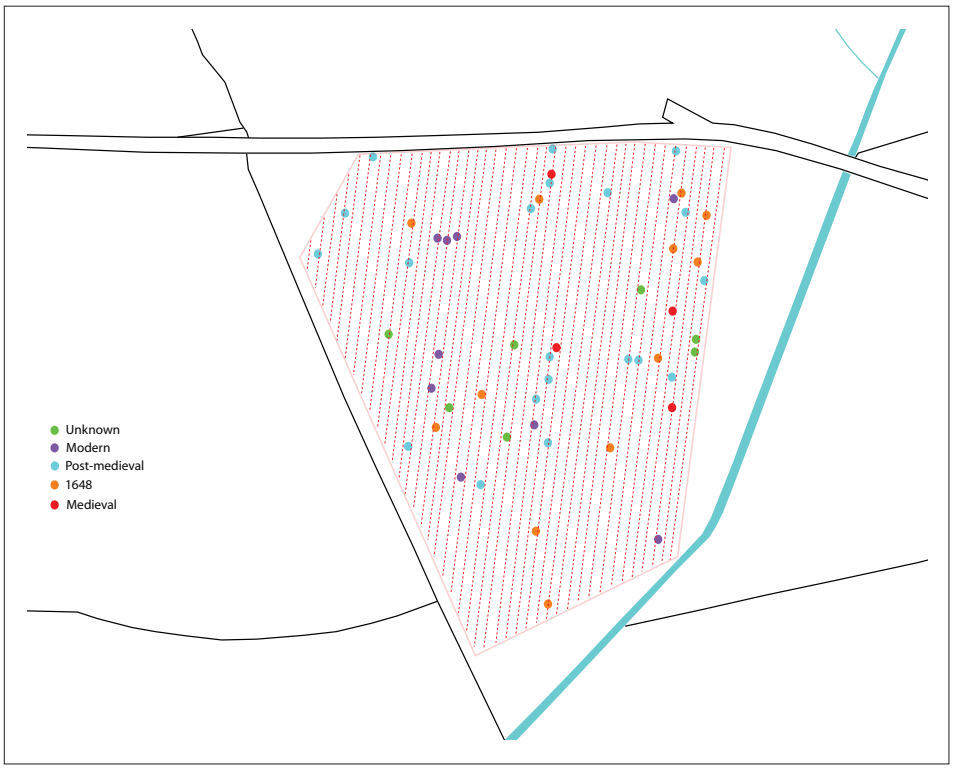
Archaeology Wales

1648 Battle of St. Fagans
St. Fagans, Cardiff

Battlefield Survey



By
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Report No. 1109

Prepared for:

Llywodraeth Cymru
Welsh Government

CBHC
RCAHMW

Cadw

Archaeology Wales

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Crynodeb Anhechnegol

Mae'r adroddiad yma, ar gyfer Comisiwn Brenhinol Henebion Cymru (CBHC), yn crynhoi a chyflwyno canlyniadau'r gwaith arolygu diweddaraf ar faes brwydr dybiedig Sain Ffagan (1648), Caerdydd. Y mae'r astudiaeth yn rhan o ymchwiliad mwy eang sy'n cynnwys tri o feysydd brwydrau Cymru. Amcan y gwaith yw hel tystiolaeth ynglŷn â maint a lleoliad phob safle ar gyfer cofrestr awgrymedig Llywodraeth Cymru o Feysydd Brwydrau Hanesyddol Cymru.

Roedd y gwaith archwilio yn Sain Ffagan yn cynnwys ymweliadau a'r safle, archwilio data LiDAR a phedwar arolwg datgelydd metel. Ni wnaeth yr ymweliadau na'r data LiDAR ddatgelu nodweddion yn gysylltiedig â'r frwydr ond fe roedd crug crwn Saint-y-nyll yn amlwg yn un o'r safleoedd a'u hastudiwyd. Fe wnaeth yr arolwg datgelydd metel dadorchuddio rhai arteffactau ond nid cymaint â'r arolwg gyntaf yn 2012. Roedd hyn efallai yn dystiolaeth fod yr arolygon diweddaraf ar ymylon faes y gad, i ffwrdd o ganolbwynt y rhyfela mwyaf grymus.

Non-Technical Summary

This report draws upon the results gained by a second phase of survey work undertaken at the reputed site of the 1648 Battle of St Fagans, St Fagans, Cardiff, for The Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW). The work forms part of a larger investigation, the objectives of which are to gather evidence that will verify and inform the location and extent of Welsh battlefields and to inform the consideration of each site for inclusion on the Welsh Government proposed Register of Historic Battlefields in Wales.

The work undertaken at St Fagans comprised site visits, analysis of LiDAR data and four metal detector surveys. The site visits and LiDAR analysis did not reveal any features readily identifiable as relating to the 1648 battle, although they did highlight the presence of St y Nyll roundbarrow. The metal detecting surveys produced a finds assemblage that was small in comparison to that of the first phase of work undertaken in 2012. Very few of the finds appeared to relate to the 1648 battle, which suggests that the surveys were undertaken on the peripheries of the battlefield, away from the areas of most intense fighting.

1 Introduction

1.1 Location and scope of work

1.1.1 In February 2013 Archaeology Wales carried out a series of archaeological investigations around St Fagans, Cardiff. Site visits, analysis of LiDAR data and four metal detector surveys were undertaken (centred on NGR: ST 10594 78839, ST 10089 78284, ST 11029 77359 & ST 11759 78254).

1.1.2 The work was carried out at the request of Louise Barker of the Royal Commission on the Ancient and Historical Monuments of Wales (Henceforth – The Commission) and was funded by the Welsh Government. It formed part of a series of on-going battlefield surveys undertaken by Archaeology Wales Ltd on behalf of The Commission, the primary objective of which is to inform the consideration of each battlefield site for inclusion on a proposed Battlefields Register for Wales.

1.1.3 The investigations formed a second phase of research. The previous phase of work, undertaken in 2012, consisted of metal detector surveys concentrated either side of the St Bride's road (ST 10829 78049 – Fig 1). Based on the dateable finds recovered, and their distribution, it was concluded that the whole of the assessment area studied in 2012 was involved in the battle (Smith 2012).

1.1.4 The aim of the 2013 phase of work was to further define the extent of the battlefield. Thus four separate metal detector surveys were undertaken, to the north, east, south and west of the previous assessment area (Figs 1&2).

2 Aims & Objectives

2.1 Outline Requirements

2.1.1 The objective of the work at each site is to gather evidence that will help verify and inform the location, extent and archaeological character of the associated battlefield. The fundamental criterion is that in order for a battlefield to be protected, and for change to be managed, its location and extent must be confidently identified. In addition, the battlefield must meet at least one of the following three criteria:

2.1.2 **Be associated with historical events or figures of national importance** (i.e. military innovations, direct associations with nationally important figures or events and whether the engagement played a key role in a campaign); and/or

2.1.3 **Have significant physical remains and/or archaeological potential** (i.e. include natural or constructed physical features at the time of the engagement, evidence from the engagement or other related buried archaeological evidence); and/or

2.1.4 **Have a clear landscape context that allows the events of the battle to be understood or interpreted** (i.e. the initial area of deployment and fighting, wider landscape

incorporating earthworks, skirmishes, camps, burial, line of advance and retreat, and detached elements such as memorials)

2.2 Geology and topography

2.2.1 The underlying solid geology of the St Fagans area is made up of two distinct geological formations. The northern half of the assessment area overlies solid rocks of the Lias group. This is comprised of mudstone, siltstone, sandstone and limestone. The southern half of the assessment area overlies Triassic rocks composed of mudstone siltstone and sandstone only (British Geological Survey, 2001).

2.2.2 In the general area of the potential battlefield site, the predominant soil type consists of typical brown earths of the WICK 1 series (541r) consisting of deep, well-drained, coarse, loamy and sandy soils, locally over gravel, with some similar soils affected by groundwater and the slight risk of water-erosion. The underlying solid geology comprises glaciofluvial or river terrace drift. In terms of acidity or alkalinity, such soils are neutral to basic (pH 5.5-7).

2.2.3 The area marked on the modern OS map as the site of the 1648 battle is relatively flat, all of it being located between 21m and 30m OD. A small area of higher ground at St y Nyll to the west rises to approximately 60m OD whilst the land generally increases in height to the east, again rising to approximately 60m OD.

2.2.4 The original landscape containing the postulated battlefield has changed dramatically since 1648. Redirection of, and drainage channels around, the course of the Nant Dowlais has dried up former marshy and boggy areas. The route of the railway line through the landscape has created not only a large earthwork feature but a large visual barrier between areas within it. Further alterations resulted from the construction of the M4 to the north and the adjoining A4232.

2.3 Archaeological and Historical Background

2.3.1 A complete description of the Battle of St Fagans is contained within the pilot study undertaken by Border Archaeology (2009). The relevant sections are quoted as follows:

2.3.2 The exact location of the Battle of St Fagan's is uncertain, but appears to have taken place with each side drawn up on either side of the Nant Dowlais, a tributary of the River Ely, with the Parliamentary force with their back to the village of St Fagan's. Some of the fiercest fighting appears to have been fought near or on a bridge which spanned this stream.

2.3.3 The Battle of St Fagan's can be viewed against the backdrop of the Welsh Rising during the Second Civil War of 1642-48, it being the last set-piece defeat for the Royalist forces. The Royalist army intended to march to and then seize Cardiff in the name of the King, and a small Parliamentary force consisting of approximately 3000 men under Colonel Thomas Horton, which had been engaged in an arduous campaign in and around Brecon, marched south in order to stop them.

2.3.4 In the spring of 1648, several key Parliamentary figures defected and joined the Royalist cause. Why this should have happened at such a late stage in the war is

uncertain (King Charles was already imprisoned upon the Isle of Wight). The reasons could have been moral, as they may have been motivated by discontent at Parliament's actions and intentions towards the King, although the chief incentive appears to have been provided by Parliament's proposed disbandment of sections of troops without pay.

2.3.5 It would appear that the Royalists' uprising was spearheaded by certain prominent members of the Glamorgan gentry (including the Stradling family of St Donat's Castle), and so it may be reasonable to suppose that the majority of the force under their command was drawn from their estates, as well as forming the base from which the march on Cardiff was launched. In addition, the force was to be joined by experienced Royalist troops under the command of Colonels Powell and Poyer, the latter marching from Pembroke Castle.

2.3.6 Word of this reached Colonel Horton who was dealing with another Welsh uprising around Brecon, suffering at the hands of guerrilla tactics designed to deprive him and his large cavalry force of fodder and the tools necessary to maintain his horses, as well as food for his men. Despite the low morale of the troops and sickness to the commander himself, Horton was able to instigate a forced march across the Brecon Beacons and down the Taff Valley, reaching St Fagan's on the May 4th, with Horton setting up his temporary headquarters in a farmhouse called Pentrebane. The aim of the Parliamentary forces appears to have been to prevent the Royalist forces from reaching their ultimate objective – Cardiff. Scouts sent out that same day alerted the Parliamentarians that they had arrived fortuitously as the Royalists were a mere two miles away.

2.3.7 With the enemy within striking distance, Horton appears to have acted promptly; detachments were sent off to secure crossings over the River Ely and the River Llandaff in order to secure his flanks, and an urgent request for reinforcements was sent to Cromwell who was hurrying from Gloucester with detachments of the New Model Army. By contrast, the Royalist commander Laugharne, who had earned a reputation as a daring risk-taker, appears to have been gripped by indecision, apparently retreating westward back into the Vale of Glamorgan, via Llancarvan, Penmark and Fonmon Castle on May 5th. In the meantime, Horton appears to have been content to hold his position; the Parliamentarians knew that Laugharne's army had to pass through St Fagan's in order to meet their objective of taking Cardiff, and that every day that the Royalists either delayed or even retreated strengthened their own situation, bringing Cromwell and his reinforcements ever more closer.

2.3.8 Whatever the reasons behind this about-turn, Laugharne eventually seems to have realised the true peril of his predicament and, during the night of May 7th, he marched back to St Nicholas. Once Horton became aware of this, he appears to have ordered his Cavalry mounts gathered together close at hand, ready for the next day's fighting. Local legend suggests that this was in a field to the rear of St Fagan's village leading up to the Pentrebane ridge; the field is called *Cae Meirch* (lit. 'The Horses' Field').

2.3.9 It would appear that Horton was content to remain at St Fagan's and await Cromwell's reinforcements before engaging in battle, which allowed Laugharne to take the initiative and mount an attack, perhaps hoping to trap Horton's forces in the village St Fagan's

where the superior numbers of the Royalists could have offset the advantage of the Parliamentary forces in terms of training and equipment (in particular, their well-trained cavalry units would have been rendered less effective in the close confines of the village). It could therefore be suggested that only the turn of events of the battle (which could be construed as being an effective counter-attack rather than an out and out defensive action) allowed the Parliamentary cavalry to be deployed to such decisive effect.

2.3.10 It is difficult to establish with absolute certainty the exact strategies adopted by both sides on the eve of the battle, just as it is equally difficult to discern the exact narrative of events of the engagement itself. While historians are blessed with the survival of several correspondence accounts from Colonel Horton and one from Colonel Okey, no such documentation exists to offer the Royalist version of events and so counter the natural bias of the former.

2.3.11 The Royalist advance began at some time before 7 o'clock in the morning on Monday May 8th, at which time Parliamentarian scouts spotted their enemy a mile and half away marching towards St Fagan's. Horton then ordered his men to draw up a line of battle, with him personally commanding the infantry in the centre while '*Major Bethel commanded the horse on the right wing, Major Barton on the left, and Colonel Okey and his major with the dragoons on both wings with the horse*'; to their front was deployed a 'Forlorn Hope' ['*a band of soldiers picked to begin an attack, many of whom would not survive*'] of 30 Heavy Cavalry and 20 Dragoons under the command of Lieutenant Godfrey. It would appear that the Royalist cavalry was positioned to the rear of their infantry, who were presumably drawn up in a line, in order to, at best, support them in their attack or, at worst, to prevent their rout. To the front of their position, the Royalists also had their own 'Forlorn Hope', consisting of '*a strong forlorn of foot and about six pickering horse* [cavalrymen fighting as individuals sent out in order to provoke combat]'. Okey suggests that the total number was about 500.

2.3.12 The engagement appears to have begun when the Royalists sent forward their 'Forlorn Hope', which was met by their Parliamentary counterpart, who drove their opponents back, if not actually routing them; this seems to have precipitated a general advance of the Parliamentary army. It would seem that the advance of the Royalist 'Forlorn Hope' was intended as a screening manoeuvre intended to buy time for the rest of the army to cross the bridge over the Nant Dowlais. Elements of the main body of infantry must have achieved this, and became engaged with the Parliamentary cavalry although it would seem that the majority of the Royalist infantry are presumed not to have crossed the bridge.

2.3.13 Capitalising on the victory of the Parliamentary 'Forlorn Hope', Colonel Okey, who seems to have been positioned on the right, although his men were positioned on both flanks, proceeded with his dragoons and the '*200 firelocks*' under Captain Garland from the right flank to support Lieutenant Godfrey, who had seen off the Royalist 'Forlorn Hope' and had entered into fighting with of the forward elements of the Royalist army. It would seem that the battle raged from hedgerow to hedgerow and was primarily a cavalry action. However, this in itself presented problems; Horton records that on two occasions the mixed Heavy Cavalry and Dragoon force, although supported by the '*200*

firelocks' and having routed their immediate opponents, had to halt and '*were constrained to stand the enemy's shot for some time before the foot (though they made great haste) could come up to them*'. This undoubtedly resulted in many of the recorded casualties to the mounts. The second occasion when the cavalry force halted was the more key moment, as the Royalists had been driven back over the bridge spanning the Nant Dowlais. From the Parliamentary version of events, it would now appear that the Royalists had lost the initiative. It would seem that, up until that point, the Royalists had been pouring as many of their infantry forward in support of their attack as possible, and that once defeated they were forced onto the defensive.

2.3.14 Okey and his men appear to have waited at the Bridge over the Nant Dowlais until the infantry of the 1st Division under Lieutenant Colonel Read arrived in their support, and then appeared to have held the enemy's attention, the infantry presumably engaging them in a fire-fight. The Royalists appear to have fallen back and begun to hold the bridge in expectation of a main Parliamentarian offensive which is likely to have never come; if the Parliamentarians had attempted to cross the bridge, their casualties would have been far higher than those that were actually incurred. With the Royalists focussed on the bridge, the full Parliamentarian counterattack began in earnest.

2.3.15 The Parliamentarians proceeded to launch two flanking attacks, the first on the Royalists right by infantry and supported by the cavalry of the left wing, while the second was undertaken by the remaining cavalry and dragoons of the right flank on the Royalists' left and on their rear, both of which presumably had to cross the Nant Dowlais. The advance of the Parliamentary right flank would have effectively sealed off all avenue of escape for the Royalist army, and so, once it became clear that they were about to be completely encircled, the Royalists broke and ran. The Parliamentary cavalry moved to run down and capture as many of the fugitives as they could. The whole battle lasted no more than two hours.

2.3.16 Of the 8000 Royalists estimated to have begun the battle, about 3000 ordinary soldiers and upwards of 400 officers were taken prisoner. In addition to this, over 2000 firearms as well as other weapons were taken.

3 Methodology

3.1 LiDAR Data Analysis

3.1.1 LiDAR data, at a resolution of 0.5m, was analysed by Archaeology Wales Ltd at The Commission during the 2012 phase of works. The data then was re-examined as part of the 2013 works. Examination of the ground surface of the assessment areas was undertaken using both digital shadow models and digital terrain models.

3.2 Metal Detector Survey

3.2.1 Four detailed metal detector surveys were undertaken by local volunteers and local metal detector clubs under the direction of Chris Smith. Areas that were subject to the survey are shown on figure 2.

3.2.2 All the areas surveyed were divided into transects of equal width, marked with canes, to ensure regular coverage. Each individual transect was assigned to a metal detectorist who scanned the area twice, once going up the field and once going down.

3.2.3 All metal detectors were set to 'All Metal' mode so as to include responses from ferrous objects.

3.2.4 When a find was located it was placed *in situ* within a finds bag with a marker flag placed next to it. A waterproof label was placed in the bag with the depth of the find marked on it in indelible ink. Subsequently, the finds were collected by the supervising archaeologist. Each find was labelled with an individual find number and each numbered findspot was located using a Topcon GTS 725 total station.

3.2.5 The grid coordinates from each findspot were entered into an excel spreadsheet. This detailed all the finds, their descriptions, dates and locations. The total station survey was overlaid onto a map to show the distribution of the finds across each assessment area.

3.2.6 Finds that were clearly identifiable in the field as being of 20^{th} – 21^{st} century in date (agricultural/machinery/litter) were not retained and do not form part of the project archive. These were removed from site and discarded away from the survey area.

4 LiDAR Data Analysis

4.1 Digital Shadow Model (Fig 3)

4.1.1 The DSM LiDAR data, analysed at 0.5m resolution, shows the northern survey area (Stockland Farm) in good detail. A small white area in the north eastern corner of the field indicates a likely pond or area of standing water. No significant archaeological features are visible, though the course of the Nant Dowlais is discernible in the topography.

4.1.2 The eastern survey area (adjacent to the Croft y Genau rd) is again shown in good detail. A large spoil heap is visible in the south western corner of the field. A possible dew pond and a defunct field boundary are visible in the northern half of the field.

4.1.3 The southern survey area (adjacent to St Fagans Museum) shows a relict field system, including former field boundaries and ridge and furrow ploughing. Trees still standing in the field appear to be located on the lines of the removed boundaries.

4.1.4 The western survey area (adjacent to St y Nyll mill) appears as a long field aligned north to south. The line of the A4232 appears to have truncated the field along its eastern edge. Field boundaries, which line up east and west of the modern trunk road, hint at a once much larger field. Located in the middle of the field is a small circular raised mound. This is the St y Nyll round barrow (SAM no. GM204, NPRN 307777).

4.2 Digital Terrain Model (Fig 4)

4.2.1 The DTM LiDAR data, analysed at 0.5m resolution, shows the assessment area in good detail and removes tree canopy cover to reveal the terrain beneath.

4.2.2 No further features were noted within the assessment area on the DTM data.

4.3 LiDAR Summary

4.3.1 The analysis of the LiDAR data has revealed a relative paucity of features within each assessment area. The most significant features appear to be those relating to the former field system within the southern survey area. A continuation of this now defunct field system was noted in the previous phase of work located to the north. Though none of the features are related to the battle, they would, nevertheless, have been extant at that time and are useful in reconstructing a picture of the contemporary landscape.

4.3.2 As was noted in the previous phase of works in 2012, the intricate field system in this area, a relatively complex network of small parcels of land, would likely have hindered infantry movements. More fortuitously, however, the field boundaries would have offered a good degree of cover.

5 Metal Detector Survey

5.1 Background

5.1.1 Discussions with tenants farming the northern and eastern survey fields revealed that metal detecting without permission is a commonplace problem in these areas.

5.2 Contamination

5.2.1 Of the four fields surveyed as part of the second phase of research the north, east and west fields showed very little contamination by modern metallic materials. The south field, however, adjacent to the St Fagans museum, was severely contaminated by modern debris including large and dense concentrations of foil, ring pulls, aluminium cans and modern currency. The area appears to have been used to hold events in the recent past.

5.2.2 The modern material in this area was a hindrance to proceedings.

5.3 Results – Northern Field, Stockland Farm

5.3.1 The results of the metal detector survey are presented in figs 5-7.

5.3.2 The metal detector survey of the northern field, adjacent to Stockland Farm, produced a total of 52 finds.

5.3.3 Of the 52 finds made from within the survey area, a total of 12 can be feasibly associated with the 1648 battle, whilst four represent medieval material. The majority of the remainder are of post-medieval or modern date.

5.3.4 Of the 12 finds from the northern field that might date to 1648, a total of ten are items of folded sheet lead. Sheet lead was the raw material of musket ball manufacture (Pollard & Oliver, 2002) and such finds are common on Civil War period battlefields. Scrap lead of this sort was also recovered in the 2012 phase of work in this area. Work undertaken at Raglan castle in 2006 (Smith 2006) suggests that the weights of some pieces of folded lead (in this case from a Civil War period siege) equate with the different types of shot being used.

5.3.5 The two remaining finds of likely 1648 date from the northern survey area are both decorated fragments of pewter spoons. Each is from the top of the handle. One is decorated with a symmetrical floral pattern, whilst the other bears the initials 'MG'. Given the size of the initials, this would appear to represent the owner rather than a more discreet makers mark.

5.3.6 The residual medieval finds recovered from this field include a single piece of pottery (located whilst recovering a post-medieval pewter button), three lead weights, two small loom weights and a spindle whorl (Egan, 2005).

5.4 Results – Eastern Field, Croft y Genau Rd

5.4.1 The results of the metal detector survey are presented in figs 8-10.

5.4.2 A total of 33 finds were recovered, of which only one can feasibly be associated with the 1648 battle.

5.4.3 Three fins represent medieval material, whilst the remainder are all post-medieval or later.

5.4.4 The single find from this area that may be associated with the 1648 battle is a folded and clipped lead strip, similar to those recovered elsewhere.

5.5 Results – Southern Field, St Fagans Museum

5.5.1 The results of the metal detector survey are presented in figs 11-13.

5.5.2 A total of 19 finds were recovered from the survey area.

5.5.3 Survey proceedings were severely hampered by large amounts of modern contamination.

5.5.4 Of the 19 finds recovered from this area, 3 may be associated with the 1648 battle. The remainder, with the exception of one medieval loom weight, are later in date.

5.5.5 The three finds of possible 1648 date include two further items of scrap lead (similar to those recovered elsewhere) and a single musket ball.

5.6 Results – Western Field, St y Nyll

5.6.1 The results of the metal detector survey are presented in figs 14-16.

5.6.2 No survey was undertaken to within 20m of the edge of the scheduled St y Nyll roundbarrow.

5.6.3 A total of 40 finds were recovered from the survey area, of which six may date to 1648. The remainder were all later, with no residual medieval artefacts being located.

5.6.4 Of the six items of possible 1648 date, four are musket balls (one spent) whilst two are again folded lead items.

6 Finds

6.1 Analysis

6.1.1 A full finds list, including descriptions, dates, grid coordinates and depths is contained in Appendix 3.

6.1.2 Of the 150 artefacts recovered from the four survey areas, a total of only 22 may have been associated with the 1648 battle. Of these, five represent musket balls and two pewter spoon fragments. The remaining 15 are items of folded and/or clipped lead.

6.1.3 The five musket balls, four of which were found in the western survey area, were all located at depths of between 0.15m and 0.2m beneath the ground surface.

6.1.4 The sizes of the five musket balls are 13, 14, 15, 15 & 16mm. These diameters are consistent with the majority of the assemblage from 2012 and are common sizes for Civil War era assemblages (Harding, 2013). One still has an *in situ* casting nipple though recent research shows that such deformities would not have precluded the ball from still being fired in an imperfect state (Harding, 2013).

6.1.5 One of the musket balls recovered from the western survey area is listed as ‘spent’. This is because of its flattened face. However, it is possible that rather than being caused by an impact following firing, the flattened face may have resulted from ‘double shotting’ a gun. This would involve the first musket ball having a second ball rammed down against it in the barrel, thus creating a flat face on the ball. Harding’s recent (2013) study of a cavalry shot assemblage highlights this.

6.1.6 The western survey area produced four of the five musket balls recovered. However, this number is too small to make detailed analysis of their distribution worthwhile.

6.1.7 The folded scrap lead, forming the vast majority of likely 1648 artefacts in the assemblage, shows no uniformity between pieces.

6.1.8 The two decorated pewter spoon fragments, both from the northern survey area, are unlikely to have belonged to any individual outside the officer class or gentry (the cavalry was made up of members of the gentry). Similar to the seven fragments of pewter spoons recovered during the 2012 phase of work, their presence within the assessment area is likely to relate to chance losses.

6.2 Finds Summary

6.2.1 The finds assemblage recovered from the four assessment areas only amounts to 147 items in total. Of these only 22 (14%) appear to relate to the battle.

6.2.2 By contrast, the finds assemblage from the 2012 assessment area consists of 350 items, of which 76 (21%) probably relate to the battle.

7 Discussion and Interpretation

7.1 Reliability of field investigation

7.1.1 Though areas of standing water and boggy ground were evident during the surveys, this did little to restrict access and thus hamper the investigation.

7.1.2 The largest hindrance to the survey was the presence of dense concentrations of modern debris across the whole of the southern area.

7.1.3 None of the fields surveyed showed any indications of having been ploughed and none of the tenant farmers could recall this having taken place within living memory. The depth of soil cover was not especially deep in any of the four areas surveyed, a further indication that ploughing has not taken place in the modern era.

7.2 Overall interpretation & Evidence for the Battle

7.2.1 It is acknowledged that weapons other than firearms were present on the battlefield, and most likely in large numbers. The Royalist 'clubmen' for example, of which there were between 3-400, are unlikely to have been armed with anything other than bills, scythes or clubs. Whilst weapons such as these leave little archaeological trace, the presence of large bodies of men running, fighting hand to hand and struggling through the terrain will leave stray items such as lost buckles and buttons etc. Items such as these were represented in the 2012 survey assemblage, but are absent from the 2013 assemblages.

7.2.2 The western survey area is mentioned by name by Tilney (1970) as being directly involved in the battle:

> "But now they were under fire from the Welsh on the tumulus (St y Nyll barrow). Here they maintained their ground until some of Barton's cavalry from the left wing crossed the battle front to their support. Then up came Horton's infantry forlorn and together they systematically beat the enemy from hedge to hedge before them" (Tilney 1970).

Whilst it is perhaps noteworthy that the largest assemblage of lead shot recovered during this phase of works did indeed come from the western survey area (the field with the tumulus) it is unclear where Tilney found such detailed information.

7.2.3 The overall interpretation from the fieldwork undertaken at St Fagans in 2013 is that each field surveyed appeared, based solely on the artefactual evidence, to be on the

periphery of the main battle. This conclusion is reached based on the relative lack of material from each field and, most significantly, on the lack of lead shot.

7.2.1 When compared with the results of the 2012 fieldwork (around Tregoches), which showed battle related items across all areas, including relatively large amounts of lead shot, it appears that the areas surveyed in 2013 were further from the main area of the battle or subject to less intensive fighting.

7.2.2 The most intense fighting, said to have occurred around a bridge over the Nant Dowlais, does not appear to have taken place at the bridge at Stockland Farm (northern survey area 2013). The bridge over the Nant Dowlais in question, therefore, is likely to have been located on the St Bride's road. The road now crosses a heavily managed section of the Nant Dowlais located between the 19th century railway embankment and the 20th century A4232 embankment, so the location has been lost.

7.3 Conclusions

7.3.1 Based on the evidence of the current surveys (2012 & 2013) it can be concluded that the whole of the assessment area was part of the 1648 battlefield, though probably to differing extents.

7.3.2 The historical evidence for the battle suggests it spread over a large area, which grew even larger once the Royalist forces were in full scale retreat, pursued by Parliamentarian cavalry. The map presented in figure 17 defines the area that can be linked with the 1648 battle. It is based on the evidence of the two phases of survey combined with the previous knowledge of the site as summarised in the pilot study (Border Archaeology 2009).

7.3.3 This phase of work has been successful in defining what would appear to be peripheral areas of the battle, i.e. areas located away from the most intense fighting.

7.4 Recommendations for further investigations

7.4.1 Any further work should be concentrated to the south-west of the 2012 survey area, close to the St Bride's road. This would help not only in defining the edge of the battlefield, but could shed light on the more intense fighting that may have occurred around the St Bride's bridge over the Nant Dowlais.

7.4.2 It would also be useful to approach the tenant farmers of the Plymouth Estate, asking them to inform Cadw if they intend to plough any of the fields in the area. Such ploughing would provide opportunities for field-walking in areas where this has not previously been possible.

8 Acknowledgements

8.1.1 Thanks are due to The Plymouth Estate, which is the landowner of the assessment area, and to their agent. Thanks are also due to the tenant farmers for allowing us onto their

fields, and to Louise Barker of The Commission. Special thanks, however, are reserved to those local volunteers and members of metal detecting clubs who gave up their free time to support the survey.

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APPENDIX I:

Figures

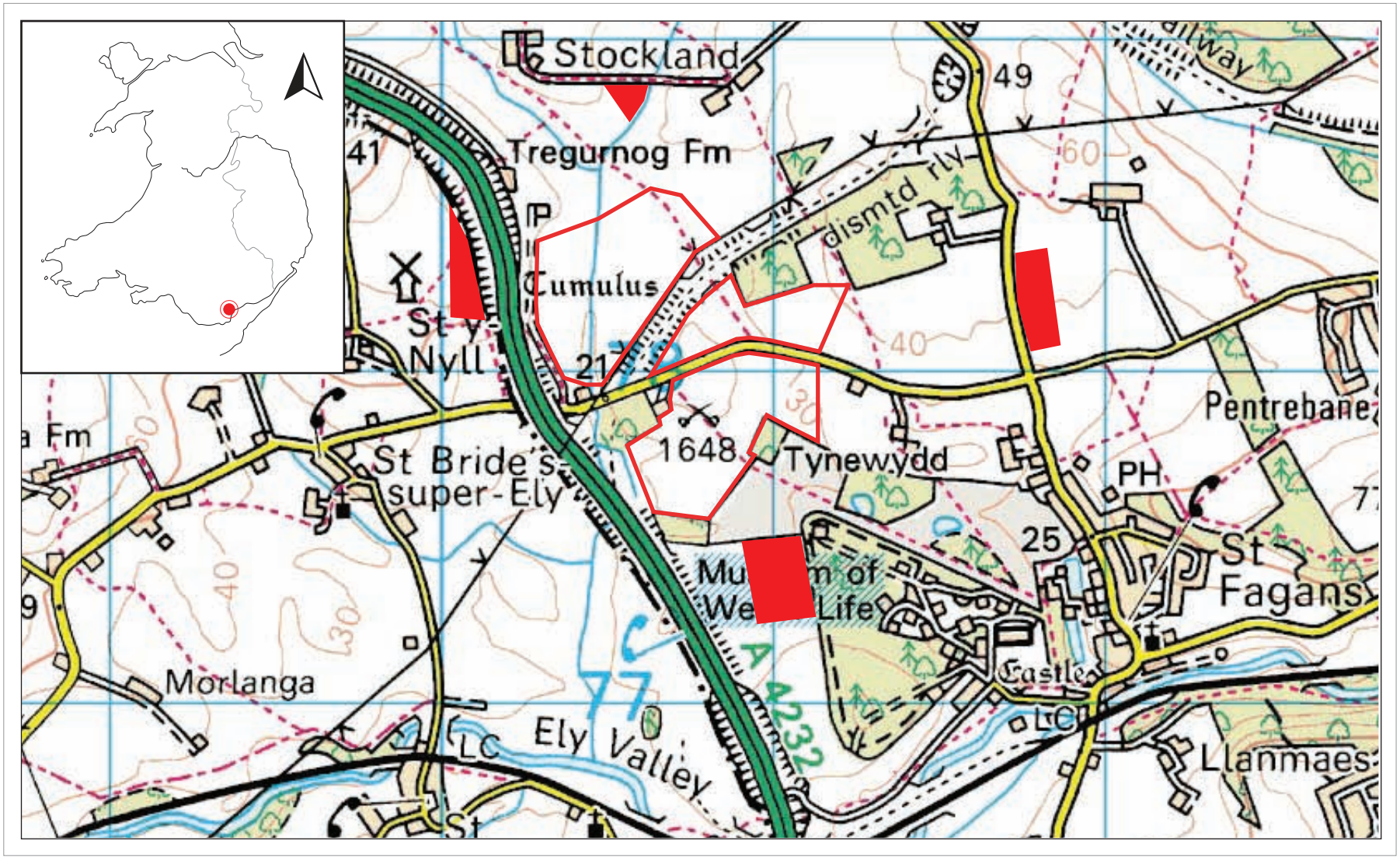

Fig 01: Outline Red = 2012 Assessment area, Solid Red = 2013 Assessment areas

Fig 2: Plan showing locations of four phase 2 survey areas

Fig 3: LiDAR DSM data for assessment area and surroundings. Copyright Reserved, Environment Agency Geomatics Group; hillshade *DSM/DTM* view generated by RCAHMW

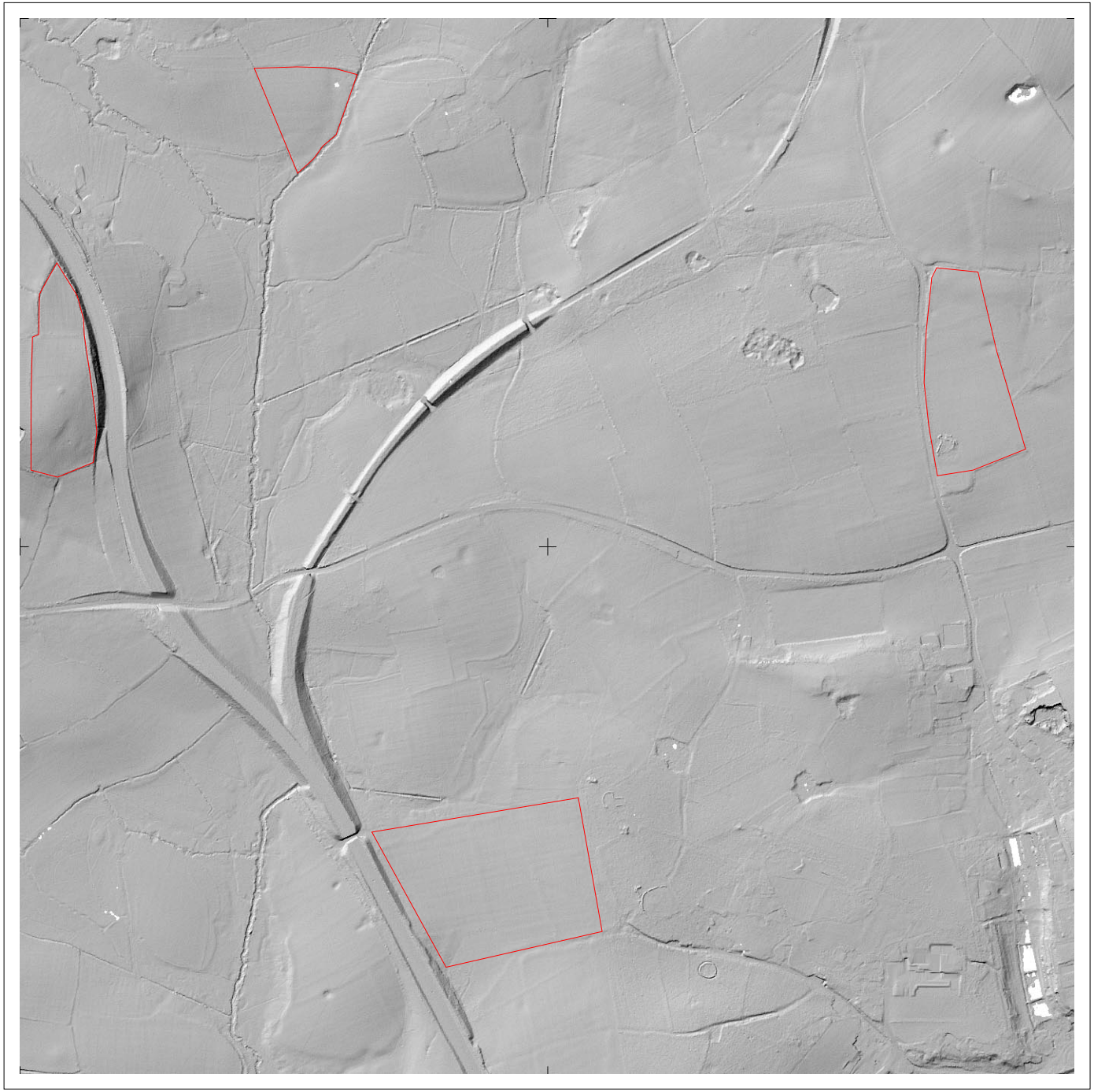

Fig 4: LiDAR DTM data of assessment area and surroundings. Copyright Reserved, Environment Agency Geomatics Group; hillshade *DSM/DTM* view generated by RCAHMW

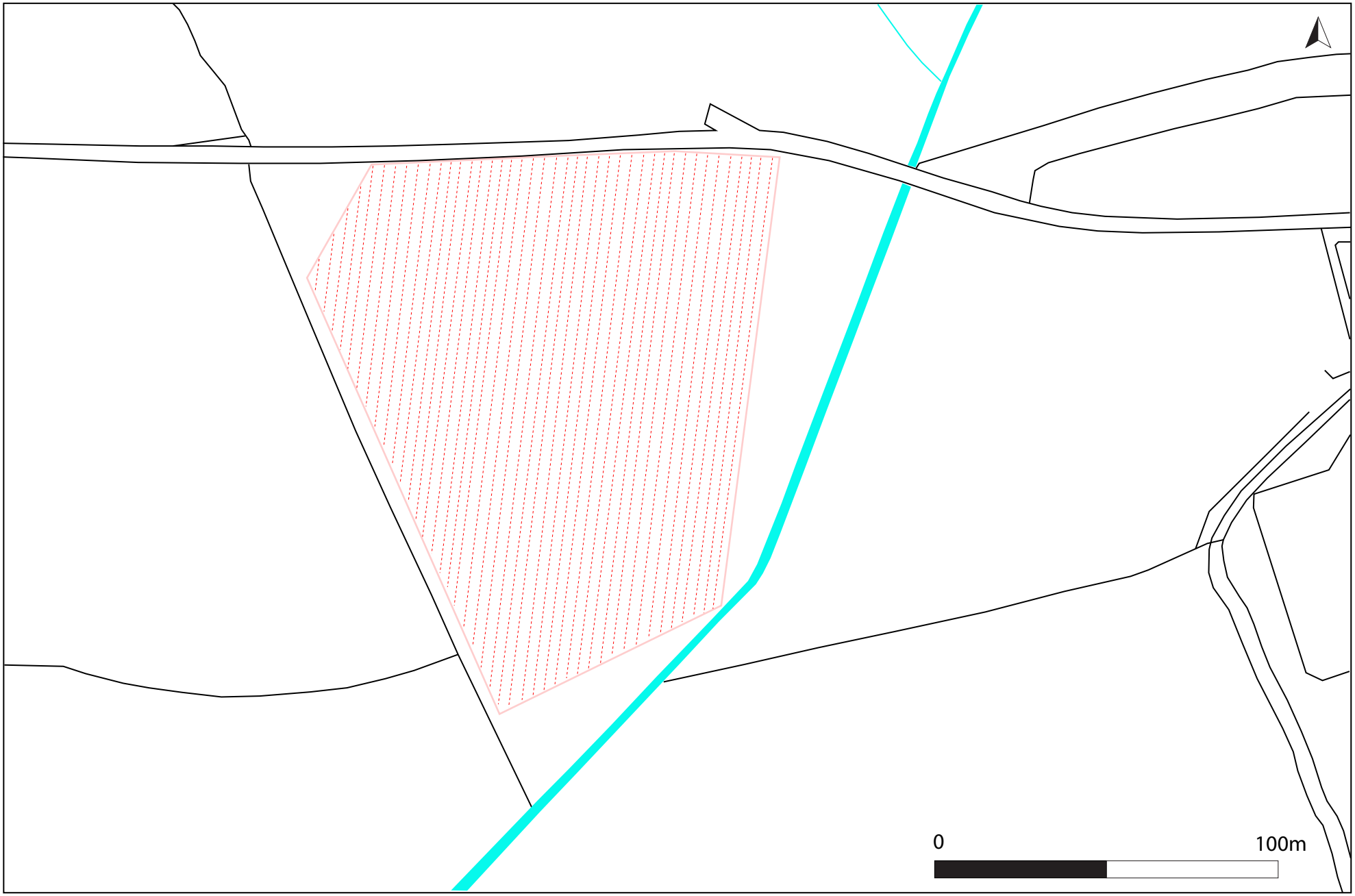

Fig 5: Map showing northern survey area and traverses

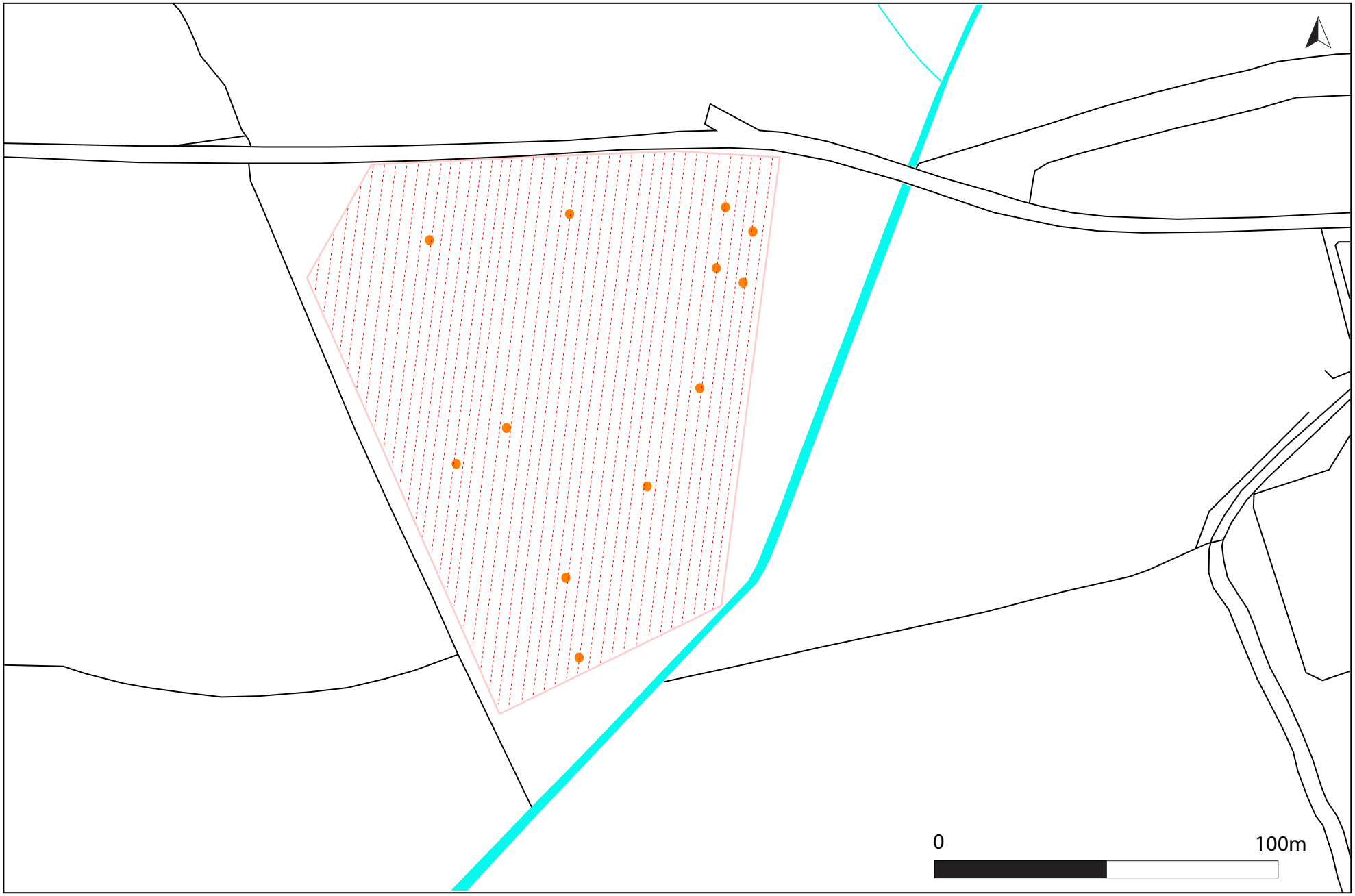

Fig 6: Map showing northern survey area and 1648 finds

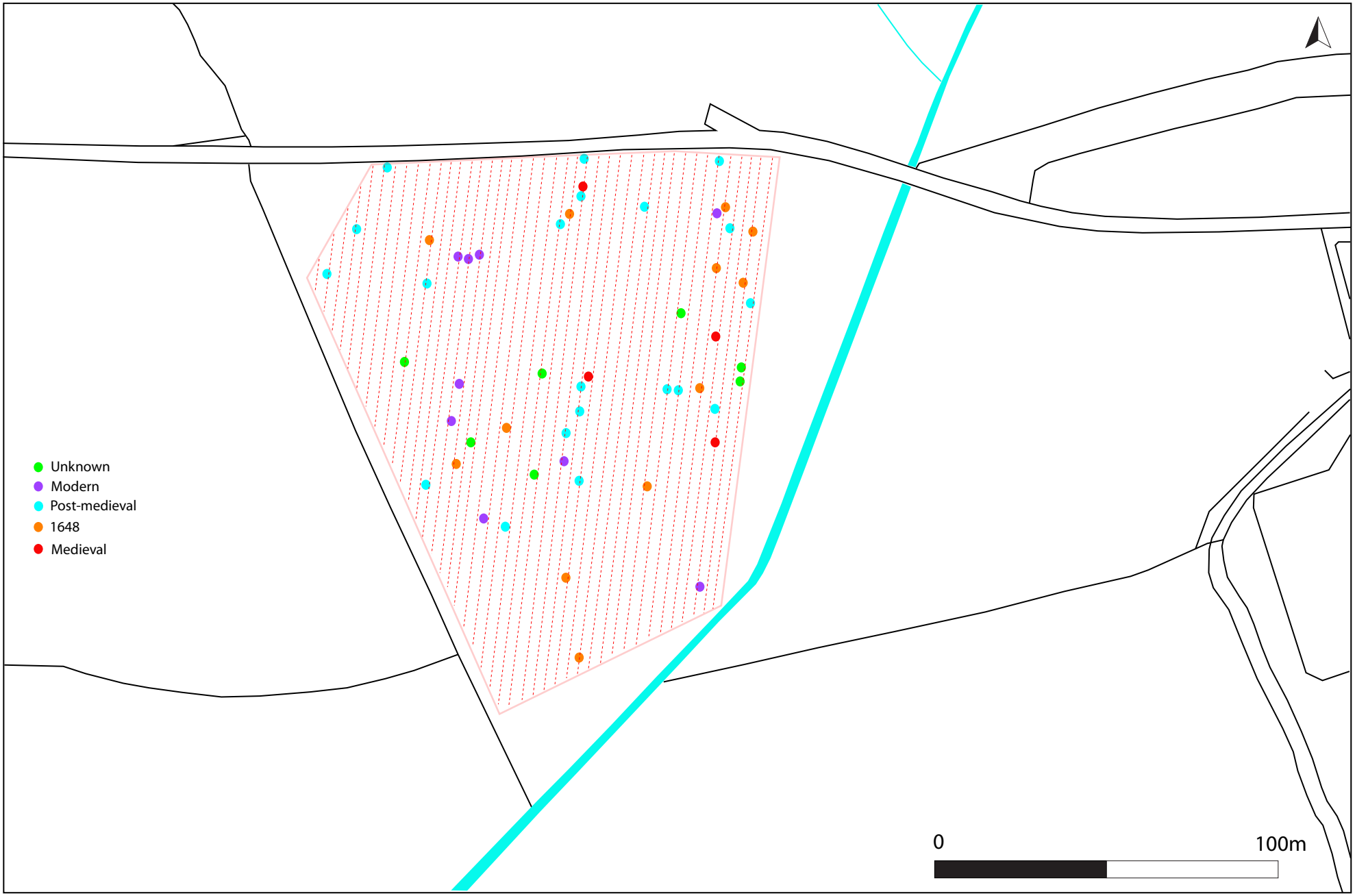

Fig 7: Map showing northern survey area location and all finds

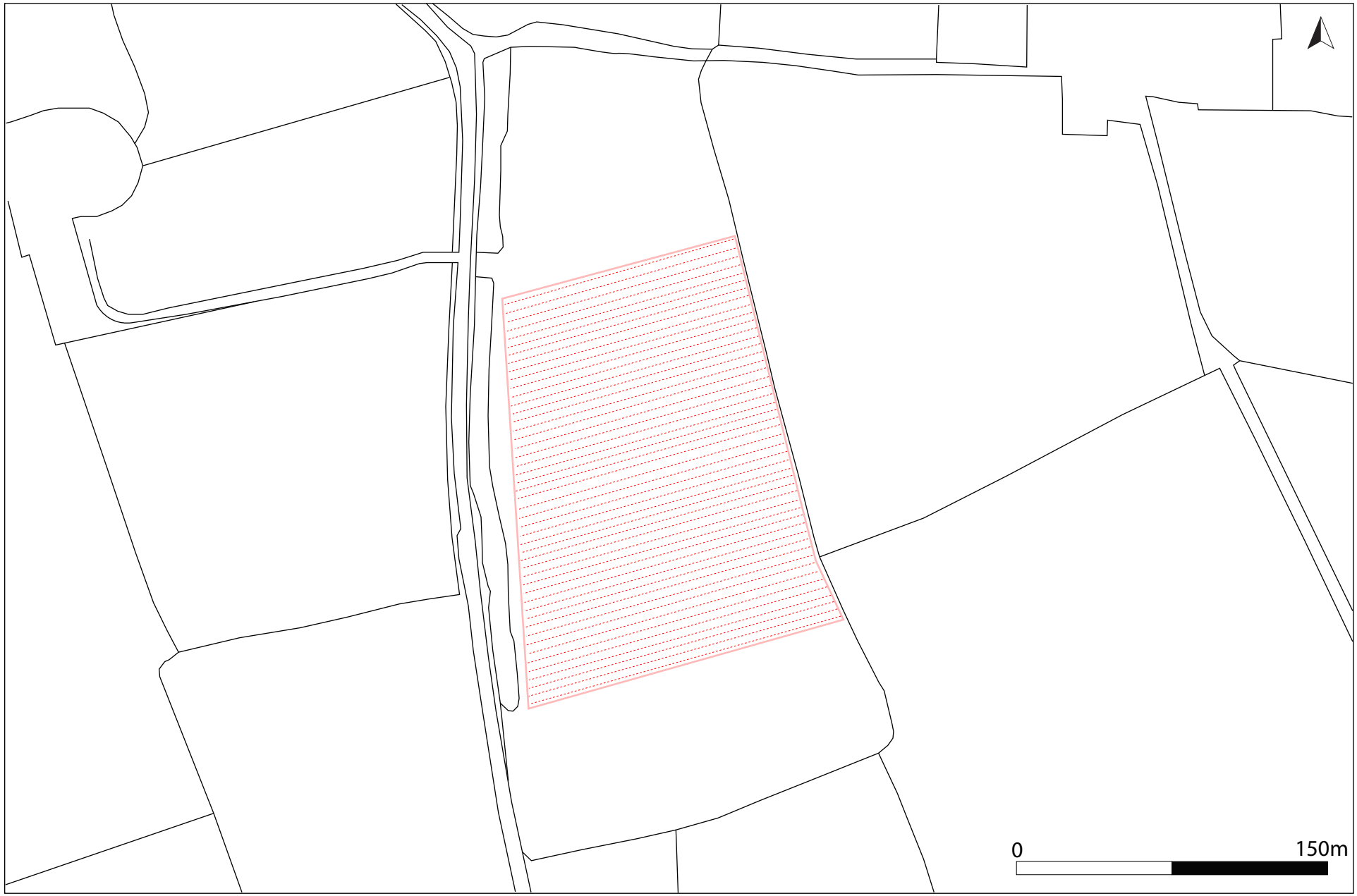

Fig 8: Map showing eastern survey area and traverses

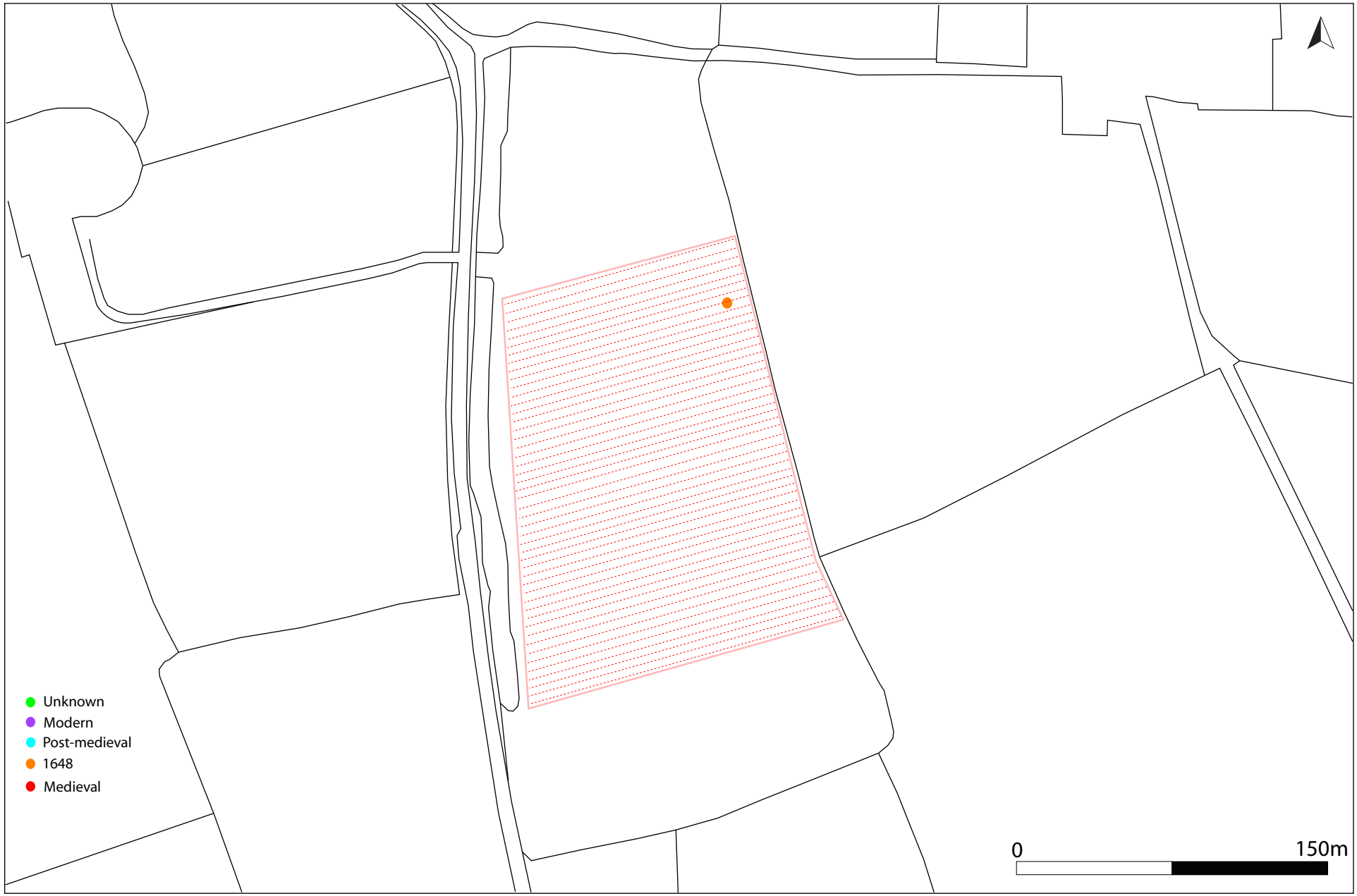

Fig 9: Map showing eastern survey area and 1648 finds

Fig 10: Map showing eastern survey area and 1648 finds

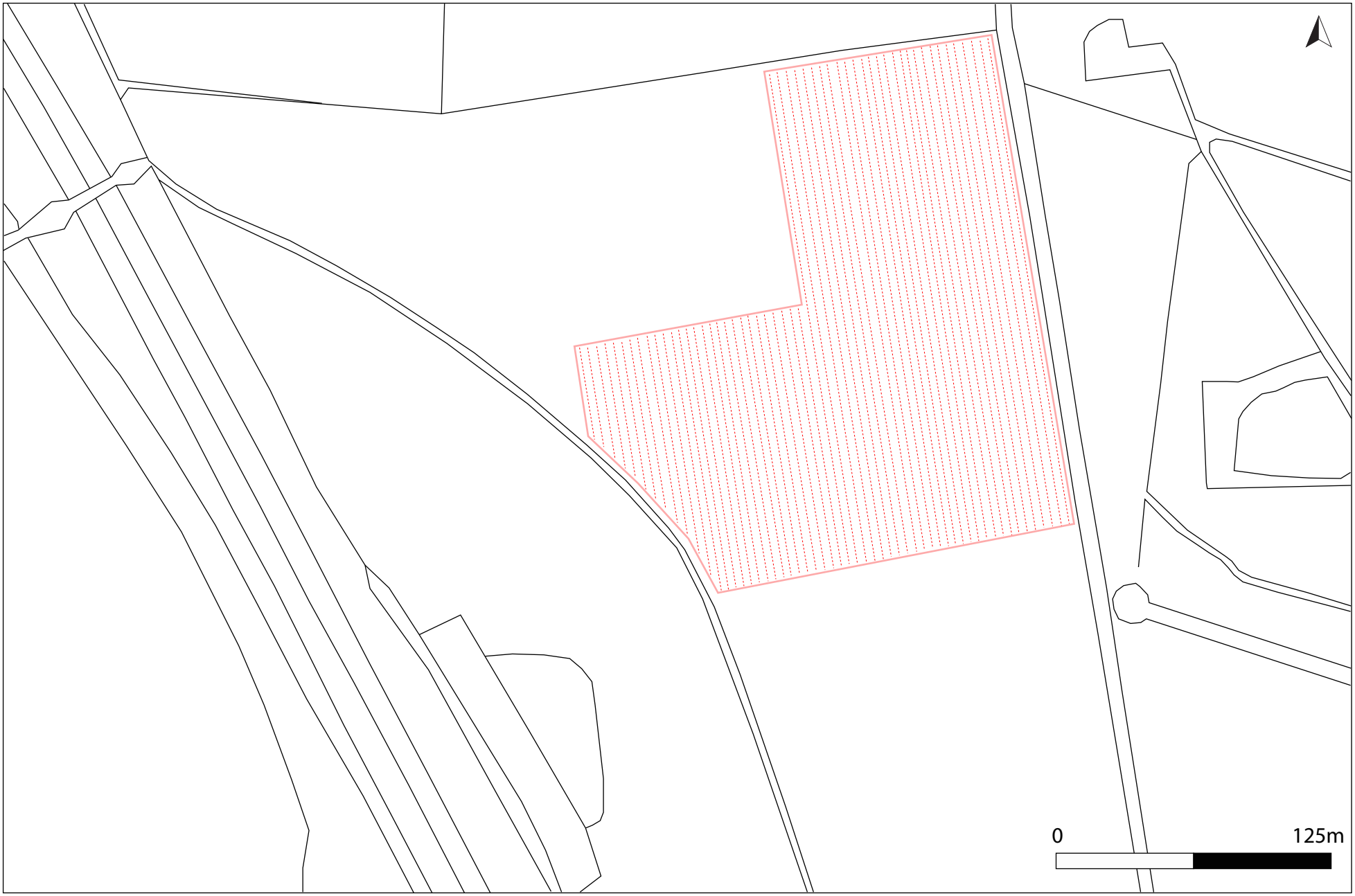

Fig 11: Plan of southern survey area and traverses

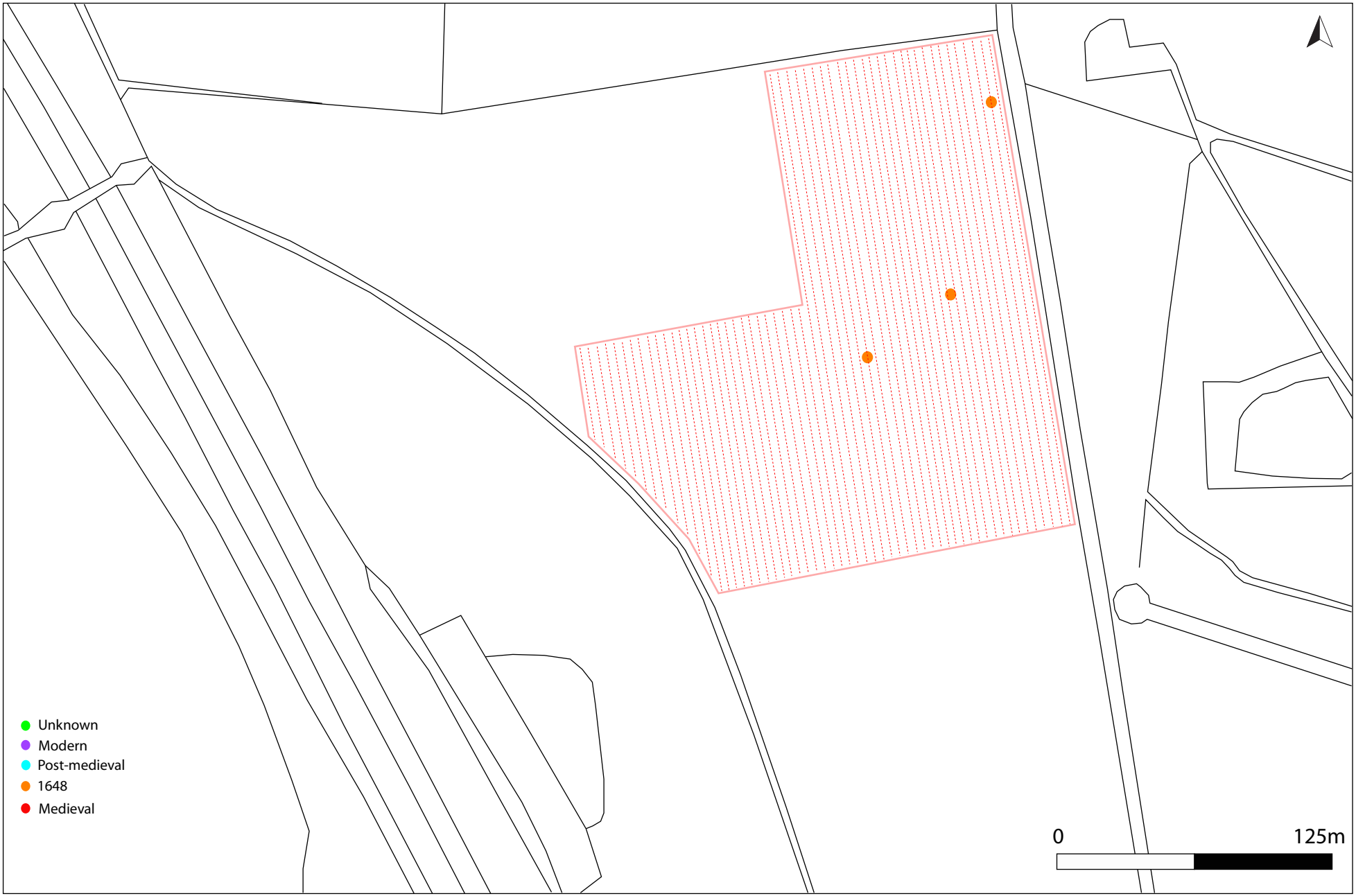

Fig 12: Plan of southern survey area and 1648 finds

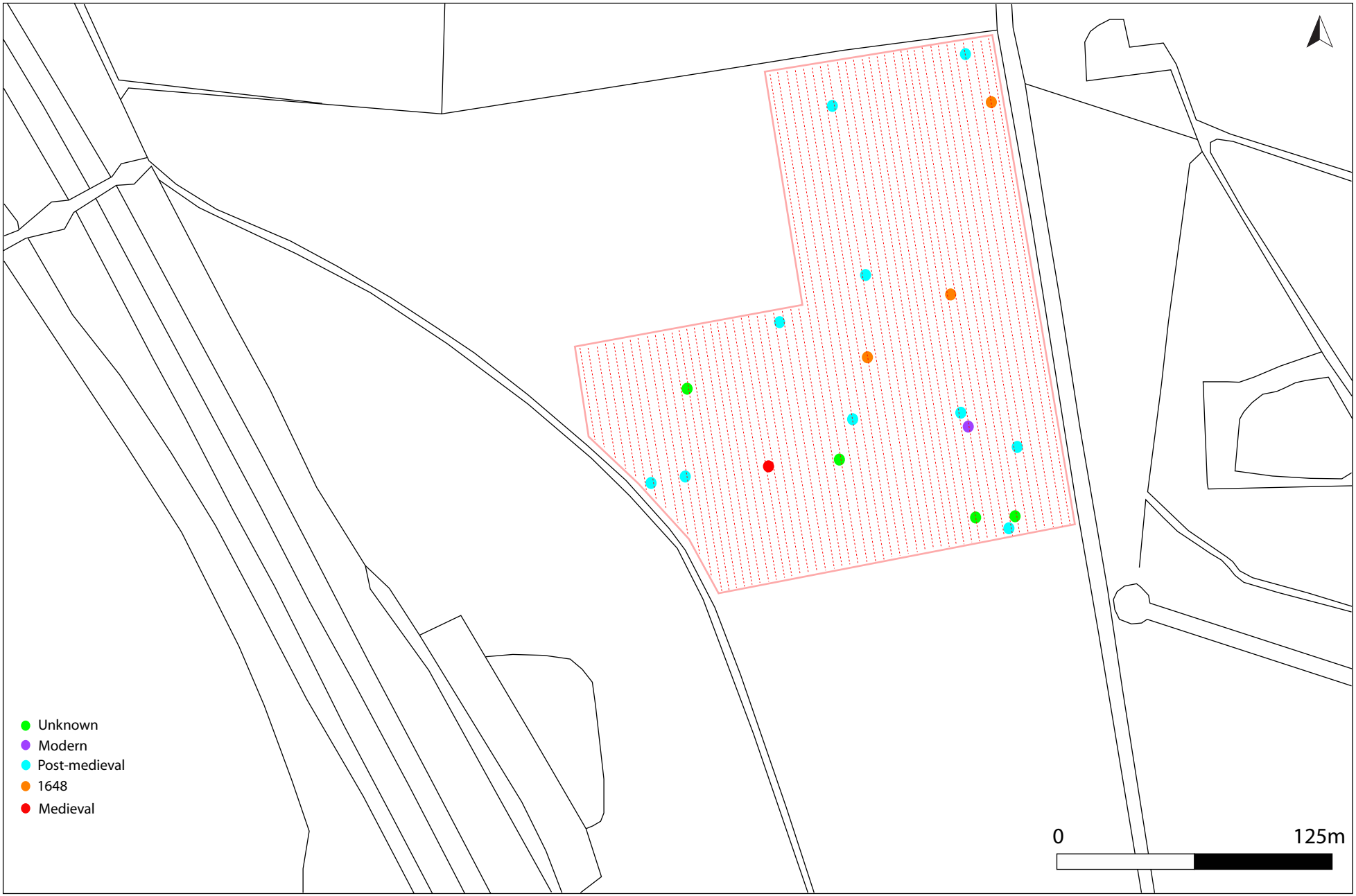

Fig 13: Plan of southern survey area and all finds

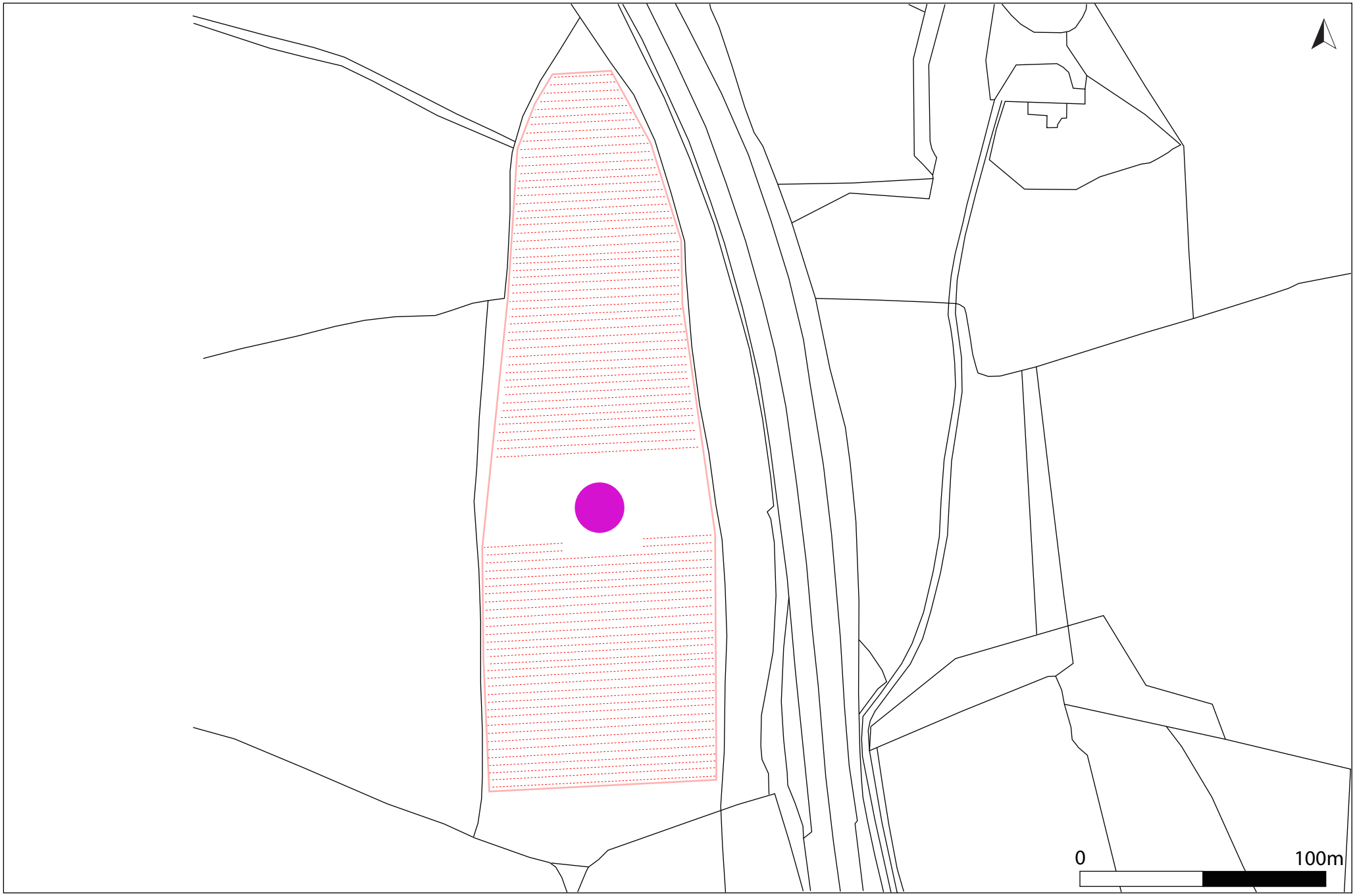

Fig 14: Plan showing western survey area including scheduled area (purple)

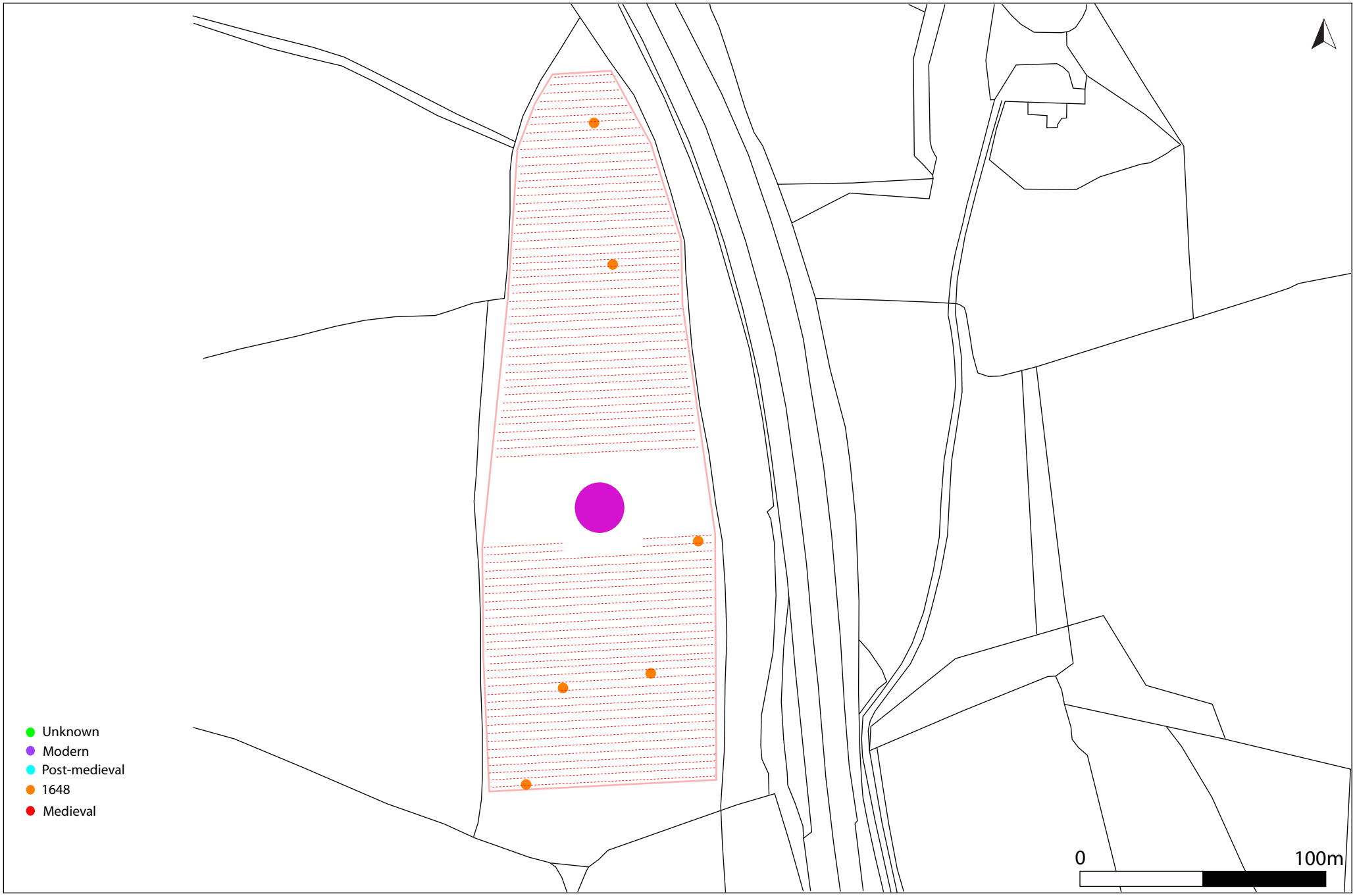

Fig 15: Plan showing western survey area including 1648 finds

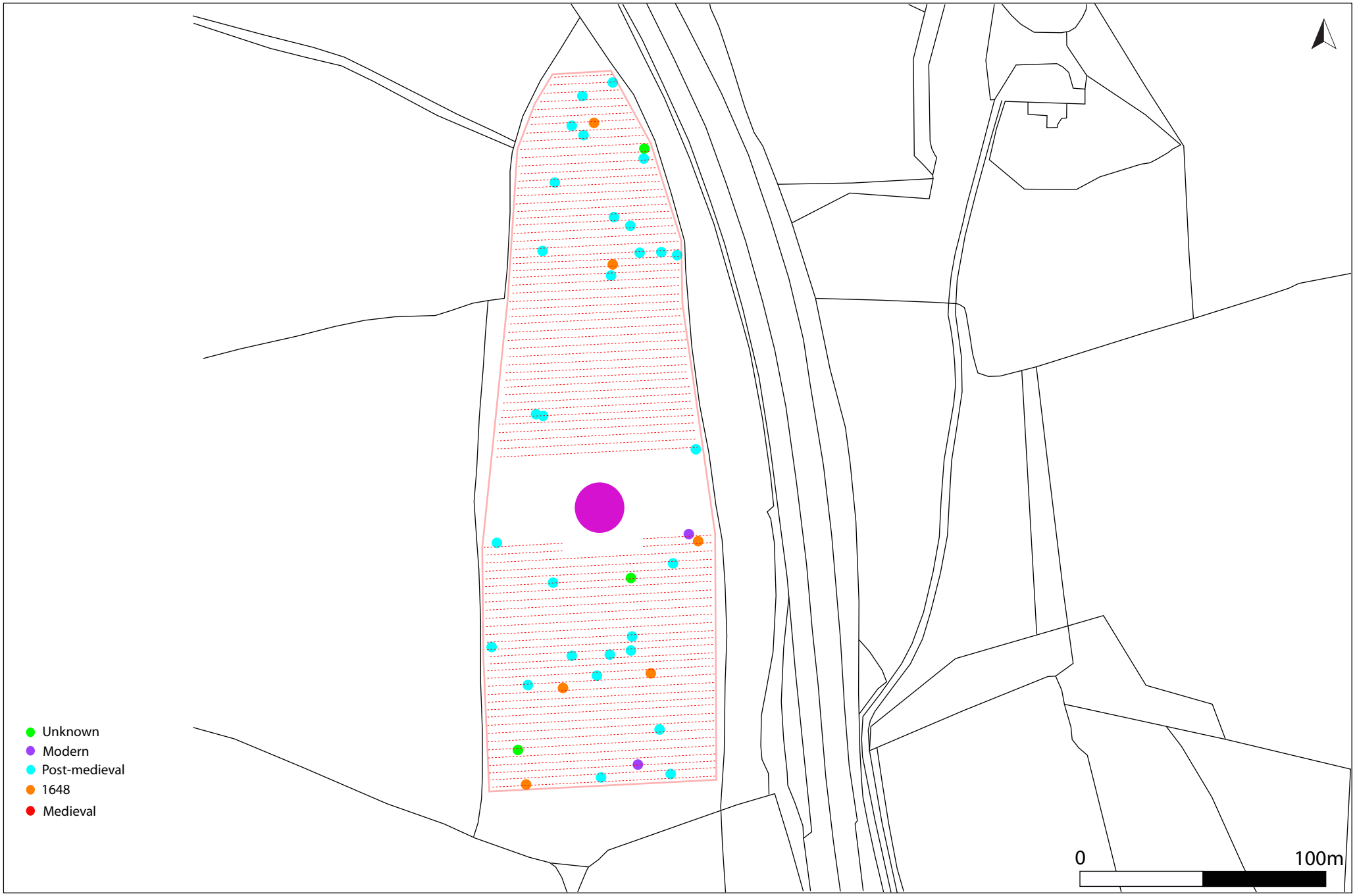

Fig 16: Plan showing western survey area including all finds

Fig 17: Plan showing possible extents of battlefield based on 2012 and 2013 surveys

Shades are approximations of involvement in battle and intensity of fighting based on density of finds distribution

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APPENDIX II:

Plates

Plate 1: Decorated pewter spoon fragment, Find no 116

Plate 2: Initialled pewter spoon fragment, Find no 101

Plate 3: Folded lead item, Find no 109

Plate 4: Folded lead item, Find no 129

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APPENDIX III:
Finds Catalogue

Find No.	Description	Date	Easting	Northing	Depth
1	Au Plated Cu button	PM	311,749.64	178,253.43	0.14m
2	Worn blank Cu coin	PM	311,747.31	178,234.89	0.15m
3	Pb object	Unknown	311,750.32	178,243.26	0.2m
4	Fe object	Unknown	311,774.12	178,250.38	0.2m
5	Cu Alloy Cartwheel penny	PM	311,755.37	178,236.35	0.19m
6	Pb pot mend	Med	311,759.14	178,237.46	0.21m
7	Pb object	Unknown	311,784.37	178,252.12	0.15m
8	Pb object	Unknown	311,770.34	178,250.31	0.2m
9	Square Cu Alloy buckle	PM	311,810.78	178,238.68	0.23m
10	Pewter button	PM	311,778.11	178,247.39	0.13m
11	D shaped Cu Alloy buckle	PM	311,799.86	178,252.73	0.11m
12	Pb Buck shot	PM	311,786.36	178,244.53	0.1m
13	Pb object	Unknown	311,814.23	178,243.66	0.12m
14	Cu Alloy loop	Unknown	311,828.54	178,237.38	0.2m
15	Small Pb object	Unknown	311,848.38	178,251.99	0.13m
16	Prince Albert Portrait medal	PM (1846)	311,848.71	178,251.82	0.2m
17	Cu Alloy disc	Unknown	311,867.62	178,308.36	0.2m
18	Cu Alloy machine part	Modern	311,835.74	178,286.83	0.12m
19	Cu Alloy fragment	Unknown	311,810.71	178,283.55	0.2m
20	Cu Alloy buckle frag	PM	311,819.65	178,291.91	0.13m
21	Cu Alloy machine part	Modern	311,812.43	178,286.09	0.1m
22	Pb object	Unknown	311,797.01	178,281.45	0.15m
23	Worn blank Cu coin	PM	311,813.56	178,304.19	0.1m
24	Pb object	Unknown	311,779.65	178,288.20	0.2m
25	Bronze vessel frag	Med	311,794.03	178,280.39	0.24m
26	Bronze vessel leg/stand	Med	311,792.46	178,280.41	0.32m
27	Cu Alloy object	Unknown	311,755.82	178,290.71	0.17m
28	Fe object	Unknown	311,765.63	178,296.12	0.15m
29	Copper sheet frag	Unknown	311,766.09	178,341.91	0.2m
30	Pewter button	PM	311,841.91	178,342.52	0.27m
31	Pb object	Unknown	311,849.72	178,374.00	0.15m
32	Clipped Pb strip	Likely 1648	311,835.81	178,401.17	0.21m
33	Cu Alloy buckle	PM (1660-1720)	311,815.68	178,412.54	0.2m
34	Worn blank Cu coin	PM	311,752.57	178,373.23	0.1m
35	Cu Alloy fragment	Unknown	310,038.34	178,178.13	0.15m
36	Pb Musket Ball	Poss 1648	310,041.49	178,161.45	0.2m
37	Pb/Pewter badge	PM	310,106.98	178,187.54	0.24m
38	William III sixpence	PM 1694-1702	310,111.89	178,166.76	0.2m
39	Cu Alloy machine part	Modern	310,095.61	178,170.75	0.2m
40	Cu Beehive thimble	PM (16th)	310,093.99	178,233.31	0.25m
41	Fe Horse harness loop	PM	310,092.89	178,226.54	0.18m
42	Cu Pennies x3	PM	310,076.65	178,215.02	0.1m
43	Clipped Pb object	Likely 1648	310,102.44	178,215.69	0.2m
44	Cu Alloy button	PM	310,082.59	178,224.57	0.2m
45	Cu Alloy buckle	PM	310,025.47	178,228.41	0.2m
46	Pb Musket ball	Likely 1648	310,060.01	178,208.38	0.2m
47	Large handmade Fe nail	PM	310,064.12	178,223.76	0.17m
48	Large Fe buckle	PM	310,043.65	178,209.93	0.2m
49	Cu Alloy button	PM	310,055.87	178,259.81	0.2m
50	Fe buckle	Modern	310,121.63	178,283.64	0.15m
51	Pb object	Unknown	310,093.41	178,262.10	0.1m

52	Au plated Cu button	PM	310,113.62	178,268.83	0.2m
53	Clipped Pb object	Likely 1648	310,125.81	178,280.15	0.2m
54	Worn blank Cu penny	PM	310,133.65	178,326.01	0.15m
55	Worn blank Cu coin	PM	310,051.61	178,341.84	0.2m
56	Worn blank Cu coin	PM	310,047.93	178,342.68	0.18m
57	Cu Alloy button	PM	310,093.91	178,434.42	0.21m
58	Cu Alloy Barrel tap key	PM	310,116.86	178,420.59	0.2m
59	Pewter button	PM	310,109.11	178,421.74	0.15m
60	Worn blank Cu coin	PM	310,107.77	178,427.05	0.2m
61	Worn blank Cu coin	PM	310,097.95	178,421.94	0.2m
62	Worn blank Cu coin	PM	310,086.10	178,439.47	0.13m
63	Spent Pb musket ball	Likely 1648	310,085.23	178,415.84	0.15m
64	Worn blank Cu coin	PM	310,085.36	178,414.42	0.15m
65	Cu Alloy button	PM	310,066.15	178,483.91	0.1m
66	Cu Alloy fragment	PM	310,072.14	178,479.01	0.2m
67	Cu Alloy Horse harness buckle	PM	310,111.98	178,471.47	0.2m
68	Cu Alloy object	Unknown	310,101.33	178,471.71	0.12m
69	Cu Alloy buckle frag	PM	310,058.17	178,456.01	0.1m
70	Brass spoon bowl	PM	310,052.15	178,422.81	0.15m
71	Pewter spoon fragment	PM	310,086.13	178,505.06	0.15m
72	Cu Alloy button	PM	310,071.84	178,498.67	0.2m
73	Pb Musket ball	Likely 1648	310,076.98	178,484.83	0.15m
74	Cu Alloy button	PM	310,028.53	178,279.57	0.2m
75	Cu Alloy button	PM	310,078.13	178,164.51	0.17m
76	VOID	-	-	-	-
77	Pewter button	PM	310,586.31	178,905.41	0.2m
78	Brass nut cover	Modern	310,585.61	178,884.79	0.2m
79	Cu Penny	PM	310,589.27	178,880,49	0.25m
80	Folded Pb strip	Likely 1648	310,585.21	178,868.00	0.15m
81	Pb square/strip	Likely 1648	310,596.46	178,879.22	0.1m
82	Pewter frags x2	PM	310,595.60	178,857.54	0.15m
83	Folded Pb strip	Likely 1648	310,593.03	178,863.61	0.17m
84	Pb object	Unknown	310,574.44	178,854.30	0.1m
85	Pb Loom weight	Med	310,584.81	178,847.10	0.25m
86	Pb object	Unknown	310,592.90	178,838.11	0.1m
87	Cu Alloy fragment	Unknown	310,592.41	178,836.29	0.12m
88	Folded Pb strip	Likely 1648	310,580.27	178,831.71	0.12m
89	VOID	-	-	-	-
90	Large Fe handmade pin	PM	310,570.42	178,831.20	0.4m
91	Cu Alloy button	PM	310,573.82	178,830.89	0.1m
92	Brass spoon frag	PM	310,584.71	178,825.06	0.25m
93	Pb Spindle Whorl	Med	310,584.70	178,814.99	0.3m
94	VOID	-	-	-	-
95	Fe nail	Modern	310,580.56	178,771.26	0.15m
96	Pb sheet fragments	Likely 1648	310,543.82	178,749.72	0.1m
97	Folded Pb strip	Likely 1648	310,539.87	178,774.01	0.2m
98	Handmade Fe nail	PM	310,521.18	178,789.53	0.1m
99	Folded Pb strip	Likely 1648	310,564.50	178,801.41	0.1m
100	Pb object	Unknown	310,530.28	178,805.23	0.1m
101	Initialled Pewter spoon frag	Likely 1648	310,521.75	178,819.69	0.1m
102	Cu Alloy object	Modern	310,538.87	178,808.98	0.1m
103	Cu Alloy barrel tap/spigot	PM	310,543.65	178,802.99	0.2m
104	Cu Alloy buckle	PM	310,539.67	178,817.95	0.15m

105	Cu Alloy button	PM	310,543.71	178,824.22	0.4m
106	Cu Alloy button & Med pot	Med/PM	310,546.45	178,835.27	0.2m
107	Fe object	Unknown	310,532.31	178,835.92	0.4m
108	Cu Alloy buckle	PM	310,544.22	178,832.10	0.4m
109	Folded Pb Strip	Likely 1648	310,540.76	178,884.42	0.2m
110	Cu Alloy 'loop'	Med	310,544.80	178,892.83	0.2m
111	Pb game weight/bias	PM	310,537.92	178,881.44	0.1m
112	Fe Hook & Eye	PM	310,545.11	178,902.05	0.1m
113	Cu nail frag	PM	310,563.77	178,886.84	0.2m
114	Pb game weight/bias	PM	310,543.97	178,890.42	0.2m
115	Fe Machine fitting	Modern	310,506.75	178,871.37	0.1m
116	Decorated Pewter spoon knop	Likely 1648	310,498.19	178,876.35	0.1m
117	Brass button	Modern	310,512.46	178,871.47	0.1m
118	Cu Alloy ring	Modern	310,510.63	178,871.12	0.1m
119	Cu Alloy button	PM	310,497.25	178,863.28	0.1m
120	Cu pressure seal	Modern	310,504.74	178,821.52	0.1m
121	Worn blank Cu Coin	PM	310,496.84	178,802.35	0.1m
122	Decorated brass plate	Modern	310,514.35	178,791.81	0.15m
123	Folded Pb object	Likely 1648	310,506.37	178,808.12	0.2m
124	Fe object – nail	Unknown	310,510.98	178,814.99	0.2m
125	Cu Alloy machine part	Modern	310,507.14	178,832.51	0.1m
126	Cu Alloy object	Unknown	310,490.51	178,839.48	0.1m
127	Cu Alloy stud	PM	310,466.91	178,866.31	0.2m
128	Brass spoon frag	PM	310,476.18	178,879.95	0.2m
129	Folded Pb strip	Likely 1648	310,587.81	178,886.36	0.2m
130	Cu Alloy button	PM	310,485.00	178,901.51	0.1m
131	Worn blank Cu coin	PM	311,070.46	177,285.72	0.2m
132	Cu Alloy vessel rim	Unknown	311,073.01	177,291.64	0.4m
133	Brass clock hand	Modern	311,050.72	177,335.75	0.1m
134	Cu Alloy object	Unknown	311,053.66	177,290.62	0.13m
135	Worn blank Cu coin	PM	311,074.61	177,325.85	0.2m
136	Cu Penny	PM	311,048.12	177,341.92	0.2m
137	Cut length of Pb pipe	Likely 1648	311,043.46	177,400.03	0.3m
138	VOID	-	-	-	-
139	Musket ball	Likely 1648	311,069.15	177,495.12	0.2m
140	Cu Alloy button	PM	311,050.87	177,518.09	0.1m
141	Cu Penny x2	PM	310,986.63	177,492.15	0.3m
142	Cu Penny	PM	311,001.92	177,409.89	0.4m
143	Pb clipped strip	Likely 1648	311,002.75	177,369.41	0.2m
144	Cu Alloy button	PM	310,995.31	177,339.63	0.2m
145	Pb object	Unknown	310,988.51	177,319.65	0.2m
146	Pb Loom weight	Med	310,955.27	177,315.99	0.25m
147	Pb Buck Shot	PM	310,914.45	177,310.81	0.2m
148	Worn blank Cu coin	PM	310,898.54	177,308.53	0.1m
149	Pb & Fe object	Unknown	310,915.16	177,354.46	0.2m
150	Cu Coin	PM	310,961.14	177,387.12	0.1m

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APPENDIX IV:

Archive Cover Sheet

ARCHIVE COVER SHEET

St Fagans Battlefield, St Fagans, Cardiff

Site Name:	St Fagans
Site Code:	WBS/13/SUR
PRN:	-
NPRN:	307776
SAM:	-
Other Ref No:	-
NGR:	ST 10466 77928
Site Type:	Battlefield
Project Type:	Survey
Project Manager:	Chris E Smith
Project Dates:	Feb-Mar 2013
Categories Present:	Medieval-Modern
Location of Original Archive:	AW
Location of duplicate Archives:	-
Number of Finds Boxes:	1
Location of Finds:	-
Museum Reference:	-
Copyright:	AW
Restrictions to access:	None

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