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The Towton Battlefield Archaeological Survey Project: An Integrated Approach to Battlefield Archaeology

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Introduction

The small village of Towton is situated four kilometres to the south of the market town of Tadcaster and 18 kilometres southwest of the city of York, the medieval secular and ecclesiastical centre of northern England (Plate 1). This small medieval hamlet gave its name to what is regarded as the largest battle ever fought on British soil, with over 100,000 combatants allegedly taking part and approximately 28,000 dead (English Heritage 1995). The Battle of Towton took place on Palm Sunday, 29th March 1461 between the armies of King Henry VI of the house of Lancaster and Edward Earl of March, later Duke of York, of the house of York. Preceding the battle Edward had been proclaimed the new king, and after his victory at Towton he was crowned King Edward IV (Myers 1969)

It is known from King Edward IV's 1461 Act of Attainder that the battle took place 'in a field ...called Saxtonfield and Towtonfield' (Rotuli. Parliamentorum, 1st Edward IV. (1461), vol V fo. 477-8, cited in Boardman 1996; 160-161), upon the rolling landscape on the very edge of the vale of York. However, although much has been written about the battle, most of it is based on surprisingly little primary historical resources. Secondary historical documents, mainly eighteenth, nineteenth and twentieth century works (e.g. Drake (1736), Leadman (1891) and Boardman (1996) reiterate and embellish the earlier sources whilst adding local legends and folklore. The most tangible evidence for the battle came from the excavation of a mass grave containing the remains of approximately 50 individuals, which was excavated and recorded during building work at Towton Hall (Sutherland 2000a). A radiocarbon date confirmed that the skeletons were contemporary with the battle. Detailed analysis of the excavated material revealed that all individuals were males who had suffered extensive trauma, inflicted by swords, knives, bills, and war hammers (Boylston *et al.* 2000). The published results (Fiorato *et al.* 2000) created considerable interest and even led to a successful television documentary (Lyons 1999).

Following on from these initial findings it was decided to start an extensive landscape survey project to reveal further archaeological evidence from the battle. As most of the field boundaries from the period had been removed and other landmarks connected with the battle destroyed, it was clear from the outset that the integration of several site assessment techniques was required to draw meaningful conclusions. The project therefore relies on the re-analysis of existing data from the *North Yorkshire County Council Sites and Monuments Record* (SMR), maps and aerial photographs, and the collection of new data through geophysical surveys, field walking and dedicated metal detector searches.

Verifying Existing Evidence

The initial phase of the project concentrated on features recorded in the 1995 'English Heritage Register of Historic Battlefields' (English Heritage 1995). This register defines the area of the battle based on evidence recorded in North Yorkshire's SMR and documentary sources, and is seen as its 'official' representation. Most of the SMR records are based on either information gained from observations made in the field or documentary evidence relating to various sites. These documentary sources range from private letters, describing the event several days after the battle (Davis, 1958), to accounts dating from the twentieth century.

The fifteenth century tomb of Lord Dacre, a leading Lancastrian nobleman killed in the battle, is located in the graveyard of Saxton Church to the south of the battlefield and is the only visible trace of the battle today. Large grave pits could formerly be observed on the battlefield however, from the sixteenth century (Smith 1907) until the eighteenth century (Drake 1736). Three large mounds, which can still be seen in a valley on the edge of the battlefield, allegedly contained the remains of dead combatants (Leadman 1891). The initial targets of the survey were therefore sites of reported but unconfirmed graves on the battlefield. If these could be located and related to the battle they would help to quantify the number of dead from the conflict and would also determine if the injuries on the skeletons from the Towton mass grave were typical of those sustained on the battlefield itself.

The landscape of the battlefield was initially analysed using desktop methods of evaluation. Aerial photographs and maps were inspected to assess the feasibility and plausibility of the documentary evidence. For example, an analysis of the 1849 six-inch-to-the-mile Ordnance Survey map (OS 1849) of the area suggests that a number of relic medieval fields existed until the mid-nineteenth century. Analysis of aerial photographs shows that evidence of several ridge and furrow field systems can still be seen today in the form of either earthworks or differential soil colouration following truncation by modern ploughing (Plate 1). This evidence has been used to plot the medieval field patterns. This confirms that the medieval fields at Towton, Saxton and the surrounding parishes were set out in a distinctive east-west or north-south alignment, depending mainly on the respective parishes and not on the local topography (Fig. 1). The deduced medieval parish boundary between Towton and Saxton is different from the modern course, suggesting a significant change of the boundary in the intervening periods. The location of the old boundary coincides with the area in which the two armies allegedly formed up to fight, which suggests that a nineteenth century text, which states that the battlefield was 'chiefly moorland', is incorrect (Leadman 1889). Another example where the medieval field pattern has been used to aid the research is a field, which is marked on the 1849 map as formerly containing '*tumuli*' from the battle (OS 1849, Figs 1 & 2c). No earthworks of any period exist in this field today although an adjacent field still contains ridge and furrow earthworks. On a 1948 aerial photograph, however, (Ministry of Defence 1948) this field was also found to contain ridge and furrow earthworks, almost certainly originating from the medieval period. It is therefore unlikely that any tumuli could have existed there in 1849, and later been removed, leaving only the ridge and furrow intact.

Similar conclusions can be drawn for another area highlighted as containing 'graves' on eighteenth and nineteenth century maps. In his eighteenth century map, Jefferys (Jefferys, 1973) annotated several rectangles in the area between Towton and Saxton

with the words ‘The Graves in Towton Field’ (Fig. 2a). On a later map, Cary (1805) shows a similar location for ‘The Graves in Towton Field’, but he depicts them as circles in the shape of a ‘W’ (Fig. 2b). By 1849 however, the Ordnance Survey has turned the ‘W’-shaped alignment, moved them further south and put it on the opposite (i.e. Western) side of the B1217 Road (Fig. 2c) where it has remained on all subsequent maps. Geophysical surveys, field walking and other forms of archaeological prospection techniques carried out within this field have subsequently failed to locate any evidence to suggest that it ever contained graves. Interestingly, fragments of human remains have now been found to the east of the road suggesting that the location indicated on the earlier maps may have been correct after all. These findings confirm that the location of features depicted on all maps should be verified before any further conclusions can be drawn.

Having found approximately 50 individuals in a mass grave near Towton Hall, it may seem surprising that no skeletons were recorded as being found in the fields associated with the battle. Descriptions of the battlefield by the Antiquary John Leland in the sixteenth century however, state that human bones were removed from the battlefield by a Mr. Hungate (Smith 1907). Detailed archival research has recently uncovered what appears to be a previously unpublished document. This confirms that the skeletal material from the graves was removed in the late fifteenth century on the orders of King Richard III and reburied within the churchyards at Saxton and the then newly constructed or refurbished chapel at Towton. In this document Richard states that

‘... the people of this kingdom in a plentiful multitude were taken away from human affairs; and their bodies were notoriously left on the field, aforesaid, and in other places nearby, thoroughly outside the ecclesiastical burial-place, in three hollows. Where upon we, on account of affection, contriving the burial of the deceased men of this sort, caused the bones of these same men to be exhumed and left for an ecclesiastical burial in these coming months, partly in the parish church of Saxton in our said county of York and in the cemetery of the said place, and partly in the chapel of Towton, aforesaid, and the surroundings of this very place.’ (Richard III, 1484)

This suggests that the human remains removed by Hungate were from a site that has subsequently been called the graves, although whether any formal graves pits were originally constructed on the battlefield has recently been debated (Sutherland forthcoming).

The archaeological research found that several sites, defined in the SMR as being battlefield related (SMR 9607.02.100; 9607.02; 9607.02.200) and therefore included in the EH Battlefield Register, were not what they purported to be - that is, they belonged to a period other than that for which they were recorded. For example, geophysical surveys over the mounds discussed earlier, proved that these are more likely to be prehistoric in date as the surveys identified circular ring ditches around one of them, which are usually associated with prehistoric or post-Roman barrows. Additionally, an amateur excavation carried out on one of them in October 1993 (Boardman 1996) failed to find evidence of a mass grave or any human bones, suggesting that the sites may be prehistoric barrows. Most of the identifiable sites on the battlefield were found to be earlier than the 1461 conflict.

Gathering New Evidence

In order to find additional evidence for the battle various archaeological prospection techniques have been used. Field walking surveys over gridded areas of ploughed fields were carried out using volunteers from the Towton Battlefield Society (Sutherland unpublished). These surveys identified a scatter of modern ferrous debris (e.g. farm implements) but failed to locate any medieval artefacts, other than the expected small sherds of medieval pottery, which were scattered during manuring of the fields.

Geophysical surveys were carried out over large areas of the battlefield, the initial aim of which was to locate concentrations of ferrous artefacts indicative of arrowheads lost within the archery duel at the beginning of the battle (Ellis 1809). As ferrous artefacts produce strong magnetic anomalies within their vicinity, fluxgate gradiometer surveys were carried out over large areas. The detected anomalies were subsequently excavated for examination but it was found that nearly all were related to modern ferrous debris corroborating the findings from field walking. It therefore had to be concluded that modern anomalies would mask the potential medieval ferrous artefacts and that magnetometer surveys were not suited for the recording of the distribution of medieval artefacts *in situ*.

However, when searching for archaeological features in the landscape, geophysical surveys with earth resistance meters and fluxgate gradiometers proved highly effective. When targeting features highlighted in the SMR the surveys helped to identify their nature, as demonstrated by the discovery of a ring ditch surrounding the alleged burial mound (see above). In addition, some of the surveys revealed new archaeological sites. For example, when investigating a field, which allegedly contained a small enclosure that had been ploughed away before being located on a map by Leadman (1889), magnetometer data clearly revealed a system of ditches (Fig. 3a), which incorporates the enclosure and as it is not aligned with the medieval field system suggests a pre-medieval date. The high-resolution earth resistance data (Fig. 3b) collected from inside the enclosure showed modern plough lines but failed to indicate any evidence of burials. Test pitting subsequently confirmed these results thereby removing another potential battlefield site from the list. Based on the success of these techniques large scale field walking was abandoned and replaced by geophysical surveys assisted by a field walker –an assistant who helps to set out the survey grids and then searches for artefacts from within the grid - as a method of site recognition. This procedure enabled different types of data to be gathered simultaneously from a common grid - usually magnetic and earth resistance surveys, as well as artefact collection.

One of the most important aspects of the surveys is the collaboration with Simon Richardson - a local metal detectorist who has spent considerable time since the early 1980's recovering and recording the location of hundreds of medieval artefacts from the battlefield. As a result of this collaboration a detailed survey methodology has been established. While initially recording each artefact only with an estimated grid reference from a map, a handheld GPS receiver (Garmin 'Etrex Vista') is now used to pinpoint positions. These locations are subsequently analysed in a Geographical Information System to create artefact density maps (Fig. 4). This collection has provided extensive artefactual evidence for the battle, including a number of decaying and almost unidentifiable arrowheads, which have been plotted on distribution maps confirming that the battlefield lies in the location suggested by English Heritage on

the Register of Historic Battlefields (Fig. 3). The rout, which followed the main part of the conflict and which was probably responsible for the bulk of casualties (Boardman 1996), can also be traced using artefact density scatters. The research found that the final part of the battle and the subsequent rout passed close by, or through the village of Towton suggesting that the skeletons discovered within the mass grave may be of those who died during this later phase of the conflict.

A small skirmish that took place on the eve of the main battle in Dintingdale, to the south of the Towton battlefield, has also been identified using artefacts lost during that conflict. There, Lord Clifford, a high ranking Lancastrian nobleman and a party of Lancastrian soldiers were attacked by a group of Yorkists, led by Lord Fauconberg, after they had crossed the River Aire following the battle of Ferrybridge earlier the same day (Ellis 1809). This recent discovery records for the first time the precise location of the skirmish at Dintingdale.

Most of the artefacts that are indicative of both the conflicts at Towton and Dintingdale are not obviously military in nature. The greater majority of objects take the form of buckles and buttons, clothing fasteners and strap-ends. In contrast, sword chapes, knife fragments and pieces of broken spur, which would more likely be associated with a medieval battle, are rarely found (Sutherland 2000b). No fragments of arms and armour were found in the surveys, suggesting that these larger items were successfully recovered during the looting and scavenging that would have followed the end of the battle. The research has also found that most of the recovered artefacts are made of copper alloys, rather than ferrous material and would not have been identified using magnetic forms of prospection such as the fluxgate gradiometer. Electromagnetic surveying equipment is therefore now predominantly used to locate artefacts, although a full spectrum of instruments is still employed to investigate other potential sites of interest. While the collaboration with enthusiastic and meticulous metal detectorists has greatly enhanced the archaeological record and contributed to the understanding of the site, fields around Towton are still scoured by other detectorists who do not report or record the locations of their finds and are hence removing essential evidence. For this reason, only limited information on find locations is presented in this paper.

Another aim of the research was to locate evidence for the chapel built by Richard III over the graves of the dead at Towton in 1483, for which a warrant for £40 was issued in 1483 (Horrox and Hammond 1979) and which is mentioned in Richard III's order for the re-burial of bones (see above). During recent building surveys and trial excavations, both within and around Towton Hall, further evidence has been recovered which strengthens the claim that this was the former site of Richard III's Chapel. Fragments of carved medieval building material from windows and doorways, and fine-tooled stonework has been excavated at the hall. It is likely that these come from the original chapel. In addition, two skeletons were discovered in single graves near the mass grave excavated in 1996. Both of the skeletons lie partly under the walls of the present hall and one exhibits clear evidence of severe skull trauma (the head of the other lies under a wall and cannot be analysed). The fact that these men were buried separately from those within the mass grave, and, unlike the others, in a Christian manner, suggests that they might have been different from the other combatants, for example in status. The location of these graves suggests that they were buried at a place that was later the site of Towton Chapel.

Summary and Conclusions

The survey methodology used at Towton has evolved from the initial design to suit the requirements and accessibility dictated by both the landscape and the archaeological problems it encountered. While initially hoping to discover ferrous artefacts with magnetometer surveys it was soon established that most remaining finds are non-ferrous and could hence best be recorded with metal detectors. The conventional geophysical methods, on the other hand, proved highly effective in revealing the palimpsest of features which show the continued use of fields around Towton from prehistoric, through medieval into modern times.

From the analysis of large-scale surveys using aerial photography and maps, to the precision excavation and recording of tiny individual artefacts, the Towton Archaeological Survey Project has not only increased the amount of physical evidence of the battle but has eliminated erroneous data that have masked the real events of 29th March 1461.

Human occupation over a prolonged period of time usually leaves a substantial record in the ground that can often be detected with a single prospection technique (e.g. magnetometer surveys to reveal Iron Age enclosures). In contrast, the remains from a battle are usually ephemeral and an integration of all possible techniques is required to arrive at a meaningful interpretation of their results. The integrated methodology, developed for the Towton battlefield, was applied in 2002 by the main author (TS), together with Simon Richardson and in collaboration with Granada television, to the medieval battlefield of Agincourt, France, with good results. While the emotional and historic importance of a battlefield is enshrined in its landscape, the physical evidence is tied to individual finds buried in the soil, be they sling shots from the 'Varus' Roman Battlefield in Germany (AD 9), the clothing fasteners from Towton (AD 1461), or the unexploded shells from the Somme (AD 1917). A comprehensive analysis of these physical remains is the prerequisite for the understanding of the battlefield landscape.

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Figures



Plate 1: Aerial photograph of the Towton landscape looking South (source; Tim Sutherland. Copyright reserved 2003)

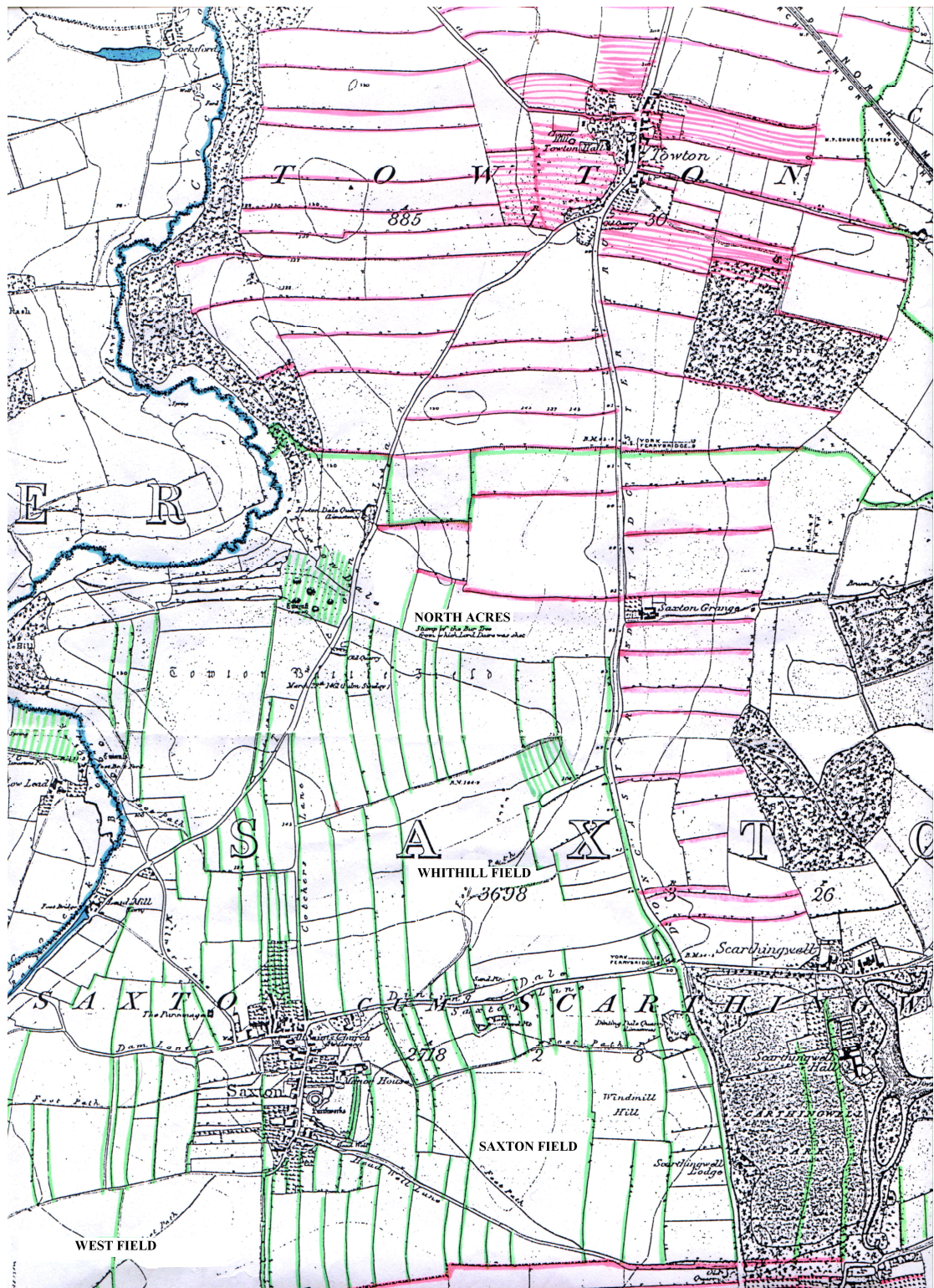


Figure 1: 1849 Ordnance Survey map of Towton and Saxton, highlighting evidence of the medieval field systems

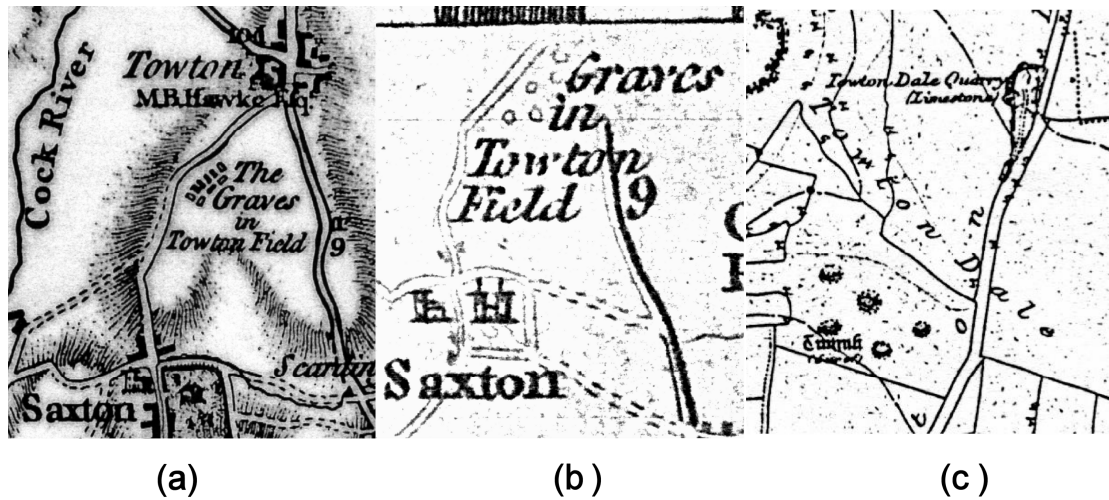


Figure 2: The changes in depiction and location of 'The Graves'. (a) Jefferys' Map 1767-1770 (b) Cary's map 1805 (c) Ordnance Survey 1849 (see Fig. 1 for location)

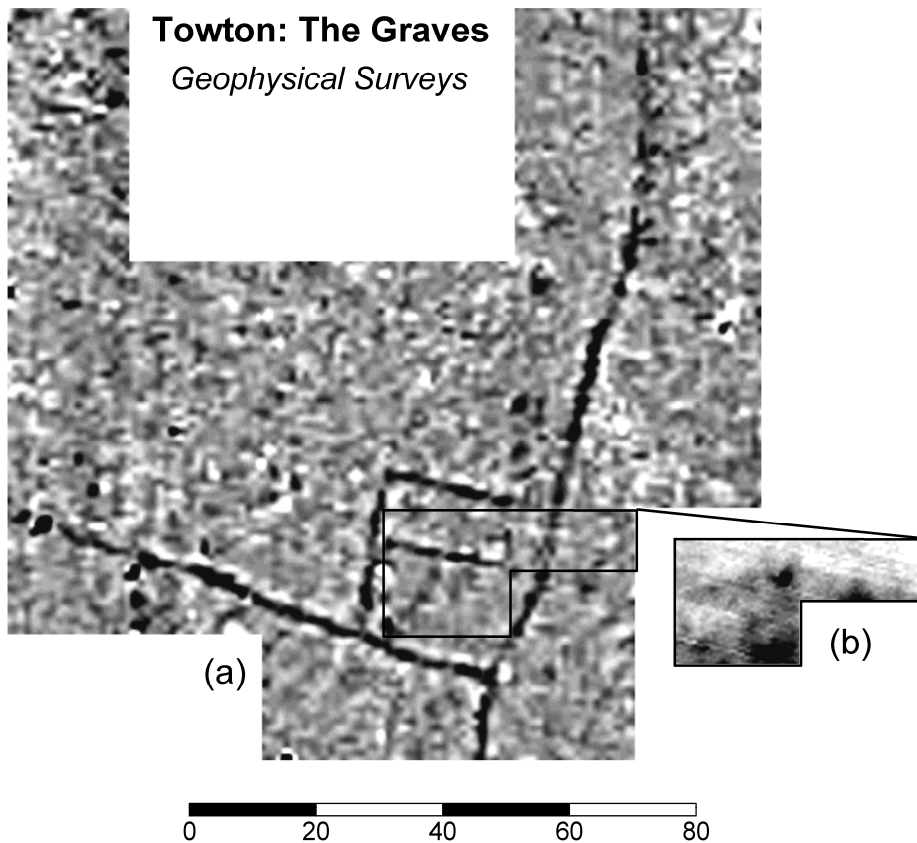


Figure 3: Geophysical survey data over a level piece of ground showing a pre-medieval field system incorporating a small enclosure and modern ploughing. (a) Fluxgate gradiometer survey (FM36) at $1\text{m} \times 1\text{m}$ resolution, range $-1.5 \dots +1.5\text{nT}$ (white to black). (b) Earth resistance survey (RM15, 0.5m twin probe) at $0.5\text{m} \times 0.5\text{m}$ resolution range $33 \dots 42\Omega$ (white to black).

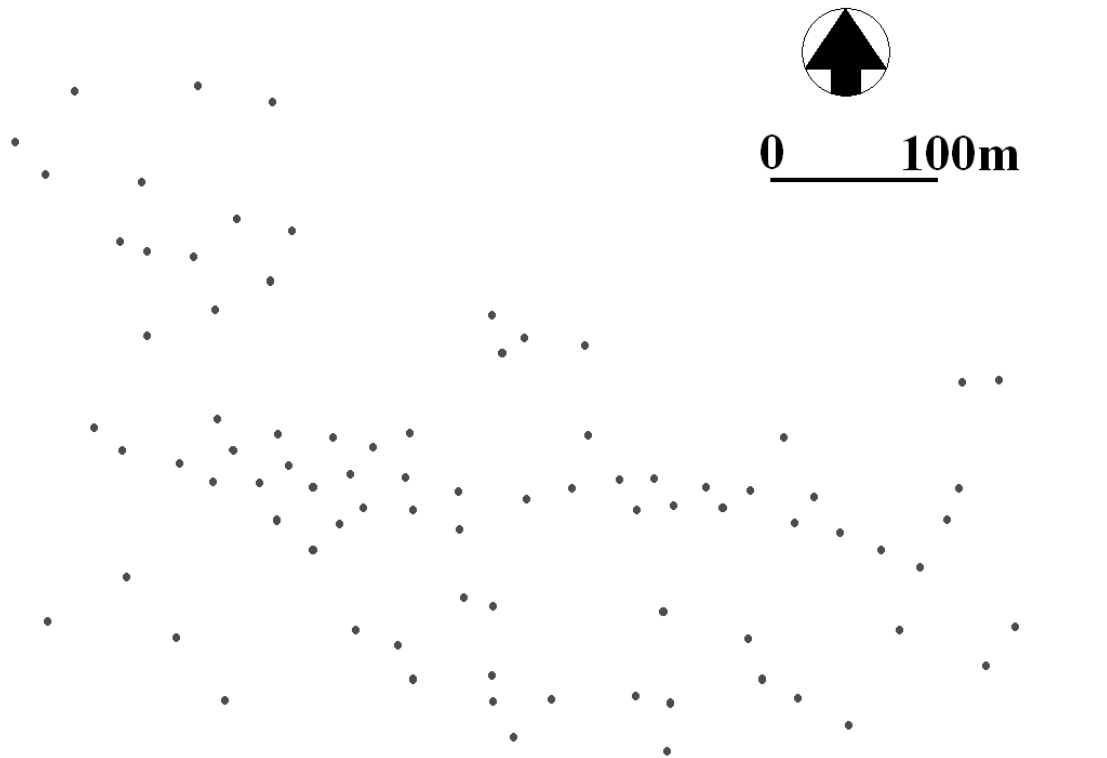


Figure 4: Part of the artefact density map showing the cluster of finds indicating, what is potentially one of the lines of battle.