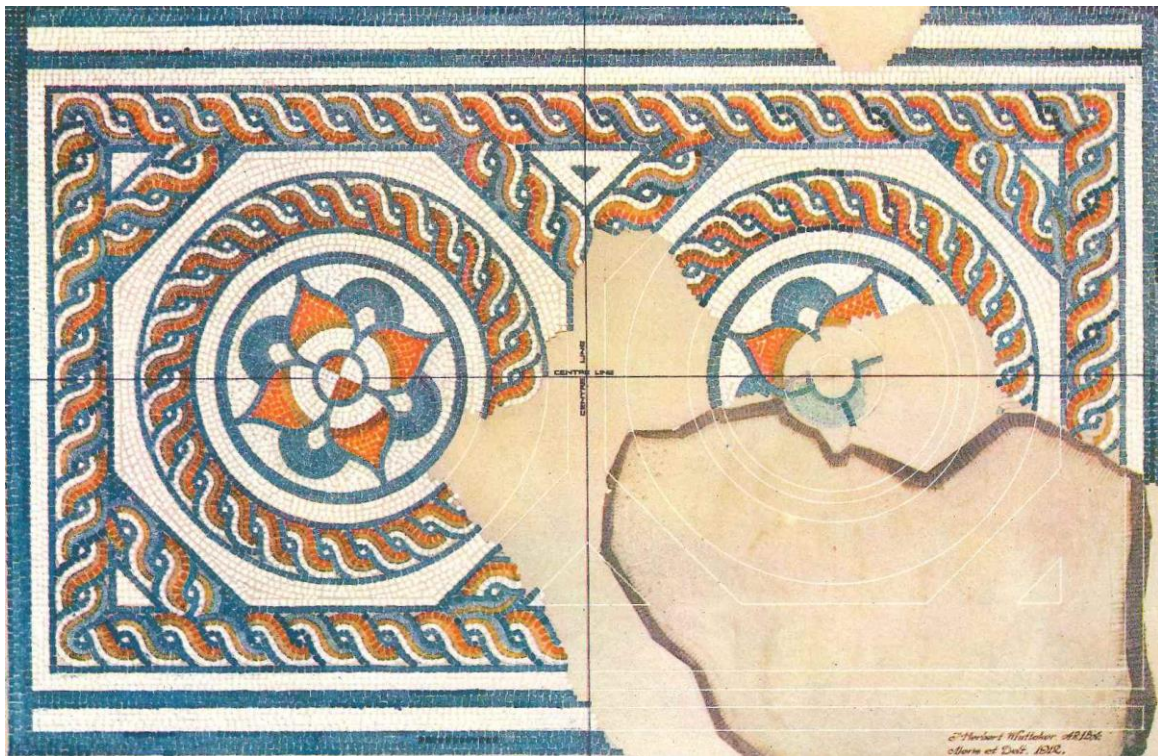


The Archaeological Investigation into potential damage of the Site of the Romano-British town of Magna, Kenchester, Herefordshire

**(Scheduled Ancient Monument UID 1001768, HE 29)
June 2014**



Report prepared by Tim Hoverd

**Herefordshire Archaeology Report No. 345
Event No. EHE 80072**

Herefordshire Archaeology
Environment, Planning and Waste
Places and Communities Directorate Herefordshire Council



**Archaeological Investigation into potential
damage of the
Site of the Romano-British town of Magna,
Kenchester, Hereford**

**Monument No: UID 1001768
NGR: SO 4405 4278
Event Number: EHE 80072**

Herefordshire Archaeology is Herefordshire Council's county archaeology service. It advises upon the conservation of archaeological and historic landscapes, maintains the county Sites and Monument Record, and carries out conservation and investigative field projects.

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Summary:

Cultivation works had been undertaken across the field within which the Romano-British town Magna is situated. These works were unauthorised as they had been carried out without Scheduled Monument Consent. It was also apparent that the site had been subjected to systematic metal detecting on a number of occasions. Herefordshire Archaeology, (Herefordshire Council's Archaeology Service) was contracted to undertake a series of investigations within the Scheduled Ancient Monument which included the excavation of six small trenches, a series of field-walked grids and a sample metal detector survey, in order to define what activities had taken place within the scheduled area and quantify the degree to which this has caused damage to archaeological deposits.

The six trenches targeted different topographic locations in order to provide information regarding both recent and historic cultivation events and their effect upon the underlying archaeology. The trenches were inspected and recorded by an Agricultural Advisor and a Geo-archaeologist. A sequence of unauthorised events was established by the Agricultural Advisor including types of machinery used on the site.

Sample transects were metal detected in order to establish the survival of metal artefacts. Sample areas of the site were field-walked in order to retrieve material which could be assessed for evidence of recent damage caused by the unauthorised cultivation.

The archaeological works established that whilst the site had been cultivated on a number of occasions recently, this cultivation had not been as deep as the historic cultivation causing only limited damage to the site in localised areas. It was concluded that whilst the recent unauthorised cultivation works were shallow in nature and had not further truncated significant deposits within the Scheduled Monument, the increased cultivation around the field edge had damaged deposits of archaeological significance.

The metal detecting survey suggested that the site has been subjected to systematic, unauthorised detecting and that the site has been "selectively" detected with only the larger and higher denomination coinage and other artefacts being removed from the site. The evidence for unauthorised metal detecting strongly suggested that this site has been systematically detected after every ploughing event. Metal detecting is illegal on Scheduled Ancient Monuments.

The field-walking samples indicated a considerable difference in ceramic and building material across the monument. It is likely that this is due to at least one of the grids coinciding with spoil from early 20th century excavations. The condition of the vast majority of the ceramic material was consistent with it being subjected to ploughing over a considerable period of time.

1. Introduction

This report, EHE 80072, provides an account of Archaeological investigations within the Roman town of Magna Castra (Magnis), within the parish of Kenchester, Herefordshire. The landowner had, during 2012 and 2013 undertaken a number of un-authorised works including the dumping of slurry, cultivation, and the establishment of both fodder kale and grass ley. These works were un-authorised as they had been carried out without Scheduled Monument Consent (SMC). The purpose of the archaeological investigations was to ascertain the range of un-authorised works which had been undertaken and to record the extent of the potential damage caused to the monument by these works.

This report has been produced in response to a brief produced by Alison MacDonald, Assistant Inspector of Ancient Monuments, English Heritage, produced on 18th December 2013 and an accepted project design prepared by Tim Hoverd, Archaeological Projects Manager, Herefordshire Archaeology submitted in January 2014.

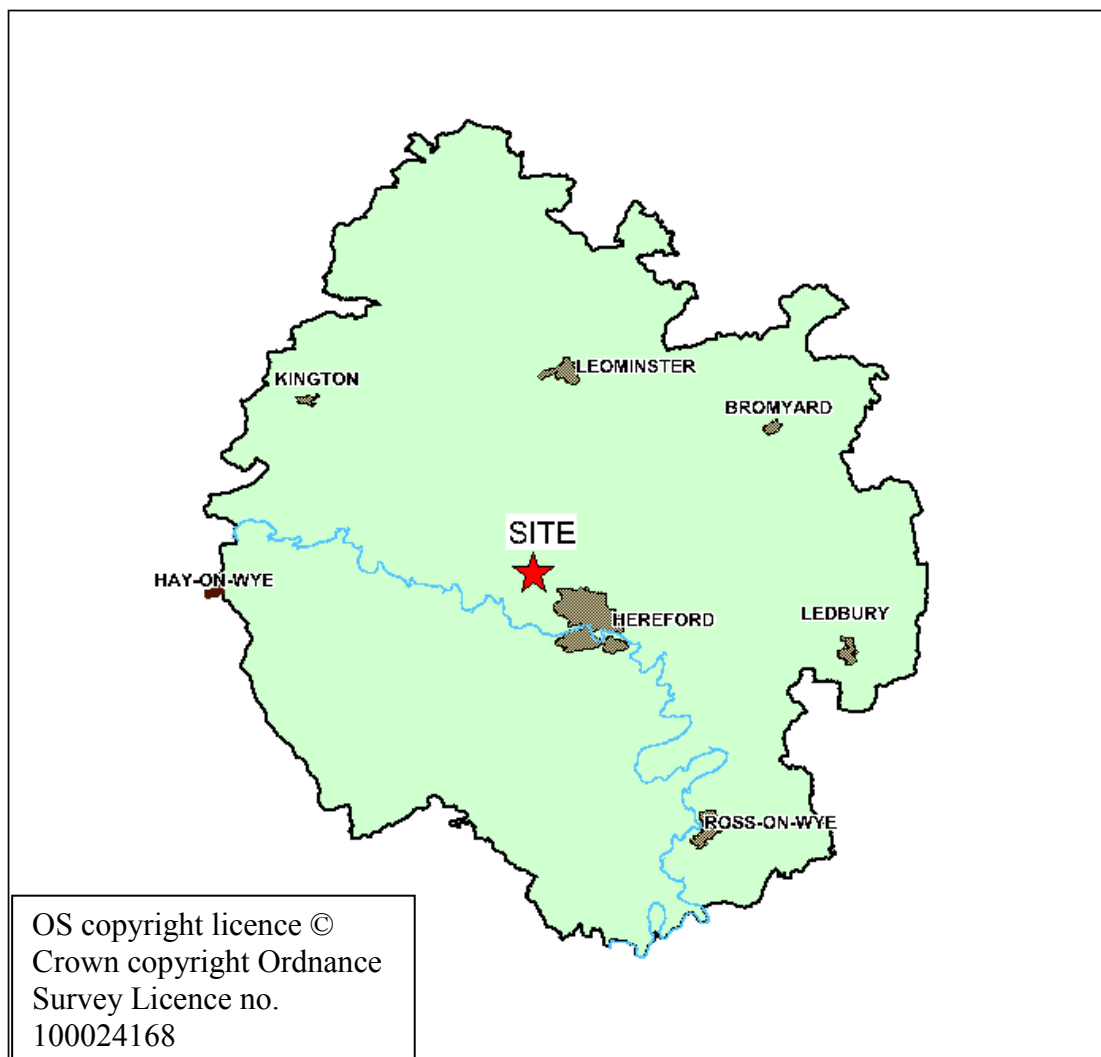


Figure 1: Location of the site within the County of Herefordshire

2. Aims and Objectives

The purpose of the archaeological investigations is to ascertain what works had been undertaken and the extent of the potential damage to the monument. Specifically, to establish the nature and depth of the current (2013 / 14) and historic cultivation episodes, and their impact on the significance of the Scheduled Ancient Monument.

The site had previously been in permanent pasture, with no Class Consents extant. The recent unauthorised operations have cultivated the ground to an unknown depth, but from the material recovered by unsystematic field walking on 9th December 2013 by English Heritage and general observation, these operations have caused substantial disturbance that has impacted upon archaeological material of significance to the designated status of the site. In addition, the unauthorised application of slurry, in large quantities, has had the potential to change the soil chemistry and therefore may have adversely affected buried archaeological remains.

The principal requirements for the investigative works were:

1. The excavation of at least two evaluation trenches across the site to determine the depth and impact of recent works. One trench should be located over the west gatehouse to characterise the observed impact on the masonry of the structure and the other on an area of high ground where the topsoil would have been shallowest over below-ground archaeology. The exact location and size of the trenches should be agreed with English Heritage on-site before excavation begins.
2. Additionally, the excavation of at least two 2m x 2m evaluation test pits should be carried out to consider the impact in the soil profile (looking at different cultivations and their impact – the inversion ploughing will bring material up to the surface, the harrow will have broken the pottery and this may be visible in the profile and give an indication of impact and nature of works) the location of these test-pits (in conjunction with the position of the evaluation trenches) should reflect the differing burial environments or areas of known significance.
3. Field walking two transects or sample areas to collect a systematic sample of archaeological evidence from the ground surface that can then be analysed both for its character and condition.
4. Specialist analysis of the finds collected, including a pottery assessment and potentially metalwork, industrial residues and glasswork and all other small finds and bulk finds, along with those from the evaluation trenches should be undertaken to enable a record of material recovered due to the current events to be formally catalogued and examined.
5. The field should be systematically sampled by licenced metal detecting to recover any remaining metalwork of significance from the plough-soil to remove the risk of loss of metalwork through illegal metal detecting. Although the site has been systematically metal detected illegally, some metal objects may remain within the plough soil. The licenced metal detecting will enable the location and character of any remaining metalwork to be recorded.

6. An agricultural advisor should be invited to view and report on the trenches once they have been excavated.

These requirements were met by:

1. The excavation of three evaluation trenches across the site to determine the depth and impact of recent works. One trench was located over the west gatehouse to characterise the observed impact on the masonry of the structure. A second trench was excavated over the southern rampart and a third was excavated close to the centre of the town within a low lying area.

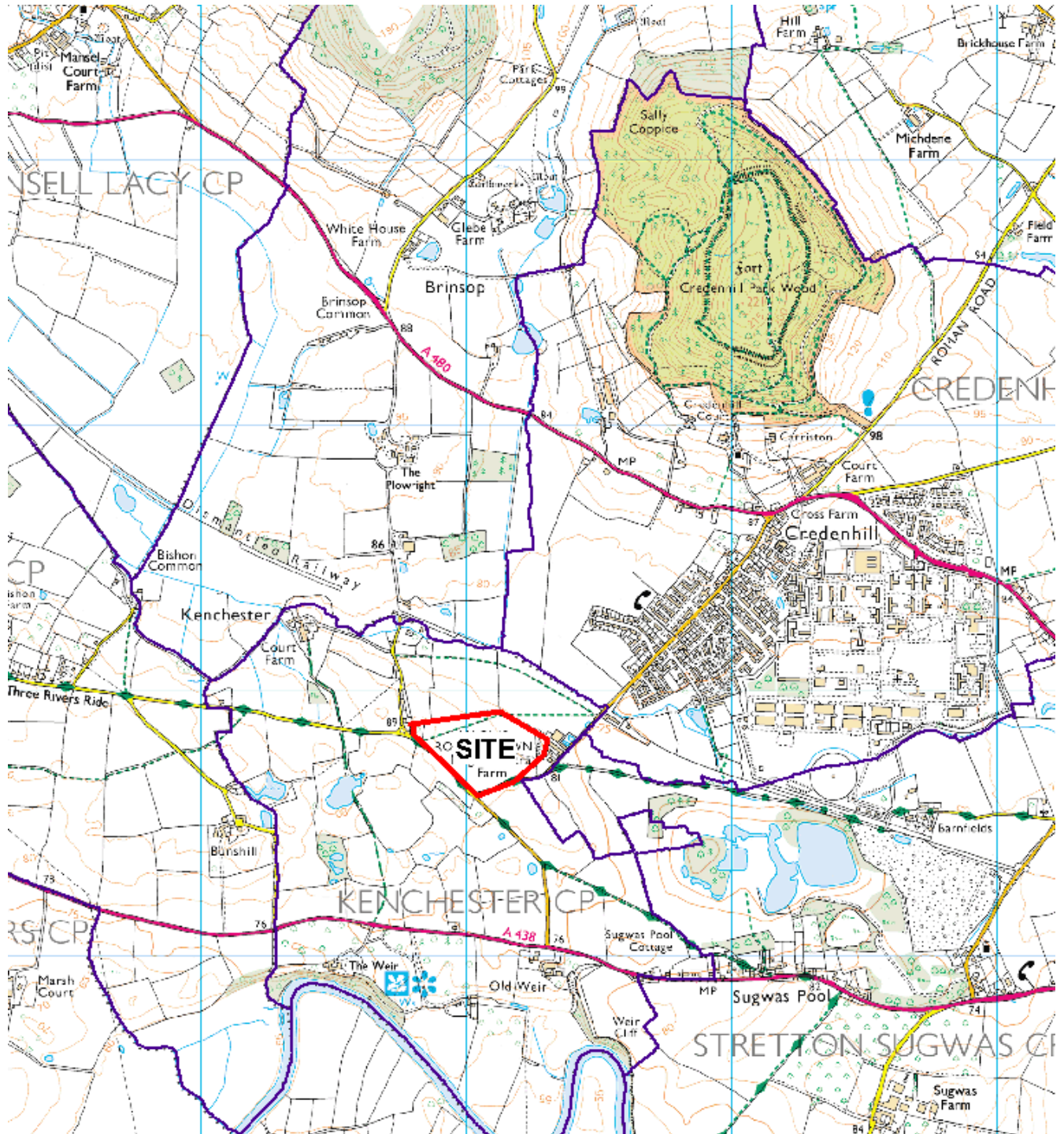
2. Three 2m x 2m evaluation test pits were excavated. The locations of these test-pits were chosen in order to cover a range of topography.

3. Field walking was undertaken over seven 10m square grids in order to collect a systematic sample of archaeological evidence from the ground surface that can then be analysed both for its character and condition.

4. Specialist analysis of the coins and pottery recovered from the site was undertaken to enable a record of material recovered due to the current events to be formally catalogued and examined. The remaining metalwork was assessed by Hereford Museum but was not considered to be significant enough for further specialist analysis.

5. The field was systematically sampled by licenced metal detecting to recover any remaining metalwork of significance from the plough-soil to remove the risk of loss of metalwork through illegal metal detecting. A series of transects were systematically detected.

6. An agricultural advisor and a geo-archaeologist viewed and reported on the trenches after they had been excavated. Their reports are included within the main text of the report, rather than as appendices.



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Figure 2: Location of the site in relation to Credenhill and Kenchester.

3. Location, Topography, Geology and Land-use

The Roman small town of Magna Castra or Magnis is situated on low lying ground close to a tributary of the Yazor Brook, with a central NGR of SO 4405 4278. It is situated within the parish of Kenchester, Herefordshire. The town survives as an irregular hexagonal platform defined by a marked scarp of up to 2.1m high on all except the south western side where it has been cut slightly by a modern road. There

are at least two sections of upstanding masonry wall forming part of the stone built outer defences and a buried outer ditch. Within the town all the structures and deposits including buildings and streets are preserved as buried features.

The underlying solid geology of the area consists of Inter-bedded Siltstone and Mudstone of the Raglan Mudstone Formation in the Silurian Period. The bedrock can measure up to 800m thick (BGS, 2014). This is overlain by superficial glacio-fluvial sheet deposits of sand and gravel formed in the Quaternary Period, during which time glaciers deposited moraines of till with outwash sand and gravel deposits from seasonal and post glacial meltwaters (BGS, 2014). The course of Yazor Brook to the south is dominated by superficial alluvial deposits of clay, silt, sand and gravel (BGS, 2014).

The Historic Landscape Characterisation for Herefordshire lists the study area as HHE 303: Co-axial Enclosure System – Perpendicular Orientated System.

4. Methodology

Fieldwork was undertaken between the 13th March and 25th March 2014. The grass ley had grown considerably within most parts of the site to a height of approximately 0.12m, making field walking within some areas difficult. The Agricultural Adviser, Geo-morphologist and English Heritage Scientific Advisor all visited the site on 22nd March. These visits formed the basis of their reports.

The three evaluation trenches and the three test pits were excavated by hand. With the exception of Trench 1 and Trench 5, the trenches were excavated to the top of significant archaeology. Trench 1 and Trench 5 both contained well-preserved, shallow features of uncertain date, these were investigated in a limited way in order to establish their formation date and function.

A series of transects were subjected to systematic metal detecting in order to retrieve any metal objects surviving within the plough soil. The position of each find spot was recorded using a hand held GPS device. Any evidence for unauthorised metal detecting was also recorded on these transects.

A series of seven 10m square grids were systematically field walked. Six of these formed an interrupted transect whilst the seventh was in an area where an unusual density of building debris had been noted.

The trenches and test pits were backfilled by hand on the 24th and 25th March. The backfilling was left to settle and was re-seeded and raked with an approved pasture seed mix on 11th April 2014.

5. Current Knowledge

The site of the Roman town of Magnis or Magna Castra has been the subject of a number of “Archaeological” explorations and interventions spanning four centuries or more. The site is first mentioned by Leland who is thought to have visited Herefordshire in about 1550, he records:

“Kenchester standeth a iii myles or more above Hereford...This towne is far more auntyent then Hereford, and was celebrated yn Roman tyme., as appereth by many thinges, and especially by antique mony of the Caesars, very often fownd withyn the towne, and yn plowghyng abowt; thw which the people ther cawlleth Duarfes Mony.The cumpace of Kenchestre hath bene by estimation as much as Hereford, excepting the castel.....Peaces of the walles and turrets yet appere, prope fundamenta, and more should have appered if the people of Hereford towne and other therabowt had not yn tymes paste pulled down mucche and pyked owt of the best for their buildings. Of late one Mr. Brainton...dyd fetch much tailed stone there toward his buildinges....The place wher the town was ys al overgrowen with brambles, hasylles, and lyke shrubbes. Neverthelesse here and there yet appere ruines of buyldinges, of the which the folisch people cawlle on the King of Feyres Chayre. Ther hath been fownd nostra memoria lateres Britannici; et ex eisdem canals, aquaeductus, tessellate pavimenta, fragmatum catenulae aureae, calcar ex (auro) by side other strawng thinges. To be short, of the decaye of Kenchestre Hereford rose and florishyd.” (Jack & Hayter 1916)

In 1610 the site was described by Camden:

“The town is an irregular hexagon, higher than the surrounding lands, but without fosse or ditch. Nothing remains of its splendour except near the east end, a piece of what is probably a temple, with a nich which is five feet high and three broad within, built of rough stone, Roman brick and indissoluble mortar and called the chair.” (Jack & Hayter 1916)

During 1669 a tessellated pavement and stone floor were discovered close to “The Chair” or the “King of the Feyres Chayre” (see figure 3). This was recorded by Aubrey in 1670:

“Old Roman buildings of brick were discovered, on which oaks grew. Bricks of two sorts, some equilateral, eight inches square and one inch thick, some two feet square and three inches thick. About the same time a vault was opened with a tessellated pavement, and Sir John Hoskyns found a hypocaust about seven feet square, with leaden pipes entire, and some pipes of brick, a foot long and three inches square, let artificially into each other.” (Jack & Hayter 1916)

In 1719 Roger Gale visited the site and mentions traces of walls and the niche mentioned by Camden and Leland. He also mentions seeing a vault “from which urns were taken with bones and tesserae”. It is probable that this vault was the remains of the one discovered in 1699.

In 1722 William Stukeley visited the site and described it as:

“...nothing remaining of its splendour, but a piece of a temple, probably with a niche, which is five foot high and three broad within....There are many large foundations near it. A very fine mosaic floor a few years ago was found intire, soon torn to pieces

by the ignorant vulgar.” (it is believed that this relates to a mosaic found in c. 1730 by Bayley and Britton and recorded in the Archaeological Journal (Vol. XXX1V).

Stukeley goes on to say that:

“...All around the city you may easily trace the walls, some stones being left everywhere, though overgrown by hedges and timber trees.....The earth black and rich, overgrown with brambles, oak trees, full of stones, foundations, and cavities, where they have been digging.” (Jack & Hayter 1916). Interestingly Stukeley’s plan of the site shows the western half of the site under arable in 1722 (see figure 3).

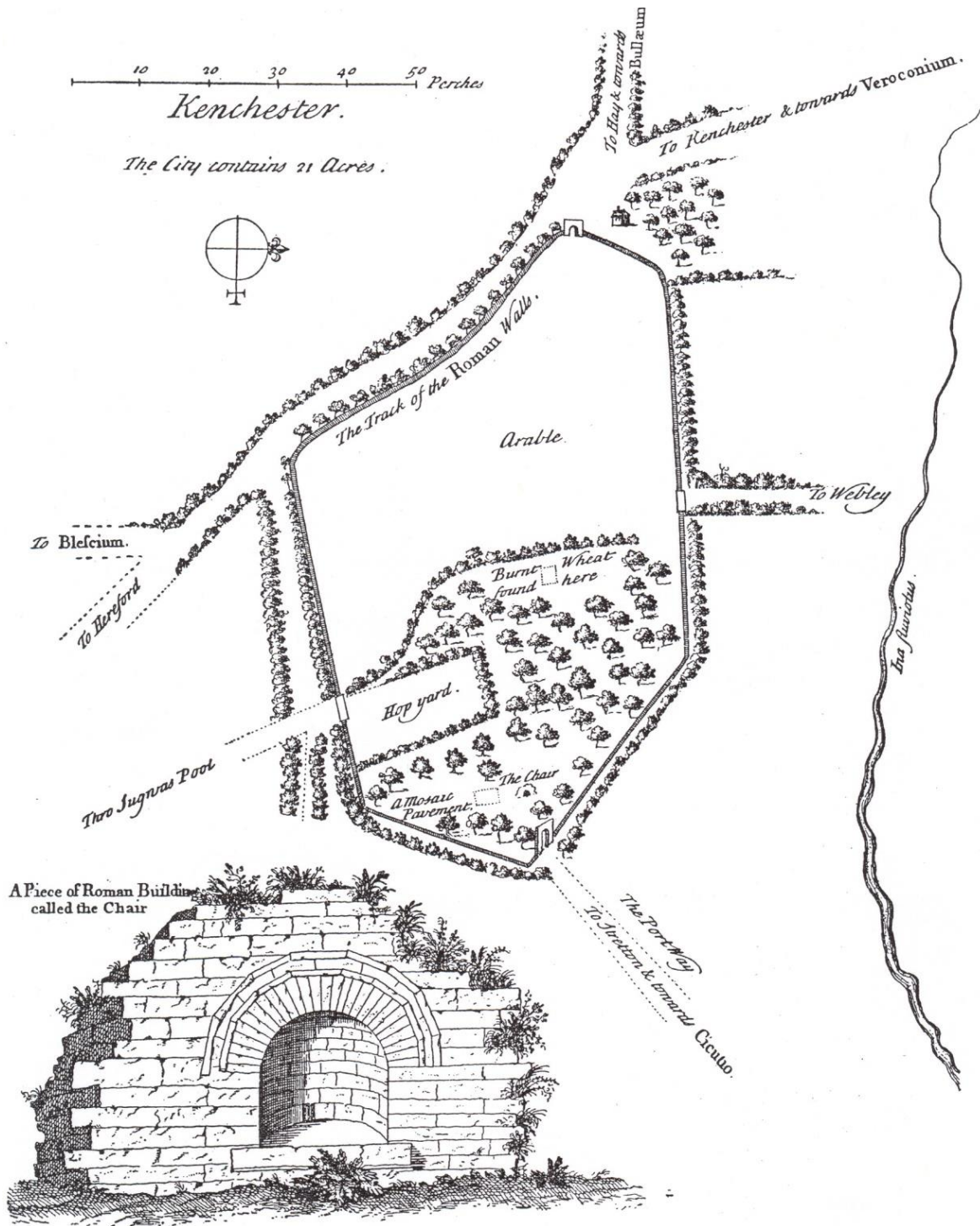
An entry in the Archaeological Journal, (Vol. X1V), by a Mr. Hardwick records:

“About 1810-20 the site, which was a complete wilderness of decaying walls and debris, was cleared. The principal street runs in a direct line east and west, and was 12-15 ft in width, with a gutter along the centre to carry off refuse water, as is traceable by the difference in the growth of crops”. (Jack & Hayter 1916)

Hardwick appears to be describing the removal of all surface masonry as well as undergrowth over the town sometime after 1810. The fact that he had noted the central drain within the road as a crop mark suggests that very shortly after this date at least some of the site was under cultivation – perhaps the western part of the site as recorded by Stukeley a century before?. It appears that Mr. Hardwick was the owner of the site during much of the 19th century. A letter from Hardwick’s nephew (Mr. J. Reynolds) recalls the last remnants of the town walls being removed by Hardwick in about 1861 and that during the first few years of cultivation within the town foundations and vast quantities of artefacts were regularly ploughed up. (Jack & Hayter 1916)

Mr. T Wright, in his “Wanderings of an Antiquary (1853)” states that:

“Till recently the area of the Roman town at Kenchester could be distinctly traced by the remains of its walls.....At present very little of the wall remains. By kind permission Mr. Hardwick some gentlemen of Hereford assembled by Dean Merewether proceeded some 5 or 6 years ago to excavate the site of the ancient city of Kenchester, but they seem to have gone to work without any system and to have had no particular reason for digging a hole in one place rather than another. They came, however, on a coarse tessellated pavement, and it was determined to carry it off entire and deposit it in the museum of the Philosophical Institution at Hereford. But the Herefordshire peasantry have their own particular notions about such monuments, and confident that an immense treasure lay concealed beneath it, they determined to be beforehand with the learned antiquaries in carrying off the prize. Accordingly during the night when it was left unprotected, a party of them came with pickaxes and other implements and broke it all to pieces. A few fragments only reached the museum. The other articles found during the diggings are said to have gone into the private collection of the Dean, with which they were eventually dispersed. The money collected for the purpose was soon expended, and the diggers somewhat unhandsomely left to Mr. Hardwick the task of filling up the holes they had made.” (Jack & Hayter, TWNFC 1916)



Stukeley delin. Jacobo Hill Ar. J. C. Vicinæ Civitatis formam confecerat W. Stukeley.
 FIG. I.—STUKELEY'S PLAN OF KENCHESTER, AND DRAWING OF 'THE CHAIR.'

Figure 3: William Stukeley's plan of 1721 showing land use, "The Chair" and other features of interest.

Between October 14th 1912 and January 18th 1913 and again between June 16th 1913 and September 20th 1913, a series of excavations was undertaken by G.H. Jack in order to “*shed some light upon the early history of the place*” (Jack & Hayter 1916 pp20). The area covered by these works covered approximately half an acre and were largely concentrated within the north-eastern quarter of the town. These works seemed to mainly comprise wall chasing until a discernable floor level was encountered at which point the trench was widened in order to investigate the flooring and ascertain the buildings likely use. (G.H.Jack & A.G.K.Hayter, TWNFC 1913)

Jack returned for a further season of excavation during 1924 where works were concentrated on the excavation of a building on the southern side of the central road.

A further, more extensive, series of excavations were undertaken by Jack between 20th July and 19th September 1925. (G.H.Jack & A.G.K.Hayter, TWNFC 1925)

In 1929 George Marshall excavated a series of trenches across the western rampart. (Anon, Journal of Roman Studies 1929)

Between 1956 and 1962 Graham Webster undertook excavations over the western gateway and across the central road just inside the western gate, (Webster and Wilmott,, TWNFC 1985)

Aerial photographs, particularly those taken in the 1950's, 1970's and 1990's have provided additional, detailed information concerning the extent and location of masonry footings within the site, suggesting that the majority of the stone founded buildings were ranged along the east – west road, (see Plate 1).

LiDAR imaging, undertaken by the University of Hull as part of the Credenhill Hill Fort Project in 2007 (Figure 4) clearly shows the extent and direction of historic cultivation. (Dorling, P. HAR 256 (2008)).



Plate 1: An aerial view of the Roman town looking due west (C. Musson 1995)

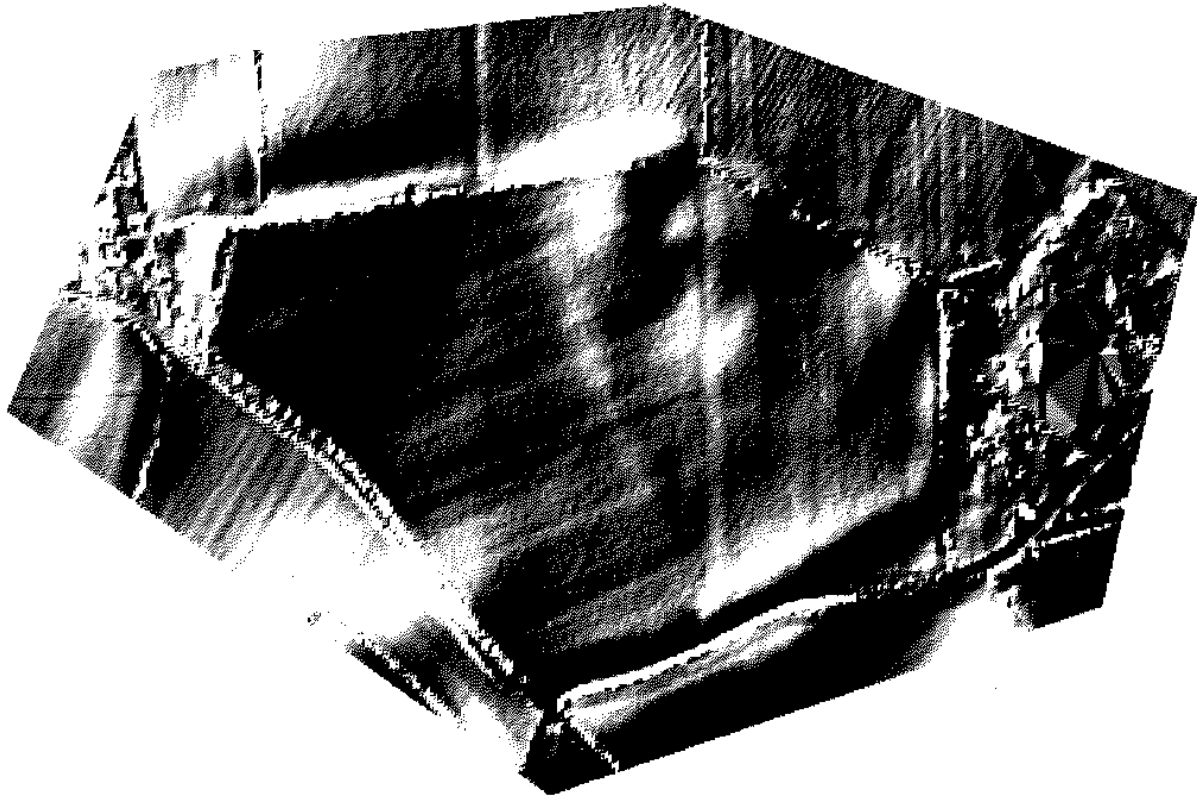


Figure 4: Lidar image of the site (University of Hull 2007)

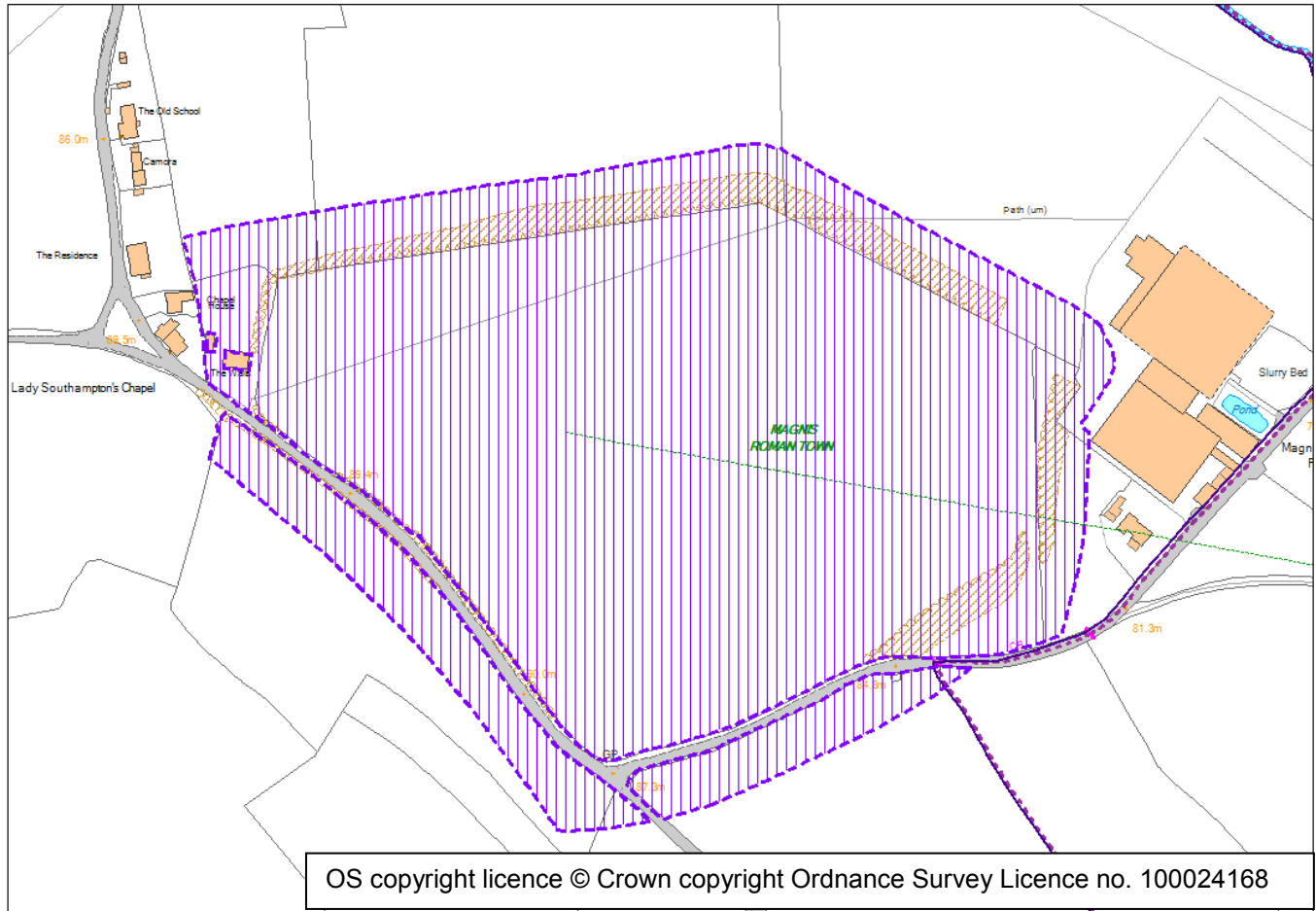


Figure 5: Map showing the extent of the Scheduled Area.

6. Field Survey Results

The Evaluation Trenches

Three evaluation trenches were excavated within the Scheduled Area. Two of these, Trenches (Trench 1 and Trench 5) were located over specific archaeological features whilst the third, (Trench 6) location was chosen on topographic grounds. Each evaluation trench had a maximum area of 12 square metres although the shape of each trench varied.

Trench 1:

This was located close to the western boundary of the field, centred on SO 43844 42824. This location was chosen due to the fact that recent un-authorized agricultural works had disturbed a quantity of roughly squared stone rubble. It was also clear from the size of the roots exposed and cut by these agricultural works that this area had not been previously disturbed by ploughing. A 3m long by 2m wide trench was excavated by hand, aligned roughly north-south.



Plate 2: Trench 1 looking north showing the stony deposit (101)

The plough-soil, (context 100) was stripped to a depth of 0.18m at which point the a hard layer of mixed angular and more rounded stone was encountered covering the trench (101). It would appear that the material from within this deposit was the parent material of the stones which had been disturbed by the agricultural works (plate 2). In general terms the distribution of the stone became more dense towards the western edge of the trench suggesting that this deposit relates to either tumble from the gatehouse which is known (Webster 1980) to exist approximately 4m to the north and west of the trench or to stone from the town wall which has been deposited within the present hedge line during previous agricultural events. It was agreed that excavation should continue over a central 1.5m wide band in order to investigate and record the presence of any *in-situ* features.



Plate 3: Trench 1 looking north showing pit (cut 104 and fill 105) through road surface (102)

After cleaning it became clear that much of the angular stone was deposited on top of a very well compacted layer of cobbles which formed the surface layer of the principal road which ran across the site on a west / east axis (102). Deposit (102) comprised a well constructed, very hard layer of cobbles approximately 0.12m thick. This had been cut (cut 104), through by a pit covering the south-eastern quarter of the trench. The pit not only cut into the road surface but continued into the *Opus Signinum* foundations of the road (103). The pit comprised a gentle scoop which continued to a maximum depth of 0.8m below the present ground surface and did not bottom the road make-up. The pit was filled with a loose, dark earth containing some angular stone fragments and a small quantity of pottery and animal bone (105). Half of an AE2, late 3rd or early 4th century coin was recovered from this deposit, (see Appendix 2). It is suggested that the pit represents small scale gravel quarrying during the post – Roman period.



Plate 4: Trench 1 looking north-east showing the fully emptied pit cut into the road.

Trench 5:

This was located across and perpendicular to the town rampart which formed the south eastern boundary to the town. The trench was 3.9m in length and 1.5m wide aligned north-west / south-east and centred on SO 44202 42703. The reason for the location of an evaluation trench in this position was to investigate the degree of damage which may have occurred to the top of the rampart by the un-authorised agricultural works.

A soft and well mixed modern plough soil, 0.18m thick, was encountered (500). This overlay a thinner (between 0.10m and 0.05m) layer of more compacted but mixed deposit (501). Deposit (501) contained small clay inclusions which derived from material used to form the top of the rampart (502). Close to the northern end of the trench, the rampart had been cut into by a straight, almost vertically sided cut (cut 504) to a depth of 0.75m below the present ground surface. The cut was aligned roughly east / west and was trapezoidal in section, being 0.45m wide at its top and 0.26m wide at its base. It appears to have been cut prior to the formation of deposit (501) as this covered a thin deposit (505) of spoil from the cut which was deposited on the southern side of the cut. The feature was filled with material, similar to (if not the same as) deposit (501). A small amount of pottery was recovered from the fill (506), some of which was clearly fragments of the same vessel that was within the rampart makeup and had been cut through during the excavation of the ditch. This would suggest that the feature was excavated and backfilled almost immediately,



Plate 5: Trench 5 looking north-west.



Plate 6: Northern end of Trench 5 showing field drain cut (503)

indicating that instead of having a structural use, (i.e. as part of a wall or building), its use was purely functional, such as a land drain.

The stratigraphic sequence would suggest that this feature was cut into the top of the rampart at a point in time when this portion of the site at least, was under agricultural production. It is therefore suggested that the feature within the northern end of Trench 5 was formed in the 19th or early 20th century and is associated with drainage.

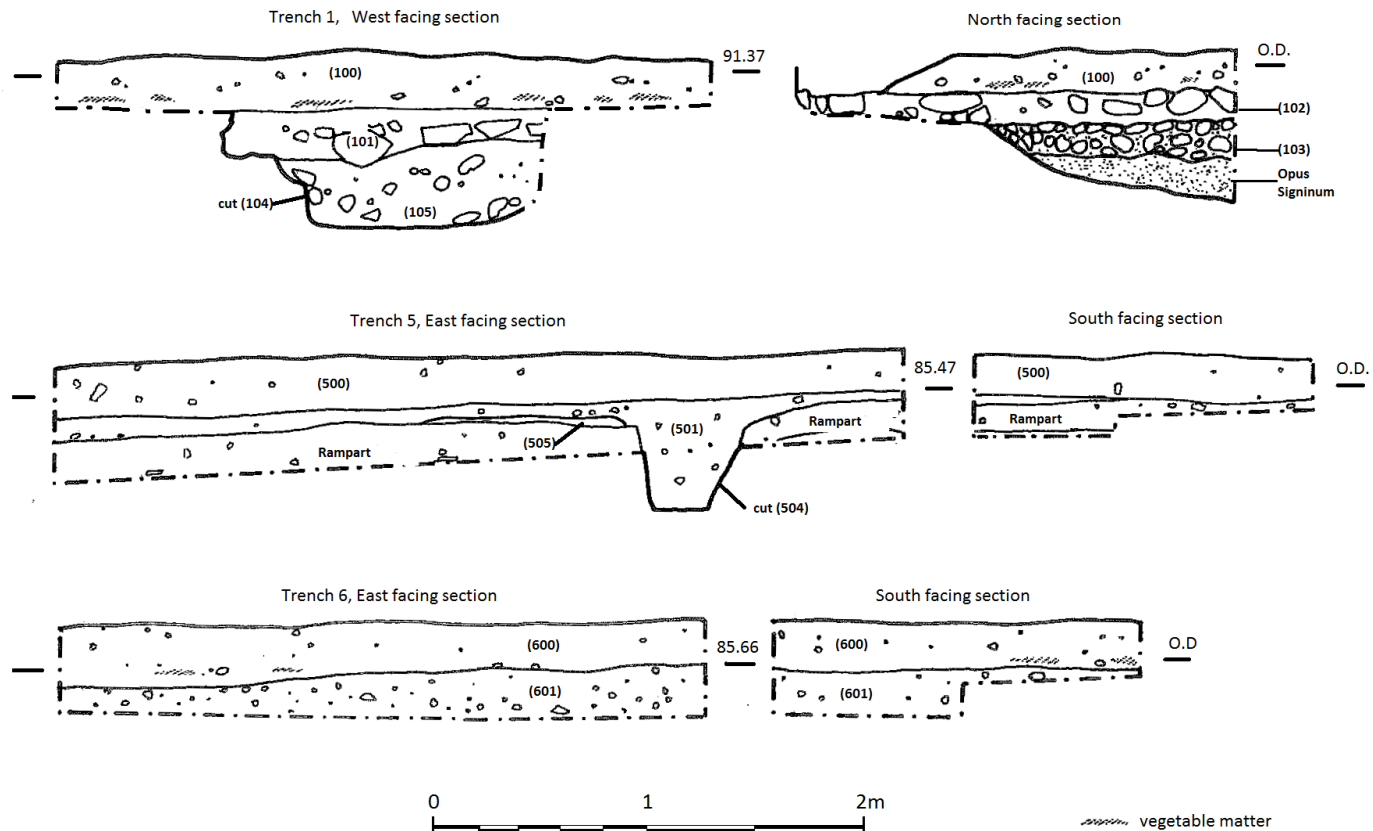


Figure 6: Evaluation trench sections

Trench 6:

This was located within the lowest part of the site, (close to the centre of the Roman town), centred on NGR SO: 44045 42756. The location of the trench was determined by the topography. The trench was 3m long and 1.7m wide aligned roughly north / south. A well mixed and loose modern plough soil was encountered covering the entire trench to a depth of 0.2m at the northern end of the trench and 0.3m at the southern end (600). This overlay a 0.24m thick layer of well mixed by hard loam (601). This, in turn overlay a hard, urban dark earth containing large quantities of abraded pottery and animal bone.



Plate 7: Trench 6 looking north.

The Test Pits

In addition to the three evaluation trenches, a series of three test pits were also excavated and recorded. The test pits enabled additional areas of the site to be investigated. The locations of the test pits were determined by topography and the need to sample all areas of the site. Each test pit comprised a 2m by 2m trench excavated to the base of plough soil. The results from the test pits, (trenches 2,3 and 4) were very similar to one-another. In each case a layer of 0.2m thick modern plough soil was encountered which directly overlay an older, more compacted plough soil. This overlay dark earth within trenches 2 and 3 and the top of rampart within trench 4.

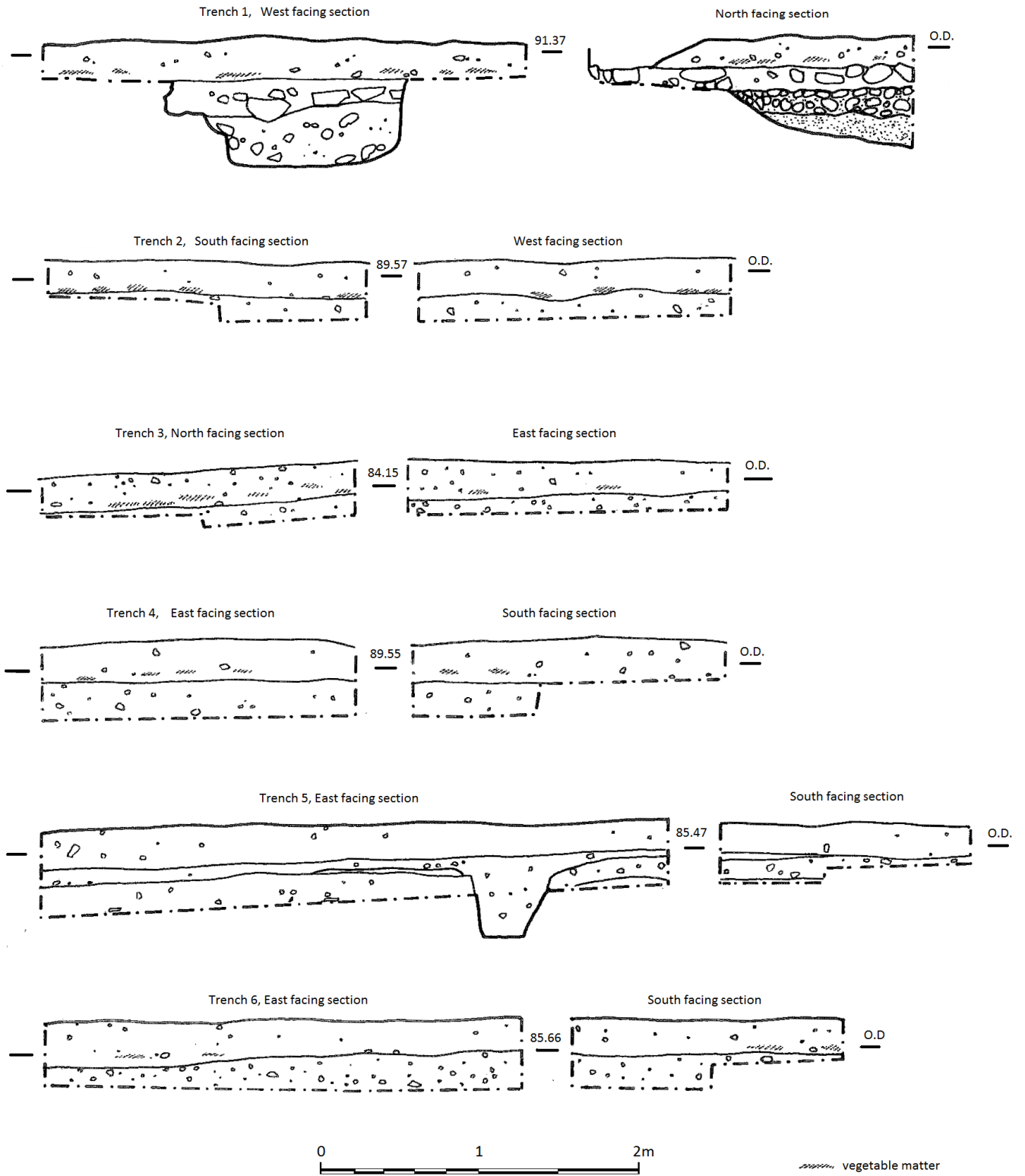


Figure 7: Evaluation trench and test pit sections

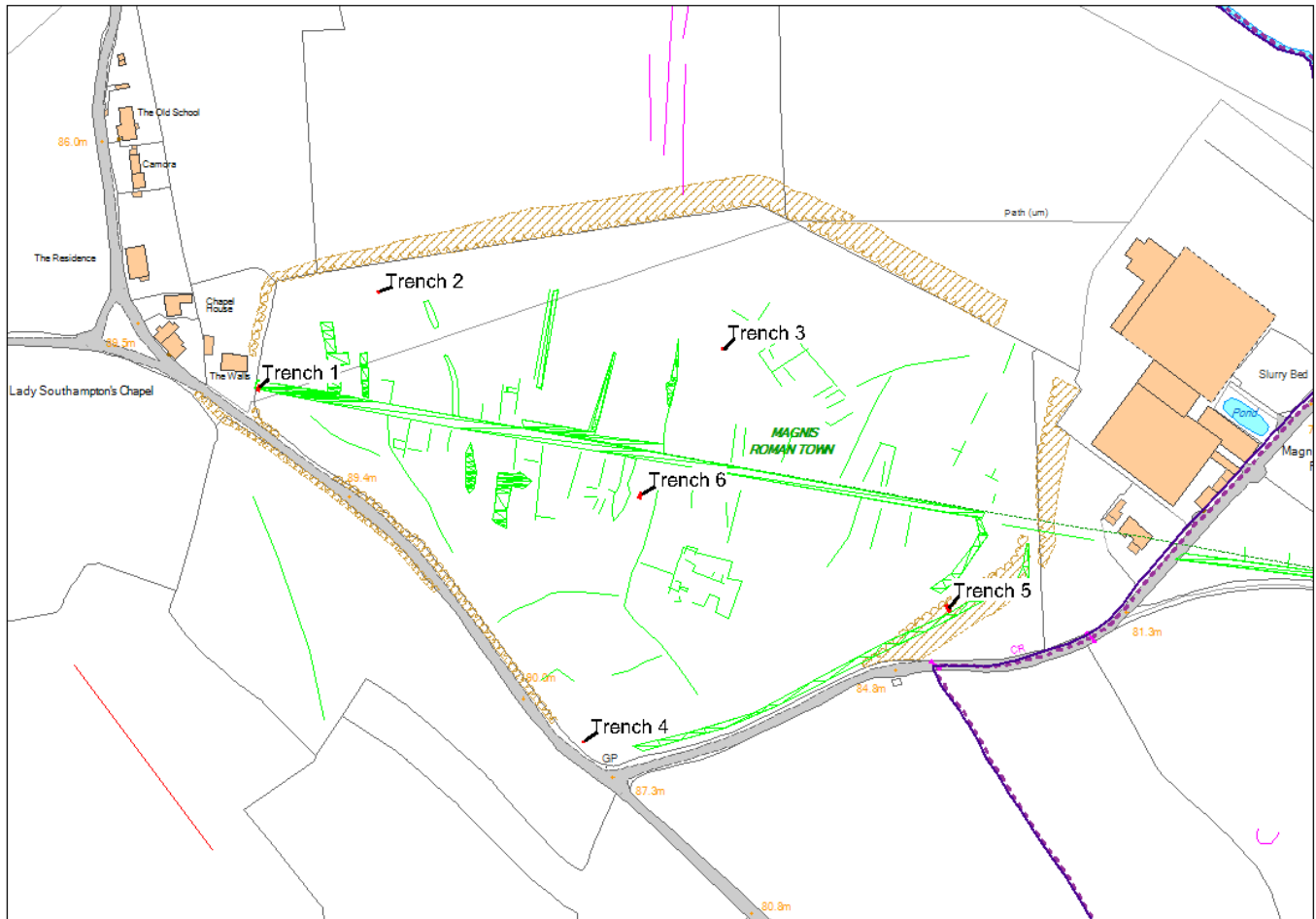


Figure 8: Trench location plan.

The metal detecting survey

A professional metal detector operator was contracted to systematically detect sample transects across the site in order to assess the presence / survival of metal artefacts.

It was clear that the site had been systematically detected on a number of occasions within the preceding months. Fresh, unauthorised holes were noted in abundance during a site visit on 9th December 2013 and there was similar evidence of recent unauthorised detecting when site work began on 13th March 2014. Whilst no individuals metal detecting were seen during the site work, three individuals were noted “field walking” whilst site work was being undertaken. These individuals were challenged and asked to leave the Scheduled Area. Upon returning to the site in order to backfill, (after an absence of one day), it was noted that two of the trenches (trench 6 and 3) had recent metal detecting holes within them.

A series of four transects were undertaken. The equipment used was set to detect objects containing copper alloy, as a test area with it set to all metals resulted in a large quantity of nails, wire and other modern metalwork being intercepted within only a few square feet. Two of the four transects were aligned roughly north / south whilst the remaining two were aligned roughly east west. All signals were investigated and

their position logged using a hand held GPS system. In addition to this all unauthorised metal detecting holes encountered on the transects were recorded.

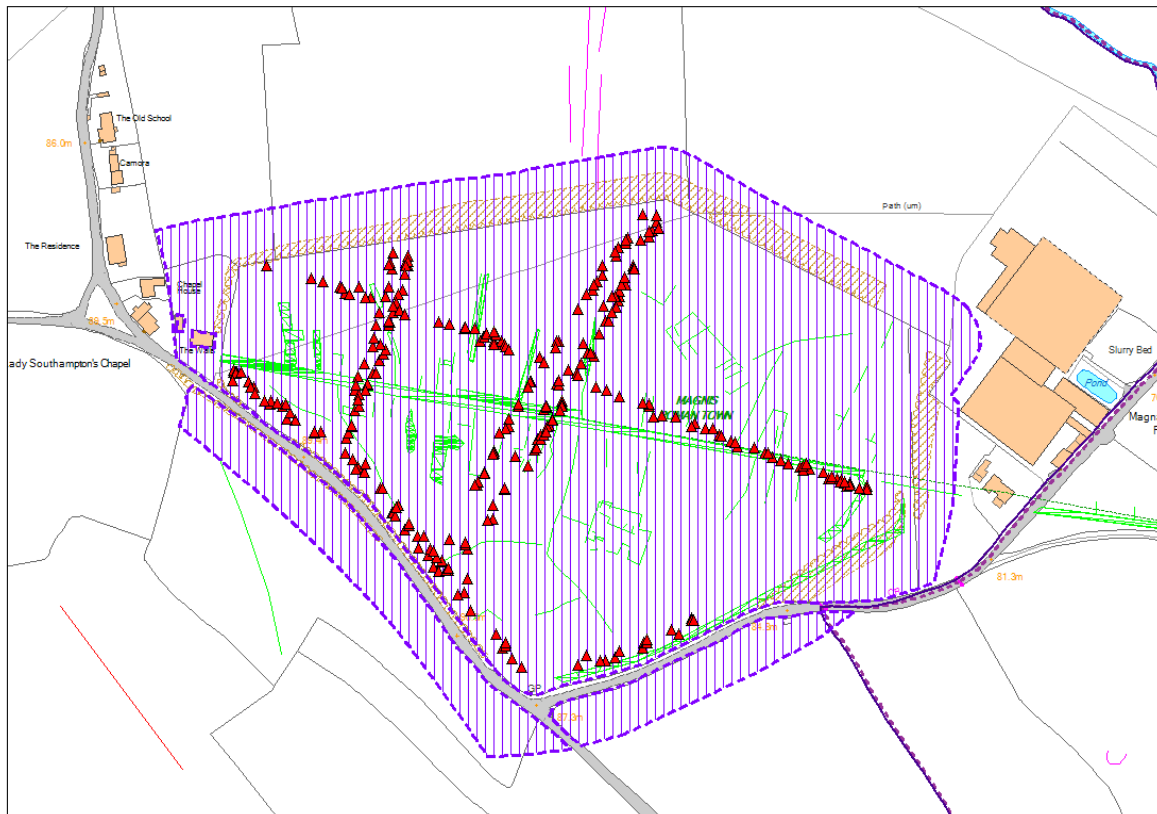


Figure 9: Plan showing all data plots recorded during the metal detecting survey, (this includes coins, metalwork and illegal metal detecting holes).

A total of 314 plots were recorded (figure 9). These included all metalwork and any unauthorised metal detecting holes. Of the 152 pieces of metalwork recovered, 55 were Roman coins. The remaining 162 plots were unauthorised metal detecting holes.

All recovered metal work was assessed at by Judy Stevenson, (Senior Collections Officer, Hereford Museum). The metalwork assemblage (figure 10), was predominantly made up of lead fragments. These, in the main, comprised small fragments of melted lead and small pieces of lead sheet, however two possible “pot menders” were recovered. Fifteen fragments of copper or brass were recovered. These were predominantly small fragments of irregular shape or clipped pieces of sheet. One single fragment of twisted copper wire was recovered. The remainder whilst containing some copper was predominantly iron and comprised nails, a Victorian coat hook, a gate hinge and other relatively modern objects. No significant Roman metalwork was retrieved from the survey transects.

The 55 Roman coins recovered during the metal detecting survey (figure 11), were mostly of low denomination. These include two second / early third century silver *denarii*, while the remaining 53 coins are copper alloy issues of the late first to fourth centuries. Most of the coins were in a good condition and 45 could be identified to an emperor’s reign or numismatic issue period. Of the coins that could be dated, four

coins were struck between the later first and early third centuries, 21 date to the later third century, while another 20 were issued during the fourth century. The fourth century coins included 14 Constantinian issues struck between 330-364 and 2 Valentinianic coins of the period 364-78 (Theodosian coins were absent from the assemblage).

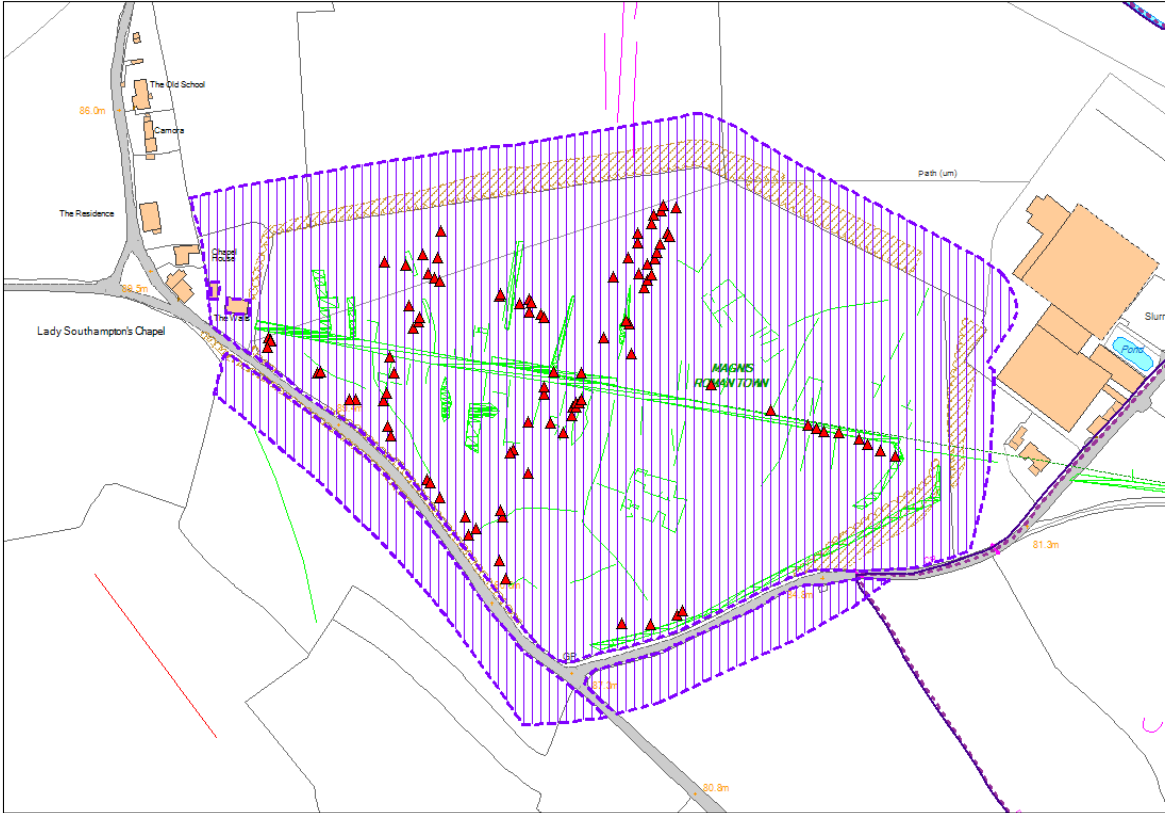


Figure 10: Plot of the metal work (minus Roman coins) recovered during the metal detecting survey

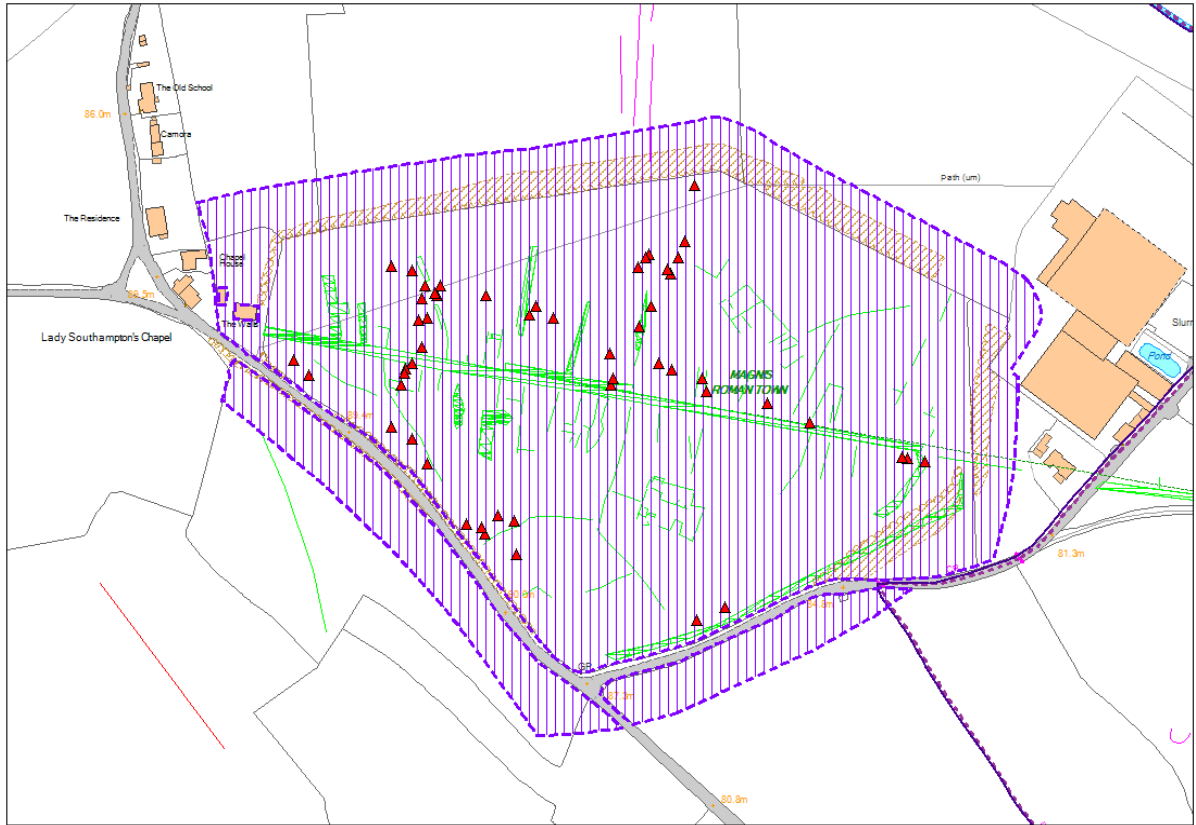


Figure 11: Plot of Roman coins recovered during the metal detecting survey

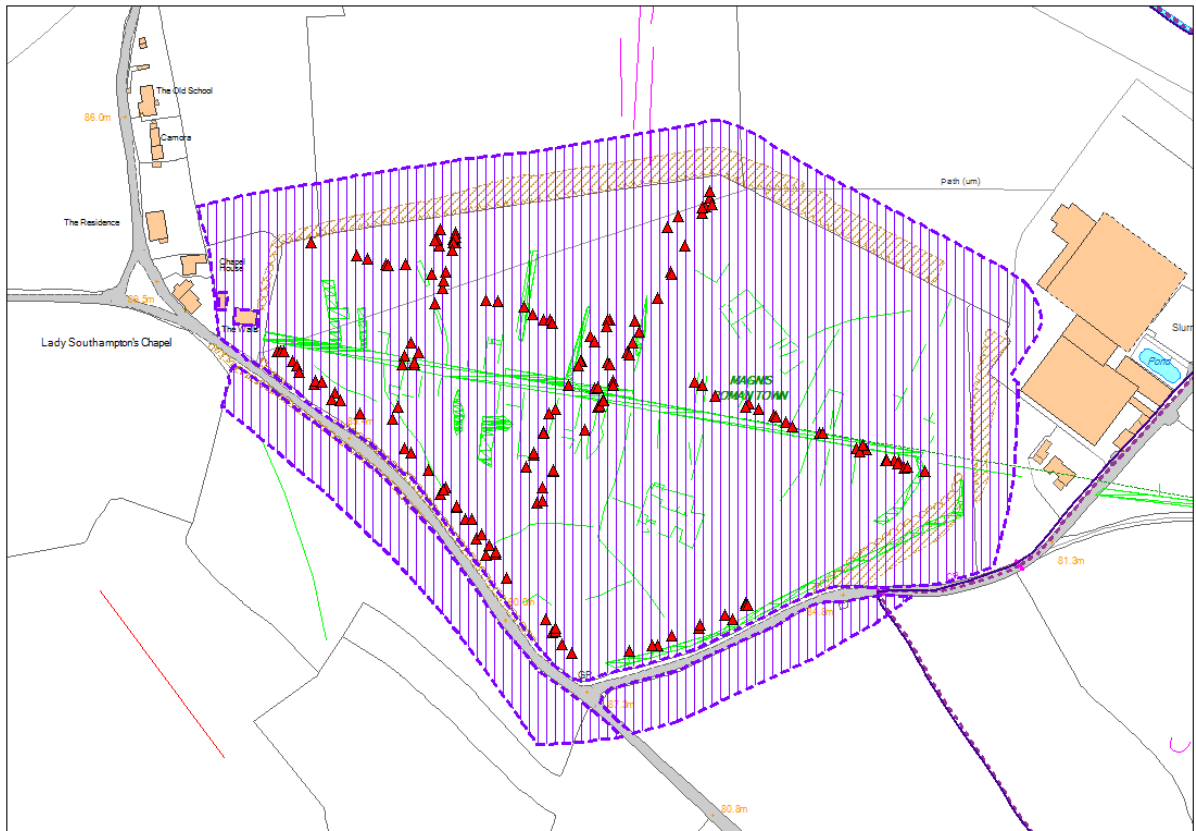


Figure 12: Plot of unauthorised metal detecting intrusions recorded during the metal detecting survey

The metal detecting survey has illustrated that although there is still a significant quantity of Roman coinage within the plough soil of the site, the remaining coins are almost all low denomination coins and small in size, (see Appendix 4). It was also evident that whilst a large quantity of metalwork exists on the site, very little of it is identifiable or of Roman date. Over 50% of the plot logged (162 out of a total of 314) relate to intrusions of unauthorised metal detecting (figure 12). The distribution of these intrusions along the transects is quite constant suggesting that the site is regularly and systematically subjected to unauthorised detecting. It was also noted during the survey that many of the metalwork fragments recovered were next to or in close proximity to old detecting holes / intrusions suggesting that much (if not all) of the metalwork recovered during this project has been found and discarded before, as it has no interest or commercial value to the finder.

It is therefore concluded that the results of the metal detecting survey have shown that the only metalwork which survives within the plough soil comprises the low interest and low commercial value artefacts. It should be noted that recognisable artefacts relating to post – Roman periods were absent from the assemblage, possibly suggesting that this material has also been removed. The absence of high denomination coinage or any recognisable, significant Roman metalwork would strongly suggest that the site has been and continues to be very heavily metal detected on every occasion that it has been ploughed or cultivated.

The Field Walking Survey

A series of seven, 10m by 10m grids were systematically field walked. Their locations were principally determined by the length of grass on the site. The reason for the field walking survey was to collect a representative sample of ceramic material in order for this to be assessed for recent plough damage / disturbance. 6 grids were aligned on a transect running roughly east – west whilst the 7th grid was located over an area where a quantity of building material was in evidence. Each grid was subjected to the total surface collection of pottery, building material and metalwork. For more detailed description of fabrics and quantities see Appendix 1.

Grid 1

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included an Oxfordshire parchment ware bowl dating to c AD 240–400.

Grid 2

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a body sherd from an Oxfordshire red colour-coated mortarium and two tiny fragments of samian.

Grid 3

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a body sherd from an Oxfordshire white mortarium and a small sherd of decorated samian.

Grid 4

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a small body sherd from an Oxfordshire red colour-coated mortarium (Young 2000, fig. 67, C97–C100), three tiny fragments of samian, and a Mancetter-Hartshill, hammerhead mortarium dating to the late 3rd or 4th century.

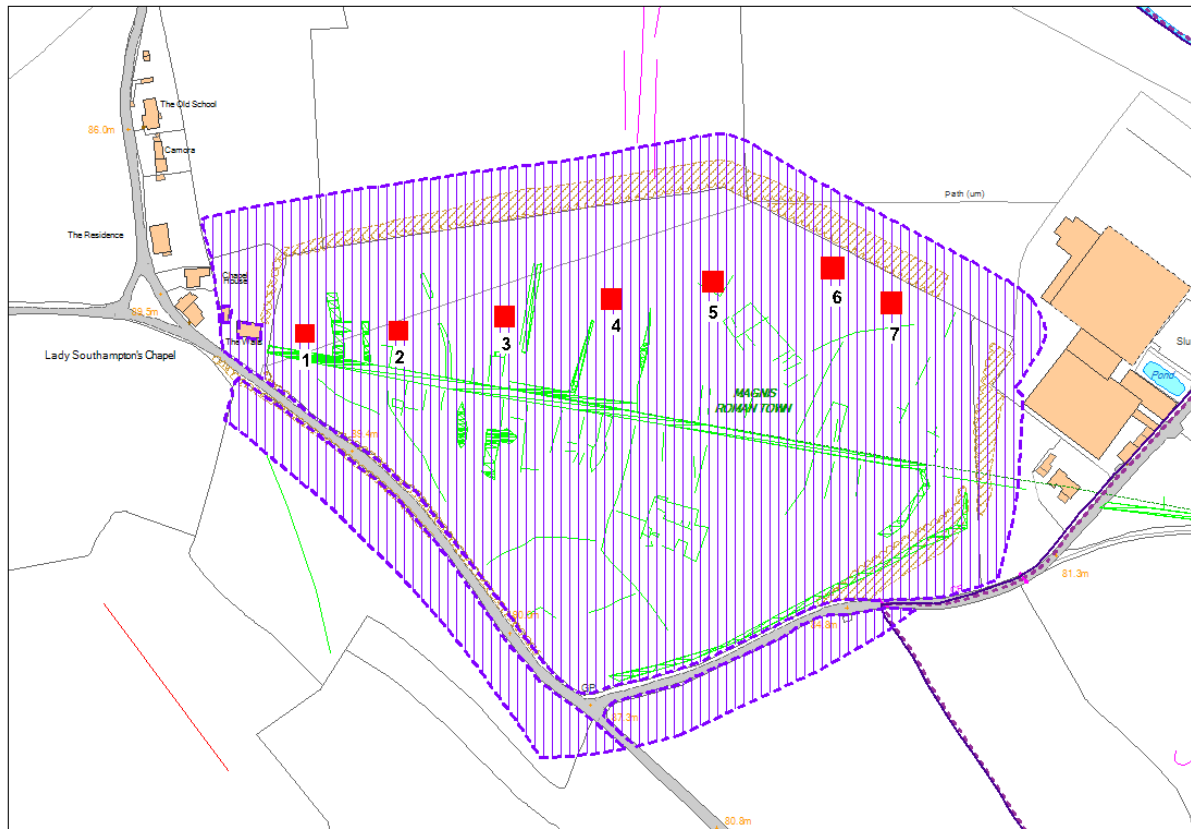


Figure 13: Location of grids field walked.

Grid 5

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included 16 sherds of samian; one with a rivet hole for repair, one decorated, and one re-used as a counter. Interestingly, three sherds of Severn Valley ware from this grid square also looked like they may have been reused as counters. The latest datable sherd was in Oxfordshire red colour-coated ware, indicating a date of c AD 240+.

Grid 6

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a sherd of decorated samian. The latest datable fragment was in Oxfordshire red colour-coated ware, indicating a date of c AD 240+.

Grid 7

This grid square produced the most building material, including 20 white, stone tesserae and fragments of box-flue tile with keying. The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a body sherd from an Oxfordshire red colour-coated mortarium and a sherd of decorated samian.

The material collected from the field walking would suggest that the vast majority of the ceramic material, both pottery and flue tile, is fragmentary and heavily abraded being consistent with material having been under cultivation for a considerable period of time. Few fresh breaks or recent impact marks were recorded, suggesting that much of the pottery and building material has already reached an average size that is small enough to be unaffected by modern cultivation methods. No metal artefacts (apart from two shotgun cartridge case bases and a plough share) were recovered during the field walking.

Comments from the pottery specialist comprised: One sherd from trench 2 had heavy cut marks which may have been caused by agricultural machinery, but otherwise there was little evidence of damage. No obvious fresh breaks were noted in the pottery or ceramic building material, from either field walking or trial trenching. This, combined with the very low average sherd weights, suggests that the pottery was derived primarily from the plough soil, rather than from previously undisturbed archaeological deposits. The date of the pottery indicates that these plough soil finds came originally from the uppermost, late Roman deposits. This is all consistent with the site having been deep ploughed in the past.

**Report by the Agricultural Advisor
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Harper Adams
University

Site Inspection Report

**Investigation and determination of agricultural cultivation operations at the site
of the Magna Castra Roman town**

**Prepared for Tim Hoverd - Archaeological Projects Manager, Herefordshire
County Council**

April 2014

1 Introduction

I was asked by the Archaeological Projects Manager at Herefordshire County Council to attend and investigate a field at grid reference SO 44084 42784 which is adjacent to Magna Castra Farm, Credenhill, Kenchester. The purpose was to investigate and subsequently provide an opinion on the sequence and type of agricultural operations that have recently taken place in the field. The field is understood to be the location of the Roman town of Magna Castra and extensive archaeological remains have been found within the field. The site is listed as a Scheduled Ancient Monument and is therefore subject to the protection that such a listing elicits.

I carried out the site investigation; I am the farms manager at Harper Adams University. Harper Adams University is an independent higher education provider operating as a registered charity (Charity No. 528384). Further information about the College can be found at www.harper-adams.ac.uk I have many years of experience of the management and operation of farms both in the UK and abroad. For the purpose of this report my investigations were confined to the agricultural aspects it is beyond my area of expertise to discuss the effect of any agricultural operations on archaeological features.

The site was attended 22nd March 2014; I was accompanied by Tim Hoverd (Archaeological Projects Manager, Herefordshire County Council) Dr Mike Allen (Allen Environmental Archaeology) and Lisa Moffett (Science Advisor, English Heritage). A series of pre-prepared excavation pits had been provided to expose the soil profile.

The following document comprises:

1. Introduction
2. Summary
3. Objective and Methodology
4. Surface Assessments
5. Sub-surface Assessment 0-20cm
6. Appendix 1 – Harper Adams University
7. Appendix 2 – Scott Kirby

Disclaimer

Whilst I consider that this work has been carried out in accordance with good industry practice, the University will not be liable for any use which may be made, reliance which may be placed, nor advice or information given, in connection with the results contained herein for commercial purposes.

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2 Summary

Within the last 12 months field SO 44084 42784 has been cultivated and a medium term grass ley sown. Prior to this recent grass crop the evidence suggests that the field was used to grow some form of brassica crop. No evidence was found of any previous permanent grassland.

Evidence suggests that to establish the current grass crop the field has been ploughed to an average depth of 20cm and that this has been followed by a secondary cultivation within the top 10cm which also included drilling. This secondary cultivation is likely to have been in the form of a power harrow drill combination.

It is likely that the field has been intermittently cultivated historically though it is not possible to establish the timings or types of cultivations that historically took place beyond the current crop. The most recent cultivation appears to have been more extensive than previously with field margins cultivated closer to the field boundary than previously.

No evidence was found that deep cultivations beyond 20cm such as sub-soiling or mole ploughing took place during the establishment of the current grass crop.

3 Objective and Methodology

Prior to visiting the site to carry out an inspection the following objective and methodology was agreed with the Archaeological Projects Manager at Herefordshire County Council. This then formed the basis of the site visit.

Objective

To examine the field at grid reference SO 44084 42784 which is adjacent to Magna Castra Farm, Credenhill, Kenchester and use evidence on site to describe the extent and type of cultivations that have recently taken place in the field.

Methodology

Surface assessment

- Detailed inspection of the entire field with particular attention to headland areas to identify any evidence of machine soil engagement positions and the working direction of equipment. Depending on the quality of operations this may include obvious landsides or tine engagement or removal marks.
- Initial inspection of the site to include the extent of the field and the cropped area, identification of the current cropping and observation for evidence of any previous crop/groundcover that has been removed by cultivation.
- Assessment of any surface tilth evidence to determine type and extent of secondary cultivation systems that may have been employed.
- Identification of any drilling technique and equipment that has been used to establish the current crop cover based on quadrant plant counts, spacing and distribution.
- Cone index measurements across a number of 3 metre transects, the orientation of the transects will be based on any field evidence that may reveal

the direction of cultivation. Transects should be 90 degree to the direction of likely travel.

- An initial on site assessment of cone index readings will be used to determine if sub-soiling has taken place and to determine the likely spacing of subsoil legs.
- All assessments will be carried out to both the cropped parts of the field and also on any undisturbed areas that may exist in order to allow direct comparisons of the effect of any cultivation.

Sub-surface assessment 0-20 cm

- Based on the identification of cultivation direction a number of shallow 0-20 cm cross sections at 90 degrees to the direction of travel will be assessed.
- The first objective will be to identify the type of cultivation based on the extent of inversion of the original ground cover. Full inversion will indicate traditional ploughing, mixing of the ground cover through the sub-surface profile is more likely to indicate disc or tine based systems.
- Evidence of a plough pan or smeared layer will be sought in order to determine the depth of cultivation and the type of cultivation equipment employed.
- Any undisturbed areas should also be assessed to provide direct comparisons.

Sub-surface assessment 20-40 cm

- If any of the earlier observations indicate that deeper sub-soiling has taken place then a number of shallow 0-40 cm cross sections 90 degrees to the likely direction of travel could be assessed.
- The objective will be to determine the working depth at which operations took place.
- By exposing the lower point of any sub-soiling activity it may be possibly depending on soil conditions to identify the shape and therefore the type of sub-soiling tine that may have been employed.
- By extending any cross section it would be possible to determine the tine spacing and therefore the likely extent of damage across the field.
- Any undisturbed areas should also be assessed to provide direct comparisons.

All assessments will be subject to suitable soil conditions allowing assessments to take place and any restrictions to protect archaeology.

4 Surface Assessments

The field extends to 8.99 ha and has a perimeter of 2,204 metres. The south eastern and south western boundaries are bounded by a road. To the north are further grass fields and to the east Magna Castra farm, gating and track layouts suggest that the field is part of Magna Castra farm and that access to the field is frequently via the farm yard.



Figure 1 – extent of field inspection (shown in green)

The ground cover of the field was observed to be grass, the plants are relatively young as indicated by the number of tillers averaging 5 and ranging from 4 to 6 as shown in figure 2. The growth stage of the plants would suggest that the field was sown in the mid to late part of 2013.



Figure 2 – Grass crop development

Detail of the seed mixture that has been sown in the field were provided by Tim Hoverd. The mixture consists of Abercho (Lolium boucheanum), Aberglyn (Lolium

perenne) and Abermagic (*Lolium perenne*) all three are high sugar varieties typically used in intensive grass grazing or cutting situations. The mixture is considered to be a medium term mixture with a typical life expectancy of 4.5 years. It is likely that under a typical intensive dairy regime that the mixture will deteriorate and the field will need to be re-sown by 2018.

The grass is sown in distinctive rows typical of a drill rather than a broadcast system, rows are spaced at 11 cm this is consistent with a tine or coulter based drill. At regular 3 metre intervals (figure 3) there are indications of bout intersections where the edge of a machine has left a disturbed soil line and plant rows are not parallel to the adjacent row (figure 4). This is consistent with the use of a 3 metre wide power harrow drill combination unit being used to cultivate the surface to create a seedbed and then drill the grass immediately behind the cultivation.

The distribution and direction of plant rows suggests that the field was drilled in a west to east direction at 91 degrees. Drilling seems to have started from the northern boundary of the field where a headland is absent. A 12 metre wide headland surrounds the western, southern and eastern boundaries and is consistent with 4 passes with a 3 metre machine (figure 5).

The evidence suggests that the secondary cultivation and drilling of the grass crop were carried out using a 3 metre wide power harrow drill combination.

No evidence was found of any operations after drilling such as flat rolling which would frequently be seen after grass sowing.

There was evidence in the form of wheel marks that fertiliser application had taken place in recent weeks at 24 metre bout widths.

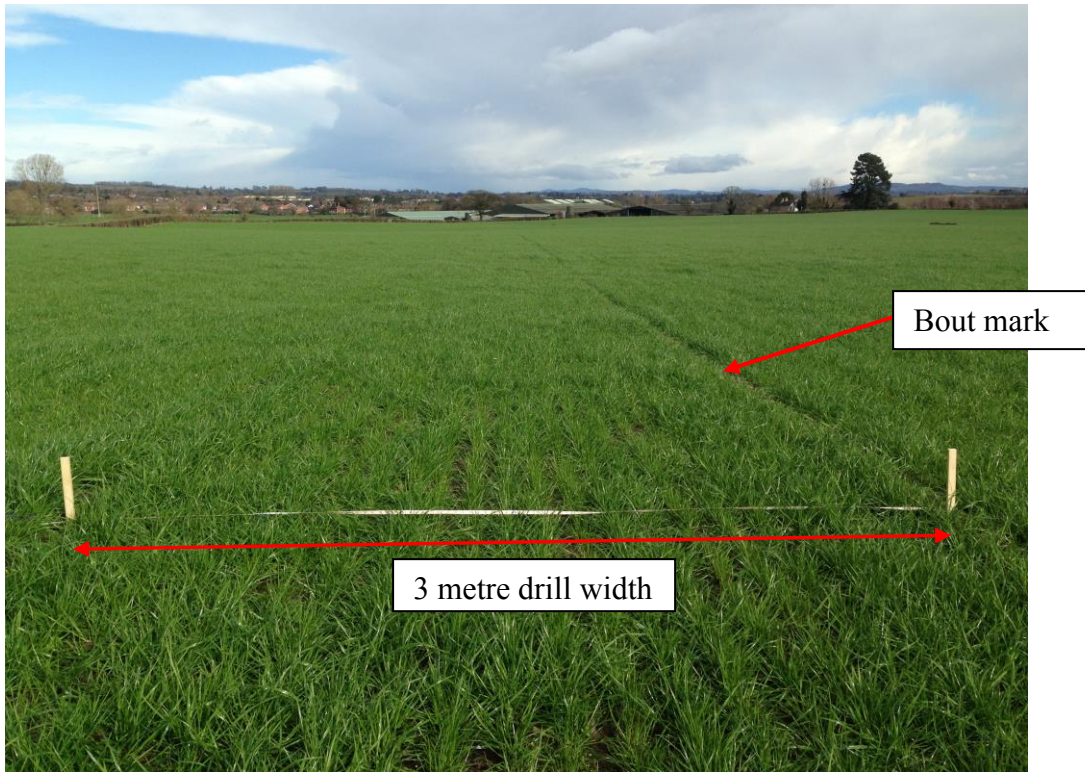


Figure 3 – drill width evidence



Figure 4 – Power harrow bout intersection

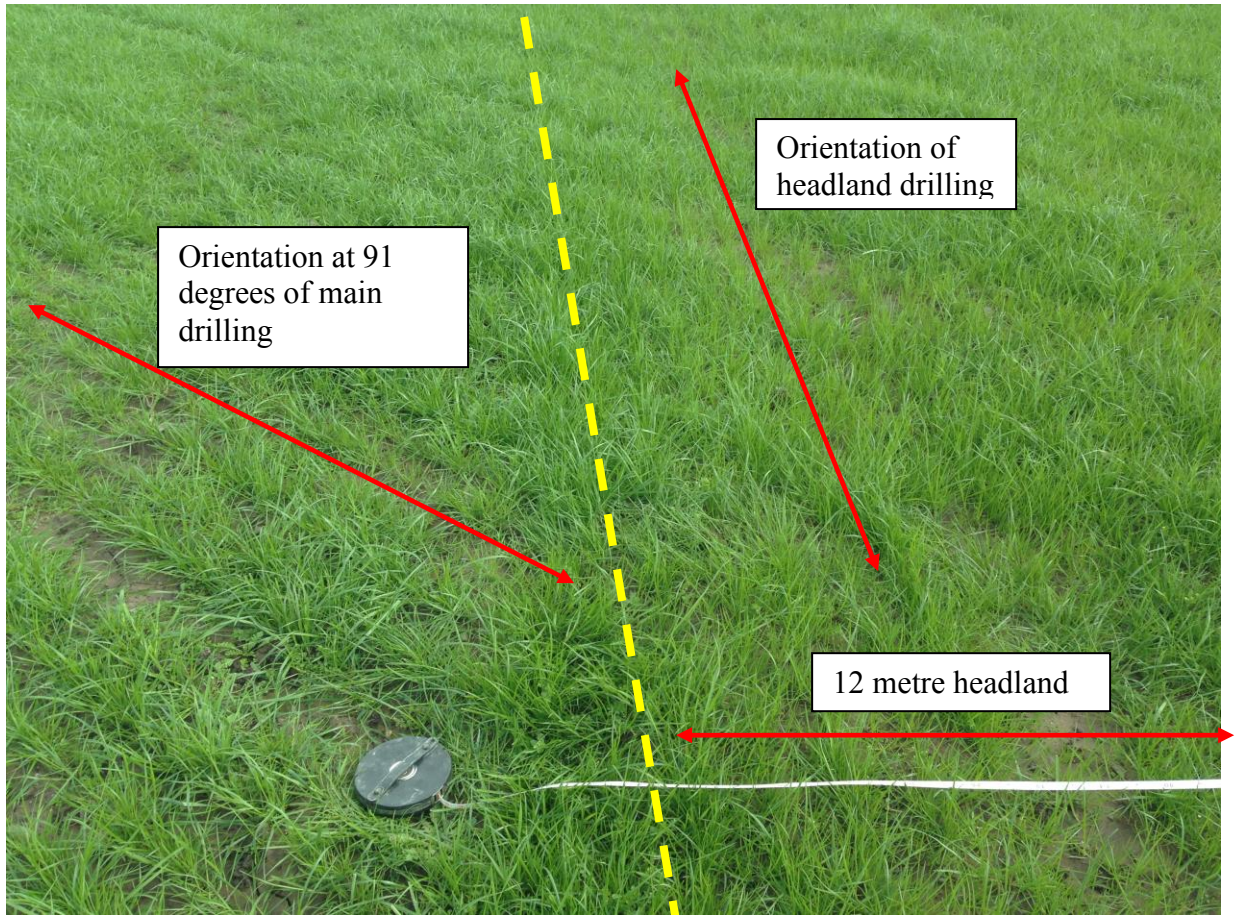


Figure 5 – Headland patterns characteristic of the use of a power harrow drill combination

In parts of the field small amounts of plant residue could be found (figure 6), this material appeared to be a brassica type plant and is consistent with the type of residue that can be found following a brassica based crop such as Kale, Oilseed Rape or Forage Rape.



Figure 6 – Brassica residue

Cultivations have been carried out to within 0.8 metres of the field margin this prevented the direct comparison of uncultivated parts of the field with the cultivated parts. Around the perimeter of the field there was considerable evidence of damage to tree roots. Much of the damage to roots is confined to the 1 metre wide strip around the perimeter of the field; within this zone the damaged roots were up to 14 cm in diameter (figure 7). This indicates that cultivation has not taken place for some time previously at tree root depth in this 1 metre perimeter strip zone.

Beyond the 1 metre perimeter strip no evidence of root damage was observed this may be due to the removal of any damaged roots from the field or may indicate that cultivations over a period of time have prevented the establishment of tree roots in this zone.



Figure 7 – root damage

5 Sub-surface Assessment 0-20cm

A number of excavated pits were inspected; the pits provided access to the soil profile and were orientated variously thereby providing access to cross sections covering all potential directions of travel for farm machinery.

The soil profiles revealed notably consistent soil types, structures and depths throughout the field, the soil is a loamy textured material, with good structure and glacial gravel throughout creating a soil that appears well drained. The profile shown in figure 8 was located in the southern part of the field and demonstrates the features found in each of the prepared inspection pits.

The profile showed 4 distinct phases

1. The top 8 cm has a looser granular structure with finer less rigid aggregates, this is typical of the structure created by power harrows breaking up a cultivated

surface to create a finer seedbed; the root penetration in this zone demonstrates the desired effect of the secondary cultivation.

2. Between 8 and 18 cm there is a loose but blockier structure than the top, this is consistent with the inversion and mixing created by primary cultivation.
3. A trash layer was identified at a depth of about 20cm throughout the inspection pits; the trash layer was in the form of a narrow band of 2-3 cm.
4. The soil profile below the plough depth (20cm) frequently demonstrated a normal blocky structure characteristic of a normal soil that has had little disturbance recently.

The trash layer is consistent with the use of a plough fitted with skimmers; the skimmers are designed to bury the turf or residue found on the surface of a field. The skimmer slices off the top layer (maximum 10cm) and throws it into the bottom of the furrow where it is then covered by the inverted furrow creating the distinctive trash layer. The depth of the trash layer at 20cm suggests that ploughing has taken place across the field at a target depth of 20cm. The band contained high levels of organic matter and was removed for inspection (figure 9) the material was distinctive and matches the characteristics of the brassica residue that was also found on the field surface.

No evidence could be found in the soil profile of any turf residue, had the field been in permanent pasture in the previous year I would have expected to have found evidence of a well-established turf residue in the profile. If the field was in grass previously it would appear to predate the brassica found in the trash layer.

At no point in any of the pits in any orientation could evidence be found of any cultivation below 20 cm. As a result of this the decision was taken to not carry out any investigation below 20cm or risk damage to archaeological remains by taking penetrometer readings below 20cm.

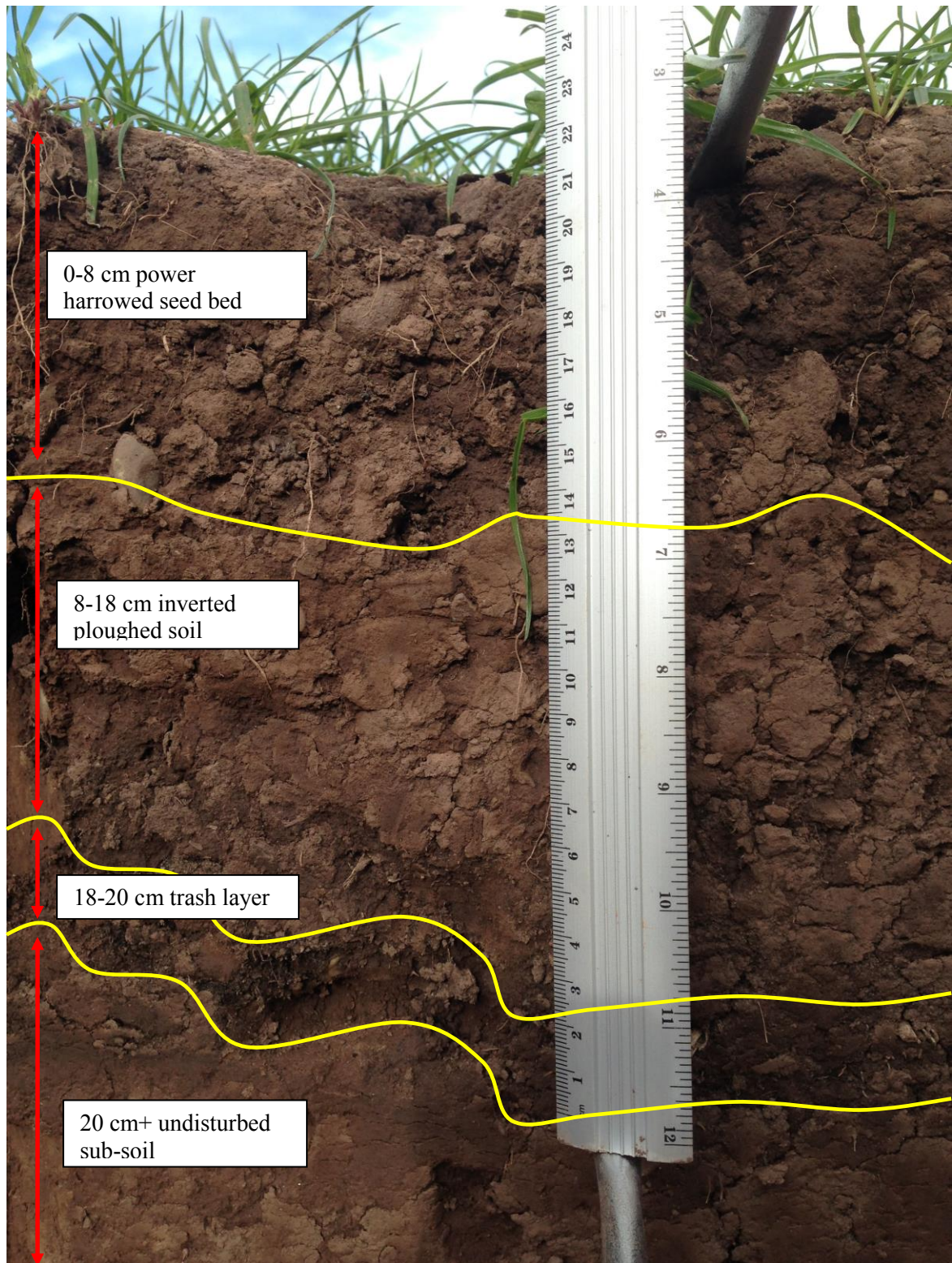


Figure 8 – soil profile – southern part of field



Figure 9 – Brassica residue removed from a layer at 20cm depth

Along the Northern edge of the field (figure 10) a landside was observed, this structure is characteristic of the use of a plough as the main primary cultivator. The landside is formed by the cutting action of the plough inverting the soil and throwing it against the adjacent furrow, this leaves a distinctive trough and adjacent cut edge referred to as a landside it is formed at the last pass of the plough.



Figure 10 – Landside formed by plough

**Report by the Geo-archaeologist
Dr. Mike Allen**

**SITE OF THE ROMANO-BRITISH TOWN MAGNA, KENCHESTER,
HEREFORDSHIRE**

***Geoarchaeological investigation and record of modern ploughsoil in relation to
potential damage to in situ Roman archaeological deposits***

by *Michael J. Allen, PhD, MIFA, FLS, FSA*

**version AEA 236.01.01
22nd April 2014**

**for:-
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SITE OF THE ROMANO-BRITISH TOWN MAGNA, KENCHESTER, HEREFORDSHIRE

Geoarchaeological investigation and record of modern ploughsoil in relation to potential damage to in situ Roman archaeological deposits

The Scheduled Ancient Monument, the Roman town of Magna Castra, adjacent to Magna Castra Farm, Credenhill, Kenchester, Herefordshire was subjected to unauthorised ploughing and dumping of slurry. Herefordshire Archaeology, under the direction of Tim Hoverd hand excavated six test pits at locations spread across the field including over the Roman ramparts (Fig. 1). The site was visited on 22nd March 2014 in the company of Tim Hoverd (Archaeological Projects Manager, Herefordshire Archaeology, Herefordshire County Council), Lisa Moffett (English Heritage Science Advisor), and Scott Kirby (Farms Manager, Harper Adams University). All profiles exposed in the test pits were examined with T. Hoverd and recorded to examine the depth of ploughing and potential impact upon *in situ* archaeological deposits.

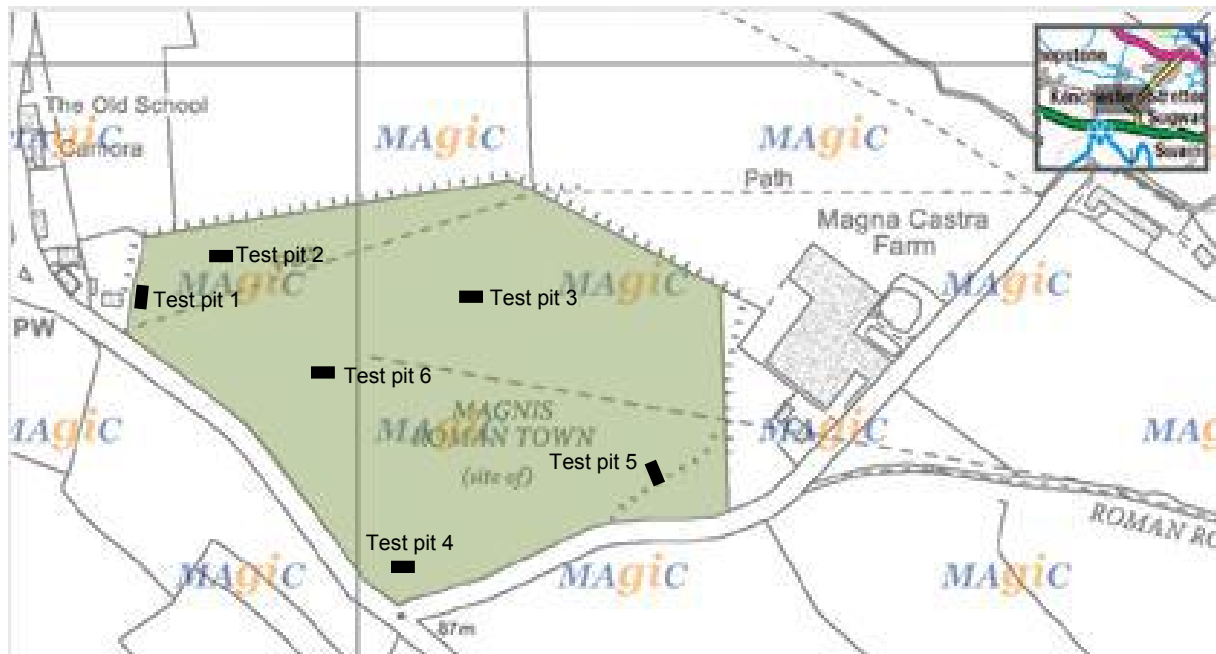


Figure 1. The Site and approximate location of the six test pits examined.

Aims

The aims of the investigation reported here were to examine and record the profiles with a view to

- Examining the depth of the recent ploughing
- Recording evidence of previous ploughing episodes

-
- Examine the physical or potential damage to *in situ* archaeological deposits as a consequences of the recent/last ploughing episode

Topography, Geology and Mapped Soils

The site lies on a bench below the hillfort of Credenhill, and overlooking the Yazor Brook valley. The area is mapped as hummocky glacial deposits (Devensian diamicton, sand and gravels), over Ragland Mudstone Formation comprising interbedded siltstone and mudstone. The soils are mapped as typical argillic brown earths of the Bromyard Association (Findlay *et al.* 1984) with typical stagnogely soil of the Verlands Association in the Yazor Brook valley to the south.

Method

The six hand dug test pits were inspected with Dr Scott Kirby (Harper Adams University) in the presence of Tim Hoverd (Herefordshire Archaeology) and Lisa Moffett (English Heritage). The profiles were recorded following standard pedological notation (Hodgson 1976), and moist soil colours recorded in daylight conditions using a Munsell chart, and photographed (Appendix 1). The profiles were examined to record the depth of the plough soil, and in particular the contact with any archaeological deposits. Care was taken to attempt to record the presence of damage to, and removal of, any archaeological contexts as a consequence of plough action.

Undisturbed monoliths sampling the full exposed profile were taken from trench 4 (Monolith 1, 50cm), and trench 5 over the rampart (Monolith 2, 25cm).

Surface investigation

The area was investigated for traces of surface disturbance, and was largely recorded and reported by S. Kirby.

Profile examination

Profiles exposed in the six test pits were examined. All profiles were cleaned, visually examined, and measured descriptions taken and the described profiles photographed.

Descriptions included soil colour (Munsell), texture (field hand texturing), stoniness and clast form, structure (size, shape, form, distinctiveness), roots (size and occurrence), inclusions, mottles etc, horizon thickness, and boundary form and nature.

The *in situ* un-ploughed soil profile and any archaeological deposits were distinguished from the ploughed soil profile.

Profile description and examination defined the thickness of the physically disturbed deposits (i.e. cultivation) and this was compared with intact unploughed soil/sediments and intact archaeological deposits.

The boundary at the base of the disturbed (cultivated deposits) with the intact unploughed and *in situ* 'archaeological' contexts was carefully examined.

Sampling

Samples of undisturbed soil were removed in metal monolith tins from two selected profiles.

These act as a sediment archive and will facilitate more detailed examination in laboratory conditions, and further subsampling. Further work over and above this report can include:-

- More detailed examination and description in controlled laboratory conditions at AEA Allen Environmental Archaeology laboratory facilities
- Subsampling for soil thin section manufacture and soil micromorphological examination
- Subsampling for soil chemical properties (e.g. pH, phosphates, magnetic susceptibility etc) as, and if, appropriate.

Such examination may assist in elucidating changes and differences between the disturbed (ploughed) and undisturbed deposits, and thus assist in quantifying any potentially deleterious effects on the *in situ* and disturbed archaeological deposits and their contained artefacts and ecofacts.

Assessing effects

The physical and chemical effects of cultivation and slurry deposition were evaluated in terms of physical disturbance and incorporation into a mixed plough zone (Ap). Changes in chemical composition can be considered in terms of the potential long-term effects on artefacts and ecofacts.

Results and Effects

The depth of the last cultivation disturbance could be clearly identified in the field and the Ap (ploughed) was characterised in by a loose upper tilth, the main plough horizon and, in a number of cases, evidence of the inverted former surface with Brassica stems. These three horizons are created by specific tillage methods, and remain distinct because of the relatively short time between tillage and recording. The mechanism of tillage formation of these observed horizons is reported by Kirby.

Recent cultivation was recorded to depths of between 16cm (test pit 3) and 23cm (test pit 1), with an average of 15.9cm (Table 1).

Recent Ploughed Disturbed horizon

The three horizons within the ploughzone were defined as:-

Ap (1) the upper portion was typically loose small crumb structure (typical of a fine harrow cultivated tilth) [the harrowed seed bed] over

Ap (2) the main portion was weakly structured homogeneous loosely compacted but firm soil [(inverted) ploughsoil]

Ap (3) a humic, often almost greasy horizon (inverted turf/surface) containing many stems, with small blocky or large crumb structure, sometimes deformed or flattened [trash layer]

The lower boundary was typically sharp and smooth, to abrupt. Occasionally (test pit 2) clear cultivation 'furrows' could be seen in the top of the undisturbed deposits.

The ploughsoil was firm with clear disturbed structure of a soil that had not been under persistent long-term cultivation, and some good soil structure had developed prior to cultivation.

<i>Test pit</i>	<i>Ploughsoil zone</i>	<i>Recorded depth</i>
TP 1	Ap 1 Ap 2	0-15cm 15-23cm
TP 2	Ap 1-2 Ap 3	0-15cm 15-20cm
TP 3	Ap 1-2 Ap 3	0-16cm 15- 16.5cm
TP 4	Ap 1-2 Ap 3	0-18cm 18-23cm
TP 5	Ap 1 Ap 2 Ap 3	0-12cm 12-15cm 15-17cm
TP 6	Ap 1-2	0-21cm

Table 1. Recorded depth of ploughsoil horizons

Former plough disturbed horizon

In one location (test pit 5) below the present disturbed and cultivation horizon was an horizon of firm, previously disturbed (ploughed) soil, below the current ploughsoil and above the undisturbed (A – A/B) soil horizon. This suggests the occurrence of former and deeper soil disturbance or ploughing at some considerable time prior to the present recent activity.

Contact with undisturbed deposits

The contact with undisturbed deposit was sharp (or sharp to abrupt) in most cases (83%, n. = 5) and where *in situ* deposits clearly of an archaeological nature were present (test pits 3, 6 and 5), ploughing would have sharply planed off the upper surface.

Nature of undisturbed archaeological deposits

Two distinct *in situ* archaeological deposits were recorded. The first was upcast parent material ('natural') forming the rampart on the eastern side of the town exposed in test pit 5. Here the archaeological deposits are essentially sterile redeposited upcast natural geology excavated from the ditch. The second was a dark friable occupation soil (rural dark earth) containing artefacts as seen in test pits 3 and 6 within the centre of the Roman town.

Contact with archaeological deposits (i.e. rampart and 'occupation soil')

As discussed above the contact was sharp or abrupt, and in some cases the base of the individual cultivation furrow could be clearly seen at the base of the plough soil as it ran over or cut into the undisturbed deposits. In the rampart (test pit 5), it is clear that in the inner edge of the rampart the recent ploughing had not gone as deep as previous plough-event. The top of the rampart was clearly immediately

beneath the ploughsoil, and the rampart itself was a very firm and stiff. The degree of any truncation is discussed below.

Within the Roman town, an occupation soil or rural dark earth was present (test pits 2 and 6), and the contact here was also sharp as inverted surface soils (trash layer) occurred immediately above the archaeological deposits. The archaeological deposits here, unlike the rampart were more friable, and would provide less resistance to any cultivation implements.

Presence of archaeological deposits or material in the disturbed / cultivated profile

The rampart (test pit 5) was clearly a different colour and matrix to the ploughsoil above. The section was carefully examined by eye, and with hand lens, for evidence of any fragments of slighted rampart incorporated with the ploughsoil. None were noted. This can be examined further under laboratory conditions from the sample (monolith 2) taken through this deposits, and examined analytically via the production and analysis of a soil micromorphology thin section which can be made from the sample if required.

The occupation deposits (test pits 2 and 6) were less obviously different from the ploughsoil and thus recognising any soil relicts in the ploughsoil would have been difficult had they been present. Nevertheless, no artefacts or obvious significant displacement of the archaeological deposits into the ploughsoil was noted.

How much damage or truncation of the in situ archaeological deposits and the archaeological monument as a whole has occurred?

Recognising the truncation or damage to the *in situ* deposits is difficult, as discussed above, and quantifying that in absolute terms is almost impossible from visual inspection alone. However, there seemed to be little if any obvious damage to the rampart where evidence would have been more readily noted. It is considered that here any damage to the preserved archaeological deposits seems to have been minimal, and that the cultivation machinery may have largely 'ridden over' the stiffer and firmer archaeological deposits. In some highly localised areas the recent ploughing did not penetrate as far as a previous plough event and thus in some small areas (on the inside of the rampart) it was demonstrable that no damage to the archaeological deposits had occurred as a result of the recent plough event. This is, however, a very small strip of probably 0-3m width on the inside of the bank, where the bank is perpendicular to the direction of cultivation.

Within the interior of the Roman town damage to the archaeological deposits was more difficult to ascertain. Although some slighting of the archaeological deposits is highly probable, it seems likely that in this instance the disturbance of previously undisturbed deposits was limited and minimal. Continual recurrence of ploughing will, however be seriously deleterious by continual attrition of these fragile and significant deposits.

Potential further Analysis

In order to clarify and quantify the inclusion of undisturbed deposits with the ploughsoil further investigate would could be undertaken which includes

i) examination and laboratory description of the profiles from test pit 4 and 4, samples in 50cm and 25cm monoliths; samples 1 and 2 respectively.

ii) Subsampling of the described monoliths for soil thin section manufacture and analysis

Conclusions

Ploughing has been to a depth of about 20cm, but up to 23cm.

In the main this has been over well-developed, undisturbed soil profiles and undisturbed *in situ* archaeological deposits. Urban dark earth or occupation deposit was present within the interior of the Roman town (TP 3 and 6), and redeposited parent material of the preserved Roman rampart was also observed (TP 5).

There was no direct visual proof of disturbance of the archaeological layers, but this is assumed to have occurred and been incorporated into the ploughsoil and have been essentially unrecognisable in visual observation.

The slighting of the rampart seemed to be minimal, and at this location a former disturbed horizon indicated former plough events to a deeper depth.

It is likely that the occupation deposits with the Roman town have been slighted, and the archaeological deposits and artefacts associated with it have become admixed within the ploughsoil. This is in part evidenced by the large number of artefacts recovered by recent fieldwalking (T. Hoverd pers. comm.)

There is likely to have been truncation, damage, slighting and disturbance of the *in situ* archaeological deposits. However this is deemed to be relatively limited to minor.

It is considered that the upper profile (at least 15cm) was probably subject to both previous cultivation, and long term soil bioturbation (A horizon formation) disturbing, disrupting and altering *in situ* archaeological deposits. Ploughing will have slighted the archaeological deposits, probably by up to a couple of centimetres (1-3cm).

Damage has been done to the deposits. Overall the nature of that damage seems to be slight to minimal.

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April 2014

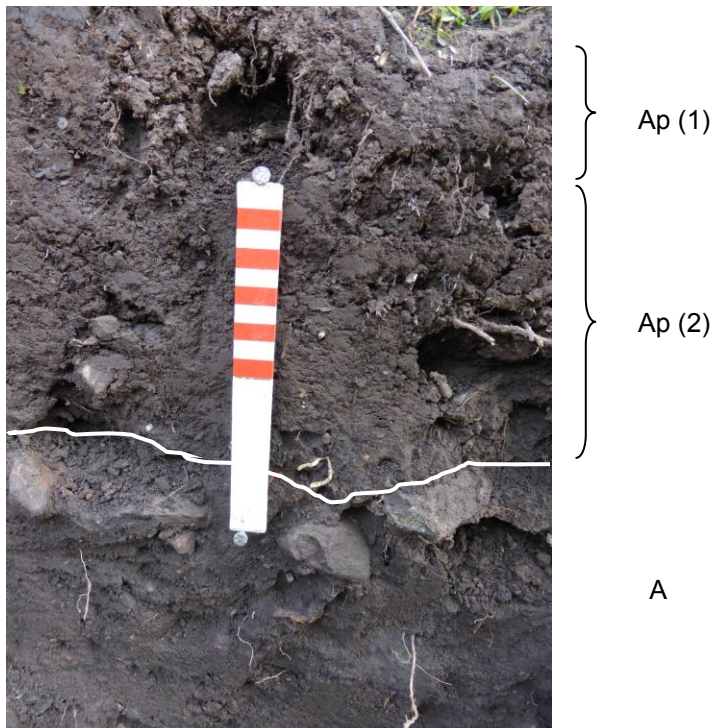


APPENDIX: profile records

Test pit 1 (east section)

Depth (cm)	Horizon	Description
0-23	Ap (1-)	Very dark greyish brown (10YR 3/2) humic silty loam, loose and friable, with rare small and medium stones, weak medium crumb structure, becoming denser at 15cm, abrupt wavy to smooth boundary
23-40+	A – A/B	Very dark greyish brown to very dark grey (10YR 3/2-1) dense silty loam, massive and structureless, but firm, some fine fibrous roots, rare medium fibrous roots, common medium and large stones

Note: the opposite profile the Ap is 15-18cm deep over stones with clear plough strike on some of the stones





Test pit 1

Test pit 2

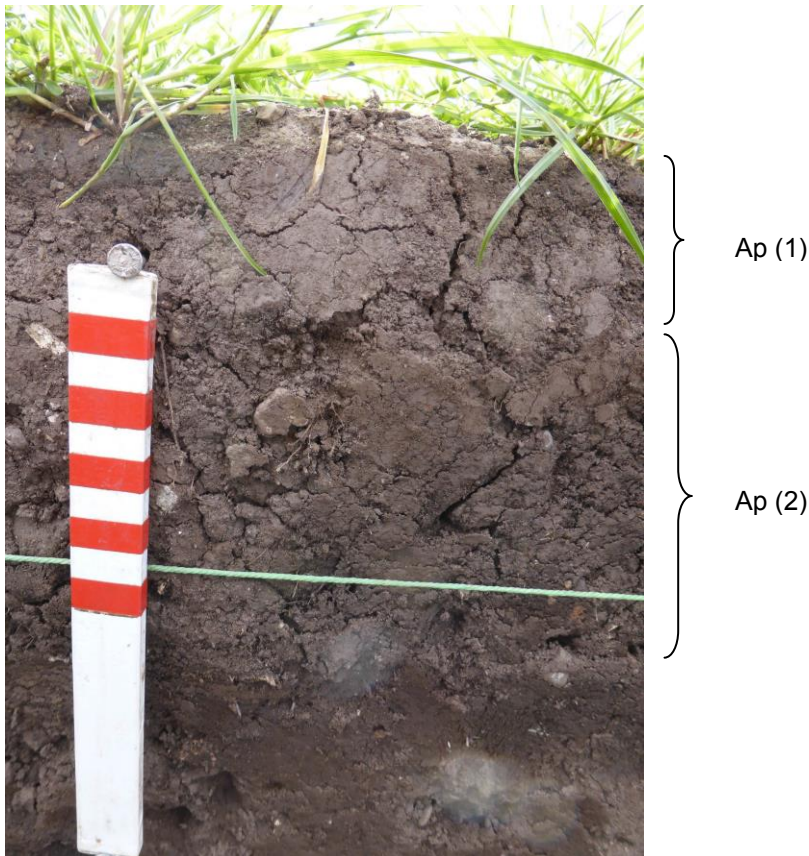
Depth (cm)	Horizon	Description
0-15	Ap (1-2)	Very dark grey (10YR 3/1) humic silt loam with loose weak crumb structure, rare small and medium stones, toward base structure becoming firmer and possibly small blocky or large crumb structure abrupt to sharp smooth boundary
15-20	Ap (3)	Very dark grey (10YY 3/1) humic silt many roots, possible small medium or large crumb structure (inverted soil), sharp boundary
20-31	A – A/B	Very dark greyish brown (10YR 3/2) massive, firm, stone-free silt to silt loam



Test pit 2

Test pit 3

Depth (cm)	Horizon	Description
0-16	Ap (1-3)	Very dark grey (10YR 3/1) humic silt loam with rare small stones, clear large crumb /small blocky structure, weak and friable to 10cm depth, rare fine fleshy roots 10-16cm as above but stiffer, less structure. The boundary is abrupt to sharp, elsewhere displays a zone of 15mm thick of brassica stems and common roots (invested soil), sharp boundary
16-32+	A to A/B	Very dark greyish brown (10YR 3/2) massive, very firm, rare small and medium stones, rare fine fleshy roots (almost a rural dark earth –archaeological deposit)



Test pit 3

Test pit 4 (north section)

Depth (cm)	Horizon	Description
0-18	Ap (1-2)	Brown (7.5YR 4/4) humic silty loam, almost stone-free with rare small stones, weak small to medium crumb structure, the upper 0-2cm looser and 12-18cm has small to medium crumb structure, which is firm, sharp smooth boundary
18-23	Ap (3) Ah	Dark brown (7/5YR 3/2) stone-free humic silt, massive structure to weak insipient weak platy structure or deformation features, line of brassica stems (inverted soil), sharp smooth boundary
23-44	A – A/B	Brown (7.5YR 4/3) firm massive stone-free silt to silt loam, rare fine fleshy roots

A 50cm long and 8cm wide monolith (sample 1) was taken through this full profile

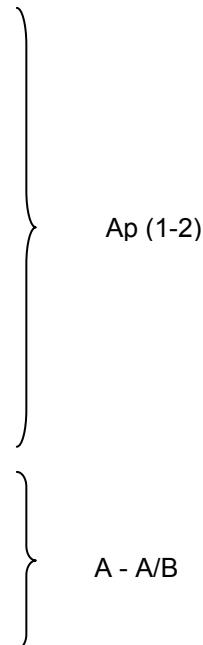


Test pit 4

Test pit 5 north section on rampart

Depth (cm)	Horizon	Description
0-17	Ap (1-2) Ap (3)	Very dark greyish brown (10YR 3/2) humic silt loam, rare small stones 0-12cm loose, firm medium crumb structure 12-15cm as above but more compact/cohesive 15-17cm darker (10YR 3/1) possibly humic, silt loam with many fine and medium roots, rare small worms noted, small finer structure – a former plough zone Abrupt to sharp smooth boundary
17-27	A to A/B	Dark greyish brown (10YR 4/2) stone-free massive silt to silt loam, (up cast parent material i.e. archaeological deposit - bank)

A 25cm long and 8cm wide monolith (sample 2) was taken through this full profile
On the opposite section the same profile was seen with a clear recent Ap extending down into the former (recent) plough depth. No evidence of the rampart deposits was seen as small fragments (hand lens) in the plough soil suggesting that there had been no recent disruption of this *in situ* archaeological rampart deposit.



Test pit 5

Test pit 6

Depth (cm)	Horizon	Description
0-21	Ap (1-3)	Very dark grey (10YR 3/1) loose humic silt loam, almost stone-free, common fine roots, rare medium roots, weak crumb structure to 6-10cm depth, large weak crumb to small blocky structure to 21cm 18-21cm, zone of very dark brown humic silt loam with many fine and med sum roots (inverted soil), in places sharp or abrupt boundary with brassica stems and other roots at boundary
21-44	A – A/B	Very dark greyish brown (10YR 3/2) massive firm silt to silt loam, few medium stones below 30cm – archaeological deposit – rural dark earth



Ap (1-2)

A –A/B

Test pit 6

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7. Conclusions and Recommendations

The works described within this report were designed to provide information concerning the types of agricultural activity which have taken place within the Scheduled Area over the preceding eighteen to twenty-four months and the affect that those unauthorised activities may have had upon the archaeological resource.

During this time period, Herefordshire Archaeology and English Heritage received a number of communications from concerned individuals that operations were being undertaken within the Scheduled Area otherwise than in accordance with the terms of the Scheduling. These unauthorised works included the dumping of large quantities of slurry within the Scheduled Area and two instances of ploughing / cultivation without Class Consent. Attempts were made by English Heritage to ascertain from the landowner the exact nature of these works but this information was not forth-coming.

Due to the lack of information provided by the land owner, English Heritage contracted Herefordshire Archaeology, (Herefordshire Council's Archaeology Service), to undertake a series of small excavations and associated fieldwork in order to provide the opportunity for relevant specialists to assess the site and determine the nature of the unauthorised cultivation works and their impact upon the archaeology.

The excavations and associated fieldwork have provided evidence that suggests that much of the site has not been negatively affected by the recent unauthorised cultivation works. It would appear, as confirmed by both the Agricultural Advisor and the Geo-archaeologist, that the recent works have been shallow in nature, generally only reaching to 0.2m in depth. Documentary evidence indicates that much of the stratified deposits directly associated with Roman structural remains were either removed or significantly damaged to a depth approximately of 0.4m during the first two decades of the 19th century when the entire site was stripped of its town walls and effectively quarried for building stone in preparation for bringing it into cultivation. The documentary evidence would also suggest that most of the field has been under intensive arable cultivation since the 1820s. This has included the cultivation of beet and potatoes, leading to the formation of a plough soil up to 0.4m thick over much of the field. The agricultural advisor has been able to document the most recent unauthorised cultivation events and has identified the most likely equipment / machinery used. He has also commented on the newly seeded grass ley mix and suggests that the mix is not suitable for long-term grass ley.

Trenches 2, 3 and 6 contain a finds rich, urban dark earth, which has clearly been truncated by deep cultivation events, however the recent unauthorised activities did not reach this horizon. Trenches 4 and 5 were located over the rampart and again showed that material from the rampart had been disturbed, this had not occurred during the execution of the events being investigated within this report.

The fieldwork has however documented recent damage within Trench 1 resulting from recent cultivation events being conducted closer to the hedge / fence than before. The unauthorised cultivation events have truncated the Roman road surface and disturbed masonry relating the gate house and or town wall. This expansion of

the historically cultivated area can be quantified as an area 0.75m wide and 2,204m in length (the circumference of the field), equating to an area of 1,653m.

Both the field walking survey and the metal detecting survey have highlighted severe problems concerning the illegal use of metal detectors on the site. It is clear that very soon after every ploughing or cultivation event the site is repeatedly, systematically metal detected. Some of this must take place within the hours of darkness but there is evidence for the systematic use of metal detectors during daylight hours. The regular spacing between rows of footprints of the same boot tread, covering the entire field, together with the fact that these 3m transects were not aligned with the furrows would suggest that one individual spent many hours within the field. It is clear from the finds recovered during the metal detecting survey that any large, high denomination coinage, particularly with a high silver content has been removed from the plough soil as has most if not all of the recognisably Roman metalwork. The fact that three individuals entered the field and then proceeded to field walk in areas well away from the line of the public footpath whilst Herefordshire Archaeology staff were working on site suggests that the site is regularly visited by locals looking for coins and other curios.

It is clear from the evidence compiled within this report that the site urgently needs a management plan in order to assist the landowner in continuing to be able to use the land but in ways that do not have any negative impacts upon the archaeology which the Scheduling is designed to protect. It is suggested that when the new grass lay eventually requires re-seeding, (estimated by the agricultural advisor as being in 2018), that the entire field is “seeded” using scrap metal disks, ball bearings or equivalent and signage erected to advertise the fact that this has happened in order to put off illegal metal detecting. It is also suggested that signage is installed at either end of the public footpath, which crosses the site, containing information concerning the status of the site as private land and a Scheduled Ancient Monument in an attempt to discourage unauthorised “field walking”.

8. Acknowledgements

The author would like to acknowledge the help, co-operation and support of, Bill Klemperer, Alison MacDonald and Lisa Moffett (English Heritage), Dr. Peter Guest, Scott Kirby, Dr. Mike Allen, Dr. Jane Evans and Judy Stevenson (specialists involved in the project) Dr. Nigel Baker, Peter Dorling and Julian Cotton (Herefordshire Archaeology Staff) Colin and Sheila Archer, Jane Walmsley and Jane Green (volunteers) and Mr. Steven Price (landowner). He would also like to thank Field Options Ltd, Seed and Grain Merchants, for their help in supplying a suitable seed mix for re-seeding the trenches.

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10. Archive

56 digital photographs

8 site notebook entry

26 context cards

3 sheets of field drawings

2 sheets of inked drawings

Finds Catalogue

This document

3 museum standard boxes of finds

Appendix 1: Specialist Report on the ceramics and building materials

Roman pottery and other finds from fieldwork at Kenchester (MC14)

By C Jane Evans

Introduction and aims

This report discusses the finds recovered during fieldwalking and trial trenching at Kenchester, following agricultural activity on the scheduled area (Table 1). The main focus of the study was the Roman pottery, but as this was mixed in with a range of other finds these were also quantified (Table 2). A couple of post-medieval fragments were noted; a small sherd of black-glazed ware from grid 1 and two fragments of land drain, from grids 3 and 4. The ceramic building material included some diagnostic Roman forms and nothing diagnostically later. On this basis, and given what is known about the site, the ceramic building material is assumed to be Roman, though fabrics were not studied and the presence of small quantities of post-Roman material cannot be precluded. The animal bone collected was quantified (Table 2) but is not discussed in this report.

The primary aim of the study was to assess the level of damage to the site and, if possible, date the disturbed archaeological deposits. The finds were scanned and spot dated. Pottery fabrics and forms were not recorded, but the range of fabrics and presence of datable forms was noted. The finds were quantified by count and weight. Average sherd/fragment weights were calculated for the ceramic finds, indicating the degree of fragmentation. The finds were also assessed for fresh breaks that might indicate recent damage.

The grids used for fieldwalking were a standard size (10m x 10m) and finds were collected using a standard approach. Variations in the quantity and type of material found in each grid should therefore reflect the varying character of the underlying archaeological features. The trial trenches were not standard sizes, making it harder to compare the data, but variations can still be seen. The largest assemblage, by both count and weight, came from excavated features in trench 1. A similar quantity of sherds was recovered from the ploughsoil in trench 6. Trenches 2, 3 and 4 were all the same size, but trench 4 produced far less pottery than the other two. The finds from each grid/trench are summarised at the end of the report.

trench/grid (size)	context	count	weight(g)	average sherd weight(g)
grid 1		42	204	5
grid 2		76	285	4
grid 3		71	504	7
grid 4		97	681	7
grid 5		141	748	5
grid 6		61	313	5
grid 7		43	232	5
fieldwalking total		531	2967	6
<i>trench 1</i>	<i>ploughsoil</i>	9	76	8
<i>trench 1</i>	<i>101</i>	23	507	22
<i>trench 1</i>	<i>105</i>	4	61	15

trench 1 total (2mx3m)		36	644	18
trench 2 (2mx2m)		25	162	6
trench 3 (2mx2m)	ploughsoil	29	247	9
trench 4 (2mx2m)	ploughsoil	3	12	4
trench 5	501	18	146	8
trench 5	505	10	264	26
trench 5 total (4mx1.5m)		28	410	15
trench 6 (2mx3m)	Ploughsoil/spit	38	305	8
excavated total		159	1780	11
total		690	4747	7

Table 1: summary of the Roman pottery by grid/trench

trench/ grid	context	period	object specific type	count	weight(g)	average sherd weight(g)
grid 1			animal bone	1	1	1
grid 1		post-medieval	pot	1	3	3
grid 1		Roman	pot	42	204	5
grid 1		Roman?	brick/tile	114	857	8
grid 2			animal bone	2	7	4
grid 2		Roman	pot	76	285	4
grid 2		Roman?	brick/tile	61	514	8
grid 3		post-medieval	drain	1	55	55
grid 3		Roman	pot	71	504	7
grid 3		Roman?	brick/tile	29	387	13
grid 4		post med	drain	1	77	77
grid 4		Roman	pot	97	681	7
grid 4		Roman	tile	3	150	50
grid 4		Roman?	brick	1	138	138
grid 4		Roman?	brick/tile	43	306	7
grid 5			animal bone	2	19	10
grid 5		Roman	pot	141	748	5
grid 5		Roman?	brick/tile	41	716	17
grid 6		Roman	pot	61	313	5
grid 6		Roman?	brick/tile	29	373	13
grid 7			animal bone	2	3	2
grid 7			oyster shell	1	3	3
grid 7		Roman	brick/tile	293	3334	11
grid 7		Roman	pot	43	232	5
grid 7		Roman	tile	13	306	24
grid 7		Roman	tessarae	20	154	8
trench 1	ploughsoil	Roman	brick/tile	4	108	27
trench 1	ploughsoil	Roman	pot	9	76	8
trench 1	101		animal bone	26	476	18

trench 1	101		mortar	1	19	19
trench 1	101	Roman	brick	1	703	703
trench 1	101	Roman	brick/tile	4	194	49
trench 1	101	Roman	pot	23	507	22
trench 1	105	Roman	brick/tile	2	40	20
trench 1	105	Roman	pot	4	61	15
trench 1	105	Roman	tile	2	209	105
trench 2		Roman	brick/tile	2	30	15
trench 2		Roman	pot	25	162	6
trench 3	ploughsoil		animal bone	3	9	3
trench 3	ploughsoil	Roman	brick/tile	14	248	18
trench 3	ploughsoil	Roman	pot	29	247	9
trench 3	ploughsoil	Roman	tile	1	3	3
trench 4	ploughsoil	Roman	brick/tile	2	33	17
trench 4	ploughsoil	Roman	pot	3	12	4
trench 5	501	Roman	brick/tile	2	21	11
trench 5	501	Roman	pot	18	146	8
trench 5	505		mortar	1	7	7
trench 5	505	Roman	brick/tile	6	14	2
trench 5	505	Roman	pot	10	264	26
trench 6	ploughsoil		animal bone	23	126	5
trench 6	ploughsoil		Oyster shell	2	6	3
trench 6	ploughsoil	Roman	brick/tile	12	152	13
trench 6	ploughsoil	Roman	pot	38	305	8
trench 6	ploughsoil	Roman	Fe nail	4	24	6

trench 6	ploughsoil	Roman	Hone (schist)	1	93	93
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Table 2: summary of the assemblage by grid/trench

Feature type	average wt(g)
Ditch	53
Drain	24
Construction Cut	22
Linear	18
Pit	13
Post Hole	12
Surface	12
Layer	11
Well	11
Buried soil	10
Topsoil	9
Beam slot	9
Dark Earth	7
Burial	6
Colluvium	6
Floor	6
Modern Layer	5
Field drain	5
Stakehole	4
Wall	3

Table 3: average sherd weights by selected feature type from Yazor Brook, Kenchester (information from Laura Griffin)

The pottery

690 sherds of Roman pottery were recovered, mainly from fieldwalking (Table 1). Most of the pottery was very fragmentary and abraded, reflected in the low average sherd weights which were mostly below 9g (Table 1). At the neighbouring Yazor Brook site, similar fragmentation was recorded from deposits where pottery was likely to be residual, such as topsoil, dark earth, modern layers and field drains (Table 3; Griffin forthcoming). In trench 1, two fills of a pit cut through the road surface (contexts 101, 105) produced larger sherds, with average sherd weights comparable to pottery from Roman pits and linear features at Yazor Brook. The pottery from the trench 1 ploughsoil was more fragmentary (8g), more consistent with the fieldwalking data. Assemblages from ploughsoil deposits in trenches 3, 4 and 6 also had average sherd weights similar to the fieldwalked groups. The very high average sherd weight from trench 5, context 505 is misleading, being biased by the presence of a single, heavy, amphora fragment. Without this the average weight drops to 7g. The pottery from context 504 was also fragmentary, with an average sherd weight of 5g for the top of the feature, and 9g for the fill.

Date of the pottery assemblage

The diagnostic forms and fabrics indicated that the pottery derived from the uppermost, later Roman deposits, as would be expected, although small quantities of earlier pottery were also noted. Overall, the assemblage was dominated by oxidised Severn Valley ware. This is a marked contrast to the assemblage studied from the nearby Yazor Brook site, about a third of which comprised South Wales grey wares (Laura Griffin, pers. comm.). This is significant in terms of dating. The assemblages studied from Yazor Brook dated mainly from the 1st–3rd centuries. Evidence from previous excavations near Kenchester indicated that it was not until c 240/270–400+ (period 4) that oxidised coarse wares predominated over reduced wares (Tomber 1985, 125-6).

Evidence for damage to the site

One sherd from trench 2 had heavy cut marks which may have been caused by agricultural machinery, but otherwise there was little evidence of damage. No obvious fresh breaks were noted in the pottery or ceramic building material, from either fieldwalking or trial trenching. This, combined with the very low average sherd weights, suggests that the pottery was derived primarily from the ploughsoil, rather than from previously undisturbed archaeological deposits. The date of the pottery indicates that these ploughsoil finds came originally from the uppermost, late Roman deposits. This is all consistent with the site having been deep ploughed in the past.

Discussion of the finds by trench/grid

Trench 1

The pottery comprised mainly oxidised Severn Valley ware, including a short-necked jar probably dating to the 4th century (Webster 1976, fig. 6, C31). A later 3rd or 4th century date was also indicated by Black-burnished ware (BB1) forms, including a dropped-flange bowl (Gillam 1976, fig. 4, 45–49) and a plain-rimmed dish with a wiped rather than pattern burnished exterior (Gillam 1976, fig. 6, 83/84), and sherds of Oxfordshire red colour-coated ware, including a possible 4th century form (Young 2000, figs 61–63, C75–79). Building material included a fragment of box-flue tile, with keying, and a fragment of very hard fired tile, possibly therefore locally made.

Trench 2

The assemblage from trench 2 was more fragmentary and included fewer diagnostic forms. A small, abraded fragment of late Roman shell-tempered ware provided an indication of 4th century activity, a Black-burnished ware dish dated to the late 3rd century (Gillam 1976, fig. 5, 81), and a sherd from an Oxfordshire red colour-coated ware mortarium (Young 2000, C97/98) indicated a date of c AD 240+.

Trench 3

A couple of diagnostic sherds indicated a later Roman date: a sherd of Oxfordshire red colour-coated ware dated c AD 240+, and the rim from a splayed Severn valley ware tankard dating to the late 3rd or 4th century.

Trench 4

Only 3 sherds were recovered; a body sherd from a Black-burnished ware jar, decorated with obtuse cross hatch, indicated a date in the second half of the 3rd century or later.

Trench 5

The fill of cut 504 produced a mid-late 3rd century BB1 jar (Gillam 1976, fig. 1, 9, fig. 2, 10) and a body sherd decorated with obtuse cross hatch, a dating to the second half of the 3rd century or later. Context 505 produced a similar BB1 jar and a dish of similar date (Gillam 1976, fig. 5, 81, fig. 6, 82). Earlier pottery was also present; part of a Dressel 20 amphora handle dating to the mid 1st century (Peacock and Williams 1986, fig. 65, 3, 5) and a fragment of samian dating to the 1st or 2nd century.

Trench 6

This trench produced a more mixed assemblage of finds, including four nails and a whetstone, oyster shell and animal bone, as well as pottery and ceramic building material. The pottery included later Roman types, such as Oxfordshire red colour-coated ware and BB1 forms (Gillam 1976, fig. 5, 81, fig. 2, 12-14), as well as a sherd of 2nd century Central Gaulish Black-slipped ware.

Grid 1

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included an Oxfordshire parchment ware bowl dating to c AD 240–400+ (Young 2000, fig. 27, P24). One sherd of post-medieval pottery.

Grid 2

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a body sherd from an Oxfordshire red colour-coated mortarium (Young 2000, fig. 67, C97–C100) and two tiny fragments of samian.

Grid 3

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a body sherd from an Oxfordshire white mortarium and a small sherd of decorated samian.

Grid 4

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a small body sherd from an Oxfordshire red colour-coated mortarium (Young 2000, fig. 67, C97–C100), three tiny fragments of samian, and a Mancetter-Hartshill, hammerhead mortarium dating to the late 3rd or 4th century.

Grid 5

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included 16 sherds of samian; one with a rivet hole for repair, one decorated, and one re-used as a counter. Interestingly, three sherds of Severn Valley ware from this grid square also looked like they may have

been reused as counters. The latest datable sherd was in Oxfordshire red colour-coated ware, indicating a date of c AD 240+.

Grid 6

The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a sherd of decorated samian. The latest datable fragment was in Oxfordshire red colour-coated ware, indicating a date of c AD 240+.

Grid 7

This grid square produced the most building material (Table 2), including 20 white, stone tesserae and fragments of box-flue tile with keying. The pottery was very fragmentary and abraded and comprised mainly oxidised Severn Valley ware. The assemblage included a body sherd from an Oxfordshire red colour-coated mortarium (Young 2000, fig. 67, C97–C100) and a sherd of decorated samian.

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Appendix 2: Specialist Report on the coins.

Coins from recent fieldwork at Kenchester (MAGNA CASTRA)

COIN ASSESSMENT

Fifty-six coins were recovered from Kenchester, all of which date from the Roman period. These include two second / early third century silver *denarii*, while the remaining 54 coins are copper alloy issues of the late first to fourth centuries.

Most of the coins are in a good condition and 45 could be identified to an emperor's reign or numismatic issue period. Nevertheless, 39 require some cleaning to facilitate full identification and x-radiography should also be considered prior to any further conservation work.

The table below provides summary descriptions of the Kenchester coins, as well as recommendations for cleaning.

Of the coins that could be dated, four coins were struck between the later first and early third centuries, 21 date to the later third century, while another 20 were issued during the fourth century. The fourth century coins included 14 Constantinian issues struck 330-364 and 2 Valentinianic coins of the period 364-78 (Theodosian coins are absent from the assemblage).

The final report should consist of the following elements:

- a full list of coins using standard works of reference for identifications;
- comparison of the assemblage with other groups from Kenchester;

It is estimated that the final coin list and report should not take more than 1 to 2 days to complete.

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9 May 2013

RA no.	Denomination	Date	Obverse	Reverse	mint	cleaning required
15	radiate	260-90	radiate bust			obv legend
22	denarius	161+	Divus Antoninus		Rome	
27	AE2	late 3rd-4th c				obv + rev
42	AE3	late 3rd-4th c				obv + rev
53	AE3	330-35		Gloria Exercitus 2 stds		
57	AE3 copy	354-64		falling horseman?		reverse
73	AE3	late 3rd-4th c				obv + rev
76	radiate	260-90	radiate bust			obv legend + reverse
77	denarius	193-211	Septimius Severus		Rome	reverse
78	radiate	260-90	radiate bust			reverse
79	AE3	late 3rd-4th c				obv + rev
83	radiate	270-74	Tetricus I			reverse
102	AE3	330-40	radiate bust	Constantinopolis	Trier	
104	barb. radiate	260-90	radiate bust			obv legend + reverse
109	AE3	late 3rd-4th c				obv + rev
112	AE3	late 3rd-4th c				obv + rev
119	radiate	270-74	Tetricus I			
121	radiate	260-68	Gallienus			
124	AE4	330-35		Gloria Exercitus 2 stds	Arles	
130	AE3	335-40		Gloria Exercitus 1 std		
141	barb. radiate	260-90	radiate bust			obv legend + reverse
144	AE3	354-60		falling horseman?		reverse
151	AE1	98-117	Trajan		Rome	reverse
160	AE3 copy	354-64		falling horseman		reverse
162	AE3	364-78	Hse of Valentinian	Securitas		
163	radiate?	260-90				obv + rev
185	radiate	260-90	radiate bust			obverse + reverse
187	AE3	330-78	diademed bust			
190	radiate	268-70	Claudius II	Genius		
195	radiate	260-90	radiate bust			obv legend + reverse
208	radiate	268-70	Claudius II			obv legend + reverse

209	AE3	335-40		Gloria Exercitus 1 std		
210	AE3	330-35		Gloria Exercitus 2 stds		obv legend
212	radiate	270-74	Tetricus I			
213	AE3	late 3rd-4th c				obv + rev
215	AE3	330-78	diademed bust			obv legend + reverse
219	AE2 copy	350-53	Magnentius / Decentius	Victoriaeddnauggetcaes		obv legend + reverse
221	AE3 copy	330-48		Urbs Roma		
228	radiate	268-70	Claudius II	Victoria		
236	AE3	late 3rd-4th c				obv + rev
243	AE3 copy	354-64		falling horseman		
247	radiate	260-90	radiate bust			obv legend + reverse
252	AE1	161-80	Faustina II		Rome	obv legend
259	radiate	286-96	Carausius / Allectus			obv + rev
261	radiate	286-96	Carausius / Allectus			obv legend + reverse
272	AE3	late 3rd-4th c				obv + rev
280	AE3	late 3rd-4th c				obv + rev
283	AE3	364-78	Hse of Valentinian	Gloria Romanorum		
286	AE2	294-318				obv legend + reverse
293	AE3	330-78	diademed bust			reverse
297	radiate	260-90	radiate bust			obv legend + reverse
299	radiate	260-90	radiate bust	Comes?		obv legend
301	barb. radiate	260-90	radiate bust			reverse
305	AE3 copy	350-53	Magnentius / Decentius	Victoriaeddnauggetcaes		obv legend + reverse
309	AE3	330-35		Gloria Exercitus 2 stds	Trier	
MC14 T1	AE2 frag	late 3rd-4th c				obv + rev