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An Archaeological Evaluation and Monitoring (Watching Brief) of St. Anne's Charterhouse, Coventry

NGR: SP 34502 78177

Richard Huxley

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Summary

The work at St. Anne's Charterhouse, Coventry consisted of the excavation of 11 trenches measuring 10 to 25m long, 3 test pits measuring 2m² and the monitoring of 5 window samples. The trenches were positioned both within the Precinct wall and externally near to an outbuilding and coach house. The southerly external trenches contained later post-medieval features with the remains of a brick structure being found overlaying earlier pits and 18th century planting trenches. The trench and test pit outside the coach house revealed a well preserved medieval wall with a layer of building rubble on one side and medieval garden soil beneath that. The building rubble is likely to be related to the dismantling of the monastery and was covered by clay during the 16th century. The trenches within the Precinct wall were positioned around the southern and eastern edges of the Great Cloister with the aim of investigating the monk's cells. The trenches around the southern edge of the cloister were deep and complex containing a large proportion of post-medieval features. The medieval features along this range increased in depth to the west, and also in quality of preservation, with the internal features from a monk's cell being found in the western end of this range. Walls were found close to their predicted locations, but a cell was found in the location of a garden which implies there is a change in the arrangement of cells along this range. The trenches to the east of the cloister were shallower but still contained a large amount of remains reflecting post-medieval activity. The northern area was covered in clay with post-medieval pits dug through it and medieval garden soils below. The edges of medieval garden paths and borders were found to be marked by upright tiles and fish bones were found within the soils. The back wall for the garden was not identified although an unusual structure was found containing a decorated floor constructed from re-used tiles. Structures of this size and in this location have been found during the excavation of other Carthusian monasteries and are thought to relate to latrines. The structural remains from the monk's cells were often located beneath a thick layer of rubble occasionally containing stones and tiles mortared together which implies the walls were built out of stone. Fragments of mortar surround the demolition rubble and these are likely to be from the dismantling of the structures and mortar being chipped off the stones during the dissolution period. Plaster fragments with moulded undersides were also identified suggesting lath and plaster was used to build the internal walls of the cells. Glazed tiles were found amongst the demolition rubble which suggest that whilst the walls were white some of the floors were coloured. The remains of the pentice were found along the eastern side of the cloister and the walkway was found to be 1.76m wide. The structure was marked by a shallow row of stone slabs which could support either a series of timber posts or a dwarf wall with posts set into it.

The report will be archived under accession number CH19

Cover photo: St. Anne's Charterhouse looking south-east.

Introduction

In accordance with National Planning Policy Framework (NPPF) Section 16 *Conserving and Enhancing the Historic Environment* (DCLG 2018) this document forms the report for trial trenching and test pitting at St. Anne's Charterhouse, Coventry. It details the results of archaeological work that was undertaken in February and March 2019 and follows the strategy of work set out in the Written Scheme for Investigation (WSI; ULAS 2019).

The proposals for the site include the renovation of the buildings and grounds of St. Anne's Charterhouse, a scheduled monument (number 1005901) that lies less than 1km from the city centre (NGR: SP 34502 78177). The plans include a reconstruction of two of the monks' cells and the construction of new 'venue' building (see Figure 3). The monument contains three Listed Buildings, The Charterhouse (Grade I), its monastic precinct wall (Grade II*) and a related 18th-century coach house (Grade II). It sits within an area of parkland that is part of the London Road Conservation Area and it is largely within a designated Green Belt zone

The work has been commissioned by Historic Coventry Trust and is intended to provide preliminary indications of the character and extent of any heritage assets in order that the potential impact of the development on such remains may be assessed by the Planning Authority. The work has a specific focus on the arrangement of the inner cloister and the design plans related to the reconstruction of the monks' cells and the new 'venue' building. The work was undertaken with Scheduled Monument Consent (Historic England ref S00201787).

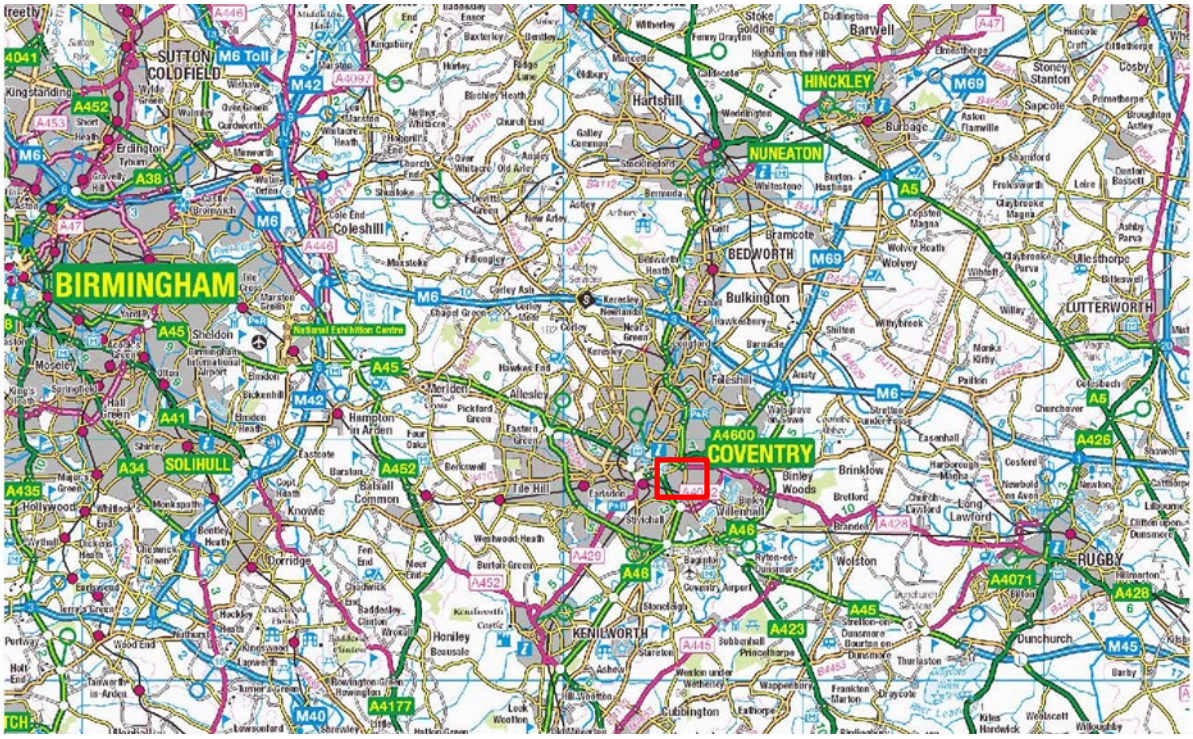

Figure 1: Location of St. Anne's Charterhouse, Coventry (outlined red).
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Site Description, Topography and Geology

The Charterhouse lies c.1km to the south-east of Coventry city centre (see Figure 1) in an area of open parkland, bounded on its north and east side by housing, on its south side by Blue Coat School and on its west side by London Road. The site is accessed by vehicles via a lane from London Road that also serves the All Saints Church of England Primary School and a small carpark for the park. There is also pedestrian and vehicle access to the rear of Blue Coat School through the grounds and a path leading from Knights Lane at the north end of the park.

The Charterhouse occupies a position within the valley of the River Sherbourne that flows in a south-easterly direction through the site. The surviving monastery buildings lie on the east side of the river at a height of between 74m and 75m Above Ordnance Datum (AOD), but the sides of the valley slope upwards to a height of c.81m AOD on London Road to the west and Terry Road to the east. The buildings occupy a terrace in the east slope, but it is not clear how much the terrace was modified for the construction of the monastery.

To the west of the surviving Charterhouse buildings the ground drops to a wide-open area of grass leading to the river bank. Sports pitches occupy the area to the west of the river before the ground rises again towards London Road. The area to the south of the buildings, is now mostly occupied by the sports pitches and access roads into Blue Coat school so has been extensively landscaped, although, it is not clear if these areas have been dug into the terrace and east side of the valley or whether they were built up. The underlying bedrock geology of the area is interbedded sandstone and conglomerate, overlain by alluvial clay, silt sand and gravel (British Geological Survey 2018).

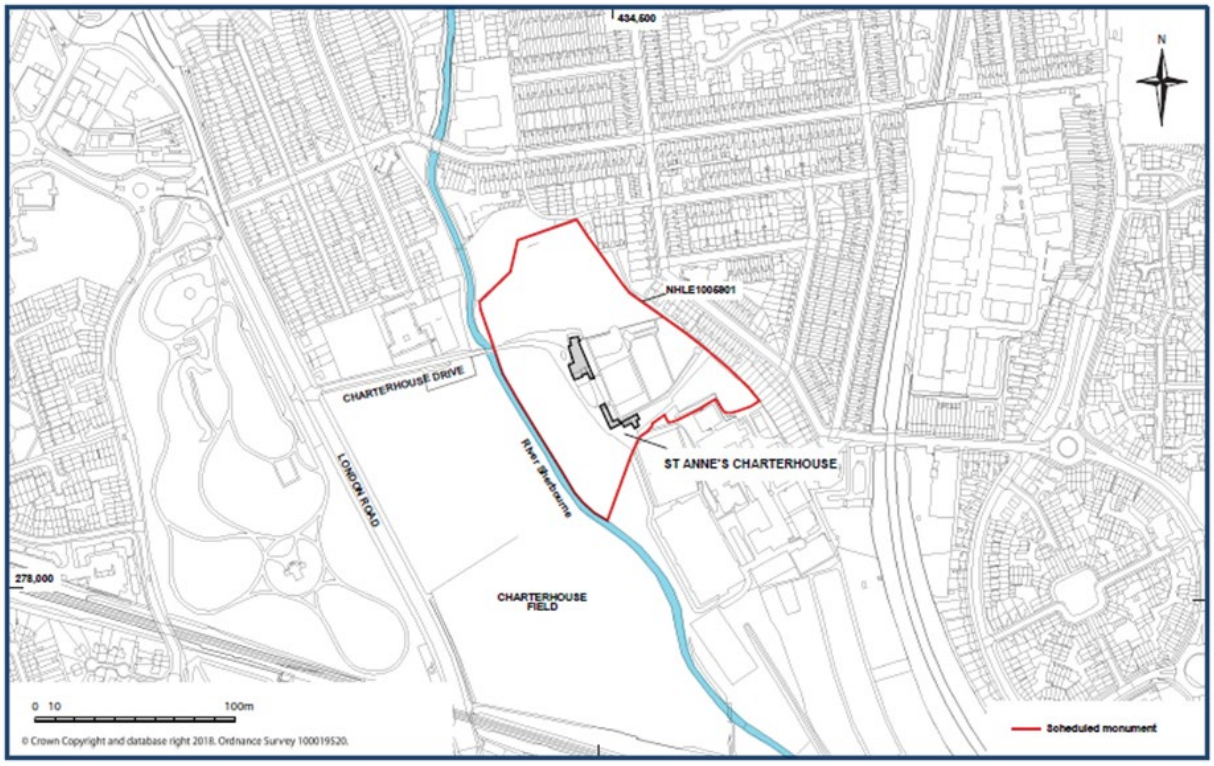

Figure 2: Plan of the scheduled monument (outlined red).
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Figure 3: Plan of the St. Anne's Charterhouse site showing the proposed development (supplied by client).

Archaeological and Historical Background

The Charterhouse site was defined in the Conservation Management Plan as the approximate area of the scheduled monument, which is within, or will be within, the ownership of The Historic Coventry Trust (HCT) (PCPT 2016)

The last private owner of the Charterhouse was Colonel Sir William Wyley who, on his death, left the buildings and grounds to the community as a 'public museum and public park' and while the grounds have been used as park ever since, the buildings were used for institutional purposes. This has inevitably restricted access into the buildings, so they remain little known within the local and wider Coventry community. However, the Coventry Charterhouse Preservation Trust was formed to support and protect the Charterhouse and its grounds and they bought the site in 2012 (https://www.historiccoventry.org.uk/project/charterhouse-priory/).

The Carthusians and the establishment of the Coventry Charterhouse
The Carthusian order was established in 1084 in France when the basic layout of all subsequent Carthusian monasteries was established, which was centred on the inward-looking enclosure of the Great Cloister. The Great Cloister had monks cells ranged along the east, south and west sides, there would also be a church, chapter house, refectory and a priors cell on the west and north sides. Carthusian practice was that other than the night office and vespers, mass on Sundays and feasts, all other offices were said alone by the monks in their own cells. This meant that the majority of the monks' days were spent in their cells in long hours of contemplation and prayer, but they were also encouraged to perform some form of manual tasks (Soden 2005, 94) and each monk had a garden that required tending. Outside of the Great Cloister, there would also have been buildings and areas for the lay brothers, guest accommodation, kitchens, industrial areas, stabling and storage.

The Coventry Charterhouse was established in 1381 on fourteen acres of land at Shortley donated by Sir Baldwin Frevill to Lord Zouche, who was responsible for bringing the Carthusians into the area. A Benefactors Book for the Coventry Charterhouse, which lists those people that paid for one or more of the monks' cells, is a rare survival and the list provides significant information such as the number of cells and their location around the cloister (Soden 1995, 6-7: Soden 2017, 12-13).

Previous archaeological and historical investigations have uncovered large amounts of evidence for the layout of the site, but there are still fundamental questions unanswered. For example, the general layout of the Great Cloister has been established with monks' cells recorded on the east and south sides, but little evidence has been recovered for the number or layout of the cells on the west side. This means that the total number of cells surrounding the cloister is unknown and the Benefactors List only mentions 11 cells, which with the Prior's cell makes 12, but given the layout of the rest of the cloister this would have left a gap on the west side. However, a small archaeological excavation on the west side of the cloister in 1987 revealed a sandstone wall foundation that may have been a cell wall or a garden wall between two cells (Soden 2015, 30).

The excavated evidence shows that each cell was enclosed by high walls, with the monks' accommodation in one corner and a garden occupying the rest of the space. The archaeological work undertaken at Charterhouse is fragmentary, and an area containing remains of an entire

cell and garden have never been excavated at the site. Trenching during the 1960's found evidence for the Precinct wall surrounding the cells along the southern and eastern range along with parts of the western cloister wall. Further excavations during the 1980's investigated the fronts of the monk's cells and neighbouring garden space and revealed evidence for their construction. Typically the accommodation consisted of a two storey building, c.6m x 5m, with a lobby and two rooms on the ground floor and possibly a single room upstairs. The cells excavated on the east side of the cloister all had tiled lobbies and it is thought likely that the buildings were timber-framed, sitting on a stone foundation (Soden 1995; Soden 2017).

The northern section of the Great Cloister appears to have been separated and known as the Lesser Cloister, which included the prior's cell on its west side, the church on its north side and possibly the Chapter House on its east side. The Chapter House is thought to be to the north of, and possibly connected to, the wall of the first, and as yet unrecorded, cell on the east side of the cloister.

It is possible that the additional monastic buildings, such as those used by the lay brothers, lay to the north of the church and west of the Charterhouse. Early 19th century paintings of the house from the west show two ranges of buildings running off the west face of the existing building that may have been the Inner Court of the monastery (PCPT 2017, 65) and a small archaeological evaluation trench to the west of the current building uncovered a corner of a stone wall that may have been part of the north range (Soden 2017, 12).

To the north of the Charterhouse, in the area where planting for a new orchard has taken place, a former monastic fishpond has been partially investigated through the excavation of an archaeological trial trench in 1973. This revealed the pond was over 2.5m deep in places and filled by deposits of very organic rich alluvium laid down as the pond was naturally silting up. These deposits were overlain by 20th-century dumped material that included some cemetery remains, presumably from the London Road cemetery (Soden 2015, 21). In 2018 Test Pitting was carried out across the new orchard which identified a possible sandstone wall close to the western boundary (Page 2018). The remains were only identified in a single Test Pit and could not be dated.

Post-Dissolution and Private Ownership

Following the Dissolution, the Charterhouse site was effectively used as a quarry, with the buildings at least partially dismantled and most of the stone and other reusable materials removed from the site. Much of the early dismantling was undertaken by local people, but a few years after the Dissolution the site was sold to Richard Andrewes and Leonard Chamberlain, described as 'monastic speculators' (PCPT 2017, 18), who appear to have stripped the saleable materials from the site, and in some quantity. An account record for 1542 lists 'carriage of 10 loads of stone' and one from 1543 records the removal of 56 fothers (55 tons) of lead (PCPT 2017, 18). Excavation of the church in 1984-87 suggested that the church was in ruins within 10 years of the Dissolution, but the remains were constantly revisited for their stone, possibly until the mid-17th century (Soden 1999, 56).

The surviving refectory building of the Charterhouse was redeveloped into a private house, which was occupied until the early 20th century. From the mid-18th century the Charterhouse was used for a commercial plant nursery, seed and farming operation, but it is not certain how much, if any of the Charterhouse site itself was developed for planting or horticulture.

Sometime during the 18th century the Coach House was built in the south-west corner of the Great Cloister and other buildings were added around the site, including the small garden sheds on the south side of the Precinct wall.

After the Charterhouse was left to the city by Sir William Wyley in the late 1930s it was used for a time by the military, before being adapted for a series of institutional purposes and its grounds were divided, with a large part of the parkland being used for the Blue Coat School and playing fields.

Aims and Objectives

Previous archaeological works on the site have established the presence of significant archaeological evidence but were not able to characterise the entire site due to the limited extent of the works and in some areas the presence of extant buildings.

The broad aims of the fieldwork were:

- To identify the presence/absence of any archaeological deposits.
- To determine the location, extent, date, character, condition, significance and quality of any archaeological remains within the development site
- To establish the ecofactual and environmental potential of any archaeological deposits and features encountered.
- To provide sufficient information on the archaeological potential of the site to assess the impact of the proposed development on cultural heritage and to help formulate a mitigation strategy
- To record any archaeological deposits and produce an archive and report of any results.

The objective of the programme of work is to determine if there are any significant archaeological remains in the areas to be developed, to form an understanding of their value and their potential to shed light on the construction and subsequent development of the Charterhouse site and its surrounding area. The results from the various phases of archaeological work will be disseminated in appropriate formats, which should include publication in national and regional archaeological journals, project reports for each element of fieldwork, interpretation boards and display material for the site and throughout Coventry city.

Research Objectives

The fieldwork was carried out to address potential research objectives identified from The Archaeology of the West Midlands: A Framework for Research (Watt 2011).

Medieval (Hunt 2011)

The project offers the opportunity to uncover new information towards understanding the development and role of the monastery in its immediate landscape, as well as having the potential to discover more about how the site was organized, and its interconnections with the wider landscape.

Post-Medieval-Industrial (Belford 2011)

The project has the potential to provide new information associated with the end of the monastery at the dissolution, and how the site was used in the transitional post-dissolution period.

Information recovered during the excavations may contribute towards answering the following questions:

- How was the site used before the foundation of the Charterhouse in 1381?
- How was the monastery organized and what remains of the early buildings (specifically what was the number and layout of the monk's cells and how do the reconstructed stone footprints correspond to the archaeological evidence)?
- How was space used within the monastery?
- Can the evidence add to present understanding of the growth and development of the monastery?
- How does St. Anne's Charterhouse compare with other excavated Carthusian sites in Britain and beyond?
- What can the archaeological evidence reveal about the lives of individual monks, their trades and diet?

Methodology

All work was carried out in accordance with the Chartered Institute for Archaeologists (CIfA) Standard and Guidance for Archaeological Field Evaluation (2014b) and adhered to their Code of Conduct (2014a). An Accession number was obtained prior to any work taking place.

Background Research

Prior the commencement or the fieldwork, background research into the proposed development area was undertaken. The following sources were consulted to assess previous land use and archaeological potential:

- Archaeological records (Historic Environment Record (HER) for Coventry).
- Previous Ordnance Survey and other cartographic sources of the area, printed and manuscript (Coventry Archives).
- Online digital resources (e.g. Heritage Gateway, Pastscape, MAGIC, Defence of Britain Database, British History Online, OASIS).

Archaeological Monitoring (Watching Brief)

Archaeological monitoring was carried out during a phase of Window Sampling which was intended to advise the sub-structure design for the proposed new buildings. A total of 5 window samples was excavated, of which 2 were located in the area of the new Conservatory (south of the Victorian House). One was positioned in the location of a proposed new Venue building, another was positioned in the garth and a fifth was located by an outbuilding to the south (Figure 4).

Figure 4: Proposed locations of the window samples (supplied by the client)

Each Window Sample location was hand-excavated, to determine the presence or absence of archaeological remains, before the sample borehole was taken. If evidence for significant archaeological or structural remains was encountered the Window Sample would have been relocated. The location of the 2 north-western Window Samples (WS 1 and 2) were moved a few metres to the south-west and the southern Window Sample (WS 5) was moved slightly to the east due to the presence of services.

Each Window Sample was recorded on standard pro-forma ULAS Watching Brief record sheets and all archaeological remains were recorded using standard ULAS techniques. The archaeologist co-operated at all times with the contractors on site to ensure the minimum interruption to the work.

Trial Trenching

Archaeological evaluation took place in several areas of the site, in particular on the east, south and west sides of the cloister, specifically to inform the inner cloister arrangement and the design plans of the proposed reconstruction of two of the monks' cells and the new 'venue' building. Prior to any machining of the trenches general photographs of the site areas were taken.

Evaluation trenches were set out on OS National Grid (NGR) co-ordinates using an appropriate methodology. A total of 135 meters of 2m wide trenching and three 2x2m test pits formed the basis of the evaluation. The trench plan (Figure 5) shows the proposed location of the trenches although the size and position indicated on the plan varied due to unforeseen site constraints or the presence of archaeological deposits. The position and size were adjusted on site with the approval of the Historic England Inspector of Ancient Monuments. One additional trench and 1-2 additional test pits (shown in green on Figure 5) were proposed to be excavated in order to answer specific site questions. The 2 test pits located on the eastern edge of the coach house were not excavated due to the proximity of the building but the additional trench (Trench 5A) was excavated. After discussion with the Historic England Inspector of Ancient Monuments several post-medieval or modern features in Trenches 5A, 9 and 10 were not excavated due to flooding and time pressures.

East side of the cloister

The evaluation along the east side of the cloister comprised four trenches (Trenches 1-4) to re-establish the levels of the undisturbed structures of Cells 3 and 4 and their associated gardens identified during the 1980's excavations. The trenches were positioned over the locations of Cells 3 (C) and 4 (D) to determine the level of the undisturbed cell structures and to assess how they could be protected during construction of the new cells. A trench was also excavated that extended into the cloister to investigate the extent and construction of the pentice at this point. The information from the evaluation of the east side of the cloister will be used to ensure the suggested numbering of the cells around the cloister is correct and to aid the design and interpretation of the proposed reconstruction of Cells 3 and 4.

Trench 4 was split into 3 parts due to the presence of the original cloister wall and a recreated wall and to the east of the cloister. Trench 1 needed to be split into 2 sections due to the presence of existing trees. The southern part of this trench was angled to the south-east to avoid vegetation, recreated walls and benches. The eastern end of Trench 3 was moved several metres

to the north to avoid truncating formal planted gardens and the eastern end of Trench 2 was moved a metre to the south to avoid a tree. Trench 2 also needed to be machined with a curve to avoid the tree and the repositioned Trench 3.

South and West side of the cloister

Trench 5 was excavated across the line of the south range and overlapped on its eastern end with the trench excavated in 2017 (Soden 2017). This trench was excavated with the aim of locating the cells and their gardens as there is at present uncertainty over the layout of this part of the site. Trench 7 was excavated to the south-east of Trench 5 across the possible position of one of the cells, garden and rear wall of the south range. Trench 8 was excavated north-west (from the north side of Trench 5) to investigate the former line and character of the pentice that ran around the cloister in front of the cells. Both the western end of Trench 5 and the southern end of Trench 7 were shortened slightly to avoid disturbing existing walls. Should these walls be removed the additional 1m length from these trenches could then be excavated during subsequent phases of investigation. The small additional trench on the eastern edge of Trench 5 (called Trench 5A) was excavated to find the continuation of a wall identified during the 2017 evaluation (Soden 2017). Other than these changes the trenches along the southern side of the cloister were positioned in their proposed positions.

Trench 6 was excavated to the west of the Coach House buildings with the aim of locating the rear extent of the cells and their gardens on the west side of the cloister. The western trench (Trench 6) had to be moved several metres to the south and shortened due to the presence of several services radiating from the building. A 2x2m test pit was then excavated in the original trench position (called Trench 6A) to further understand the archaeology in that region.

Another two trenches (9 and 10) were excavated across the line of the proposed new extension to the former garden buildings to provide information on the potential for buried archaeological remains to the south of the cloister. Trench 10 was excavated in its proposed position but the southern end of Trench 9 narrowed due to the presence of structural remains located along the western edge and a large proportion of stone rubble that was piled to the east.

Test pits

Three test pits (TP11, TP12 and TP13) were proposed to be excavated against the existing south wall to investigate the possible cellar structure identified during earlier investigations and to determine, where possible, the date of the existing wall (see Figure 5). The two western test pits along the Precinct wall were excavated in their proposed positions but the third easternmost test pit (TP13) was not excavated due to the proximity of a tree and vegetation. This test pit and the two located on the eastern side of the Coach House were proposed to be excavated during subsequent phases of investigation.

Excavation of the trenches and test pits across the south range will provide significant new information on the layout of the cells and gardens in the south range, but may also provide for the first time information regarding the location and layout of the cells in the south-west corner of the west cloister range. Once the layout of the cells and gardens along the south side has been established the results will be used to provide information for the design plan of the proposed inner cloister and they could be used to aid the design of the new 'venue' building to mitigate the potential impacts of any new build. They will also provide information that will

be used to aid the understanding and future interpretation of the cells on this side of the cloister and the wider Charterhouse site.

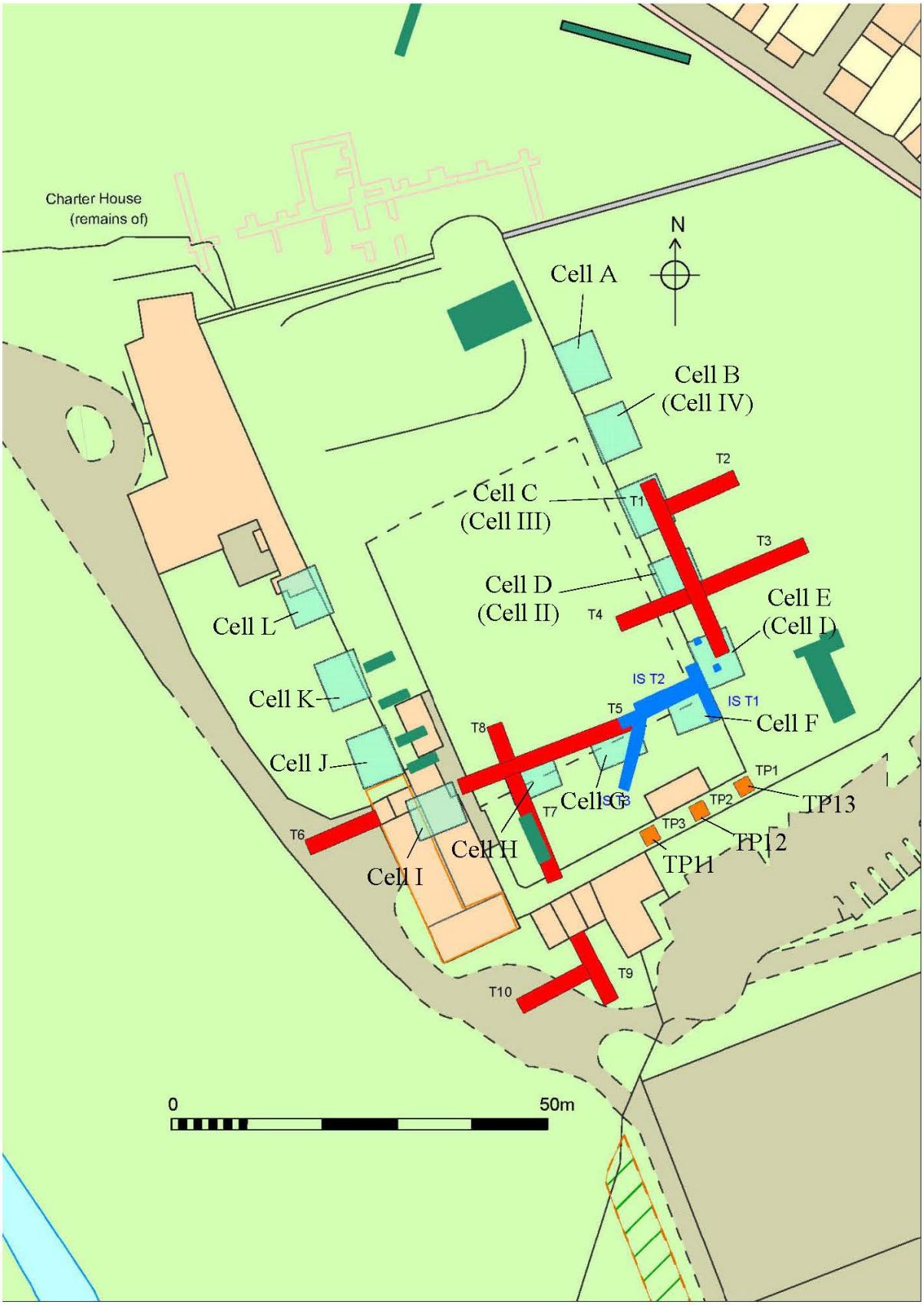

Figure 5: Proposed trench plan showing the possible location of Cells A-L.

Notification of the start of the site works was made to the Historic England Inspector of Ancient Monuments prior to commencement of the recording work in order that monitoring arrangements can be made. All monitoring was carried out in accordance with the CIfA Standard and Guidance for Archaeological Field Evaluation (2014b). Internal monitoring procedures was undertaken including visits to the site by the project manager. These ensured that project targets are met and professional standards were maintained. Provision were also made for external monitoring meetings with the Planning Authority and the Client.

Excavation was carried out with a machine appropriate for the work fitted with a flat-bladed bucket to expose the underlying strata in each trench. The mechanical excavator was operated in accordance with the guidance note 3.x of the Scheduled Monument Consent (Historic England ref S00201787). Access and egress for the machine was via the lane off London Road and a narrow gate located in the south of the Precinct Wall. The size of the mechanical digger was restricted since it had to be small enough to fit through the gate to access the inner trenches.

Topsoil and overburden were removed carefully in level spits, under continuous archaeological supervision. The trenches were excavated down to the top of archaeological deposits or natural undisturbed ground, whichever was reached first. All excavation by machine and hand was undertaken with a view to avoid damage to archaeological deposits or features which appear worthy of preservation in situ or more detailed investigation than for the purposes of evaluation. Where structures, features or finds appeared to merit preservation in situ, they were adequately protected from deterioration.

Any archaeological deposits encountered were recorded in plan and excavated using standard ULAS procedures. Discrete features were half-sectioned and a 1m wide section of linear features were excavated. The ULAS recording manual was used as a guide for all recording and individual descriptions of all archaeological strata and features excavated or exposed were entered onto pro-forma recording sheets.

A site plan was prepared showing the location of the areas examined in relationship to the overall investigation area and OS grid. All principal contexts were recorded by drawn plans (scale 1:20 or 1:50, or electronically using GPS) and drawn sections (scale 1:10 or 1:20 as appropriate). The relative height of all principal strata and features were recorded.

Excavated trench locations were recorded by an appropriate method and tied in to the Ordnance Survey National Grid. A photographic record of the investigations was prepared, illustrating in both detail and general context the principal features and finds discovered and their location and context. The primary photographic record was by digital camera. The photographic record also included overall site and working shots' to illustrate more generally the nature of the archaeological operation mounted.

All finds and samples were bagged separately and related to the context record. All artefacts were recovered and retained for processing and analysis in accordance with CIfA Guidelines for Finds Work (2014). Certain classes of building material were in some circumstances discarded after recording with the approval of the Archaeological Advisor. All objects or remains of archaeological interest, discovered in or under the Site during the project by ULAS or during works carried out on the Site by the Client (other than articles subject to the Treasure Act) were deemed to be the property of ULAS. After due examination ULAS shall transfer ownership of all Archaeological Discoveries unconditionally to the appropriate authority for storage in perpetuity.

All environmental work was undertaken in accordance with Historic England guidelines (*Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation. Centre for Archaeology Guidelines* 2011). The following environmental sampling strategy was adopted, following consultation with the ULAS Environmental Officer and the Historic England Science Advisor to the West Midlands.

- A range of features to represent all feature types, areas and phases were selected on a judgmental basis. The criteria for selection was that deposits are datable, well-sealed and with little intrusive or residual material.
- Any buried soils or well-sealed deposits with concentrations of carbonised material present was intensively sampled taking a known proportion of the deposit.
- Spot samples were taken where concentrations of environmental remains were located.
- Where evidence of industrial processes are present (e.g. indicated by the presence of slag or hearth bases), samples were taken for the analysis of industrial residues (e.g. Hammer scale).
- A range of garden features from across the site relating to different periods were also selected for pollen analysis.
- Appropriate contexts (i.e. datable) were bulk sampled (40 - 50 litres or the whole context depending on size) for the recovery of carbonised plant remains.

After completion of the trenching and following prior agreement with the Historic England Inspector of Ancient Monuments the excavated trenches were carefully backfilled with the excavated arisings. All of the walls and floor surfaces found during the evaluation were first covered with a layer of geotextile membrane (Teram) before careful backfilling takes place under constant archaeological supervision (see Figure 6). The Historic England guidelines Preserving Archaeological Remains (2016) was consulted for guidance on best practice for specific circumstances.

Figure 6: Structural remains being covered with Teram prior to backfilling.

Results

Archaeological Monitoring (Watching Brief)

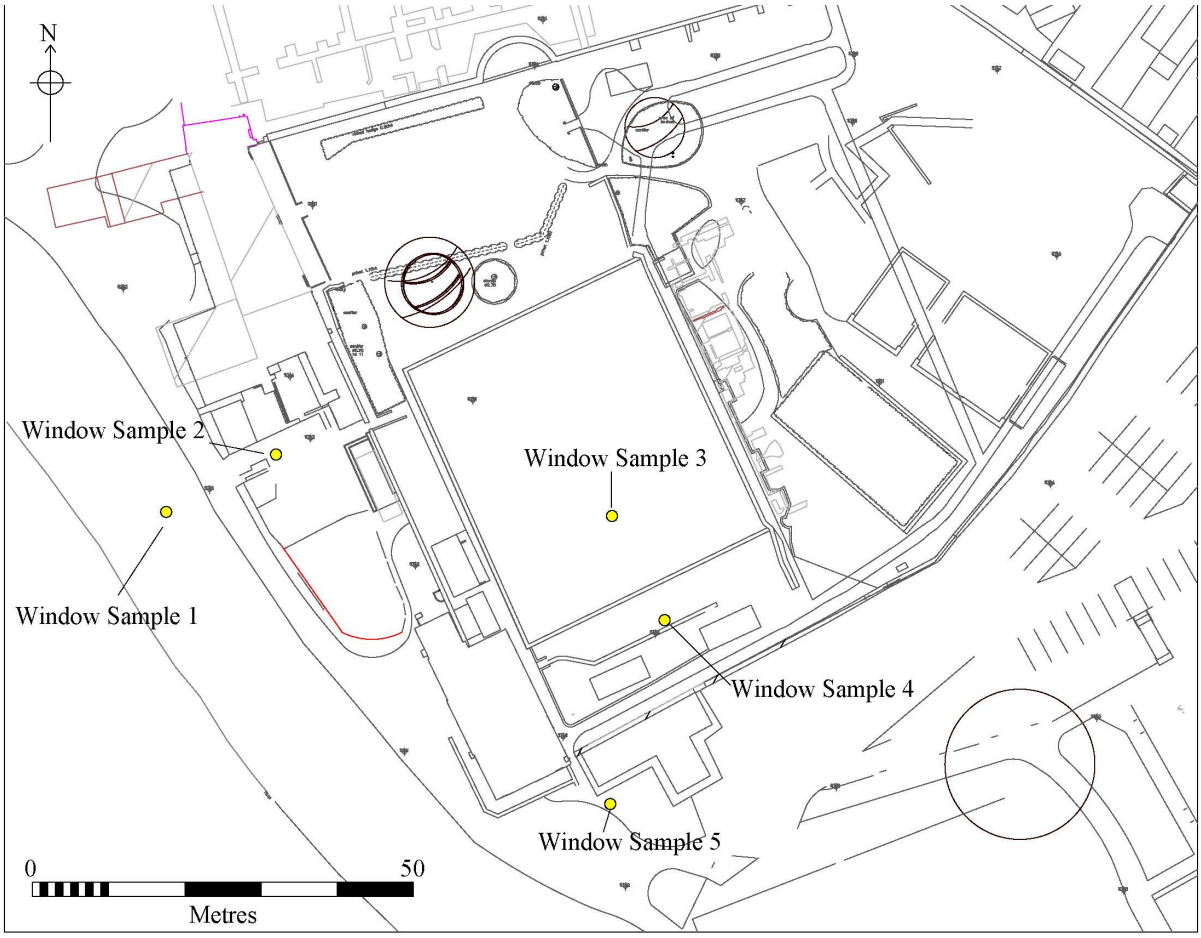

Figure 7: Locations of the Window Samples during the Watching Brief.

Window Sample 1

Window Sample 1 was excavated to the west of St. Anne's Charterhouse, through a grass covered bank on the western edge of the access road. The topsoil (11) measured 0.11m thick and was found to consist of a mid-brownish grey coloured silty clay that contained charcoal and CBM fragments. It was found to overlay a 0.7m thick layer of subsoil which was composed of mid reddish brown coloured silty sand that contained a few small stones. Beneath the subsoil was a 0.8m thick deposit (01) which was composed of mid brownish grey sandy silt containing CBM, oyster shells and pottery dating from the 14th-18th century. The natural substratum was reached 1.8m below the current ground level and was composed of a mid-brownish red coloured sandy clay.

Figure 8: Excavation of Window Sample 1.

Figure 9: Borehole from Window Sample 1 with deposit (01) visible in the left.

Window Sample 2

Window Sample 2 was excavated to the west of the Great Cloister close to the Precinct Wall, in an area currently used as a garden. The topsoil measured 0.15m thick and was composed of a loamy clay silt that was coloured dark brownish grey. This was found to be overlaying a layer of light whitish yellow mortar that measured 0.05m thick. Beneath the mortar was a 0.12m thick layer of sandstone fragments that appeared to be a modern hardcore. The hardcore was overlaying a 0.4m thick layer of mid reddish brown coloured silty clay that contained flecks of charcoal. Beneath this was a 0.25m thick layer of silty clay (02) that was coloured dark brownish grey and contained frequent sandstone fragments, charcoal flecks, CBM and fragments of oyster shells. Beneath this deposit was a 0.5m thick layer of mid-brownish red coloured silty clay containing fragments of sandstone with a mid-brownish red coloured sand and clay beneath that. The two lower layers may have represented the natural substratum in this part of the site.

Figure 10: Window Sample 2 looking north-west.

Window Sample 3

Window Sample 3 was excavated through the bowling green in the southern half of the Great Cloister. The topsoil was composed of a 0.15m thick layer of silty sand was found which was coloured mid yellowy grey. Below this was a 0.22m thick layer of soft silty clay (05) that was coloured dark blackish brown with a hint of grey. This deposit appeared to represent an older topsoil and contained CBM fragments. Beneath (05) was a 0.4m thick layer of soft silty clay (06) that was coloured mid brownish grey. There appeared to be a layer of CBM at the interface between this deposit and the layer below (07). Layer (07) measured more than 0.5m thick and

was composed of silty sand that was coloured mid brownish red. This deposit contained sandstone fragments less than 0.2m in size and CBM. Below this layer was a mid-brownish red coloured silty sand that appeared to become increasingly sandy as the depth increased which is likely to represent the natural substratum.

Figure 11: Excavation of Window Sample 3 within the Great Cloister.

Window Sample 4

Window Sample 4 was excavated to the south of the Great Cloister in the position of the monk's cells and gardens. The topsoil was composed of a mid greyish brown coloured sandy loam which measured 0.28m thick. Beneath this was a 0.28m thick layer of sandy silt (08) that was coloured mid greyish brown with red patches and contained medieval pottery dating from 1250-1550. Below (08) was a 0.5m thick layer of mid reddish brown silty clay (09) that contained a small amount of sand and CBM. This was overlaying deposit (10) which measured 0.4m thick and consisted of a roughly worked sandstone block 0.2m in size with CBM. This deposit was only visible in the western edge of the hole and beneath it was a 0.7m thick layer of mid orangey red sand which probably represents the top of the natural substratum. Below this was a mid-brownish red clay that measured over 0.3m thick.

Figure 12: Excavation of Window Sample 4.

Window Sample 5

Was positioned on the south side of the Precinct wall close to a brick outbuilding and contained a 0.1m thick topsoil that was overlaying a layer of tarmac. Beneath this was a 0.3m thick layer of light brownish grey sandy silt (03) that contained charcoal, ash, CBM and post-medieval pottery dating 1550-1650. This layer was overlaying a 0.1m thick deposit of sandy silt (04) that was coloured dark blackish brown and contained flecks of charcoal and CBM. Beneath this was a 0.7m thick layer of mid brownish red sandy silt which contained a small amount of clay and below this was a 0.6m thick layer of silty sand that was coloured mid brownish red. The base of the borehole contained a 0.2m thick layer of light brownish grey sandy silt with a mid-brownish red sandy silt beneath that. The top of the natural horizon was not clear in this window sample and the lower two or three deposits might all represent natural variations.

Figure 13: Excavation of Window Sample 5.

Trial Trenching

East side of the cloister

The topsoil was consistent across the eastern side of the cloister and composed of a soft friable sandy loam that was coloured dark greyish brown and contained a few small rounded pebbles. The subsoil was intermittent and composed of soft friable sandy loam that was coloured mid greyish brown and contained a few small rounded pebbles. The subsoil was found to be the thickest in Trenches 1 south and 3 and shallowest in Trenches 1 north, 2 and 4.

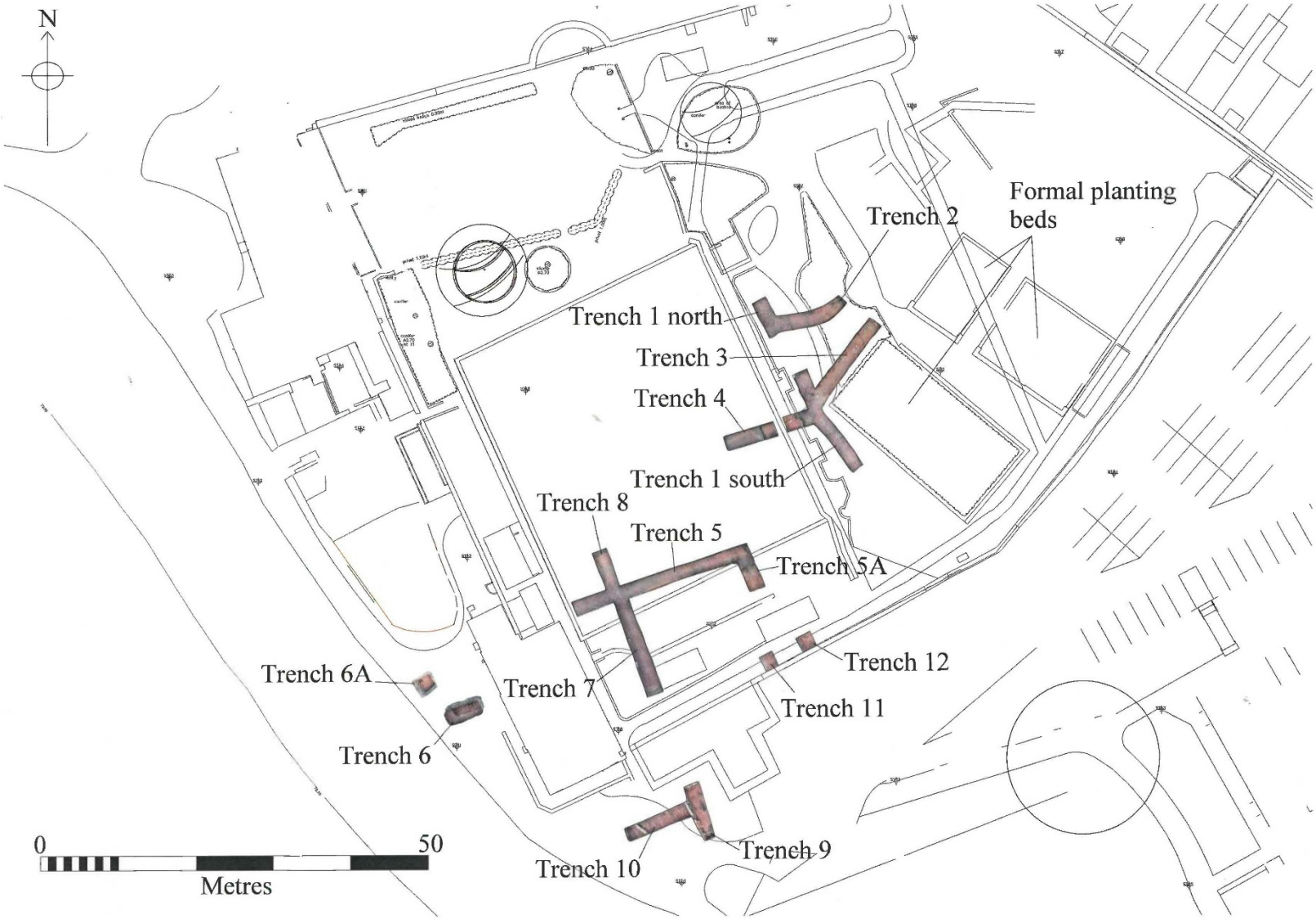

Figure 14: Plan of the Trench locations.

Trench 1 South

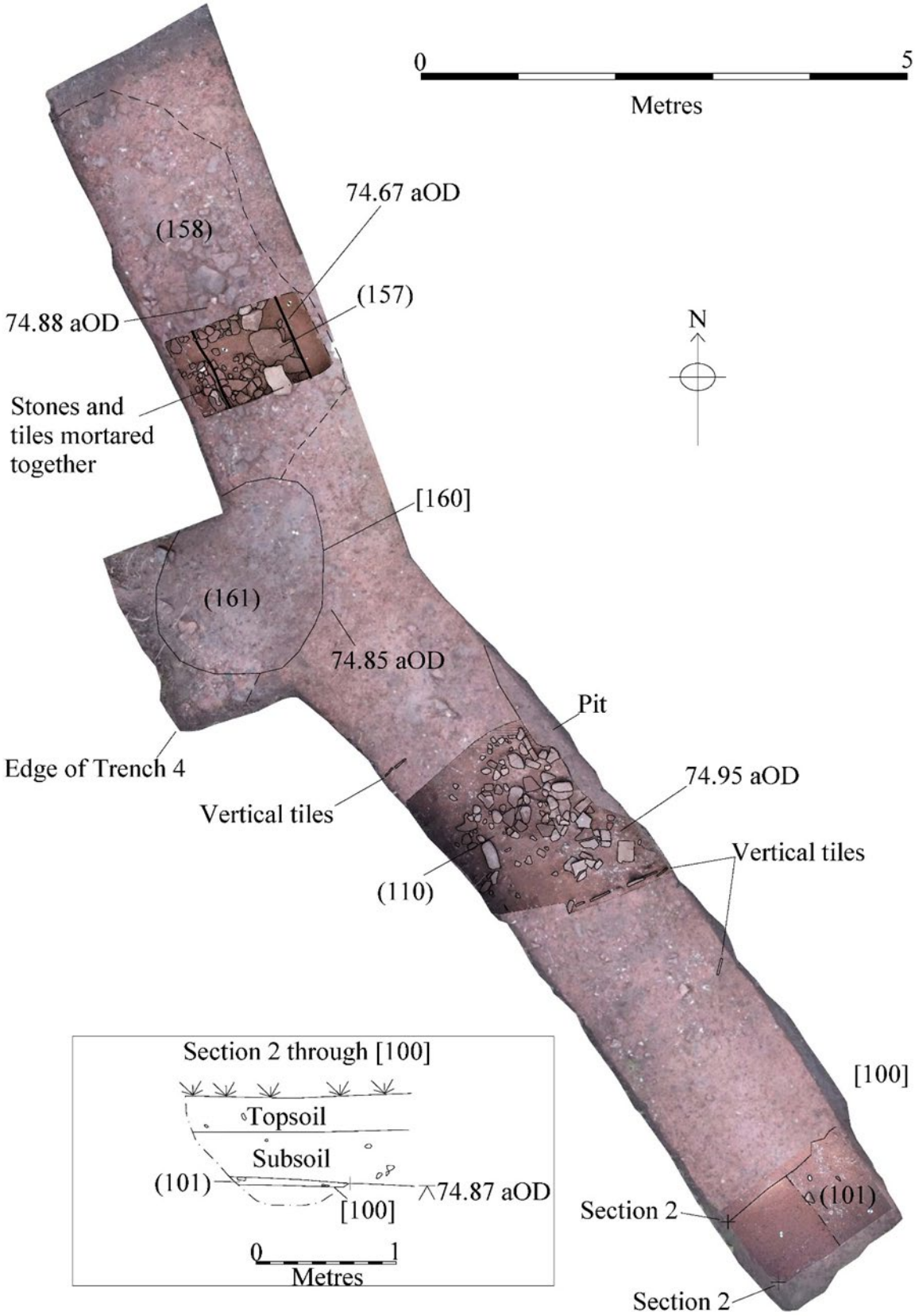

Figure 15: Plan and Section of features in Trench 1 south

Trench 1 was split into two sections due to the presence of trees. The largest was the southern end which measured 14.72m long by 2m wide and had a depth of 0.48-0.65m. The northern end of this section was orientated north north-west to south-south east whilst the southern end was angled north-west to south-east. The southern end of the trench contained a feature [100] that measured more than 2m long by over 1m wide and 0.05m thick. It was filled by a mid-orangey brown clayey sand (101) containing frequent flecks of white mortar, stone and ceramic building material (CBM). The feature was overlaying a mid-orangey brown clayey sand occasionally containing flecks of mortar, CBM fragments and small stones. This layer covered the majority of the southern end of the trench. Vertical tiles were occasionally found pressed into the top of the deposit and to the north-west of (101) a layer of flat tiles (110) was found.

Feature (110) was found beneath a layer of silty sand (109) that was coloured dark brownish grey with a hint of yellow and contained pottery dating from the 16th-18th century and CBM. The layer of tiles (110) was exposed beneath it and measured over 2m long by 2.08m wide. It was composed of tiles and stones in a matrix of mid orangey brown clayey sand. A row of vertical tiles measuring 1.07m long appeared to be marking part of the southern edge and a small 0.31m row seemed to be marking the northern edge. The feature was truncated by a dark greyish brown coloured pit on its eastern edge.

Figure 16: Layer of tiles (110) with the row of vertical tiles visible in the background.

At the intersection between Trench 4 and Trench 1 an oval pit [160] measuring 1.81m long by 1.62m wide was found. This feature was not excavated but was filled by clayey sand (161) that was coloured mid brownish grey with orange flecks. The upper fill of the pit contained a shoe buckle (Sf 15) dating 1550-1650. The northern edge of pit [160] truncated a spread of rubble (114) which measured over 4m long by over 2m wide. The spread was composed of roughly

worked sandstone blocks in a matrix of mid brownish red silty sand with clay. The top of the spread (called (115) was found to contain CBM, mortar, plaster and pottery dating 1600-1750.

A sondage was dug into the eastern edge of spread (114) and a stone wall (157) was found beneath it. The wall was orientated north-west to south-east and measured 0.95m wide by more than 1m long. It was composed of a line of sandstone blocks on its eastern edge with smaller blocks to the east. The larger blocks were roughly squared and each measured 0.35-0.42m long, by 0.22-0.43m wide and 0.3m deep. The smaller ones were roughly worked each measuring 0.24m long by 0.16m wide by 0.1m deep. The stones from both parts of the walls were within a matrix of reddish orange sand which may have been used as the bonding for the stones. Along the western edge of wall (157) a line of tiles and stones which were mortared together was found. This measured over 0.2m wide, by more than 1.11m long by 0.12m deep and could represent demolition rubble. To the east of wall (157) was a mid-reddish orange sandy clay (158) containing frequent mortar flecks and stones.

Figure 17: Wall (157) with the line of mortared tiles and stones visible the western edge.

Trench 1 North

The northern end of Trench 1 was orientated north north-west to south south-east and measured 5.03m long by 2m wide by 0.26m deep. There was no subsoil present and below the topsoil feature [98] was found which measured over 5.03m long, by more than 3.36m wide by 0.35m deep. The cut had straight vertical sides with a sloping base and contained two fills. The upper was (97) which consisted of mid reddish brown silty sand with dark greyish brown patches that

resembled the subsoil. The layer measured 0.3m thick and contained painted plaster and mortar, CBM, medieval and post-medieval pottery and clay pipe dating 1670-1690. The eastern edge of this deposit was overlaying a 0.12m thick sandy layer (96) which was coloured mid reddish brown with greenish grey flecks and contained CBM with bone. Beneath the western end of layer (97), a wall (95) was found which measured over 0.9m long by 1m wide. The wall was orientated north-west to south-east and was composed of roughly worked sandstone blocks that measured 0.25m long, by 0.2m wide and 0.15m deep. The stones were bonded with a mid-reddish brown clayey sand and were placed within construction cut [94]. The cut was not excavated but measured 1m wide and appeared to have straight vertical edges.

Figure 18: Wall (95) found below deposit (97).

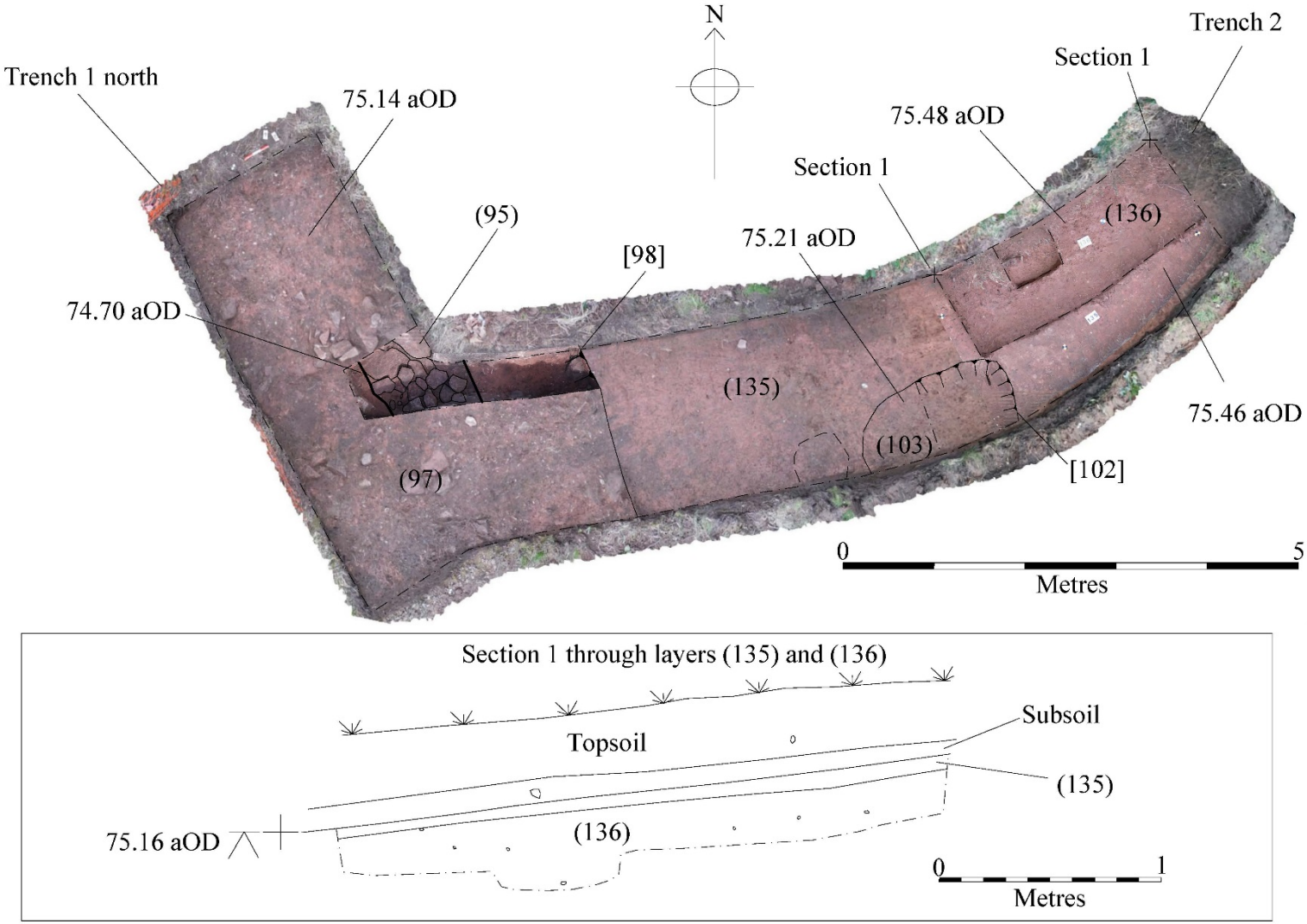

Figure 19: Plan and Section of features in Trench 1 north and Trench 2

Trench 2

Trench 2 measured 8.8m long, by 2m wide by 0.4m deep and contained a 0.2m thick layer of subsoil which was terminated as it joined with the northern end of Trench 1. The base of the trench contained a layer of light orangey red silty clay (135) which measured 0.1m thick and had several features dug into it. The largest was sub-oval pit [102], which was found against the southern edge of the trench and measured 1.84m long by more than 0.8m wide and 0.17m deep. The feature had moderately sloping concave sides with a flat base and was filled by a mid-greyish brown clayey sand (103). The fill contained a few small rounded pebbles and pottery dating to the 16th-17th century. It was sampled which found oat, vetch and large grass remains within the feature. A vertical medieval tile was found pressed into the layer beneath the pit and red clay layer (135) was machined away in the north-eastern corner of the trench to investigate the lower deposit. The tile was found to be pressed into a 0.37m thick layer of mid yellowy brown silty sand (136) that contained a few flecks of charcoal. The deposit with the vertical medieval tile in it was sampled for environmental evidence and fish remains from *Gadidae* (cod family) and European eel (*Anguilla anguilla*) were found.

Figure 20: Pit [102] in Trench 2 with the vertical medieval tile pressed into the layer below it.

Trench 3

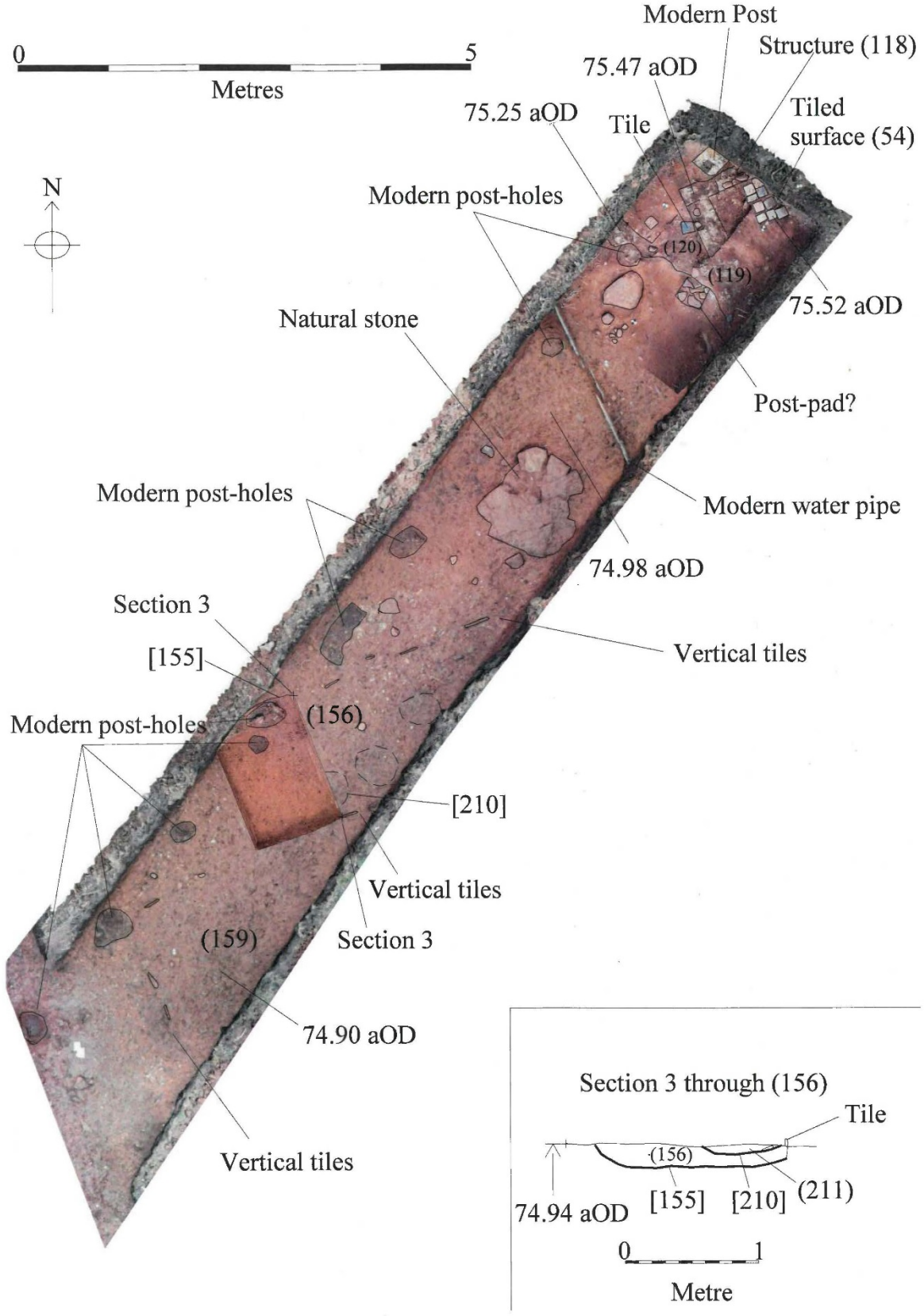

Figure 21: Trench 3 Plan and Sections.

Trench 3 measured 13.1m long, by 2m wide, by 0.36-0.64m deep and was orientated north-east to south-west. The trench was shallowest at the eastern end and deepest in the central parts with the subsoil increasing in thickness from east to west. The trench was truncated by several modern features, the largest was a series of 10 post-holes spanning the length of the trench parallel with the northern edge. The post-holes were spaced 0.8-1.11m apart and were sub oval or rectangular shapes measuring 0.2m wide by 0.4m long. They were all either filled with a dark greyish brown sandy loam that resembled the topsoil or modern concrete. Approximately 3.5m from the eastern end of the trench a water pipe orientated north to south was also found.

The western end of Trench 3 contained features that were marked by rows of vertical medieval tiles. The southern row was orientated east north-east to west south-west with the western end turning to the south-east to produce a corner. A second row of vertical tiles was found parallel to the northern edge producing a 1.58m wide gap between them. This was called [155] and was difficult to excavate probably being created by tiles being pushed into the ground (see Figure 21). The deposit between the two rows of tiles (156) was excavated and found to consist of mid orangey brown sand containing a few small pebbles. The western end of this layer had fragments of oyster shell with flecks of mortar and plaster scattered on the top of it. Pottery dating 1250-1550 was found within it and the deposit was sampled which found *Salmonidae* fish bones. The deposit was also analysed for preserved pollen which found examples of hazel and pine, and also cereal pollen. In addition to this plants such as cornflower, *crepis*, *cerastium and urticaceae* were found with sphagnum moss. The deposit found between the rows of tiles to the west (159) was also coloured mid orangey brown and composed of sand with a few small pebbles. No artefacts were recovered from this deposit but it was sampled which found fish skull fragments and large grass seeds.

Figure 22: Section through [155] with vertical tiles visible on the eastern edge of the slot.

Layer (156) was found to be truncated by three sub-oval shaped features along its length. Feature [210] was the westerly of the three and measured 0.5m long by 0.28m wide and 0.08m deep. The feature had shallow concave sides and a concave base and was filled with a dark brownish grey sandy silt (211). The cleaning of the feature produced post-medieval pottery dating 1539-1700 and was given the context (212).

To the east of the vertical tiles a large irregular piece of sandstone was found that measured 1.07m long by 0.98m wide which had no structure or form and is likely to be a natural outcrop. The eastern end of the trench was shallower and only machined to 0.36m deep due to the presence of archaeological remains at a higher level. A 0.14m thick layer of sandstone fragments and sand mixed with broken tiles (119) was found which was coloured mid orangey brown with blueish grey flecks. This deposit was found to be overlaying wall (118) which was orientated north-west to south-east, with the north-western end turning east. The north-west to south east section of the wall measured 0.78m long and the north-east section measured 0.8m long. The width measured 0.3m, the height was 0.15m and the courses were squared but random with a rough finish. The wall was constructed using thin tiles measuring 0.15m long, by 0.15m wide and 20mm thick which were bonded with a light whitish yellow friable lime mortar.

Figure 23: Structure (118) at the eastern end of trench 3.

On the western edge of wall (118) a thin layer of mortar (120) was found which measured more than 0.58m long by 0.51m wide. The layer was coloured light yellowy grey and was composed of friable lime mortar that had a glazed tile coloured dark blue in the top of it (see Figure 22). To the north-west of (120) a second area of lime mortar was found that was partly visible beneath the northern edge of the trench. This layer measured more than 0.58m long and over

0.41m wide and may represent a continuation of (120). To the south of layer (120) a small square feature composed of broken tiles was found. The feature measured 0.3m² and appeared to represent a post pad.

Within wall (118) a tiled surface (54) was found which measured 0.5m long and more than 0.4m wide (see Figure 23). The surface continued beneath the eastern edge of the trench, but appeared to form a square or rectangular shape. The surface appears to have used reused tiles and was formed from a mixture of colours with 6 green glazed, 3 decorated inlaid tiles, 1 yellow glazed and 1 plain. The tiles were set within a friable whitish grey mortar which was overlaying a 50mm thick layer of mid orangey brown sand. Overlaying the tiles and part of the wall was a 0.11m thick layer of silty sand with clay (53) that was coloured mid brownish orange. The deposit had the appearance of subsoil and contained CBM fragments.

Figure 24: Tiled surface (54 below deposit (53)).

Trench 4

Trench 4 was orientated east north-east to west south-west and measured 11.3m long by 2m wide and 0.36-0.56m deep increasing in depth to the east. The trench was excavated across the line of the pentice and divided into three section due to the presence of the cloister wall and a modern garden wall. The trench was found to contain a topsoil (138) which consisted of dark brownish grey sandy loam that measured 0.2m thick and contained a Mesolithic flint fragment. Beneath topsoil (138) a 0.12m thick mid-reddish brown coloured subsoil was found composed of silty sand. The natural substratum was found to be composed of mid reddish orange sand with patches of clay.

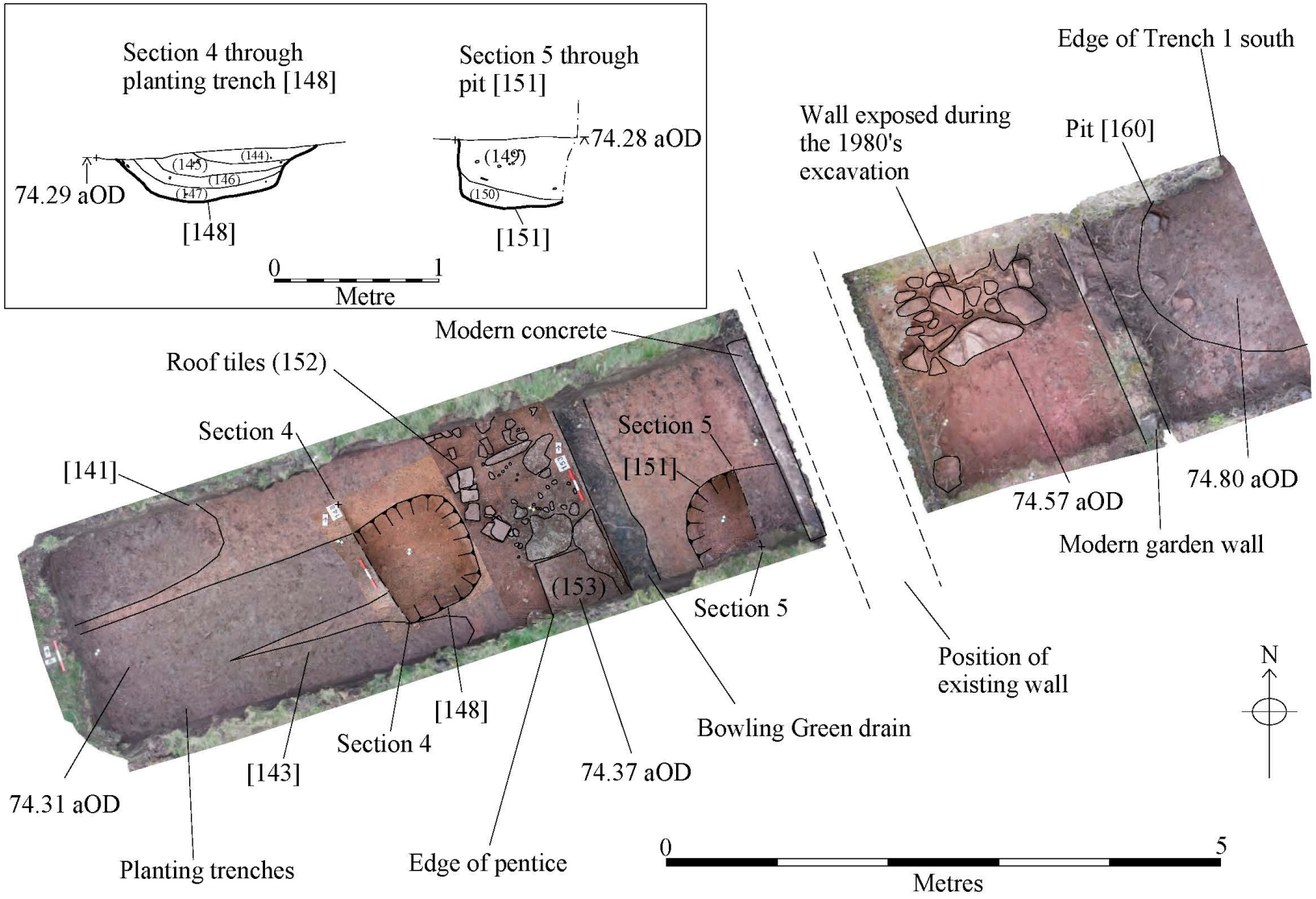

Figure 25: Section and plans from Trench 4

The western end of the trench contained three linear features [141], [143] and [148] which were orientated east north-east by west south-west. The central feature [148] measured more than 3.5m long by 1.3m wide and 0.27m deep and had moderately sloping concave or convex sides with a concave base. It was found to contain four deposits, the primary fill (147) was composed of mid reddish orange sand which was overlain by a dark brownish grey silty sand (146). This layer contained flecks of coal and charcoal with fragments of animal bones. It was bulk sampled and analysed for pollen, but the preservation was poor and only a charred bulb and dandelion pollen could be identified. Above this layer was a mid-pinkish red coloured silty sand (145) that contained a few small stones and flecks of charcoal. The upper layer (144) was composed of silty sand that was coloured mid brownish grey and contained fragments of medieval and post-medieval pottery, clay pipe and animal bone. The two adjacent features [141] and [143] were not excavated, but had fills (140) and (142) that were composed of mid brownish grey silty sand. All of these features are likely to represent planting trenches from the sites use as a nursery in the 18th century.

Figure 26: Planting trenches found in the western end of trench 4.

To the east of feature [148] stone footings (153) were found which were orientated north-west to south-east. The footings measured over 2m long by 0.67m wide by 50mm thick and appeared to become increasingly disturbed to the north (see Figure 27). They were composed of a single layer of light blueish green and mid orangey brown coloured rectangular sandstone blocks that each measured over 0.65m long. A construction cut was not visible for the stones and the footings were parallel to the outer cloister wall with a gap of 1.76m between them. The eastern edge of (153) was truncated by a drain for the Bowling Green but along the western edge a deposit of silty sand (152) was found. This deposit was coloured mid brownish red with yellowy white patches and contained frequent roof tiles with crushed mortar.

Figure 27: Stone footings (153) with a modern drain to the east and roof tiles (152) to the west.

To the east of footings (153) part of a pit [151] was found against the southern edge of the trench. Pit [151] was only partly visible but appeared to be oval or circular in shape measuring over 1.05m by more than 0.68m wide and 0.34m deep. The edges were straight and steep with a flat base and it was filled with two deposits. The lower fill was composed of a mid-reddish orange sand (150) that was overlain by dark brownish grey sandy loam (149) that contained medieval and post medieval pottery, a large proportion of animal bone and Cu alloy wire (SF.14). It was sampled which found the remains of pea/vetch, wild cabbage, barley and rye.

To the east of pit [151] was the existing cloister wall and beyond that a 1.75m long section of the 1980's excavation was exposed. This revealed a row of large sandstone blocks orientated north-east to south-west which form part of a wall. The depth of the wall was shallow and the stones had been covered with a yellow sand to protect them against deterioration. Further east a reconstructed wall orientated north-west to south-east was present and at the intersection with Trench 1 the western edge of pit [160] and spread (114) was found within the trench.

Figure 28: Section of the 1980's trench facing the existing cloister wall.

South and West side of the Cloister

Trench 5

Trench 5 was orientated east north-east to west south-west and measured 24.25m long by 2m wide and 0.64-0.94m deep. The trench was excavated across the cells located around the southern edge of the cloister. The top of the trench contained a layer of sand and turf that was overlaying a modern topsoil layer (71) which consisted of mid greyish brown sandy loam that contained post-medieval and modern pottery, Fe nails and a medieval bar mount (SF.12). Occasionally a 0.07m thick layer of rubble (72) that was composed of mid pinkish red silty sand containing stones was found. Throughout the western end of the trench a layer of industrial residue (73) was found beneath (72) that was composed of charcoal and coal with fragments of hearth lining. Beneath this layer a mid greyish brown sandy loam (74) that contained a few small pebbles was found. This had the appearance of an older topsoil layer and within the central region of Trench 5 a thin layer of mid reddish brown sandy clay was found beneath (74) which had the appearance of subsoil.

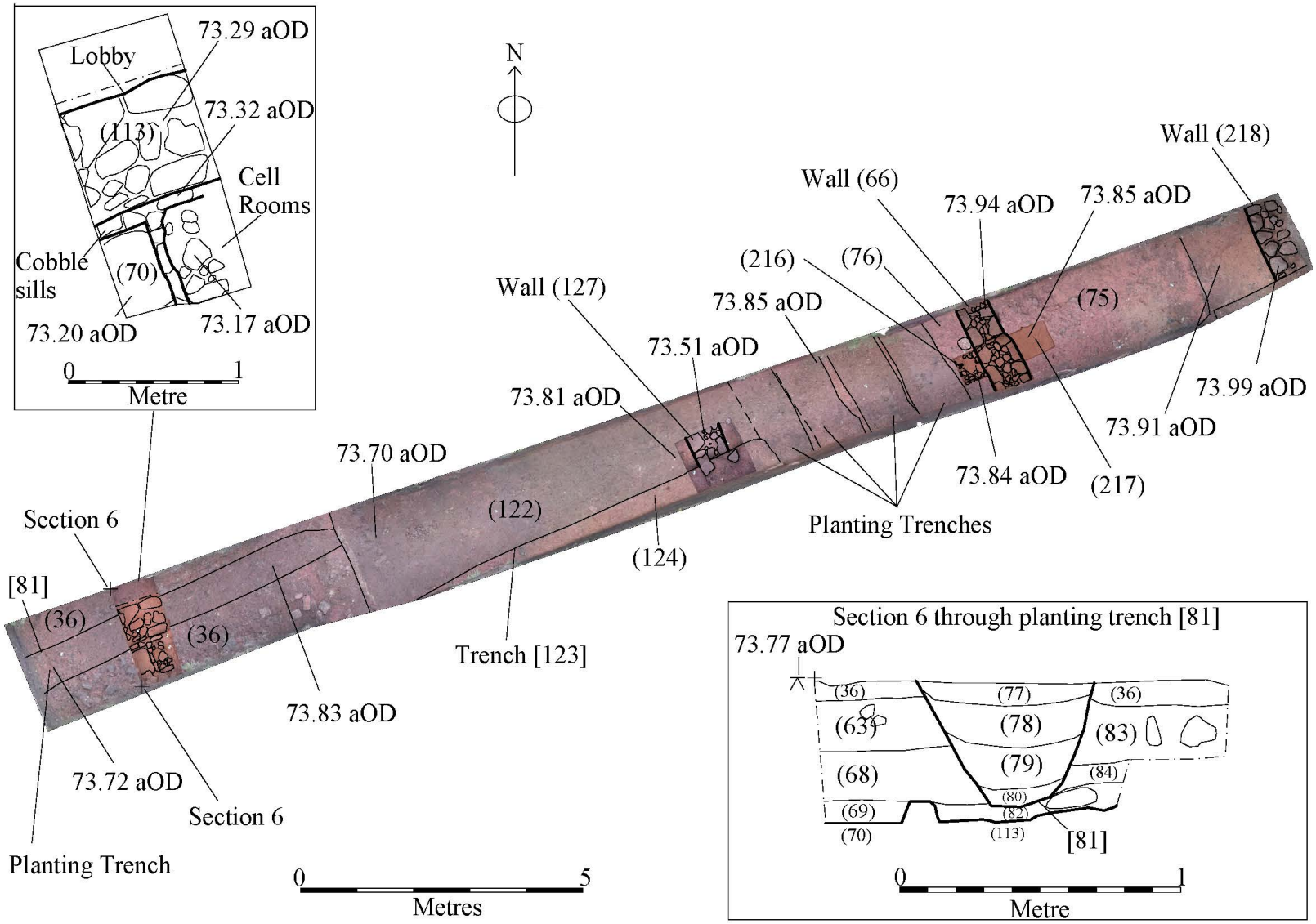

Figure 29: Plan and Section from Trench 5.

The western end of the trench was the deepest and contained a linear feature orientated east north-east to west-south-west. Feature [81] measured more than 6m long, by 0.55m wide, by 0.43m deep and had steep straight sides with a concave base. The feature was filled with four fills, the primary deposit (80) was composed of mid pinkish-red clayey sand that contained a few fragments of sandstone. Above this was a 0.12m thick mid brownish red coloured silty sand (79) that contained flecks of plaster and a lead object (Sf. 13). Overlaying (79) was a mixed silty sand (78) that measured 0.14m thick and was coloured pinkish brown with red patches. The deposit contained fragments of plaster, coal, CBM and medieval pottery dating 13th-15th century. The upper fill was composed of a 0.06m thick layer of silty sand (77) that was coloured mid-reddish brown and contained further flecks of coal and plaster. This feature is likely to represent a planting trench from the later post-medieval period.

Figure 30: Western end of Trench 5 showing layer (36) with feature [81].

Feature [81] was dug into several layers found in the western end of Trench 5 (see section 6 in Figure 28). The upper was a mixed sandy clay (36) that was coloured mid greyish brown with a hint of pink. The deposit measured 0.05m thick contained fragments stone, tile and plaster which appeared courser and more common along the southern edge of the [81]. In addition to CBM, a Cu alloy object possibly part of a vessel (SF.1) was recovered from this deposit. Beneath (36) on the south side of [81] a 0.23m thick layer of mixed sandy clay (63) was found. The deposit was coloured mid pinkish brown and contained numerous medium sized sandstone fragments with CBM. Below this layer was a mid-pinkish red sandy clay (68) that contained few sandstone fragments with plaster and tile. Beneath (36) on the northern side of [81] was a 0.21m thick layer of mid pinkish red silty sand (83) which also contained frequent medium sized sandstone fragments. This was found to be overlaying a 0.05m thick layer of compacted mid reddish pink sand (84). Layer (83) is possibly a continuation of context (63) to the south and layer (84) may represent a continuation of context (68).

Beneath layer (84) was a 0.1m thick layer of mid reddish orange sand (82) that contained occasional stones and was found to be sealing structural remains. The central part of (82) was excavated to reveal a roughly flat sandstone layer (113) (see Figure 30). It was orientated north-east to south-west and measured over 0.81m long by 0.7m wide and was formed from tightly packed sandstone blocks. The sandstone was roughly worked measuring 0.3m long by 0.1m wide and were bonded with a mid-yellowy orange clay sand. Along the southern edge of (113) was a line of sandstone cobbles each measuring 0.12m long, by 0.14m wide and 0.06m deep. A second row of cobbles was found projecting 0.58m to the south-east and dividing the area to the south of (113). The western section was found to contain a single smooth flat sandstone block (70) measuring over 0.55m long by more than 0.28m wide which appeared to form part of a surface. The sandstone layer was covered with a 0.06m thick layer of light yellowy brown silty sand (69) which contained a few small stones. The eastern half contained a layer of sandstone blocks measuring 0.18m long by 0.12m wide and 0.06m thick which also appeared to make a surface.

Figure 31: Rough stone surface (113) with stone floor (70) to the south and the rows of cobbles dividing the different areas.

To the east of (113) a large rectangular pit or trench [123] was found which was orientated east north-east to west south-west. The feature measured 7.69m long by 2.28m wide by 0.28 deep and had straight vertical sides with a flat base. It was filled with a mixed sandy loam (122) which was coloured mid reddish brown and contained handmade bricks with frequent flecks of mortar. Pit [123] was dug through a mid-reddish pink coloured sandy clay (124) that measured 0.26m thick. The deposit contained occasional flecks of plaster and coal and was found to be sealing structural remains. Beneath layer (124) and visible in the base of feature [123] was wall (127) which was orientated north-west to south-east (see Figure 31). Wall (127) measured over 1m long by 0.6m wide, by more than 0.28m deep and was formed by roughly squared orangey pink coloured sandstone blocks that were bonded with a yellowy orange sand (126). The wall contained at least two courses which appeared to have a rough finish and was formed with larger outer blocks surrounding a smaller rubble core. The outer blocks measured 0.33m long by 0.27m wide and the core of smaller blocks each measured 0.2m long by 0.12m wide. The construction cut for the wall [128] was not clear but appeared to be dug into a reddish orange sand (129) which surrounded the feature.

Figure 32: Wall (127) found beneath clay layer (124) and in the base of feature [123].

To the east of wall (127) four regularly spaced linear features were found which measured 0.66m wide by over 2m long and were filled with a mid greyish brown sandy clay that was similar to the upper fill of planting trench [81]. These features are likely to represent planting trenches and were dug into a mid-brownish red sandy clay (76). This deposit measured 70mm thick and contained stones with a small amount of CBM. It was found to be overlaying a mid-brownish yellow sand (216) that contained a compact layer of roughly worked sandstone fragments measuring 0.13m in size.

A second wall (66) was found 4.68m to the east of wall (127) and was also orientated north-west to south-east (see Figure 32). This wall was level with the top of clay layer (76) and measured over 1.63m long, by 0.57-0.76m wide (increasing in width to the south), by more than 0.2m deep. Wall (66) was composed of roughly of squared rectangular sandstone blocks measuring 0.34m long, by 0.24m wide, by 0.2m deep. In the centre of the wall was a core of roughly worked angular fragments of sandstone less that measured less than 0.15m in size and were bonded with a mid-yellowy orange clayey sand. The wall contained at least two courses with the upper having been removed by feature [64]. Feature [64] followed the alignment of the wall and measured over 0.95m long by 0.76m wide by 0.2m deep. It had straight vertical sides with a flat base that was created by the lower course of wall (66). It was filled by a clayey sand (65) that was coloured dark greyish brown with black and yellow flecks. The deposit contained small stones, charcoal, crushed mortar and a fragment of floor tile with a green glaze on it. On the western edge of wall (66) an unexcavated oval feature was found dug into layer (76) which was filled with mortar fragments and may have been a post hole.

Figure 33: Wall (66) continuing beneath feature [64].

To the east of wall (66) was a layer of mid brownish red sandy clay (75) which measured 50mm thick. This layer occasionally contained roughly worked sandstone blocks 0.15m in size and fragments of CBM. Layer (75) was found to be overlaying a mid-brownish yellow sand (217) which contained no visible sandstone fragments. This layer and patches of (76) occupied the easternmost end of the trench where parts of Trenches 2 and 3 from the 2017 evaluation were exposed. Against the eastern edge of the trench was part of a wall (218) which was orientated north-west to south east. The wall measured over 1.26m long by more than 0.57m wide and 0.14m deep and was composed of roughly worked sandstone blocks. The stones each measured 0.26m long by 0.25m wide by 0.14m deep and were not within a visible construction cut.

Trench 5A

Trench 5A was attached to the eastern end of Trench 5 and orientated north-west to south-east. The Trench measured 5.8m long, by 2m wide and was machined to a depth of 0.64-0.79m. The topsoil (213) was found to be the same consistency as Trench 5 and pottery was found which dates to the 18th-19th century. Similarly subsoil (214) was also found to have the same composition as the modern subsoil found in Trench 5. This trench exposed a continuation of Trench 3 from the 2017 evaluation and revealed many of the same features which were not excavated. Wall (218) was truncated by a rectangular pit or trench [221] measuring more than 2.02m long by1.74m wide and over 0.79m deep. The feature was cut through the topsoil and was filled with a dark brownish grey sandy silt (222) (see Figure 33). The features in the southern end of this trench were not excavated due to time pressures, but the majority clearly represented post-medieval or later activity.

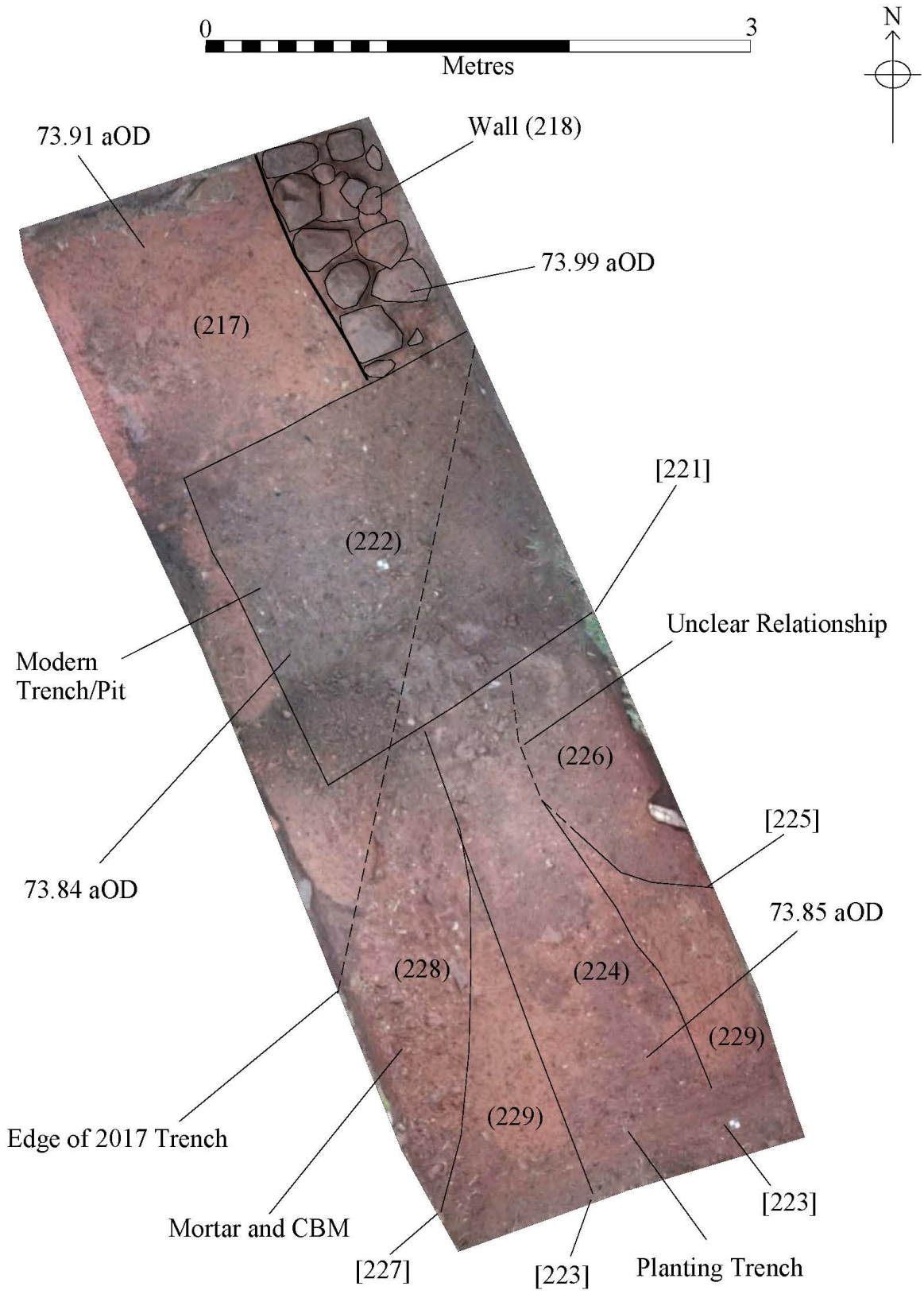

Figure 34: Plan of the features in Trench 5A.

Figure 35: Trench 5A showing wall (218) in the background.

The southern end of Trench 5A contained a compact friable mid-reddish orange silty sand and clay (219) into which a number of features had been dug. Planting trench [223] was orientated north-west to south-east and measured more than 2.2m long by 0.84m wide. It was filled with a sandy silt (224) that was coloured dark greyish brown with mid orangey red patches. The eastern edge of the planting trench appeared to be truncated by pit [225] although this was uncertain due to the clarity of the features. Pit [225] measured over 1.5m long by more than 0.58m wide and was filled with dark greyish brown silty sand (226) which contained a few small angular stones. On the western edge of the trench was a shallow second pit [227] was found which measured over 1.3m long, by more than 0.5m wide. It was filled by a mid-reddish brown sandy silt (228) which contained stones measuring less than 0.2m in size, CBM and flecks of mortar.

Trench 6

Trench 6 was positioned to the west of the Grade II listed coach house and orientated east north-east to west south-west. It measured 5m long by 2m wide and was machined to a depth of 0.51-0.68m. At a depth of 0.07m below the modern tarmac was a layer of cobbles (12) (see Figure 36) which measured more than 4m long by over 2m wide and 0.08-0.2m thick. It was composed of a mixture of light brownish grey coloured cobbles with sandstone blocks 0.1-0.3m in size and occasionally bricks. Smaller stones and bricks were found towards the coach house and larger blocks were found to the west. The coarse components were set within a hard compact matrix of silty sand and the layer appeared to be forming a yard outside the coach house.

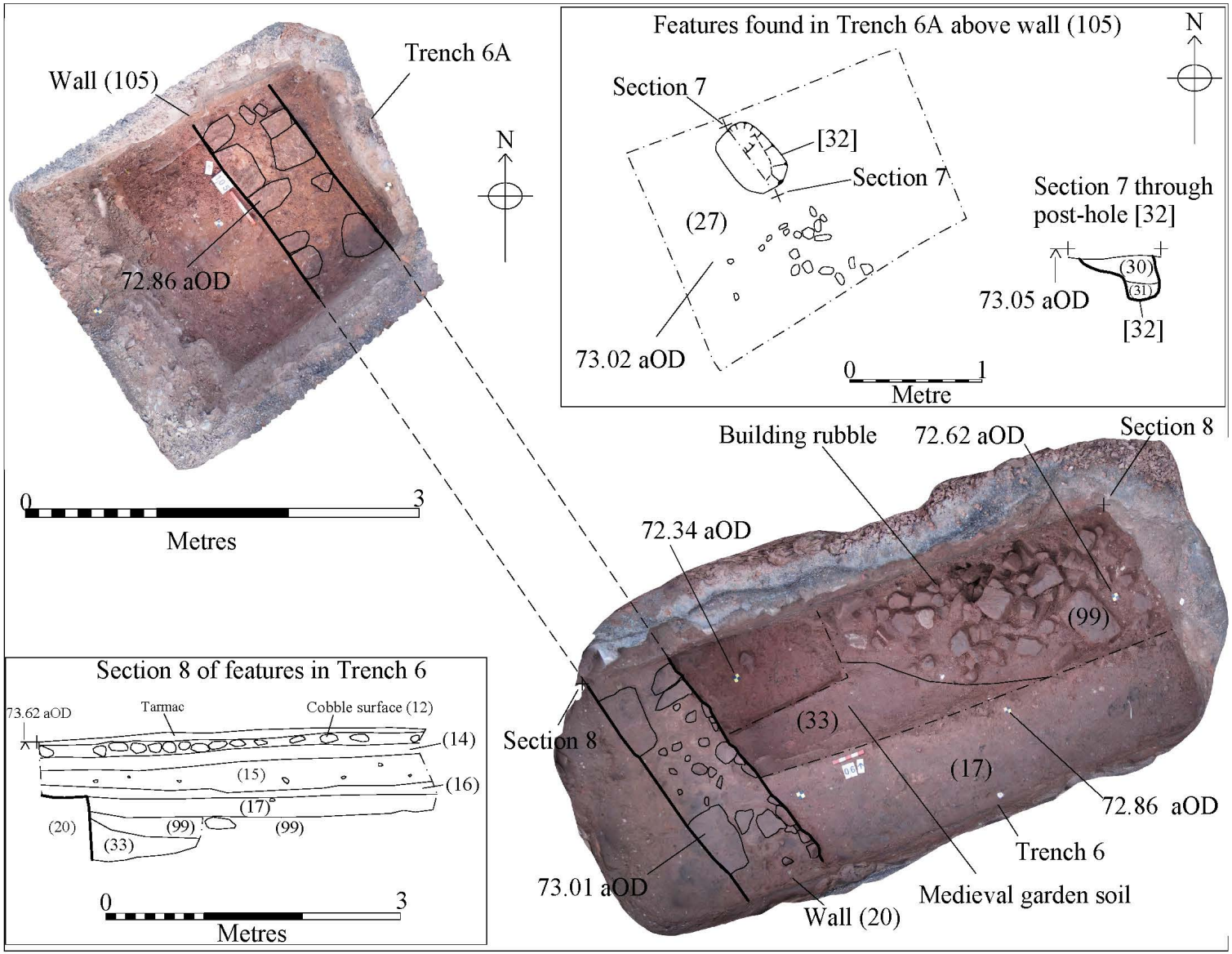

Figure 36: Features found in Trenches 6 and 6A

Figure 37: Cobble surface (12) found outside the coach house.

Beneath cobble surface (12) was a 0.2m thick layer of hard compact silty sand (14) that was coloured mid reddish brown and contained flecks of charcoal, CBM and small rounded pebbles. Beneath this layer was a 0.22m thick layer of dark greyish brown sandy silt (15) which contained small rounded stones and occasionally flecks of charcoal. This layer was overlaying a 0.09m thick layer of sandy clay (16) that was coloured mid reddish or orangey brown and contained frequent flecks of charcoal and small rounded pebbles. Layer (16) increased in thickness to the east and the western end was found to be overlaying wall (20).

Wall (20) measured over 2m long, by 0.64m wide, by more than 0.64m deep and was orientated north-west to south-east and was composed of orangey red coloured sandstone blocks that were bonded with a firm orangey yellow clay (19). The wall was constructed with large rectangular blocks measuring 0.6m long, by 0.26m wide, by 0.12m thick that surrounded a core of smaller irregularly shaped blocks measuring less than 0.15m in size. Seven courses of stones were visible with the lower two measuring 0.05m thick and the upper courses measuring 0.12m thick.

Figure 38: Wall (20) showing details of the courses.

To the west of wall (20) was a firm layer of clay sand (18) that was coloured mid orangey brown and contained frequent rounded pebbles. This layer measured 0.8m long by more than 0.5m wide and was not excavated. At the same stratigraphic height as (18) on the eastern side of wall (20) was a layer of mid brownish red sandy clay (17). The interface between this layer and (16) was given the number (108) and contained pottery dating to the 15th-18th century. Deposit (17) measured over 4m long, by over 2m wide, by 0.22m deep and contained flecks of charcoal, oyster shells, small stones and 15th – 16th century pottery. The layer was sampled which found an indeterminate cereal grain.

A sondage was machined into the northern side of (17) which revealed a spread of mid orangey brown worked sandstone blocks (99) which was within a matrix of firm sandy clay. The stones were a mixture of sizes, but the largest measured 0.24m long by 0.15m wide by 0.11m deep. The deposit also contained flecks of charcoal, CBM, plaster and mortar. Deposit (99) appeared to increase in thickness to the east and a sondage was dug through the western end against wall (20). Beneath deposit (99) was a layer of mid reddish brown sandy silt (33) which contained small fragments of stone and medieval pottery dating to the 13th- 16th century. The layer was sampled and sent for pollen analysis which found a very small quantity of Alder pollen.

Figure 39: Sondage machined into layer (17) revealing rubble spread (99).

Trench 6A

Trench 6A measured 2m² and was positioned to the north-west of Trench 6. It was machined to a depth of 0.67m and contained a continuation of cobble surface (12) encountered in Trench 6. Beneath this was a layer of mid reddish pink coloured clay sand (26) which measured 0.18m thick. This layer contained frequent flecks of coal, sandstone, CBM and post-medieval pottery dated 1600-1750. Below this was a layer of mid pinkish red coloured clay sand (27) that contained frequent fragments of sandstone and CBM. A sub-oval post hole [32] was found dug into the top of it which measured 0.5m long by 0.4m wide and 0.34m deep. The sides were shallow around the southern edge but steepened to the north. The base was concave and the feature contained two fills. The primary fill (31) measured 0.14m thick and was composed of mid brownish red coloured silty sand that occasionally contained small stones and animal bone. Above it was a mid-reddish brown clay sand (30) which measured 0.2m thick and contained small stones with flecks of coal.

Figure 40: Post hole [32] dug into layer (27).

Figure 41: Wall (105) found beneath layer (27).

Layer (27) was machined away to reveal wall (105) beneath it. Wall (105) was orientated north-west to south-east and measured over 2m long by 0.6m wide. It was composed of rectangular sandstone blocks that were bonded with a mid-brownish yellow sandy clay. The wall was formed with larger rectangular blocks measuring 0.4m long, by 0.2m wide surrounding a core of smaller roughly worked sandstone blocks measuring 0.2m long, by 0.18m wide. Wall (105) is likely to be a continuation of wall (20) in Trench 6.

Trench 7

Trench 7 was orientated north-west to south-east with the north-western end joining the western end of Trench 5. The Trench measured 13.3m long, by 2m wide and 0.87-1.21m deep with the deepest part found to the south-west. Trench 7 contained the same sequence of upper layers that was found in Trench 5 with a thin layer of sandy topsoil that was composed of mid yellowy brown sandy loam. Below this was a 0.3m thick greyish brown sandy loam (37) which contained tile and modern pottery. This was overlaying a mixed layer of silty sand that was formed from three levelling layers (38), (39) and (40) which contained frequent stones, tile and modern pottery. Below this was a 0.12m thick layer of industrial residue with fragments of hearth lining that also contained modern pottery. Beneath this was a mid greyish brown sandy loam (42) that contained a few small pebbles with CBM and resembled a topsoil. Below this was a layer of mid brownish-red clayey sand (43) that contained flacks of coal, CBM and animal bone. The animal bone displayed cut marks consistent with vellum or parchment production and is likely to be a disturbed medieval artefact.

The two lower layers appeared to represent an older topsoil and subsoil which were sealing a series of six linear features that were orientated north-west to south-east (see Figure 41). Features ([48], [52], [56], [56], [58] and [60]) measured 1.2-6.5m long by 0.7-0.8m wide and were all regularly spaced with a 0.15m gap between them. Feature [48] was found to have steep straight sides or be with a concave base and measured 0.34m deep. It was initially filled with a layer of roughly worked reddish pink coloured sandstone blocks (47) each measuring less than 0.2m in size (see Figure 42). Overlaying this was a 0.1m thick secondary fill (46) that was composed of mid greyish brown clay sand which contained flecks of CBM and coal. This layer contained medieval pottery, two Fe nails (Sf. 3 and 4) and a fragment of a cauldron dated 1350-1400 (Sf. 5). The upper fill (45) was a 0.14m thick layer of mixed pinkish brown sandy clay which contained an Fe nail (Sf. 2), tile and clay pipe.

To the west of [48] was [52] which had moderately sloping concave sides and a concave base. The feature measured 0.2m deep and was also filled by three deposits. The primary fill (51) was a 0.06m thick layer of mid reddish pink sandy clay that contained frequent inclusions of tile (see Figure 42). Overlaying this was a 0.12m thick layer of mid brownish red coloured clay sand (50) which contained post medieval pottery and tile and was sampled which found the remains of vetch. The upper fill (49) was composed of a 0.1m thick layer of mid pinkish brown coloured sandy clay that contained flecks of CBM and coal. All of the features in Trench 7 are likely to represent later post-medieval planting trenches and were dug into a mid-reddish pink coloured sandy clay (44) containing flecks of CBM and coal.

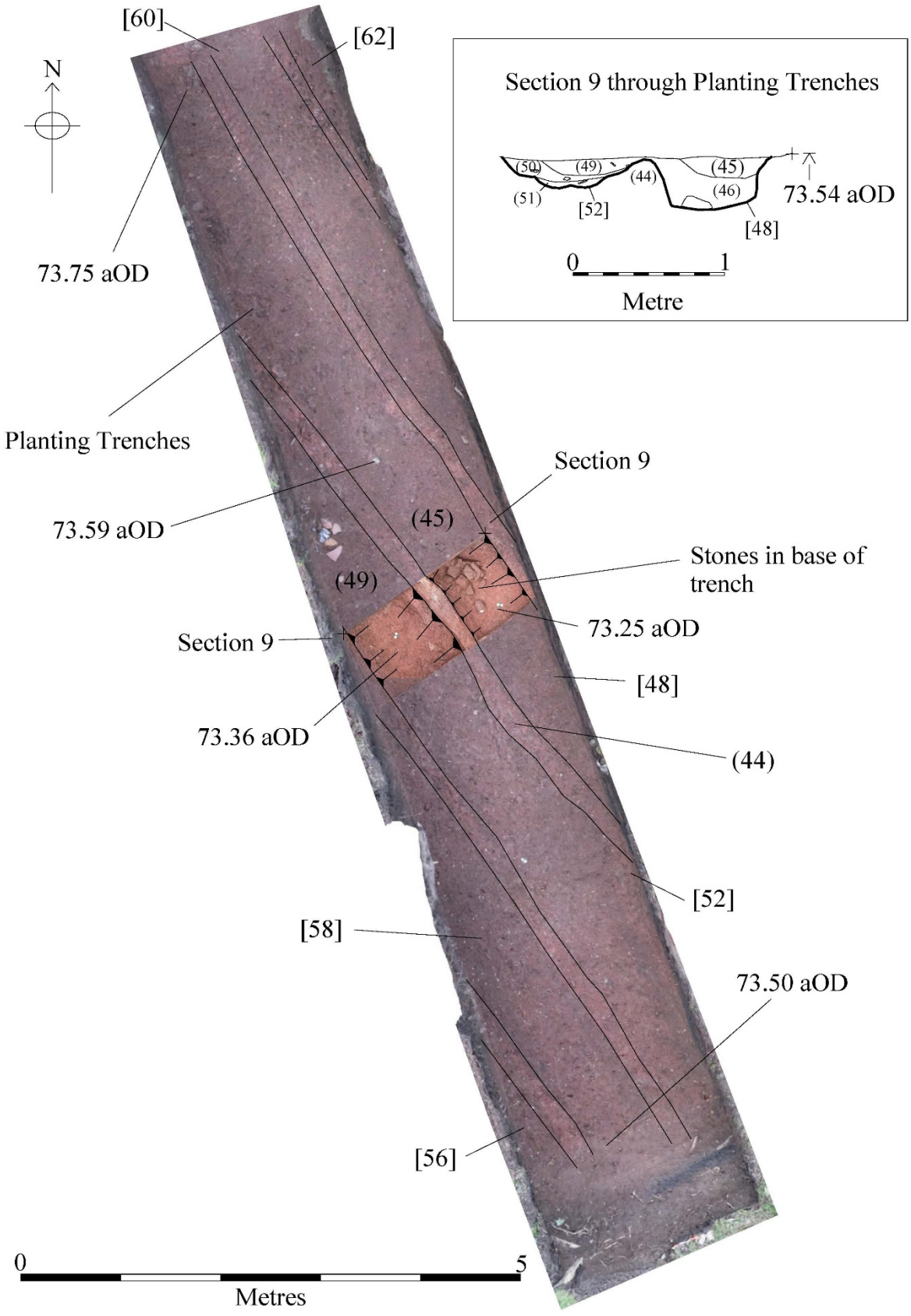

Figure 42: Features in Trench 7.

Figure 43: Features [48] and [52] with layers (47) and (51) visible in the base.

Trench 8

Trench 8 was orientated on a north-west to south-east orientation and located on the northern edge of Trench 5 directly opposite Trench 7. It measured 5.5m long by 2m wide and 0.81-0.99m deep. The upper layers were the same as found in trenches 5 and 7, the lowest resembled an old topsoil and subsoil which was covered by layers of industrial residue and stone rich rubble. Overlaying this was a thick layer of modern topsoil that had a thin layer of sandy loam above it. In the north-western corner of the trench was the edge of pit [111] which measured over 1.1m long, by more than 0.6m wide. The feature was incomplete but appeared to be oval in shape and was filled with a firm friable mid greyish brown coloured silty sand (112) which contained a small amount of clay. The feature was not excavated but post medieval pottery dated 1600-1750 was recovered from the top of it (see Figure 44).

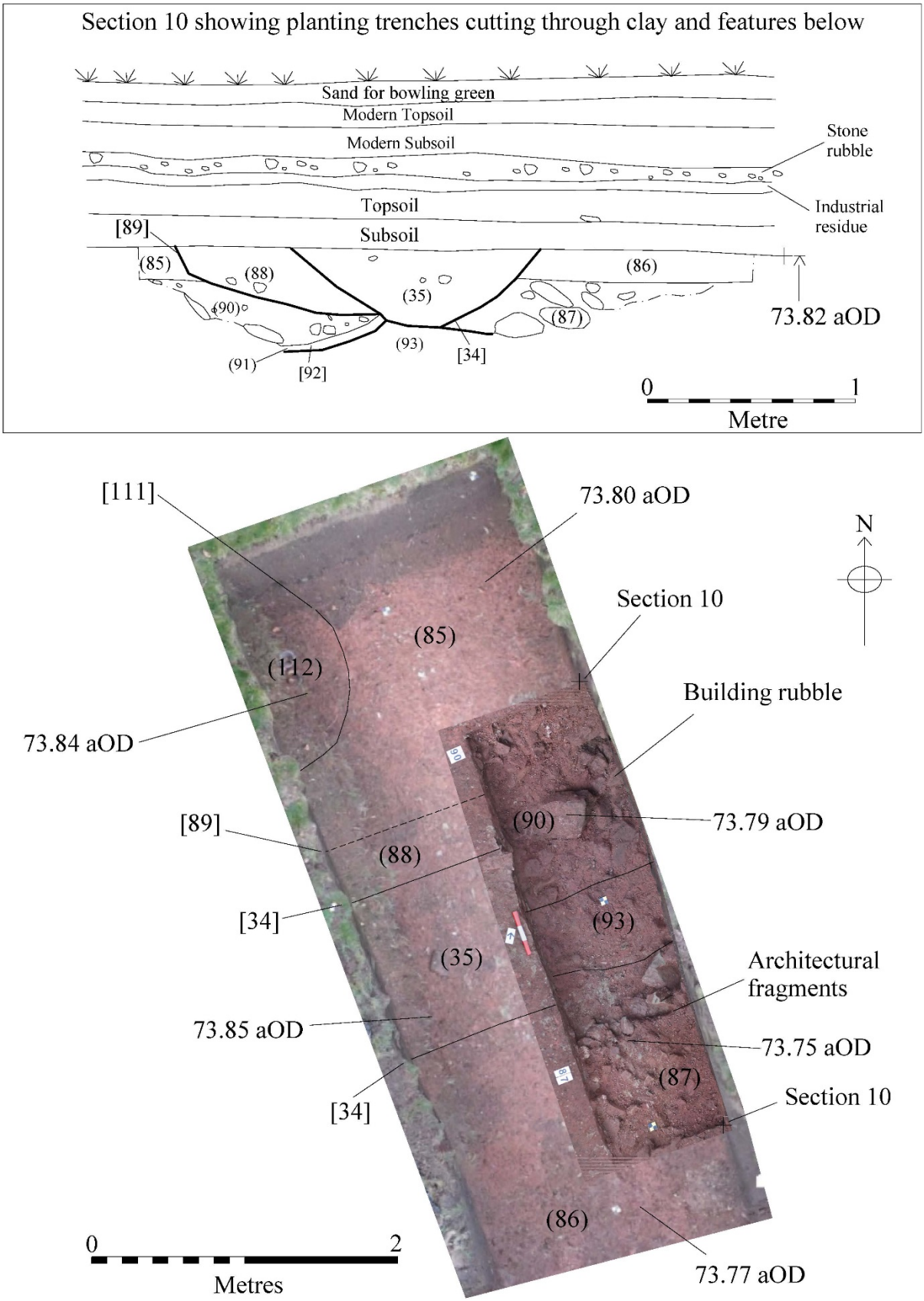

Figure 44: Plan and section of features in Trench 8.

In the centre of the trench was a poorly defined linear feature [89] which measured more than 2m long by 0.6m wide and 0.3m deep. It was orientated north-east to south-west and contained

shallow to moderately sloping concave sides with a concave base. It was filled by a mid-yellowy brown sandy silt with a small amount of clay (88) which contained small stones and fragments of CBM. Feature [89] was being re-cut by [34] which measured more than 2m long by 1m wide by 0.39m deep and had moderately sloping concave sides with a concave base. It was filled by a dark brownish grey sandy silt (35) with patches of orange clay and contained tile with post-medieval brick. Both of these features are likely to represent planting trenches from the later post-medieval period and were dug into a 0.13m thick layer of mid brownish orange silty clay called (85) to the north and (86) to the south. This layer contained small fragments of sandstone, coal and charcoal and was found to be covering at least two other features.

Figure 45: Trench 8 showing glass bottles protruding from feature [111] in the corner of the trench.

Feature [92] was found below layer (85) and measured over 1m long, by more than 1.10m wide and over 0.45m deep. The feature was only partially exposed and may have represented a pit which contained moderately sloping concave sides. Two deposits were visible within the cut, the lowest was a 0.05m thick layer of charcoal rich silty sand (91) which contained a few small stones. The upper fill contained large blocks of roughly worked stones measuring less than

0.6m in size within a matrix of mid-brownish red coloured silty sand (90). The fill measured over 0.46m thick and contained fragments of CBM and pottery dating 1550-1650.

Beneath layer (86) to the south of [36] was a layer of light blueish green sandstone (87) within a matrix of mid reddish brown sandy silt (see Figure 45). This layer measured more than 1m long by 1.3m wide by 0.4m deep and contained fragments of worked sandstone measuring less than 0.3m in size. Several fragments of sandstone were found with a white creamy paint applied to the surface and many appeared to be architectural. Deposit (87) may have been situated within a shallow cut which was dug into a layer of mid reddish brown sandstone (93).

Layer (93) was located between features [90] and (87) and was composed of sandstone fragments measuring 0.06-0.25m in size within a matrix of mid-reddish brown silty sand. No artefacts were found within it and it was not clear whether it was naturally formed or if it was the top of another stone filled feature.

Figure 46: Features [90] and (87) below silty clay layers (85) and (86).

Trench 9

Trench 9 was orientated north-west to south-east and was located 12m to the south-east of Trench 7 on the south side of the Precinct wall. The trench measured 7.75m long, by 1.41-2.45m wide by 0.52-0.63m deep. The trench was covered by a layer of tarmac and beneath it brick wall (201) was found along the western edge. Wall (201) measured over 5.79m long, by 0.33m wide and 0.42m deep and was formed from unfrogged factory-made bricks that were bonded with mortar. Six courses of bricks were visible in the southern end of the wall and it

was built on 1-4 courses of sandstone blocks (203). Sandstone blocks (203) appear to have been used as a foundation for brick wall (201) and were composed of roughly worked rectangular blocks measuring 0.39m long, by 0.25m wide, by 0.17m deep. The stones were bonded with a light brownish red coloured clay that contained flecks of mortar and medieval pottery dating 13th-15th century. The stones were found within construction cut [204] which measured more than 5.79m long by over 0.33m wide and 0.25-0.29m deep. Cut [204] had steep straight sides and appeared to be dug through the subsoil. A second line of stones with the same composition as (203) was visible in the northernmost end of the trench and this is probably associated with a second brick wall 0.12m beyond the edge of the trench.

Figure 47: Features found within Trench 9.

Directly beneath the tarmac was a series of levelling layers (see section 11, Figure 48) the uppermost being composed of stones, CBM, and slag. Beneath this was a hard layer of light blueish grey coloured ash, cinder and charcoal. Below these layers was a hard mid-reddish brown coloured silt (207) that contained frequent Fe slag, CBM and worked sandstone measuring more than 0.1m in size. Deposit (207) increased in thickness to the south and was covering a hard layer of mortar (162) which was coloured light whitish yellow. Mortar layer (162) contained inclusions of small pebbles with fragments of bricks and appears to have been used as a floor. This layer also increased in thickness to the south and was covering a layer of industrial residue (188). Layer (188) was composed of industrial residue in a matrix of sandy silt and was used a levelling layer. The deposit increased in thickness to the south where pit [192] was found. The pit was only partially visible within the trench and measured more than 1.82m, by over 1.05m wide and more than 0.24m deep. It was filled by a dark blueish blackish grey coloured sandy silt (191) that contained small stones and charcoal.

Figure 48: Levelling layers and mortar floor (162) visible in the eastern edge of Trench 9.

Pit [190] was found below layer (188) and had a sub-rectangular shape that measured 1.36m long, by 0.92m wide, by over 0.16m deep. The pit was filled with a dark blackish brown coloured sandy clay with a small amount of silt (189) and contained bricks and glass. The top of the pit (205) contained a lead alloy artefact (Sf 16). Pit [190] was dug through the subsoil which overlay a series of parallel trenches. Features [194], [196], [198] and [200] were all orientated north-west to south-east and measured 1.5-4.4m long by 0.53-0.66m wide. They were all regularly spaced with a 0.2m gap between them and were all filled with a mid-reddish brown coloured sandy silt containing small stones and flecks of charcoal. A fragment of clay pipe was found in the fill of [196] (197) and the features are likely to represent planting trenches from the later post-medieval period.

Against the northern edge of the trench a feature orientated north-east by south-west was found measuring over 1.47m long by more than 0.46m wide. This feature was filled with a mid-reddish brown coloured sandy silt and may also represent a planting trench. The planting trenches were dug into a layer of light brownish red coloured sandy clay that occasionally contained small pieces of sandstone and probably represented the natural substratum.

Section 11 through the eastern edge of Trench 9

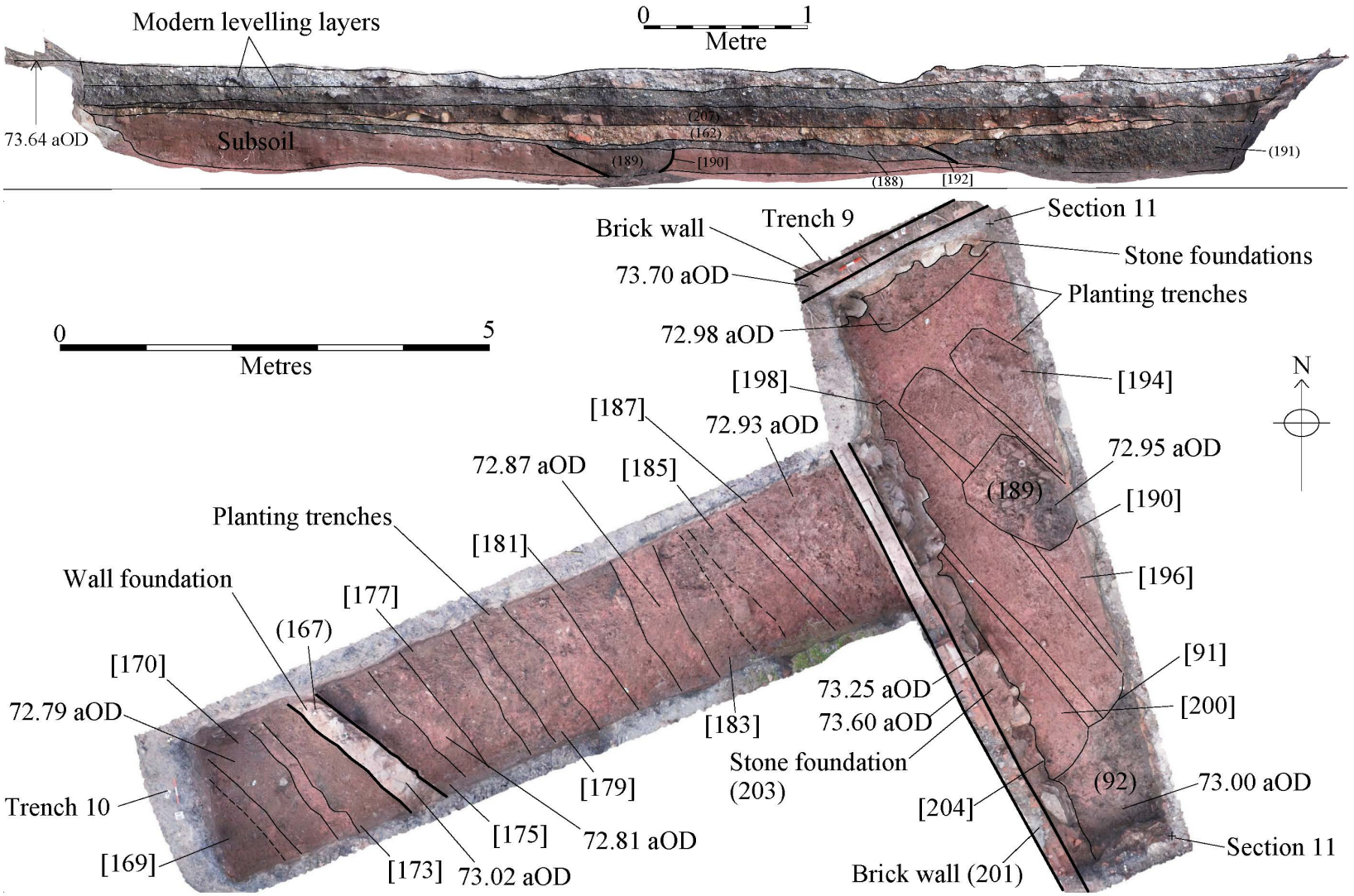

Figure 49: Plan and Section from Trenches 9 and 1

Trench 10

Trench 10 was orientated east north-east to west south-west and was joined to wall (201) along the western side of Trench 9. The trench measured 8.75m long, by 2m wide, by 0.51-0.67m deep and contained modern tarmac with layers of modern rubble hardcore 0.09-0.3m thick. Beneath this was a below this a subsoil measuring 0.21-0.28m thick which had the same consistency as the subsoil in Trench 9. Several features were found in Trench 10 which were orientated north-west to south-east.

In the western end of the trench a linear feature was found which measured over 2.14m long, by 1.25m wide, by 0.23m deep. It contained moderately sloping concave sides and was dug through the subsoil. A layer of rough sandstone fragments (167) each measuring less than 0.15m in size was found in the base of the cut and the stones were covered with a 0.14m thick layer of mid brownish red clay (166). The stones appeared to form a crude wall footing.

Figure 50: Wall footing (167) in Trench 10.

Below the subsoil was a group of ten poorly defined linear features (cuts [169], [171], [173], [175], [177], [179], [181], [183], [185] and [187]). The features measured more than 2m long by 0.4-0.66m wide and were regularly spaced. They were filled by a mid-reddish brown sandy silt (contexts (174), (176), (178), (180), (182), (184), (186) and (188)) which contained small stones and frequent flecks of charcoal. Post medieval pottery and CBM was found in (182) and (188) and the features are all likely to be later post-medieval planting trenches. They were dug into a light brownish red coloured sandy clay that contained small fragments of sandstone and appeared to represent the same layer found in Trench 9.

Test Pits

Two Test Pits were excavated along the northern edge of the southern Precinct wall with the third test pit being obstructed by a nearby tree and vegetation. The test pits each measured 2m², were spaced 3.8m apart and orientated north-west to south-east.

Test Pit 11

Test Pit 11 was the westernmost and dug to a depth of 1.24m. The top of the pit contained a layer of ash, charcoal and industrial residue and beneath this was a 0.46m thick layer of mid yellowy brown sandy silt that resembled a topsoil. Below the topsoil was a 0.3m thick layer silty sand that was coloured mid reddish brown with a hint of yellow. This deposit contained flecks of mortar or plaster with charcoal and resembled a subsoil.

The Precinct wall was found to extend to a depth of 0.53m where a regular course of larger rectangular blocks was found. The blocks measured 0.45m long, by 0.3m deep, by more than 0.15m wide and were bonded with a mid-reddish brown silty clay which occasionally contained a tile. Beneath this was a 0.28-0.4m thick deposit of sandstone blocks less than 0.35m in size that were mixed with mid reddish brown silty clay.

Figure 51: Test Pit 11 showing the details of the Precinct wall foundation.

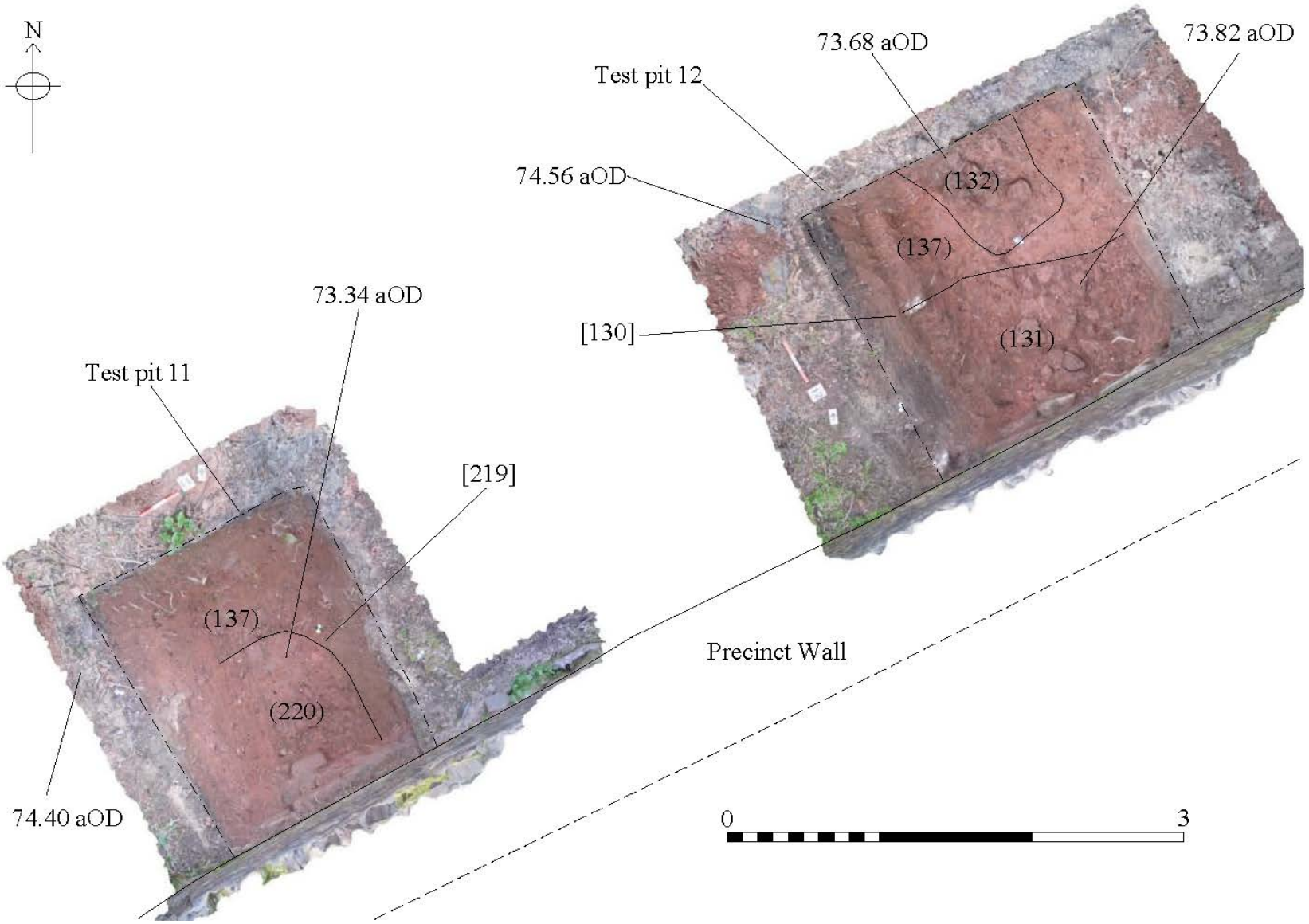

Figure 52: Plans of Test pits 11 and 12

Against the southern edge of Test Pit 11 was pit [219] which measured more than 0.6m long, by over 0.66m wide. The feature extended beneath the Precinct wall and was filled with a mid-yellowy brown sandy silt (220) that contained patches of red clay and frequent stones measuring less than 0.2m in size. The pit was dug into a mid-yellowy brown sandy silt that contained a small amount of clay.

Test Pit 12

Test Pit 12 was located to the east of Test Pit 11 and measured 0.96m deep. It was dug through a 0.11m thick layer of modern topsoil which was overlaying a 0.2m thick layer of ash and charcoal (134). Beneath this was a 0.38m thick layer of mid yellowy brown sandy silt (133) which appeared to represent a topsoil. This was overlaying a 0.27m thick layer of mid reddish brown subsoil that was composed of silty sand with clay. The northern edge of the test pit contained a pit filled with mid yellowy brown sandy silt (132). The deposit contained inclusions of CBM with sandstone pieces less than 0.2m in size and appeared to be cut through the older topsoil (133).

Figure 53: Test Pit 12 showing the features beneath the Precinct Wall.

The Precinct wall was found to extend to a depth of 0.52m where it was placed on a 0.68m long course of larger blocks. The blocks measured 0.23m long, by more than 0.13m wide, by 0.2m deep and did not continue beyond the eastern edge of the test pit. The wall was found to continue to the east overlaying a 0.4m thick layer of mid brownish red silty clay.

Below the foundations was feature [130] which measured more than 1.14m long, by over 0.79m wide. The feature was filled with a mid-reddish brown silty sand (131) that contained frequent inclusions of sandstone less than 0.3m in size, CBM and medieval pottery dated 13th-15th century. This feature was dug through a mid-brownish yellow sandy silt (137) containing a small amount of clay.

The Post Roman Ceramic Finds - Deborah Sawday

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The Ceramic Finds

The Pottery

The pottery assemblage was made up of 178 sherds, weighing 6.892 kg, representing a maximum count of 114 vessels and a vessel rim equivalent of 3.0435 (calculated by adding together the circumference of the surviving rim sherds, where one vessel equals 1.00). Co-joining sherds are noted, whilst single sherds are generally counted as one vessel.

Table 1: The medieval and later pottery by fabric, sherd numbers, weight, EVEs, average sherd weight, vessel number and approximate date range.

Fabric/Group	Common Name	Sherds	Weight	EVEs	Max. V. No	Approx. Date Range
Medieval/Early Post Medieval						medieval
SG	Sandy Glazed ware	3	86		2	13th – 14th C.
WW01	Chilvers Coton A ware	5	65	0.07	5	c.1250-15th C+
WW01/SQ30	Chilvers Coton A/C ware	5	31	0.11	4	13th-15th C.
SQ30	Chilvers Coton C ware	4	209	0.07	4	13th-15th C.
TG/WW02	Surry White ware/Tudor Green type	1	3		1	1380-1500
WW01/SQ30/MP	Chilvers Coton A/C/MP ware	8	251		7	15th-mid 17th C.
MP	Midlands Purple	7	82		7	1350-1539
CIST/MB	Cistercian/Midland Black	3	15	0.1505	3	1450-1780
MB	Midlands Black	5	16		5	1550-1700
MY	Midlands Yellow	10	101	0.237	8	1539-1700
RH	Rhenish Stoneware	4	39		3	1550-1650
Subtotal		55	898	0.6375	49	
Post-Medieval/Modern						
CW	Coarse ware	26	1050	0.111	17	1600-1750+
MANG	Manganese Mottled ware	6	74	0.14	6	1690-1750
SLPW	Slipware	6	85	0.05	4	17th – 18th C+.
TGE	Tin Glazed Earthenware	1	3		1	1650-1800
STE01	English Stoneware	13	1018	0.5	4	Modern
CRW	Cream ware	2	45	0.025	2	Modern
MGW	Modern Glazed	13	952		5	Modern
Ea	Unglazed earthenware	53	2606	1.2	23	18th-19th C.
	Subtotal	120	5833	2.026	62	
Unclass		3	161	0.38	3	
Site Total		178	6892	3.0435	114	

Methodology

The pottery was examined under an x20 binocular microscope and catalogued with reference to current guidelines (MPRG 1998, MPRG 2016*),* the Warwickshire Medieval and Post-Medieval Ceramic Type Series (Soden and Ratkai 1998) and to previous excavations on the site (Soden 1995). However, more recent work in the Church of Our Lady of Mount Carmel at Whitefriars, Coventry, indicated that the Chilvers Coton fabric A in particular, which was formerly thought to be predominantly 13th century in date probably continued in some production in the 14th century), whilst Chilvers Coton C ware dates from the end of the 13th century but is predominant in the 14th and 15th centuries (Ratkai 2005, 15). A range of variability has also been noted in the Chilvers Coton fabrics A, B, C and MP (Ratkai 2013), which has led to the binary descriptions utilised here.

Following previous excavations at Charterhouse, the pottery has been divided into the following chronological groups:

Table 2: Group 1 - Monastic in date and stratified as such, (c1381-1539), but possibly including residual material from pre-monastic contexts.

context	trench/ window	fabric	no	gr	Eve	form	part	date	comments -
33	6	A/C	2	14	0.11	jug	rim	1250-1550+	upright rim with double cordon, pale pink & buff sandy fabric, similar form at Nuneaton, Chilvers Coton, site 13 kiln 32a-b, c.1250+, (Mayes & Scott 1984, fig.83.595).
131	12	?C/MP	1	106		vtu	base	13th-15th C	uneven base, hard fired, coarse sandy ware, partially oxidised and reduced fabric, spots of purple glaze on exterior.
156	3	A/MP	2	14		vtu	base	1250+	fine sand, light grey, hard fired, spot of greenish glaze under base.
156	3	TG/ WW02	1	3		vtu	handle	1380-1500	green glaze, dense sandy fabric, probably part of a cup
Totals			6	137	0.11				

No obviously pre-monastic contexts were found during the excavations (R. Huxley, pers. comm.). Group 1 was chiefly made up of body and base sherds in the Nuneaton, Chilvers Coton fabrics A/C, C/MP and A/MP with a fairly wide date range. The only identifiable vessel in the Chilvers Coton fabric A/C was from an upright jug rim with double cordon, in a pale pink and buff sandy fabric. Similar vessels were recorded on site 13 kiln 32a-b, dating from c.1250+ at Chilvers Coton, (Mayes & Scott 1984, fig.83.595). A single fragment of Surrey White ware/or Tudor Green type, which may also be a Chilvers Coton product, fabric WW02, dated from the later 14th or 15th centuries.

Four of the sherds were found in a garden layer, context (33) in Trench 6, and three more in the garden path, context (156) in Trench 3. Of note were two joining sherds in a hard fired fine sandy ware, catalogued as fabric A/MP, in the backfill of a feature context (131), below the priory outer wall in Trench 12.

Table 3: Originating in the 'loose 'stratigraphy' of dissolution contexts (1539-c1640), including residual material from group 1

context	trench/ window	fabric	no	gr	Eve	form	part	date	comments
17	6	CIST	1	4	0.05	cup	body	1450-1580	estimated diameter, simple upright rim, chocolate brown glaze on interior and exterior.
90	8	RH	2	17		jug	neck	1550-1650	mottled streaky brown and buff lead glaze on exterior, ?1600+
108	6	CIST / MB	1	6	0.1005	cup	rim	1450-1700	simple slightly everted rim, glazed black with purple streaks
108	6	MB	1	4		vtu	body	1550-1700	glazed black
108	6	MY	1	45	0.16	bowl	rim	1539-1700	Woodfield (1984) form N, glazed internally on and exterior rim
108	6	MY	1	19	0.077	jar	rim	1539-1700	glazed internally and on exterior rim, rilled on exterior neck
Totals			7	95	0.3875				

This group consisted of later medieval and early post medieval Cistercian, Cistercian/Midland Blackware, Midland Blackware, Midland Yellow and a piece of Rhenish Stoneware. The only identifiable vessels were the rim of a cup in CIST/MB and a jar rim fragment and part of a bowl in MY Woodfield (1984), form N.

Most of this small assemblage was recovered from trench 6, including one sherd from a clay layer, context (17) which lay above the demolition rubble, but predominantly from context (108), a cleaning layer which in turn lay above (17). Two sherds of what is thought to be Rhenish Stoneware were found in Trench 8, context (90), in a possible feature below a planting trench.

Table 4: Later post-medieval and modern planting trenches and associated contexts (c. mid 18th C+), including material residual from groups 1 and 2.

context	trench/ window	fabric	no	gr	Eve	form	part	date	comments -
35	8	CW	1	10		vtu	base	1600-1750 +	iron or lead glazed over an iron rich slip
35	8	CW	1	48		vtu	body	1600-1750 +	coarse earthenware, iron rich slip on interior and exterior

35	8	CW	1	76	0.08	bowl	rim	1600-1750 +	Rim with horizontal flange, coarse earthenware iron rich slip & traces of glaze on interior and exterior.
43	7	MANG	1	20		vtu	body	1690-1750	hollow ware – manganese glazed on interior and exterior
46	7	A/C	1	3		vtu	body	1250-1550 +	pale pink sandy fabric, very pale yellow glaze, abraded
46	7	MP	1	16		vtu	body	1350-1550 +	trace of thin glaze on exterior
49	7	MB	1	5		vtu	handle	1550-1700	rod
49	7	SLPW	1	15		plate	body	17th-18th C	press moulded, slip trailed yellow over brown
49	7	TGE	1	3		vtu	body	1650 +	very coarse sandy fabric - possibly early in sequence
50	7	Ea	7	1475	0.05	flower pot	rim/base	18th-19th C	earthenware - mix of white & red clays, iron rich slip on all surfaces - large elliptical circular hole c30mm+ cut into base, splashes of brown glaze on interior..
50	7	Ea	3	91		flower pot	base	18th-19th C	earthenware
50	7	Ea	1	97	0.15	flower pot	rim	18th-19th C	earthenware
50	7	CW	1	304		cistern	body	1600-1750 +	part of bung hole cut through wall, fine buff bodied, hard fired very fine sand inclusions, possibly a midland purple
50	7	CW	6	317		vtu	base	1600-1750 +	earthenware - mix of white & red clays, iron rich slip on all surfaces
78	5	A	1	19		vtu	basal angle	1250-15th c	coarse pale buff bodied sandy ware, traces of glaze internally, sooted ext, hard fired, looks late in sequence, pos fabric A/C
89	8	MB	1	1		vtu	body	1550-1700	black glazed, tiny slither of pot
103	2	MY	2	7		vtu	body	1539-1700	one glazed on both sides, the other abraded
112	8	CW	1	10	0.001	jar	rim	1600-1750 +	coarse earthenware, thickened upright rim, buff sandy body, glazed black over iron rich slip, esimated EVE

115	1	CW	1	14		vtu	body	1600-1750 +	buff body, iron rich slip, glazed black int
144	4	C	1	6		vtu	body	13th-15th C	abraded, pale buff sandy fabric
144	4	A	1	2	0.07	bowl	rim	1250-15th c	fine sand and iron ore inclusions, pale grey/buff body, traces of thin lead glaze on exterior, similar small bowl at Chilvers Coton, Site 1 F1 (Mayes and Scott 1984, fig.65.18) where dated c1250+
144	4	MANG	1	26		mug	base	1690-1750	cylindrical reeded tankard base, glazed
144	4	CW	1	14		vtu	body	1600-1750 +	coarse earthenware, glazed black over iron rich slip on interior.
144	4	SLPW	2	2		vtu	body	17th-18th C	Wheel thrown, trailed slip decoration, Staffs late 17th - early 18th C, same vessel as 97
149	4	A	1	35		jug	base	1250-15th c	splayed base, trimmed, flat, traces of thin lead glaze on exterior wall, abraded
149	4	C	2	188		vtu	body	13th-15th C	
149	4	C/MP	2	99		vtu	base/ body	13th-1550	
149	4	MB	1	3		vtu	body	1550-1700	hollow ware, glazed on both surfaces, external rilling
149	4	MANG	1	9	0.05	vtu	rim	1690-1750	imitation mottled ware, with iron rich slip under glaze
149	4	MP	1	12		vtu	body	1350-1550 +	
149	4	MY	2	9		vtu	body	1539-1700	yellow glaze on interior
149	4	CW	1	5		vtu	body	1600-1750 +	
149	4	CW	1	10		vtu	body	1600-1750 +	thick glaze internally & externally, early in sequence,
149	4	CW	1	12		vtu	body	1600-1750 +	slipped, with internal glaze
173	10	C	1	15	0.07	bowl	rim	13th-15th C	Everted and flanged rim, some quartz & fe, lumps/streaks of white clay, spots of purple glaze on exterior, estimated diameter.

173	10	Ea	2	23		flower pot	body	18th-19th C	
173	10	SLPW	1	30		vtu	body	17th-18th C	
182	10	MANG	1	10		mug	body	1690-1750	glaze, trace of reeding
188	9	Ea	7	51	0.225	flower pot	rim/body	18th-19th C	
206	9	MANG	1	4	0.09	cup	rim	1690-1750	glazed
Totals			65	3096	0.786				

Residual medieval Chilvers Coton wares and the earlier post medieval Midland Black and Midland Yellow made up just under 30 per cent of the 65 sherds in this group. The remainder of the assemblage was dominated by twenty sherds, representing a maximum of eight flower pots, evidence perhaps of horticultural activity associated with the planting trenches, in the earthenware fabric Ea. A bung-hole cistern and a bowl rim were the only identifiable forms amongst the thirteen sherds of Coarse ware. The small amounts of 17th and 18th century pottery present included a cup and two mugs in Manganese Mottled ware, press-moulded and wheel thrown Slipware and Tin Glazed Earthenware.

Most of this material was associated with the planting trenches in Trenches 4 and 7, with small groups from planting trenches in Trenches 5, 8 and 10. Two sherds of Midland Yellow occurred in the backfill of a pit (102) in Trench 2, in a clay layer sealing the monk's garden. Thirteen sherds, some residual were recovered from the pit, context (149) in Trench 4 and eight more post medieval fragment from a layers (188) and (206) in trench 9.

Table 5: Group 4 – Later post-medieval and modern - includes material residual from groups 1 to 3

context	trench/window	fabric	no	gr	Eve	form	part	date	comments
3	w5	RH	1	19		vtu	body	1550-1650	? Rhenish stoneware, mottled brown on exterior, lead glaze on interior
4	w5	CW	1	13		vtu	body	1600-1750+	earthenware, slip and glaze on interior
4	w5	Ea	1	34		flower pot	base	18th-19th C	earthenware
13	7	Ea	1	33		flower pot	body	18th-19th C	earthenware
13	7	Ea	2	12		flower pot	body	18th-19th C	earthenware
13	7	MGW	5	330		plate	profile	modern	china - transfer printed brown under glaze

13	7	STE01	9	545	0.05	jar	rim/base	modern	brown salt glaze on upper exterior, brown and pale buff int. Printed 'R.B COOPER PATENTEE LONDON.....Pierced hole in rim
13	7	unclass	1	7	0.38	vtu	body	modern	burnt/vitrified
37	2	Ea	9	118	0.4	flower pot	rim/body	18th-19th C	earthenware
37	2	Ea	4	144	0.2	flower pot	rim/body	18th-19th C	
37	2	Ea	5	97		flower pot	body	18th-19th C	
37	2	STE01	1	9		jar	body	modern	joins 13 above
38	7	MGW	2	10		vtu	base	modern	china - transfer printed brown under glaze
38	7	Ea	3	44		flower pot	body	18th-19th C	earthenware, joins 37 above
38	7	Ea	2	21		flower pot	body	18th-19th C	
38	7	MY	1	10		vtu	body	1539-1700	2 thin bands applied horizontal red clay firing brown under yellow lead glaze
43	7	MANG	1	20		vtu	body	1690-1750	hollow ware - glazed int & ext, manganese glazed
71	5	MGW	4	592		bowl	base	modern	china
71	5	MGW	1	10		lid	body	modern	china - transfer printed under glaze - GENUINE BEARS GR(EASE)
71	5	MGW	1	10		saucer	base	modern	china - decoration painted blue over glaze
71	5	Ea	2	188		flower pot	base	18th-19th C	earthenware - two holes pierced through base
71	5	Ea	1	67	0.175	flower pot	rim	18th-19th C	earthenware
71	5	CW	3	55		vtu	body	1600-1750+	earthenware
74	5	A	1	5		vtu	body	1250-15th c	coarse white bodied sandy ware, mottled yellowish glaze on int, sooted ext.
74	5	CRW	1	5		vtu	body	modern	cream ware
74	5	CRW	1	40	0.025	jar	rim	modern	est EVE
74	5	unclass	2	154		vtu	body	modern	red bodied,fine sandy ware, yellow

									glaze on int - looks post med or modern
74	5	STE01	1	54	0.1	jar	body	modern	stoneware - modern
122	5	MP	1	6		vtu	body	1350-1550+	
138	4	A	1	4		vtu	body	1250-15th c	abraded, pale buff coarse sandy fabric
138	4	C/MP	1	18		vtu	body	13th-1550	hard fired red bodied fabric with buff exterior and ext sooting
191	9	Ea	2	95		flower pot	body/base	18th-19th C	one with cut drainage hole in base
191	9	STE01	1	42		vtu	body	modern	stoneware, pale buff body, salt glazed ext.
191	9	STE01	1	368	0.35	jug	rim/body/h	modern	stoneware, pale buff body, glazed interior, glazed brown over iron rich slip on exterior and inner rim, warped est rim diam/EVE
203	9	?C/MP	1	12		vtu	body	13th-15th C	hard fired, reduced surface/margins, red core, coarse sandy fabric with pimply surfaces
213	5	Ea	1	16		flower pot	body	18th-19th C	
Totals			76	3207	1.68				

Most of this group comprised 18th and 19th century Earthenwares and modern Stonewares, Glazed wares, and Creamware, with little residual medieval and early post medieval material.

Conclusion

Save for the absence of material from clearly pre-monastic levels, the stratified pottery can be divided into groups broadly comparable to those from previous excavations on the site (Soden 1995). These excavations had shown a relative lack of continental and regional imports from the cloisters when compared to the finds from the church and 'little cloister'. The more recent excavations were limited solely to the cloisters where the continental and possible regional imports were present, but the small size of the assemblage makes any direct comparisons with previous work somewhat tentative.

The Ceramic Building Material

The Roof Tile

Three hundred and sixty one fragments of nibbed flat roof tile, weighing 50.905kg, were recovered. All but three of these tiles examined by the author were in a smooth red sandy ware identical in both methods of manufacture and dimensions to those recorded at the Church of

Our Lady of Mount Carmel at the Whitefriars, Coventry, where the tile was thought to be a product of the Harefield Road kilns at Stoke, and dated from the first half of the 15th century into the later 15th/early 16th century (Ratkai and Woodfield 2005, fig.148.3 and 4). Many of the surviving nibs were damaged, and four of the tiles had both a nib and two square or diamond shaped peg holes (Figure 53). Two of the tiles were glazed, and at least one glazed tile from context (78), which was covered in mortar on both the upper and lower surfaces, had apparently been used as a levelling layer within a building. This characteristic was also noted on the Whitefriars flat roof tiles (*ibid*. 2005, 288), and indeed flat roof tiles were recorded in stone walls, for example in structure 118, during the Charterhouse excavations (R. Huxley, pers. comm.).

Figure 54: Flat roof tile in smooth red sandy ware, with a nib and two peg holes, from context (65).

Thirty five smooth red sandy ware tile fragments were found in the medieval levels (131) and (136), the pentice roof (152) and context (158), and a further 53 in the Dissolution levels (17), (27), (28) and (90).

Two of the nibbed tiles from the modern contexts (38) and (71) (Figure 54 and Figure 55) were in a reduced coarse ?argillaceous feldspar, shale and sandstone tempered fabric, possibly a coarse version of Chilvers Coton B ware (Mayes and Scott 1985, 196), dating from the later 13th century (Soden and Ratkai, 1998, although no tiles were recorded in B ware at the kiln site. The tile from the latter context had a minimum width of 240mm, and both were between 12 and 13mm thick, though in neither case did the nibs appear to be centrally placed at the upper end of the tile, and it is possible that each tile originally had two nibs. In one case only a vestige of the nib remained and the other only protruded approximately 6mm from the surface, which was fairly rough on both sides, although the tiles apparently would typically have been suspended with the rougher side uppermost.

Figure 55: Flat roof tile in ?Chilvers Coton B ware from context 38

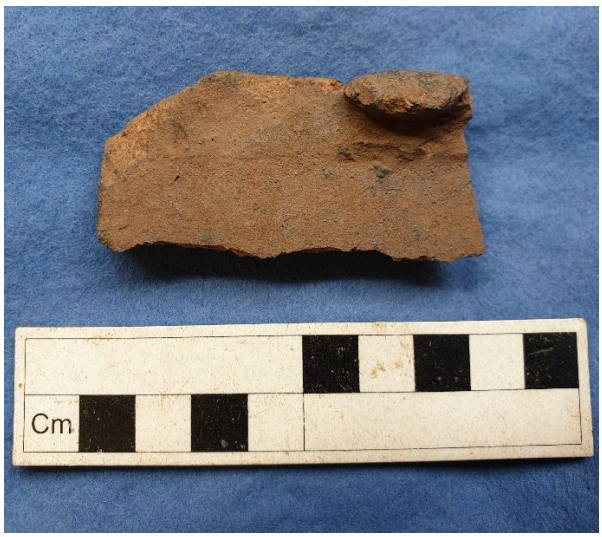


Figure 56: Flat roof tile in ?Chilvers Coton B ware from context 71.

Two fragments of curved roof tile in smooth sandy ware occurred in the medieval context (131) and the modern context (97). Two tile fragments in a Dissolution layer, context (17), were in a coarse red sandy ware with a yellowish green glaze. Tiles in this fabric, which is thought to be a local product, were originally dated at Ernsford Grange from the mid to late 13th century (Soden 1988), and occurred in the earliest phases at Whitefriars (Ratkai and Woodfield 2005), and, if correctly identified, apparently predates the construction of Charterhouse.

The Floor Tile

A paver measuring approximately 156mm square and 27mm thick was found in the modern context (206).

Eleven floor tiles were recovered from post medieval or modern contexts; only one was from the Dissolution context (99). Many of the fragments were worn, but most appeared to be monochrome, firing black, blackish brown or green over the red body, but at least two had fired yellow with a lead glaze over a white slip. One almost complete and slipped tile measured 110 x110 x 26mm thick; and two other triangles had been cut from tiles c128mm square and c20mm thick and c110mm square and c14mm thick respectively.

Approximately eleven floor tiles were photographed *in situ*, although unfortunately some were only partially excavated. The tiles lay within structure 118, a possible medieval latrine in the eastern end of Trench 3. Most were a monochrome green, one was yellow, and three were inlaid; the complete examples ranged in size from c110 x 110 to c120 x 110mm square. Three apparently identical tiles to one found here (Figure 57) which measured 100 x 110mm, have already previously been identified at Charterhouse, where they would have made up part of a four tile design with geometric tracery, one being found *in situ* reused in the phase IV nave floor (Soden 1995, 111, fig.28.113). Another inlaid tile, with similar dimensions, incorporated a face mask with a protruding tongue with quadrants of a circle in each corner enclosing a lobed motif (Figure 58). A similar but not identical design was found on a tile in the Chapter House at Whitefriars, Coventry, (Woodfield 2005, fig. 145.120) where it was thought to be part of 'an endless repeating pattern' of small tiles, and dated from the second quarter of 15th century.

Figure 57: An in situ floor tile within the medieval latrine, structure 118; part of a four tile design with geometric tracery.

Figure 58: An in situ floor tile within the medieval latrine, structure 118; a face mask with a protruding tongue.

Ceramic Building Material

Twenty fragments of brick and ceramic building material, weighing 3.882 kg, were recorded; all were from post medieval or modern levels save one fragment, 3 grams from context (156), a medieval garden path edged with tile, and another, weighing 10 grams, from the medieval context (152).
I am indebted to J. McNulty for her initial sorting and cataloguing of the ceramic building material.

The Clay Pipe- Jennifer McNulty

Seven fragments of clay pipe were recovered. Five fragments were unidentifiable stems and two were identifiable bowl fragments. The Freeschool Lane, Leicester typology (Higgins, 2009) was used to date these bowls to the 17th and 18th centuries. The dates of these clay pipes is supported by the pottery assemblage, which is largely post-medieval in date.

Table 6: The clay pipe assemblage by context, context type, count, weight (g), bowl or stem and comments

Context	Context Type	Count	Weight (g)	Bowl/Stem	Comments
45	backfill	1	3	stem	
97	secondary backfill of robbing	2	16	1 bowl w/ spur, 1 stem	d.1670-1690 (Higgins, 2009, 266, fig. 39.13)
109	cleaning layer above tile surface	1	9	bowl	d.1720-1780 (Higgins, 2009, 266, fig. 39.16)
115	cleaning layer above rubble	1	1	stem	
146	fill of planting trench	1	2	stem	
197	fill of planting trench	1	1	stem	
TOTAL		**7**	**32**		

The Small Finds – Heidi Addison

Copper alloy
Sf1 (36) layer cut by post-medieval planting trench. A thin (0.2mm), torn, copper alloy sheet fragment with concave profile (50mm x 40mm); possibly from a vessel.

Sf6 (35) Modern. Figure 58. A ?plain copper alloy button, circular (diameter 31mm) with a flat front surface (thickness 1mm) and a broken shank, which protrudes from a convex mound on the back. Similar buttons called '*Tombac'* or '*Dandy*' buttons are of an 18th century date

(Fowler 2010). Three sherds of post-medieval/modern pottery were also recovered from the context.

Figure 59: Front and back of copper alloy button (Sf6)

Sf12 (71) Modern topsoil. *Figure 59*. A copper alloy bar-mount or strap fitting with square terminals, edged with fine decorative notches, and each with a rivet hole of 3mm diameter for the attachment to leather or wood (51mm x 8mm). A rectangular central lobe, also notched, extends out from the bar by 1mm on both sides. No comparable examples have been found, though bar-mounts span the period between 1150 and 1450 (Egan and Pritchard 1991, 210).

Sf14 (149) Post-Medieval/Modern Pit. A length of copper alloy wire of circular section (1mm), and 120mm in length, and has a right angled bend half-way along the wire.

Sf15, (161) Not dated by pottery. *Figure 60* An incomplete cast copper alloy 'vesica'-shaped buckle of a plain double oval loop (45mm x 28mm). The outer edge of the frame is angular at the pin rest, although the pin is missing, as is most of the other loop. The central strap bar protrudes slightly at both ends. An identical buckle illustrated in Whitehead's *Buckles 1250-1800* (61, fig.365), is dated 1550-1650.

Sf 17, unstratified *Figure 61*. An incomplete plain cast copper alloy buckle of a single loop D-shape frame (27mm x 31mm) .The buckle has a broad date range from 1250-1650 (Whitehead 1996, 16).

Figure 60: Bar-mount (Sf12)

Figure 61: Double loop oval buckle (Sf 15)

Figure 62: Single loop D-shape frame (Sf 17)

Figure 63: (?)Leaded copper alloy rim (Sf5)

Sf5 (46) Post-medieval/modern Planting trench. A (?) leaded copper alloy rim fragment, probably from a cauldron (diameter 220mm) with an out-curving neck and thickened lip (Figure 62). The internal surface is polished, whilst the underside of the neck has fine horizontal

rilling, and is encrusted with carbonised deposits. The form is similar to a cauldron rim from London in a deposit dated 1350-1400 (Egan 1998, 163, fig. 131.446).

Pewter and lead

The remains of five lead window fragments came fragments were recovered from the post-medieval/modern planting trench fills (50) and (173), including Sf 9, all with a width of 10mm. In addition, 3 amorphous lead fragments were retrieved from contexts (49) and (79), both Sf nos. 8 and 13 from planting trench fills.

Sf16 (205) [190] Modern pit cutting planting trenches. A tapering curved strip of lead alloy (length 95mm) of a plano-convex section, possibly from a handle (Figure 63). The wide end (11mm) of the strip is torn, and tapers to a flattened section (approx.25mm x 7mm), presumably to fasten flush against something, and finishes with a rounded terminal of the same width. The underside is unrefined and ribbed, further suggesting an unseen surface, with a small integral burr at the terminal end, most probably for attachment. No datable finds were recovered from this context.

Figure 64: Lead alloy handle (Sf16)

Worked bone

(149), Pit [151] Post-medieval. Figs.7 and 8. Two fragments of animal bone sheet waste from the manufacture of beads or buttons. The first piece (Figure 64) has parts of four cut-outs of 14mm diameter, and the second (Figure 65) has two cut-outs of 14mm and another of 26mm. These were made by either drilling or punching the upper and lower faces of the panel (3-5mm depth), and leaving a ridge around the inner face. Further examples of bone waste of this type can be found in late medieval and modern deposits (MacGregor 1985, 101). Earlier excavations also retrieved worked bone waste (though not cut-out blanks), and two bone buttons dating to Dissolution contexts (Soden 1995, 126. 127 35.4-5).

Figure 66: Worked animal bone button or bead waste (149)

Figure 67 Worked animal bone button or bead waste (149)

Iron tools

Sf11 (71) Modern topsoil. Figure 66. An iron tool (length 115mm) with a tapering square-sectioned shaft (width 6mm). The shaft flattens to a narrow chisel-like blade of similar width.

Figure 68: Iron chisel-like tool (Sf11)

Iron nails

The remains of 12 handmade carpentry nails with square-sectioned, tapering shafts and, where preserved, flat circular heads were recovered from contexts (37), (45), (46), (68), (97) and

(146), including Sf nos. 2, 3,4 and 10. Only two are complete; Sf3 from (46) with a length of 70mm, and one from (146) with a length of 60mm. The remainder comprise shaft and head fragments. All examples come from modern or undated contexts. Handmade nails had a variety of functions including the securing of roof slates during the medieval and post-medieval periods.

Iron wire

(214) Modern? A broken length of iron wire of circular section (160mm x 2mm). Possibly a bicycle wheel spoke.

The Plaster and Mortar– Heidi Addison

Quantity of material and methodology

An assemblage of wall plaster and mortar weighing a total of 2,244g from the excavation, has been assessed visually, weighed by context, and is summarised in Table 1 below.

Table 7: Assemblage quantified by context, trench and weight

Context	Trench	Weight (g)
68	5	131
78	5	195
87	8	97
97	1 & 2	1385
99	6	122
115	1	101
138	4	22
146	4	38
152	4	43
214	3	110
Total		**2,244**

A small assemblage (2,244g) of wall plaster and mortar was recovered from 10 contexts as listed above in Table 1, with context (97) from trenches 1 and 2 accounting for 1,385g (61%) of the material recovered. The majority of plaster from this and the other contexts is very similar in appearance and composition, most having a roughcast cream paint application , and a fine sandy lime-rich mortar. A few fragments have paint applied with relative finesse, and some have a possible buff coloured paint over the cream ground. A small quantity of fragments identified from contexts (68), (97) and (115), have moulded undersides, consistent with the mortar being impressed over or between laths, while a small number of fragments have stone masonry attached.

The Animal Bone - William Johnson

Introduction

A small assemblage of 51 animal bone fragments was recovered by hand during the excavation of eight contexts, all dated to the post-medieval period (Table 6). Half of the contexts were from planting trenches although these yielded few fragments. The majority of the bone (65%) derived from a single context, the fill of pit [151]. In addition, bulk environmental samples were taken to aid in the recovery of small remains, particularly fish.

Table 8: Contexts containing bone fragments

Context	Cut	Feature	Fragments	%Fragments
31	32	Posthole?	1	1.96
35	23	Planting trench	1	1.96
43		Layer over planting trench	4	7.84
96	98	Disturbed deposit?	1	1.96
97	98	Disturbed deposit?	1	1.96
144	148	Planting trench	2	3.92
146	148	Planting trench	8	15.69
149	151	Pit	33	64.71
TOTAL			51	100

The list of samples containing faunal remains is listed below in Table 7. These remains will be dealt with separately from the hand collected assemblage.

Materials and methods

The fragments were identified through comparison to reference material held at the University of Leicester. Condition was scored using Harland *et al.*'s (2003) scale. Age at death of the foetal calf bones was calculated using the regression equations presented in Prummel (1989). Ageing by fusion was carried out using data presented in Reitz and Wing (2008: 72). The methodology for the processing and sorting of samples can be found in the report on the charred plant remains.

Results

An average preservation score was calculated for each context by assigning a numerical value to each preservation category: 1 being 'excellent', the best preserved, through to 4 being 'poor', the worst. Each bone fragment was assigned one of these values and the average fragment score was calculated by context with lower values representative of better surface preservation (Table 7).

No notable differences were identified in the preservation between the contexts, all having scores ranging between 2, 'good' and 3, 'fair' apart from context (144) with 3.5. The small numbers of fragments prohibited further investigation of preservation differences.

Table 9: Average preservation scores by context.

Context	Fragments	Average preservation
31	1	3
35	1	3
43	4	2.25
96	1	2
97	1	2
144	2	3.5
146	8	2.62
149	33	2.67

Fragmentation was relatively high with only two complete elements being present. Reassembly of some joining fragments reduced the assemblage from 51 fragments to 42 individual specimens. From here on this report will refer to this number of specimens.

Just over half of the specimens (57%) were able to be identified to element, 92% of which could further be identified to taxon.

Of the identified assemblage cattle was the predominant taxa, accounting for 54.6% of elements. Amongst these remains was a particularly high representation of metapodials and carpal/tarsals which combined accounted for 53% of the cattle assemblage. Other elements included long bones and skull fragments.

Of particular note were a femur, metacarpal and frontal fragment, deriving from layer (43) and likely associated with a single individual. None of the elements were fused and the bone texture was spongy. Measurements of the metacarpal and femur returned an age from conception of approximately 240 days, meaning the remains belonged to a perinatal calf.

Sheep/goat was the next most common comprising 22.7% of the identified assemblage. Other taxa were represented only by incidental finds and included a dog vertebrae and a metacarpal (13.6%) and a single equid humerus and cat radius (4.6% each) all deriving from the same context (149).

In addition to the ageing of the foetal calf from (43), fusion data was collected for nine further elements and used to calculate age ranges (Table 8). These were unable to give very precise ranges although they do confirm cattle from a variety of ages were present at the site.

Table 10: Fusion data

Context	Cut	Element	Taxon	Proximal fusion	Distal fusion	Age in months
43		Metacarpal	Cattle		unfused	Perinatal
43		Femur	Cattle	Unfused	unfused	Perinatal
144	148	Tibia	Sheep/goat	Unfused		<42
146	148	Metatarsal	Cattle		fused	>24
146	148	Metatarsal	Cattle		fused	>24
149	151	Calcaneum	Cattle		unfused	<42
149	151	Metatarsal	Cattle		fused	>24
149	151	Tibia	Cattle	Unfused		<48
149	151	Tibia	Sheep/goat		unfused	<42
149	151	Femur	Cattle	unfused	unfused	<42
149	151	Radius	Cat	Fused		

Six elements showed signs of butchery, all belonging to cattle. Two metacarpals from a layer over a planting trench (43) had been butchered. One had multiple angled chop marks across the posterior surface, appearing to cross over each other although subsequent surface damage to the bone partially obscured them. The other metacarpal belonged to the foetal remains and bore a single small cut mark on the lateral surface about a quarter of the way along the shaft from the proximal end (Figure 67).

Figure 69: Cut mark on foetal calf metacarpal

A pair of cattle metatarsals, one from a planting trench (146), the other a pit fill (149) had fine cut marks. The former had a single mark on the anterior surface, just above the distal condyle while the latter had multiple closely spaced cut marks across the posterior surface also positioned above the condyle. These butchered metapodials probably represent the skinning of the carcasses as the skin lies very close to the metapodials and it is likely the marks were made during its removal.

In addition to the metapodials a mandible fragment from (144) had two chops into its base approximately below the M3 socket and a sacral vertebra fragment had a chop through the articulation point between S1 and S2 with an additional deep chop into its base and chop through the body, near to the mid-line. These deep chops were likely the result of disarticulation, the chops through the sacrum centre almost certainly the result of splitting the carcass.

Gnawing was identified on two specimens (4.8%) and in both instances was characteristic of canine destruction. Seven fragments of the same cattle metatarsal from (146) had been singed and an indeterminate fragment from (97) burned.

Pathologies were noted on three specimens, a sheep/goat tibia and cattle mandible from (144) and dog cervical vertebra from (149). In all cases the pathologies were characteristic of periostitis, evidenced by plaques of new bone growth although in all instances surface erosion and damage to the bones had resulted in only very small traces remaining. Periostitis is a non-specific lesion caused by inflammation of the membrane around the bone, often as a result of localised trauma or infection.

Bone from heavy residues

Seven samples contained fragments of bone, four of which allowed identification to taxon (Table 9).

Of particular importance were the fish remains which were recovered from four samples (see Table 10). Several vertebrae could be identified to family including remains from Gadidae (codfish) and Salmonidae (salmon/trout). Two vertebrae from context (136) could be identified to species, both belonging to *Anguilla anguilla* (European eel). In addition indeterminate bones from the skull were also present as well as further indeterminate vertebrae. The Gadidae vertebra fragment from (136) had a possible angled lateral chop through the body.

Table 11: Samples containing bone fragments. (Abundancy: +=1-10, ++=10-50)
Anguilliformes (eels)

Sample	Context	Feature	Bone abundancy	Identifiable fragments	Elements present
3	50	Planting trench	+	0	
4	103	Planting trench	++	0	
7	136	Garden soil	+	3	Fish (see table 5)
8	156	Garden soil	+	1	Fish (see table 5)
9	149	Pit	++	5	Sheep/goat tarsal, Rabbit metacarpal, cattle molar, frog/toad pelvis, fish (see table 5)
10	146	Planting trench	+	1	Corvid coracoid
11	159	Garden soill	+	0	

Table 12: Fish remains from environmental samples

Sample	Context	Feature	Heavy residue >4mm	Heavy residue <4mm
7	136	Garden soil	Gadidae vertebra fragment, *Anguilla anguilla* vertebra, indeterminate skull fragments and vertebrae	*Anguilla anguilla* vertebra, indeterminate articular and vertebra
8	156	Garden soil	Salmonidae vertebra	
9	149	Pit	Indeterminate vertebra	Indeterminate posttemporal and tooth bearing bone fragment
11	159	Garden soil	Indeterminate skull and vertebra fragments	Indeterminate vertebra

Discussion

Due to later disturbances at the site and resulting intrusion it is difficult to link the animal remains to any specific practices. The remains from the contexts associated with the planting trenches; (35), (43), (144), (146), are highly likely to have been redeposited, incorporated within the soil fills at the time they were dug but dating to earlier activity at the site.

Similarly the bone from the two contexts from [98]; (96), (97), are also likely to have been redeposited as this feature is believed to have been disturbed by previous excavations.

The bones from the fill of pit [151]; (149), however, are more likely to be undisturbed, an interpretation supported by their much higher concentration within the feature. These bones are likely to represent general waste from a variety of sources as included alongside butchered cattle and sheep/goat bones were dog, cat and equid remains.

The high proportion of cattle metapodials and carpals/tarsals, combined with the frequent evidence for their butchery, particularly the presence of fine cut marks around the distal ends, suggests that skinning of the animals for their hides had taken place at some time. This is further supported by the butchery to a cattle mandible.

The presence of a cut mark on the foetal, most likely stillborn, calf metacarpal from (43) is of particular note. The skin of very young, newborn and foetal calves was traditionally used in the production of vellum, high quality parchment (Thomson 2011: 7). Whilst the assemblage is too small and scattered to provide any definite conclusions it does seem likely that skinning or hide treatment was happening at or near the site.

The identified fish vertebrae belonged to families of saltwater fish (Gadidae and Salmonidae). Such fish may have arrived at the site preserved through methods such as smoking, drying or salting. The presence of a monastic fishpond would have meant fresh fish would have been available at the site in addition to those brought in. The eel remains may have derived from either the yellow eel (young freshwater life stage) or silver eel (older saltwater life stage).

Bones of the head were present including the articular and post-temporal, however, species could not be determined. The presence of such bones is indicative of the processing of whole specimens at the site most likely relates to freshwater fish caught from the local area or fishponds.

Conclusion

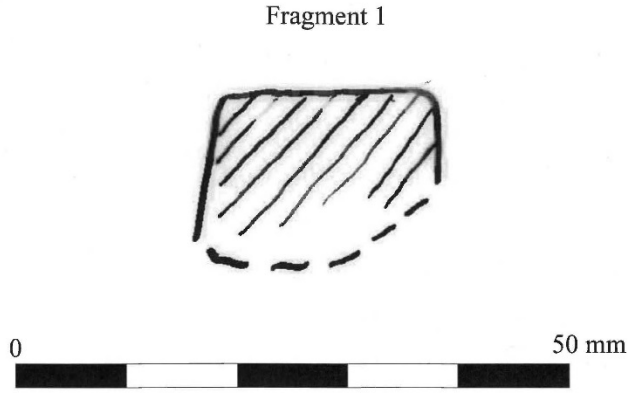
Overall the bone assemblage offers limited evidence of past practices at the site. The high level of disturbance and later activity at the site means it is practically impossible to link remains to particular activities or phases and the small size of the assemblage limits its interpretive potential. Despite these setbacks however, the remains do seem to indicate that the processing of hides, possibly for parchment production, had taken place at or in the vicinity of the site and that fish formed a notable component of the past diets.

Moulded Stone – Anthony Gnanaratnam

Introduction

The excavation produced a small quantity of moulded stonework. These were all cut in a light grey, fine-grained sandstone, which has not been identified. They all retained traces of whitewash, and in one case this hints at re-use.

Catalogue

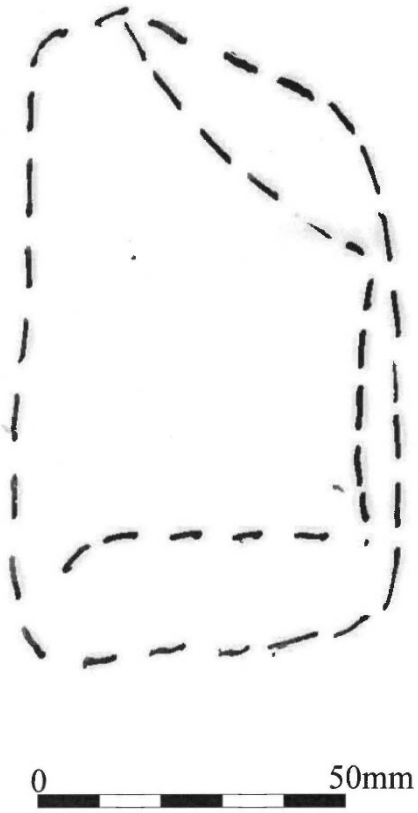


1 – Fragment of a probably frontal fillet. Probably from a mullion or similar. This measured 22mm wide. Has thick whitewash on its exterior surface. There were no visible toolmarks.

2 – Fragment with a shallow hollow moulding. This appears curved in only one axis. Patch of whitewash on the hollow. There were no visible toolmarks.

3 – Two adjoining fillets, a quirk. Joining a hollow moulding on one side, the other is broken off, but rises sharply. Has thick whitewash n the exterior surface. There were no visible toolmarks.

Fragment 4



4 – Fragment with three shallow hollow mouldings, two of which seem intended to converge although the junction is broken off. This is likely to be a fragment of cusping. Whitewash survives on the hollows. There were no visible toolmarks.

Fragment 5

5 – Fragment with a roll moulding. The fragment is 68mm thick and could conceivably come from a decorative panel rather than being strictly architectural. Traces of whitewash survive. There were no visible toolmarks.
6 – Fragment of probable mullion. This comprised a hollow chamfer and quirk, flanking an ogee and quirk. The moulding is broken at this point but a frontal roll is likely. Patches of thick whitewash survive. There were no visible toolmarks. This matches the plinth on fragment 8, a sill, and is thus more probably a mullion rather than vault rib fragment. Too little survives to display any glazing rebate.

7 – Fragment of ogee moulding likely to have come from a 6 type. Thick whitewash survives on the exterior surface. There were no visible toolmarks.
8 – Fragment of probable window cill, or less likely a transom. This comprised a plain chamfer with the plinth for a mullion. Although incomplete, this matches the profile of fragment 6. Although the chamfer is smooth with no visible toolmarks, the other faces have course tooling 20mm wide. Patches of whitewash survives on the exterior faces and also on a roughly tooled and presumably internal face. The paint and tooling would suggest a phase of re-use.**Discussion**

It is possible that fragments 1, 2, 3 and 7 could derive from the moulding represented by fragment 6. Fragment 6 is an elaborate and less common form of moulding. It occurs at Beverley Minster c.1420, terminating in a roll and fillet (Harvey 1978, 246) and a similar form is seen at York Minster c.1430, terminating in a roll (Harvey 1978, 262). Were the piece to terminate in a roll and fillet, this may be the source of fragment 1. A later date would be consistent with the late fourteenth century date for the foundation of the monastery (Soden 1995, 5). Fragments 6 and 8, together with 1, 2, 3 and 7, hint at the destruction of a single elaborate window. However, they could derive from as few as two original blocks, and so may have been dumped some distance from their original location. Fragment 5 could derive from a panel although this is far from certain although panelling from a probable tomb was recovered during earlier work on site (Soden 1995. 122). Again, given the size of the fragment, it could easily have moved some considerable distance from its original location.

The Worked Flint – Lynden P. Cooper

Introduction
A single worked flint was recovered from context (138), and is described below.

Description
A small bladelet core using a semi-translucent, grey brown flint raw material with smooth cortex (1-2mm thick). The final suite of bladelets were removed from one side and the last two removals left hinge scars probably precluding further reduction. The reverse of the core shows evidence for previous removals from an opposed platform. This platform was removed prior to the final suite of blade removal.

Dating
It is certainly of Mesolithic technology and the small size of the bladelets would suggest a Later Mesolithic reduction scheme.

Industrial Residues – Heidi Addison

Introduction and Methodology

The evaluation produced a total of 421g of industrial material from three contexts listed below. The assemblage was subject to visual identification following national guidelines (Historic England 2015), and detailed in Table 1.

Results

Table 13: Quantified record of material by context.

Context	Trench	Weight (g)	Description
13	7	338	Concretions of vitrified clay and iron fayalite. Vesicular with some fuel ash glazing. Probably hearth lining.
		61	3 fragments of coal; 1 with iron oxide staining.
97	1 / 2	3	Vitrified and vesicular clay with iron fayalite slagging. Probably hearth lining.
207	9	19	Vitrified and vesicular clay with iron fayalite slagging. Probably hearth lining.
Total		**421**	

Overview and Discussion

The assemblage provides small evidence for iron smithing, comprising a few fragments of vitrified clay with iron fayalite slagging from three contexts (13), (97) and (207). The material from (13) and (97) is dated by the pottery, with a date range from the post-medieval to the modern period. There were no datatable finds recovered from (207), but it is overlaying the floor of a later post-medieval or modern building.

The Charred Plant Remains - Adam Santer

Introduction

During an archaeological evaluation and watching brief at Charterhouse, Coventry, twelve samples (numbered 1-12) were taken for the analysis of charred plant remains. The samples were taken from garden features and soils. Three of the samples were dated to the medieval period and four samples were dated to the post-medieval period. The results of the environmental analysis are presented here, together with a discussion of what this can potentially tell us about diet, crop husbandry practice and environment at the site.

Methodology

The samples largely consisted of mixtures of mid to dark red clayey sand and were processed in a York tank using a 0.5mm mesh with flotation into a 0.3mm sieve. The flotation fractions (flots) were sorted for plant remains and other artefacts under an x10-40 stereo microscope. The residues were air dried and the fractions over 4mm were sorted in their entirety whilst the fractions under 4mm were only scanned for remains. Plant remains were identified by

comparison to modern reference material available at ULAS and their names follow Stace (1991).

Results

Seven of the samples (1, 3, 4, 6, 7, 9 and 11) contained identifiable charred plant remains. These were all of very low densities; the highest density being found in sample 4 which contained 0.56 items per litre of soil. The majority of the specimens were too poorly preserved and fragmentary to be identified to species.

Cereal grains

Singular indeterminate cereal grains were found in samples 1 and 6. An oat (*Avena* sp.) grain was found in sample 4 but due to the lack of a lemma base it was not possible to determine whether or not the oat was from a wild or cultivated type. A grain of free threshing wheat (*Triticum* sp.) was found in sample 7, and singular barley (*Hordeum vulgare* L.) and rye (*Secale cereale* L.) grains were found in sample 9.

Cultivars and wild seeds

Vetch (*Vicia* spp.) seeds were found in samples 3 and 4 and large grass seeds (Poaceae) in samples 4 and 11 these are common arable weeds. A pea/vetch (Pisum/Vicia) as well as a wild cabbage (*Brassica* sp.) seed were found in sample 9, these may represent cultivars. A charred bulb was present in sample 10 but this could not be identified to species. This specimen may relate to the post-medieval nursery.

Table 14: The charred plant remains found in the samples

Sample	**1**	**3**	**4**	**6**	**7**	**9**	**11**	
Context	**17**	**50**	**103**	**119**	**136**	**149**	**159**	
Cut	**N/A**	**52**	**102**	**N/A**	**N/A**	**151**	**N/A**	
Feature type	**Possible occupation layer**	**Planter trench**	**Pit**	**Demolition deposit under structure 118**	**Garden**	**Pit**	**Garden border**	
Date	**Post-Medieval**	**Post-Medieval**	**Post-Medieval**	***Medieval**	**14th-16th C.**	**Post-Medieval**	**14th-16th C.**	
Grain								
Avena sp.			1					Oat
Hordeum vulgare L.						1		Barley
Secale cereale L.						1		Rye
Triticum sp. Free threshing					1			Free threshing wheat
Indeterminate cereal	1			1				Indeterminate cereal
Seeds								
Brassica sp.						1		Wild cabbage
Poaceae (large)			3				1	Large grass
Pisum/vicia sp.						1		Pea/Vetch
Vicia sp.		1	1					Vetch
Total	**1**	**1**	**5**	**1**	**1**	**4**	**1**	
Sample part	**3 of 4**	**3 of 4**	**1 of 1**	**1 of 2**	**4 of 4**	**3 of 4**	**1 of 4**	
Soil volume (L)	**6**	**9**	**9**	**9**	**8**	**9**	**9**	
Items per litre	**0.17**	**0.11**	**0.56**	**0.11**	**0.13**	**0.44**	**0.11**	

Note on charcoal

With the exception of sample 10; little charcoal was found in the majority of the samples and what was found was mostly poorly preserved and fragmentary. Sample 10 contained a large piece of charcoal (8.16g) containing heartwood and sapwood. The wood had clearly been cut from a log before it was burnt as. It had relatively flat, smooth and even surfaces on the transverse section. The sample also contained some charred root and small branch woods.

Conclusion and statement of potential

The few specimens of charred plant remains that were present in the samples likely represent residual scatters of waste from food preparation and consumption which had become burnt on hearths. The ashes from the hearths would have formed a general scatter across the site

collecting in open features and trampled into soil deposits. Due to the small sample size and lack of plant remains found in the samples it was not possible to learn a great deal about land use or environment at the site over time. However, if further work is to be carried out then a suitable sampling strategy should be implemented.

Pollen Remains: Presence/Absence Assessment - Suzi Richer

Summary

Three subsamples were assessed for the preservation of pollen and non-pollen palynomorphs from three sub-samples from Charter House, Coventry, a Carthusian medieval monastery and post-medieval plant nursery. Pollen abundance was very low and preservation was very poor–good. Whilst the pollen assemblage was poorly preserved it suggests that crop cultivation took place close to the site in the 15th century, and that soil improvement through the addition of ash and organic matter/dung also took place in the 17th–18th centuries. Further analysis of the sequence is not recommended.

Aim

The aim of the pollen presence/absence assessment was to determine the state of preservation, type, and abundance of pollen and non-pollen palynomorphs (NPPs) recovered from three subsamples from Charter House, Coventry (centred on SP 34517 78186).This information can then be used to assess the importance of the pollen remains and to make recommendations for further work where appropriate.

Methods

Sampling policy

Bulk samples were taken during excavations in 2019 and subsamples for pollen analysis were chosen by Rachel Small (ULAS).

Sample 5 was taken from Trench 6, context 33, which has been interpreted as a 13–15th century garden soil.

Sample 8 was taken from Trench 3, context 156, which has been interpreted as a 15th century garden path next to a border.

Sample 10 was taken from Trench 4, context 146, which has been interpreted as a primary fill of a planter trench that dates from 17–18th century.

All subsamples were cleaned by the author to reduce any chance of contamination before they were submitted to chemical preparations.

Processing and analysis

Three 2ml subsamples were submitted to the laboratories of the Department of Geography & Environment at the University of Aberdeen for chemical preparation. The full methodology is described in Appendix 1.

A GS binocular polarising microscope was used for identification at x400 magnification. The pollen reference manuals by Moore et al (1991) and Beug (2004) were used to aid in pollen identification alongside the author's own reference collection. Nomenclature for pollen follows Beug (2004). Reference photographs and criteria from van Geel et al (2003) were used to aid in the specific identification of NPPs. Types of microscopic charcoal were identified according to Courtney Mustaphi and Pisaric (2014).

Timed scans of the pollen slides were undertaken, and observations were made that related to preservation, abundance and the main pollen types present. This type of assessment was undertaken in a qualitative manner and is designed to be indicative of the major/abundant pollen types that are likely to be recorded during full counted analysis of the slides.

Table 15: Summary of pollen and sediment from Charter House, Coventry, groups in **bold** are dominant in the sample

Trench	Bulk sample	Context	Sediment description	Pollen/spores present	Pollen abundance	Pollen preservation	Observed taxa
3	8	156	Mid-orange brown sand.	Yes	Low.	Poor.	Trees and shrubs: *Corylus*, *Pinus sylvestris* (faded and pitted). Herbs: Cerealia-type (folded), *Centaurea cyanus* (folded), *Cerastium*-type, *Crepis*-type, Urticaceae, Other:, **Microcharcoal**. Algal spore. Sphagnum,
4	10	146	Dark brown sands.	Yes	Very low.	Poor.	Herbs: *Crepis*-type (faded), Other:, **Microcharcoal**, microcharcoal from grasses, Unidentified (folded), *Glomus sp.*, *Sporormiella*,
6	5	33	Mid-reddish brown sandy silt.	Yes	Extremely low.	Poor.	Trees and shrubs: *Alnus* Herbs: *Centaurea cyanus*, *Crepis*-type (faded). Other:, **Microcharcoal**, *Polypodium*

Results

Pollen results

The results of the pollen and non-pollen palynomorph assessment are summarised in Table 12.

Discussion

Preservation, abundance and taphonomy.

Concentration of pollen in all the samples was low–extremely low with only three pollen grains being observed from sample 5 and one pollen grain in sample 10. Preservation was generally poor across all the subsamples, with many grains being folded in sample 8, which is indicative of post-depositional compaction (Delcourt and Delcourt 1980). This is consistent with the interpretation that this sample was from a garden path, which by its nature would have been more trampled than garden soils. This compaction may also account for the preservation of pollen in sample 8 in that the compaction would have protected the pollen from movement through the profile and it will have helped to exclude oxygen. The corrosion (fading and pitting) seen on the pine pollen grain in this sample is suggestive of biochemical oxidation related to fungal and bacterial activity (Delcourt and Delcourt 1980) potentially suggesting that this grain had been sitting around on the surface for some time before becoming incorporated into the sediments.

Vegetation history and human activity

Microcharcoal was present in all samples suggesting that burning or dumping of burnt material was occurring at the site. The identifiable microcharcoal present in sample 10 was indicative of grass/deciduous leaves being burnt, the microcharcoal was a type that is a "component of white ash that is readily dispersed following a fire" (Courtney Mustapi and Pisaric 2014, 750). Other non-characteristic types of microcharcoal were abundant in all samples.

Sample 8

Whilst sample 8 exhibited the same low concentration of pollen and generally poor preservation, it contained the highest number of pollen types. Tree pollen from both hazel (*Corylus*) and pine (*Pinus sylvestris*) were present, alongside various herbs. The herbaceous pollen grains were representative of cultivation and disturbed ground. Cerealia-type suggests that cereals were growing close-by, the presence of cornflower (*Crepis*-type) pollen also supports this interpretation, as it is a known weed in cereals (Kandeler and Ulrich 2009).

The presence of sphagnum and algal spores suggest that damper areas were also present in the area.

Sample 10

Only one pollen grain was observed here: dandelion (*Crepis*-type, *Taraxacum* is included within the *Crepis*-type group). This pollen type is extremely tough and is likely to have survived whilst many other taxa would have been lost.

This sample also included two non-pollen palynomorphs, *Glomus* sp. and *Sporomiella*. *Glomus* is a genus of mycrohizzal fungi that forms a symbiotic relationship with plant roots. It has a palaeoecological association with erosion, but only within certain contexts, e.g. lacustrine (Kołaczek et al 2013). In this context it is likely to have been associated with plant roots (not erosion), which may be considerably younger than the sediments, but it is consistent with an

interpretation of plants having grown in this area. *Sporormiella* is a fungus associated with herbivore dung or rotting organic matter, whilst it can be interpreted to suggest the presence of animals it could also indicate that organic matter/dung had been added to the soils, potentially as a soil improver. Given that this sample also contained ash, it is possible that material was being added to the soil to improve it for cultivation.

Sample 5

The extremely low pollen and spore counts in this sample makes it difficult to make any interpretation about this sample.

Recommendations

Pollen

Due to the poor preservation and concentration of the pollen, no further work is recommended.

Discussion

The work at Charterhouse has revealed numerous insights into the way the site was utilised throughout the different periods of occupation. To be consistent with the previous archaeological excavations from 1968-2017 (Soden 1995 and Soden 2017) these periods have been divided into five broad phases ranging from the pre-monastic to modern periods:

- Pre-monastic (Pre-1381)
- Monastic (1381-1539)
- Dissolution (1539-c.1640)
- Later post-medieval (c.1640-c.1900)
- Modern (1900-Present)

Pre-Monastic

There was little evidence of pre-monastic activity on the site with only a single flint from the Mesolithic period recovered from the topsoil in Trench 4. A number of other flint artefacts have been found during the previous excavations, but these were all residual and no features from the Prehistoric period have been identified on the site. No Pre-monastic pottery was recovered from the work and only a few abraded sherds of earlier medieval pottery have ever been found on the site. These are thought to relate to a manuring scatter by the farm that occupied the site prior to the founding of the monastery in 1381 (Soden, 1995, p84).

The largest assemblage of artefacts was of medieval CBM which reflects the number of buildings on the site during this time. Some of these building materials are earlier than the monastery and may have been brought to the site for its construction. Several tiles date to the mid to late 13th century and have been potentially re-used. The re-use of materials appears to be common on the site with walls being made from reused tiles, garden features being edged with them and re-used floor tiles being found within structures.

Monastic

Cell Construction

The style of construction of the cell walls varied around the eastern, southern and western sides of the cloister. The walls on the eastern side of the cloister were found to have similar widths (0.9-0.95m) and styles of construction. In this region a thick layer of smaller roughly worked cobbles formed the majority of the footings with the edges being defined by slightly larger outer blocks. This style of construction is different to the examples seen in Trenches 5 and 6 where the walls measured around 0.60m thick. These walls were composed of much larger outer blocks surrounding a thin rubble core which was packed with clay. The variations in construction may be due to the monastery taking years to build and the different sponsorship received by each cell.

The style of wall construction may have varied around the cloister but many of the internal features within the cells appeared consistent. The excavation of the western end of Trench 5 revealed a sandstone surface (113) with a row of cobbles marking the southern edge and a second row projecting perpendicularly from it. This group of features has the same characteristics as the internal features from the monk's cells which were excavated along the eastern side of the cloister (see Figure 70). The entrance into the cells on the eastern side was via a narrow lobby which typically measured 0.8m wide and contained tile impressed mortar floors, earth floors and stone flagged floors (Soden, 1995 p58-61). The width of stone surface (113) is comparable at 0.7m wide and similarly constructed to the flagged stone floor occupying part of the lobby in Cell C (also known as Cell III). In this cell half of the lobby was tiled and the other half contained a flagged stone floor which is thought to indicate the position of the stairs leading to the upper floor. Stone surface (113) is similarly constructed to the flagged stone floor in this cell and appears to occupy the same position within the building.

The two rows of cobbles to the south of stone surface (113) are similar to the stone sills found to be dividing the rooms in the monk's cells. These sills are formed from a single row of cobbles and an example of this arrangement was found bordering surface (113) and dividing the area to the south. These divisions are consistent with the two ground floor rooms each cell contained. The western room contained a smooth sandstone block (70), whilst the eastern side contained a layer of roughly finished sandstone blocks. Both sides may represent part of flagstone floors or surfaces and the differences in finish may be due to the different functions of each room.

No evidence for posts was found within the rows of cobbles and it is likely they formed sills that supported a horizontal beam onto which wall studs could be fixed. Further evidence for the construction of the monk's cells comes from layer (68) which formed part of the demolition rubble overlaying floor (70). This layer was found to contain several fragments of plaster/mortar with moulded undersides and is consistent with the material being pressed between laths. Laths could be fixed to wall studs or ceiling joists and covered with plaster to create a smooth finish. Other fragments of plaster/mortar with moulded undersides were recovered from the layers overlaying Cells B and C (III and IV) and it seems likely the internal walls (and potentially ceilings) were constructed utilising this technique. Many of the fragments were painted and all were consistently found to be a white or cream colour suggesting the walls were all plainly decorated. This is in opposition to several of the floors and surfaces which were found to use glazed or patterned tiles. Glazed tiles of various colours were regularly found amongst the demolition rubble overlaying the cells and it seems likely that although the walls were plain many of the floors were coloured.

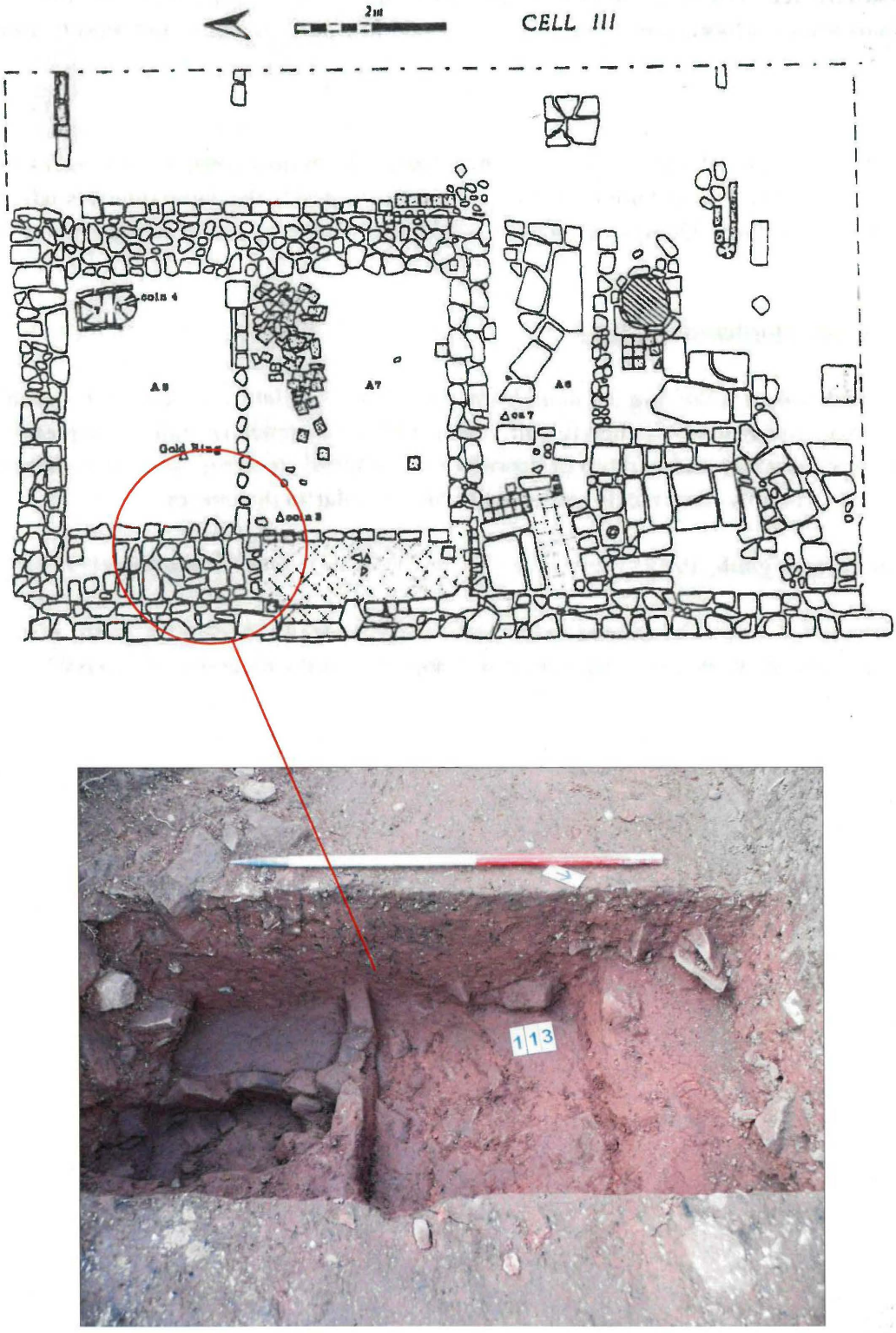


Figure 70: Similarity between Cell D (Cell III) and the features found in the western end of Trench 5 (Drawn plan from Soden 1995).

The internal walls of the monk's cells may have been constructed from timber, but the construction of the external walls might have been different. The footings for these walls were much thicker and more robust than the internal sills and could represent either a complete stone superstructure or a low stone wall with timber superstructure on top. A layer of stone and tile was found mortared together next to the western edge of wall (157) and it is not clear whether this represents demolition rubble from the wall or a separate feature on the inside of the structure. Tiles were utilised as a levelling layer within medieval stone walls at Whitefriars, Coventry (Ratkai and Woodfield, 2005 p291-292) and could have been used in the same way at Charterhouse. Several tiles were recovered with enough mortar attached to indicate their use within a wall and structure (118) in the eastern end of Trench 3 was found to have tiles still mortared in place. A large proportion of nibbed roof tiles were found from the monk's cells and it seems likely they formed the roofs of the structures.

Structure (118)

Structure (118) was located at the end of the monk's garden, close to the proposed boundary between Cells C and D (also known as II and III). The walls to this structure were constructed using tiles that were mortared together similarly to the stones and tiles next to wall (157). These walls were much thinner than the other walls found on the site which could imply the structure was smaller in size. On the outside of the structure was a mortar floor (120) with a glazed tile set into it and a square post pad next to that. The inside of the structure was found to have a tiled surface (54) which was made out of glazed medieval tiles some of which were decorated. The surface appeared to be raised up slightly and made from re-used tiles that didn't perfectly fit together.

A tiled surface made from re-used medieval tiles was found at Greyfriars, Leicester (Morris 2016, p49) and dated to the post-medieval period. This surface was constructed in a similar way and it is possible surface (54) dates to this period. Another comparable surface that was constructed from re-used tiles was found in the monk's cell located immediately to the west of (118) which dates to the monastic period. Cell D (also known as Cell II) contained a small tiled surface located against the north wall which was constructed from a mixture of re-used patterned and non-patterned tiles to produce a raised platform (Soden, 1995, p60). It is not clear whether tiled floor (54) is medieval, but even if it dates to the post-dissolution period it could represent a later addition to structure (118).

Structure (118) was shallower than the other remains found in the trench and this may be due to the ground sloping to the west. The structure is parallel to the other medieval structures and could be contemporary with this activity. There was no clear evidence of a revetment or rear garden wall and it is not clear whether structure (118) is behind the wall or forms part of it. Examples of small stone structures located at the back of monk's gardens have been found at other Charterhouses and these were utilised as latrines (Aston and Coppack. 2002, p81-85). Latrines were found both inside the rear garden wall and set into it with one edge of the structure projecting slightly beyond the boundary. They all share the same characteristics of being built out of much thinner walls and positioned at the rear of the garden. Carthusian latrines are positioned close to the boundary with the neighbouring cell and structure (118) is also found in this location (see Figure 71). Whilst the majority of floors within latrines at Mount Grace were paved with stone, Cell 10 was found to have a tiled floor inside the door (Aston and Coppack. 2002, p79).

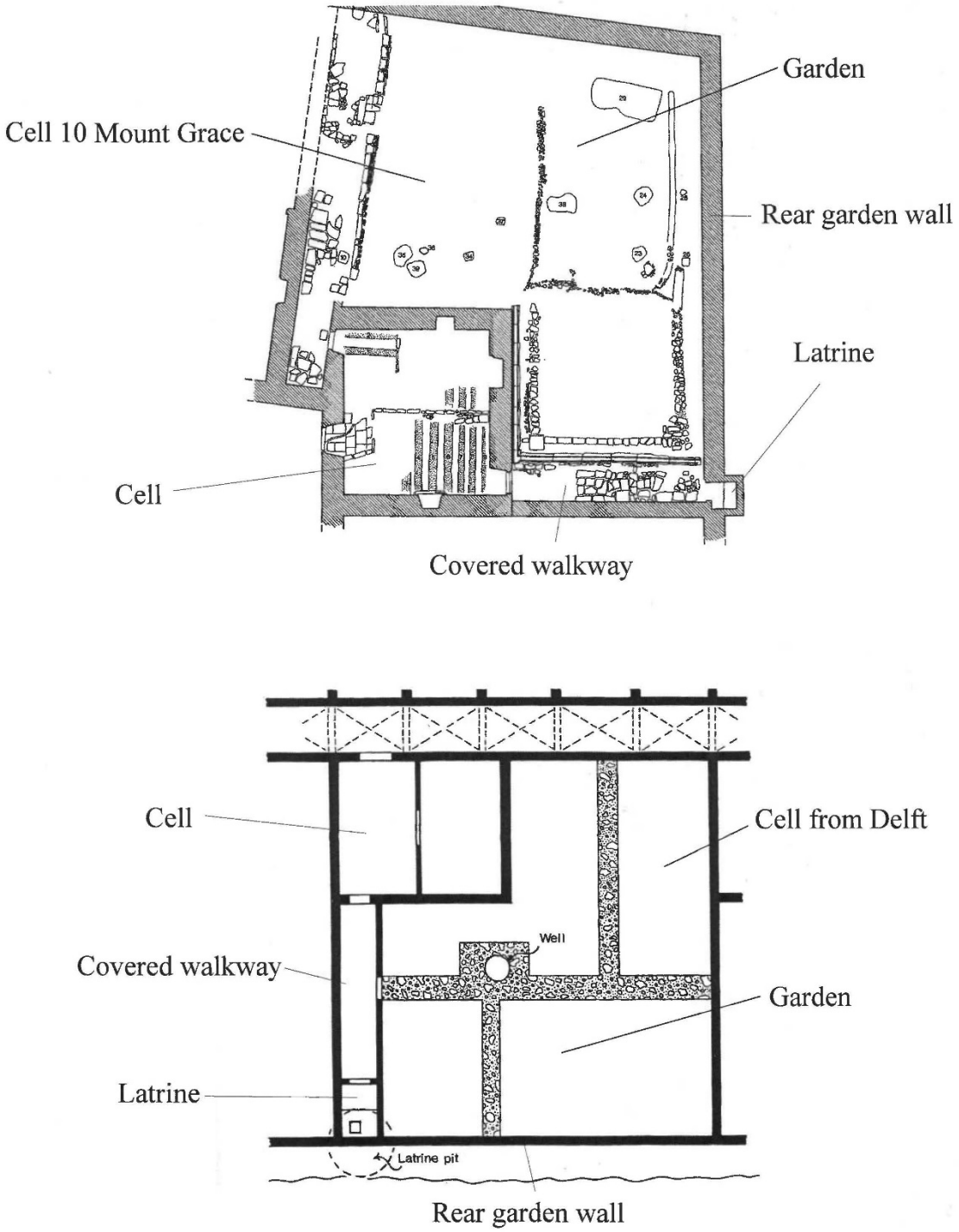


Figure 71: Examples of Carthusian Latrines (Aston and Coppack. 2002, p85-91).

The external mortared floor (120) is likely to be contemporary to structure (118) and the adjacent post pad suggests that the surface was roofed. Covered walkways located along garden boundaries have been found at Mount Grace and Delft (Aston and Coppack. 2002, p84). These connect the latrine to the cell and would have provided the monks with protection from the weather when they are walking to either structure (see Figure 71). Only a small proportion of structure (118) and surface (120) were exposed within the trench and because of this its interpretation is uncertain. The feature could either represent a post-medieval garden structure with a covered external area that was built utilising medieval building material or is a medieval structure such as a latrine with a covered walkway.

Precinct wall

The rear garden wall or Precinct wall was identified in the western side of the cloister (wall (20)) and this was constructed in a similar way to walls (66) and (127) in Trench 5. This wall measured 0.64m wide and was formed from large rectangular sandstone blocks surrounding a smaller rubble core that was packed with orangey yellow clay. The orientation of the western wall was found to be north-west to south east which is slightly different to the cloister. The cloister is orientated north north-west to south south-east and it is possible the gardens along this range increased in length to the north. Non-uniform gardens have been found at other Charterhouses and at Mount Grace length and width would sometimes vary depending on the position of the cell.

The overall plan of Carthusian monasteries was either a rectangle or quadrilateral shape and the orientation of the western wall at Coventry suggests this Charterhouse was quadrilateral. A small section of wall or revetment was exposed on the eastern side of the cloister during the 1980's and thought to represent the rear garden wall. The size of the monk's cells and gardens were then thought to be a uniform 47' deep x 36' wide based on this evidence (Soden, 1995, p61). However when all of the previous archaeological work is merged it becomes apparent that during the 1960's trenching another wall was found 2.8m to the east which could also represent the rear garden wall and the revetment could alternatively be a garden feature (see Figure 72).

A number of features were found in Test Pits 11 and 12 located along the edge of the southern Precinct wall. The earliest from both trenches were filled with similar stone rich deposits and several of them were found to extend beneath the current wall. Feature [130] (131) contained pottery dating 13th-15th century and indicates that this section of the Precinct wall is likely to be a later reconstruction. Wall (20) (in Trenches 6 and 6A) is likely to be the western edge of the Precinct wall and used as the rear garden wall to the western cells. It is likely to date to medieval period and comparisons between it and the southern Precinct wall (exposed in Test Pits 11 and 12) show that they have been built in different styles. These walls represent different phases of activity and although the current southern Precinct wall may have been built on the line of the original wall there appears to be none of the original wall remaining. The only medieval features found in this location are the stone filled features found beneath the wall, although these could also be associated with the Dissolution period and the dismantling of the monastery walls. To the east of Test Pit 12 small trenches were excavated during the 1960's against the southerly Precinct wall which may have found medieval features (see Figure 72).

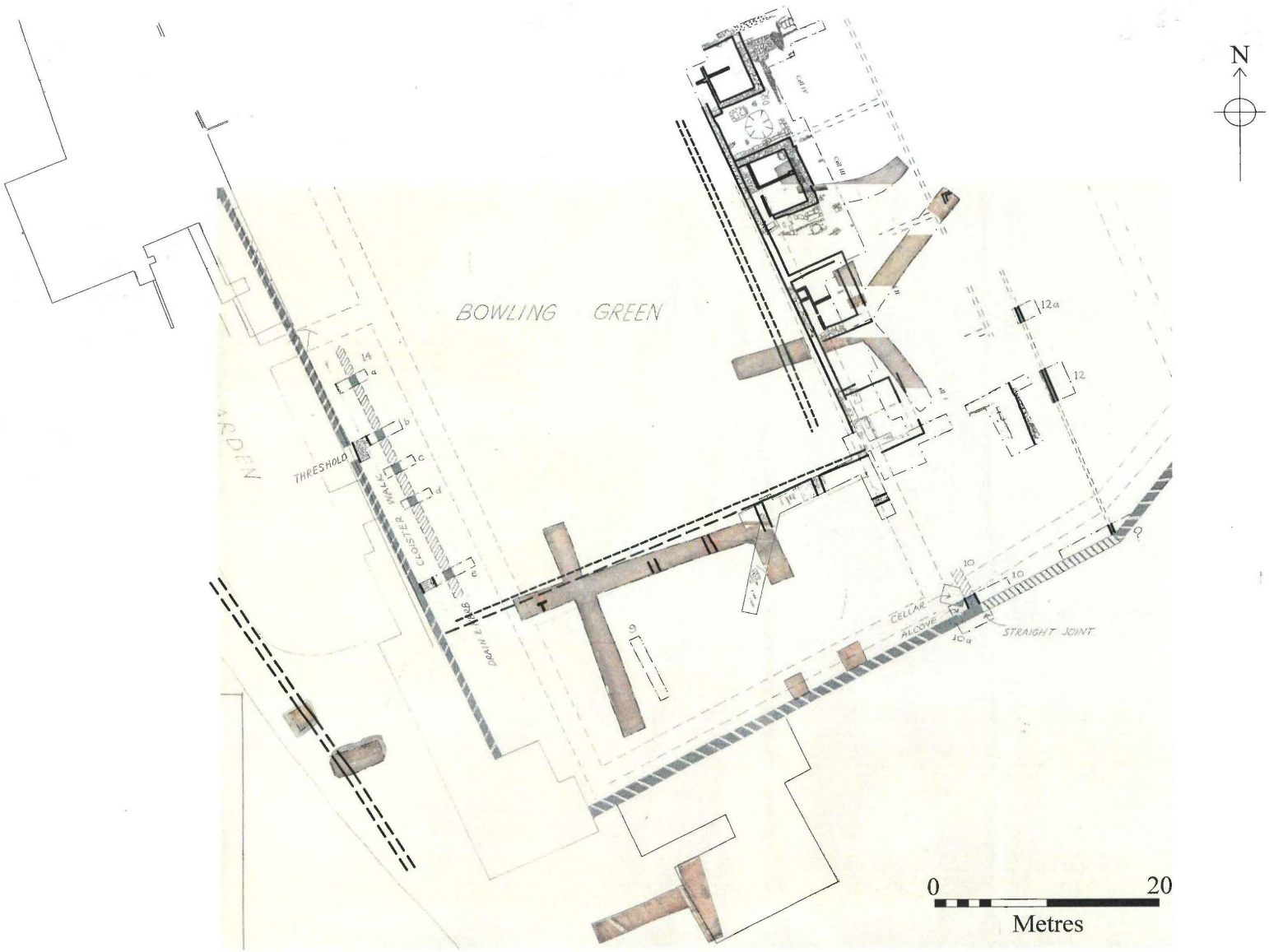


Figure 72: Merged plans of archaeological work undertaken around the Great Cloister from 1968 to 2019.

Arrangement of the cells

The general position of the cell walls were confirmed along the south side of the cloister with north-west to south-east orientated walls (127), (66) and (218) all being positioned close to their predicted locations. The regularity of the spacing continues into the 2017 trenches which further compliments their positioning and indicates the cells along the southern range were similar widths. During the 2017 trenching a wall was found orientated east north-east to west south-west which was interpreted as being the back of a structure. This suggested the easternmost area was the location of the structure and the adjacent area to the west was the garden (Soden. 2017, p5). If the standard cell and garden sequence is followed from this point the area at the western end of Trench 5 should be occupied by a garden, but the evaluation has showed this area to contain a cell.

The deposit found in the western end of the 2017 Trench 2 was thought to be similar to the garden area and potentially representing a second neighbouring garden rather than a structure (Soden. 2017, p7). The layout of Carthusian monasteries differ slightly but the cloisters generally follow the standard practice of having the monk's structures next to the walls that separated them from their neighbours. Two cells sharing the same wall have been found at the Sheen Charterhouse and others have been found joining at the corners in the Hinton and London Charterhouses. Another divergence from the standard layout is Cell 8 at Mount Grace which has a garden that is wrapped around the structure so it is occurring on either sides (Aston and Coppack. 2002, p31-45). All of these variations are accompanied by changes in the layout of the neighbouring cells so that the structures continue to be attached to the neighbouring garden wall. Cells 5 and 6 on the northern and eastern sides of the cloister at Mount Grace both have a garden that is next to each other, but since Cell 5 occupies a corner, this wall is still found to have a structure attached to it as it projects along the eastern range (see Figure 73). Having two neighbouring gardens without a structure attached to the wall at any point is unusual.

The identification of cell and garden space is further complicated by roofed garden rooms being found adjacent to the cells along the eastern range. Some of these structures contained stone walls, tiled floors and other features normally found in a cell (see Figure 74, p107). There are limitations to the trenching technique to understand the layout of the cells and gardens and unless a wider space is opened up or a region can be positively identified (such as the internal cell features found in the western end of Trench 5) distinguishing between the cell and garden areas can be problematic.

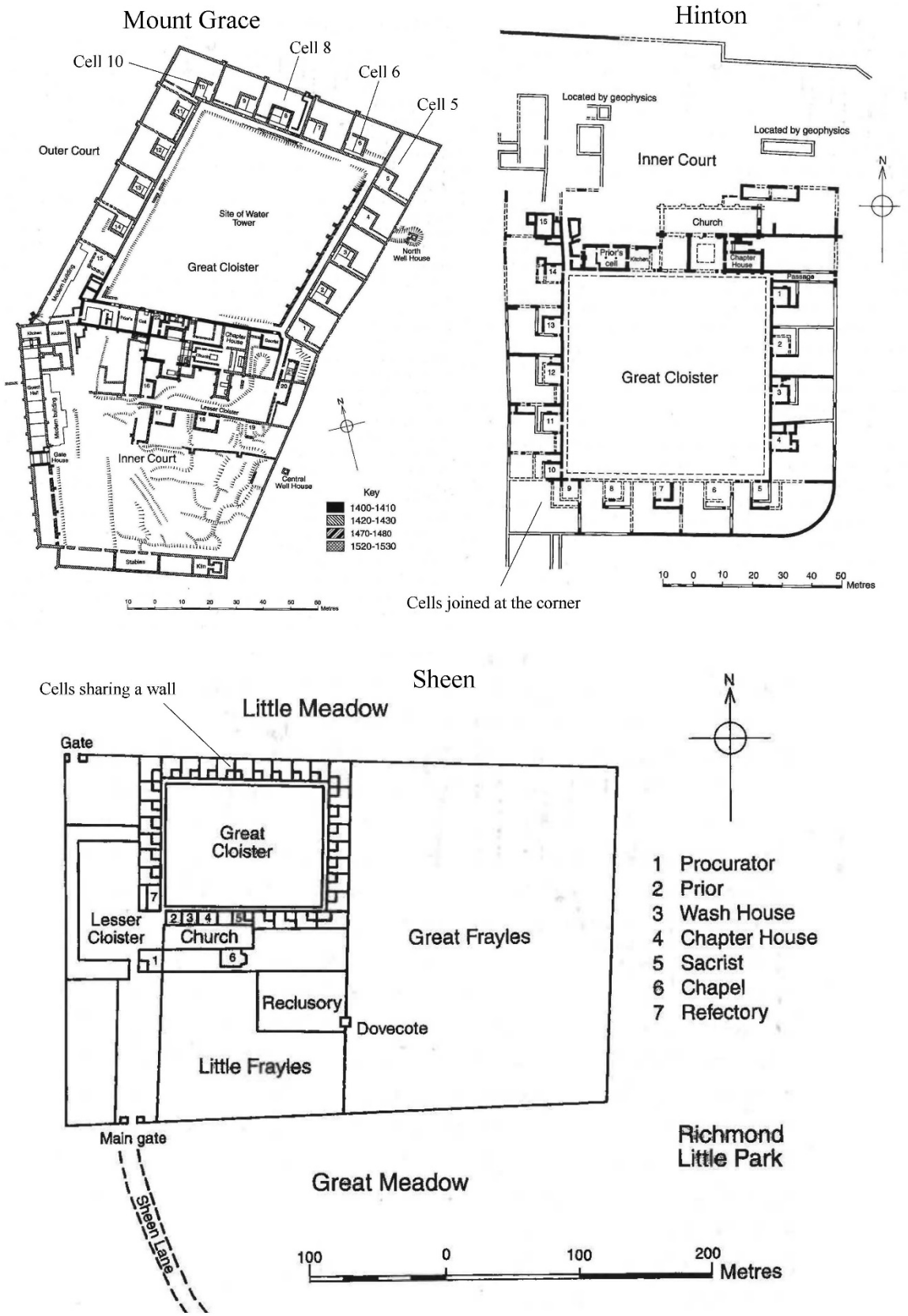


Figure 73: Comparisons of charterhouses (Aston and Coppack 2002).

The identification of cell and garden is hampered by similar features being found in both areas. With a cell being found in the predicted location of a garden there must be a change in the normal sequence along this range. The predicted locations of the cells and gardens were based on the 2017 trenching, but with similar features being found in both areas the identification of the space is not certain. Whilst a wall was found and interpreted as being the rear of a cell it could also be part of a garden structure. No evidence was found for wall (218) in Trench 5A continuing as a garden wall and it could have been truncated or have turned to form the rear of a cell beyond the trench.

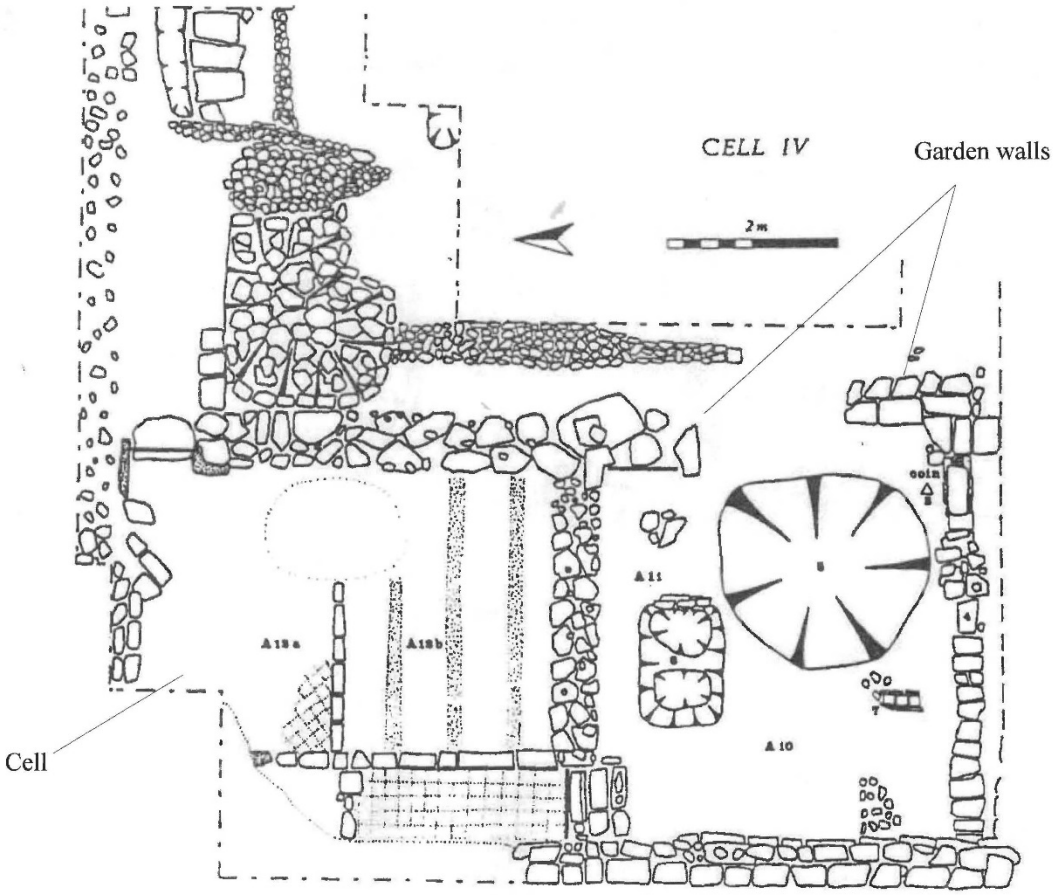


Figure 74: Cell B (also known as Cell IV) showing the walls found next to the cell in the garden space (Soden 1995).

Walls (66) and (127) were similar in their sizes and construction and potentially represent a continuation of the same wall. To the east of wall (66) was wall (218) which was constructed in a very different way and is unlikely to represent the same feature. A slot was excavated through the post-medieval layers found on either side of wall (66) to identify any changes between the two areas. A large proportion of sandstone was found to the west and a relatively clean sand was found to the east. This trend is continued into the 2017 excavation which found one area to contain a relatively large layer of stones and fewer to be found in the other (Soden 2017, p7). It is possible the areas containing the larger proportion of stones represent the cells and the space with less stones represent the gardens. If the sequence of cells and gardens in the eastern end of this range was different the south-eastern corner would have the same arrangement as cells 5 and 6 at Mount Grace (Aston and Coppack. 2002, p31-45).

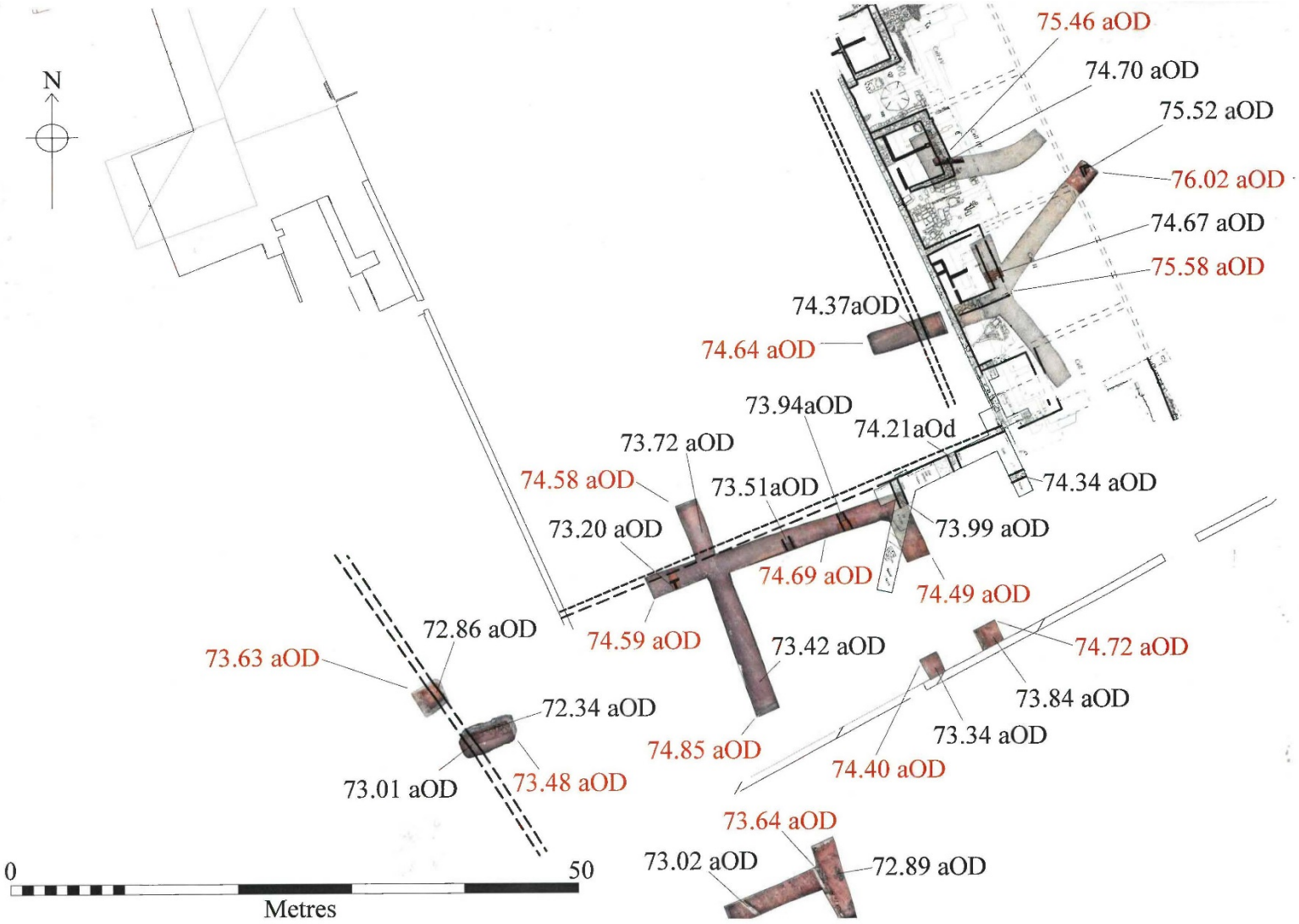


Figure 75: Combined plans of the 1980's, 2017 and 2019 trenches showing the heights of medieval archaeology (or later features if none were found) in black and the current ground heights in red (Soden 1995 and Soden 2017).

Variations in Heights

The archaeological horizon varies across Charterhouse with a change of nearly 3m between the eastern and western sides of the site (see Figure 75). The highest archaeology discovered was the tiled surface (54) in the eastern end of Trench 3 which had a height of 75.52 aOD and the lowest was the medieval garden soil in Trench 6 which had a height of 72.34 aOD. These represent the eastern and westernmost extremities of the recent excavations and demonstrates the changes of topography across the area.

The remains of the pentice walkway on the eastern side of the cloister (in Trench 4) represented the shallowest medieval remains and were found at a depth of 0.27m below the current ground level. The deepest remains were found in the western end of Trench 5 where later post-medieval planting trenches were found at a depth of 0.94m below the current ground level and the monastic remains were at a depth of 1.39m. Trench 5 was found to have the greatest build-up of material and it is likely this was for the purpose of building a flat bowling green. The heights of the medieval remains varied along the southern side of the cloister and the walls found in the eastern end of Soden's Trench 2 were 1m higher than the remains from the monk's cell in the western end of Trench 5.

The Charterhouse site has been constructed on ground sloping from east to west and this is still visible to the east of the cloister. The southern side of the cloister has been greatly altered and levelled for the construction of the bowling green which resulted in the deepest archaeology. The site slopes from east to west and the medieval archaeology encountered during the trenching reflects this (see Figure 76). Wall (20) in Trench 6 is anomalous since it is 0.4-0.7m higher than the adjacent medieval garden soil and rubble spread (99). This wall is likely to represent the rear garden or Precinct wall to the monastery and the comparatively high levels from the wall may indicate the remains to be surviving superstructure.

The eastern and western sides of the cloister are likely to have been terraced across the gradient which would produce relatively horizontal cells across each range. The medieval remains found during the trenching indicates the cells along the eastern side of the cloister were as much as 2-2.5m higher than the western side. Since the southern range follows the gradient it is likely the areas occupied by the cells were each terraced at a different height which gradually decreased to the west. It is unclear whether the gardens retained the natural slope or were terraced to the same height as the cell. Steps are likely to have been built within the pentice walkway at the edges of each terrace to allow access between the different cells. The pentice may also have been built on the terraced ground and stepped following the various changes in height.

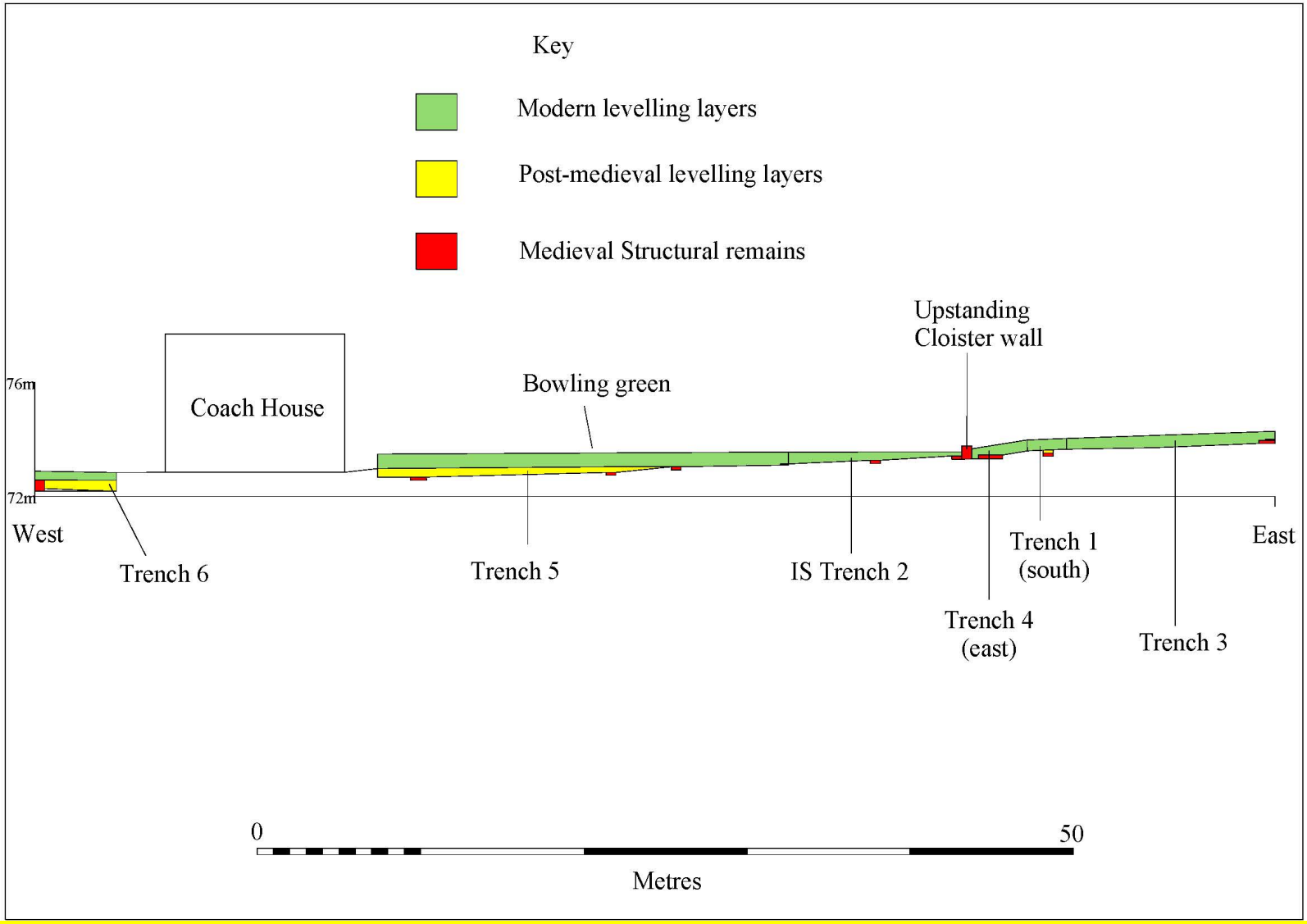


Figure 76: Section showing the varying height of medieval structural remains, post-medieval levelling layers and modern levelling layers from the western to the eastern trenches.

Pentice Walkway

The remains of the pentice were found along the eastern side of the Great Cloister and was marked by a series of stone slabs each measuring more than 0.65m long, by 0.67m wide and 50mm thick. The pentice walkway measured 1.76m wide (internal measurement) which is larger than the Charterhouses at Beuvale, Hinton and London (each measuring 1.22-1.69m) but smaller than Mount Grace and Axholme (1.95-2.5m wide). Excavation on the western side of the Great Cloister during the 1960's show a 'drain and kerb' were found at the position of the pentice along this side. The area has been labelled 'cloister walk' and also shows two lines of stones between the kerb and current western wall (see Figure 72, p104). A threshold was also recorded within the current western wall but the date of all of the remains found within these trenches is unknown.

The only evidence of the pentice superstructure is found at Mount Grace which was initially built out of wood, but then re-built out of stone (Aston and Coppack. 2002, p98). The superstructure of the pentice at Coventry Charterhouse is not clear however the footings appear substantial enough to support a dwarf wall with timber posts. The cloister arcade at Mount Grace was rebuilt in stone several times and included architectural features such as groups of ogee headed lights. A layer of painted architectural fragments were found in the location of the pentice walkway along the south side of the cloister and these also had fragments of ogee headed lights. The materials used in the construction of the pentice at Coventry is not clear and whilst several fragments found on the south side of the cloister are similar to the stone superstructure found at Mount Grace, the fragments may have been moved to this region during dismantling of the monastery. Along the edge of the pentice on the eastern side of the cloister was a series of nibbed tiles and it seems likely this was the roofing material.

Flora and Fauna

The majority of animal bones were recovered from later features and were difficult to interpret due to the extensive disturbance of the site during the later post-medieval period. One exception was the remains of a perinatal calf found in the subsoil (43) in Trench 7, which displayed cut marks indicative of skinning. The skinning of young calves was performed during the production of vellum or high quality parchment. Pottery dating to 1690-1750 was also recovered from this layer, but due to the widespread use of paper during this period it is likely the bones represent a residual medieval find. Although no animal bones relating to parchment production have been previously found, styluses (or parchment prickers) and book reinforcement plates have been recovered (Soden, 1995 p129-130). Finding young calf bones with evidence of skinning on them suggests that vellum production was either occurring on the site or in the vicinity during the medieval period and this reinforces the artefactual evidence indicating the monks were producing literature.

Carthusian monks were not allowed to eat meat but could have a pescatarian diet and the deposits recovered from the monks gardens confirms that fish played a key part of the diet. In the garden of Cell D (also known as Cell II), deposit (156) was found to contain *Salmonidae* vertebrae which is a family of fish that includes salmon, trout, char, freshwater whitefishes and grayling. In addition to these remains oyster shell fragments were found within the same deposit and it seems likely this also formed part of the diet. The neighbouring Cell C (also known as Cell III) was found to contain *Gadidae* vertebrae which is a family of fish that

includes cod, hake, whiting, haddock, pollock and saithe. It was not possible to distinguish the specific type of fish although cod and haddock have been previously identified on the site. Previous excavation have also found remains from sturgeon, plaice and conger eel (Soden, 1995, p79). In addition to this the gardens in Cell C (Cell III) were also found to contain the remains of either yellow eel or silver eel. A large proportion of saltwater fish appears to have been consumed by the monks and with Coventry being positioned in the centre of the country, preservation methods such as smoking, salting and drying are likely to have been employed. A number of fish head fragments recovered from the gardens also suggests that freshwater fish were being prepared and consumed. The food would be brought to the monks and served through a hatch so each person would have no contact and it seems likely food waste would have exited the same way it entered. The occurrence of fish remains within the garden areas could relate to the monks choosing to discard their waste in this way. Fish remains are also a good fertiliser and it seems plausible that they were deliberately adding their food waste to their gardens to improve the quality of the soil.

The pollen was poorly preserved but produced several examples of trees occurring in the surrounding area. Pollen from both the pine and hazel trees were found in the monk's gardens and it is possible the monks were either growing the trees in their own private gardens or were being cultivated nearby, with the nuts forming part of their diet. The other pollen remains are difficult to interpret since they might be deliberately cultivated or they may also be occurring naturally in the surrounding area. Cornflower (*Centaurea cyanus*) for example was widely used in the Middle Ages and first mentioned as having medicinal properties in the 12th century. The plant was widely used for a number of ailments but specifically to treat eye illnesses (https://www.cloverleaffarmherbs.com/cornflower/ accessed 31/05/19). Similarly the other herbs identified during the pollen analysis could be deliberately cultivated and have medicinal properties or be naturally growing in the surrounding area. Whilst several of the plants may have medicinal properties they are also commonly found in fields as weeds and the presence of cereal pollen indicates cereals were being grown nearby. Records show that a farm was located in the vicinity of the church (Soden, 1995, p84) and many of the pollen remains could have originated from the fields associated with this.

The Monastic Gardens

Rows of vertical tiles were found in the monk's gardens dividing the area into different sections and this has been found during previous excavations at Coventry. The garden of Cell D (Cell II) was found to have two rows of tiles that were separated by a 1.45m gap and as the trench continued the southerly row was found to turn to the south. At Mount Grace a number of gardens were found to have rectangular planting beds that were edged with stones and the narrow gaps between them were used as paths (Aston and Coppack, 2002, p89-92). A similar configuration may be occurring in Coventry and in Trench 1 vertical tiles were also found to be edging a layer of flat tiles (110). The layer of flat tiles may be indicating a formal pathway or area of hardstanding in the garden and Cells 8, 9 and 10 at Mount Grace displayed similar pathways (Aston and Coppack, 2002, p89-92). Tiled surface (110) is adjacent to the proposed position of the boundary wall and pathways have been found in similar positions at Mount Grace. None of the boundary walls were found between the neighbouring gardens in the eastern side of the cloister. This continues the trend of the earlier excavation which found that the cell structures were well preserved and the boundary walls had largely disappeared.

A relatively small quantity of pottery was recovered from the Monastic period with the majority of fragments being found in the garden features. The general lack of pottery from the cell structures could be attributed to a number of different factors and since every monk at Coventry applied to give up the monastic life it is possible many of vessels within the cells were taken with them. The plundering of the site is also a possibility and this could account for the lack of finer artefacts (Soden, 1995 p91-92). Fragments of finer vessels (including the rim of a cauldron) were recovered during the excavation but these were frequently found in later contexts and post-medieval truncation of the site may have account for much of the disturbance. It is also possible that some of the structures on the eastern side of the cloister were re-used in the post-medieval period and may have been deliberately cleared of artefacts.

Dissolution

During the Dissolution period the site underwent a period of dismantling and this is evident by the large proportion of stone rubble found in several areas. Rubble spread (99) was a layer of worked stones and tile found in a monastic garden in Trench 6 on the western side of the cloister. This spread was sealed by a layer of clay (17) that contained pottery dating from 1450-1580 within it and 1539-1700 on top of it. A similar trend was seen in Trench 8 which found features containing a large proportion of stone rubble beneath layers of clay. A layer of architectural fragments (87) was found beneath one layer of clay and another stone rich feature contained pottery dating 1550-1650.

These stone rich features are all likely to relate to dismantling of the site which was first undertaken by 'monastic speculators' Richard Andrewes and Leonard Chamberlain (PCPT 2017, 18) in the 1540's. The site was then brought by the Earl of Leicester Robert Dudley in the 1560's who transformed it into a residence to house Elizabeth I's courtiers whilst she was visiting Kenilworth castle. Major building works were undertaken during this time and a second floor was added on the Priors House (https://www.historiccoventry.org.uk/project/charterhouse-priory/ accessed 03/06/19). The stone for this construction is likely to have been re-used from the monastic buildings.

The layers of clay that were overlaying the stone rich features were mostly located in the south-western corner of the site although one layer was found in Trench 2 on the eastern side of the cloister. The topography of the site changes in the south-western corner and the features in this region were all lower than the surrounding area. These layers of clay may have had a dual function since they both flattened the area level with the top of the surviving walls and covered the spreads of building rubble from the dismantling of the monastery. The dating of the clay appears to be relatively early and coincides with the renovation occurring on the site during the 1560's.

A large proportion of mortar flecks were found in the deposits surrounding the monk's cells and it is possible these are the waste from the demolition and re-use of the stone during the Dissolution period. The flecks may have been created by the structures being dismantled and the mortar being chipped off the stones. Clay pipe was found during the cleaning of the demolition rubble from the cells and it is possible some of the structures were not immediately dismantled. The remains may have been visited for stone over many years and some of the structures could have been still standing into the later post-medieval period. Historical accounts of the site appear to corroborate this and structures were described as having 'blocked doorways' by Thomas Pennant in 1782 (Soden 1995, p19). The monk's cells were even

described as being 'low-built' as late as 1870 (Poole 1870, p27) which suggests at least part of the superstructure was visible.

Later Post-Medieval to Modern

The site is dominated by the later post-medieval period when a large proportion of features were dug into the ground. The majority of pottery and small finds date to the later post-medieval period and this is likely to reflect the extensive use of the site during this period. It was during the 1700's that John Whittingham used the estate as a nursery and a large proportion of planting trenches were dug into the site. The planting trenches truncated the clay layers added during the dissolution period and the features beneath them. The features often contained stones and tiles in the base and these may have been deliberately placed to help the drainage. A large proportion of medieval and post-medieval artefacts were found in addition to animal bones displaying cut marks. Due to the large proportion of truncation it is unclear whether these are related to the later post-medieval period or an earlier phase.

The trenches were similar widths but varied in depth and this is likely to relate to the different plants grown in them. The planting trenches were found to be orientated either north-west to south-east or east north-east to west south-west. A map of charterhouse dating to 1849 shows that the cloister was divided into quadrants and narrow lines have been drawn within them which are on the same orientation as the planting trenches. The depiction shows the planting trenches changing orientation between the different areas and this is broadly consistent with the variations found during the trenching. Several differences are apparent when the plans are merged (see Figure 77) and the directions of the planting trenches found during the excavation do not entirely correspond to the early map. The orientation of the planting trenches may be generally the same, the divisions within the cloister seem different and it is possible the area was not divided into quadrants until later. A large proportion of planting trenches were also found to the south of the Precinct wall and this is also not depicted on the 1849 map.

Pit [151] contained a large quantity of animal bones with pottery dating from 1690-1750. This feature was not truncating earlier layers or features and is likely to contain contemporary material. Butchered cattle and sheep/goat bones were found along with charred barley, rye and wild cabbage seeds. These remains are probably represent food waste although the pit was not entirely used for disposing food since the bones from equid, dog and cat were also recovered from the feature.

A series of thick levelling layers and dumps of industrial residue appear to have been taking place in the southern side of the cloister. These layers seem to have largely been occurring during the 20th century and might be deliberate attempts to level the ground prior to the construction of the bowling green. Two rectangular trenches were found on the south side of the cloister which might represent earlier unrecorded archaeological work. In Trench 5 feature [123] had vertical sides with a flat base and was found to truncate the 18th century planting trenches. Monastic wall (127) was not truncated, but appeared to be exposed in the base of the feature. Feature [123] was earlier than the 20th century levelling layers and may represent an unrecorded antiquarian trench. A second rectangular feature [221] was found in Trench 5A and in Trench 3 from the 2017 evaluation (Soden 2017, p9). This also had straight vertical sides and since it was cut through the modern levelling layers, may represent an unrecorded archaeological trench from the 20th century.

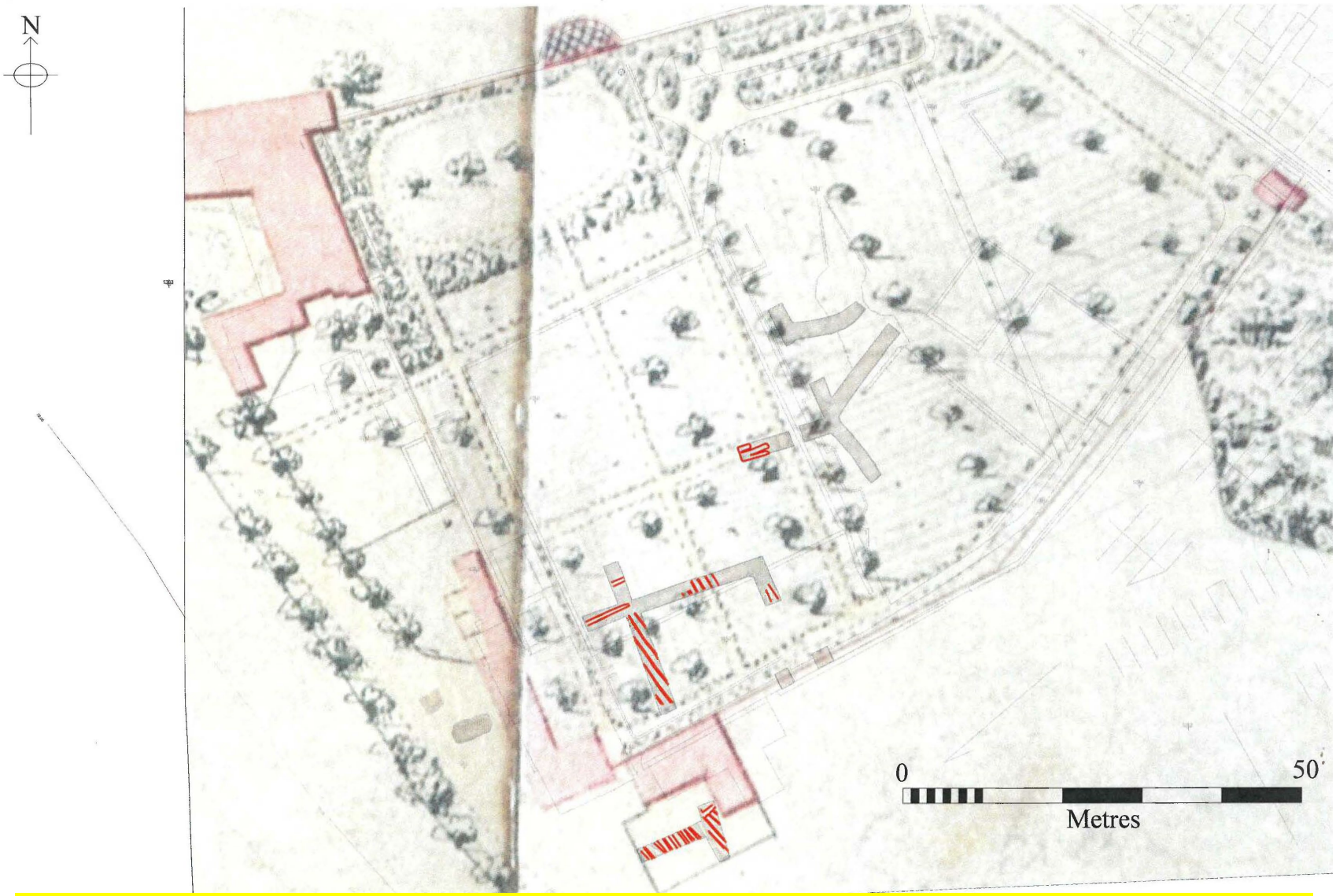


Figure 77: Plan of charterhouse from 1849 merged with the recent archaeological trenches and planting trenches highlighted red.

Trenches 9 and 10 were found to contain building remains which consisted of a brick superstructure built on sandstone blocks. The sandstone blocks were bonded with clay and medieval pottery was found within it. The stones are likely to have originated from the monastery, but have been re-used since they were truncating the 18th century planting trenches. This building is depicted on the 1849 map of charterhouse (see Figure 77) and is shown to be still standing in the 1960's (see Figure 72, p104). No features earlier than the planting trenches were identified in these Trenches.

Conclusion

The Charterhouse site has a rich history and the evaluation has revealed a large proportion of evidence about how the site was used. There appears to be little evidence for any pre-monastic occupation and it possible the site was part of a farm which stood near the monastery (Soden, 1995, 84). Worked flint was found during the trenching (and during previous excavations), but this was a residual find located in a later layer. The monastic period is when the largest amount of structures were built and this is displayed by the large quantity of building material encountered during the trenching.

The building material indicates that many of the cells are likely to have been built out of stone and using tiles as a levelling layer within the walls. The stones appear to have been removed during the dismantling of the site in the Dissolution period and the mortar chipped off in the vicinity of the structures. The cell walls may have been built out of stone but the internal features appear consistent with timber partitions dividing the rooms and lath and plaster covering the walls or ceiling. The rooms appear to be plainly decorated with white or cream coloured walls and a variety of different floor surfaces, some of which were using coloured and decorated glazed tiles.

Tiles appear to have been commonly used for a variety of features such as edging garden features or making paths and appear to have been readily available. One of the tiles was found to be pre-monastic in date which points to the site re-using material from elsewhere during its construction. The re-use of tiles is also evident with tiled floor (54) within structure (118) which is using decorated glazed tiles. It is not clear whether tiled surface is monastic or later, but structure (118) is a similar size and position to a latrine which would be the first to be found on the site.

The gardens appear to be an area where the monks were disposing of their food and evidence of types of fish they ate has been identified. Salt water fish appear to be common which suggests they were receiving preserved fish with a number of remains showing freshwater fish were also eaten. Oyster shell fragments were found within the monk's garden and these are also likely to have been consumed. Oyster shells were also found during the watching brief within a thick layer in window sample 1. This window sample was located to the west of the site and contained medieval and Dissolution period pottery. It is possible there are rubbish pits for the formal disposal of waste located within this region. There was little to indicate the type of vegetables eaten at the monastery, although the pollen report indicates that pine and hazel trees were growing in the vicinity so their nuts could have formed part of the monk's diet.

The walls belonging to the cells and gardens along the south side of the cloister were close to their predicted position, but the identification of each space was not always clear. The western end of this range appeared the deepest and best preserved with the internal features from a monk's cell being clearly identified. The remains shallowed to the east and became increasingly featureless and difficult to interpret. There appeared to be a general trend of areas containing more stone rubble than the neighbouring spaces and this could highlight the difference between the structures and gardens.

Remains from the pentice on the eastern side of the cloister have been identified for the first time and show the walkway to measure 1.76m wide. The construction of the footings appeared capable of supporting a wooden dwarf wall and posts although different parts of the structure may have been modified or rebuilt out of stone. Architectural stone fragments were found at the location of the pentice along the south side of the cloister but these could have been moved there during the dismantling of the monastery. Building rubble was sealed beneath a layer of clay along the south and western sides of the cloister. This layer was found to be level with the top of the structural remains and has the effect of both levelling the ground and hiding building rubble beneath it. A large proportion of building work was undertaken when Robert Dudley acquired the property and the pottery associated with it dates to this period.

The monastic remains vary in height by nearly 3m from the possible latrine on the eastern edge of the site to the medieval garden soils in the west. The levels of the medieval floors were not identified in every trench, but the overall changes in gradient was reflected in the varying heights of medieval remains encountered. The monastery has been constructed on a slope and the site would have needed terracing in the various areas. The eastern and western sides of the cloister may have been terraced across the gradient to produce two relatively flat ranges. The trenching indicates the eastern side was potentially 2-2.5m higher than the western side. The southern range followed the gradient and several terraces are likely to have been dug prior to the construction of the buildings. It is possible the monk's gardens retained the natural slope, but the individual buildings were probably constructed on terraces. The pentice walkway may have followed the terracing on the south side of the cloister and stepped down as the height decreased. It is possible steps were built within the pentice to allow access to the various cells and different terraces, but this could only be verified with future investigation.

During the 18th century numerous planting trenches were dug into the site which has disturbed many of the earlier features. The planting trenches were found to respect several structural remains including the pentice on the eastern side of the cloister and it is possible several walls were still standing during the post-medieval period. The planting trenches were found to extend beyond the southerly precinct wall and were the oldest remains found in trenches 9 and 10. Other than the medieval building material the largest quantity of artefacts came from the dissolution and later post-medieval periods, which reflects the amount of time the site was utilised during this period.

The evaluation and watching brief has revealed aspects of the site which have never previously been identified. The work shows that whilst much is understood about this historic site there is still much to learn about the daily functioning of the monastery. The rich history and extensive use throughout the post-medieval period has complicated the archaeology and many of the earlier remains are now deeply buried. Despite the later disturbance some of the deeper remains in the south-western side of the cloister appear to be well preserved and these have the potential to reveal new aspects about the monk's daily life.

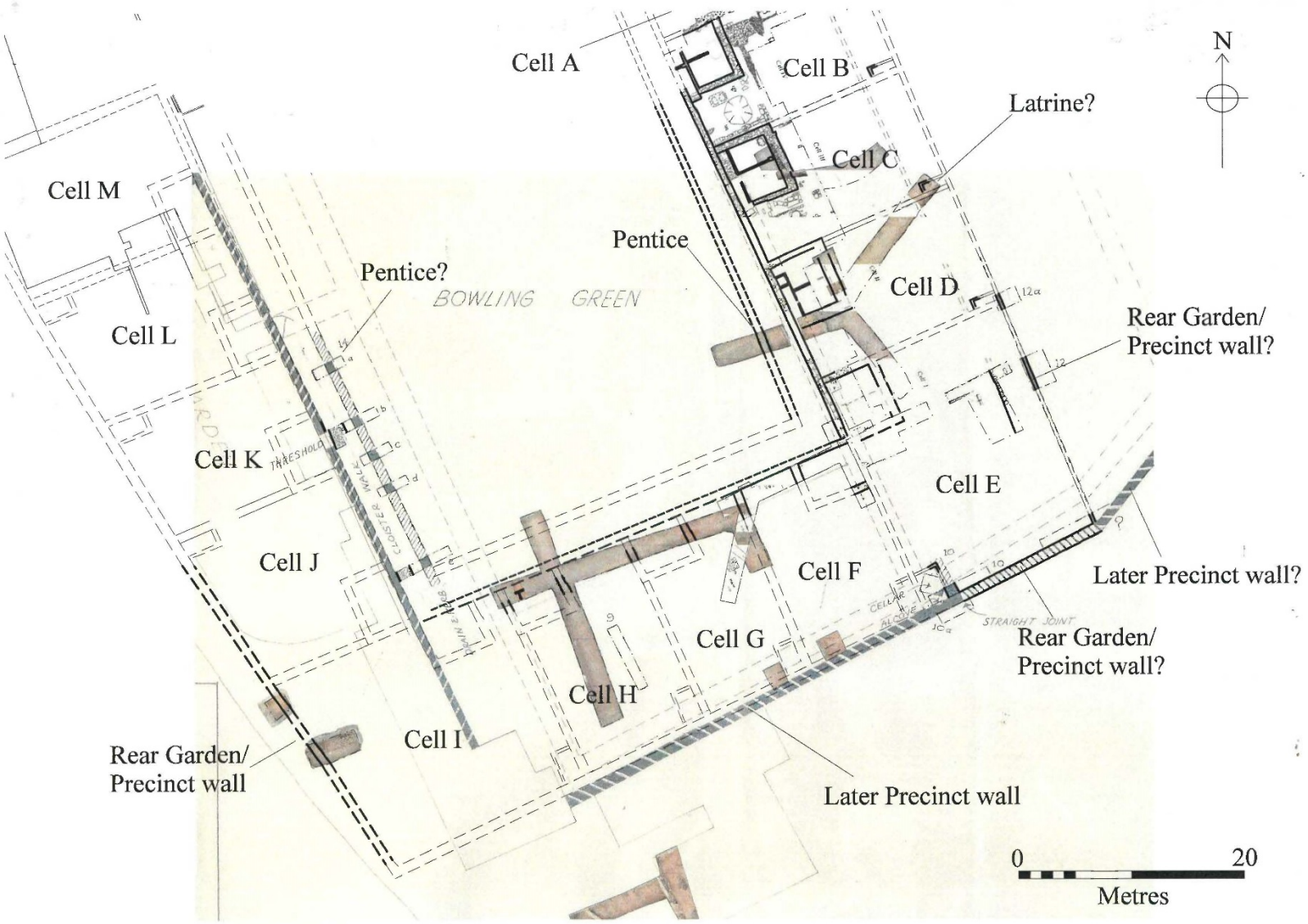


Figure 78: Combined archaeological plans with the possible layout of cells along the south and western sides of the cloister.

This archaeological work follows on from at least 50 years of previous investigations and expands on the earlier results. The recent work has also highlighted unrecorded trenches and one of these may represent hitherto unknown antiquarian investigations. Whilst the combination of archaeological work creates a fuller understanding about the site, it is also fragmentary and occasionally produces contradictory results. Some areas of the site have been extensively excavated and others have either limited evidence or are completely unknown. Despite the numerous excavations around the Great Cloister a single cell and garden has never been excavated in its entirety. This archaeological work has found aspects of the site which have never been previously identified and has helped to detail how St. Anne's Charterhouse has changed throughout the centuries.

Archive

The site archive consists of:

- X15 Trench recording sheets.
- X5 Watching Brief recording sheets
- X5 Context index
- X3 Photograph index
- X1 Drawing sheet index
- X1 Drawing Index
- X1 Drawing sheet
- X42 Photogrammetry models
- X202 Context sheets
- X217 Digital photographs

The archive will be held by Herbert Art Gallery & Museum, Jordan Well, Coventry CV1 5QP under the accession number CH19.

Publication

Since 2004 ULAS has reported the results of all archaeological work to the *Online Access to the Index of archaeological investigations* (OASIS) database held by the Archaeological Data Service (ADS) at the University of York.

A summary of the work will also been submitted for publication in an appropriate local archaeological journal in due course.

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Oasis Information

PROJECT DETAILS	Oasis No	universi1- 354938		
	Project Name	An Archaeological Evaluation and Monitoring (Watching Brief) of St. Anne's Charterhouse, Coventry		
	Start/end dates of field work	14-02-2019 to 27-02-2019		
	Previous/Future Work	Yes/Not known		
	Project Type	Field Evaluation		
	Site Status	Scheduled Monument		
	Current Land Use	Other 5 - Garden		
	Monument Type/Period	Monument type Walls Medieval Monument type Ditches Post Medieval Monument type Pits Post Medieval		
	Significant Finds/Period	Pottery Medieval CBM Medieval Cauldron fragment Medieval Buckle Post Medieval		
	Development Type	Not recorded		
	Reason for Investigation	Planning condition		
	Position in the Planning Process	Pre-application		
	Planning Ref.			
PROJECT LOCATION	Site Address/Postcode	CV1 2JR		
	Study Area			
	Site Coordinates	SP 34502 78177		
	Height OD	73-75		
PROJECT CREATORS	Organisation	University of Leicester Archaeological Services		
	Project Brief Originator	Historic England		
	Project Design Originator	ULAS		
	Project Manager	John Thomas		
	Project Director/Supervisor	Richard Huxley		
	Sponsor/Funding Body	Trust		
PROJECT ARCHIVE		Physical	Digital	Paper
	Recipient	CHAGM	CHAGM	CHAGM
	ID (Acc. No.)	CH19	CH19	CH19
	Contents	Ceramics Metal Animal Bones	Images/raster Digital photography Ceramics	Context sheet Drawing, Notebook, Photograph

			Metal	Plan Report Section Animal bones Ceramics Worked stones
PROJECT BIBLIOGRAPHY	Type	Grey Literature		
	Title	An Archaeological Evaluation and Monitoring (Watching Brief) of St. Anne's Charterhouse, Coventry		
	Author	Huxley, R		
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