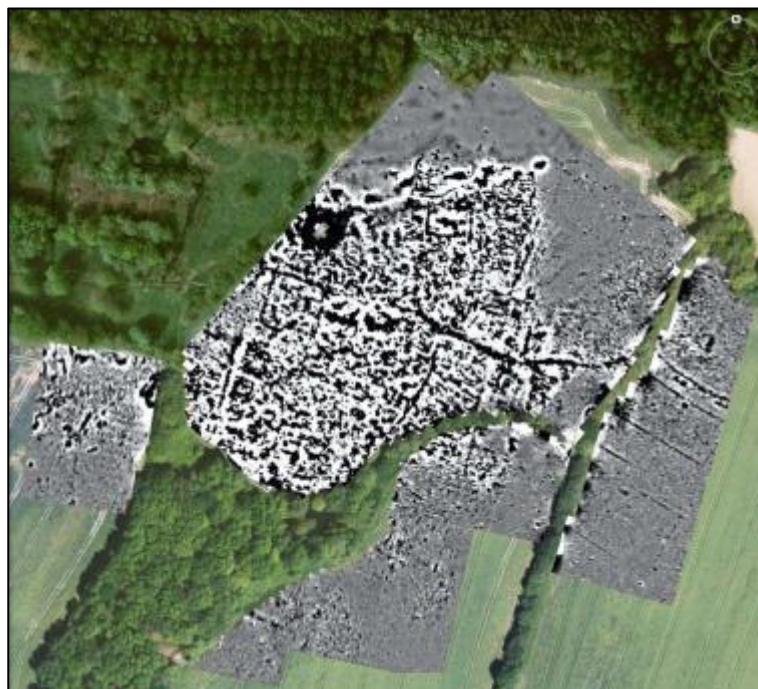




**Chris Butler MfA
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**A Geophysical Survey
at
Great Cansiron Farm,
Butcherfield Lane,
Hartfield, East Sussex**

Project No. CBAS0318

by
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Summary

Far Blacklands Roman bloomery, at Cansiron Farm, Butcherfield Lane, Hartfield, East Sussex, is a Scheduled Ancient Monument, and has a high level of potential for further archaeological investigation, which will provide information relating to its history and use. As part of a High Level Stewardship agreement funded by Natural England, an archaeomagnetic survey was required in order to establish the full extent of the bloomery and to identify where alternative management regimes may be required to protect the entire archaeological site.

The survey revealed an extensive ironworking site, covering most of the Scheduled Monument area, but also extending out into the edges of the surrounding fields. Within the central part of the site trackways and enclosures were identified, some of which contained evidence for ironworking activity, whilst along the old stream frontage there may be evidence for quays, suggesting links with the CLBR.

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Contents

1.0	Introduction	3
2.0	Archaeological and Historical Background	4
3.0	Methodology	8
4.0	Survey Results	9
5.0	Conclusions	12
6.0	Acknowledgements	14

Figures

Fig. 1	Site location map
Fig. 2	Site plan showing area surveyed
Fig. 3	Gardner and Gream map (c.1795)
Fig. 4	1 st Edition OS map (1873-1875)
Fig. 5	2 nd Edition OS map (1898-1899)
Fig. 6	Results of geophysics survey Field 1
Fig. 7	Results of geophysics survey Field 2
Fig. 8	Results of geophysics survey Field 3 (north)
Fig. 9	Results of geophysics survey Field 3 (south)
Fig. 10	Results of geophysics survey Field 4
Fig. 11	Results of geophysics survey Field 1 (at +/- 60nT)
Fig. 12	Interpretation of geophysics results
Fig. 13	Recommendations for extension to SAM and area taken out of cultivation

Appendices

Appendix 1	HER Summary Form
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1.0 Introduction

- 1.1** Chris Butler Archaeological Services Ltd was commissioned by Batcheller Monkhouse on behalf of Baron Deschauer to carry out a geophysical survey of Far Blacklands Roman Bloomery, a Scheduled Ancient Monument (SAM ES403) in Great Cansiron Farm, Butcherfield Lane, Hartfield, East Sussex (Fig. 1). An archaeomagnetic survey was required over the Roman iron bloomery site and the adjoining edges of three fields (Fig. 2) in order to establish the full extent of the monument and to identify where alternative management regimes are necessary to protect the entire archaeological site under the Higher Level Stewardship agreement on the land. This work is part of a Special Project funded by Natural England.
- 1.2** The Roman bloomery site is situated at the foot of a valley to the immediate south of Hammer Wood, approximately 3.8km to the northwest of Hartfield in the High Weald, and is centred at TQ 44800 38283. The Scheduled Ancient Monument is confined to an irregular field of grass, bound to the north by a deep-seated stream that flows east to define the north side of the adjacent arable field. This neighbouring field was recently harvested of its crop, as were the two fields to the direct south of the bloomery field.
- 1.3** Despite ploughing in the past, the Scheduled Ancient Monument survives well in the form of earthworks and buried archaeological remains. It provides an important insight into the Roman economy with evidence of iron production on an industrial scale during the late first and second centuries AD. The monument is of considerable significance as it is the largest Roman bloomery site identified in the High Weald. Its significance is enhanced by its proximity to the course of the Roman London to Lewes road, located just over 1.5km to the east, which was a possible source of distribution for iron produced at the bloomery.
- 1.4** The land surveyed slopes northwards downhill from *c.*74m OD to *c.*68m OD at the southern limits of the bloomery field. Beyond this the land falls much more gently to *c.*65m OD at the stream. The geology of the site, according to the British Geological Survey¹, comprises the sandstone and siltstone of the Ashdown Formation. The soils at the site are described as slightly acidic loam and clay with slightly impeded drainage and moderate to high fertility².
- 1.5** Dr Caroline Russell and Andrew Bradshaw carried out the survey over eight days between 28th August and 9th October 2012. David Staveley was also on site for the first two days, and processed the results of the survey.

¹ http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html

² <http://www.landis.org.uk/soilscapes/>

2.0 Archaeological and Historical Background

- 2.1 No Palaeolithic artefacts have been discovered from the immediate vicinity of the site and only a handful of Palaeolithic finds are known to have a provenance in the Weald³. Such discoveries are normally linked to specific geological conditions, such as tertiary deposits and gravels, which are not normally found in this area.
- 2.2 There is a great deal of evidence for hunter-gatherer groups having exploited the woodland of the High Weald throughout the Mesolithic period. These include sites associated with rock outcrops, such as those at Eridge (TQ554358)⁴, which are thought to have been short-stay hunting camps and are mainly associated with the Late Mesolithic⁵.
- 2.3 There is much evidence for Mesolithic activity along river valleys and streams in the Weald. Such sites comprise scatters of flint debitage and tools, and are sometimes extensive suggesting either longer-stay camps or short-stay camps that were visited repeatedly⁶. The site on the edge of the Medway river valley may have witnessed a high level of activity during the period, and although no Mesolithic flintwork has been found nearby, a single blade fragment of likely Mesolithic date was found on the ground surface during the initial walkover of the site.
- 2.4 Environmental evidence suggests that some woodland was being cleared in the Neolithic period and that small-scale agricultural activities started. However, hunting and gathering is likely to have continued in the Weald where the woodland probably remained dominant⁷.
- 2.5 Several scatters of Neolithic flintwork and individual axes have been found in the High Weald. These are likely to represent the occasional exploitation of the natural resources, rather than settlements or agriculture. A polished flint axe was found in Hartfield Parish (MES5131), whilst another such axe and other flintwork were found in association with a hearth at Upper Hartfield⁸.

³ Pope, M. 2003. 'The Earliest Occupation of Sussex: Recent Research and Future Objectives', in Rudling, D. (Ed) *The Archaeology of Sussex to AD2000*. Kings Lynn: Heritage Marketing & Publications Ltd, 17-28, Fig. 2.8.

⁴ Greatorex, C. & Seager-Thomas, M. 2000. 'Rock Shelter Stratigraphy', *Sussex Archaeological Collections* **138**, 49-56.

⁵ Jacobi, R.M. & Tebbutt, C. F. 1981. 'A late Mesolithic Rock-shelter site at High Hurstwood, Sussex', *Sussex Archaeological Collections* **119**, 1-36.

⁶ Holgate, R. 2003. 'Late Glacial and Post-glacial Hunter-gatherers in Sussex', in Rudling, D. (Ed) *The Archaeology of Sussex to AD2000*. Kings Lynn: Heritage Marketing & Publications Ltd, 29-38.

⁷ Drewett, P. 2003. 'Taming the Wild: The first farming Communities in Sussex', in Rudling, D. (Ed) *The Archaeology of Sussex to AD2000*. Kings Lynn: Heritage Marketing & Publications Ltd, 39-46.

⁸ Tebbutt, C.F. 1974. 'The Prehistoric Occupation of the Ashdown Forest area of the Weald', *Sussex Archaeological Collections* **112**, 34-43.

- 2.6** The Bronze Age saw continued clearance of the woodland in the High Weald, although there is little evidence for complete clearance or widespread agriculture. Hunting presumably continued in parallel with farming in the Weald⁹. Bronze Age burial mounds (or barrows) are known from the High Weald and include a number on Ashdown Forest¹⁰. No Bronze Age sites or artefacts are known from the locality of the site.
- 2.7** One major feature of the Iron Age is the hillfort, of which 25 are known from Sussex. Many of these originated in the Late Bronze Age and became important centres of control and redistribution in the Middle and Late Iron Age. The site may have lain within the sphere of influence of the hillfort at High Rocks, which is of possible Middle Iron Age date¹¹. High Rocks could have been involved in the local iron industry, although no ironworking sites of Iron Age date are known from the wider area of the site¹².
- 2.8** It has been suggested that the Weald was an Imperial Estate for iron working in the Roman period, which may explain the lack of villas and larger settlements in the area. Large numbers of iron working sites have been identified across the Weald¹³.
- 2.9** The Roman iron bloomery site (MES3168; SAM ES203) within Far Blacklands field was visited by I.D. Margary in 1946¹⁴, when he found Roman pottery and cinder, as well as a burning floor that was exposed in the banks of the stream. The site was excavated in 1971, around which time the field was extensively fieldwalked by the Wealden Iron Research Group (WIRG)¹⁵. Roman pottery, comprising both coarse and fine ware, were found along with two coins of Vespasian and Trajan, thereby dating the site to the late 1st and 2nd centuries AD. Building debris, comprising roof, floor and box flue tiles and roughly squared stone blocks, were found in a concentration at about the middle of the south side of the field. Furnace lining material and fused slag, which had collected at the bottom of the furnaces, was mostly recovered from the west and southwest parts of the field. Varying amounts of Roman slag and pottery were seen outside the south and east boundaries to the field.

⁹ Gardiner, M. 1990. 'The Archaeology of the Weald - A Survey and a Review', *Sussex Archaeological Collections* **128**, 33-53.

¹⁰ Butler, C. 2008. *An archaeological Survey of Ashdown Forest*, CBAS Report.

¹¹ Hamilton, S. & Manley, J. 1999. 'Regional Traditions c.1000-100BC', in Leslie, K. & Short, B. (Eds) *An Historical Atlas of Sussex*. Chichester: Phillimore & Co. Ltd, 20-21.

¹² <http://www.wirgdata.org>

¹³ Cleere, H. et al. 1995. *The Iron Industry in the Weald*, Cardiff, Merton Priory Press.

¹⁴ Margary, I.D. 1950-1953. 'An old map of Cansiron in East Grinstead and Hartfield 1724. Sussex Notes and Queries', *Sussex Archaeological Collections* **13.5**, 100-102.

¹⁵ Tebbut, C.F. 1972. 'A Roman bloomery at Great Cansiron, near Holtye, Sussex', *Sussex Archaeological Collections* **110**, 10-13.

- 2.10** WIRG revisited the site in October 1993, when very wet weather had formed a stream slightly south of that which defines the north boundary¹⁶. As no slag was discovered to the north of this new stream, it was believed this was the original course of the stream in Roman times.
- 2.11** The bloomery site is located just over 1.5km to the west of the course of the Roman London to Lewes road (MES5138), which was a possible source of distribution for iron produced at the bloomery.
- 2.12** Excavations in 1982¹⁷ and 1983¹⁸ at Great Cansiron Farm, east of Cansiron Lane, revealed a Roman site (MES5263) contemporary with the bloomery site (MES3168) to its west. This had its own bloomery, the badly ploughed out remains of which comprised the possible base of a smelting furnace and a reheating hearth. A well-preserved tile kiln was excavated to the southwest of this bloomery and may have fired the tiles found at Far Blacklands (MES3168). The excavations also exposed two buildings and recovered pottery wasters indicating at least a limited production of pottery on the site.
- 2.13** In the Saxon period, the Weald remained an important area of grazing for pigs and other animals¹⁹. There is little evidence for iron working in the Saxon period, although the site at Millbrook in Ashdown Forest²⁰ is an exception.
- 2.14** In the medieval period, a chapel (MES5260) stood on the site of the present day chicken houses in Great Cansiron Farm; it was still apparently standing in the 16th century when it was mentioned in the bounds of the Hartfield hundred. The adjacent Church Wood is a reference to the chapel.
- 2.15** To the southeast of the chapel site (MES5260), considerable quantities of cinder (MES5214) were found in 1971 along a 40m stretch of stream alongside Roughfield Wood. The material has been dated to the medieval and Post Medieval periods, and its source was not found.
- 2.16** An ironworking forge (MES3173) may have existed to the west of Hammer Wood in 1558, and although it was in use in 1653, it was in ruins by 1664. A field investigation in 1971 failed to locate the forge but found fragments of cinder below the dried out pond-bay.

¹⁶ Unknown 1995. 'Great Cansiron Romano-British ironworks, Forest Row, Sussex', *WIRG Second Series* **15**,3.

¹⁷ Rudling, D. 1986. 'The excavation of a Roman tiler on Great Cansiron Farm, Hartfield, East Sussex', *Britannia* **17**, 191-230.

¹⁸ Rudling, D. 1985. 'Further excavations on Great Cansiron Farm, Hartfield, East Sussex', *WIRG Second Series* **5**, 36-40.

¹⁹ Gardiner, M. 1990. 'The Archaeology of the Weald – A Survey and a Review', *Sussex Archaeological Collections* **128**, 33-53.

²⁰ Tebbutt, C.F. 1982. 'A Middle Saxon iron smelting site at Millbrook, Ashdown Forest, Sussex', *Sussex Archaeological Collections* **120**, 19-35.

- 2.17** A second ironworking forge (MES5203) once operated to the east of the site, directly west of Cansiron Lane. The forge was mentioned as early as 1563 and although in ruins by 1664, it was put back to work by at least 1700. Its pond-bay is now dried out and covered by woodland. In 1971, the pond-bay was seen to contain considerable amounts of cinder, as was the bed of the stream to its south. When this forge was in use, a late 16th / early 17th century timber-framed house (MES5227) was in occupation just to its north, on the east side of Cansiron Lane (Little Cansiron is a Grade II Listed Building).
- 2.18** A large country house (Hammer Wood Lodge) was built to the immediate west of Hammer Wood in c.1790 (MES3177; Grade I Listed Building). It overlooks Hammerwood Park (MES3191; Grade II Listed), which was restored in the late 1980's along with the mid-19th century terraced gardens to the front of the house. Hammerwood Park contains a 19th century tree plantation.
- 2.19** The Gardner and Gream map of c.1795 (Fig. 3) shows 'Canseiron' as a cluster of buildings surrounded by fields. The field system is not recognisable from today's and so the site cannot be accurately identified on the map. Christopher and John Greenwood's map of 1825 (not produced) is not as clear and provides no further detail of 'Canseiron Farm'.
- 2.20** Census information²¹ details that the farmer Stephen Pollington inhabited Cansiron Farm in 1841. The Hill family occupied Great Cansiron Farm in 1851. In 1881, the Coppard family lived in No. 1 Cansiron Cottages, the Meapham family in No. 3 Cansiron Cottages and Henry Payne in Cansiron Farm House. In 1891, the Elphick family resided in Keeper's Cottage, Cansiron, the Hunt family in Cansiron Farm, the Mephram family in No. 1 Cansiron Cottages and the Hunt family in No. 3 Cansiron Cottages.
- 2.21** The 1st Edition OS map of 1873-1875 (Fig. 4) shows the Scheduled Ancient Monument site to have comprised three fields, not the one. The field presently located to the east and the two fields currently sited to the south were also partitioned into smaller fields at this time. A footpath ran west to east through this land, and a waterfall is marked on the map just to the east of the Scheduled Ancient Monument. By 1898-1899 (see Fig. 5 for the 2nd Edition OS map), the process of enlarging the fields had begun, with for instance the bloomery site having already been amalgamated into one field.
- 2.22** There was no change by 1910 or even by 1947 (no 20th century OS map is reproduced). By 1952, the bloomery field had been ploughed over, revealing an extensive area of black earth darkened by charcoal, cinder and slag. By 1961, Grouts Wood had been cleared, paving the way for this land to be incorporated into the field to its north by 1974, thereby creating the field seen today to the southwest of the Scheduled Ancient Monument. The field to the east had also been established by 1974, whereas that to the southeast was still considerably larger in 1980 than it is today. The pylons had been erected by 1974.

²¹ <http://www.theweald.org/P2.asp?Pid=Ha.Cnsron>

3.0 Methodology

- 3.1** The area surveyed was divided into four parts, labelled Fields 1 - 4 on Fig. 2. The Scheduled Ancient Monument field (Field 1) was under grass at the time of the survey, whilst the other three adjacent fields had been recently harvested of their crop, and then ploughed and sown (Plates 1 & 2).
- 3.2** Conditions were largely sunny and dry during the survey of Fields 1 and 2, but a prolonged spell of subsequent bad weather meant that when the rain eased off, the ground was extremely soft in places in Fields 3 and 4 making survey here difficult at times. Other than the saturated soil conditions in these two fields and the electricity pylon in Field 1, which produced a large magnetic halo, there were no impediments to the survey that could have affected the quality of the data collected.
- 3.3** The survey was carried out using a Bartington Grad601-2 fluxgate gradiometer within 40m x 40m grids. The grids were set out using a Topcon GTS 211D and Topcon GTS 213 on an arbitrary grid. Two resection points were recorded for each field, and the outline of each field was partly surveyed to further aid the overlay of the survey results onto an OS base map / aerial mapping. The sample rate was four readings per metre along lines spaced 1m apart. The grids were walked SW-NE in Field 1; W-E in Field 2; N-S (north part) and W-E (south part) in Field 3; and SSW-NNE in Field 4.
- 3.4** The data was processed using Snuffler geophysics software using zero mean line destripe filters, followed by interpolation from 1m x 0.25m samples to 0.5m x 0.25m. The display threshold is +/- 10 nT in all four fields to provide contrast for the strong readings provided by the iron workings (Figs. 6 - 9). Figure 10 shows Field 1 at +/- 60nT as opposed to +/- 10 nT, to better contrast the stronger features within the main settlement.



Plate 1: Undertaking survey in Field 1, looking south-west

4.0 Survey Results

- 4.1** The results for the five survey areas shown in Figures 6 - 10 are interpreted in a single interpretation diagram in Figure 12. The magnetic response within the main iron working settlement is so strong and dense that marking and making out all relevant features is difficult, thus the main area is shown as orange shading, with positive anomalies, both inside and outside the settlement shown in green. Other areas outside the main settlement show a scatter of iron material, but not to the same density. These are shown as a lighter orange shading. Areas with an extreme of magnetic reading, with a significant portion of readings around +/- 99 nT are shaded in purple, with the strongest features in dark purple. Magnetic responses from modern features are shown in red. An area of alluvium to the north, which may have been under water during the Roman period, is shaded light blue. Particular features of interest are marked with blue labels and described below.
- 4.2** Feature A (Fig. 12) is an electricity pylon. Its magnetic halo is particularly strong, blotting out the local archaeology on the survey results. In places, it is difficult to make out where the halo from the pylon stops and the archaeology begins, but its presumed influence is marked in red.
- 4.3** Feature B (Fig. 12) is one of the strongest features, and is most likely one of the primary iron-working sites within the settlement. It is long and thin, suggesting that it actually comprises several features in what appears to be one magnetic mass. Feature B sits within a rectangular enclosure measuring 22m x 13m. The northern edge of this enclosure is not entirely clear, and it may have been at least partly open at this point.
- 4.4** Feature C (Fig. 12) is another particularly strong feature, just to the south of feature B. It too is elongated, but oriented north-south, rather than the east-west of feature B. Unlike feature B, the response doesn't appear to be quite so cohesive a mass, comprising several smaller dipoles. Like feature B, this area is also likely to be primary iron-working.
- 4.5** The features at D (Fig. 12) are very similar to Feature B, with a pair of east-west oriented strong magnetic features. These features sit at the northern end of a roughly square area of particularly strong readings, which can best be seen on Fig. 11. This is the first of three square areas at the southern end of the settlement, whose significance will be discussed in the conclusions.
- 4.6** The second square feature at E is not quite as clear (Fig. 12). It is clearly bounded on the western side by what appears to be a trackway, 5 metres wide, that also forms one side of feature G. The northern side is possibly also a track, which would bound the southern side of feature D, but this is not as clear. Another track heads east-west through the centre of feature E, but cannot be traced past what is presumed to be the eastern edge of the feature. The features are particularly difficult to read in this area. Being at the top of the slope in the field, it may have been affected to a greater extent by past ploughing. The magnetic responses in this area are around the same strength as at feature D, but lack the strength of the two main iron-working features in that area.

- 4.7** Feature F is the main trackway through the site, running east-west (Fig. 12). Unlike the track on the western side of feature E, which seems conspicuous by its side ditches, trackway F is most conspicuous by the strong response of the presumably iron waste metalling. Towards the western end, the track is less clear, perhaps resembling more the ditched trackway at E, but it clearly continues in a straight line from the clearer central part, as it bounds the northern edges of areas D and G. The eastern part is on a different alignment, and it seems to stop at the edge of the field, where the ditches of the road that is feature J continue on a different alignment.
- 4.8** Feature G is the third square area at the southern end of the site (Fig. 12). Unlike areas D and E, the magnetic responses are not as strong, which means the more discrete ditch features bounding the area are not drowned out and are more easily seen on all four sides. The area is roughly 28m square within its boundary ditches. The northern edge is trackway F.
- 4.9** Feature H is one of the most important on the site (Fig. 12). The ground drops away somewhat here, and the area appears to be alluvial river silts on the survey results. Roman water levels were known to around 3 metres higher than at present, and it is possible that the entire area was under water during the Roman period. The current stream is now much further down the slope, but after the drop in height between the land to the south and the alluvial floodplain areas, the ground is fairly flat. There are features within the edge of this change from the solid ground on which the iron-workings sit, and the water to the north. Feature H consists of a series of small dipoles, arranged in a linear fashion and extending out into the alluvial floodplain. The magnetic responses may be the nails that would have held together a jetty, extending roughly 15 metres out into the wet area.
- 4.10** The six features marked I, like feature H, also appear to be in the floodplain (Fig. 12). They are all very strong features, but rather than composite features, like the iron-workings to the south, these are single, very strong, dipoles, resulting from a single metal object. They are arranged along the edge of what would have been the water line. It is likely that these are large metal pins, used in the construction of a wharf. Such features, “large countersunk iron spikes” were used in the construction of the wharf in London²².
- 4.11** Feature J appears to be a ditched Roman road (Fig. 12). The ditches are 10 metres apart, with a very slight curve to the north. The road stops at its western end, at the current field boundary, and trackway F starts, on a different alignment. This point of changeover is also the current gap in the hedge between the two fields. Whilst WIRG and David Rudling describe a linear spread of iron waste extending east across the field, things are not as clear cut on the results. There are small patches of iron between the ditches, but somewhat towards the northern edge rather than in the centre. Iron does not appear to have been the primary metalling for this road. Either iron was used for repair, or the surface metalling has been stripped away by more recent ploughing.

²² Brigham, T. 1990 *The Late Roman Waterfront in London*, *Britannia* 21

- 4.12** The features at K are common adjacent to Roman roads (Fig. 12). These ditched, rectangular enclosures are often found as part of roadside settlements. They may be fields, smallholdings, or someone marking out a piece of land for a dwelling. Though some sort of dwelling is most common for this sort of enclosure, the lack of features within the enclosures here suggest they are small fields rather than for occupation, but it may be that any structural features have been ploughed away.
- 4.13** Feature L is a linear feature in Field 3 that seems to extend from the main settlement to the north (Fig. 12). The strength of the readings surrounding it suggests that the immediate area was also part of the main settlement. This is important because the field boundary between the two fields contains a stream, which the results of the survey suggest was not present in Roman times. Further to the south of this feature, there is a lower density of activity, with some small probable pit and linear features, but nothing like the density of the main settlement.
- 4.14** The area around M in Field 2 is the edge of the settlement (Fig. 12). Though there are some individual strong features, the density is not the same as in the main settlement. The strong feature in the north-east corner of the survey area is the corner of the main settlement. It looks like archaeology extends further to the west for an unknown distance, which was unfortunately not surveyed due to a fence and crop, but there is likely to be little to the south.
- 4.15** The contrast of the area around N with the main settlement to the west is striking (Fig. 12). The strong readings stop suddenly, suggesting some sort of boundary to the settlement. The boundary between the water and the land is also clear. Nevertheless, within this seemingly blank area, there are a number of slight linear features, which are possibly unmetalled trackways or ditches, one of which may relate to the field boundary shown on the 1st Edition OS map (Fig. 4).
- 4.16** During the survey, small quantities of Roman pottery, and ceramic building material were noted on the surface of the cultivated fields and in molehills in Field 1, together with iron working slag, and roasted ore fragments.



Plate 2: Surveying in Field 3, looking north

5.0 Conclusions

- 5.1** The extent of the main settlement is clear on the eastern and northern sides (Fig. 12). To the west, there could be a continuation of the main settlement, though the results in Field 2 suggest that the archaeology will not extend too much further in this direction. The ground does drop away and get wetter to the west and north, so the settlement will perhaps be limited by geography. To the south, the main settlement appears to extend a short distance, but again the results in Fields 2 and 3 suggest it will not be very far. There is a stream and a large pit in the wooded area to the south of the main settlement, and while it is clear that the stream wasn't there in Roman times, the date of the pit is less clear. If it is Roman in date, it would be situated on the southern edge of the main settlement, which is largely defined by the boundaries of Field 1.
- 5.2** The change from a slag metallised track (feature F) to a ditched road (feature J) on a different alignment suggests that the road and settlement were built by different agencies. Those responsible for the road may have been instructed to build the road to the settlement, but did not integrate it with the settlement itself. The agency responsible for the iron workings then built the trackway through the settlement to the road. This is supported by the lack of iron making up the road surface, suggesting some other material such as sandstone or flint was used as metalling, and also suggests it may predate the ironworking. It is also possible that the current field boundary between the two was also a boundary in Roman times, as the boundary is perpendicular to the road, and the enclosure features (K) seem to stop at the field boundary.
- 5.3** The main exit route from the settlement is clearly by the road to the east. Though only a small part shows in the survey, its passage across the field is clear on aerial imagery, crossing the field boundary to the east about 10m to the north of the current gap in the trees. Its course is not clear from then on. Rudling's map²³ also has a further track on the other side of the stream, heading past the tilery and further small bloomeries towards a very large pit at Puckstye Farm (TQ462384). This is geologically the closest source of iron. There is no sign of this track entering the settlement on the geophysics results, but the possible quay may have allowed iron ore to be ferried across.
- 5.4** This leaves the question of why they built the site so far away from the source of ore, and on the other side of a water course. There is precedent for this, as the Romans seemed to favour the south side of water courses for their iron works, as at Bardown, Oaklands Park and Chitcombe, and don't seem too concerned about the distance that the ore itself has to travel. The choice of site seems to be more important to them.

²³ Rudling, D. 1986 *The Excavation of a Roman Tilery on Great Cansiron Farm, Hartfield, East Sussex*
Britannia 17

- 5.5** The three square areas (D, E & G) are similar to the gridded settlement layout found in Roman towns and planned settlements, suggesting an official Roman presence at the site rather than a local enterprise. This gridded layout has also been seen at the Classis Britannica iron-working site at Bardown²⁴, where CL:BR stamped tiles have been found. The layout at Great Cansiron, its size, and the possible presence of a quay (features H & I) suggest that the fleet were also responsible for the iron-workings here. The Classis Britannica were known to have run a number of sites in the Weald²⁵, but if they were involved with this site, it would be their most westerly found to date.
- 5.6** The survey has revealed an extensive ironworking site, covering most of the Scheduled Monument area, but also extending out into the edges of the surrounding fields. Within the central part of the site trackways and enclosures were identified, some of which contained evidence for ironworking activity, whilst along the old stream frontage there may be evidence for quays, suggesting links with the CL:BR. The site is also connected by a road from the east which may be of an earlier date.
- 5.7** It is clear that the most important parts of the site are currently within the Scheduled Ancient Monument area, although the immediately adjacent parts of Fields 2, 3 and 4 also contain evidence for possible ironworking and settlement activity, although this does not extend to any great extent into those fields. Some extension of the Scheduled Monument area into these fields may be considered. It is also likely that the site extends to a similar extent into the adjacent area to the south of the site currently covered by woodland (Fig. 13).
- 5.8** Consideration should be given to these areas, including a strip along the north edge of Field 4, along the likely route of the trackway (J) heading east out of the site, being taken out of cultivation to avoid further plough damage to the surviving archaeology (Fig. 13). Further survey work in Field 4 could be undertaken to define the exact route of the trackway and any associated features.
- 5.9** It is also recommended that further research is considered to investigate some of the features suggested by the survey, with the aim of confirming exactly what the features are through the targeted excavation of trial trenches. This will provide a better understanding of the site, and enable a more detailed plan to be put in place for its future management and preservation.

²⁴ Hodgkinson R. & McLaughlin T. 2010 *An Investigation into Bardown and its Environs*, IHRG

²⁵ Cleere, H. & Crossley, D. 1995 *The Iron Industry of the Weald*, Merton Priory Press

6.0 Acknowledgements

- 6.1** We would like to thank Matthew Craig of Batcheller Monkhouse for commissioning this geophysical survey, and the landowner, Baron Deschauer. Thanks are extended to Jo Barnes of Natural England for helping to coordinate the project, and to gamekeeper Mickey Harvey for his co-operation.
- 6.2** The project was managed by Chris Butler. Greg Chuter, Assistant County Archaeologist, monitored the project for East Sussex County Council. Paul Roberts arranged for Scheduled Monument Consent to undertake the survey in Field 1.

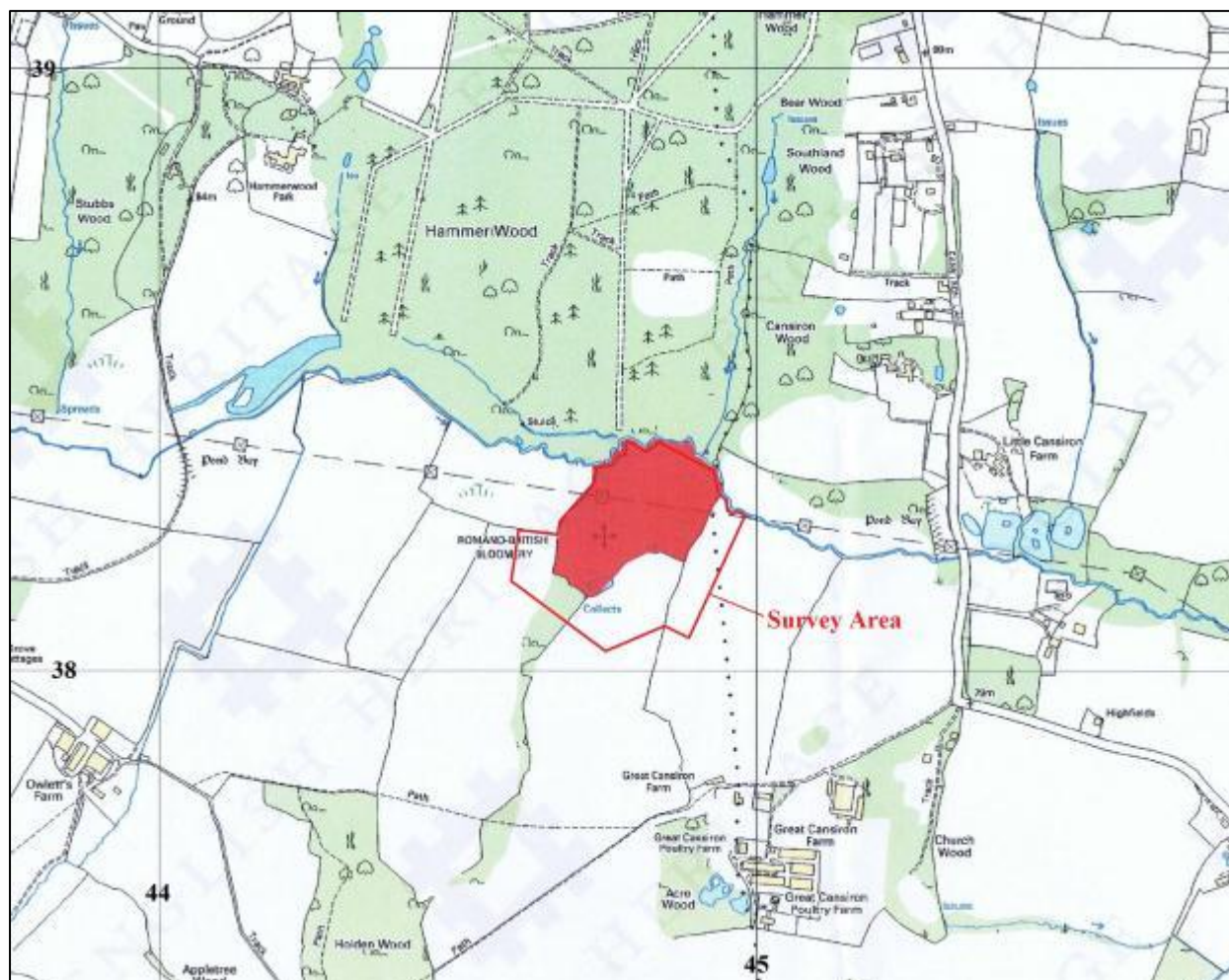


Fig. 1: Great Cansiron Farm, Hartfield: Site location map
(Scheduled ancient monument shown in red)
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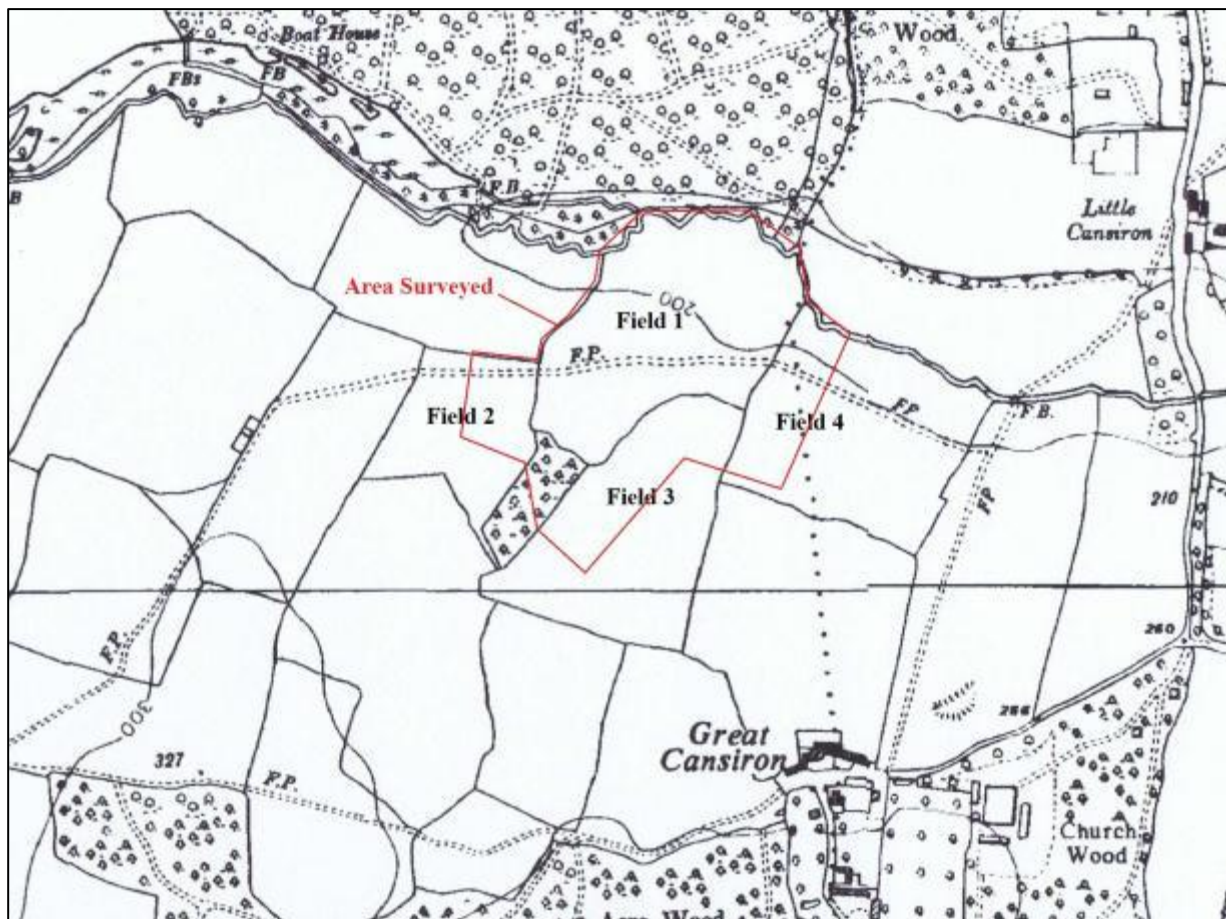


Fig. 2: Great Cansiron Farm, Hartfield: Plan of site
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Fig. 3: Great Cansiron Farm, Hartfield: Gardner and Gream map (c.1795)
(<http://theweald.org/hmaps.asp>)

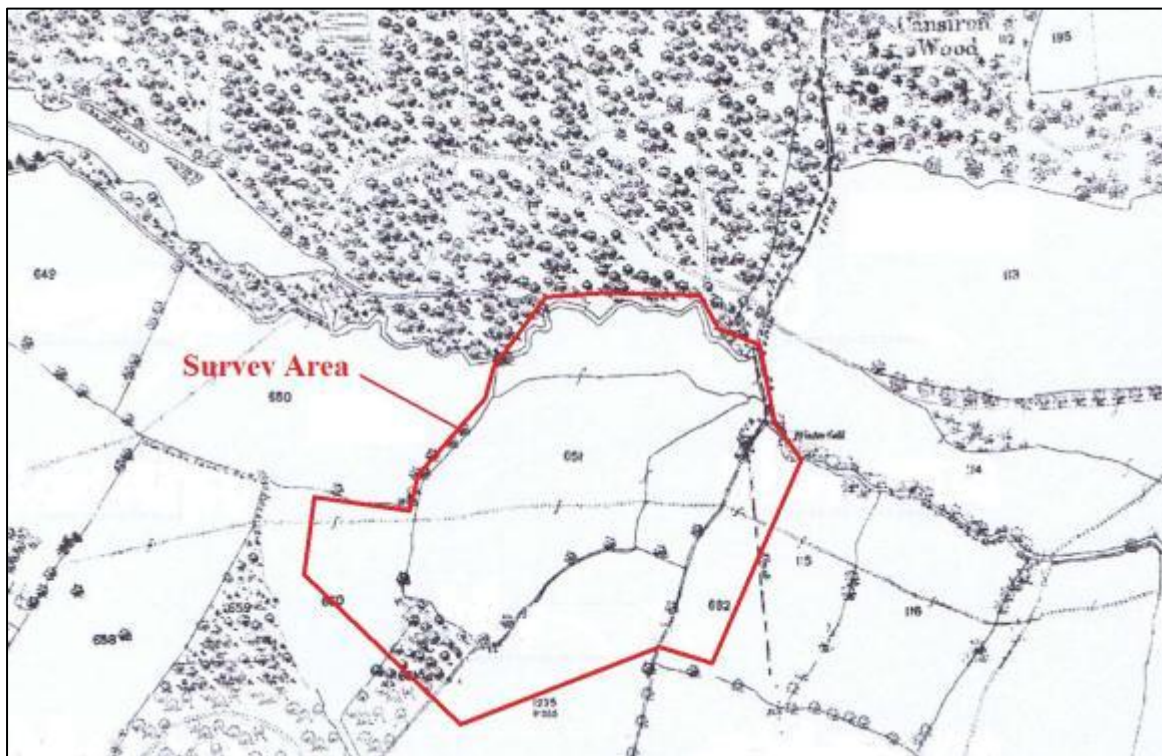


Fig. 4: Great Cansiron Farm, Hartfield: 1st Edition OS map (1873-1875)

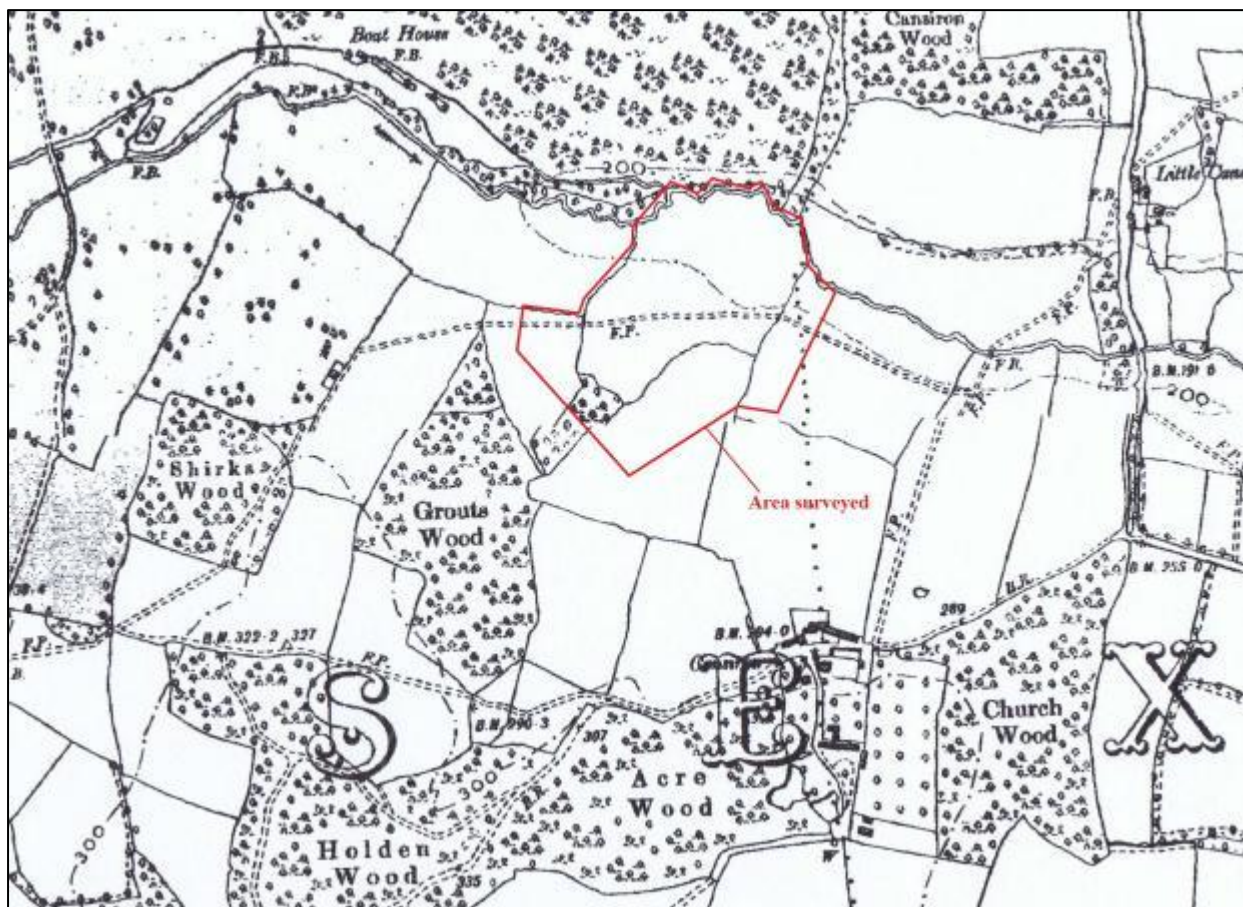


Fig. 5: Great Cansiron Farm, Hartfield: 2nd Edition OS map (1898-1899)

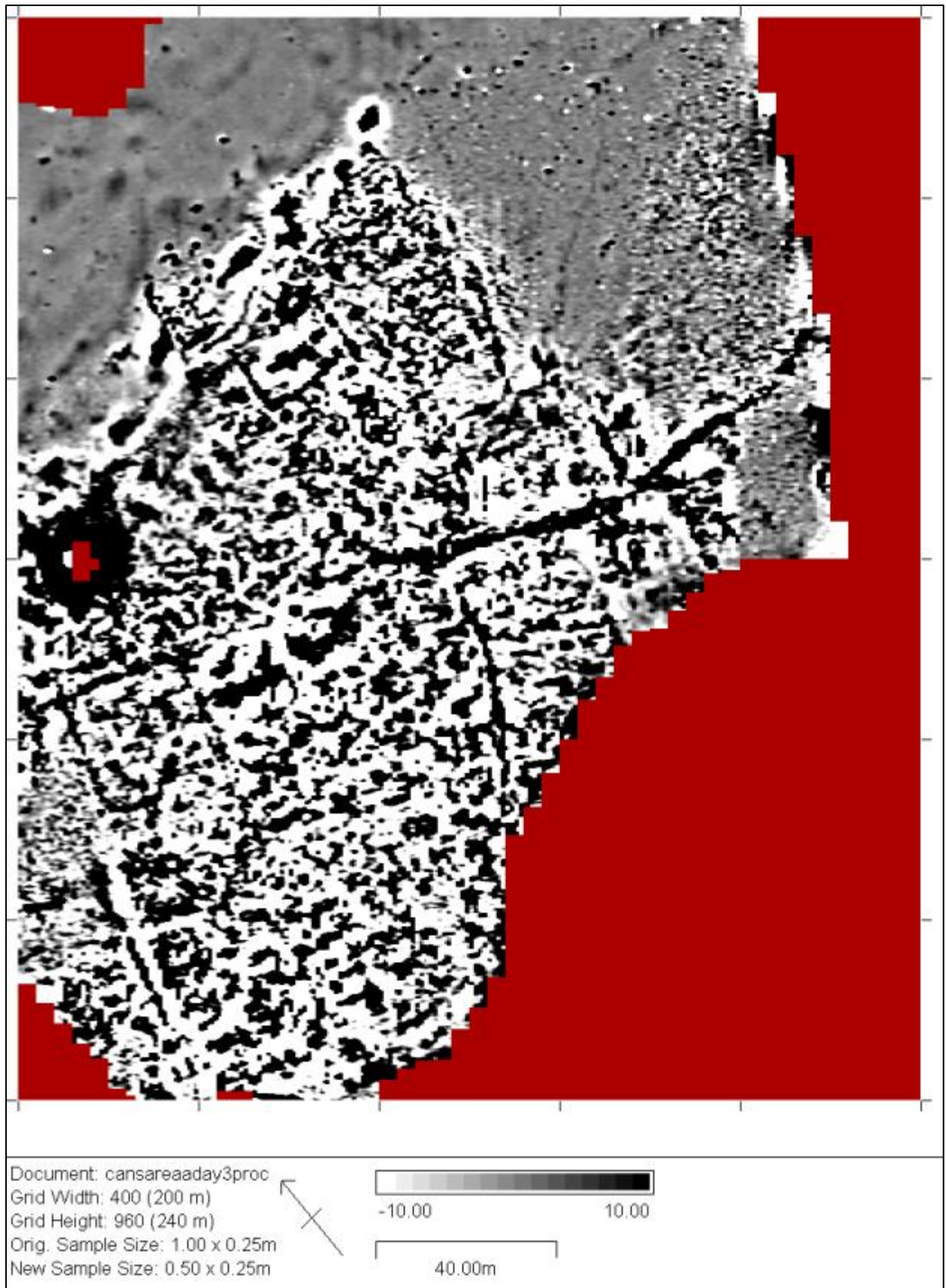


Fig. 6: Great Cansiron Farm, Hartfield: Geophysics results Field 1

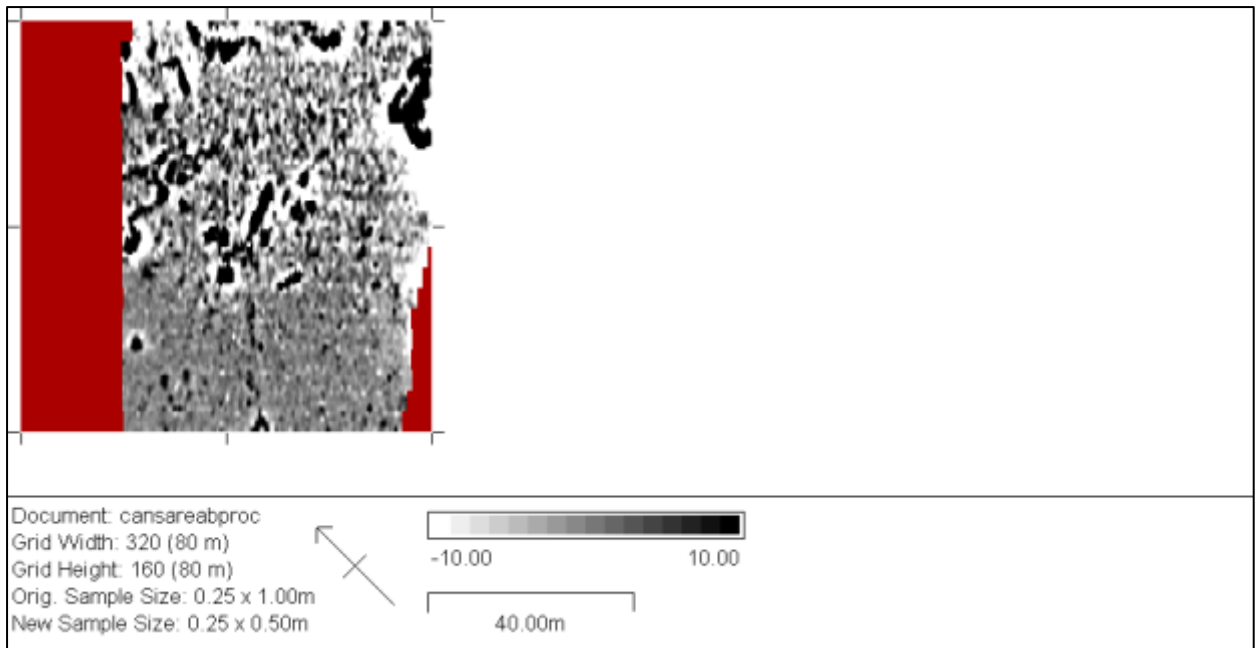


Fig. 7: Great Cansiron Farm, Hartfield: Geophysics results Field 2

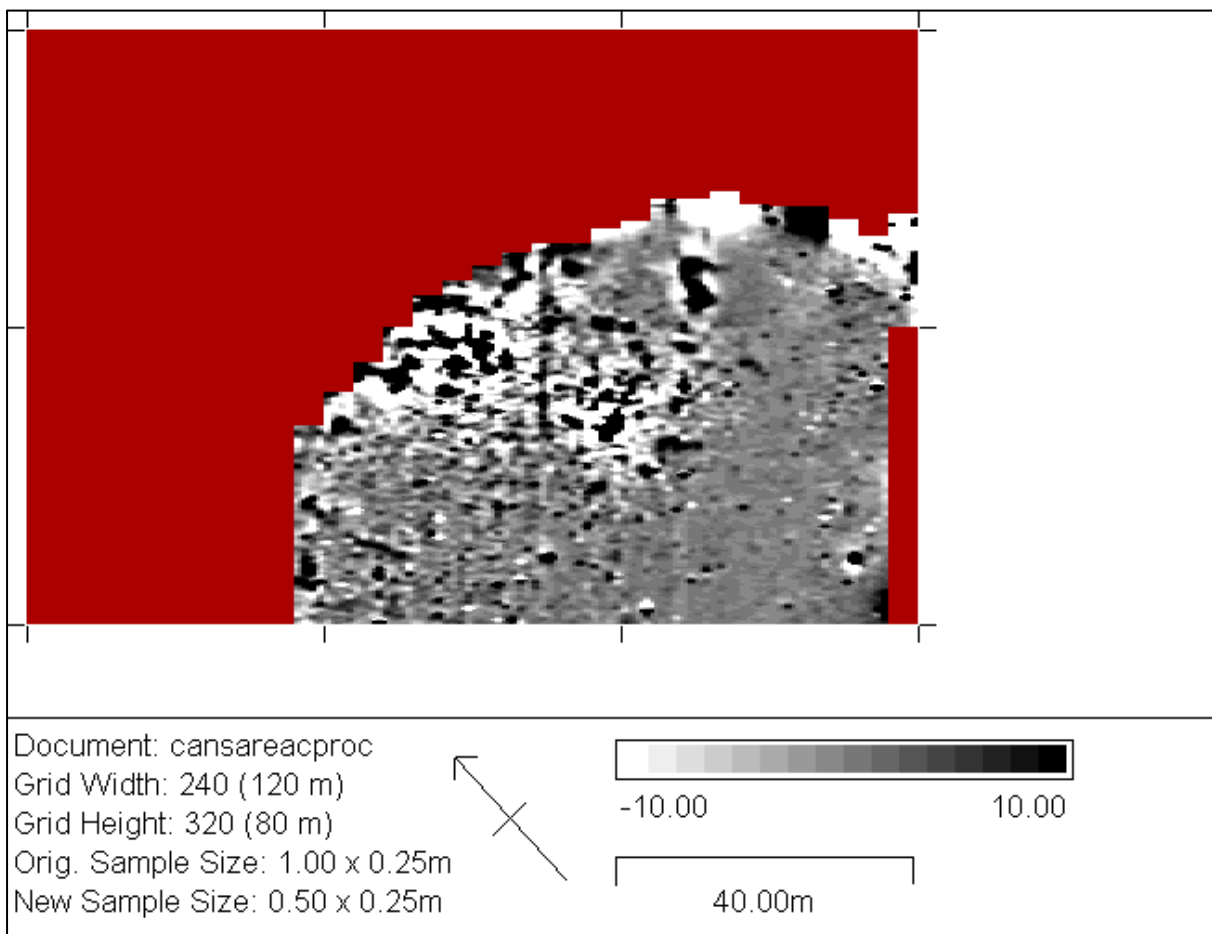


Fig. 8: Great Cansiron Farm, Hartfield: Geophysics results Field 3 (north)

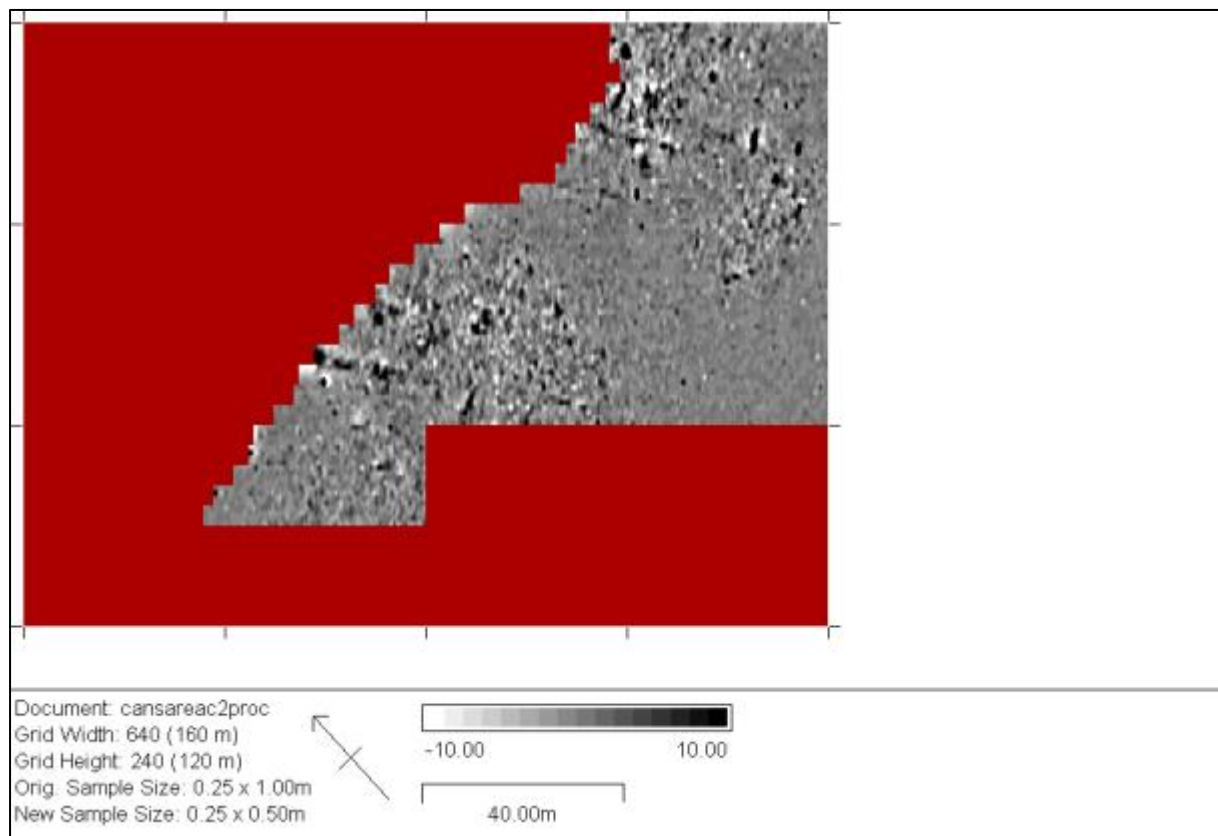


Fig. 9: Great Cansiron Farm, Hartfield: Geophysics results Field 3 (south)

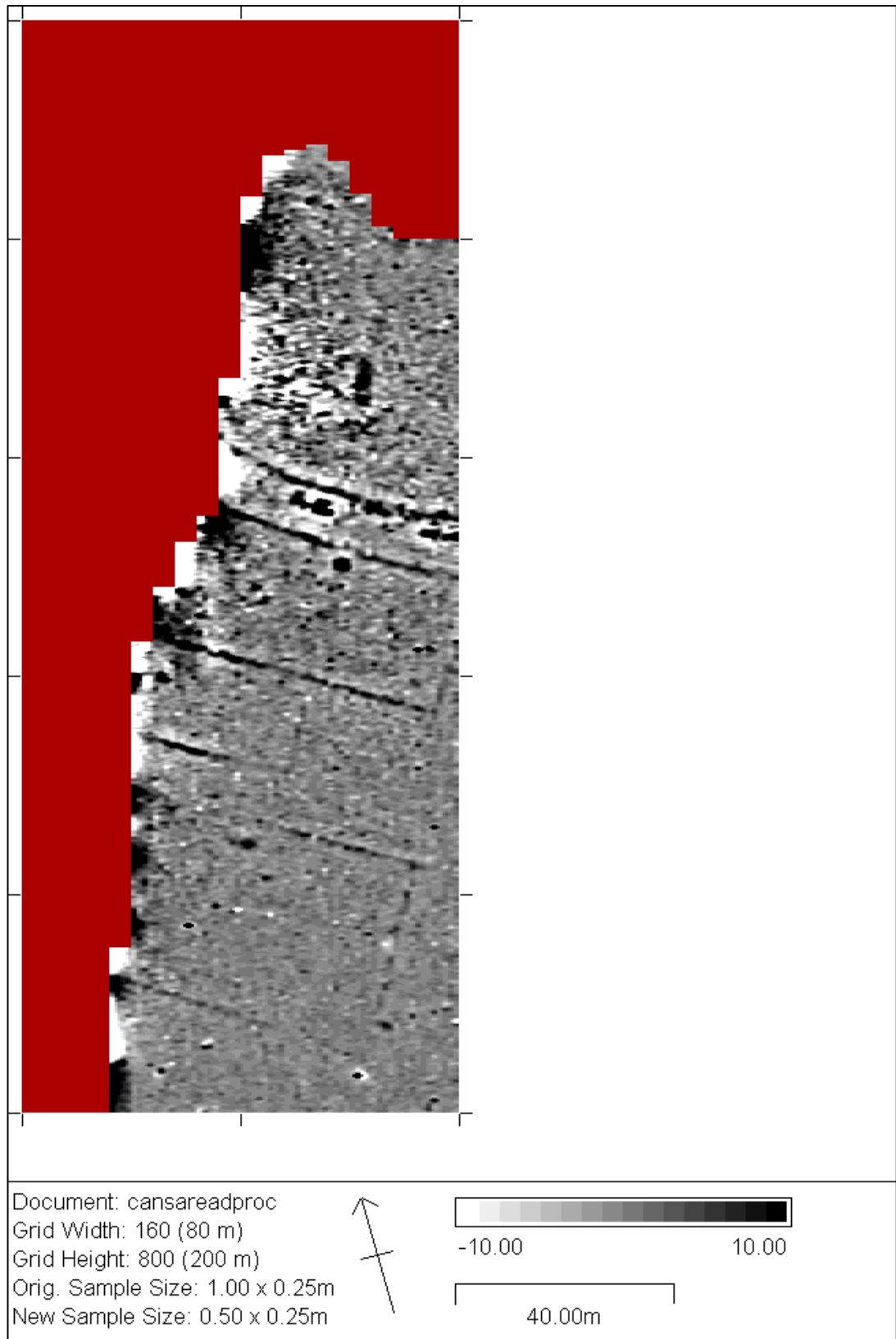


Fig. 10: Great Cansiron Farm, Hartfield: Geophysics results Field 4

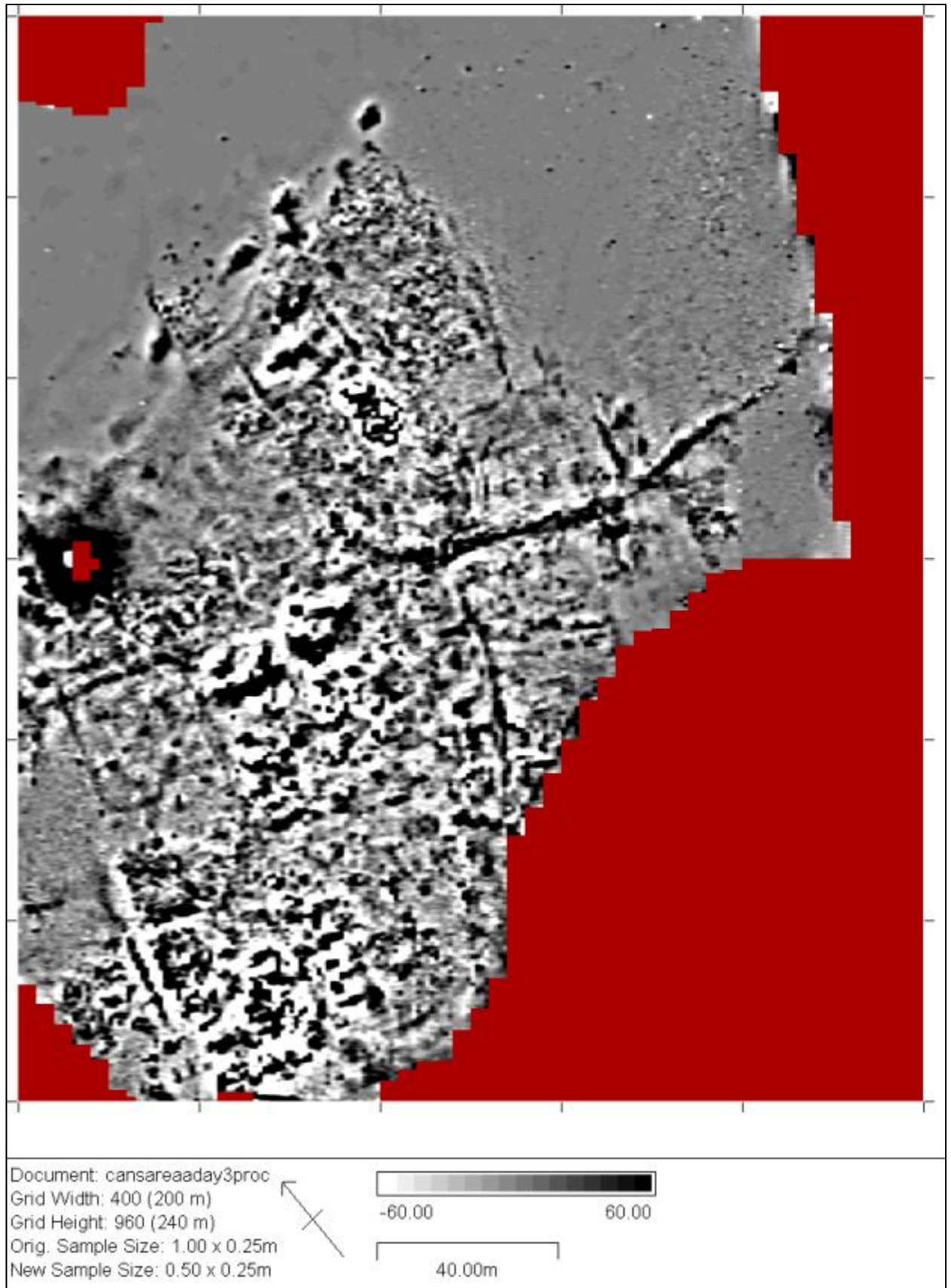


Fig. 11: Great Cansiron Farm, Hartfield: Geophysics results Field 1 at +/- 60nT

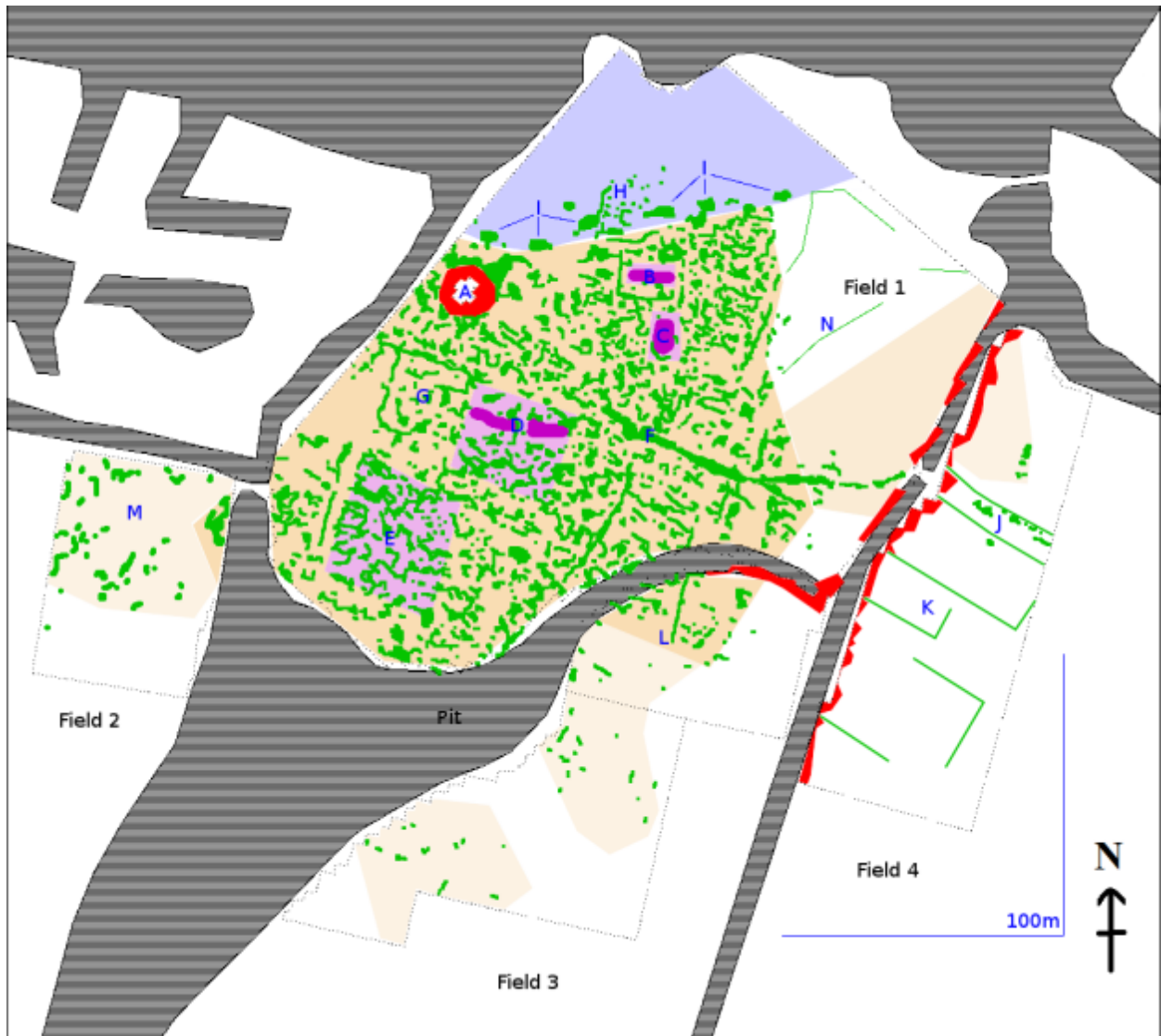


Fig. 12: Great Cansiron Farm, Hartfield: Interpretation of Geophysics results

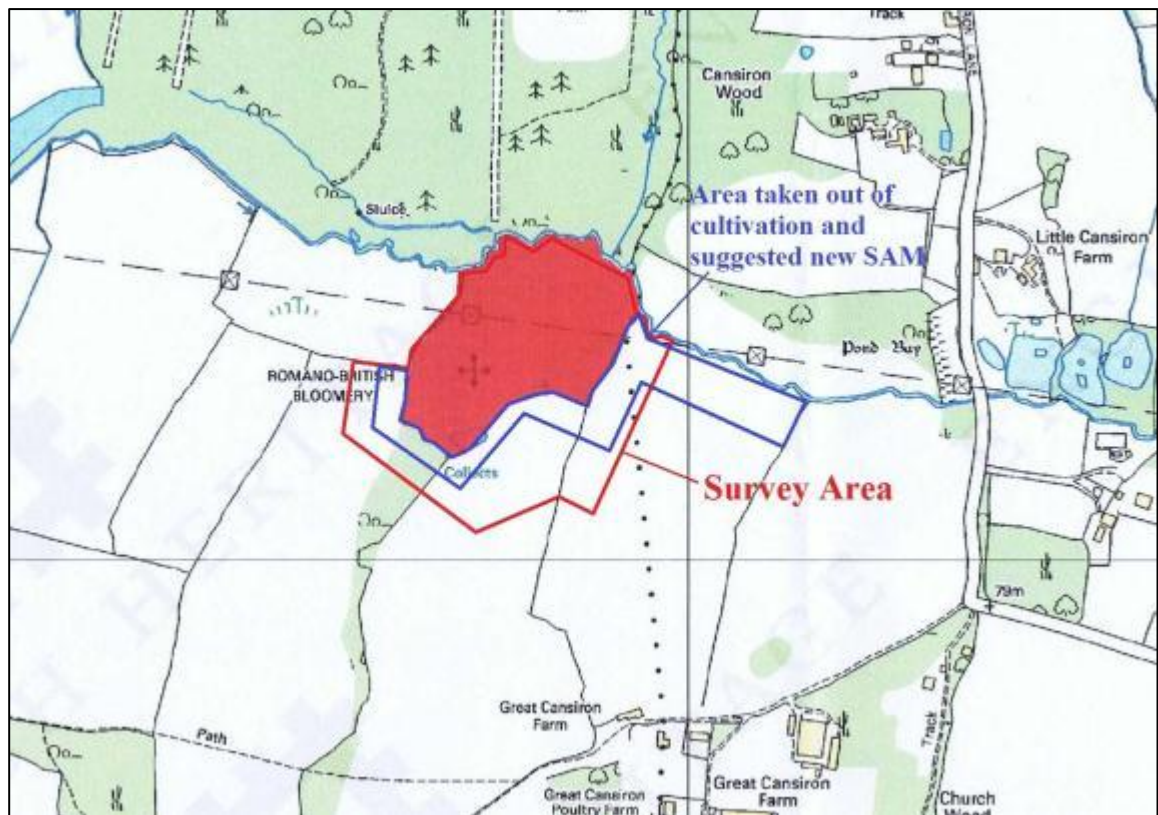


Fig. 13: Great Cansiron Farm, Hartfield: Recommendations for extension to SAM and area taken out of cultivation

Appendix 1 HER Summary Form

Site Code	GCF12					
Identification Name and Address	Great Cansiron Farm, Butcherfield Lane, Hartfield, East Sussex					
County, District &/or Borough	Wealden District Council					
OS Grid Refs.	TQ 44800 38283 (centred)					
Geology	Ashdown Formation (sandstone and siltstone)					
Type of Fieldwork	Eval.	Excav.	Watching Brief	Standing Structure	Survey X	Other
Type of Site	Green Field X	Shallow Urban	Deep Urban	Other		
Dates of Fieldwork	Eval.	Excav.	WB.	Other 28 th August - 9 th October 2012		
Sponsor/Client	Baron Deschauer					
Project Manager	Chris Butler MfA					
Project Supervisor	Caroline Russell					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB X
	AS	MED	PM	Other		
<p>100 Word Summary</p> <p><i>Far Blacklands Roman bloomery, at Cansiron Farm, Butcherfield Lane, Hartfield, East Sussex, is a Scheduled Ancient Monument, and has a high level of potential for further archaeological investigation, which will provide information relating to its history and use. As part of a High Level Stewardship agreement funded by Natural England, an archaeomagnetic survey was required in order to establish the full extent of the bloomery and to identify where alternative management regimes may be required to protect the entire archaeological site.</i></p> <p><i>The survey revealed an extensive ironworking site, covering most of the Scheduled Monument area, but also extending out into the edges of the surrounding fields. Within the central part of the site trackways and enclosures were identified, some of which contained evidence for ironworking activity, whilst along the old stream frontage there may be evidence for quays, suggesting links with the CLBR.</i></p>						

Chris Butler Archaeological Services Ltd

Chris Butler has been an archaeologist since 1985, and formed the Mid Sussex Field Archaeological Team in 1987, since when it has carried out numerous fieldwork projects, and was runner up in the Pitt-Rivers Award at the British Archaeological Awards in 1996. Having previously worked as a Pensions Technical Manager and Administration Director in the financial services industry, Chris formed **Chris Butler Archaeological Services** at the beginning of 2002.

Chris is a Member of the Institute of Field Archaeologists, and a committee member of the Lithic Studies Society. He is a part time lecturer in Archaeology at the University of Sussex, and until recently taught A-Level Archaeology at Bexhill 6th Form College having qualified (Cert. Ed.) as a teacher in 2006. He continues to run the Mid Sussex Field Archaeological Team in his spare time.

Chris specialises in prehistoric flintwork analysis, but has directed excavations, landscape surveys and watching briefs, including the excavation of a Beaker Bowl Barrow, a Saxon cemetery and settlement, Roman pottery kilns, and a Mesolithic hunting camp. He has recently undertaken large landscape surveys of Ashdown Forest and Broadwater Warren and is Co-Director of the Barcombe Roman Villa excavation project.

His publications include *Prehistoric Flintwork*, *East Sussex Under Attack* and *West Sussex Under Attack*, all of which are published by Tempus Publishing Ltd.

Chris Butler Archaeological Services Ltd is available for Flintwork Analysis, Project Management, Military Archaeology, Desktop Assessments, Field Evaluations, Excavation work, Watching Briefs, Landscape and Woodland Surveys & Fieldwalking, Post Excavation Services and Report Writing.

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