

Wings to the Past



Archaeological Trial Trenching
Community Excavation Event
University of Lincoln: Riseholme Campus
20th to 28th of July 2019

Report of Findings



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Foreword

It is often said that many great ideas are conceived over a beer, sitting on the proverbial sandbag, spinning yarns around a roaring campfire with a group of good friends – and Wings to the Past was no different. We had just finished a hard day of excavation at a fascinating site at Scremby and were reflecting on the history we had uncovered and who had found the best treasure (that would be me, clearly) when the topic of conversation shifted to an interesting dynamic that had manifested itself over the past few days. Squadron Leader Suzy Watts, a serving RAF officer, had brought her son James along to the dig as, like his mother, he had a passion for history and archaeology. Suzy had been working away from home during the week for the past five years and, like any good mum, was plagued by a feeling of guilt due to her perception of not being there for her children; so Scremby seemed like an ideal opportunity to spend some quality time together. However, it became clear as the dig progressed that an extraordinarily deep bond had started to develop between them as they worked towards a common goal of unearthing the past. This observation quickly turned the conversation towards the beneficial effect archaeology has on decompressing the stresses and strains of everyday life, the development of relationships and the building of mental health resilience and wellbeing.

Whilst archaeology has been used in the past to aid the recovery of injured or traumatised service veterans, no project existed to help those still serving who were struggling with everyday life. There is often a perception that if you are still in regular service then you must be ok; however, in many cases, that could not be further from the truth. Many of the men and women currently in uniform have been, or are still, involved in combat operations and frequently put themselves in peril and experience life or death situations on a daily basis; this can have a profound effect on mental wellbeing. Furthermore, it does not have to be one single incident that can cause deep trauma; the compounding effect of extreme stress over a prolonged period can eventually manifest itself into Post Traumatic Stress Disorder. Equally, individuals do not necessarily need to be in danger for their mental health to be affected – Service life can be tough, frequently working long hours with increasingly limited resources and often deployed away from families for months at a time; all of this can take its toll. Whilst the pain suffered by serving personnel is becoming more of a focus for the RAF's chain of command, it is the unsung heroes who did not sign on the dotted line and take the Queen's shilling that often go unnoticed – the wives, husbands, partners and children of those who serve that are forced to survive on their own, running their lives without the support of a complete family unit, often wondering if their loved ones will return safely.

So as the bottom of the beer glass became visible and the embers of the fire were dying, it was decided (well, Suzy told us we were to..) we would develop an archaeological project that would provide the opportunity for serving personnel and their families to experience the joy of spending quality time together, digging holes, unearthing treasure and learning about the past – all in the name of mental wellbeing – and so Wings to the Past was born.

I hope as you read the fascinating report below, you will learn about the rich culture we have uncovered. However, I would also ask you to reflect on the fantastic quotes from our volunteers, that are included in the report, and trust that you will agree that, due to the hard work of the Wings to the Past Steering Group, the unstinting support from the University of Lincoln, Lincolnshire County Council, and The Armed Forces Covenant, along with the professionalism and dedication of the amazing Network Archaeology team.....we did it!!!

Group Captain Brian James OBE



Summary

A team of volunteers undertook trial trench excavation at the Riseholme Campus of the University of Lincoln between 20th-28th July 2019. These investigations were the culmination of the Wings to the Past Community Project. The aims of this project were to promote mental wellbeing amongst the participants, consisting of RAF service personnel, their families and volunteers from the local community, as well as to investigate the preservation of sub-surface archaeological remains within a field used for practice ploughing by students at the University of Lincoln.

The project comprised a launch event at The Collection and a tour of Roman Lincoln, together with a preliminary programme of supervised geophysics and fieldwalking. This was designed to characterise the material culture of the site and demonstrate the value of non-intrusive prospection prior to archaeological excavation. A series of classroom sessions were also held, teaching participants archaeological techniques and methods. The project also included workshops, lectures, opens days, artefact displays and a live broadcast from the site by BBC Radio Lincolnshire.

A total of seven archaeological trenches were subsequently excavated, revealing the remains of a series of Roman buildings. The evidence suggested these may have been the outlying buildings of a small Roman farm. The majority of the artefacts dated to the third and fourth centuries AD, but there was also evidence for activity dating to the first and second centuries AD. The longevity of the site may be explained by its close proximity to an Early Roman burial mound and to the route of *Ermine Street*. This Roman road was important in promoting regional trade, a fact evidenced by the collection of coins which were recovered by the diligent use of metal detectors during the excavation.

The excavation was not only successful in providing significant information regarding Roman occupation on the site, but also had a profound effect on the volunteers taking part. The Wings to the Past team had the opportunity to work alongside their families, to investigate and add to the archaeological record.

“Peeping behind the curtain of the whole process of a dig was a once-in-a-lifetime opportunity and we will never forget this time we spent together.”

1 Introduction

This is the report on the findings from the ‘Wings to the Past’ community archaeology event at the University of Lincoln Riseholme campus, held between the 20th and 28th of July 2019. It has been written by members of both RAF and Network Archaeology staff, and gives details of the archaeology that was found during excavations carried out by the volunteer members of the ‘Wings to the Past’ team. Quotes from these volunteers have been included in the body of the text to help highlight the impact of the excavations on the participants.

1.1 Site location and description

The excavations were carried out in the grounds of Riseholme Campus (Figure 1) in a field that is currently used for the teaching and research of ploughing techniques, which is potentially causing the destruction of archaeology. Seven trenches were opened across the field (Figure 2).

Riseholme is 3.1 miles north of Lincoln city centre, on the dip in the slope of the Lincolnshire Limestone ridge, at around 40 metres above sea level. To the west, the land rises to over 69 metres to the crest of the Lincoln Cliff. The underlying rocks are ‘Limestone Sedimentary bedrock formed between 170.3 and 168.3 million years ago during the Jurassic period’ (Geology of Britain website). The soils are



described as ‘shallow lime-rich soils over chalk or limestone’ (Soilscapes website). The land drains eastward into the Witham valley by way of Riseholme Lake, Nettleham Beck and Barling Eau.

2 Archaeological Background

To start with, we need to give you a brief summary of what we already knew about the area before we carried out these excavations. This brief summary is largely condensed from a report carried out for the University of Lincoln by Oxford Archaeology East (Morgan, 2016).

2.1 Prehistory

Evidence for pre-Roman activity in the Riseholme area is scarce but at least two flint tools from the Neolithic period have been found close to our site: a scraper and a leaf-shaped arrowhead. To the north-west, a cropmark of a possible Bronze Age ring-ditch has been identified from air photographs. Cropmarks also show a substantial border, which is thought to be a Bronze Age or Iron Age territorial marker, formed by parallel ditches running just to the east of the Riseholme estate. Smaller ditched enclosures nearby are possibly of Iron Age date. The limestone ridge was almost certainly used as a pathway – nowadays referred to as the Jurassic Way – throughout these periods.

2.2 Roman

There is much more evidence from the Roman period: the later 1st to early 5th centuries AD (43-410AD). The prehistoric pathway along the Lincoln Cliff was straightened and surfaced as the main Roman road north from Lincoln, towards York and onward to the northern frontier of the Empire. The road later acquired the name *Ermine Street* and is now the main A15, running 400m west of the Site.

In the north-east corner of the Riseholme campus, a Scheduled Monument, marked as a *Tumulus* on Ordnance Survey maps, was partly excavated in 1952. It was found to contain two cremation burials, dated to the 1st century AD. Burial mounds from the Roman period are unusual and this one may be a relic from an earlier burial rite in this area. Third and fourth century pottery has been found in the area around the barrow, showing that there was still activity here in later Roman times. The significance of the individuals who were interred in the mound cannot be overstated. They must have been of particularly high-status to have warranted the construction of the mound or to have been buried in such an important existing monument. Could this monument be the very reason that the Romans chose to settle here? And what could our Wings to the Past investigations tell us about the landscape surrounding this mound?



The Roman burial mound occupies a prominent point on the Lincolnshire Limestone ridge

2.3 Medieval

The village of 'Risun' is included in Domesday Book, the name probably meaning 'a place of brushwood'. The early settlement is thought to have been near the medieval church, to the west of the current 19th-century church.

The monastic granges of Kirkstead and Barlings Abbeys, established in the village in the 12th century, led to a loss of arable land to sheep pasture, and the medieval village declined. The Black Death, in the mid-14th century, hastened this decline. Remains of the medieval village survive as humps and bumps alongside Riseholme Lane, along with traces of the medieval ridge and furrow.

2.4 Post-Medieval

At the time of the Dissolution of the Monasteries, the land at Riseholme was auctioned to Charles Brandon, Duke of Suffolk. The estate was purchased by the Chaplin family in 1721, who were responsible for the construction of Riseholme Hall. The hall became the Palace of the Bishop of Lincoln in 1840, when it was sold to the ecclesiastical commissioners, who owned the property until 1946, when it became an agricultural school, responsible for the training of ex-service personnel. It is likely that the field which forms our study area has been under the plough for the last 70 years, during which time the agricultural school has been run by various organisations. In 2001 the School of Agriculture transferred to the University of Lincoln and the following year it relocated to the Riseholme Campus.

3 Aims

The primary aim of this community project is to promote wellbeing, mental health resilience and 'quality family time' to RAF families and to engage the local community with their heritage. This was achieved by providing a structured programme of archaeological events to give volunteers knowledge and transferrable skills. Archaeological fieldwork involves a wide range of physical and mental skills



Jam packed with archaeology and archaeologists!

and activities, allowing those taking part to work at their own pace, as well as be part of a larger supportive team; to use their existing skills and experience and to appreciate how their own lives fit within the context of the historical development and evolution of their communities. It was also hoped that by inviting members of the wider civilian local community, it would help create social cohesion and ultimately friendships between members of the military and civilian communities of Lincoln.

“Being able to do something worthwhile with my family and having a sense of shared purpose, especially after being deployed recently. I haven't seen very much of my wife and children this year and being able to do archaeology with them and not worry about anything else has been brilliant.”

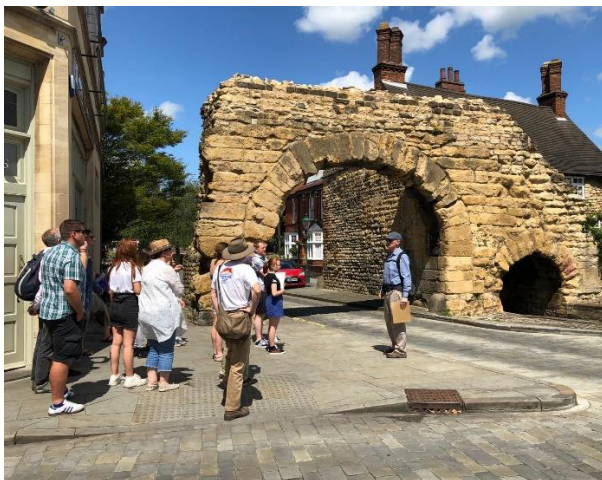
The archaeological aim was to provide information on the nature and preservation of the archaeological remains at Riseholme and to see how they fit within the wider regional context. The excavation targeted anomalies from the geophysical surveys and areas of artefact concentrations produced by previous fieldwalking and metal detector survey (Network 2019). It is hoped that these results will

enhance archaeological knowledge, along with helping to develop sympathetic management of the Riseholme campus' archaeology.

“I learned so many new skills and met so many lovely people who have made me even more passionate and have made me feel welcome.”

4 Previous Work

The trial trenching was only one aspect of a much larger community project. The project was launched at The Collection in Lincoln by members of the RAF, Network Archaeology and Professor Carenza Lewis from the University of Lincoln. Professor Simon James from the University of Leicester led a walking tour of Roman Lincoln for the participants. This culminated in a visit to *Posterngate*, the remains of Lincoln's Roman south wall, hidden under the vaults of a modern-day bank and usually only accessible to the public three times a year. Once the team had a good understanding of the history of Roman Lincoln, they could begin to investigate their site outside the city. The first stage was a series of workshops and lectures outlining the basics of archaeological techniques and methods. Volunteers could then muddy their boots fieldwalking the site, collecting artefacts and plotting concentrations to compare to a geophysical survey undertaken for the project. This information was then used to decide the location of the trenches that the team would excavate during the two-week field project.



Top left: Roman coins found during metal detecting
Top right: NAL and RAF staff are joined at the Collection by Prof Carenza Lewis
Bottom left: Prof Simon James leads a walking tour of Roman Lincoln

5 Methods

Methods were stated in the Written Scheme of Investigation (WSI) and are briefly summarised here. All work was carried out to current industry standards and guidance, supervised by experienced Network Archaeology staff (ClfA 2014; EH 2008). Adam Daubney (then Collections Development Officer for Lincolnshire County Council) was on hand throughout to monitor progress and standards. Some modifications were made because of weather conditions, time constraints and density of archaeology, and are described below.

5.1 Trenching



Monitoring of machine excavations

Seven trenches were excavated to investigate the potential for archaeological remains. The location of these trenches was based on the results of a geophysical survey and finds locations from the previous Wings to the Past fieldwalking weekend (Network 2019). The two main concentrations of finds matched the location of a series of possible walls identified by the geophysical survey.

The locations of trenches were staked out and opened by a 360° mechanical excavator. This was done in advance of the volunteers' arrival, due to health and safety reasons. Of the four original trenches, two were blank, meaning they contained no archaeology. Because of these blank trenches it was deemed necessary to open three more trenches than had originally been planned.

Volunteers were split in to three teams, each team guided by a Network staff member, and began the task of cleaning up the surface of the trench to better expose the archaeology. After taking some photos of the beautifully-cleaned trenches, the head-scratching began in earnest-what exactly might we have? In the case of Trench 5, this led to the decision to extend the trench to the north by a metre and even to dig a small western extension to expose what we suspected may have been a wall. This was all done by hand- back-breaking or what?! Once a plan of attack was decided on, out came the trowels and the team started to excavate the 'features' (walls, ditches, pits etc). Network staff were on hand to offer advice on the best way to excavate the archaeology.



Younger members getting to grips with the GPS



Softly, softly, trowling the archaeology!

The features were excavated to a desired level, either the underlying natural substrate or the archaeological feature. After that the volunteers set about the less glamorous, but vital skill of recording. This involved filling in context sheets and indulging their artistic side by photographing and drawing the horizontal sections (Figure 5) that had been created through their features. Finally, volunteers were given the chance to use the GPS survey kit and record the trenches in plan (Figures 4 to 6).

5.2 Metal detecting

Local detectorists volunteered to carry out a survey alongside the excavations. Find locations were recorded by the volunteers using a GPS. A summary of what they found can be found in sections 5.3.4 and Appendix 1.



"You press that button there and it shows you where the gold is"



Here's hoping its set to the sweet setting!

6 Results

6.1 Introduction

The trenches were located to test results of non-invasive investigations, which had potentially revealed the remains of Roman buildings. This is fairly standard practice for archaeology, in which we take the results of non-invasive fieldwork techniques and use them to formulate a theory, which in turn influences where we place our trenches.

It is important to keep in mind that even though geophysics is considered a science, it's not always an exact science and many things can affect the results. For instance, in Trenches 1 and 2, the outcroppings of the underlying natural limestone gave rise to an initial interpretation of the linear ditches or gullies, highlighted in Figure 2 and Plates 1 and 2. Over the following sections we will discuss the results from the excavation and see if our theories were correct.



Getting to grips with "cleaning" dirt!

6.2 Trenches

Trenches 1, 2, 6 & 7

Starting with the somewhat disappointing news, only three of the seven trenches excavated contained any archaeological remains. Trenches 1, 2, 6 and 7 were the four offending blank trenches; their locations can be seen in Figure 2. A discussion of these results and some theories as to why they were blank can be found in the following discussion (Section 7).

Trench 3

Trench 3 (Plate 3) was located on the eastern side of the site (Figure 2) and was extended from the original size of 4m x 6m to follow the remains of a wall (303) (Plate 4). Upon cleaning, three distinct layers were exposed. Two of these layers (305 and 306, Plates 5 and 6) lay to the north of wall 303 and the third (304, Plate 7), to the south. All three layers had high concentrations of finds including iron nails, pottery, pieces of architectural slate and fragments of mortar, all of which have been dated to the Roman period (See Appendices 1 to 4). Wall 303 ran on an east-west orientation for 5m before turning to run north-south; after 1.72m the remains of the wall stopped. It is likely that this was caused

by the destruction of the wall through modern ploughing. A slot excavated through the wall (Figure 4 and Plate 8) demonstrated that the remains existed to a depth of 0.37m.

Trench 4

Trench 4 was sited towards the western side of the field (Figure 2). Like Trench 3, it was extended from the original 4m x 6m to reveal more of the archaeological features. The remains of a possible wall (407/410, Plate 9) were uncovered in the centre of the trench. It ran out of the northern edge of the trench on a north-south orientation for 8.75m before turning 90° to run east-west for 1.75m, continuing out of the trench. It had been highly disturbed by modern ploughing, as can be seen by the break in the wall seen in Figure 5. Concentrations of finds appeared to decrease when on the south and west side of the wall. Two investigations were made to the structure of the wall (405 and 408) (Plates 10 and 11). The first of these showed that the wall survived to a depth of 0.17m with a width of approximately 0.45m. The second investigation demonstrated that the wall survived to a depth of 0.17m with a width of 0.65m.

In the southern end of the trench there appeared to be a small oval shaped pit (404, Plate 12) which was 0.93m long, 0.42m wide and 0.08m deep. The fill of this feature (403) contained a collection of animal bones and as such has been seen as a post-medieval (1540-1900AD) rubbish pit.

Trench 5

This northernmost trench (Figure 2), was 8m long and 4m wide (Plates 13 and 14). A north-south wall (504, Plate 15) ran the length of the trench and was 0.30m wide. It was bedded within a construction cut (503). Adjoining this wall at the northern end of trench was a second east-west aligned wall (506), which was 0.53m wide. Also bedded in a construction cut (505), this wall continued under the eastern edge of the trench. North-south wall 504 was overlain by a compact layer of rubble (512), which was 0.12m deep and continued under the western edge of the trench. A further layer of compact rubble (513), this time seemingly bound by the extent of the walls, was 0.18m deep. Together with east-west wall 506, it was cut by a small pit (510, Plate 16), which measured 0.83m by 0.23m, with a depth of 0.15m. The sole fill (511), contained fragments of Roman CBM and pottery, likely disturbed from rubble layer 513.

A shallow trench marking a robbed-out wall (507) was located in the centre of the trench. This appeared to adjoin wall 504, although the relationship was unexplored as both features disappeared beyond the limit of excavation. Robber trench 507 was 1.7m long and 1.06m wide, and contained a greyish yellow sandy silt (508) which had high concentrations of angular limestone fragments. It was truncated by a construction cut (516) for a post pad (509, Plate 17) measuring 1.07m north-south and 1.04m east-west, with a depth of 0.07m. Post pad 509 was made up of angular limestone blocks ranging in size from 130 x 90 x 70mm to 350 x 220 x 110mm. It was supported by packing material (519), a friable mid grey brown silty sand. A sherd of medieval pottery was recovered from 519, likely intrusive having been deposited there by later ploughing.



Some elusive archaeology hiding in the long grass



Having great fun on the spoil heaps!

7 Finds

“I have certainly learnt many new skills and have also met some lovely people. ...our daughter has benefited a lot from being exposed to different environments outside of her comfort zone.”



It's a lot when you lay it all out!

Now everyone loves digging a hole and getting wet and muddy whilst doing it, but the best thing about archaeology is surely the finds we discover along the way, and the team turned them up by the bucket-load (Tables 1, 2 and 3). When combined with the finds collected during fieldwalking and metal detecting surveys, the project unearthed around 2300 artefacts! Over 700 of these were sherds of pottery, providing valuable dating for the archaeological features. A further 686 pieces of animal bone and shell were recovered, providing an insight into the diet of the Romans living around Lincoln.

Great enjoyment was had not only in their discovery, but also in getting to handle and wash them. Some of the team pointed out that they never thought they would get so much enjoyment out of washing dirty pots! But these artefacts are about 2000 years old, so to hold something from that long ago was amazing. Also, by washing the finds, we get a better view of what they are and what decorations may have. Full specialist analysis of the finds can be found in the appendices of this report.

The excavations recovered pottery and beautiful metal objects, including 17 coins that the Romans left behind. These metal objects included a Roman copper stud, used as a fastening on belts or wooden boxes. The coins, alas, were not gold, but were copper *radiates* or *nummi*, dating from between 260-402 AD (Daubney, 2019).

The range of pottery would suggest a fairly basic rural assemblage, although access to imported and higher status vessels such as amphora and samian was probably acquired via the *colonia* (Roman Lincoln) (Rowlandson and Fiske, 2019). The Romans also left behind tiles and bricks; those recovered came in a wide range of fabrics suggesting that the material originated from several episodes of building on site (Young, Daubney and Gray, 2019).



Enjoying some pot washing



Careful excavation of a star find

We also uncovered four pieces of worked architectural stone. One piece in particular was worked in a distinctive Roman style; *cyma reversa*, a soft s-shaped curved architectural moulding (Margalef, 2019). Pieces of slate from layer 305 are only found in Wales and the north west of England, meaning they must have been imported to Lincoln in order to have been found on our site (Margalef, 2019).

The Romans weren't the only people at Riseholme. We found a small group of mixed post-Roman pottery spanning the period between the early medieval and early modern periods (circa 400AD-1700

AD). The small quantity makes it unlikely to have come from the remains of a vast settlement. However, medieval roof tile fragments were found on site and this suggests the presence of at least one medieval building somewhere nearby (Young and Gray, 2019).

We not only recovered bits of ancient pots and pans, but also animal bones. Unfortunately, no dinosaurs! But we did find cow, sheep and pig, alongside oyster and whelks. It all largely comes from food waste, reflecting the diet of the population that would have lived, and disposed of their waste, in or close to the area of the excavation (Fernandes, 2019 and Moore, 2019).



Roman china

Trench 3 Material Type	Quantity
Pottery	93
CBM	10
Animal Bone	119
Glass	0
Shell	125
Stone	3
Metal	26
Flint	1
Charcoal	6
Mortar	5
Clay Pipe	0
TOTAL	388

Table 1 Finds totals for Trench 3

Trench 4 Material Type	Quantity
Pottery	101
CBM	1
Animal Bone	35
Glass	1
Shell	52
Stone	0
Metal	17
Flint	0
Charcoal	7
Mortar	1
Clay Pipe	0
TOTAL	215

Table 2 Finds totals for Trench 4

Trench 5 Material Type	Quantity
Pottery	20
CBM	60
Animal Bone	28
Glass	0
Shell	19
Stone	0
Metal	49
Flint	1
Charcoal	0
Mortar	0
Clay Pipe	0
TOTAL	177

Table 3 Finds totals for Trench 5

8 Archiving

All retained finds, from both fieldwalking and excavation, with the formal agreement of the land-owner, will be offered to Lincoln's museum, The Collection. It is hoped that a selection of the finds can be displayed at Riseholme College as a reminder of the project. It is proposed that the site archive will be deposited at The Collection, Lincoln, after completion of the project.

“Didn’t approach the project for any other reason than the heritage/history but found a sense of peace whilst participating. Forced me, and us as a family, to slow down, re-focus and spend time together without distractions. I was surprised at the positive mental health impact.”



Dad being shown how to trowel like a pro

9 Discussion of results

The geophysics and fieldwalking had helped us to formulate an initial idea about what secrets the field might hold. Archaeology is a science, but as the high proportion of blank trenches attests to, it is not an exact science. In those trenches that did contain archaeology it was possible to confirm the presence of significant archaeological remains. Throughout the two weeks we developed constantly evolving theories about what was going on, not only in the individual trenches, but across the field as a whole. This was not only influenced by what finds we had from the trenches, but also by the geophysics and the field walking assessment. What follows below is a discussion of the results of these excavations and the theories and ideas formed from them.



Making progress on cleaning up the trench

Trench 3 contained layers situated to the north of the wall, which had high concentrations of finds, such as nails and fragments of mortar; along with evidence of burning and fragments of limestone which were likely remains of the wall itself. These layers, along with 304, are likely to have been created during the demolition phase of the building.

Within Trench 4, the L-shaped rubble-lined feature is likely to be the foundation course of a highly-degraded wall, at the western extent of a building. The concentration of finds within 401, which included iron nails and pottery, was higher

in the north western corner of the trench, but decreased to the south and western sides of the wall. This was a pattern which was also observed in Trench 3 with layers 305 and 306.

It is possible that as the remains of walls from Trenches 3 and 4 continued under the intervening baulk and that they are in fact part of the same structure. This is further supported by the concentrations of finds from both trenches being higher in the north-west and north-east corners of Trenches 3 and 4 respectively. Thus, they may represent items dropped on the 'inside' of the structure. The wall and the layers have been disturbed further by the heavy modern ploughing that still regularly happens in the field.

The earliest features within Trench 5 were two walls (504 and 506), which likely form the north-eastern corner of a substantial Roman building, given the date of the finds present within the trench. It is likely that a third wall existed, represented by robber cut 507 (see below), though due to its smaller size and shallower depth it is likely to have only been an internal partition. This appears to have been removed in order to facilitate the construction of post pad 509, possibly when the building was reroofed. It is not believed that this building and the potential building in Trenches 3 and 4 are one and the same.



I wonder what important discovery was made?

When the building fell out of use, it was either pulled down or left to collapse. This led to the creation of two layers (512 and 513) both of which were made up of randomly placed angular limestone pieces. Pit 510 was dug through part of layer 513 which was situated above wall 510, as such it is believed that this pit was dug to recover some of the more desirable stones from the wall. The finds from fill 511 are likely to have been present in layer 513 and so included by disturbance, rather than as an intentional act.



Hear no evil, speak no evil, trowel no evil!

Returning our attention back to the finds, it is clear to see that there was a greater concentration of finds relating to domestic activities from within Trenches 3 and 4, as opposed to Trench 5 (see Appendices 2 and 3). For example, the twenty-two oyster shells, recovered from Trench 3, may have been deposited there after their consumption (Fernandes, 2019). Alongside this, the discovery of small flecks of mortar in the trench would suggest that this building had potentially some form of decoration. One piece may be a fragment of Opus Signinum (a Roman building material made from compacted tile, mortar and lime) which is generally thought to have been used to improve water resistance (Tomlinson, 2019). You wouldn't want to get wet from the Lincolnshire rain whilst eating your oyster, now would you?



Retrieving finds for the Roman building

By contrast, in Trench 5 the majority of the finds recovered relate to the structure of the building itself, such as the iron nails and fragments of ceramic building material (CBM). The lack of a quantity of pottery, only four sherds from within Trench 5 (502, 504 and 511), or finds from some form of industrial process, would suggest that this building was used for some other purpose. One such theory that developed on site, was that it may have been an aisled barn (an idea supported by post pad 509) that had areas used for agricultural storage that were regularly cleared out, even up to their final use.

Whereas domestic dwellings tend to be messy and cluttered with day to day items, such as food waste, cooking vessels and drinking cups, agricultural buildings don't usually contain such material. This may go some way to explain the difference in concentrations of finds observed.

To conclude, these excavations have found evidence for activity dating to the Roman period, mainly focused upon structural remains. Furthermore, some of the finds, such as the the *cyma reversa* and the imported slate, suggest that some of these buildings may have been of a fairly high status (Margalef 2019). This helps to develop not only the known archaeological record of Riseholme, but also the Roman hinterland of Lincoln. Additionally, the concentrations of coinage complement patterns observed further afield in the East Midlands, in which sites containing significant coinage are almost completely restricted to areas located on major communication and transport routes; this might also go some way to explaining why our site appears to endure through to the very end of the Roman occupation of Britain (Daubney, 2019). The excavations also proved that Roman occupation continued in the area after the construction of the tumulus, providing a likely source for the pottery which has been found in the vicinity.

It is important to stress that these are the best-fit ideas we are able to piece together, with the information that we were able to gather from the relatively short and small-scale excavation. The fragmentary nature of the archaeological record, due to destruction by ploughing, is also key to understanding the bigger picture of the site. Many Roman buildings were constructed out of much more ephemeral material than stone. Timber framed structures would have been a common sight around the Roman hinterland of Lincoln and naturally, these materials rot and degrade in the ground over the centuries, often only visible as staining in the natural geology. It is like looking through the key hole on the front door and being asked to make a judgment on the entire house. Despite these limitations and the challenging conditions of the British summer (heatwaves and downpours), the team successfully demonstrated that there are significant Roman remains still present, even with the level of ploughing that routinely occurs in the field.

10 Future Work (and an important note for future archaeologists)

The results of the fieldwalking, geophysical survey and excavation revealed a tantalising glimpse into the rich seam of Roman heritage that can be found in the hinterland of Lincoln. The presence of long-term activity, encompassing four hundred years of Roman occupation, is particularly intriguing. The proximity of the site to *Ermine Street*, an important Roman trade and military communication link, may explain this longevity. At first glance the buildings identified through excavation, supported by the material culture, tell the story of a small farm or villa on the outskirts of the city, close to a bustling transport network. Great thanks must be given to the University of Lincoln, who have volunteered to stop ploughing the field. This will ensure that no further damage is done to the Roman remains and demonstrates once again, their continued commitment to preserving our local heritage.

Future archaeological work is needed to prove the function of the buildings unearthed by the Wings to the Past team and to locate the main farm complex (which must be close to the outlying storage buildings we identified!). One question left unanswered by the excavation is the significance of the Roman burial mound to the surrounding landscape. Roman burials were often inserted into prehistoric mounds and it is possible that the tumulus at the Riseholme Campus could provide evidence for the Roman reuse of a much earlier ceremonial monument. The tumulus itself is scheduled and therefore protected from excavation. However, investigations closer to the mound may help to date its origins and provide a wider context for this significant archaeological resource.

One thing that future investigations will have to be aware of is the presence of a much more recent, yet no less valuable archaeological resource. At the close of the project, a time capsule was buried, not only to commemorate the project, but to leave something behind for future generations to discover. The word was put out across Lincolnshire (courtesy of BBC Radio Lincolnshire) for suggestions of what to



include within the capsule. The contents included...well, perhaps this should remain a mystery until the next archaeologist excavates the site, or maybe when future Wings to the Past volunteers have the opportunity to revisit the campus and help to tell the story of Roman Lincolnshire.



The sacred burial of the time capsule!

11 Community Feedback

“(There was a) sense of camaraderie. Being able to be so engrossed in something and forgetting the stresses of everyday life.”

Sixty volunteers took part in the project over the course of the two weeks. This number was made up of local volunteers and ten families where at least one parent was a serving member of the RAF or other Military Service. There was a vast age range involved, with our youngest member being 6 months and our oldest an octogenarian.

An open day was held during the final week of the fieldwork, giving the volunteers a chance to show-off their hard work to friends and family, and for the local community to get an idea of what was going on 2000 years ago, on their very doorstep. Visitors could undertake a tour of the trenches where volunteers would be



Everything is better when there is cake...



eagerly waiting to explain what they had found. A number of events were planned for the day, including archery in the grounds of Riseholme Hall, the opportunity to make your own Roman pots, all whilst munching on cake, sipping tea and being accompanied by the sound of traditional lute playing.

The overwhelming sense from the volunteers was that this project has been a great success, not only in the fact that we have been able to prove the presence of significant archaeological remains, but also and more importantly, it was an overriding success in getting RAF personal and their families to simply spend time together. These military families not only got to spend time with each other, something which can be a struggle as *"... not many activities we can do together where our military life is fully understood"*, but it also allowed them to bond with other families who were, or had gone through, very similar situations and share advice, life lessons and good humour.



Let me entertain you!



A traditional British summer did not dampen our spirits

They enjoyed how it allowed them to learn new skills and gain experience from experts, with one member remarking that they had *"... forgotten the joy of talking to enthusiastic experts. A real pleasure to be part of this team."* Others were grateful that it allowed them to learn about the history of a county they had lived and worked in for their entire life *"...They helped me learn new things and discover my Lincolnshire past."* Finally, it allowed many to decompress, unwind and recharge, both physically but more importantly mentally, with one volunteer remarking that they were *"... surprised at the positive mental health impact"* which, of course, was the primary aim of Wings to the Past.

"I enjoyed how it forced our family to spend time together and appreciate each other."



Our youngest star, ready to take to the trenches



Working hard under the hot sun in Trench 5



12 Acknowledgements

We wish to thank the University of Lincoln for the use of the Riseholme Campus, but especially David Stainton the Estates Manager and his security team. The driving forces for the event were Squadron Leader Suzy from RAF Waddington and her son James (who inspired the creation of the project), Flight Sergeant Peter 'Yoda' Atkinson, Group Captain Brian 'Sumo' James, Professor Carenza Lewis of the University of Lincoln, Professor Simon James of the University of Leicester, Adam Daubney, and all the other members of the Wings to the Past Steering Committee.

Thank you to the metal detectorists Sean Scargill, Keith Kelway, Hugh Jenkins, Pat Filgate, Peter Graham, Rob Lane and Andy Taylor. Thanks too to our specialists: Dave and George Bunn, Adam Daubney, Raquel Margalef, Mike Wood, Richard Moore, Ian Rowlandson, Jane Young and Zoe Tomlinson, as well as a special mention to Jan Allen from Lincolnshire County Council who assisted with the open day. A special thanks to ABBA Plant Hire Ltd who provided the machine and operator. And also, to Shire Toilet Hire who provided welfare and tool storage facilities.

A big nod of appreciation should go to Kealey Manvell, Caroline Kemp and Joshua Manvell, who provide the logistics and administrative support for the excavations and without whom the project would have ground to a halt.

Following the completion of the project, we have been informed that Adam Daubney and James Watts have both been nominated for Archaeologist and Young Archaeologist awards by the CBA and we wish them the best of luck!

We would also like to thank our site staff: Nathan Berry, Diana Fernandes, Raquel Margalef, Cassandra Fallowfield, Russell Almond, Claire Lingard, Annemarie Gaunt, Peter Townend, Marcela Szalanska and Paolo Carbonari.



Most of all, a big thank you to the lovely team of volunteers, who were a pleasure to work with and whose endless high spirits and good humour, even in the sometimes extreme weather conditions, was a joy to experience, helping to turn our team of jaded commercial Eeyores into a group of Tiggers.

- | | | |
|---------------------|--------------------|-------------------------|
| Holly Stuteley | Hannah Stuteley | Francesca Smith |
| Kathryn Murphy | Kimberley Armour | Charlotte Goddard-Smith |
| Leigh Johnson | Annabel Johnson | Max Knight |
| Finn Johnson | Anouk Johnson | Mark Longdon |
| Charlotte Thomas | Isabella Thomas | Jonah Longdon |
| Simon Mouncey | John Mouncey | Christopher Mouncey |
| Carla Linford | Jason Watts | Harry Watts |
| James Watts | Sam Watts | Jake Watts |
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| Matthew Carre | Ryan Tomlinson | Toby Fairbrother |
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| Amelia Russell | Kayleigh Magee | Darren Ella |
| Thomas Warner-Bull | Lindsay Warner | Stephen Lonsdale |
| Katherine Thomas | Ellie Linford | Jena Lane |
| Carmel Lane | Ryan Lane | Virag Baranyai |

Signing off and summing up the success of the whole project are these few words:

“It was terrifically excellent because I like to spend time with my Daddy”



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Plate 1 Trench 1 looking north



Plate 2 Trench 2 looking north



Plate 3 Wall 303 in Trench 3 looking east



Plate 4 General overview of Trench 3



Plate 5 Layer 305 looking east



Plate 6 Layer 306 looking south



Plate 7 Layer 307 looking west



Plate 8 Excavation through wall 303 looking west



Plate 9 Overview of Trench 4 highlighting wall 405/408 looking north



Plate 10 Excavation through wall 405 looking north



Plate 11 Excavation through wall 405 looking south



Plate 12 Possible animal burial 403 looking north



Plate 13 General overview of Trench 5 looking south



Plate 14 General overview of Trench 5 looking north



Plate 15 Excavation through wall 504 looking south



Plate 16 Working shot of excavation of wall 504



Plate 17 Excavation through pit 510 looking west



Plate 18 Excavation through construction cut 509 and robber cut 507 looking south

15 Appendices

Appendix 1: Metal Finds

Appendix 2: Roman Pottery

Appendix 3: Post-Roman Pottery

Appendix 4: Ceramic Building Material

Appendix 5: Stone

Appendix 6: Mortar

Appendix 7: Animal Bone

Appendix 8: Shell

Appendix 9: Other Finds Assessment

Appendix 10: Figures

Appendix 1: Metal Finds

Metal finds (other than coins)

Adam Daubney

Introduction

A total of 72 metal finds other than coins were recovered, comprising 1 of copper alloy, 68 of iron, 2 of lead, and one possible piece of slag. Finds were recovered from topsoil, subsoil, spoil heaps, and from archaeological contexts. All were initially located with aid of a metal detector.

Methodology

The objects are recorded at a basic level in Table 1, where they are listed individually by material and date. Objects are discussed in further detail below according to material and, where possible, according to function and chronology.

Overview

The assemblage is dominated by iron objects, with only one item of copper alloy, two items of lead and one possible piece of slag having been recovered (Table 1). While the copper alloy item (a stud) can be confidently dated to the Roman period, most of the ironwork is of uncertain date. Indeed, the ironwork is in a poor state of preservation and predominantly includes nails that derive from topsoil or subsoil contexts. All ironwork was assessed in an uncleaned state and without x-radiography. Descriptions and dates should therefore be understood as tentative. While only one Roman copper alloy artefact was recovered, a further seventeen Roman copper alloy coins from the excavation are discussed in a further section of the report.

	Roman	Early Medieval	Medieval	Post-medieval	Modern	Uncertain
Copper alloy	1	0	0	0	0	0
Iron	15	0	0	0	1	52
Lead	0	0	0	0	1	1
Slag?	0	0	0	0	0	1
TOTAL	16	0	0	0	2	54

Table 1. Overview of metalwork by period and type.

Provenance

The metal assemblage derives from contexts 100, 101, 301, 304, 305, 308, 400, 401, 406, 500, 501 and 800.

Assemblage range/chronology

Copper alloy

The only item recovered was of a stud of Roman date (MD63, context 001). The stud has a flat, circular head with an incomplete integral shank extending from the centre of the reverse. Flat headed studs were used throughout the Roman period on a range of items from leather belts to wooden boxes.

Iron

Of the 68 iron objects recovered, 52 are nails. All are incomplete and in a poor state of preservation which hinders analysis. Nails were found in four archaeological contexts (304, 305, 308, 406), with the rest being recovered from topsoil or subsoil. The stratified examples have flat heads and square sectioned shanks and probably fall into Manning's type Ib (Manning 1985, 134-5). The majority of nails recovered from topsoil and subsoil contexts are of the same type and are possibly also Roman. The remaining iron objects are unidentifiable.

Lead

Two items of lead were recovered, one being of modern date and the other of uncertain date. The modern lead object is a shot or bullet (SF312, Context 500). The object is plano-convex with a flattened median band displaying with fine vertical grooves consistent with it having been fired. The object is probably 19th century. The remaining lead object is an irregular strip, perhaps an offcut (Context 101). The item is of uncertain date.

Statement of potential and recommendations for further analysis

The metal assemblage is of low archaeological potential, though the presence of Roman nails from context is a useful indication of the potential for archaeological remains to survive across the heavily ploughed area of the field. The assemblage complements the chronology and character of the site already established through previous episodes of metal detecting. These finds are recorded on the Portable Antiquities Scheme database (www.finds.org.uk). The copper alloy stud and nails recovered from in-situ contexts should be retained and deposited with the site archive. The unstratified nails and two lead objects are of low significance and could be discarded, subject to consultation with relevant parties.

Finds Catalogue by Context

Context 100 - Topsoil

MD63. Copper alloy stud. The stud has a flat, circular head with an incomplete integral shank extending from the centre of the reverse. The shank is of circular section. Flat headed studs were used throughout the Roman period on a range of items from leather belts to wooden boxes. Diameter 8mm. 0.76g. Cf. three studs from Roman Catterick (Wilson 2002, p.130, fig. 293, nos. 16 and 23).

Context 101 - Subsoil

No number. Irregular strip of lead. Probably an offcut. 50 x 4 x 3mm. 8.35g.



Context 301 – Topsoil

No number 1. Iron nail. Flat circular head, square shank. Length 82mm. Head diameter 20mm. Weight 19g.

No number 2. Iron nail. Incomplete and unclear due to corrosion. Length 35mm. Weight 7g.

No number 3. Iron nail. Incomplete shank of square section. Length 34mm. Weight 4g.

No number 4. Iron nail. Incomplete shank with incomplete circular head. Length 37mm. Head diameter circa 17mm. Weight 6g.

No number 5. Iron nail. Near complete square section shank with flat circular head. Length 57mm. Head diameter 12mm. Weight 6g.

No number 6. Iron nail. Incomplete square section shank with flat circular head. Length 24mm. Weight 4g. Head circa 14mm diameter.

No number 7. Iron nail. Incomplete shank of uncertain section; turned over terminal; head missing. Length 46mm. Weight 5g.

No number 8. Iron nail. Incomplete shank of square section with flat circular head. Length 35mm. Head diameter 13mm. Weight 2.6g.

No number 9. Iron nail. Incomplete shank of square section with flat circular head. Length 51mm. Weight 4g.

No number 10. Iron nail. Incomplete shank of square section with flat circular head. Length 40mm. Head diameter 12mm. Weight 3.9g.

No number 11. Iron nail. Incomplete shank of square section with flat circular head. Length 25mm. Head diameter 15mm. Weight 3.7g.

No number 12. Iron nail. Incomplete shank of square section with flat circular head. Length 24mm. Head diameter 10mm. Weight 2g.

Context 304 – Layer south of wall

No number 1. Iron nail. Incomplete shank of square section with flat circular head. Length 20mm. Weight 1.7g. Head diameter 13mm.

No number 2. Iron nail. Incomplete shank of square section with flat circular head. Length 46mm. Head diameter 14mm. Weight 4.2g.

No number 3. Iron nail. Incomplete shank of square section with flat circular head. Length 27mm. Head diameter 16mm. Weight 3.3g.

No number 4. Iron nail. Incomplete shank of square section with flat circular head. Length 30mm. Head diameter 19mm. Weight 4.5g.

No number 5. L-shaped shank, possibly a staple. Length 45mm, Width 16mm. Weight 5.5g.

No number 6. L-shaped shank, possibly a staple. Length 37mm. Width 14mm. Weight 3.1g.

No number 7. Iron nail. Incomplete shank of square section with flat circular head. Length 37mm. Head diameter 15mm. Weight 2.34g.

No number 8. Iron nail. Incomplete shank of square section. Length 26mm. Weight 0.95g.



Context 305 – Burned layer west and north of wall

No number 1. Iron nail. Incomplete shank of square section with flat circular head. Length 47mm. Head diameter 15mm. Weight 4.3g.

Context 308 – Fill of foundation cut

No number 1. Iron nail. Incomplete shank of square section with flat circular head. Length 25mm. Head diameter 15mm. Weight 3.21g.

No number 2. Iron nail. Incomplete shank of square section with flat circular head. Length 10mm. Head diameter 16mm. Weight 2.06g.

No number 3. Iron nail. Incomplete shank of square section. Length 20mm. Weight 0.93g.

No number 4. Iron nail. Incomplete shank of square section. Length 20mm. Weight 0.84g.

No number 5. Iron nail. Incomplete shank of square section. Length 20mm. Weight 1.32g.

Context 400 – Topsoil

No number 1. Iron nail. Incomplete shank of square section with flat circular head. Length 72mm. Head diameter 20mm. Weight 22g.

No number 2. Iron nail. Incomplete shank of square section with flat circular head. Length 32mm. Head diameter 27mm. Weight 2.5g.

No number 3. Iron nail. Incomplete shank of square section. Length 37mm. 3.8g.

No number 4. Iron nail. Incomplete shank of square section. Length 40mm. 3g.

3 x unidentifiable fe objects.

Context 401 - Subsoil

SF304. Fe object. A sheet of iron, possibly complete. The sheet is plano-convex in plan and slightly convex in section. Two possible iron rivets are noted on the base, one located in each corner. Uncertain date. 52mm x 40mm x 3mm including corrosion. 27.85g.

SF305. Fe object. A thin sheet of iron, possibly tapering from edge to edge. The piece is broken at both ends. Uncertain date. 35 x 27 x 2mm. 10.72g.

Context 406 – fill of cut

No number 1. Iron nail. Incomplete shank of square section with flat circular head. Length 32mm. Head diameter 12mm. Weight 2.9g.



Context 500 - Topsoil

SF312. Lead shot or bullet. The object is plano-convex with a flattened median band. The median band has fine vertical grooves on it probably caused during firing. Probably 19th century. Length 8mm, diameter 8mm. 5.53g.

Context 501 – interface over rest of trench

No number 1. Iron washer. A flat annular piece of iron, probably a modern washer. External diameter 30mm x 3mm thick including corrosion. 7.70g.

No number 2. Iron nail. Incomplete shank from an iron nail. Oval section. Length 38mm, diameter 5mm including corrosion. 2.78g. Uncertain date.

No number 3. Iron nail. Possible flat oval head with shank of square section. Length 27mm. Head diameter 10mm x 8mm. 3.28g. Uncertain date.

No number 4. Iron nail. Possible flat oval head with shank of square section. Length 56mm. Head diameter 13mm x 9mm. 4.95g. Uncertain date.

No number 5. Iron nail. Incomplete. Possible flat oval head with shank of square section. Length 37mm. Head diameter 12mm x 11mm. 4.92g. Uncertain date.

No number 6. Iron nail. Incomplete shank from an iron nail. Rectangular section. 22 x 5 x 4mm. 3.09g.

No number 7. Iron nail. Possible flat oval head with shank of square section. Length 60mm. Head diameter 15mm x 13mm. 7.39g. Uncertain date.

No number 8. Incomplete nail. Flat oval head with fragment of square sectioned shank. Head diameter 13mm. Weight 2g.

No number 9. Iron nail. Incomplete shank of square section. Length 38mm. Weight 2.6g.

No number 10. Iron nail. Incomplete shank of square section. Length 32mm. Weight 1.8g.

Context 800 – Spoil heap

SF312. Fragment of a highly vitrified material. Under microscopic examination at x20 magnification the material has a glassy appearance and is of turquoise-green colour. The object is probably a piece of slag. 2mm diameter. 0.01g.

No number 1. Nail/bolt with flat circular head and square sectioned shank. Length 163mm. Head diameter 32mm. 92g.

No number 2. Iron bolt. Modern.

No number 3. Unidentifiable fe object.

No number 4. Hobnail. Hand wrought with square shanks with hemispherical head that is either domed or angled four sided pyramidal in form. Length 8mm. Head diameter 6mm. Weight 0.73g.

No number 5. Hobnail. Hand wrought with square shanks with hemispherical head that is either domed or angled four sided pyramidal in form. Length 11mm. Head diameter 7mm. Weight 1.4g.

No number 6. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 86mm. Head diameter 20mm. Weight 30g.



No number 7. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 22mm. Head diameter 15mm. Weight 2.5g.

No number 8. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 38mm. Head diameter 13mm. Weight 5.6g.

No number 9. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 44mm. Head diameter 18mm. Weight 9.2g.

No number 10. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 70mm. Head diameter 13mm. Weight 9.5g.

No number 11. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 28mm. Head diameter 20mm. Weight 11.3g.

No number 12. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 40mm. Head diameter 12mm. Weight 3.5g.

No number 13. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 46mm. Head diameter 9mm. Weight 3.9g.

No number 14. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 56mm. Head diameter 12mm. Weight 5.2g.

No number 15. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 26mm. Head diameter 10mm. Weight 3.3g.

No number 16. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 51mm. Head missing. Weight 4.6g.

No number 17. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 21mm. Head diameter 10mm. Weight 1.4g.

No number 18. Incomplete nail. Flat oval head with fragment of square sectioned shank. Length 12mm. Head diameter 12mm. Weight 1.2g.

4 x unidentifiable fe objects.



Coins

Adam Daubney

Introduction

A total of 17 coins were recovered, all of which were found in the topsoil by with aid of metal detectors. All are late Roman copper alloy *radiates* or *nummi* dating 260-402.

Methodology

The objects are recorded at a basic level below, where they are listed individually by material, and with provisional phasing/context type. Coins are discussed in further detail below according to type and wider context.

Overview

The numismatic assemblage from Riseholme comprises late Roman *radiates* and *nummi*, complementing the picture already established through previous episodes of metal detecting on the site.

Provenance

The coin assemblage derives from topsoil contexts 100, 400, and spoil heap 800.

Assemblage range/chronology

Late Roman copper alloy radiates (AD260-296)

One *radiate* was recovered from the site, that being a VIRTUS AVG type struck for Victorinus (AD268-70). Two unidentifiable coins may belong to the radiate issues of AD260-296, though they could equally be *nummi*.

Late Roman copper alloy nummi (AD296-402)

14 certain late Roman copper alloy *nummi* were recovered, 10 being of the House of Constantine, 3 of the House of Valentinian, and one of Arcadius.

The number of coins recovered during WTP15 is not large enough to be statistically valid; however, it mirrors the wider trend of late Roman activity as seen through previous episodes of metal detecting. Coinage recovered from the site through hobbyist metal detecting spans the first to fourth centuries, with the majority falling between AD260-402. The mid-third to fourth centuries saw a substantial increase in the volume of low value copper alloy denominations, and this is particularly noted in the East Midlands – especially Lincolnshire – where many thousands from rural sites have been recorded on the Portable Antiquities Scheme database. The pattern seen at Riseholme complements the wider picture where later fourth century sites containing significant coinage are almost completely restricted to areas located on major communication and transport routes, and particular at nodal points such as cross-roads (Walton 2015). In this context, the route of Ermine Street and Tillbridge Lane come in to focus and help to explain the longevity of the site and its role in official and military activities.



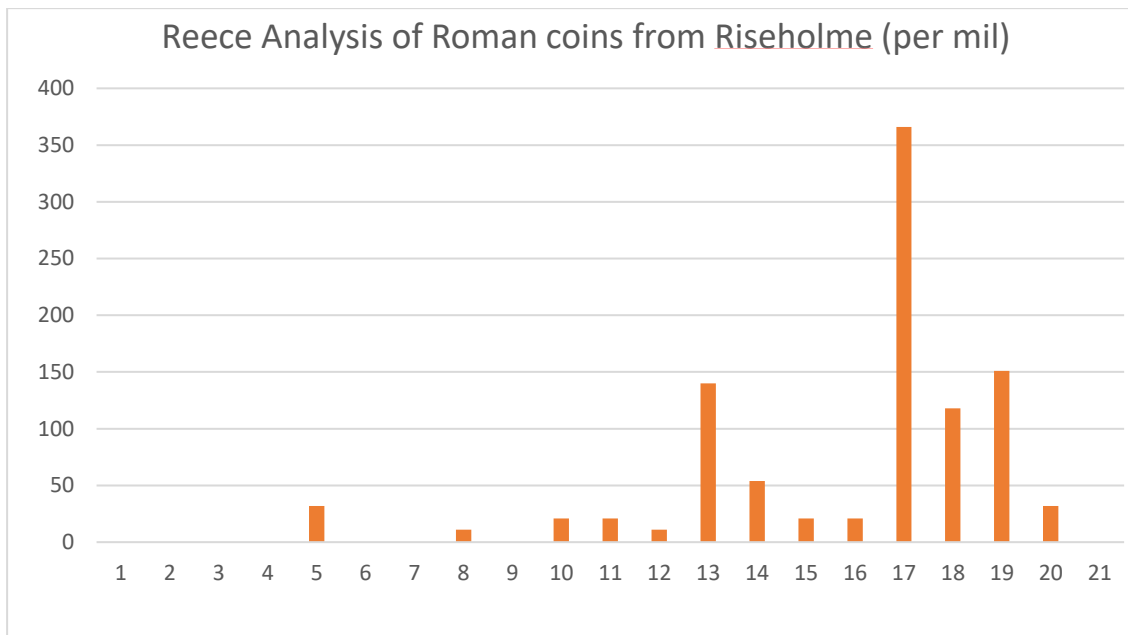


Figure XX. Reece analysis of Roman coins from previous episodes of metal detecting on the site (source: Portable Antiquities Scheme).

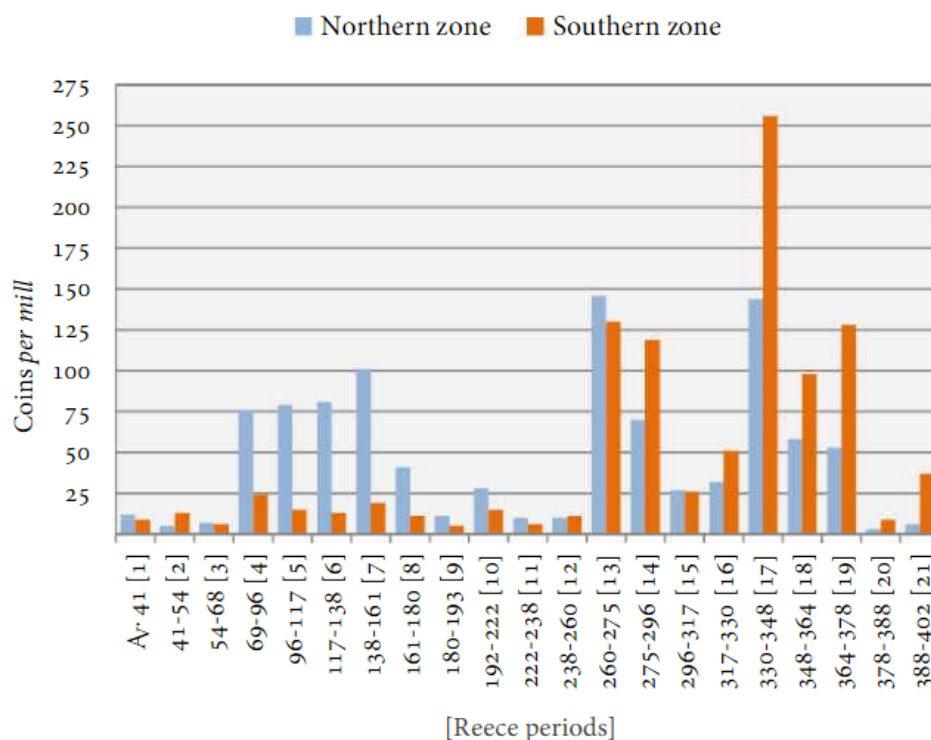


Fig. 3 – The per mill profiles for northern and southern Britain compared

Figure XX. The *per mill* profiles for northern and southern Britain; source: Walton, P. (2015) From barbarism to civilisation? Rethinking the monetisation of Roman Britain. *Revue Belge de Numismatique et de Sigillographie*, Vol. CLXI, 105-120).

Statement of potential and recommendations for further analysis

The coin assemblage is in good condition and complements the pattern already established through previous episodes of metal detecting on the site. These latter coins are recorded on the Portable Antiquities Scheme database www.finds.org.uk. The coins recovered during WTP15 should be retained and deposited as part of the site archive. The coin assemblage requires appropriate packaging for archiving, as set out in Lincolnshire County Council's Deposition Guidelines. For the purposes of this phase of work, no further research is required.

Coin Catalogue by Context

Context 100

MD64. Illegible late Roman copper alloy radiate or nummus, struck AD260-402. 0.39g. 14mm x 7mm. Die axis: uncertain.

MD65. Late Roman copper alloy nummus of Arcadius (Reece Period 21). VICTORIA AVGGG reverse type depicting Victory advancing left, holding wreath and palm. Mint unknown. Struck 388-95. Obverse: Unclear diademed and draped bust right; Illegible legend. Reverse: Victory advancing left holding wreath and palm; [VICTOR]-IA [AVGGG]. 12mm. 1.18g. Die axis: 6. Reece Period 21.

MD66. Late Roman copper alloy nummus of Constans (Reece Period 17). GLORIA EXERCITVS reverse type depicting two soldiers and one standard. Illegible mint. Struck AD335-7. Obverse: Unclear bust right; CONSTANS-PF [AVG]. Reverse: two soldiers standing either side of one standard; [GLORIA EXERCITVS]. 17mm. 1.58g. Die axis: 6. Reece Period 17.

MD67. Late Roman copper alloy radiate or nummus struck AD260-402. The coin is blank on both sides. 11mm. 0.91g. Microscopic analysis at x20 magnification reveals that both sides have been filed flat. Both sides have a dark green patina which suggests the activity occurred in antiquity. It is possible that this coin was filed flat in order to be restruck using unofficial dies.

MD68. Contemporary copy of a late Roman copper alloy nummus of the House of Constantine. FEL TEMP REPARATIO reverse type depicting a soldier spearing a fallen horseman. Obverse: unclear bust right. Reverse: blundered soldier spearing fallen horseman. Struck AD 354-61. 10mm. 0.85g. Die axis: 1. Reece Period 18.

Context 400

SF300 (coin 1). Late Roman copper alloy nummus of Valentinian I. SECVRITAS REIPVBLICAE reverse type depicting Victory advancing left. Mint of Arles. Struck 364-67. Obverse: diademed, draped and cuirassed bust right; DN VALENTINIANVS PF AVG. Reverse: Victory advancing left, holding wreath and palm; SECVRITAS REIPVBLICAE. Mint mark: OF/I././CON. RIC IX, no. 9a. 18mm. 2.10g. Die axis: 6. Reece Period 19.

SF301 (coin 2). Late Roman copper alloy nummus, probably of the House of Valentinian. Probably SECVRITAS REIPVBLICAE reverse type depicting Victory advancing left. Illegible mint. Struck AD364-78. Obverse: unclear diademed and draped bust right; illegible legend. Reverse: probably Victory advancing left holding wreath and palm; (SECVRITAS REIPVBLICAE). 18mm. 1.87g. Die axis: 6. Reece Period 19.

SF303 (coin 4). Late Roman copper alloy nummus of Constantine II. GLORIA EXERCITVS reverse type depicting two soldiers and one standard. Mint of Trier. Struck AD335-7. Obverse: Diademed and draped bust right; [CONSTA]NTI-NVS [IVN NC]. Reverse: two soldiers standing either side of one



standard.; [GLORIA EXERCITVS]. Mint mark: TRS. 13mm. 0.82g. Die axis: 6. RIC VII, no.586. Reece Period 17.

SF309 (coin 10). Contemporary copy of a late Roman copper alloy nummus of the House of Constantine. FEL TEMP REPARATIO reverse type depicting a soldier spearing a fallen horseman. Illegible mint mark. Struck AD354-61. Obverse: unclear bust right; illegible legend. Reverse: blundered soldier spearing a fallen horseman; (FEL TEMP REPARATIO). 9mm. 0.53g. Die axis: 7. Reece Period 18.

SF310 (coin 11). Late Roman copper alloy nummus of Helena. PAX PVBLICA reverse type depicting Pax with transverse sceptre. Mint of Trier. Struck AD337-341. Obverse: Bust facing right, mantled, hair in loops; FL IVL HELENAE AVG. Reverse: Pax standing left with sceptre and branch; PAX PVBLICA. Mint mark: TRS palm. LRBC Pt. I, No. 128. 14mm. 1.92g. Die axis: 6. Reece Period 17.

Context 401

SF307 (coin 8). Late Roman copper alloy nummus of the House of Constantine. GLORIA EXERCITVS reverse type depicting two soldiers and one standard. Struck AD335-7. Unclear mint. Obverse: Unclear laureate, draped and cuirassed bust right; illegible legend. Reverse: two soldiers standing either side of one standard. 16mm. 1.49g. Die axis: 6. Reece Period 17.

Context 800 – Spoil heap

SF313. Late Roman copper alloy nummus of the House of Constantine. FEL TEMP REPARATIO reverse type depicting a soldier spearing a fallen horseman. Struck AD354-61. Obverse: unclear bust right; illegible legend. Reverse: soldier spearing a fallen horseman; [FEL TEMP REPARATIO]. Unclear mint. 14mm. 1.49g. Die axis: 6. Reece Period 18.

SF314. Late Roman copper alloy nummus of Constantine II. GLORIA EXERCITVS reverse type depicting two soldiers standing either side of two standards. Mint of Thessalonica. Obverse: laureate and cuirassed bust right; CONSTANTINVS IVN NOB C. Reverse: two soldiers standing either side of two standards; GLOR-IA EXERC-ITVS. Mint mark: SMTSA. RIC VII no.184. 17mm. 2.03g. Die axis: 5. Reece Period 17.

n.b. There are only 28 coins of Constantine II struck in Thessalonica recorded on the PAS database, the most northernly of which come from Shiptonthorpe, East Riding of Yorkshire. The example from Riseholme is the first of this category to be recorded in Lincolnshire.

SF315. Late Roman copper alloy nummus of the House of Constantine. VRBS ROMA commemorative issue. Struck AD335-7. Unclear mint. Obverse: Helmeted and cuirassed bust of Constantinopolis left. VRBS [ROMA]. Reverse: She-wolf suckling Romulus and Remus. 0.88g. 17mm. Die axis: 9. Reece Period 17.

SF316. Late Roman copper alloy nummus of Constantine I. GLORIA EXERCITVS reverse type depicting two soldiers standing either side of two standards. Struck AD330-5. Unclear mint. 14mm. 1.44g. Obverse: laureate, draped and cuirassed bust right; CONSTAN-TINVS AVG. Reverse: two soldiers standing either side of two standards; GLORIA EXERCITVS. Die axis: 6. Reece Period 17.

SF317. Late Roman copper alloy nummus of the House of Valentinian. SECVRITAS REIPVBLICAE reverse depicting Victory advancing left. Illegible mint. Struck AD364-78. Obverse: illegible; unclear bust right. Reverse: Victory advancing left holding wreath and palm. [SECVRITAS REIPVBLICAE]. 18mm. 1.35g. Die axis: 12. Reece Period 19.

SF318. Late Roman copper alloy radiate of Victorinus. VIRTVS AVG reverse type depicting a soldier standing right. Struck AD268-70. 19mm. 1.70g. Obverse: radiate and draped bust right; []AVG.



Reverse: Soldier standing right holding spear and leaning on shield. [VIRTV]S AVG. Die axis: 6. Reece Period 13.

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Appendix 2: Roman Pottery

I.M. Rowlandson and H. G. Fiske

Introduction

Six hundred and seventy-two sherds of pottery were presented for study (8.401kg, 4.63 RE) from a maximum of 595 vessels. Approximately two thirds of the assemblage was retrieved by field walking and the rest of the group from a series of trial trenches.

The majority of the pottery dated to the Roman period but three handmade shell-gritted sherds that may have been of Iron Age date suggested the possibility of some activity on the site before the Roman conquest. As a considerable proportion of the assemblage was retrieved from field walking and from the topsoil, where such wares do not survive well, it was difficult to assess the likelihood of Iron Age activity in the area. It was notable that there were no Iron Age sherds amongst the assemblage from the excavation trenches.

A small number of native tradition gritty sherds that dated to the later 1st to 2nd century AD, along with Central Gaulish samian and sherds from colour-coated beakers, suggested that the site was occupied from at least the 2nd century AD. The presence of shell-gritted Dales ware and late Roman wares such as Swanpool mortaria, Swanpool colour-coated ware and straight sided bead and flanged bowls suggested that the site continued to be occupied in the 3rd to 4th centuries AD. A sherd from a bowl with an in-turned bead and flanged rim (BIBF) suggested this activity continued until at least the second half of the 4th century AD. It was noticeable that most of the assemblages from the trial trench contexts could be dated to the 3rd century AD or later (Table 3).

The range of pottery would suggest a fairly basic rural assemblage with access to imported vessels such as Dressel 20 amphora and samian probably via the *colonia* where pottery could easily be acquired though out the Roman period. The poor condition of much of the assemblage, the fairly low average sherd weight (mean 12.50g) and the methodological bias towards robust sherds from the plough soil hindered the recognition of chronologically diagnostic forms. The assemblage is discussed by ware type below: the nature of the assemblage precludes more detailed analysis.

Methodology

An archive (Table 4) has been produced to comply with the requirements of the Study Group for Roman Pottery (Darling 2004) and *Standard for Pottery Analysis in Archaeology* (Barclay et al., 2016) using the codes and system developed by the City of Lincoln Archaeological Unit (Darling and Precious 2014). A maximum vessel count and rim equivalents were recorded following Pollard (1990). A tabulated summary by context (Table 3) are presented below. The dates provided represent the pottery recorded here: the main text of the report and other specialist contributions should be consulted to ascertain the overall date attributed to each context.

The Assemblage

Iron Age and Native tradition wares

Three handmade fossil shell-gritted sherds retrieved from the field walking project may be of Iron Age date. The majority of vessels (17 sherds) could be attributed to the transitional IAGR fabric group. These vessels had varying quantities of quartz-sand, grog/ clay pellets and fossil



shell as is typical of those recorded from Lincoln (see Table 4 for fabric details, Darling and Precious 2014). The only recognizable forms were sherds from two everted rimmed jars although it was likely that the remaining body sherds were also from jars or large bowls produced in the second half of the 1st to sometime in the middle of the 2nd century AD. These wares are abundant amongst assemblages dating to the 2nd century AD, particularly on rural sites, where they were probably favoured for cooking and storage functions (Rowlandson and Fiske 2019).

Amphora

Two sherds from Dressel 20 amphorae were recovered and a further three possible Dressel 20 amphora sherds were retrieved from the field walking phase of the project. Amphora sherds are rare finds in this area outside of fortresses or towns and were mostly imported during the 1st and 2nd century AD. These globular amphora were mostly produced in southern Spain in the Guadalquivir valley and used to transport olive oil or other olive based products. The inhabitants of this site could have had access to such good at the nearby *colonia* were numerous examples of such vessels were retrieved from excavations along the waterfront.

Samian

Nineteen sherds of samian were retrieved from the project all of the sherds were small with an average sherd weight of 2.09g and were in poor condition. All of the sherds were from Central Gaul dating to AD120-200. A small decorated sherd and a fragment from a form 36 bowl was retrieved from the field walking. The small quantity of samian from this group would fit with a rural site occupied in the 2nd century AD. The low average sherd weight can be explained by almost all of the sherds being retrieved from field walking.

Mortaria

Only six mortaria sherds were retrieved. The majority of this material could be attributed to a local Swanpool style production source (MOSP) with two examples of bead and flanged rims (MBF) and a further vessel with a reeded rim (MRR). All of the MOSP pottery was retrieved during the field walking phase. The white-slipped sherds in this fabric can all be dated to the late 3rd to 4th century AD. Sherds from a further vessel with a light pink fabric, similar to that produced at the Lincoln Newport suburb (Rowlandson 2015) but with fine slag trituration grits were retrieved from context 401. This vessel may be a local late Roman product and similar material may have been produced at the Hykeham Road, Lincoln (Fiske and Rowlandson in prep.). The pattern of mortaria present suggested a Late Roman bias.

Other fine wares

The range of other fine wares present was limited and included a rough-cast beaker (context 301) and a beaker with a cornice rim (field walking find). Vessels of these types were produced in the mid to late 2nd century AD at sites such as South Carlton and the Lincoln Newport Suburb kiln (Webster 1944 and Rowlandson 2015). The fabric of rough-cast vessel did not appear to match the majority of local products: it may be an atypical product or from further afield. A small range of other colour-coated sherds were retrieved in the CC1 fabric that may have been produced in the Nene Valley or in the vicinity of Lincoln. These sherds could be dated from the mid-2nd century to the end of the 4th century AD. A single fine grey ware sherd was also retrieved during the field walking project, this vessel probably dated to the 2nd or 3rd century AD. Three sherds of Swanpool colour-coated ware (SPCC) were retrieved (field-walked finds and context 401) suggesting activity on the site in the 4th century AD. Although these sherds

are not common amongst rural assemblages the proximity to the *colonia* would explain their presence within this assemblage.

Oxidised wares

As would be expected for a rural assemblage from Lincolnshire there were a limited number of oxidised wares from this assemblage. Two sherds in the light-fired CR fabric group, probably from flagons, were present (field walked find and context 301). These sherds probably dated to the 2nd century AD. A range of oxidised sherds were also recorded including a straight-sided bead and flanged bowl (BFB) from the field walking project likely to date to the late 3rd to 4th century AD and a jar or beaker with an everted rim from context 301. The poor condition of the majority of these sherds precluded isolating examples of the Swanpool oxidised SPOX fabric amongst this group of local oxidised wares.

Reduced wares

The vast majority of the vessels retrieved from this site (526 sherds) could be classed as Roman reduced coarse wares. Of this group the majority (493 sherds) could only be broadly attributed to the local wheel made GREY category. There are a growing number of kilns in the vicinity of Lincoln that produced wheel made grey ware and also in other parts of Lincolnshire (see Darling and Precious 2014). In some instances, it is possible to subdivide the GREY ware group but this has not typically been attempted for sites in the vicinity of Lincoln (Rowlandson and Fiske 2019, Darling and Precious 2014). Grey ware made up the majority of the utilitarian wares in use in Lincoln and much of Lincolnshire throughout the Roman period from the middle 2nd century AD onwards especially on rural sites where reduced grey wares typically made up over half of the assemblage. The local potters produced a full suite of vessel types mostly consisting of jars and large bowls with dishes and small bowls that may have been used for cooking or as table ware. The grey ware potters also produced more specialist vessels such as beakers, cheese presses and ritual vessels such as face pots to serve the requirements of the local population. Whilst imported goods were available throughout most of the Roman period at Lincoln it is clear that the majority of the requirements of those living in more basic rural settlements were fulfilled by the local grey ware potters. The pottery produced by these industries also has the advantage of being resilient to modern ploughing and therefore is always more abundant amongst field walked assemblages. Few diagnostic feature sherds were present but those present represented a typical range of forms including the carinated drinking vessel (B334), straight sided bead and flanged bowls, beakers, jars, wide-mouthed bowls a bowl with an in-turned bead and flanged rim, copies of Black Burnished ware type lipped bowls and dishes.

A small number of coarse grey ware sherds (GREYC), probably of late Roman date, were noted including a straight-sided bowl with a bead and flanged rim. Four grey ware sherds with sparse fossil shell (GREYS) were recorded including the rim from a storage jar. Ten sherds of grog-gritted grey wares (GROG) were recorded including an example of a Roxby type A jar (J105, Rigby and Stead 1976), examples of this type of fabric occur at a range of sites in northern Lincolnshire and were known to have been made at Market Rasen and possibly also in the vicinity of Lincoln too (Rowlandson and Fiske 2019).

Of note amongst this assemblage were five sherds of Black Burnished ware 1, all from context 301. This ware was known to have originated in Dorset but was subsequently copied in a number of other areas of Britain. Although examples of this fabric are found at Lincoln this fabric seldom occurs amongst inland assemblages in Lincolnshire. As noted above it is likely that the proximity to the market at Lincoln, the likely source of pottery for the Roman

inhabitants of Risholme, explains the presence of a few a-typical sherds amongst this assemblage.

Later Roman shell-gritted wares

The majority of the late Roman shell-gritted pottery from the site could be attributed to the Dales ware group (DWSHT, 37 sherds) that appears in assemblages in Lincoln sometime in the middle of the 3rd century and continued to be used into the 4th century AD (Darling and Precious 2014). Only one diagnostic lid-seated rim sherd was present. These vessels probably represent a development of the Iron Age and Iron Age tradition shell-gritted ware traditions that developed in the late Roman period. The evidence from recent studies would appear to confirm that one of the main functions of these vessels was for heating up stews or animal fats on an open fire (Rowlandson and Fiske 2014). The fossil shell inclusions of these vessels would have made them more resistant to thermal shock when used for cooking on an open fire and it is likely that these vessels were favoured ahead of the local grey wares for such functions in northern Lincolnshire where they were produced. Despite the range of grey wares from the Risholme site dating to the late Roman period Dales ware was poorly represented. The bias against handmade and coarse gritted wares in this assemblage can be explained by the bulk of the pottery being retrieved from the topsoil. Dales ware, although resistant to thermal shock, was not as high fired as the local grey wares and therefore would not have survived well in the plough soil. The low level of pottery of this type in the assemblage perhaps represents a methodological bias of this project rather than suggesting the inhabitants eschewed Dales ware.

Ten further shell-gritted sherds, some wheel made, were recorded that could not be dated with certainty within the Roman period.

Post Roman pottery

Six post-Roman or possibly post-Roman sherds (28g, 0 RE) have been passed on to Jane Young for further study. A further group of miscellaneous sherds that could not be attributed by this author to a fabric group with certainty have been recorded using the code MISC (see Table 4).

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
SAMCG	Samian	Central Gaulish	11	1.64%	23	0.27%	11
DR20	Amphora	Dr 20 amphorae	2	0.30%	320	3.81%	0
DR20?	Amphora	Dressel 20 amphorae	3	0.45%	71	0.85%	0
MORT	Mortaria	Mortaria; undifferentiated	2	0.30%	17	0.20%	0
MOSP	Mortaria	Swanpool mortaria	4	0.60%	157	1.87%	6
GFIN	Fine	Miscellaneous fine grey wares	1	0.15%	5	0.06%	0
CC	Fine	Other colour-coated wares	2	0.30%	3	0.04%	8
CC1	Fine	Colour coated fabric 1	4	0.60%	126	1.50%	0
CC1?	Fine	Colour coated fabric 1	1	0.15%	12	0.14%	0
SPCC	Fine	Swanpool colour-coated	3	0.45%	30	0.36%	2
CR	Oxidised	Roman cream wares (various)	2	0.30%	10	0.12%	0
OX	Oxidised	Misc. oxidized wares	13	1.93%	103	1.23%	20
OX?	Oxidised	Misc. oxidised wares	4	0.60%	74	0.88%	2
BB1	Reduced	Black burnished 1, unspecified	5	0.74%	26	0.31%	0
GREY	Reduced	Miscellaneous grey wares	493	73.36%	6068	72.23%	363
GREY?	Reduced	Miscellaneous grey wares	6	0.89%	90	1.07%	2

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
GREYC	Reduced	Coarse Grey ware	8	1.19%	105	1.25%	4
GREYS	Reduced	Misc grey ware fabrics with rare shell	4	0.60%	79	0.94%	4
GROG	Reduced	Grog-tempered wares	10	1.49%	124	1.48%	6
IAGR	Reduced	Native tradition/transitional gritty wares	17	2.53%	371	4.42%	16
DWSHT	Calcareous	Dales ware type	37	5.51%	284	3.38%	4
IASH	Calcareous	Native tradition shell-tempered	3	0.45%	68	0.81%	2
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	10	1.49%	87	1.04%	9
MISC	Misc	Misc uncategorised	21	3.13%	120	1.43%	4

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
A	Amphora	Unclassified form	5	0.74%	391	4.65%	0
BK	Beaker	Unclassified form	14	2.08%	60	0.71%	0
BKCOR	Beaker	Cornice rim	1	0.15%	2	0.02%	8
BKEV	Beaker	Everted rim	1	0.15%	4	0.05%	21
BKRC	Beaker	Roughcast	1	0.15%	1	0.01%	0
36	Bowl	Samian form- see Webster 1996	1	0.15%	6	0.07%	4
B	Bowl	Unclassified form	5	0.74%	106	1.26%	4
B?	Bowl	Unclassified form	3	0.45%	59	0.70%	2
B334	Bowl	Carinated jar/bowl (flat cordon as D&P 1157-9)	1	0.15%	6	0.07%	0
BFB	Bowl	Bead and flange bowl	9	1.34%	167	1.99%	39
BFL	Bowl	Flange rimmed (eg. Gillam 1970 Types 218-220)	1	0.15%	8	0.10%	4
BIBF	Bowl	In-turned bead and flange Swanpool D13-23	1	0.15%	29	0.35%	7
BTR	Bowl	Triangular rimmed (eg. Gillam 1970 Types 222-3)	2	0.30%	39	0.46%	12
BL	Bowl- large	Large	1	0.15%	46	0.55%	0
BWM	Bowl- large	Wide-mouthed; D&P No 1225-30	3	0.45%	111	1.32%	2
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	1	0.15%	61	0.73%	13
BD	Bowl/dish	-	7	1.04%	56	0.67%	9
CLSD	Closed	Form	34	5.06%	554	6.59%	0
FS	Flask	Or exceptionally small flagon	1	0.15%	4	0.05%	21
J	Jar	Unclassified form	19	2.83%	237	2.82%	76
J105	Jar	Lid seated; as Rigby and Stead 1976 Roxby form A	1	0.15%	10	0.12%	6
J162	Jar	Narrow necked; as D&P 968	1	0.15%	23	0.27%	6
JDW	Jar	Dales ware	1	0.15%	7	0.08%	2
JEV	Jar	Everted rim	7	1.04%	112	1.33%	61
JL	Jar	Large	6	0.89%	445	5.30%	18
JNK	Jar	Necked	6	0.89%	65	0.77%	39
JRUST	Jar	Rusticated	2	0.30%	8	0.10%	0
JS	Jar	Storage	2	0.30%	114	1.36%	6
JBKEV	Jar/Beaker	Everted rim	2	0.30%	6	0.07%	4
JB	Jar/Bowl	Unclassified form	16	2.38%	232	2.76%	20

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
JBL	Jar/Bowl	Large	20	2.98%	801	9.53%	35
JBNK	Jar/Bowl	Necked	1	0.15%	6	0.07%	2
ST	Misc	Strainer	1	0.15%	10	0.12%	0
M	Mortaria	Unclassified Form	3	0.45%	46	0.55%	0
MBF	Mortaria	Bead-and-flange rimmed	2	0.30%	122	1.45%	4
MRR	Mortaria	Reeded rim	1	0.15%	6	0.07%	2
OPEN	Open	Form	1	0.15%	2	0.02%	2
-	Unknown	Form uncertain	488	72.62%	4439	52.84%	34

The stratified sequence

Table 3 provides a summary by context. Table 4 should be consulted for the date of sherds from the field walking project.

Context	Spot date	Comments	Sherd	Weight (g)	Total RE %
001	Unstratified Roman	Field walked finds described in archive Table 4.	419	6088	295
101	Roman	Sherds from a large grey ware jar.	3	113	16
201	3-4C	A small group including samian and sherds from a grey ware wide-mouthed bowl.	8	206	0
300	Roman	A small group of grey ware.	3	50	0
301	ML2	A medium sized group including samian, sherds from a grey ware jar, a lipped bowl, shell-gritted ware and a white ware vessel.	55	425	42
304	3C+	A small group including grey ware and a shell-gritted sherd.	6	38	4
305	L3-4	Wheel made shell-gritted sherds, a grey ware jar and a grey ware straight-sided bead and flange bowl.	23	158	30
401	4C	A medium sized group including sherds from a grey ware beaker from find spot 4, further sherds from a grey ware jar from find spot 3 and further grey ware, Swanpool colour-coated ware, shell-gritted ware and sherds from a slag-gritted mortarium.	111	907	62
406	3C+	Grey ware and shell-gritted Dales ware.	10	118	7
409	3C+	A small group including grey ware and sherds from a from a Dales ware jar.	4	35	2
501	Roman	A small group including grey ware.	16	81	4
502	Roman	A single grey ware sherd	1	3	0
504	Roman	Grey ware sherds.	2	21	0
511	Roman	A grey ware sherd.	1	44	0
800	3C?	Grey ware and shell-gritted sherds.	10	114	1

Research potential

The assemblage suggests that further excavations on this site are likely to produce further groups of Roman pottery. In the event of no further excavations this assessment of the Roman pottery would suffice to accompany a final report

Recommendations

The pottery should be deposited in the relevant local museum to facilitate further study. A considerable proportion of sherds from the excavation have dry mud encrustations.

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Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001		GREY	CLSD		1			BS; THICK WITH MUD		1	14	0	0
001		MISC	J		1			RIM; COARSE REDUCED WARE ?GREYC; DOUBLE LID-SEATED JAR OR POST-Roman		1	7	18	4
001		SAMCG	BD		1	ABR		BS		1	3	0	0
001	002	GREY	-		1	ABR		BS; ROMAN		1	3	0	0
001	003	GREY	-		1	ABR		BS; ROMAN		1	2	0	0
001	006	GREY	-		1	VAB		BS; ROMAN		1	3	0	0
001	007	GREY	-		3	VAB		BS; ROMAN		3	23	0	0
001	008	DWSHT	-		1	VAB		BS; 3C+		1	4	0	0
001	008	GREY	JNK		1			RIM; ROMAN		1	8	14	8
001	008	GREY?	-		1	ABR		BS; ROMAN		1	5	0	0
001	009	GREY	-		1	ABR		BS; ROMAN		1	15	0	0
001	010	GREY	-		2	ABR		BS; ROMAN		2	17	0	0
001	011	DWSHT	-		1	VAB		BS; 3C+		1	8	0	0
001	011	GREY	-		3	ABR		BS; ROMAN		3	57	0	0
001	012	GREY	CLSD	COWL	1			BS; 4C		1	7	0	0
001	012	GREY	CLSD		1	ABR		BASE; ROMAN		1	17	0	0
001	014	GREY	-		1	ABR		BS; ROMAN		1	5	0	0
001	015	GREY	-		1	ABR		BS; ROMAN		1	3	0	0
001	016	GREY	-		2	ABR		BS; ROMAN		2	26	0	0
001	016	GREY	BFB		1	ABR		RIM; L3-4		1	14	0	2
001	016	GREY	JNK		1			RIM; ROMAN		1	6	14	7

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	017	GREY	-		2	ABR		BS; ROMAN		2	6	0	0
001	017	GREY	FS		1	ABR		RIM; ROMAN		1	4	5	21
001	018	GREY	-		2	ABR		BS; ROMAN		2	11	0	0
001	019	GFIN	-		1	VAB		BS; ROMAN		1	5	0	0
001	019	GREY	-		2	ABR		BS; ROMAN		2	25	0	0
001	019	GREY	CLSD		1	ABR		BASE; ROMAN		1	12	0	0
001	020	GREY	-		1	ABR		BS; ROMAN		1	21	0	0
001	021	GREY	-		3	ABR		BS; ROMAN		3	21	0	0
001	021	GREY	BWM		1	ABR		RIM; 3C+		1	34	0	2
001	021	OX	-		1	ABR		BS; ROMAN		1	6	0	0
001	022	GREY	BIBF		1	ABR		RIM; L4+		1	29	27	7
001	022	GREY	JB		1	ABR		RIM; ROMAN		1	14	28	4
001	022	GREY	-		2	ABR		BS; ROMAN		2	17	0	0
001	022	GREY	JRUST	RUST	1	ABR		BS; L1-2		1	3	0	0
001	022	GREY	BL		1	ABR		BASE; ROMAN		1	46	0	0
001	022	SHEL	-		1	ABR		BS; ROMAN		1	5	0	0
001	023	GREY	-		5	ABR		BS; ROMAN		5	43	0	0
001	023	GREY	CLSD		1	ABR		BASE; ROMAN		1	7	0	0
001	023	MISC	-		1	ABR		BS; ?ROMAN		1	3	0	0
001	023	MISC	-		1	ABR		BS; ?CBM		1	7	0	0
001	023	SAMCG	-		1	ABR		BS; AD120-200		1	1	0	0
001	025	CR	-		1	ABR		BS; M1-2		1	7	0	0
001	025	GREY	-		7	ABR		BS; ROMAN		7	72	0	0
001	026	GREY	-		1	ABR		BS; ROMAN		1	3	0	0
001	028	GREY	-		1	ABR		BS; ROMAN		1	19	0	0



Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	028	OX	-		1	ABR		RIM; ROMAN		1	2	0	2
001	029	GREY	-		1	ABR		BS; ROMAN		1	24	0	0
001	037	GREY	-		1	ABR		BS; ROMAN		1	10	0	0
001	042	GREY	-		1	ABR		BS; ROMAN		1	6	0	0
001	045	DWSHT	-		1	VAB		BS; 3C+		1	4	0	0
001	045	MOSP	MBF		1	ABR		RIM; L3-4		1	21	0	2
001	047	GREY	-		1	VAB		BASE; ROMAN		1	13	0	0
001	048	GREY	-		1	ABR		BS; ROMAN		1	3	0	0
001	048	GREY	-		1	ABR		RIM; ROMAN		1	16	0	2
001	049	GREY	-		1	VAB		BS; ROMAN		1	9	0	0
001	052	GREY	JBL		1	VAB		BASE; ROMAN		1	88	0	0
001	052	GREY	-		1	ABR		BS; ROMAN		1	10	0	0
001	052	SHEL	JNK		1	ABR		RIM; 3-4C?		1	36	30	6
001	054	DWSHT	-		5	VAB		BS; 3C+		5	28	0	0
001	054	GREY	-		2	ABR		BS; ROMAN		2	12	0	0
001	054	GREY	JRUST	RUST	1	ABR		BS; L1-2		1	5	0	0
001	055	GREY	-		1	ABR		BS; ROMAN		1	5	0	0
001	056	GREY	-		3	ABR		BS; ROMAN		3	26	0	0
001	057	GREY	-		2	ABR		BS; ROMAN		2	17	0	0
001	057	GREY	JBL		1	ABR		BS; ROMAN		1	25	0	0
001	057	IAGR	JBL		1	ABR		BASE; L1-2		1	47	0	0
001	057	OX	-		2	ABR		BS; ROMAN		2	17	0	0
001	058	GREY	-		4	ABR		BS; ROMAN		4	49	0	0
001	058	IAGR	-		1	VAB		BS; L1-2		1	5	0	0
001	058	SPCC	-		1	ABR		BS; 4C		1	17	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	060	DWSHT	-		1	ABR		BS; 3C+		1	2	0	0
001	060	GREY	-		1	ABR		BS; ROMAN		1	12	0	0
001	060	GREY?	-		1	VAB		BS; ROMAN		1	19	0	0
001	062	GREY	-		1	ABR		BS; ROMAN		1	9	0	0
001	065	DWSHT	-		3	ABR		BS; 3C+		3	14	0	0
001	065	GREY	-		1	VAB		BS; ROMAN		1	15	0	0
001	065	MISC	-		1	VAB		BS OR ?CBM		1	9	0	0
001	066	MISC	-		1	VAB		BS OR ?CBM		1	9	0	0
001	067	GREY	-		2	VAB		BS; ROMAN		2	18	0	0
001	067	GREY	-		1	VAB		BS; ROMAN		1	30	0	0
001	067	GREY	J		1	ABR		RIM; ROMAN		1	6	0	2
001	067	MISC	-		1	VAB		BS OR ?CBM		1	8	0	0
001	068	GREY	JS		1	ABR		RIM; ROMAN		1	60	36	4
001	068	GREY	-		1	ABR		BASE; ROMAN		1	17	0	0
001	069	GREY	J162		1	ABR		RIM; L3-4		1	23	14	6
001	070	GREY	JBL		1	ABR		RIM; ROMAN		1	19	0	2
001	071	GREY	-		1	ABR		BS; ROMAN		1	3	0	0
001	071	GROG	J105		1	ABR		RIM; 2C		1	10	16	6
001	071	MISC	-		1	VAB		BS OR ?CBM		2	21	0	0
001	072	GREY	-		2	VAB		BS; ROMAN		2	23	0	0
001	075	GREY	-		2	VAB		BS; ROMAN		2	9	0	0
001	075	MISC	-		1	VAB		BS OR ?CBM		1	4	0	0
001	077	DR20?	A		1	VAB		BS; AD50-250		1	11	0	0
001	077	GREY	-		4	ABR		BS; ROMAN		4	73	0	0
001	077	GREY	JBL		1	ABR		RIM; ROMAN		1	25	24	8

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	079	MOSP	MRR		1	VAB		RIM SCRAP; 4C		1	6	0	2
001	081	GREY	-		1	VAB		BASE; ROMAN		1	22	0	0
001	081	GROG	-		1	VAB		BS; ROMAN		1	14	0	0
001	085	GREY	-		1	ABR		BASE; ROMAN		1	18	0	0
001	086	GREY	-		1	VAB		RIM; ROMAN		1	7	0	2
001	086	IAGR	-		1	VAB		BASE; M1-2		1	34	0	0
001	087	GREY	-		1	ABR		BS; ROMAN		1	4	0	0
001	088	GREY	-		4	VAB		BS; ROMAN		4	24	0	0
001	088	GREY	BFB		1	VAB		RIM; ROMAN		1	15	0	2
001	088	IAGR	-		1	VAB		BS; M1-M2		1	18	0	0
001	089	GREY	-		2	VAB		BS; ROMAN		2	29	0	0
001	089	OX	BFB		1	VAB		RIM; L3-4		1	22	0	2
001	090	GREY	-		3	VAB		BS; ROMAN		3	41	0	0
001	092	GREY	JB		1	ABR		RIM; ROMAN		1	8	0	2
001	093	GREYS	JS		1	ABR		RIM; LARGE NECKED VARIETY; ROMAN		1	54	0	2
001	094	OX	B		1	ABR		BS; ROMAN		1	7	0	0
001	097	GREY	-		1	ABR		BS; ROMAN		1	21	0	0
001	099	SHEL	B		1	VAB		RIM; 3-4C		1	9	0	2
001	100	GREY	JBL		1			RIM; ROMAN		1	24	24	6
001	101	GREY	-		1	ABR		BS; ROMAN		1	10	0	0
001	104	GREY	-		1	ABR		BS; ROMAN		1	4	0	0
001	106	GREY	-		3	ABR		BS; ROMAN		3	14	0	0
001	106	GREY	JBL		1	ABR		RIM; ROMAN		1	12	0	2

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	106	GREY	JB		1	ABR		RIM; ROMAN		1	7	22	4
001	106	GREYC	CLSD		1	ABR		BASE; ROMAN		1	35	0	0
001	110	DR20?	A		1	ABR		BS; AD100-250		1	11	0	0
001	111	MISC	-		1	ABR		BS; ROMAN		1	4	0	0
001	115	GREY	-		1	ABR		BS; ROMAN		1	21	0	0
001	117	GREY	-		3	ABR		BS; ROMAN		3	16	0	0
001	117	GREY	-		1	ABR		RIM; ROMAN		1	7	0	2
001	119	GREY	BFB		1	ABR		RIM; L3-4		1	21	0	2
001	119	GREY	-		1	ABR		BS; ROMAN		1	13	0	0
001	121	GREY	-		3	ABR		BS; ROMAN		3	26	0	0
001	124	GREY	BWM1		1	ABR		RIM; M2+		1	61	24	13
001	127	GREY	-		1	ABR		BS; ROMAN		1	18	0	0
001	129	IASH	-	HM	2	VAB		BS; IA-AD120		2	22	0	0
001	129	IASH	JL	HM	1			RIM; IA		1	46	0	2
001	131	GREY	-		1	ABR		BS; ROMAN		1	5	0	0
001	132	GREY	-		3	ABR		BS; ROMAN		3	32	0	0
001	132	GREY	-		1	BURN T		BS; ROMAN		1	7	0	0
001	132	GREY	JL		1	VAB		RIM; ROMAN		1	40	0	2
001	132	GREY	BFB		1	VAB		BS; L3-4		1	6	0	2
001	132	SHEL	-		1	VAB		BS; ROMAN		1	5	0	0
001	132	SPCC	-		1	VAB		BASE; L3-4		1	11	0	0
001	134	GREY	-		1	VAB		BS; ROMAN		1	20	0	0
001	136	GREY	-		1	VAB		BS; ROMAN		1	12	0	0
001	138	GREY	-		4	VAB		BS; ROMAN		4	21	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	138	GREY	BFB		1	VAB		RIM; L3-4		1	17	20	7
001	139	GREY	-		2	ABR		BS; ROMAN		2	14	0	0
001	139	GREY	BTR		1			RIM; 3-4C		2	39	23	12
001	139	IAGR	-		1	ABR		BS; L1-2		1	27	0	0
001	141	GREY	JBL		1	ABR		BS; ROMAN		1	38	0	0
001	142	GREY	ST		1	ABR		BASE; ROMAN		1	10	0	0
001	144	GREY	-		3	ABR		BS; ROMAN		3	24	0	0
001	147	OX	B?		1	VAB		RIM; ROMAN		1	14	0	2
001	152	GREY	-		1	ABR		BS; ROMAN		1	19	0	0
001	152	MISC	-		1	VAB		BS		1	2	0	0
001	154	OX	-		1	VAB		BS; ROMAN		1	6	0	0
001	161	GREY	-		1	ABR		BS; ROMAN		1	30	0	0
001	163	GREY	-		1	VAB		BS; ROMAN		1	43	0	0
001	165	IAGR	-		1	ABR		BS; M1-2		1	18	0	0
001	168	GREY	-		1	ABR		BS; ROMAN		1	4	0	0
001	169	GREY	-		1	ABR		BS; ROMAN		1	7	0	0
001	170	GREY	-		1	ABR		BASE; ROMAN		1	39	0	0
001	174	GREY	-		1	ABR		BS; ROMAN		1	20	0	0
001	176	GREY	-		2	VAB		BS; ROMAN		2	10	0	0
001	177	DR20	A		1	VAB		BS; AD150-250; GREY FABRIC		1	144	0	0
001	177	GREY	-		2	ABR		BS; ROMAN		2	18	0	0
001	177	GREY	-		1	ABR		BASE; ROMAN		1	24	0	0
001	178	GREY	-		1	ABR		BS; ROMAN		1	1	0	0
001	179	GREY	-		1	ABR		BS; ROMAN		1	14	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	181	GREY	-		1	ABR		BS; ROMAN		1	19	0	0
001	182	GREY	-		1	ABR		BS; ROMAN		1	7	0	0
001	183	GREY	-		1	VAB		BS; ROMAN		1	13	0	0
001	183	OX?	-		1	VAB		BS; ?CBM		1	9	0	0
001	184	GREY	-		1	VAB		BS; ROMAN		1	10	0	0
001	185	GREY	-		1	ABR		BS; ROMAN		1	1	0	0
001	185	GREY	JB		1	VAB		BS; ROMAN		1	6	0	0
001	185	GREYC	-		3	VAB		BS; ROMAN		3	30	0	0
001	186	GREY	-		1	ABR		BS; ROMAN		1	15	0	0
001	186	GREY	JNK		1	ABR		RIM; ROMAN		1	6	12	10
001	186	IAGR	-		1	ABR		BS; GROG; M1-M2		1	22	0	0
001	189	IAGR	JEV		1			RIM; SHELL-GRITTED; M1-M2		1	13	14	8
001	192	SAMCG	OPEN		1	ABR		RIM; AD120-200		1	2	0	2
001	194	GREY	JL		1	VAB		RIM; ROMAN		1	47	0	2
001	195	GREY	-		1	ABR		BS; ROMAN		1	30	0	0
001	201	DR20?	A		1	VAB		BS; ?FABRIC; AD50-250		1	49	0	0
001	203	GREY	-		1	VAB		BS; ROMAN		1	33	0	0
001	207	GROG	JBL		1	ABR		BS; ROMAN		1	41	0	0
001	208	GREY	-		1	VAB		BS; ROMAN		1	14	0	0
001	208	GREY	J		1	VAB		RIM		1	10	14	7
001	208	MISC	-		1	ABR		BS		1	2	0	0
001	208	MISC	-		1	ABR		BS; ?CBM		1	13	0	0
001	211	GREY	-		2	VAB		BS; ROMAN		2	12	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	211	GREY	CLSD		1	ABR		BASE; ROMAN		1	7	0	0
001	211	MISC	-		1	VAB		BS		1	2	0	0
001	212	GREY	-		2	ABR		BS; ROMAN		2	27	0	0
001	212	GREY	J		1	ABR		RIM; ROMAN		1	4	0	2
001	212	MISC	-		1	VAB		BS; ?CBM		1	7	0	0
001	213	GREY	J		1	ABR		BS; ROMAN		1	43	0	0
001	216	GREY	CLSD		1	ABR		BASE; ROMAN		1	22	0	0
001	216	GREY	BFB		1	ABR		RIM; L3-4		1	24	20	10
001	217	GREY	-		1	VAB		BS; ROMAN		1	33	0	0
001	220	GREY	-		11	ABR		BS; ROMAN		11	90	0	0
001	220	GREY	-		1	ABR		BASE; ROMAN		1	24	0	0
001	220	GREY	JBL		1	ABR		BS; ROMAN		1	22	0	0
001	220	MOSP	MBF		1	VAB		RIM; L3-4		1	101	0	2
001	220	SHEL	-		1	VAB		BS; ROMAN		1	4	0	0
001	221	GREY	-		1	ABR		BS; ROMAN		1	12	0	0
001	221	GREY	-		2	VAB		BS; ROMAN		2	26	0	0
001	222	CC1	-		1	ABR		BS; L2-4		1	3	0	0
001	222	GREY	-		3	ABR		BS; ROMAN		3	45	0	0
001	222	OX	-		2	VAB		BS; ROMAN		2	5	0	0
001	224	GREY	-		3	VAB		BS; ROMAN		3	30	0	0
001	224	GREY	-		1	VAB		BASE; ROMAN		1	24	0	0
001	224	GREY	B		1	VAB		RIM; ROMAN		1	19	0	2
001	225	CC1?	B?		1	VAB		RIM; ROMAN		1	12	0	0
001	225	GREY	-		1	VAB		RIM; ROMAN		1	15	0	2
001	225	GREY	-		1	VAB		BASE; ROMAN		1	20	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	226	GREY	-		1	VAB		BS; ROMAN		1	7	0	0
001	226	SAMCG	B	MOULD	1	ABR		BS; AD120-200		1	2	0	0
001	227	GREY	-		2	VAB		BS; ROMAN		2	28	0	0
001	227	GREY	-		1	ABR		BASE; ROMAN		1	22	0	0
001	228	GREY	-		3	ABR		BS; ROMAN		3	17	0	0
001	228	GREY	-		1	ABR		BASE; ROMAN		1	5	0	0
001	229	GREY	JBL		1	ABR		BS; ROMAN		1	45	0	0
001	230	DWSHT	-		1	ABR		BS; 3C+		1	7	0	0
001	230	GREY	-		1	ABR		BS; ROMAN		1	19	0	0
001	231	GREY	-		1	ABR		BS; ROMAN		1	25	0	0
001	233	DWSHT	-		2	VAB		BS; 3C+		1	22	0	0
001	233	GREY	-		11	ABR		BS; ROMAN		11	95	0	0
001	233	GREY	JB		1	ABR		RIM; ROMAN		1	7	0	2
001	233	GREY	JB		1	ABR		BASE; ROMAN		1	36	0	0
001	233	GREYS	-		1	ABR		BS; ROMAN		1	4	0	0
001	233	IAGR	-		1	VAB		BS; M1-2		1	5	0	0
001	233	IAGR	JEV		1	VAB		RIM; SHELL; M1-2		1	18	15	8
001	234	GROG	-		2	ABR		BS; ROMAN		2	11	0	0
001	235	CC1	-		1	ABR		BS; 3-4C		1	9	0	0
001	235	DWSHT	-		1	ABR		BS; ROMAN		1	10	0	2
001	235	GREY	-		10	VAB		BS; ROMAN		10	205	0	0
001	235	GREY	JL	STRING	1	ABR		BASE; ROMAN		1	97	0	0
001	235	GREY	CLSD		1	ABR		BASE; ROMAN		1	24	0	0
001	235	GREY	CLSD		1	ABR		BASE FTG; ROMAN		1	16	0	0
001	235	GREY	J		1	ABR		RIM; ROMAN		1	13	16	8

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	235	GREY	J		1	ABR		RIM; ROMAN		1	9	20	7
001	235	GREY	JB		1	ABR		RIM; ROMAN		1	8	0	2
001	235	GREY	JB		1	ABR		RIM; ROMAN		1	6	0	2
001	235	GREY	J		1	ABR		RIM; ROMAN		1	4	12	4
001	235	GREY	-		2	ABR		BS; ROMAN		2	14	0	0
001	236	GREY	-		13	ABR		BS; ROMAN		13	141	0	0
001	236	IAGR	-		1	VAB		BS; M1-2		1	16	0	0
001	237	DWSHT	-		4	VAB		BS; 3C+		4	27	0	0
001	237	GREY	-		6	ABR		BS; ROMAN		6	36	0	0
001	237	IAGR	-		2	ABR		BS; L1-2		2	54	0	0
001	237	MOSP	M		1	VAB		BS; L3-4		1	29	0	0
001	238	SAMCG	-		1	VAB		BS; AD120-200		1	1	0	0
001	240	GREY	BWM		1			BS; 2C+		1	26	0	0
001	241	GREY	-		2	ABR		BS; ROMAN		2	18	0	0
001	242	CC1	JBL		1			BS; ROMAN		1	45	0	0
001	242	GREY	-		3	ABR		BS; ROMAN		3	64	0	0
001	244	GREY	-		1	VAB		BS; ROMAN		1	17	0	0
001	245	GREY	-		1	ABR		BS; ROMAN		1	3	0	0
001	245	GREY	J		1	ABR		RIM; ROMAN		1	3	16	4
001	245	MISC	-		1	ABR		BS		1	6	0	0
001	246	GREY	-		1	ABR		BS; ROMAN		1	3	0	0
001	246	GREY	J		1			RIM; ROMAN		1	7	16	7
001	247	GREY	-		2	VAB		BS; ROMAN		2	12	0	0
001	247	GREY	JB		1	VAB		RIM; ROMAN		1	10	0	2
001	248	GREY	-		2	VAB		BS; ROMAN		2	22	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
001	249	GREY	CLSD	STRING	1	ABR		BASE; 3-4C		1	18	0	0
001	251	CC	BKCOR		1	VAB		RIM; M2+		1	2	8	8
001	251	OX	-		1	VAB		BS; ROMAN		1	4	0	0
001	253	GREY	-		1	VAB		BS; ROMAN		1	7	0	0
001	255	GREY	JBL		1	ABR		BASE; ROMAN		1	37	0	0
001	256	SAMCG	-		1	ABR		RIM; AD120-200		1	1	0	2
001	258	DR20	A		1	VAB		BS; GRITTY FABRIC; AD50-200		1	176	0	0
001	258	GREY	JB		1	VAB		BASE; ROMAN		1	24	0	0
001	291	GREY	JBL		1	VAB		BS; ROMAN		1	7	0	0
001	MD15	GREY	-		1	ABR		BS; ROMAN		1	15	0	0
001	MD15	GREY	CLSD		1	ABR		BASE; ROMAN		1	37	0	0
001	MD16	GREY	JEV		1	ABR		RIM; ROMAN		1	32	14	14
001	MD17	GREY	JBL		1	ABR		RIM; 2C+		1	46	26	7
001	MD18	GREY	JBL		1	VAB		BASE; ROMAN		1	91	0	0
001	U/S	CC1	B		1	ABR		BASE; 3-4C		1	69	0	0
001	U/S	GREY	JBL		1	VAB		BASE; ROMAN		1	83	0	0
001	U/S	SAMCG	36		1			RIM; AD120-200		1	6	27	4
101		GREY	JBL		1			RIM; THICK MUD		1	29	30	4
101		GREY	-		1	ABR		BS; THICK WITH MUD		1	7	0	0
101		GREY	JL		1			RIM SHLDR; THICK WITH MUD		1	77	21	12
201		GREY	-		5	ABR		BS		5	13	0	0
201		GREY	BWM	SHG	1			BS SHLDR		1	51	0	0
201		GREY	JL		1			BASE		1	138	0	0



Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
201		SAMCG	-		1			BS; MUD		1	4	0	0
300		GREY	-		1			BS; ROMAN?		1	8	0	0
300		GREY	-		1			BS; ROMAN?		1	8	0	0
300		GREY	JBL		1	VAB		BS		1	34	0	0
301		BB1	BD		1			BASE		1	5	0	0
301		BB1	-		2			BS; THICK MUD		2	8	0	0
301		BB1	-		1			BS; THICK MUD		1	8	0	0
301		BB1	CLSD	LA	1			BS		1	5	0	0
301		CC	BKRC	RC	1			BS		1	1	0	0
301		CR	CLSD		1	VAB		BS		1	3	0	0
301		DWSHT	CLSD		1	ABR		BASE		1	16	0	0
301		DWSHT	-		3	VAB		BS		3	10	0	0
301		GREY	-		4	VAB		BS		4	8	0	0
301		GREY	CLSD		1	ABR		BASE		1	4	0	0
301		GREY	BFL		1	VAB		RIM		1	8	20	4
301		GREY	JEV		1			RIM SHLDR		1	9	14	10
301		GREY	-		15	ABR		BS		15	72	0	0
301		GREY	JEV		1			RIM SHLDR		1	14	12	15
301		GREY	CLSD		6			BASE		6	125	0	0
301		GREY	JBL		1	VAB		RIM NECKED TYPE		1	43	18	6
301		GREY	-		4			BS; MUD COVERED		4	39	0	0
301		GREY	JBKEV		1			RIM		1	3	0	2
301		GREY	CLSD		1			BS		1	7	0	0
301		GREYC	-		1			BS		1	14	0	0
301		OX	-		1	ABR		BS		1	4	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
301		OX?	JBKEV		1	ABR		RIM		1	3	0	2
301		PROM?	-		3			BS; THREE SHERDS DATE UNKNOWN		3	10	0	0
301		SAMCG	BD		1	ABR		RIM		1	1	10	3
301		SHEL	-		1			BS; ?DATE		1	5	0	0
304		GREY	-		1			RIM; MUD		1	2	0	2
304		GREY	-		1	VAB		BS		1	2	0	0
304		GREY	B334		1			BS		1	6	0	0
304		GREY?	BD		1	ABR		BASE		1	14	0	0
304		GREY?	BD		1			RIM?; THICK MUD		1	13	0	2
304		SHEL	-		1	ABR		BS; MUD		1	1	0	0
305		DWSHT	-		2	VAB		BS		2	6	0	0
305		GREY	-		1	ABR		BS		1	6	0	0
305		GREY	JNK		1	ABR		RIM; MUD		1	4	0	2
305		GREY	JNK		1			RIM; MUD		1	5	14	6
305		GREY	-		6	ABR		BS		6	44	0	0
305		GREY	JEV		1			RIM SHLDR		2	26	13	6
305		GREY	J		1	ABR		RIM		1	6	16	8
305		GREY	BD		1	ABR		RIM		1	4	20	4
305		GREY	CLSD		1			BS; DARK SURFACES		5	33	0	0
305		GREYC	BFB		1	VAB		RIM		1	9	20	4
305	305	SHEL	CLSD		1			BS; WHEEL MADE; BOURNE? ROMAN?		2	15	0	0
401		DWSHT	-		6	ABR		BS		6	32	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
401		GREY	B?		1			BASE; THICK WITH MUD		1	33	0	0
401		GREY	-		9	ABR		BS		9	63	0	0
401		GREY	BD		1	ABR		BASE		1	16	0	0
401		GREY	-		1			BS; THICK MUD		44	244	0	0
401		GREY	BFB		1			RIM		1	39	22	8
401		GREY	BKEV		1			RIM		1	4	6	21
401		GREY	CLSD		1			BASE		1	26	0	0
401		GREY	J		1	ABR		RIM		1	7	14	11
401		GREY	J		1	ABR		RIM		1	6	0	2
401		GREY	-		6	ABR		BS		6	15	0	0
401		GREY	JB		1	ABR		RIM		1	7	0	2
401		GREY	CLSD		1	ABR		BASE		1	24	0	0
401		GREYC	-		1	ABR		BASE		1	13	0	0
401		GREYC	-		1	VAB		BS		1	4	0	0
401		GREYS	-		1			RIM; ?DATE FORM B333?		1	5	0	2
401		GROG	-		1			BS		1	11	0	0
401		IAGR	-		1	VAB		BS; GROG AND QU		1	11	0	0
401		IAGR	-		1	VAB		BS; SHELL		1	19	0	0
401		IAGR	-		1	VAB		BASE; GROG		1	48	0	0
401		MISC	-		1	ABR		BS; OXWS COARSE? SPIR; CHECK DATE WITH JY		2	7	0	0
401		MORT	M		1			BS; PINK LINCOLN LOOKING FABRIC		2	17	0	0



Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
								BUT WITH DENSE SLAG TRITS UP TO 3.5MM; LOCAL?					
401		OX	-		1			RIM; BFB OR JAR?? THICK MUD ?DATE		1	16	14	14
401		OX?	-		1	VAB		BASE?; VESSEL OR TILE?		2	62	0	0
401		PROM?	-		1			BS; DENSE SHELL; WM; LATE SAXON TO MED?		1	15	0	0
401		SAMCG	-		2	VAB		BS; SCRAPS		2	2	0	0
401		SPCC	-		1	ABR		RIM		1	2	0	2
401	3	GREY	JB		1			BASE; FINDS NUMBER 3		5	99	0	0
401	4	GREY	BK		1			BASE; LARGE PROPORTION OF BEAKER; FINDS NUMBER		14	60	0	0
406		DWSHT	J		1	ABR		BASE		3	82	0	0
406		DWSHT	-		1	ABR		BS		1	2	0	0
406		GREY	J		1			RIM		1	16	20	7
406		GREY	-		5	ABR		BS		5	18	0	0
409		DWSHT	-		1	ABR		BS		1	3	0	0
409		DWSHT	JDW		1	ABR		RIM		1	7	0	2
409		GREY	-		1	ABR		BS		1	9	0	0
409		IAGR	-		1	ABR		BS; SHELL AND GROG		1	16	0	0

Table 4: Dating Summary

Context	Finds ref	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
410		GREY	CLSD		1			BS; THICK WITH MUD		1	7	0	0
501		GREY	-		6	VAB		BS; MUD		6	20	0	0
501		GREY	-		3	ABR		BS; MUD		3	36	0	0
501		GREY	J		1	ABR		RIM		1	7	0	2
501		GREY	JBNK		1	ABR		RIM		1	6	0	2
501		MISC	-		2			BS; GREY?		3	9	0	0
501		PROM?	-		1			BS; A THIN OXIDISED SHERD WITH TRACES OF GLAZE?		1	1	0	0
501		PROM?	-		1	ABR		BS		1	2	0	0
502		GREY?	-		1	ABR		BS		1	3	0	0
504		GREY	-		2	ABR		BS; THICK MUD		2	21	0	0
511		GREY	CLSD		1			BASE; THICK WITH MUD		1	44	0	0
800		GREY	-		1			BS		2	15	0	0
800		GREY	-		1	ABR		BS		1	3	0	0
800		GREY?	CLSD		1	VAB		BASE		1	36	0	0
800		GREYS	-		1			BASE		1	16	0	0
800		GROG	-		1			BS		4	37	0	0
800		SHEL	J		1	ABR		RIM; ?DATE		1	7	0	1

Appendix 3: Post-Roman Pottery

Jane Young and Johanna Gray with Jonah Longdon.

Introduction

A small assemblage of forty-two post-Roman sherds each representing an individual vessel was presented for examination. The post-Roman pottery ranges in date from the early medieval to the early modern periods and includes local and regional fabrics.

The pottery has been fully archived to the standards for acceptance to The Collection in Lincoln in accordance with Lincolnshire County Council's *Archaeological Handbook* (sections 13.4 and 13.5). Recording is within the guidelines laid out in Slowikowski, *et al.* (2001) and the PCRG, SGRP, and MPRG Standard for Pottery Studies in Archaeology guidelines (2016). Form types were identified using the Medieval Pottery Research Group's guide to the classification of forms (MPRG 1998; 2001). The assemblage was quantified by three measures: number of sherds, weight and vessel count within each context. The pottery data was entered on an Access database using fabric codenames (see Table 1) developed for the Lincoln Ceramic Type Series (Young, Vince and Nailor 2005).

Condition

The pottery is mostly in an abraded to very abraded condition with sherd size almost entirely falling into the small to medium range (below 50g). The assemblage is in a stable condition and does not require specialised storage.

The Pottery

In total forty-two vessels in eighteen identifiable ware types were recovered from the site (Table 1) with most of the material recovered being of medieval to late medieval date. One very abraded sherd recovered from the field walking (recorded find number 233) is of uncertain type (MISC) and could be of Roman date. Almost all of the pottery was recovered during field walking.



Table 1 Pottery types with total quantities by sherd, vessel count and weight in grams

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels	Total weight
BERTH	Brown glazed earthenware	1550	1800	2	2	10
BEVO1T	Beverley Orange-type ware	1100	1230	2	2	24
BEVO2	Beverley Orange ware Fabric 2	1230	1350	3	3	16
BL	Black-glazed wares	1550	1750	4	4	51
EMLOC	Local Early Medieval fabrics	1150	1230	1	1	22
ENGS	Unspecified English Stoneware	1750	1900	1	1	1
GRE	Glazed Red Earthenware	1500	1650	1	1	6
HUMB	Humber Basin fabrics	1250	1500	1	1	33
LERTH	Late earthenwares	1750	1900	3	3	14
LLSW	Late Lincoln Glazed ware	1350	1500	2	2	29
LMX	Late Medieval Non-local fabrics	1350	1550	1	1	81
LSW2	13th to 14th century Lincoln	1200	1320	1	1	4
LSW2/3	13th to 15th century Lincoln	1200	1450	4	4	84
LSWV	Lincoln Sandy ware variant	1180	1500	6	6	77
MEDLOC	Medieval local fabrics	1150	1450	6	6	73
MISC	Unidentified types	400	1900	1	1	13
MLBSL	Midlands Light-bodied Slipware	1680	1800	1	1	5
TOY	Toynnton Medieval Ware	1250	1450	2	2	10

Early Medieval Pottery

Three sherds recovered during field walking are of early medieval type. A rim sherd from a bowl in a local fabric (EMLOC) with a hammerhead type rim is similar in shape to local shell-tempered bowls of 12th to mid 13th century date. The other two sherds are very abraded and attribution is less certain but they appear to be from Beverley 1 type jugs or jars of mid 12th to early/mid 13th century date.

Medieval to Late Medieval Pottery

Twenty-six sherds of the recovered assemblage are of medieval to late medieval type and date to between the 13th and 15th centuries. The majority of sherds are from Lincoln or locally produced workshops. Seven sherds are directly identifiable as Lincoln products. A single sherd in 13th to 14th century Lincoln Glazed ware (LSW2) is from a small jug of 13th to early/mid 14th century date. Four sherds are too small or abraded to be certain of their type but are of 13th to 14th or 14th to 15th century Lincoln type (LSW2/3). These sherds come from three jugs and a pipkin of 13th to 14th century date. Two of the jugs have heavy wear marks around the under-base edge suggesting that they were in use for some time. The pipkin would have a use similar to a small modern saucepan. The latest two Lincoln-produced sherds are from Late Lincoln Glazed ware jugs (LLSW) of late 14th to 15th century date. Six other sherds are of Lincoln Glazed ware type but may not have been produced within the city (LSWV). These sherds mainly appear to come from jugs but two could be from jars. Three vessels are of 13th to 14th century type, two are of 14th to mid 15th century date and one very abraded base from a jug or jar can only be dated to between the 13th and mid 15th centuries.

Eight of the other medieval sherds are from workshops operating within central Lincolnshire. Two Medieval Toynnton-type sherds (TOY) were recovered from subsoil layer 301 in Trench 3. The sherds are typical of late 13th to mid 14th century production and come from a small jug and a bowl. The fabric of six sherds suggests that they are of fairly local production. They come from jugs or jars of general 13th to 15th century date.



Five of the sherds recovered are regional imports. A strap handle from a jug is of Humber Basin type (HUMB) and could have been produced either within North Lincolnshire or East Yorkshire between the late 13th and 15th centuries. Three Beverley 2 sherds in Fabric B (BEVO2) are from jugs or jars of 13th to early/mid 14th century date. A non-local late medieval handle (LMX) found during field walking (recorded find 255) is from a large jug or handled jar of mid 15th to 16th century date. The fabric suggests a possible North Nottinghamshire source.

Post-Medieval Pottery

Seven coarseware sherds and a slipware jar are of post-medieval type. A small body sherd from a large Glazed Red Earthenware jar or bowl (GRE) is of mid 16th to mid 18th century type. Four black-glazed (BL) and two brown-glazed (BERTH) earthenware sherds are from a range of vessels that includes two drinking vessels and possible bowls, jars and jugs. Vessels are of mid 17th to 18th or late 17th to 18th century type. A sherd from what is probably a jar is in Midlands Light-bodied Slipware (MLBSL). The vessel is of late 17th to 18th century date.

Early Modern Pottery

Four of the recovered sherds are of early modern type. An English Stoneware sherd (ENGS) found in Trench 4 is from a small bottle of mid 19th to mid 20th century date. The other three sherds are from earthenware flowerpots (LERTH) of 19th or 20th century date.

Site Sequence

Post-Roman pottery submitted for examination was recovered from two interventions on the site with most of the material (36 sherds in total) being recovered from the field walk. The recovered field walk material is generally in an extremely poor condition with sherd size mainly below 25grams. The majority of vessels can be identified as being medieval jugs or jars but vessels of early medieval, late medieval, post-medieval and early modern type are also present. The assemblage suggests disposal of pottery in the local area over a long period of time.

The Excavation

A total of six post-Roman sherds were recovered from three trenches. In Trench 3 three sherds were found in topsoil layers 300 and 301. The sherd found in deposit 300 is from a large Black-glazed Earthenware jar or bowl of late 17th to 18th century date. Those found in deposit 301 however are of medieval late 13th to mid 14th century date and comprise a small jug and a bowl in Medieval Toynton ware. The only sherd recovered from Trench 4 was from a small English Stoneware bottle of mid 19th to mid 20th century date found in subsoil layer 401. Layer 501 in Trench 5 produced a small and very abraded sherd from a Beverley 2 jug of 13th to early/mid 14th century date. A sherd from a small jug or jar in a local medieval fabric was recovered from post pad 509. The vessel is of 13th or 14th century date.

Discussion

A small group of mixed post-Roman pottery was recovered from the site. The recovered pottery spans the period between the early medieval and early modern periods with most of the vessels being produced within Lincolnshire. The range of medieval types is quite wide for such a small assemblage but the condition of the material and lack of well-stratified groups precludes suggesting that this might suggest an affluent household in the local area, although the presence of medieval ceramic roof tiles on the site indicates at least one substantial building in the area of the site.

The four early medieval sherds have been discarded and seven sherds have been added to the County Fabric Type Series otherwise the remaining assemblage should be kept for future study.



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Appendix 4: Ceramic Building Material

Jane Young, Adam Daubney and Johanna Gray with Peter Atkinson, Brian James and Mark Longdon

Introduction

A total of seven hundred and twenty-five fragments of ceramic building material weighing 25.368kg in total were presented for examination. The material ranges in date from the Roman to the early modern period and was examined both visually and where necessary under x20 binocular microscope. The assemblage was recorded using locally and nationally agreed codenames. The CLAU medieval and Roman tile type series were consulted for comparative material. The resulting archive was then recorded on an Access database and complies with the guidelines laid out in Slowikowski, *et al.* (2001), the Archaeological Ceramic Building Materials Group (2001) and the Lincolnshire County Council's *Archaeological Handbook* (sections 13.4 and 13.5).

Condition

The material is in variable condition with most fragments showing at high degree of abrasion probably due to plough damage. Fragments range from large-sized (656g) to small (1g), but overall the assemblage is very fragmentary with most pieces weighing below 50g.

Overview of the ceramic material

A limited range of ceramic building material comprising roof tile, box-flue tile, brick and drain was found on the site (Table 1). The material is mainly not typical of that found in Lincoln although a few Lincoln-type fabrics occur within both the Roman and medieval material. The vast majority of fragments recovered (625 in total) were found during field walking and are in a poor condition.

Table 1: Ceramic material codenames and total quantities by fragment count and weight in grams

Codename	Full name	Total fragments	Total weight
BOX	Roman box tile	4	212
BRK	Brick	11	1362
DRAIN	Drain (general)	1	69
FLOOR	Floor tile	1	386
IMB	Imbrex	36	1477
INDUS	Industrial ceramic building	1	14
MODTIL	Modern tile	5	131
NIB	Nibbed tile	2	69
OPSIG	Opus Signinum	1	29
PANT	Pantile	5	154
PNR	Peg, nib or ridge tile	59	1849
RBRK	Roman brick	53	5551
RID	Unidentified ridge tile	1	39
RTIL	Roman tile	219	5663
RTMISC	Roman or post-Roman tile	268	3355
TEG	Tegula	58	5008

Roman tile

One hundred and fifty-one fragments of Roman tile and a piece of opus signinum were recovered from the site. The assemblage includes identifiable examples of box-flue (BOX), Imbrex (IMB), Tegula (TEG)



and brick (RBRK). A single abraded piece of opus signinum (OPSIG) was found during the field walk as record **252**. The material was used as paving or flooring and is comprised of crushed material including tile mixed with a mortar forming a concrete-like layer.

The fifty-eight Tegula fragments occur in a range of fabrics mostly not typical of those found in Lincoln. The measurable tiles vary between 15mm and 30mm in thickness. Twenty-one tiles have flanges of which unusual Betts types seem to dominate (Betts 1986). Identifiable Flange Types are Types 1, 2, 8, 12, 13, 21, 22, 31 and 39. No identifiable cut-outs are present.

Thirty-six pieces of Imbrex (IMB) were recovered from the site. They vary between 12mm and 23mm in thickness. Most appear to have a simple smoothed upper surface without longitudinal finger striking.

Fifty-three Roman brick fragments (RBRK) were found on the site. No complete measurements were possible and few brick thickness are present with those that are ranging from 27mm to 55mm. One piece, possibly a corner, has been shaped to form c8% of c160mm diameter disc or is part of an adapted quadrant brick.

Four small fragments of box flue tile (BOX) were recovered from the site. The tiles are between 10mm and 26mm in thickness and have traces of combed keying. These tiles would have usually been set vertically in the walls, but are occasionally placed horizontally. Their function would have been to help circulate the hot air from the hypocaust system around a room.

Two hundred and nineteen other fragments are certainly of Roman date (RTIL) but are too fragmentary to determine type. These include part of what may be an antefix with incised decoration that possibly forms part of a face found during the field walk (finds reference 23). These tiles were sited at the eaves of a roof to block the end of the ridge or curved Imbrex tiles and are an uncommon find. A further two hundred and sixty-eight very abraded pieces, mainly flakes, could be of Roman or early modern date (RTMISC).

Medieval to post-medieval tile

Fragments from sixty-one medieval to early post-medieval flat roof tiles were recovered from the site (NIB and PNR). The range of fabrics found in this small group is quite wide indicating several builds. These recovered fabric types suggest that medieval-type ceramic tile was in use in the area possibly from the 13th to 16th centuries with most of the tiles being of 13th to 14th century type. One tile of 14th to 16th century type may be a Lincoln product (finds reference **116**). Only two diagnostic suspension nibs are present. The rounded nibs are of the moulded and cut back type dating to between the 13th and mid 14th centuries. One piece of tile has a post-firing incised mark that looks like a Z or N but the fragment is too abraded to be certain and it may be incidental. A single very abraded piece (RID) may come from a ridge tile with an applied pressed strip on the crest of the tile.

The early modern material

Eleven fragments come from early modern tiles or drains (DRAIN, MODTIL and PANT). Most of these are industrially produced late 19th or 20th century products. A 44mm thick fragment of flooring is of non-ceramic composition and has rubberised coating on one surface.

Eleven brick fragments (BRK) were recovered from the site. All of these bricks are of early modern type, although five examples are handmade.

Industrial material

A small fragment (INDUS) from what appears to be part of a mould was found during the field walk (finds reference **251**). The appearance and fabric are similar to moulds found in the Lincoln area used to produce large metal vessels such as cooking pots or for bells (Steane 2006, 96).



Site sequence

Ceramic and non-ceramic building material submitted for examination was recovered from two interventions on the site with most of the material (625 fragments in total) being recovered from the field walk. The recovered field walk material is generally in a poor condition with fragment size below 50grams. The majority of fragments can be identified as Roman tiles, although the poor condition precluded the identification of the exact form of most pieces. The range of fabrics and Tegula flange types suggest several builds and the presence of a possible decorated antefix and opus signinum indicates some wealth. The medieval flat roof tile found during the field walk is in a wide range of fabrics and can mostly only be dated to between the 13th and 15th centuries, although the two suspension nibs found are of 13th to mid-14th century type.

The excavation

A total of one hundred fragments were recovered from five trenches with most of the material coming from Trench 5 (57 fragments).

Table 2 Ceramic material codenames by period and trench with total quantities by fragment count

Codenam	Period	Trench	Trench	Trench	Trench	Trench	16	1
IMB	Roman	0	0	0	2	1		3
RBRK	Roman	0	0	0	1	1		2
RTIL	Roman	0	0	1	1	5		7
TEG	Roman	2	0	2	1	1		6
RTMISC	Roman/post-Roman	0	6	6	18	36		66
PNR	Medieval	0	1	1	0	12		14
BRK	Early	0	0	0	0	1		1
PANT	Early	0	0	0	1	0		1
Totals		2	7	10	24	57		100

In Trench 1 two fragments from a single Roman Tegula with a Type 8 flange were recovered from subsoil layer 101. The seven pieces found in subsoil layer 201 in Trench 2 come from four tiles. Three of the tiles are of uncertain date whilst one piece is from a medieval flat roof tile of 13th to 15th century date. In Trench 3 fragments were found in topsoil layers 300 and 301. The three pieces in deposit 300 include a large fragment from a rather thick Roman Tegula with an unusual Type 12 flange and a medieval flat roof tile of 13th to 15th century date. Deposit 301 produced seven fragments of tile of which five are small un-diagnostic flakes. A further thick Tegula was also recovered from this deposit but this one has a Type 21 Flange. The twenty-four pieces found in Trench 4 are mainly un-diagnostic flakes that were recovered from subsoil layer 401. Two pieces of Roman tile were also recovered from this deposit. Slot 408 (fill 409) produced six pieces of tile of mixed type. Three of the tiles are of Roman date but the group also includes part of a 19th or 20th century pantile. The largest group of excavated tile came from Trench 5. A 20th century industrially made brick and a medieval flat roof tile were found in 500. Layer 501 produced fifty-one fragments of mixed type and date. The latest identifiable pieces come from medieval flat roof tiles of 13th to 15th and 13th to 16th century date. Eight of the fragments are of Roman date but most pieces are too small and abraded to identify (33 fragments). Three further un-diagnostic flakes and a fragment of medieval flat roof tile were recovered from pit 510 (fill 511).

Discussion

The ceramic building material recovered dates between the Roman period and the early modern period. The Roman and medieval tiles recovered are in a wide range of fabrics suggesting that the material originated from several building episodes of stone structures in each period. The presence of a possible decorated antefix and opus signinum indicates some affluence in the Roman period.

Most un-featured or modern fragments have been discarded with a fully quantified archive in consultation with the local curator. All of the remaining material should be retained for future analysis.

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Appendix 5: Stone

Raquel Margalef BA (hons) MA PCIFA

Introduction

A total of five stones, weighing 2.076kg, were collected during the 2019 archaeological investigation undertaken by Network Archaeology Ltd at Riseholme. Amongst the assemblage, two stones were catalogued as worked, another two as architectural and one as a natura fragment.

The stones were collected from one area (Table 1) from mostly Roman contexts.

Methodology

The assemblage has been examined in detail by eye, cataloguing the following attributes:

- rock typology: material identification.
- rock typology: material identification.
- Shape¹: catalogued three types: Tabular: when the stone has a flat or rectangular morphology, Block: when the stone has a cuboid structure, not necessarily symmetric and Cobble: when the stone has a rounded or pebble-like shape.
- Size
- Completeness
- Worked

Provenance and Condition

The provenance of the assemblage was predominantly from the topsoil (001), Spoil heap deposit (800) and layers (305), (304) from Trench 3. The condition of the stone is mostly poor. The site must have suffered from flooding and heavy ploughing, producing a weathered and heavily eroded appearance.

Table 4 Catalogue of DEV stone type by context

Context	Rock type	Rock shape	Quantity	Size	Weight(g)	Complete	Worked	Comments
001	Gneiss	Block	1	13x7x4.5cm	918	no	Yes. <i>Cyma reversa</i> moulding	Worked stone from a moulding – roman chronology
304	Quartzite	Block	1	less than 5cm	7	no	No	Natural stone - discard
305	Slate	Tabular	2	less than 5cm	27	no	No	Architectural fragment
800	Limestone	Block	1	17.8x11x4cm	1,124	Yes	Yes	Architectural fragment – wall structure

Assemblage

The stones were recovered from four different contexts, mostly dated as Roman. Two architectural stones were recovered, one each from topsoil (001) and spoil heap (800). Both fragments, catalogued as Gneiss and Limestone block, belonged to a potential Roman feature that suffered clear disturbance. None of the pieces contained any punched face or tool mark. Nevertheless, it is important to highlight the discovery of the Gneiss rock. This stone was found incomplete but, presented a very delicate worked surface, following the characteristics of a Roman moulding in *cyma reversa* shape. From the

¹ The stone's morphology reacts differently to the type of heat.

layer (305) was also collected two fragments of slate with no working marks. The same details can be applied to the stone recovered from layer (304).

Discussion

The whole assemblage contained a mixture of Quartzite, Limestone and Gneiss stones (*table 1*). The shape ranges from block and tabular and, from high to low manipulated processes.

The assemblage suggests the existence of a domestic structure dated as Roman. With the exception of one natural fragment, all the stones were for architectural purposes such as roofing, moulding or walling. Regarding the slate fragments, it is interesting to highlight that these originate in Wales and north-west England, meaning the stones must have been transported to Lincoln. It is also important to note the presence of such uncommon architectural detail as the *cyma reversa*. Its presence might conduct to the interpretation of this site as a higher status place – or at least with high status buildings.

The significance of this assemblage relies on its ability to illustrate human action on this site mostly during roman phases.

Recommendations for further work

Further assessment or analysis would increase our understanding of the site. Illustration and analysis of the moulding fragment recovered from topsoil (001) is recommended. This fragment presents evidence of the existence of a domestic Roman site.

Storage and curation

There is no apparent reason for the retention of these stone fragments except the Gneiss moulding piece from the Topsoil (001). In the event of retention, there are no specific requirements for the long-term storage of this material.

References

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Appendix 6: Mortar

Zoe Tomlinson. BSc. MSC.

Introduction

A total of five small fragments of mortar weighing a total of 15g were presented for examination. The fragments were examined both visually and at x 20 binocular magnification. The resulting archive was then recorded on an Access database and complies with the guidelines laid out in the Lincolnshire County Council's *Archaeological Handbook* (2016) and is detailed in table 1. The mortar is detailed in the table below. All the material was recovered from Trench 3. Two small fragments of natural stone were found to be part of the assemblage.

Context	Mortar Type	Fragment Count	Weight (grams)	Description
304	fine grey fabric + small iron rich grains	1	1	tiny flake
304	pink fine sandy fabric + crushed tile. Possibly Opus Signinum	1	1	small formless fragment
304	fine sandy fabric + quartz + occasional iron rich grains	1	2	small formless fragment
305	fine sandy fabric + quartz + occasional iron rich grains	1	5	small fragment; possibly part of a rounded edge
305	grey fine sandy fabric	1	6	small formless fragment; some burning/charcoal to surface
Totals		5	15	

Table 1: Total quantities of mortar by fragment count and weight

The Mortar

All the mortar presented for assessment are very small abraded fragments with most weighing less than 1 gram. With the exception of the fragment from context 305 which may have a rounded edge all the fragments are formless and unfeatured. Three basic mortar types have been identified and are detailed above. Two fragments appear to be a fine grey fabric and a further two fragments are a very similar fine sandy fabric with quartz and occasional iron rich grains. A single small piece of mortar may be Opus Signinum but the small size of the fragment does not make this a certain identification. It is pink in colour and contains very small fragments of what appears to be crushed brick or tile. Opus Signinum is generally thought to have been used to improve water resistance and would suggest a Roman date.

Site Sequence

Layer 304 produced three small fragments of mortar in three different fabrics. One piece may be a fragment of Opus Signinum and so possibly Roman in date.



Recovered from buried layer 305 were two fragments of mortar one of which has some burning or charcoal on the surface.

Conclusions & Recommendations

With the exception of the possible fragment of Opus Signinum from context 304 which may be Roman it is not possible to suggest a date or use for the mortar recovered. Several different fabrics have been identified. The presence of mortar on the site suggests there may have been a wall or buildings on or close to the site at some stage. No further work is recommended.

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Appendix 7: Animal Bone

Richard Moore

The Wings to the Past Community Excavations at the University of Lincoln Riseholme campus took place over two periods of four days, in July 2019. Eighty-three bones, teeth, or bone fragments were retrieved during excavations.

The bones were visually examined and identified, as far as possible, to animal species and skeletal element. Where necessary, reference sources (Schmid 1975, Hillson 1990, Prehn *et al.*), were consulted to aid identification, along with comparison to reference material. A catalogue of the assemblage is given below.

As well as providing a summary of the animal bone retrieved, the assessment has considered whether there is potential for any further investigation of the assemblage.

Condition

The bone assemblage consisted for the most part of smallish fragments, but individual pieces were generally fairly hard with surviving surfaces that showed few signs of erosion. The degree of fragmentation means that only a relatively small proportion of the material can be readily identified to species or genus, and most is catalogued by robustness, as sheep-sized, cow-sized, or small mammal. The identified pieces included 11 teeth or matching tooth groups, this relatively high proportion a probable combination of greater survival of these robust pieces as well as and easier recognition and likelihood of collection in the circumstances of the excavation.

Context

Thirty-eight bones or bone elements were identified. These derived from 11 contexts, including ploughsoil, subsoils and cleaning layers. None of the contexts were securely dated, although the fills of two excavated slots through the line of building foundations are likely to be of Roman date.

Species

Cattle, pig, sheep or goat and rabbit were all positively identified within the assemblage. There is also a bird bone, probably from a small bantam-sized chicken or a similar sized wild game bird.

Taphonomy

A high proportion of the material is from unstratified or poorly stratified plough-soil contexts. However, the finds were associated with scatters of finds from Roman occupation of the area, and it is a reasonable assumption that at least a proportion of the material is contemporary with that occupation.

Subsequent agricultural use over the succeeding periods is likely to have added later remains from manuring of the field, scavenging by foxes and other animals and possibly by casual disposal. The presence of a rabbit bone also highlights the possibility that some of the assemblage is derived from wild species.

Ongoing ploughing will have contributed to preferential survival of the more robust bone elements. The listing also shows over-representation of distinctive bone elements, that are easier to identify. The collected and recorded bone cannot therefore be considered as a representative of the original disposal assemblage, beyond an indication of the species that were exploited during the period of occupation and later use of the site.



Discussion and Recommendations

With a few exceptions, the bones are from the common domestic animals. The assemblage as a whole is likely to derive largely from food waste, reflecting the diet of the population that have lived, and disposed of their waste, in or close to the area of the excavation. Given the evidence of Roman occupation, it is likely that a proportion of the bone assemblage dates from this period, but over the subsequent centuries, the site, though probably not close to any domestic occupation, would have been disturbed by ploughing and manuring.

Because of the limited size of the assemblage and its uncertain contextual provenance, any further analysis is not worthwhile. However, the more complete and distinctive elements may have potential value for use in education or outreach activities. Otherwise, the bone has been catalogued and retention of the assemblage in the site archive would be of little value, and is not recommended.

Catalogue

101: trench 1 subsoil

Cattle, L scapula: glenoid and base of blade; 2 blade/spine fragments; 6 rib blade fragments (some refitting); all similar appearance and prob from same bone

Cow-size shaft frag; ?radius, transverse butchery knife cut marks

201: trench 2 subsoil

Cattle, R radius, proximal end

Sheep-size or smaller, possibly ?roe deer: left tibia and 10 shaft shaft fragments of similar sized bone

Cow-size 3 long-bones haft fragments, one with patch of sooting; 4 ?innominate (pelvic) fragments

300: trench 3 ploughsoil

Sheep/goat, radius shaft fragment including ulna scar

301: trench 3 cleaning layer

Cattle, ?L metacarpal, distal end

Pig, canine tooth: R, maxillary, not in wear

Sheep-size, phalange, unfused epiphysis missing

Bird, R carpo-metacarpus, chicken size

Sheep-size, 3 shaft fragments, one blackened and partially calcined by burning

Sheep/goat, L and R scapulae, matching

Pig, phalange 1, complete

Pig, L canine tooth, complete

Pig, incisor and L mandible fragment

Sheep/goat, upper molar tooth

Sheep, 2 lower molar teeth

Pig, mandible fragment

Pig, skull fragment

Sheep-size, 3 rib shaft fragments

Sheep-size, shaft fragment

Sheep-size, ?phalange fragment

Sheep-size, Shaft fragment, ?tibia

Sheep-size, nine unidentified shaft/rib fragments

Sheep-size, 3 rib fragments 3

Cow-size, 10 unidentified fragments

Unidentified, ten small fragments

Unidentified, 3 rib shaft fragments

Sheep-size, four shaft fragments, blackened/calcined

Sheep-size, tooth: fragment of ?molar

Cow-size, rib fragment

304: layer to south of wall 303

Cow-size, rib fragment: deep butchery cuts across blade

Sheep-size, 13 fragments

Small mammal, 3 fragments

305: burnt layer north of wall 303

Sheep/goat, left mandible complete, with pm 3,4 and m1-3 teeth

Sheep/goat, tooth: lower left m3

Sheep-size, vertebral spine

Sheep/goat, tooth, lower dpm4

Pig, two metapodia including unfused ?mt2

Sheep/goat, third (hoof) phalange

Sheep-size, 16 unidentified small fragments

401: ploughsoil horizon

Sheep/goat, R tibia, shaft and distal end



Rabbit, R innominate, largely complete

Pig, tooth: upper R m3

Sheep/goat, tooth fragments: ?lower m2, m3; pm plus (probably not matching); incisor

Cattle, tooth: ?upper premolar tooth

Cow-sized, 4 rib fragments

Unidentified, 14 fragments

Unidentified, 2 burnt fragments

406: fill of cut 406

Pig, tooth: lower incisor; large

Sheep, tooth: upper molar

409: fill of cut 408

Unidentified, 2 small fragments

Oyster shell: tiny fragment misidentified as bone

501: subsoil interface away from wall 504

Pig, right radius proximal end

?Sheep/goat, Metatarsal proximal end fragment

Cow-sized, rib blade fragment

Unidentified, 11 small fragments

502: subsoil interface above wall 504

Cattle, tooth: upper left molar

Cow-sized, rib blade fragment

Sheep-sized, or smaller, thoracic rib fragment

Small mammal, ?dog, rib shaft

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A selection of the animal remains: Pig tusk (lower left canine tooth, context 301), bird wing bone (right carpo-metacarpus, 301), rabbit hip bone (right innominate, 401), sheep shoulder bone (right scapula, 301)

Appendix 8: Shell

Diana Fernandes

Introduction

A small assemblage of mollusc shell was hand-recovered from the archaeological excavation conducted at the Riseholme Campus of Lincoln University. The collection, composed of one-hundred and ninety-four elements, is dominated by oyster shell (*Ostrea edulis Linnaeus*). A detailed register and description were conducted in order to interpret these elements and the Roman occupation of this site.

Methodology

All items were recorded and their condition visually examined for possible diagnostic traits such as notches and any indications of infestations. The items were not individually measured or aged for this assessment. The assemblage will be discussed regarding contextual information, species identification and other characteristics.

The Riseholme mollusc assemblage

The assemblage was too fragmentary to implement a minimal number of individuals (MNI), however this factor has not conditioned any species identification. The oyster was identified as the common European flat oyster (*Ostrea edulis Linnaeus*) and both left and right valves were recorded. Amongst other aquatic species, only the dog whelk (*Nucella lapillus*) and the scallop (*Argopecten irradians*) were identified.

The biggest proportion of the assemblage was recovered from Trench 3 (61%), with the remaining coming from trench 4 (25%), trench 5 (10%) and the spoil heap (4%).

Trench	Quantity	Percentage
3	119	61%
4	48	25%
5	19	10%
Spoil heap	8	4%
TOTAL	194	100%

Trench 3

All mollusc shells from trench 3 were recovered from deposited layers such as topsoil 300 and a surface between the topsoil and the first occupation levels (301). The latter has provided eighty-six oyster shells and one whelk internal spire fragment. The oysters from this context presented several patterns of infestations and few items had surviving “v-shaped” notches.

From layer 304, interpreted as outside the building represented by wall 303, seven items were recovered – one whelk reticulate sculpture, five oyster shells and one land snail. No infestations were recorded.

Within building 305, twenty-two oyster shells were collected and some presented signs of infestation by *Bryozoa*, commonly known as 'sea mats'. One small fragment of scallop shell was also recovered from this context.

Trench 4

This trench has a large number of oyster shell within subsoil layer 401. Some of the forty-four items recovered present signs of infestation through burrows caused by *Polydora ciliata* (Johnston) or also instigated by the sponge *Cliona celata*.

Oyster shell was also recovered from amongst the fill of two wall foundations (406) and (409), with the latter having one item with burrows probably caused by *Polydora ciliata*.

Trench 5

The assemblage recovered from trench 5 comes mostly from rubble layer 501. Among the ten oyster shells from this context, one item presented a barnacle attachment, commonly known as a 'cement scar'.

The remaining items result from a second rubble layer (502) and from wall 508. No notches or infestations were noted in these items.

Spoil heap

Right and left halves of oyster shell were retrieved from the spoil heap. Within the eight items, only one presented traces of infestation by *Polydora ciliata* (Johnston).

Results and discussion

The assemblage from Riseholme is composed by a majority of shells that are highly fragmented, particularly those recovered from topsoil and rubble contexts. This indicates a certain degree of movement and disturbance resulting from ploughing activities.

In total there were 72 left valves and 118 right valves of oyster shell recorded and a small number of them had evidence of notches. In addition, there was also sign of marine infestations that can be seen in table 1.

The majority of the shells recovered in undisturbed or less-disturbed stratigraphic contexts suggests that these might represent domestic consumption of a relatively common food source. The residual presence of whelks and scallop might support that these were also consumed, but not as a major food resource. Evidence of notches on the oyster shells also highlights the fact that molluscs were an integral part of the diet during the Roman occupation of this site.

There is evidence of dumping deposits, although the layer within the building in trench 3 might be related with a domestic context where these items were being consumed.

The probable domestic consumption and the evidence of infestations can be used as an indicator to reconstruct the site economy. Through the infestation record, it is possible to recognize where the molluscs were sourced and identify the network of commercial resources that would be involved.

Recommendations and Discard policy

The shell assemblage containing infestation traces can be retained as part of the archive as further studies would confirm the source location. The remaining assemblage can be discarded if and when required.



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TABLE 1

Trench	Context	Feature Type	Type	Left Valve	Right Valve	Quantity	Weight (g)	Notches	Infestation	Notes
3	300	Topsoil	Ostrea edulis	0	2	2	3.7	N	N	
3	301	Cleaning layer	Ostrea edulis	36	50	86	841	Y/N	Y/N	Some items with notches. INF: Burrows of Polydora ciliata (Johnston); Bryozoa/sea mats; Barnacles.
3	301	Cleaning layer	Nucella lapillus	0	0	1	3.4	N	N	Whelk internal spire
3	304	Outside layer	Ostrea edulis	1	4	5	5.5	N	N	
3	304	Outside layer	Nucella lapillus	0	0	1	1.1	N	N	Whelk Reticulate sculpture
3	304	Outside layer	Snail	0	0	1	0.3	N	N	
3	305	Inside layer	Ostrea edulis	8	14	22	70	N	Y/N	Bryozoa/sea mats
3	305	Inside layer	Argopecten irradians	0	0	1	1.6	N	N	Scallop
4	401	Subsoil	Ostrea edulis	19	25	44	224	N	Y/N	Burrows of Polydora ciliata (Johnston); Borings of sponge Cliona celata
4	406	Fill of wall cut	Ostrea edulis	0	2	2	16.9	N	N	
4	409	Fill of wall cut	Ostrea edulis	0	2	2	30	N	Y/N	Burrows of Polydora ciliata (Johnston)
5	501	Rubble layer	Ostrea edulis	3	7	10	93	N	Y/N	Barnacle attachment/cement "scar"
5	502	Rubble layer	Ostrea edulis	3	1	4	22	N	N	
5	508	Wall	Ostrea edulis	0	5	5	48	N	N	
n/a	800	Spoilheap	Ostrea edulis	2	6	8	47	N	Y/N	Burrows of Polydora ciliata (Johnston)



Appendix 9: Other Finds

Mike Wood BA (hons) MLitt MCIFA

Introduction

A mixed collection of glass, flint and clay tobacco pipe was collected during archaeological investigation on the Wings to the Past project at Riseholme College near Lincoln.

Methodology

The material was counted and weighed in grams, then examined visually to identify any diagnostic pieces and the overall condition of the assemblage. Reference was made to published guidelines (Higgins & Davey 2004). Where no other identification has been possible for the clay pipe, stems have been dated by established stem bore guidelines (Oswald 1975). It should be noted that dates provided by stem-bore size can have an appreciable margin for error and are intended only as a general guide. A summary of the material is recorded in Tables 1-3.

Condition

The clay tobacco pipe and flint are in good condition, while the wine bottle shard has become iridescent and has visible surface flaking.

Assemblage

Context	Date range	Stems	Bowls	Mouths	Weight (g)	Stem bore	Comments
800	Late 18 th to 19 th	1			4	4/64"	Snapped stem

Table 5: Clay tobacco pipe

Context	Object	Colour	Date	No.	Wt (g)	Comments
401	Bottle	Green	18 th to 19 th	1	9	Curved fragment of highly iridescent wine bottle.

Table 2: Glass

Context	Material	Date	No.	Wt (g)	Comments
301	flint	Undated	1	5	Natural unworked flint
501	Mineral	Undated	1	1	Extremely hard glassy and angular mineral

Table 3: Flint and mineral

Discussion

The assemblage contains a mixed group of glass, flint and clay tobacco pipe.

The tobacco pipe is represented by a single snapped stem likely to be of later 18th or 19th century (Mann 1977), while the glass assemblage comprises a single fragment of probable 18th to 19th century date (Dumbrell 1983).

A single fragment of unworked flint and fragment of hard glassy mineral were also submitted for assessment. The mineral fragment is of uncertain composition, resembling very hard glassy slag under a hand lens and is presumably a modern intrusive find.

Recommendations

The assemblage could all be discarded or returned to the landowner without the need for archiving.



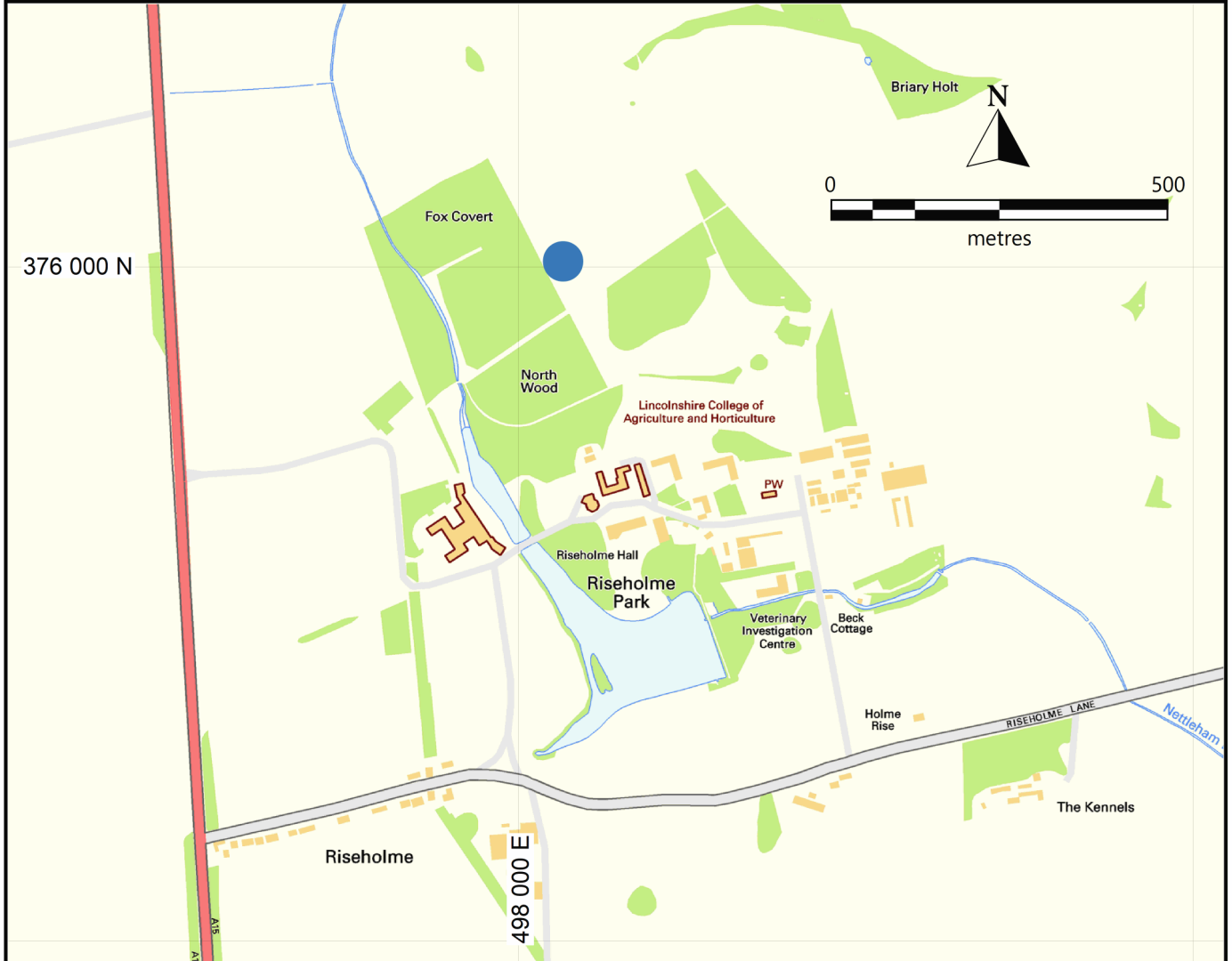
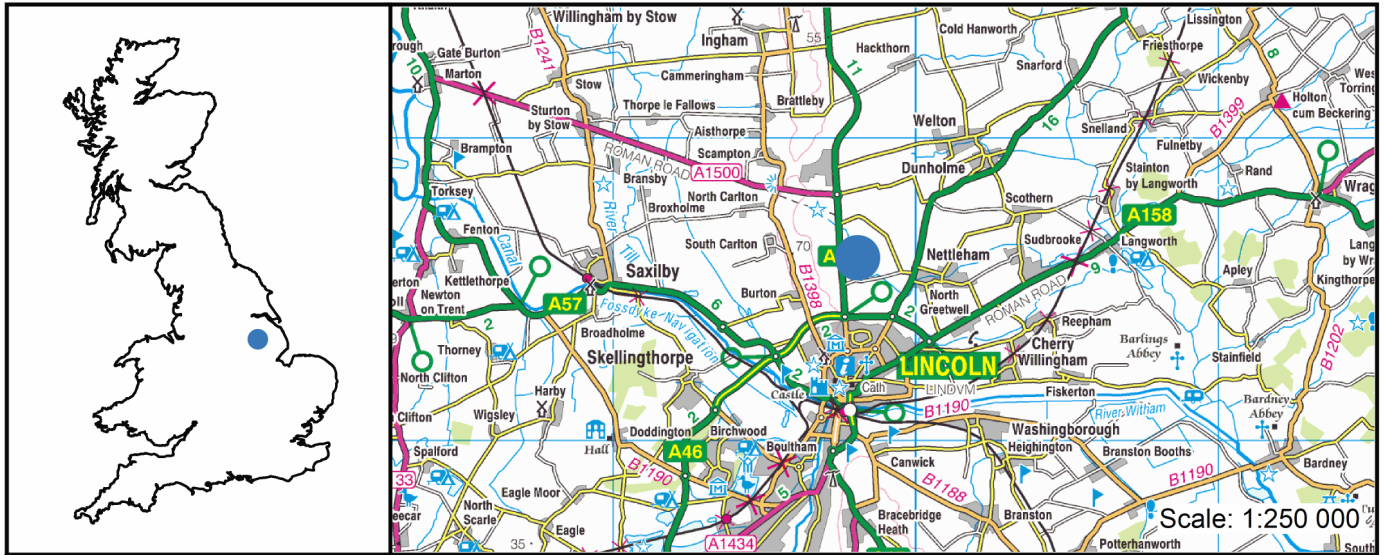
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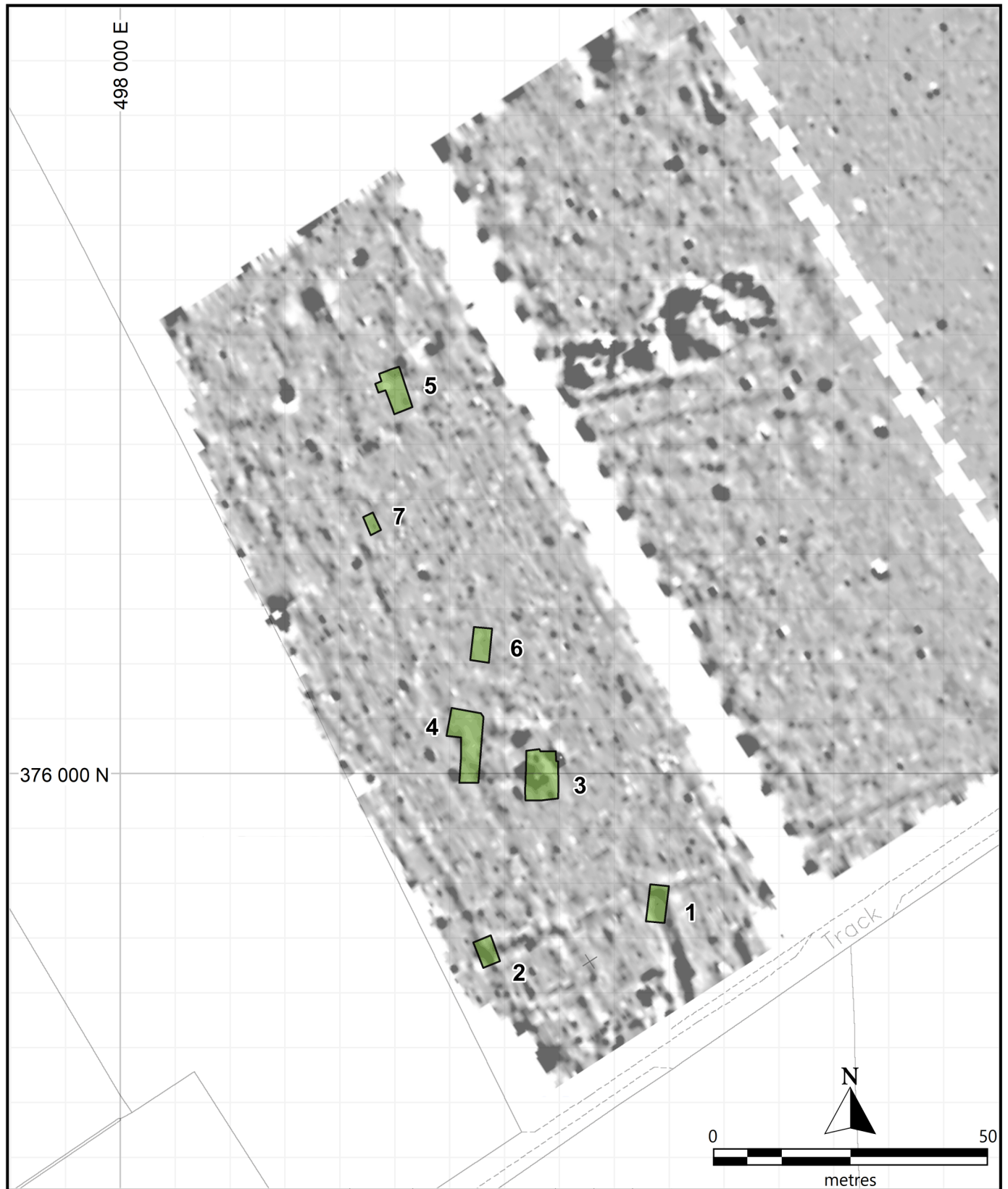



Appendix 10: Figures





Location of the fieldwork							Wings to the Past University of Lincoln: Riseholme Campus Figure 1 Location of the fieldwork Scale 1:10 000
	1.00	07/11/19	First issue	KB	NB	NC	
	Ver	Date	Description	Drn	Chk	App	
[Contains Ordnance Survey data © Crown copyright 2010]							



 Excavation area

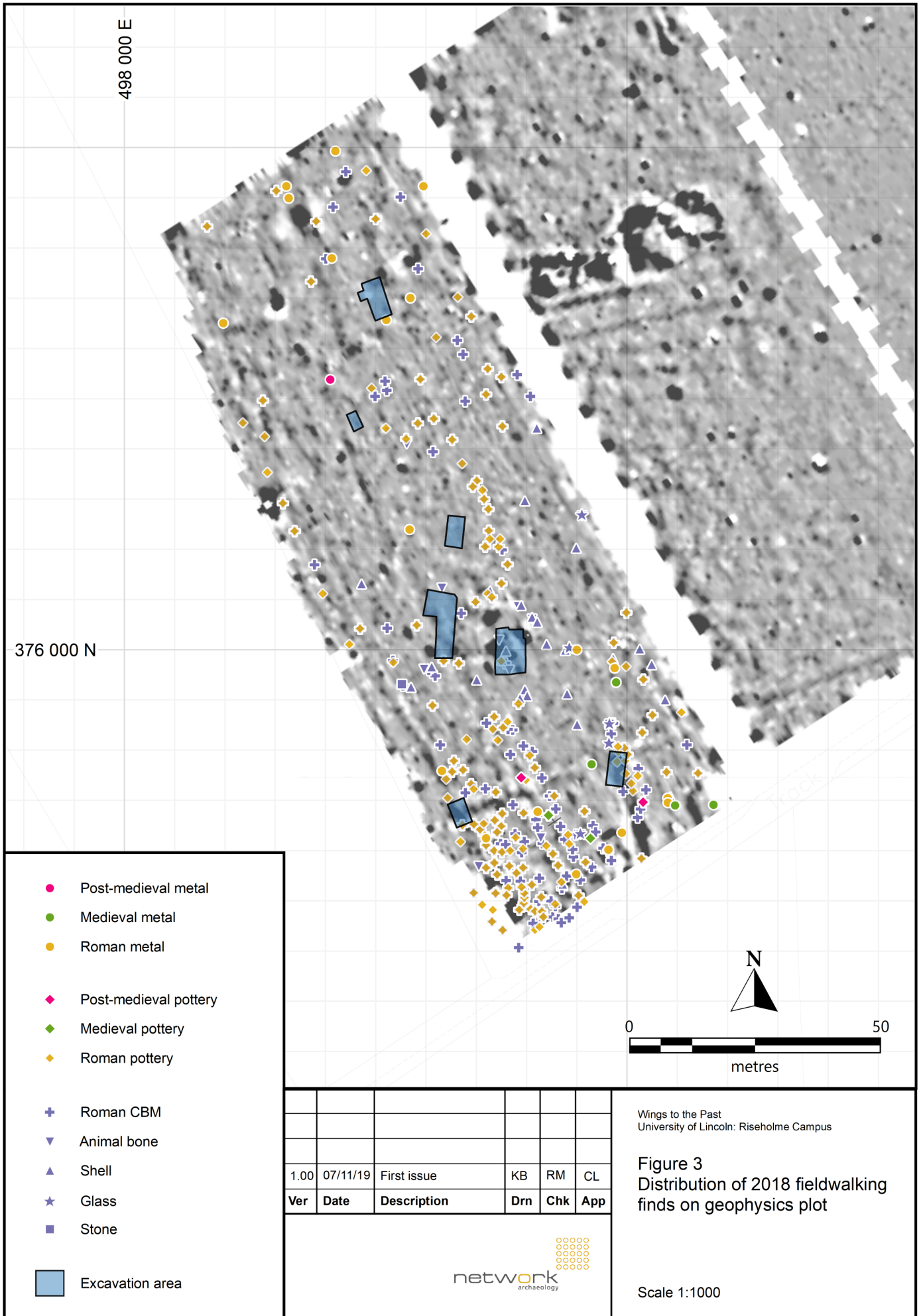
1.00	07/11/19	First issue	KB	NB	NC
Ver	Date	Description	Drn	Chk	App



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Figure 2
Magnetometry plot from earlier geophysical survey of the field (Bartlett 2018) and the excavation areas

Scale 1:1000



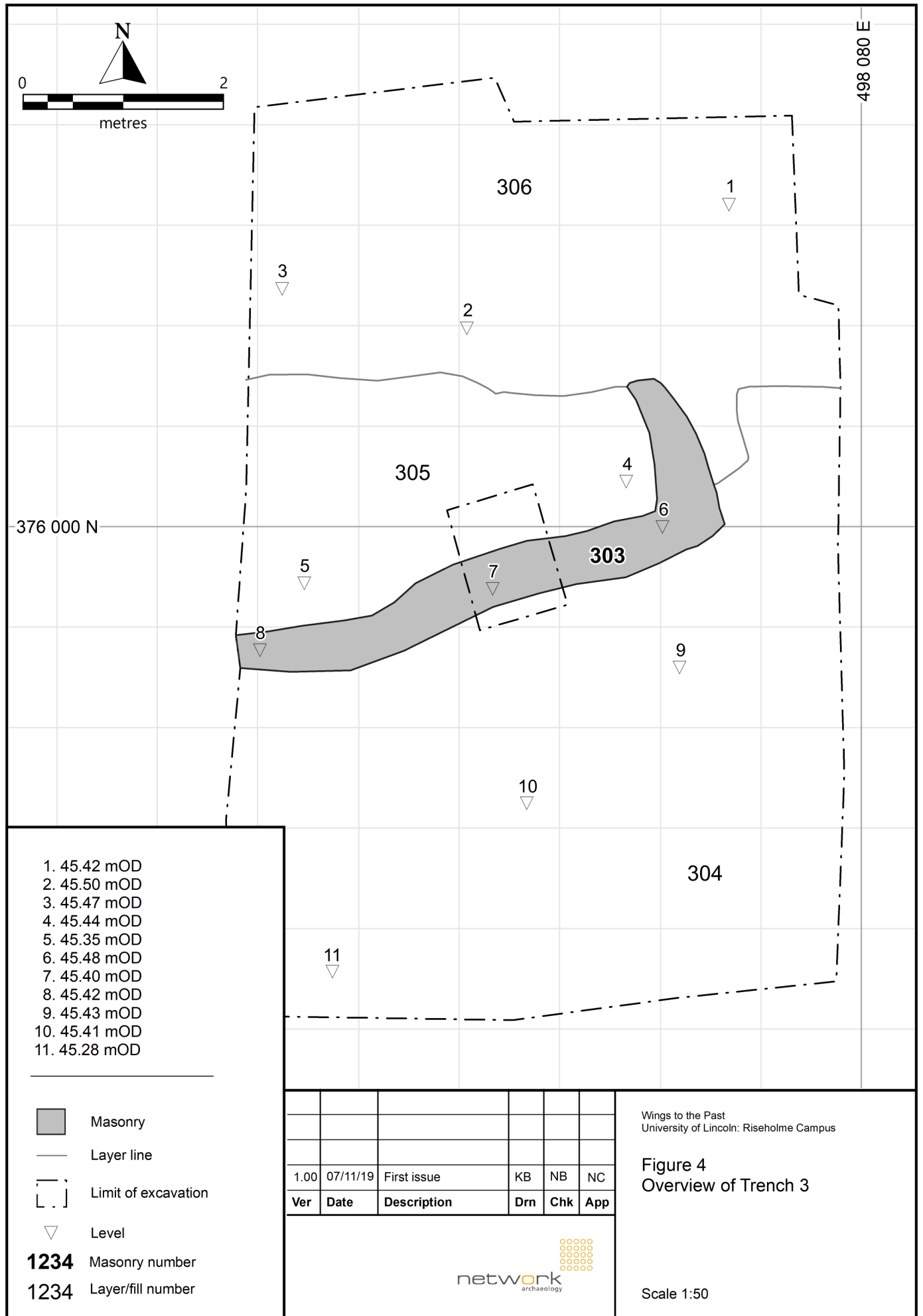
●	Post-medieval metal
●	Medieval metal
●	Roman metal
◆	Post-medieval pottery
◆	Medieval pottery
◆	Roman pottery
+	Roman CBM
▼	Animal bone
▲	Shell
★	Glass
■	Stone
▭	Excavation area

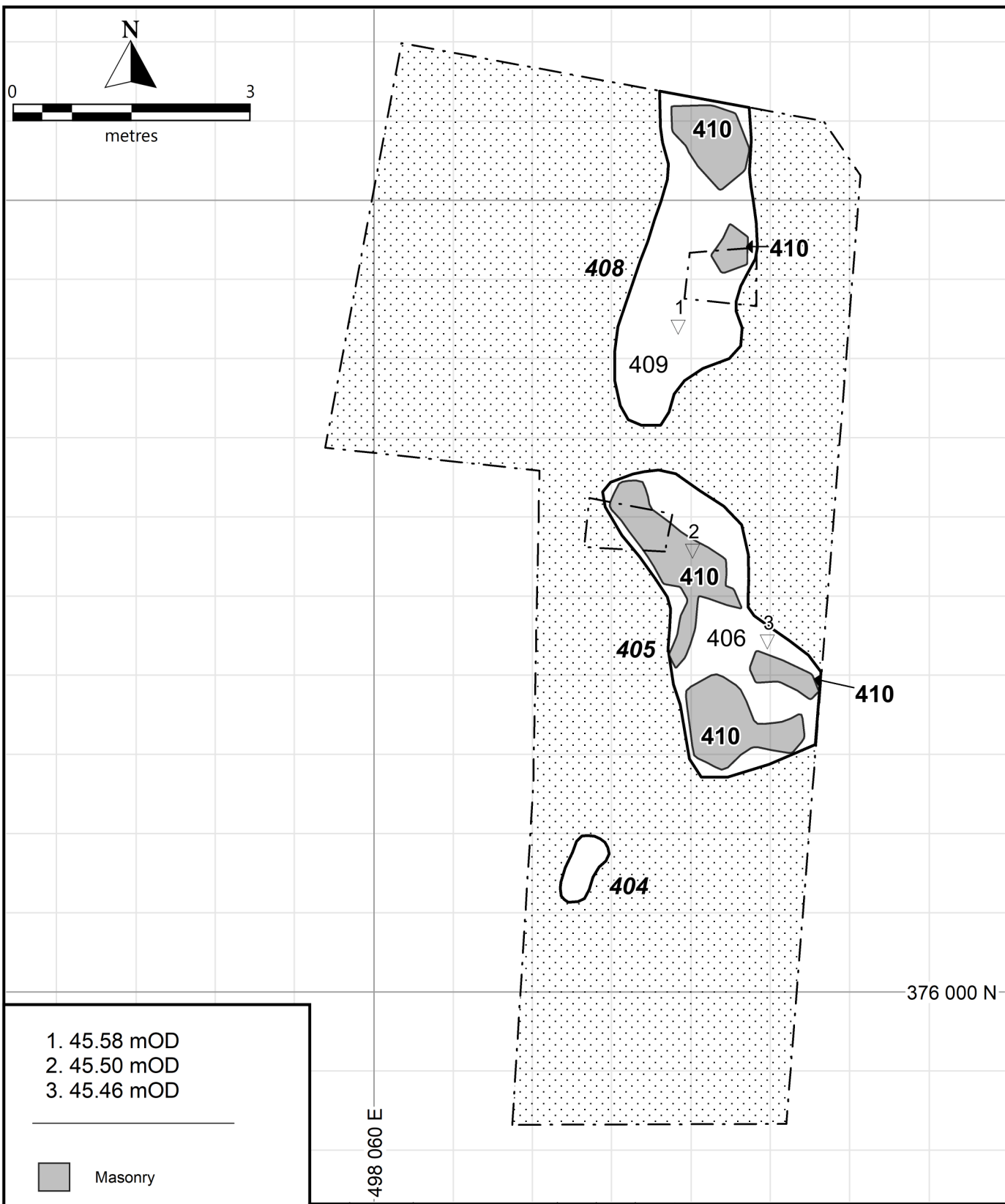
1.00	07/11/19	First issue	KB	RM	CL
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Figure 3
Distribution of 2018 fieldwalking finds on geophysics plot

Scale 1:1000





1. 45.58 mOD
 2. 45.50 mOD
 3. 45.46 mOD

Masonry
 Cut line
 Limit of excavation
 Natural geology
 Level

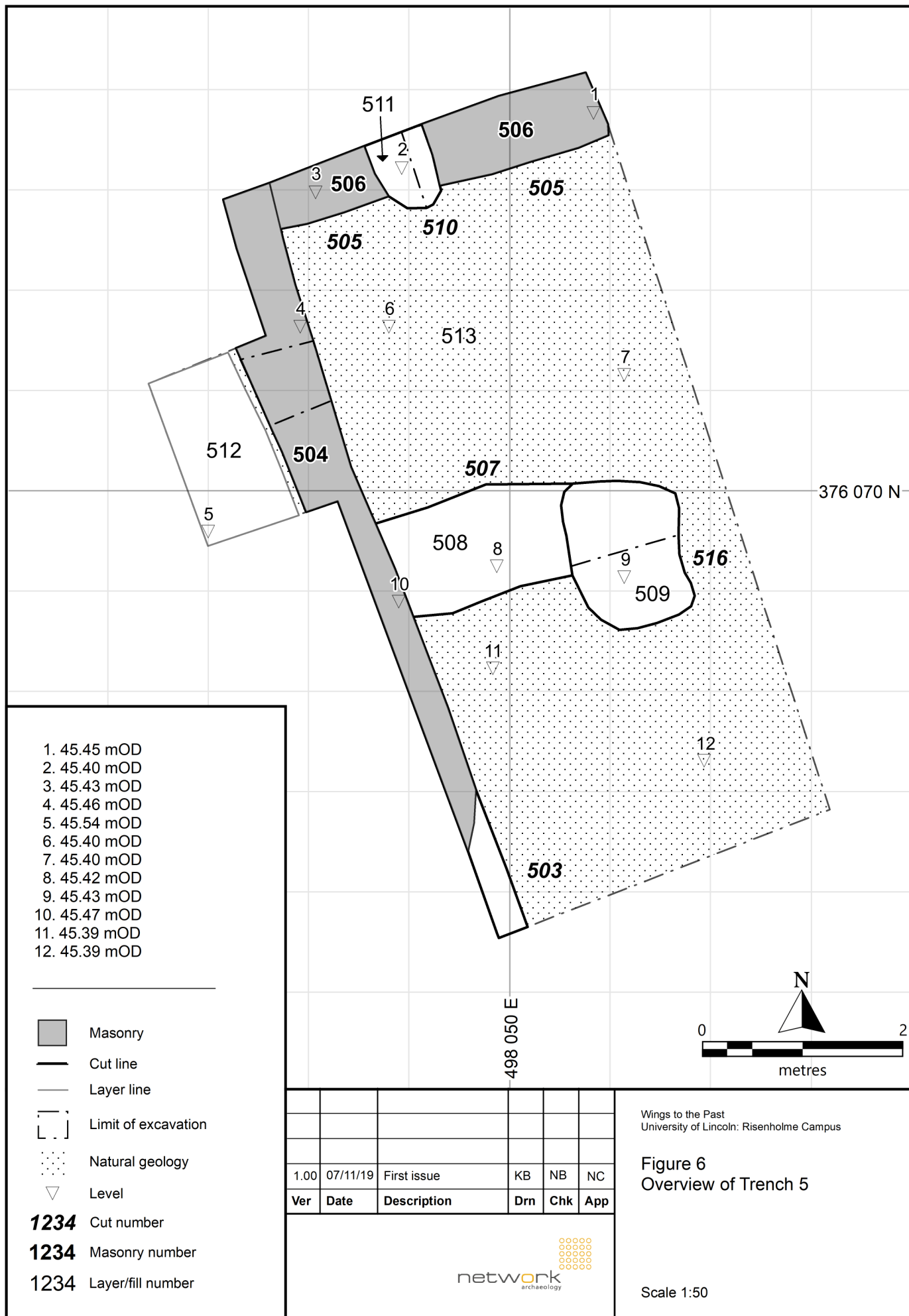
1234 Cut number
1234 Masonry number
1234 Layer/fill number

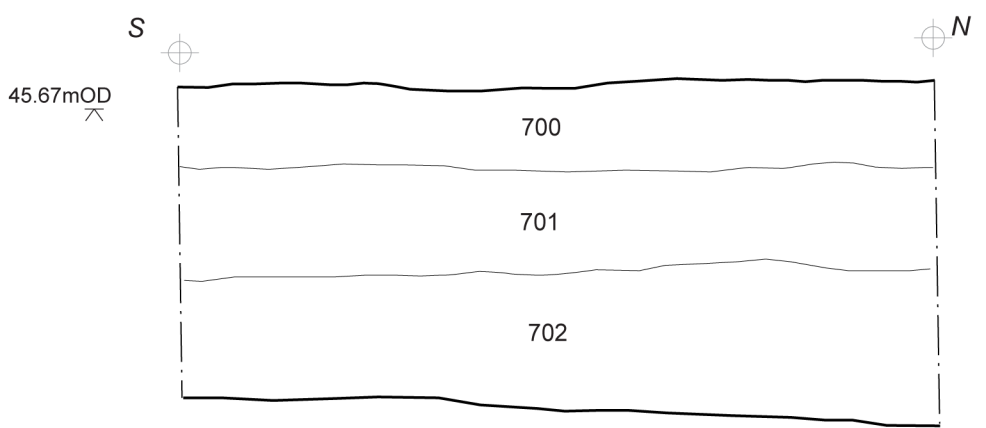
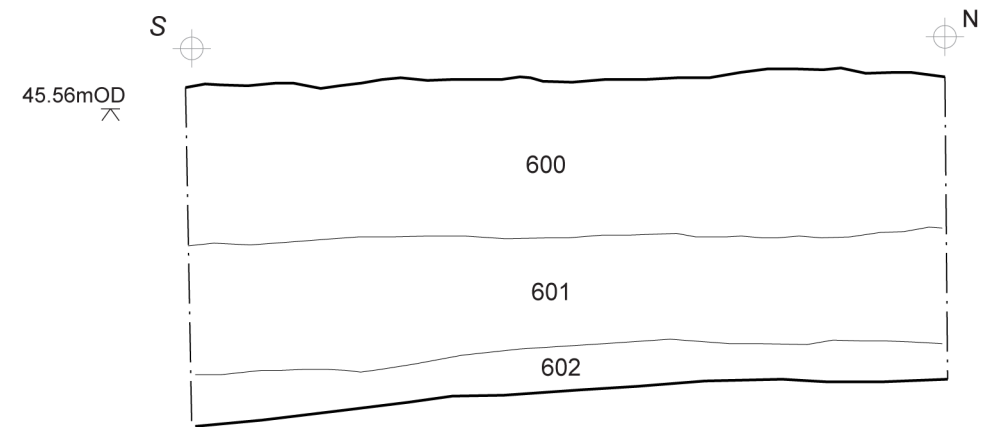
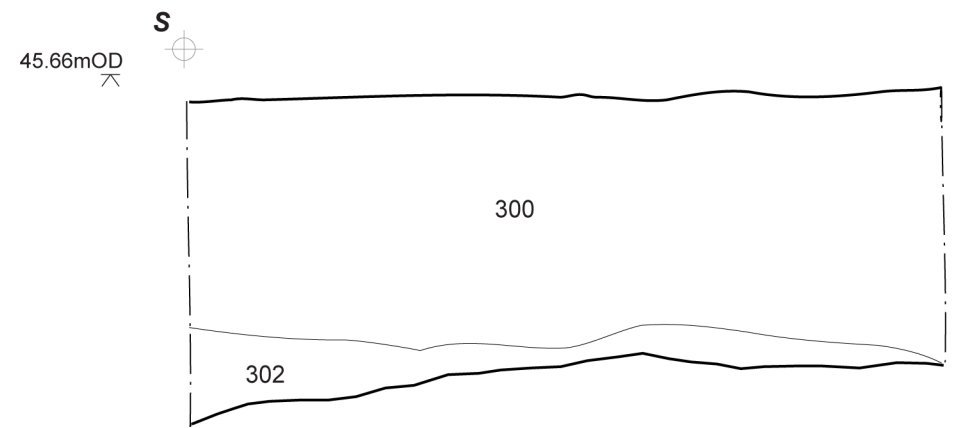
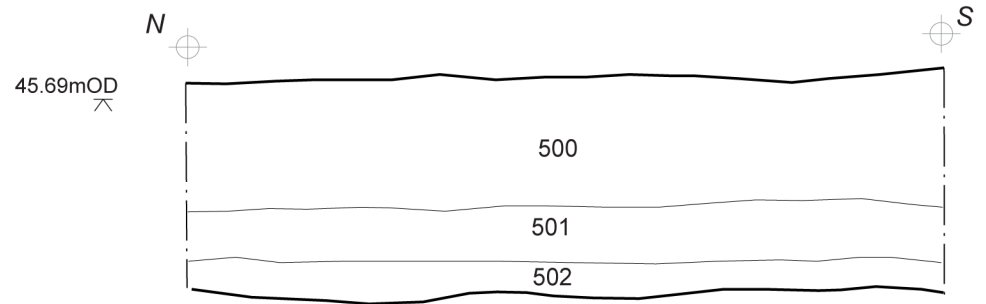
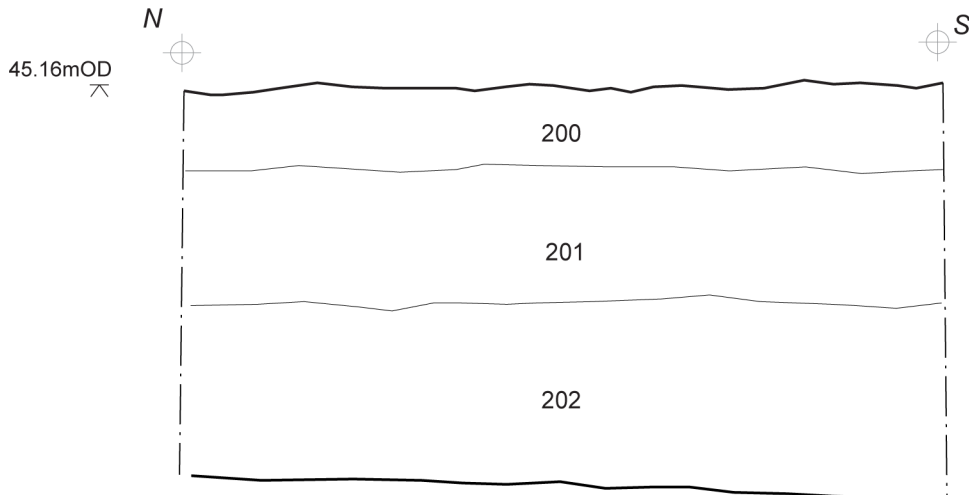
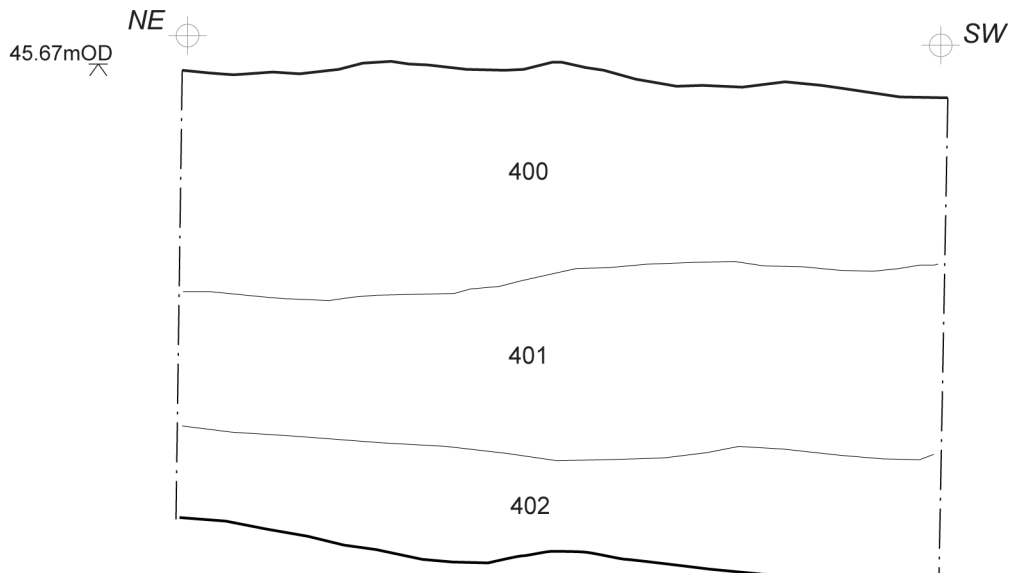
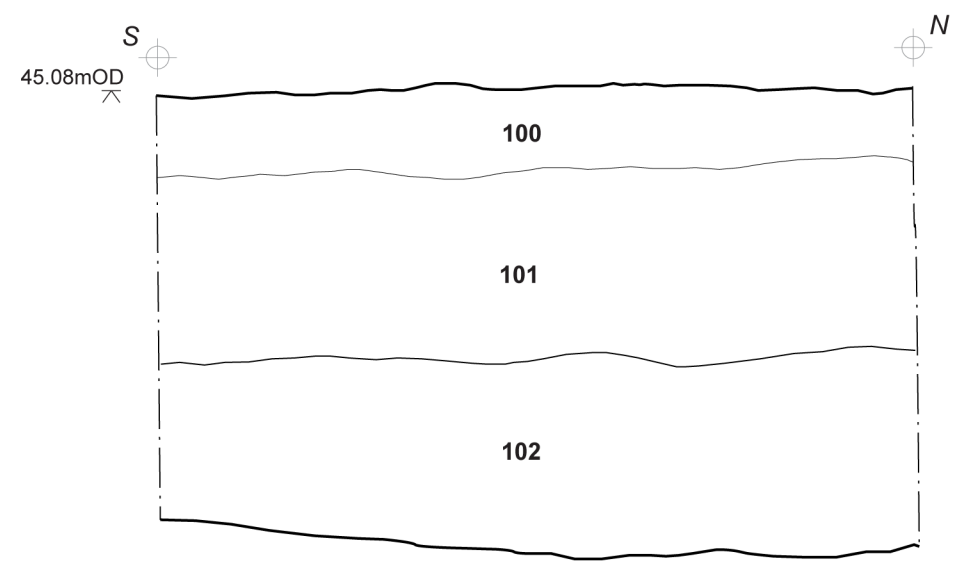
Ver	Date	Description	Drn	Chk	App
1.00	07/11/19	First issue	KB	NB	NC

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Figure 5
 Overview of Trench 4

Scale 1:70





- Cut
- Layer/ Fill
- - - Limit of excavation
- 000 Fill number

1.00	07/11/19	First issue	MS	AH	NC
Ver	Date	Description	Drn	Chk	App

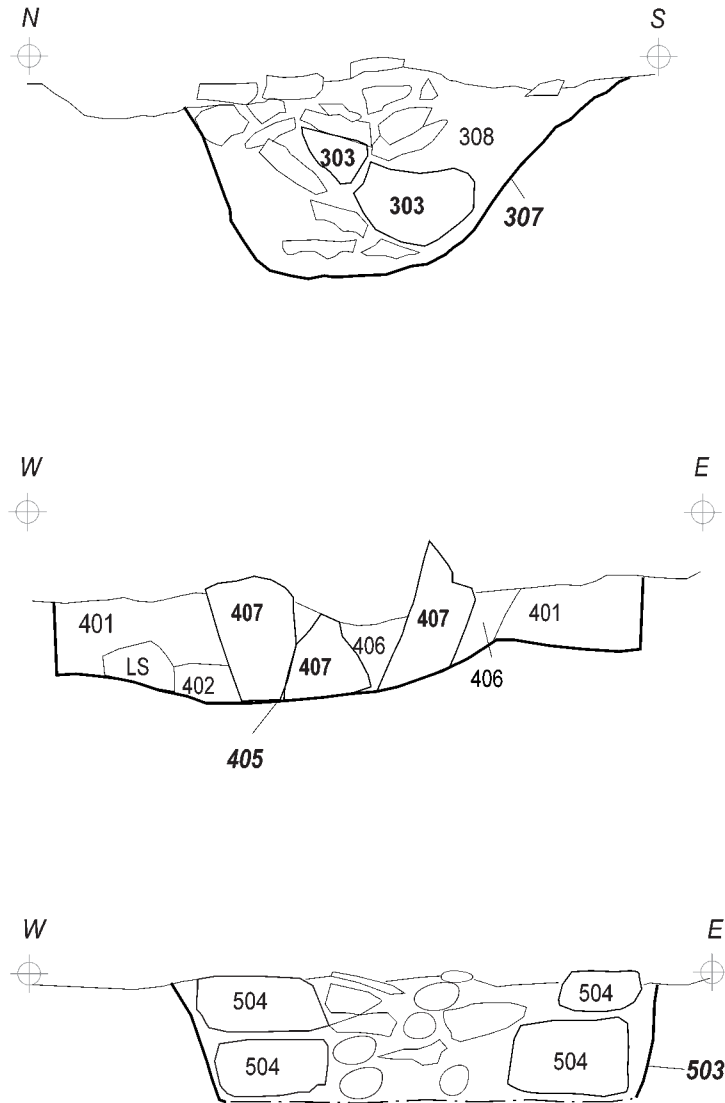


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Figure 7
Representative sections
of Trenches 1-7

Scale 1:10





- Cut
- Layer/fill
- Stone
- Masonry block
- Limit of excavation
- 405** Cut number
- 401 Layer/fill number
- 303** Masonry number
- LS Lime stone



Ver	Date	Description	Drn	Chk	App
1.00	13/11/19	First issue	AT	CD	EF

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Figure 8
Selected sections from Trenches
3, 4 and 5

Scale 1:10

