earthworks and cropmarks mentioned above in paragraph 2.11 and depicted on Fig. 1.
- 3.2 Seven separate survey areas were covered by geophysics, the results only then being combined in GIS to produce an overall view of the sub-surface anomalies at the different sites. Each survey was based on a series of 20m by 20m grids and employed a Bartington 601 fluxgate gradiometer with two sensors. The readings in each grid were taken along traverses 0.5m apart and the speed of each traverse was carefully controlled such that readings were taken every 0.25m, giving a total of 3200 readings per 20m grid. The grids were laid out by taped measurement and then located in relation to local field boundaries by total station survey. The survey areas could then be related to modern Ordnance Survey mapping, thereby enabling the co-ordinates of any significant anomalies to be determined and the results compared to evidence obtained from other sources. The readings from each area were combined and processed using Archeosurveyor software to provide greyscale and trace images of the results. The only processing functions used were *Destripe* to remove variations in the readings between opposing traverses and *Clip*, to remove the effects of very high and very low readings on the results, thereby allowing anomalies of potential archaeological interest to be observed.

- 3.3 The seven main areas were concentrated in three general localities, the first of which (covered by Areas A-C) lay on the north-west side of the fort. These were placed to intersect the supposed alignments of the defences of the Roman marching camp. A second group (Areas D-F) examined a possible Roman camp that had been observed as series of cropmarks, but whose true extent, shape and function was not readily apparent. For both of these localities, a plan (Figs 4 and 14, respectively) shows the geophysics results combined with existing evidence, to provide an appreciation of the positioning of the site within the wider landscape. Survey area G links with results from 2004 and 2013 to provide an overall view of Roman settlement on the north-east side of the fort. In order to determine the correct location of the practice camps discussed in Section 5, a single 20m-square area was also surveyed at the south-east corner of the cropmarks (see Fig. 1); this is not discussed further but was successful in providing the required information.
- 3.4 In addition to the composite plans and any subsequent discussion of the results, each survey area is described in more detail and coupled with up to three plans: these comprise a trace plot of the raw data; a greyscale plot of the manipulated data; and where appropriate, a second greyscale plot with added interpretation of the significant anomalies.
- 3.5 *Caerau Marching Camp*



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Fig. 4: The geophysics results in the area of the marching camp (Areas A-C). The solid red lines are sections of ditch evident from both the existing sources and the 2014 geophysics, while the dotted red lines are projected alignments.

*Area A*

- 3.5.1 This area of survey occupied what was thought to be the eastern corner of the marching camp; this had not previously been located with any accuracy, although the modern Ordnance Survey mapping (see Fig. 4) gives an approximate location.

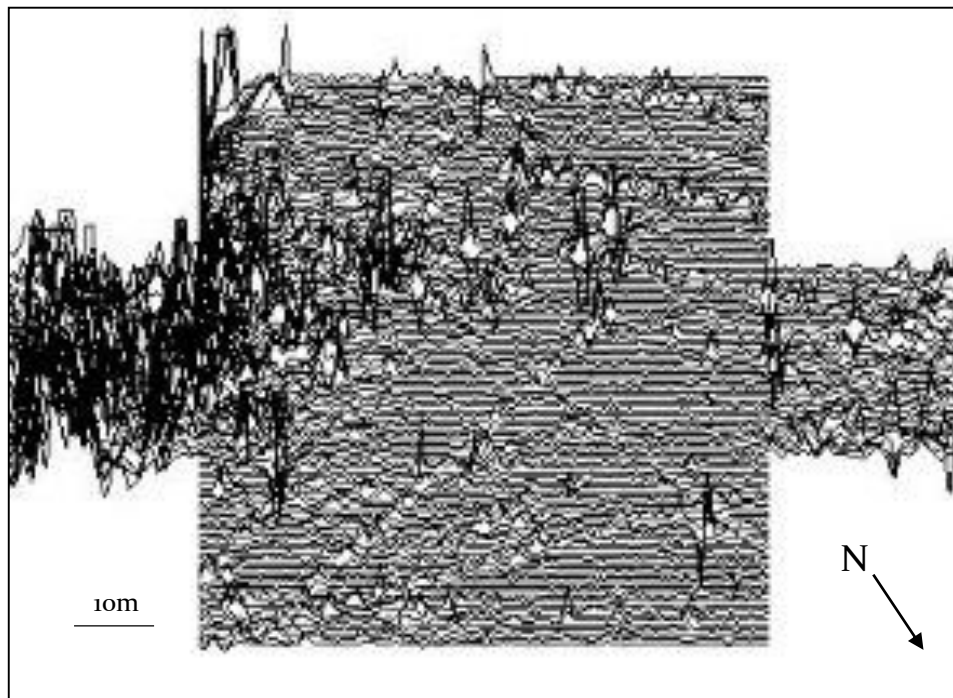


Fig. 5: Trace plot of the results for Area A (Original scale 8nT/cm)

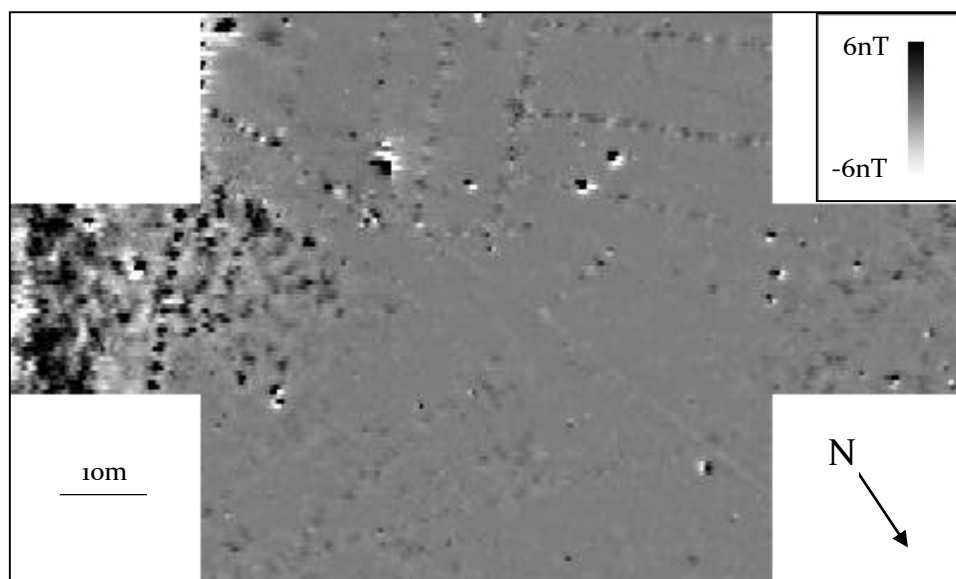


Fig. 6: Greyscale plot of the results for Area A

- 3.5.2 Various modern linear features, probably drains, were visible in the results as was a line of what appeared to be pits, running approximately north-east/south-west at the south-east end of the survey area. Their origin is not clear, though there is approximately one pit per 2m and each covers an area about 1m in diameter. Although the results were not particularly favourable, a suggestion of the line that may have been

taken by the camp ditch was evident as a broad line of relatively homogenous character on a north-north-west/south-south-east alignment, visible against the rather more 'noisy' background (see Fig. 7). Any other lines visible on the plot are likely to be drains of relatively modern origin.

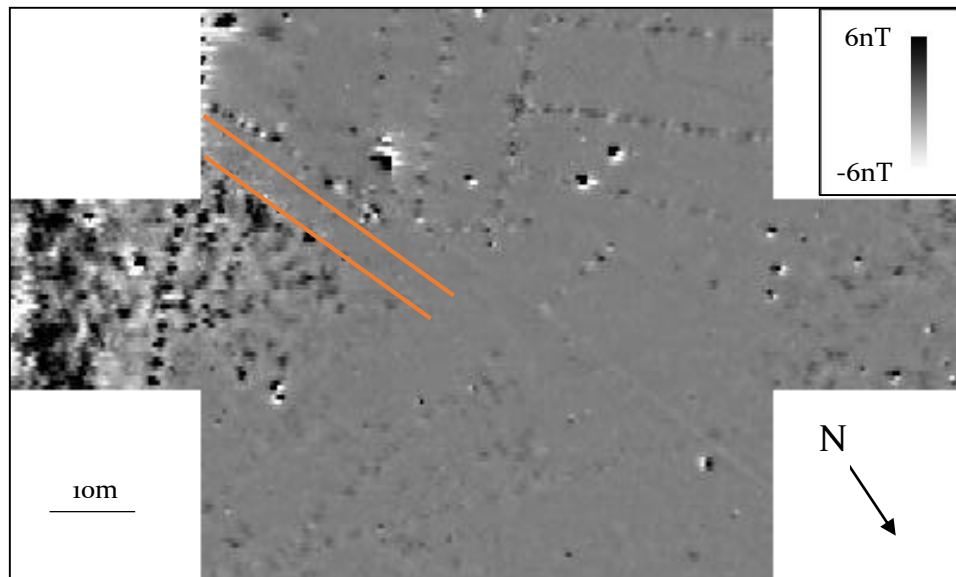


Fig. 7: Greyscale plot of the results for Area A, with interpretation. The orange lines bound what is likely to be the route of the ditch defining the marching camp

#### *Area B*

- 3.5.3 The survey area lay in the approximate location of the southern corner of the marching camp; its identification would enable the dimensions of the camp to be judged with reasonable accuracy. Again, this had been approximately located by the Ordnance Survey on their modern mapping (see Fig. 4).

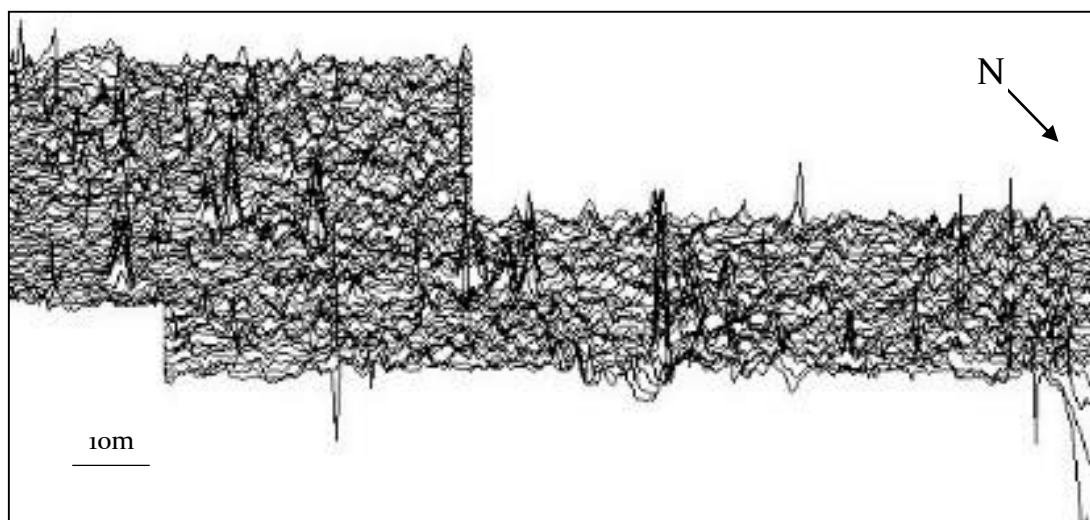


Fig. 8: Trace plot of the results for Area B (Original scale 38nT/cm)

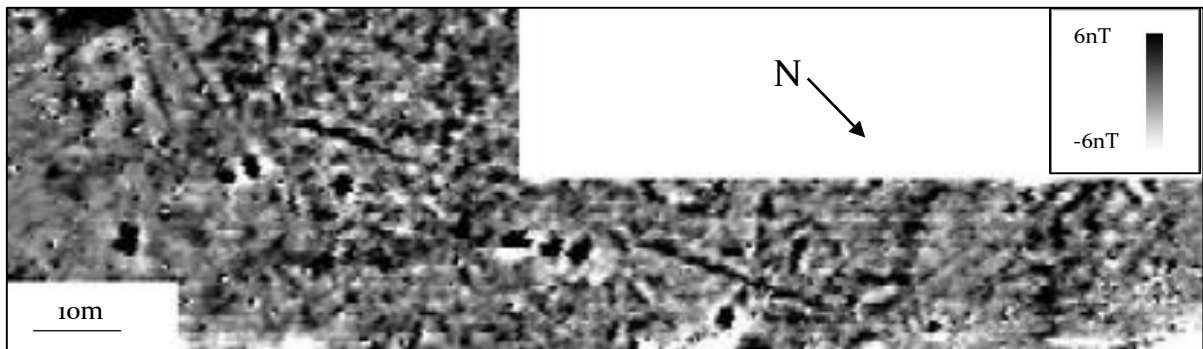


Fig. 9: Greyscale plot of the results for Area B

- 3.5.4 The locality displayed a fair degree of background noise and there were traces of east/west-aligned ridged cultivation indicating past, though undated, agriculture. About 90m of the camp ditch was reasonably clear and the anomaly appeared to include a corner of relatively short radius in the approximate position that was expected, with an extension to the north-east. At least seven thermoremanent oval anomalies appear to have been located on the internal face of the defences; it seems almost certain that they were Roman ovens dating from the period when the camp was occupied.

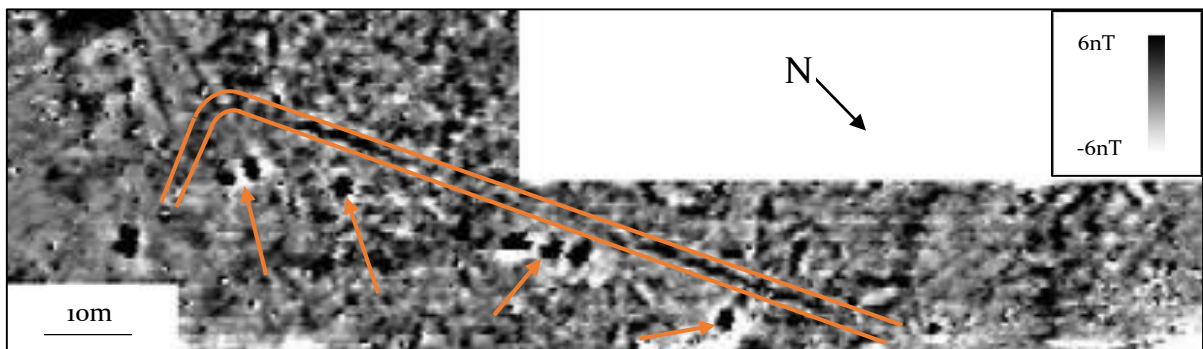


Fig. 10: Greyscale plot of the results for Area B, with interpretation. The orange lines bound the probable course of the camp ditch and the arrows point to groups of probable Roman ovens that were probably set into the internal face of the rampart

#### *Area C*

- 3.5.5 A small additional area was surveyed in the field adjoining that examined in Area B, to determine whether there were any further traces of the course of the defences running between the southern and eastern corners of the marching camp.

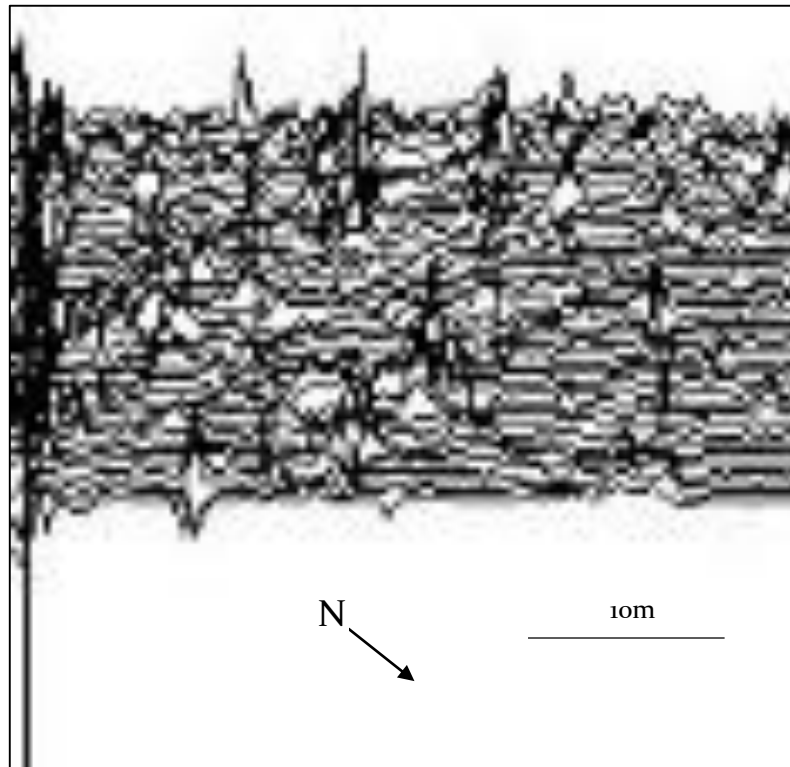


Fig. 11: Trace plot of the results for Area C (Original scale 38nT/cm)

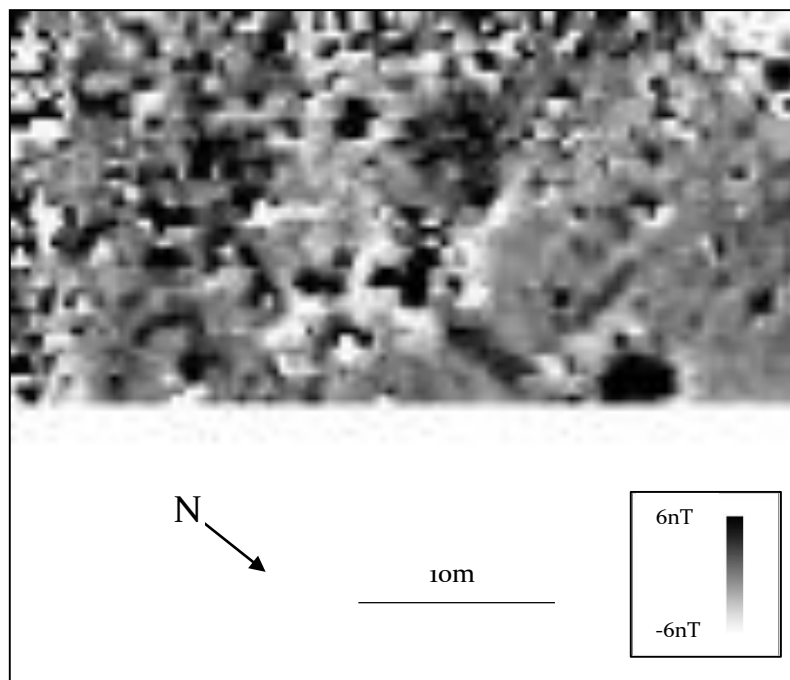


Fig 12: Greyscale plot of the results for Area C

- 3.5.6 Again, the results were subject to a fair amount of background noise, but there was a faint trace of a linear ditch in the expected position (see Fig. 13). Additional anomalies indicated the presence of sub-surface features, but none could be reliably classed as Roman and many may be of natural origin.

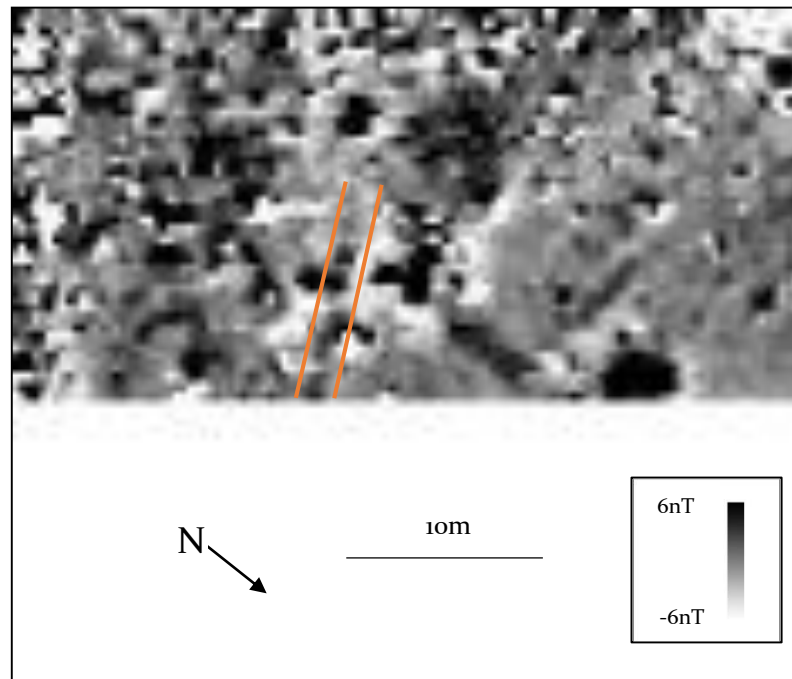


Fig. 13: Greyscale plot of the results for Area C. The orange lines bound the anomaly that is likely to represent the camp ditch

3.5.7 In summary, only the north-west end of the marching camp, including its north and west corners, had been conclusively identified prior to this study, but the geophysics has now allowed us to identify the remainder and thereby provide accurate dimensions. It has not been possible to identify all of the detail of the camp in the time available, but it has been identified as an irregular rectangle with sides respectively measuring: 390m in length on the north-west; 370m on the south-west; 430m on the south-east; and 360m on the north-east. At least seven ovens have been discovered, set in the internal face of the rampart near the west corner of the marching camp; these are almost certainly contemporary with the camp.

### 3.6 *Caerau, possible Roman camp*

3.6.1 A potential further Roman camp was been identified from aerial photographs taken by RCAHMW in 2006, located about 400m to the west of the fort. Marks had also been observed here on an earlier aerial photograph taken in July 1976. The site was visible as a series of ditches which had retained some moisture in ground that was otherwise parched in dry weather. The evidence was intermittent but suggested that this could be a rectangular enclosure. Three separate areas of geophysics were placed to cover the locality containing the marks seen on the aerial photography and these are detailed in the following section.



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Fig. 14: The geophysics results in the area of the possible Roman camp (Areas D-F)

#### *Area D*

- 3.6.2 This survey was the easternmost of the three placed to examine the possible Roman camp. The oblique aerial photograph provided by RCAHMW (see Fig. 31) shows that a ditch is present here, running approximately parallel to the nearby fence, and this is plotted on Fig. 14. Unfortunately, the ditch lies fairly close to the fence and it was not possible to move the survey any closer owing to the strength of the associated magnetic field.



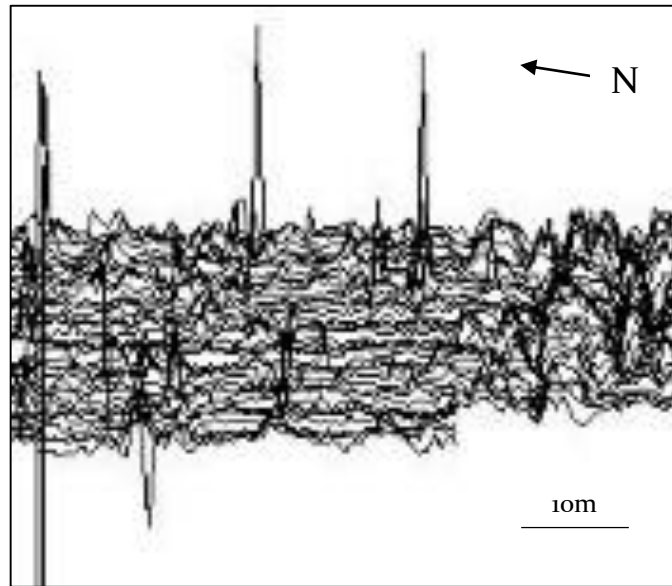


Fig. 15: Trace plot of the results for Area D (Original scale 38nT/cm)

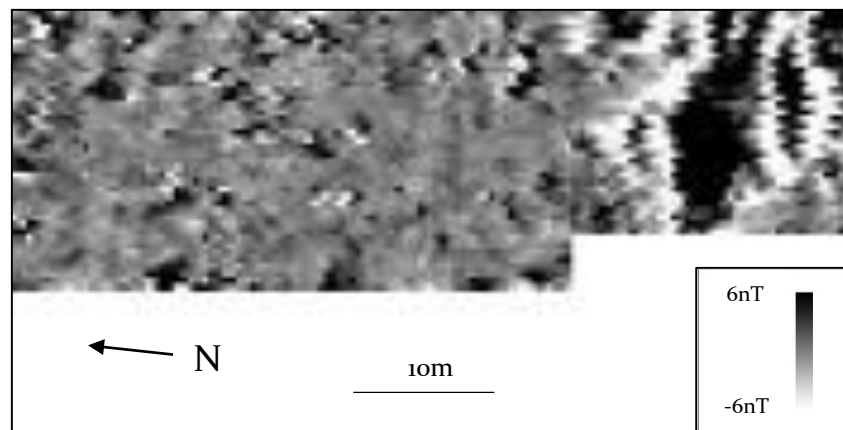


Fig 16: Greyscale plot of the results for Area D

- 3.6.3 The large anomaly at the southern end of the area has resulted from this point being used for access to the adjoining field; it represented a dump of modern material placed there to provide a firm surface for the passage of vehicles. No conclusive evidence relating to the camp was observed in the results.

#### *Area E*

- 3.6.4 This area of survey was the more northerly of those placed to examine the cropmarks of the possible camp. The oblique aerial photograph provided by RCAHMW (see Fig. 31) shows that a ditch is present here, defining what seems to be the north-western end of the camp.

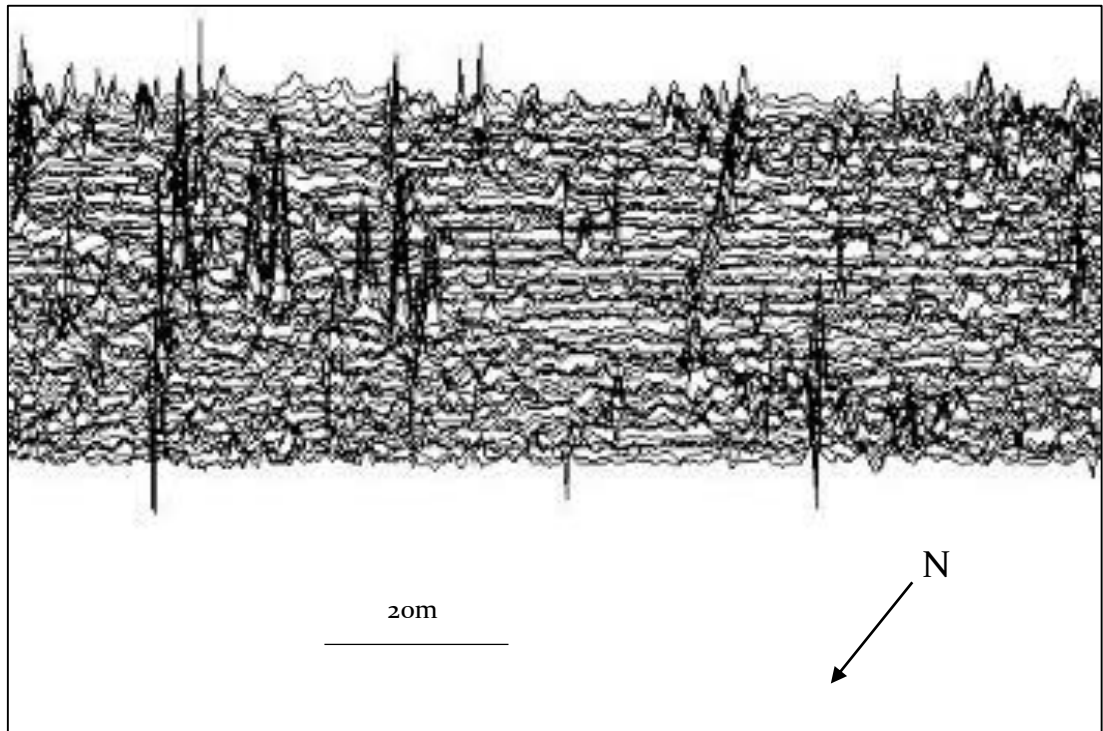


Fig. 17: Trace plot of the results for Area E (Original scale 38nT/cm)

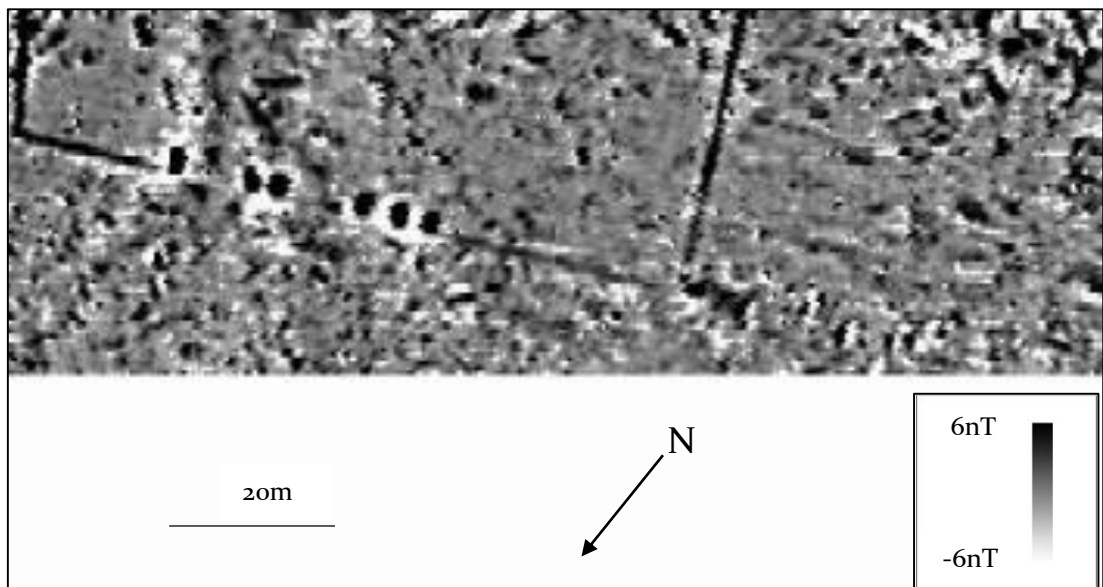


Fig 18: Greyscale plot of the results for Area E

- 3.6.5 Superficially, the results showed part of a sub-rectangular enclosure, measuring about 80m east-north-east/west-south-west by at least 30m. However, in conjunction with those from Area F and evidence from aerial photographs it could also be suggested that they were part of a ditched field system (see Fig. 14). Of particular interest was a group of six thermoremanent oval anomalies located just to the south of the ditch aligned east-north-east/west-south-west; these can be compared to the almost identical anomalies seen in the Roman marching camp (see Area B) only 250m to the north. If the comparison is accurate, it seems that there may have been a bank on this

side of the ditch which was extant in the Roman period and had been used to site a series of small field ovens. The strength of the six anomalies seems to have effectively masked the ditch at that location, assuming that this section of ditch was continuous.

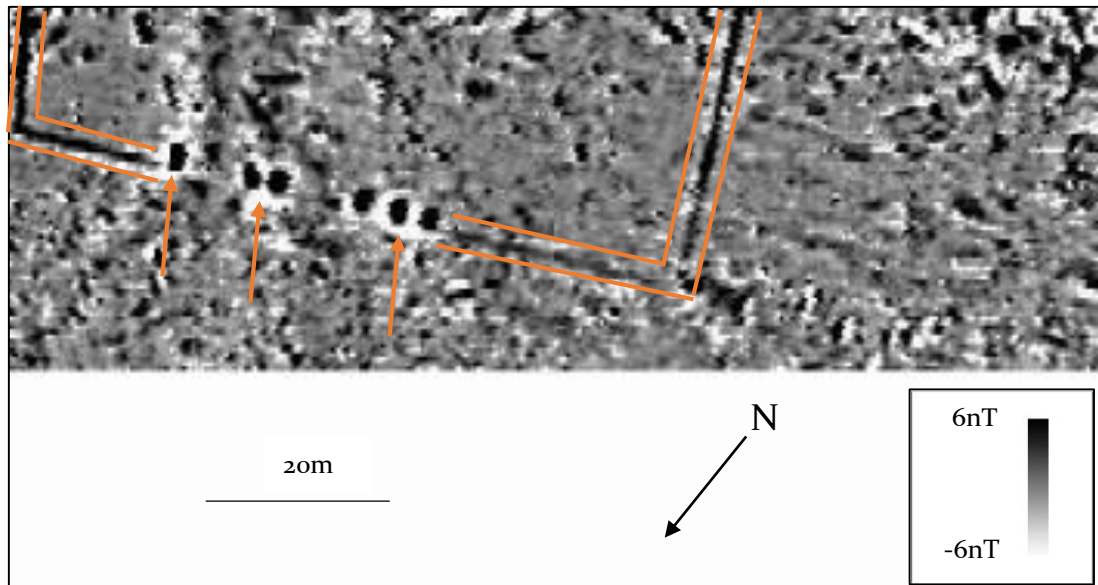


Fig. 19: Greyscale plot of the results for Area E. The orange lines bound the linear anomaly representing the ditch of the camp/field system and the arrows point to the anomalies thought to represent Roman field ovens sited in an associated bank.

#### *Area F*

- 3.6.6 This area of survey was the more southerly of those placed to examine the cropmarks of the possible camp. This field had been ploughed at the time the RCAHMW oblique aerial photograph was taken, so this did not provided any information, although the 1976 aerial photograph showed a disjointed group of ditches, at least one of which displayed a continuation of the west-south-west side of the possible camp.

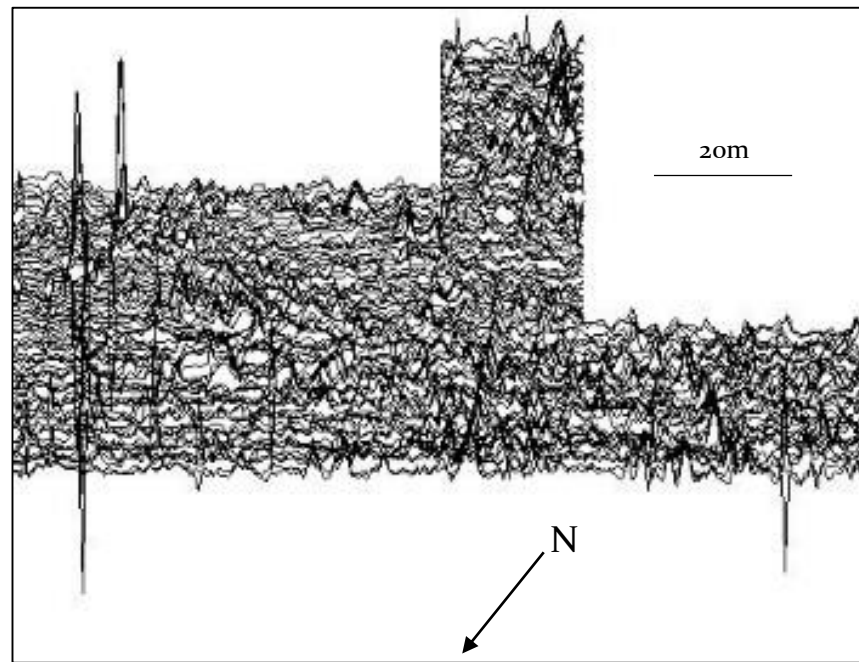


Fig. 20: Trace plot of the results for Area F (Original scale 38nT/cm)

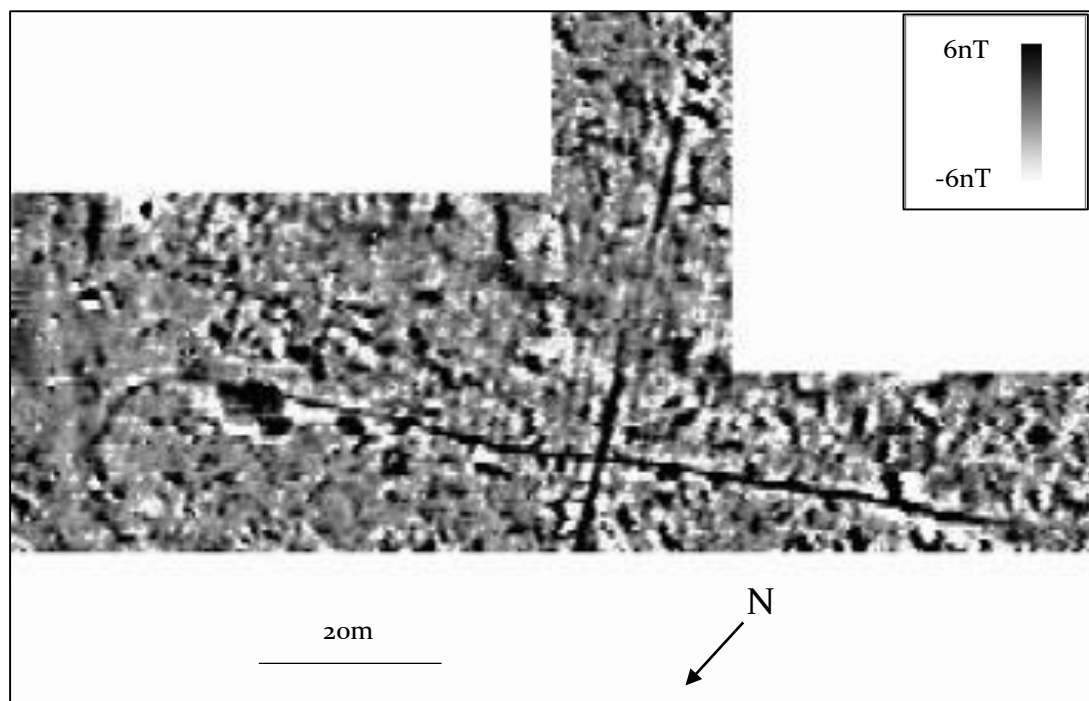


Fig 21: Greyscale plot of the results for Area F

- 3.6.7 The results showed that the west-south-west ditch in Area E continued to the south-south-east, as suggested by the 1976 aerial photograph, and this feature extends at least 100m from the corner seen in Area E. A second ditch, also at least 100m long, crossed the first at right-angles, although it is difficult to tell whether the two are directly related; the geophysics supports this possibility but does not provide conclusive proof. The curved east-north-east end of the second ditch is curious, but its function cannot be convincingly explained with existing knowledge.

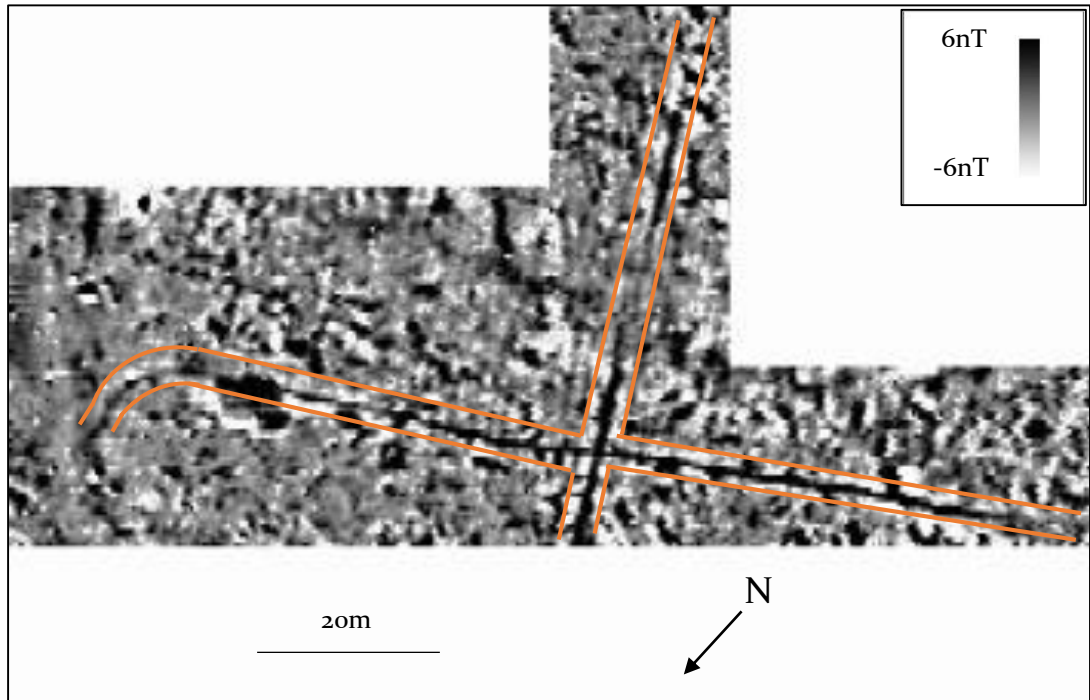


Fig. 22: Greyscale plot of the results for Area E. The orange lines bound the linear anomalies representing the ditches of the camp/field system

### 3.7 Completion of survey to the north-east of the fort (Area G)

3.7.1 This survey was carried out in 2014 and overlapped that carried out to the north-east of the fort in 2013 (see Figs 24 and 25).

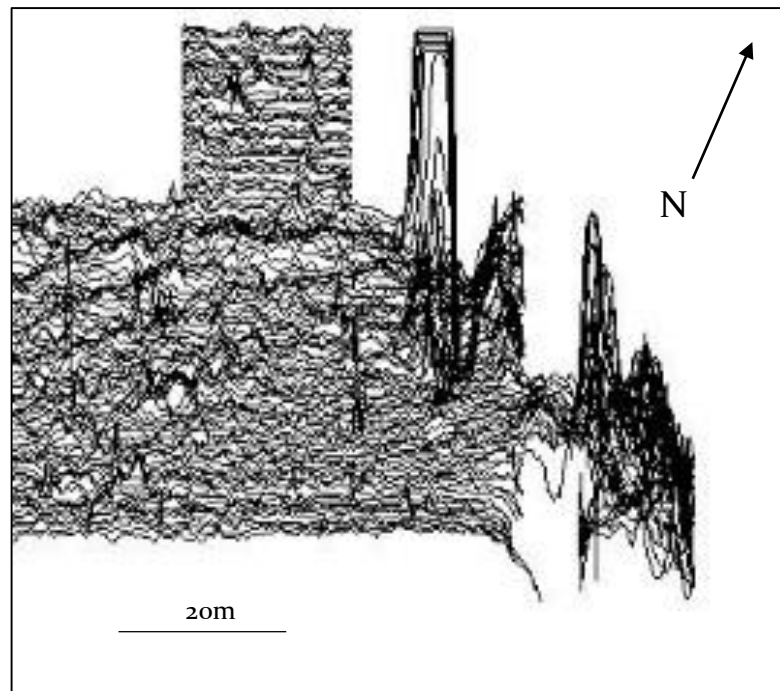


Fig. 23: Trace plot of the results for Area G (Original scale 38nT/cm, clipped to 100nT)



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Fig. 24: Combined results for the geophysics carried out to the north-east of the fort in 2004, 2013 and 2014 (Area G)

- 3.7.2 Anomaly 1 from 2013 was confirmed and seemed to represent a ditch, perhaps 1.0m wide, which ran for a distance of at least 25m. Although anomaly 3 from 2013 still seemed to represent a ditch, this was somewhat shorter than appeared to be the case in the earlier work, measuring about 28m in length and 2.0m in width. A further section of ditch of the same width which had been attributed to anomaly 3 in 2013, now appeared to be part of a T-shaped arrangement of ditches (2014 anomaly 1), whose main axis measured 36m west-south-west/east-north-east, with a spur heading south-south-east for 20m; a width of about 2.0m seemed probable. A previously unidentified linear anomaly (2014 anomaly 2), probably representing a ditch, ran parallel to the

main axis of 2014 anomaly 1 for about 20m and seemed to be approximately 1.5m wide. A Roman date seems likely for at least some of these features.

- 3.7.3 The large anomalies visible in the north-eastern part of the survey area appear to be entirely a result of iron objects in the soil; if there are any features in this locality their signatures are masked by this strongly magnetic material.



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Fig. 25: Interpretation plan of the 2014 geophysics results combined with those from 2013

**4 EXCAVATION TO THE NORTH-EAST OF THE FORT (Trench A at SN 92569 50258)**

- 4.1 A single hand-dug trench, measuring 4.4m north-east/south-west by 1.4m wide, was placed to intersect a large rectangular thermoremanent geophysical anomaly recorded in 2013. This was immediately to the north-east of the courtyard building visible in the results and it had been thought that the anomaly might denote the presence of a bath-house (see Fig. 26). In this and the next section, numbers in brackets refer to the context given to each feature or layer in the site archive (Appendix 1).

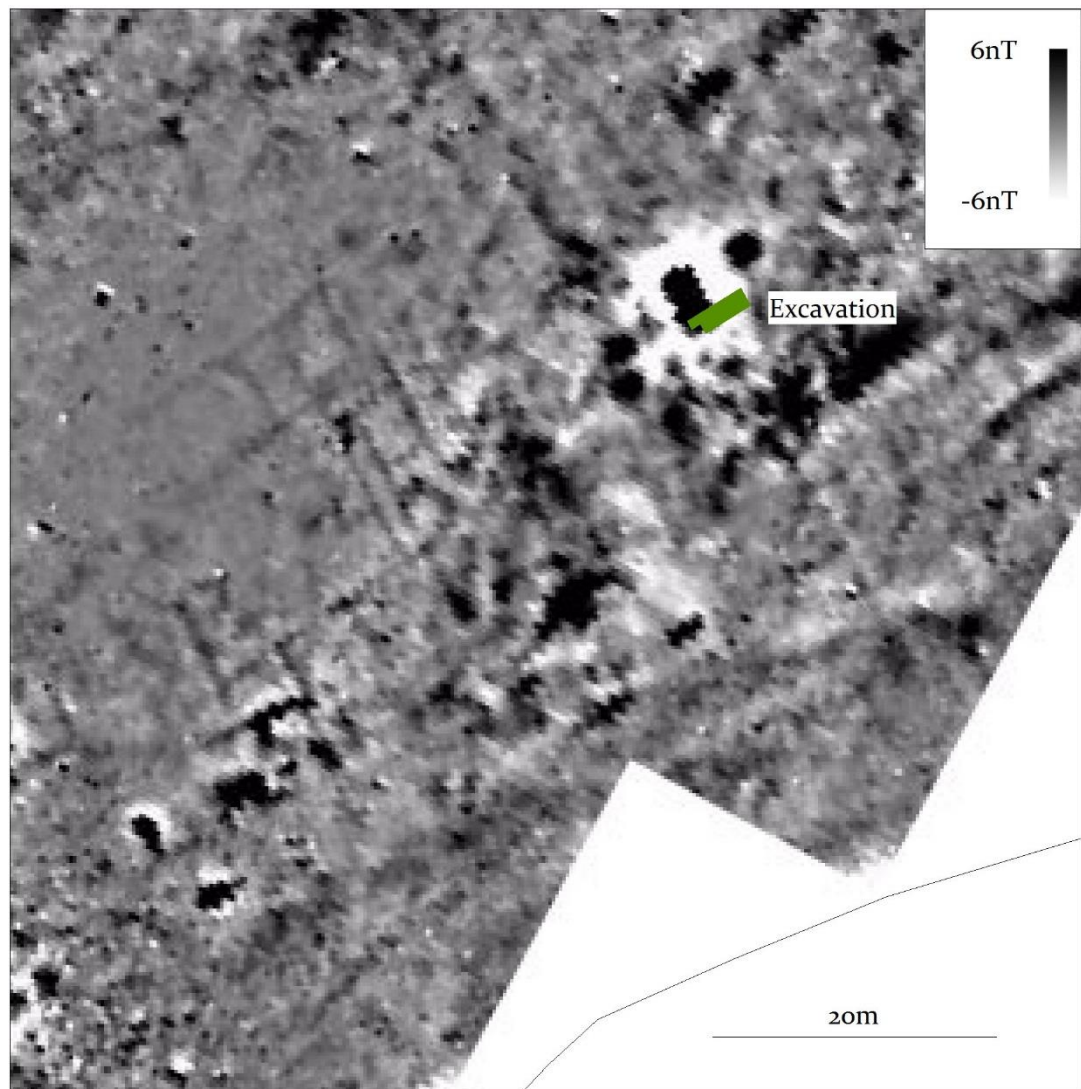


Fig. 26: The position of Trench A in relation to the geophysics results from 2013

- 4.2 Natural subsoil, comprising an orange-brown stony silt (4), was found at a depth of about 0.3m below the ground surface. The subsoil had been cut by a pit (5), only the south-eastern part of which was visible in the trench, measuring about 2.8m north-east/south-west by at least 0.6m north-west/south-east and over 0.4m deep. The feature continued to the north-west beyond the trench, but could have been approximately oval if the visible part was any guide. Of the three layers filling the pit, the lowest, seen only at the base of a small sondage, was orange clay (8); this was overlain by up to 0.12m of black charcoally silt (7), itself covered by a mixed layer (6)



of charcoal-rich grey-brown silt and burnt orange clay, up to 0.25m thick. No artefacts were found in any of these layers.

- 4.3 Overlying the natural subsoil and probably denoting material originating from pit 5, was an intermittent spread of material (3) with a similar composition to layer 6 and a maximum thickness of only 0.02m. This, and the layers filling the pit, were covered by a layer of stony silt (2), between 0.15m and 0.20m thick, and the surface soil of grey-brown clay silt (1), 0.1m thick. The material in the pit fill evidently retained a significant degree of thermoremanent magnetism and it was this which had given rise to the marked geophysical anomaly. The overall appearance of the feature is indicative of some form of sunken oven or kiln and cannot be linked to a bath-house on current evidence; no evidence of a building was observed.



Fig. 27: The south-eastern side of pit 5, from the north-east. Photo CPAT 3930-0024.

## 5 PRACTICE CAMP EXCAVATION (Trench B at SH 92053 50184)

- 5.1 Examination of aerial photographs for this site clearly shows that it comprises at least two enclosures, one superimposed on the other. The earlier, slightly fainter, enclosure appears to be rectangular and rather more regular with sharply rounded corners, while the later enclosure is sub-rectangular, with a more curved appearance and broader corners of differing radius. Both enclosures measure about 65m north/south by 55m east/west. The nature of a sub-square ditched feature within the enclosures, measuring about 10m across, has not been determined, but it is presumed to be related to one or other enclosure.
- 5.2 The excavation was placed across both ditches on the west side of the site, just to the south of what appeared to be an entrance into the later enclosure (see Fig. 28); the

entrance of the earlier enclosure was not visible on the aerial photographs. The upper soil layers were removed by machine, with the remainder of the excavation being carried out by hand.

- 5.3 Natural bedrock (19) was revealed at a depth of between 0.20m and 0.28m below the ground surface. This material was a fissile grey shale, which readily broke down into angular gravel, and it had been cut by what seemed to be three distinct and successive ditches. The outermost ditch (18) was the earlier and was entirely rock-cut, measuring over 1.2m wide and 1.1m deep; it seemed to be V-shaped with a possible slot in the base and was filled with bright orange-brown silt (20) containing a large proportion of angular shale fragments. The appearance of 20 suggested it had been used to backfill the ditch rapidly, probably not long after it had been excavated as there was little evidence of weathering and no finds were encountered.



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Fig. 28: Location of Trench B

- 5.4 The fill of ditch 18 had then been cut by a second ditch (21), measuring over 2.3m in width and 0.9m deep, which was also partly rock-cut and had removed the eastern edge of the first ditch. It appeared to have a shallow U shape and contained four distinct layers, the earliest of which was a lens of material, up to 0.15m thick, at the western side of its base that consisted of orange-brown stony silt (22), no doubt derived from the erosion of layer 20 when the ditch was dug. The next layer in ditch 21 was a band of milky yellow clay (17), up to 0.2m thick, which incorporated some iron staining on its upper surface, perhaps denoting a former turf horizon; this was only present on the west side of the ditch and dipped steeply towards its base. A small area of loose angular shale fragments (23) represented the next phase of infilling on the eastern side of the base of the ditch and it seems likely that this material would have been derived

from the rock-cut eastern side of the ditch, now lost. The final fill of the ditch comprised an orange stony silt (16), up to 0.4m in thickness.

- 5.5 A third ditch (15), some 3.6m wide and 1.3m deep, had been cut into the eastern side of ditch 21 and the adjacent local bedrock. Its profile was an asymmetric V, steeper on the east side, with a slot in its base, about 0.3m deep and the same in width. The earliest fill was a layer of angular grey shale fragments (14), up to 0.4m thick, derived from the bedrock and this was covered by buff-yellow silty clay (13), up to 0.48m thick; layer 13 was deeper on the eastern side of the ditch, suggesting that it originated, at least in part, from the erosion of a bank on that side. Layer 13 was the only one to contain any ceramic material, all of which appeared to be of Roman date.

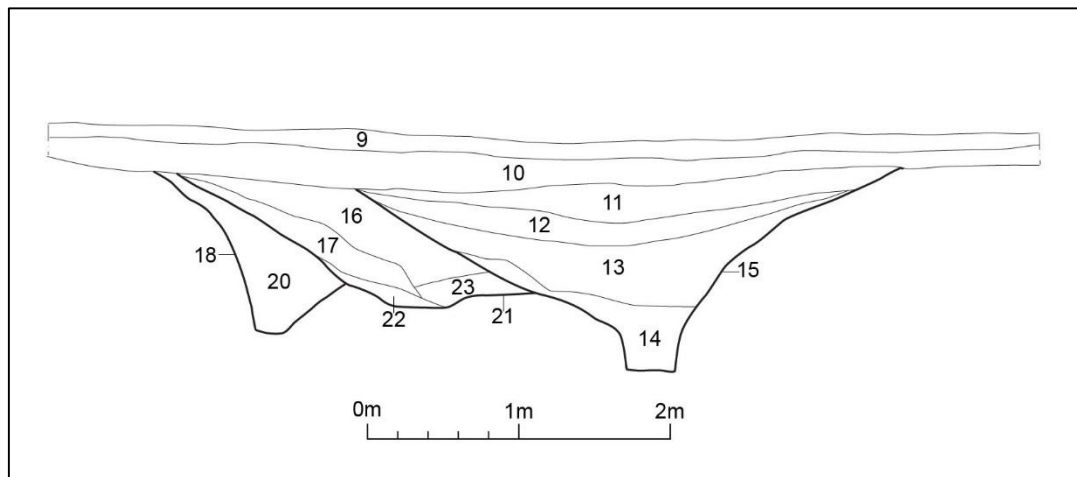


Fig. 29: South-facing section across the ditches



Fig. 30: Trench B, from the south-west. Photo CPAT 3930-0055.

- 5.6 Following the deposition of layer 13 within the latest ditch, there seems to have been a hiatus in activity, during which time the ditch would have remained visible as a hollow, 3.6m wide and 0.4m deep. The final fills were markedly different in character, comprising a dark grey-brown silt (12), up to 0.18m thick, covered by milky grey-brown clay silt (11), up to 0.25m thick. These final layers probably formed as surface soils.
- 5.7 All of the features and layers described were covered by the modern surface soil horizons, comprising a very stony grey-brown silt (10), between 0.1m and 0.2m thick, covered by a less-stony grey-brown silt (9), averaging 0.1m in thickness and forming the current topsoil.
- 5.8 In summary, it is now probable that there are three superimposed camps, rather than the two that are evident on the aerial photographs. Although the shapes are somewhat different in detail, their overall extents are very similar and it seems reasonable to see them as successive practice camps. The ditch of the earliest camp seems to have been deliberately filled fairly soon after it was dug, in comparison to that of the last camp, which appears to have been left open for an extended period.

## 6 AERIAL PHOTOGRAPHY ASSESSMENT

- 6.1 The geophysics for Areas D-F was prompted by marks on aerial photographs taken in 1976 and in 2006 (Fig. 31), the latter by RCAHMW. These marks are visible towards the top of Fig 31 and initially appeared to relate to a possible additional camp, as described above. The superimposed practice camps discussed in Section 5 are visible near the centre of the image. While examining the RCAHMW photograph, it became clear that there were a series of additional, broadly parallel, marks representing narrow ditches. These are plentiful in the general locality of the practice camps and one can also be seen towards the top of the image, running parallel to the east-north-east side of the possible additional camp.
- 6.2 The writer's initial feeling was that these additional marks probably represented narrow ditches which had been cut across the field to improve the drainage and were therefore not worthy of further consideration, but the excavation across the ditches of the practice camps provided conflicting evidence in that the local topsoil was found to be particularly thin and relatively well drained, comprising stony silts generally about 0.2m in thickness and overlying the local bedrock of fissile shale. It was also the case that some of the linear features extended across the top and down both sides of the broad ridge on which the practice camps sit, so it seems more likely that we are dealing with linear features designed to demarcate land rather than to drain it. These features may also extend further, into areas where the greater depth of the soils has not allowed them to become visible by the parching of the adjoining ground.
- 6.3 Although the date of these features is not known, they are clearly on a completely different alignment to that of the practice camps and the modern field pattern, the latter probably having its origin in the post-medieval period, if not before. Their alignment can, however, be broadly compared to that of the fort itself and to the east-north-east ditch of the possible additional camp/field system further to the west, where geophysics (see Section 3.6) revealed a group of probable Roman ovens. There are some resulting conflicts regarding the chronology of the features to the west of the fort, in that the ovens suggest that the possible camp/field system to the west was

extant in the early phase of Roman occupation, but it is perhaps more likely that the suggested field system in the area of the practice camps, if of Roman date, would date to the period when the *vicus* was in existence, thereby forming part of the *territorium* of the fort which may have supplied some of its provisions. Agricultural activity has been noted by Burnham and Davies (2010, 192 and 279) in relation to the forts at Usk and Pumsaint. A potential template for the type of field system postulated appears in the later Iron Age, when complexes of contiguous rectilinear enclosures of similar form appeared. In the Yorkshire Wolds these are often arranged along ditched trackways or linear boundaries (Stoertz, 1997, 67). An apparent trackway can be seen in the centre of Fig. 31 as two parallel ditches running approximately north-west/south-east across the north-west corner of the practice camps.



Fig. 31: The 2006 RCAHMW aerial photograph of the superimposed practice camps to the west of the fort at Caerau, showing additional marks potentially relating to a field system of possible Roman date, from the east. (c) Crown Copyright RCAHMW  
*The colour bands of the digital image have been rebalanced to highlight the archaeology*

## 7 CONCLUSIONS

- 7.1 This season's geophysics has completed the work designed to identify the location and extent of the extra-mural Roman settlement at Caerau. Two areas seem to have been occupied. That on the north-west of the fort is clearly the *vicus* and has been known for some time; it covers an area of about 2.0ha. On the north-east side of the fort there is activity which was previously largely unknown and if it is bounded by the potential defensive features discussed in the 2013 CPAT report this appears to cover about 2.3ha. If that is correct, then it is perhaps more likely that we are dealing with an annexe to the fort, and hypothetically this could have been created when it was reduced in size in the Trajanic period.

- 7.2 The large marching camp at Caerau can now be positioned in the landscape with a reasonable degree of accuracy. An area of about 14.9ha seems likely, with overall measurements of 430m by 370m and having rounded corners. Although details of its complete form are still somewhat sparse, some internal features are apparent in the geophysics, specifically a group of about seven probable Roman ovens set against the inner face of the defences near the south corner. The excavation of similar features at Llanbeblig, near Caernarfon, suggested that they were probably in use between about AD65 and AD80, and potentially related to the construction of the fort at Segontium (Kenney and Parry 2013). A similar scenario might be suggested for Caerau or they could simply represent activity by the soldiers engaged on early campaigns in this region.
- 7.3 The remaining geophysical surveys investigated a disjointed series of cropmarks recorded by aerial photography, which had been suggested as a potential further camp but could also be part of a field system. It seems likely that this was extant in the Roman period and it is perhaps related to further marks evident on the aerial photography that could represent a larger field system associated with the fort.
- 7.4 In addition to the programme of geophysics, work in 2014-15 included the examination of a large magnetic anomaly within the area of Roman occupation to the north-east of the fort. This had been tentatively suggested as representing a bath house, but the excavation clearly showed that the area was occupied by the remains of some form of sunken feature, perhaps an oven or kiln. Possibly there were a number of these alongside each other at this location and it is the combined thermoremanent magnetism of these features that has given rise to the large rectangular anomaly.
- 7.5 On the west side of the fort, some 200m distant, a sub-rectangular ditched enclosure, thought to be of at least two phases on the basis of aerial photography, was investigated by excavation. The work revealed a third phase, falling chronologically between those known from aerial photography, and was able to identify evidence of the morphology of the ditches. The earliest ditch had been rapidly backfilled, perhaps soon after it was dug, and its fill was then cut by the second ditch, which appeared to have been open for rather longer. The final ditch cut the fills of the second ditch in the same manner and this probably remained visible in the landscape for an extended period. The nature of the ditches suggests that they probably represent a series of superimposed Roman practice camps, although there was insufficient evidence from the excavation to allow them to be accurately dated.
- 7.6 Post-excavation processing work has commenced, and all finds have now been cleaned, sorted and appropriately packaged. Full quantification and reporting of the whole collection from 2012 to 2014 will form the next aspect of the work at Caerau, when specialist opinions and comments will be sought on the identification of the Roman pottery.

## 8 ACKNOWLEDGEMENTS

- 8.1 The writer would like to thank Mr and Mrs Thomas, the landowners, for their permission to carry out the work and support throughout. Also, RCAHMW, specifically Dr T Driver, for their permission to reproduce the aerial photograph reproduced above.

- 8.2 The writer would like to thank his colleagues at CPAT, Menna Bell, Viviana Culshaw, Sophie Watson and Adelaide Edwards, for their assistance with various aspects of the fieldwork. Thanks are also due to Sophie Watson for her contributions to the report.

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## 9.2 **Cartographic sources**

1889 Ordnance Survey 1<sup>st</sup> edition 25" maps, Brecknock 10.7 and 10.8

1983 Soil Survey of England and Wales map (Sheet 2 – Wales) and Legend (1:250,000 scale)

1994 British Geological Survey map of Wales (Solid edition at 1:250,000 scale)

## 9.3 **Aerial photographic sources**

Cambridge University Collection of Aerial Photography BYR9, taken July 1976

RCAHMW Beulah AP\_2006\_3646



**APPENDIX 1****SITE ARCHIVE**

58 digital photographs, CPAT Film No 3930

Photographic catalogue

23 context description forms

1 A1 site drawing, 2 A4 site drawings

Context register

Drawings register

Correspondence

*Digital data*

Surveys giving locations of geophysics – Caerau14a.pts, Caerau14b.pts, Caerau14d.pts, Caerau14g.pts, Caerau15.pts

Surveys giving locations of excavations - Caerau14Ta.pts, Caerau14Tb.pts

*Geophysics*

Area A - Caerau14a; 11 grids, composites and graphics

Area B - Caerau14b; 10 grids, composites and graphics

Area C - Caerau14c; 2 grids, composites and graphics

Area D - Caerau14d; 3 grids, composites and graphics

Area E - Caer15a; 12 grids, composites and graphics

Area F - Caer15b; 11 grids, composites and graphics

Area G - Caerau14g; 8 grids, composites and graphics

**Contexts Register**

<b>Context (Trench)</b>	<b>Type</b>	<b>Comment</b>
1 (A)	Layer of soil	Topsoil
2 (A)	Layer of soil	Ploughsoil
3 (A)	Layer of soil	Spread of material associated with pit 5
4 (A)	Natural subsoil	
5 (A)	Pit	
6 (A)	Layer of fill	Upper fill of pit 5
7 (A)	Layer of fill	Intermediate fill of pit 5
8 (A)	Layer of fill	Lowest encountered fill of pit 5
9 (B)	Layer of soil	Topsoil
10 (B)	Layer of soil	Ploughsoil
11 (B)	Layer of fill	Uppermost fill of ditch 15
12 (B)	Layer of fill	Fill of ditch 15, below 11
13 (B)	Layer of fill	Fill of ditch 15, below 12
14 (B)	Layer of fill	Basal fill of ditch 15, below 13
15 (B)	Ditch	Latest of the three practice camp ditches
16 (B)	Layer of fill	Upper fill of ditch 21
17 (B)	Layer of fill	Fill of ditch 21, below 16
18 (B)	Ditch	Earliest of the three practice camp ditches
19 (B)	Natural bedrock	Fissile shale
20 (B)	Layer of fill	Fill of ditch 18

21 (B)	Ditch	Earlier than 15, later than 18
22 (B)	Layer of fill	Lowest fill of ditch 21
23 (B)	Layer of fill	Fill of ditch 21

**Drawings Register**

No	Scale	Contexts	Comment
1	1:20	1-8	A4: Trench A plan and section
2	1:20	9-23	A1: Trench B plan and section
3	1:20		A4: Trench B intermediate plan