Archaeological excavations at Polesworth Abbey Warwickshire 2011 - 2013

Report No. 15/31

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Clay tobacco-pipes	Tora Hylton
Other finds	Tora Hylton
Coins	Paul Clements BA
Worked Flint	Dr Yvonne Wolframm-Murray PhD
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Illustrations	James Ladocha

Acknowledgements

With thanks to Father Philip Wells and Nick Palmer for all their help, advice and encouragement throughout the three seasons of excavations

OASIS REPORT FORM

PROJECT DETAILS	**OASIS No:**
Project title	Excavations at Polesworth Abbey, Warwickshire, 2011 -2013
Short description	Northamptonshire Archaeology (now MOLA) oversaw three seasons of archaeological excavations in the grounds of St Editha's parish church in Polesworth, Warwickshire. The work was part of a large community project, Dig The Abbey, which saw volunteers participating in the excavation of parts of a former medieval Benedictine nunnery and the post-Dissolution Polesworth Hall which succeeded it (SAM 119c). The excavations took place in order to evaluate, inform and mitigate against the impact of planned building works on the site. The excavations were undertaken in several different areas. The site of an ancillary building belonging to the medieval abbey was excavated at the west of the present church. This revealed part of a cemetery possibly associated with the pre-Norman abbey, containing burials radiocarbon dated to the 9th and 10th centuries which was followed by the later medieval building and its post-medieval secular successor. An earth resistance survey failed to find evidence of the building continuing beyond the area of the Scheduled Monument. Excavations within the main abbey compound explored the cloister and parts of the, the eastern and southern ranges. In the eastern range, these located elements of the chapter house and the reredorter were investigated. In the southern range the possible location of the frater was identified and a sequence of construction and modification was demonstrated. A previously unknown building was located beyond the eastern range and the probable location of the medieval abbey cemetery was identified. Investigation of a large mound (SAM 119b) in the churchyard showed that this monument had its origin as a 17th-century prospect mound associated with Polesworth Hall. Overall the excavations helped to establish the layout of the medieval abbey, its construction sequence and its degree of preservation. The post-dissolution history of the site was also characterised.
Project type	Area excavation and trial trench evaluation
Previous work	Various (rescue excavation, trial trench evaluation, geophysical survey, building recording – see Palmer, N, 2011 *Polesworth Abbey - A Conservation Management Plan v1.00*, Polesworth Parochial Church Council Report, for full list)
Current land use	Churchyard, garden and pasture
Future work	Further excavations
Monument type and period	Medieval abbey, post-medieval manor house, post-medieval earthen prospect mound
Significant finds	Medieval abbey structures, abbey cemetery, post-medieval buildings and garden features
PROJECT LOCATION	
County	Warwickshire
Site address	Polesworth Abbey, High Street, Polesworth, B78 1DU
Easting Northing	42635 30240
Area (sq m/ha)	*c* 1.5ha
Height AOD	67m aOD
PROJECT CREATORS	
Organisation	Polesworth Abbey Community Interest Company (PACIC) Northamptonshire Archaeology

Project brief originator	Polesworth Abbey Community Interest Company	
Project Design originator	Nick Palmer (PACIC), Iain Soden (Northamptonshire Archaeology)	
Director/Supervisor	Mark Holmes (Northamptonshire Archaeology)	
Project Managers	Father Philip Wells (PACIC), Steve Parry (Northamptonshire Archaeology)	
Sponsor or funding body	Heritage Lottery Fund	
PROJECT DATE		
Start date	August 2011	
End date	September 2013	
ARCHIVES	**Location (Accession no.)**	**Contents**
Physical	TBA	Pottery, building materials, industrial debris, animal bone, small finds
Paper		Site records
Digital		Digital photographs, survey plans
BIBLIOGRAPHY		
Title	Archaeological excavations at Polesworth Abbey, Warwickshire, 2011 - 2013	
Serial title & volume	MOLA Northampton Reports 13/31	
Author(s)	Mark Holmes	
Page numbers		
Date	29 April 2015	

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Archaeological Excavations at Polesworth Abbey, Warwickshire 2011 - 2013

Abstract

Northamptonshire Archaeology (now MOLA) oversaw three seasons of archaeological excavations in the grounds of St Editha's parish church in Polesworth, Warwickshire. The work was part of a large community project, Dig The Abbey, which saw volunteers participating in the excavation of parts of a former medieval Benedictine nunnery and the post-Dissolution Polesworth Hall which succeeded it (SAM 119c). The excavations took place in order to evaluate, inform and mitigate against the impact of planned building works on the site.

The excavations were undertaken in several different areas. The site of an ancillary building belonging to the medieval abbey was excavated at the west of the present church. This revealed part of a cemetery associated with the pre-Norman abbey, containing burials radiocarbon dated to the 9th and 10th centuries which was followed by the later medieval building and its post-medieval secular successor. An earth resistance survey failed to find evidence of the building continuing beyond the area of the Scheduled Monument.

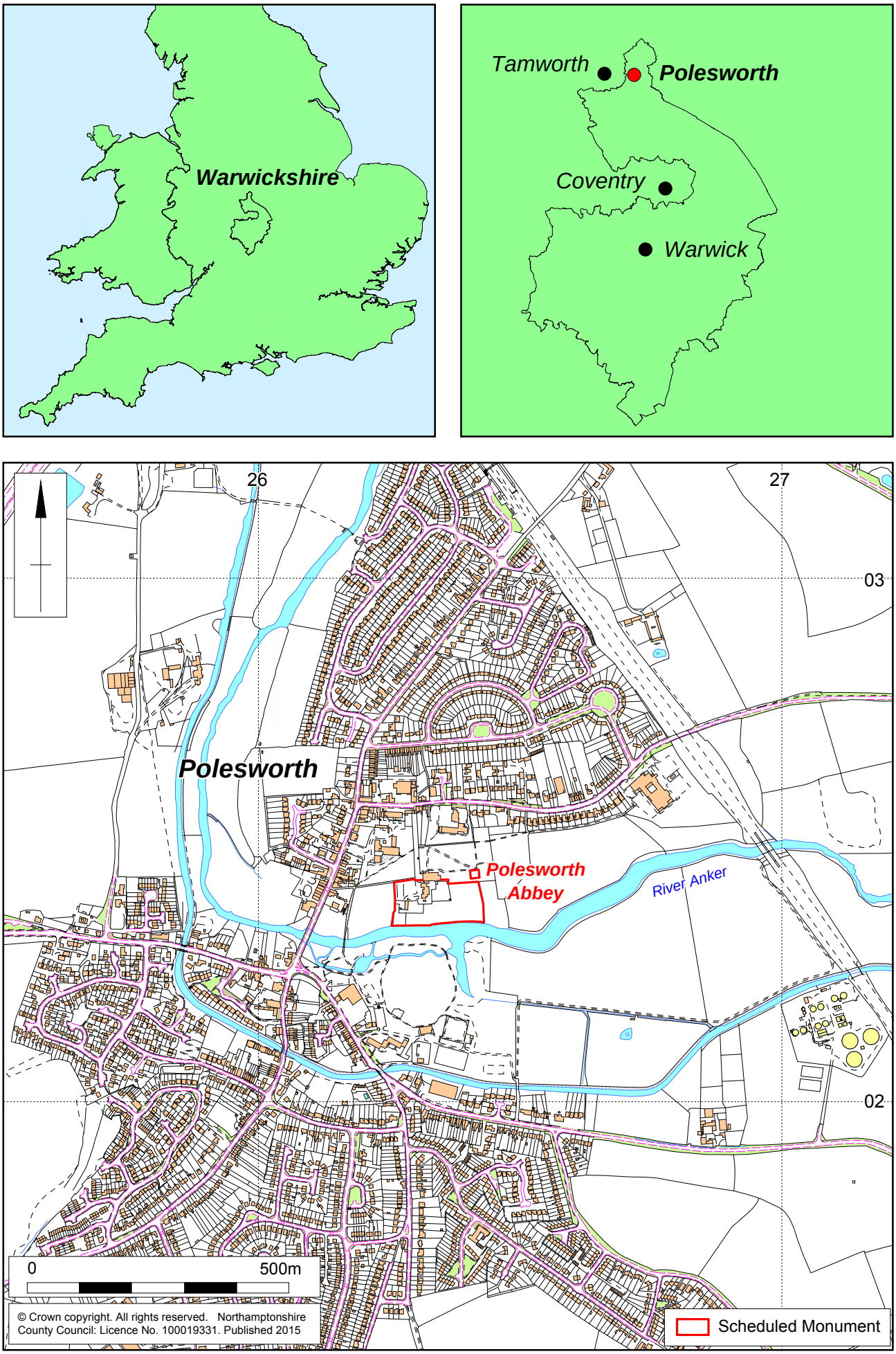
Excavations within the main abbey compound explored the cloister and parts of the, the eastern and southern ranges. In the eastern range, these located elements of the chapter house and the reredorter were investigated. In the southern range the possible location of the frater was identified and a sequence of construction and modification was demonstrated. A previously unknown building was located beyond the eastern range and the probable location of the medieval abbey cemetery was identified. Investigation of a large mound (SAM 119b) in the churchyard showed that this monument had its origin as a 17th-century prospect mound associated with Polesworth Hall.

Overall the excavations helped to establish the layout of the medieval abbey, its construction sequence and its degree of preservation. The post-dissolution history of the site was also characterised.

1 INTRODUCTION

Between 2011 and 2013 Northamptonshire Archaeology (now MOLA) oversaw three seasons of archaeological excavations in the grounds of St Editha's parish church in Polesworth, Warwickshire (NGR: SK 2635 0240; Fig 1).

The work was part of a large community project, *Dig The Abbey*, which saw volunteers participating in all aspects of the excavations. The project was itself an element of a wider plan to develop the site for the local community and so the excavations had a further role of evaluating, informing and mitigating against the impact of any future building works. The site is a Scheduled Monument (SAM 119c) and so the fieldwork was carried out in accordance with the appropriate Scheduled Monument Consents.



Scale 1:10,000

Site location Fig 1

The monument stands on the former medieval Benedictine nunnery of St Editha's Abbey. Several archaeological interventions, evaluations and surveys have taken place at the site over the years and the current series of excavations were planned in the light of previous findings and the resultant conjectural plans of the former abbey.

The excavations comprised five trial trenches and two open areas located within the Scheduled Monument. A sixth trial trench was placed through an earthen mound which stands in the current graveyard. This is a separate Scheduled Monument (SAM 119b).

This report presents the findings from all three seasons of excavations. It includes and expands upon a report of the excavations undertaken in 2011 (Holmes 2013) and interim reports from the two subsequent seasons (NA 2013a, NA 2013b).

2 BACKGROUND

2.1 Location and geology

St Editha's Church is located on the southern side of the present village of Polesworth and to the south-east of the settlement's historic core. It stands on ground, around 67m OD, which slopes gently down to the River Anker which lies approximately 100m to the south. The former abbey precinct would have extended out towards Bridge Street at the east and northward towards High Street. The 14th century abbey gatehouse still stands and provides an entrance into the modern churchyard off High Street. At the south, the precinct would have continued towards the river and eastwards out towards the edge of the modern churchyard. The parish cemetery is situated north of the church whilst the vicarage and its gardens are located to the south. Further south, adjacent to the river, the land is given to rough pasture.

The underlying bedrock geology is mapped as the Pennine Middle Coal Measures, which were extensively mined by open cast extraction into the latter half of the 20th century. The overlying superficial deposits comprise First and Second Terrace sands and gravels (Palmer 2011, BGS 2012).

2.2 Historical and archaeological background

The historical and archaeological background to the site has been considered in detail as part of the Polesworth Abbey Conservation Plan (Palmer 2011). The following précis is drawn from this and summarises the main historical and archaeological events.

Polesworth Abbey was a Benedictine nunnery dedicated to St Editha which was founded in the Anglo-Saxon period and re-founded in the early 12th century. The re-founding by the Marmion family of Tamworth Castle led to a rebuilding of the church, cloister and chapter house. Elements of this rebuilding and later developments survive today within the fabric of the current parish church, which itself occupies the western end of the former abbey church. This, along with part of the cloister wall and the later 14th-century abbey gatehouse are the only surviving upstanding parts of the abbey. These architectural features and those evident on historic illustrations allow for a reconstruction of the abbey layout and have provided the model upon which the current excavations have been based.

The Dissolution saw Francis Goodere acquiring the property and demolishing the majority of the monastic buildings. His son, Henry, built a manor house, Polesworth

Hall, to the south of the church. This presumably would have been accompanied by elaborate gardens, although their exact layout is unknown. The site was developed further by Francis Nethersole and Lucy Goodere after their marriage around 1624 and an extant sundial in the present vicarage garden probably belongs to this period.

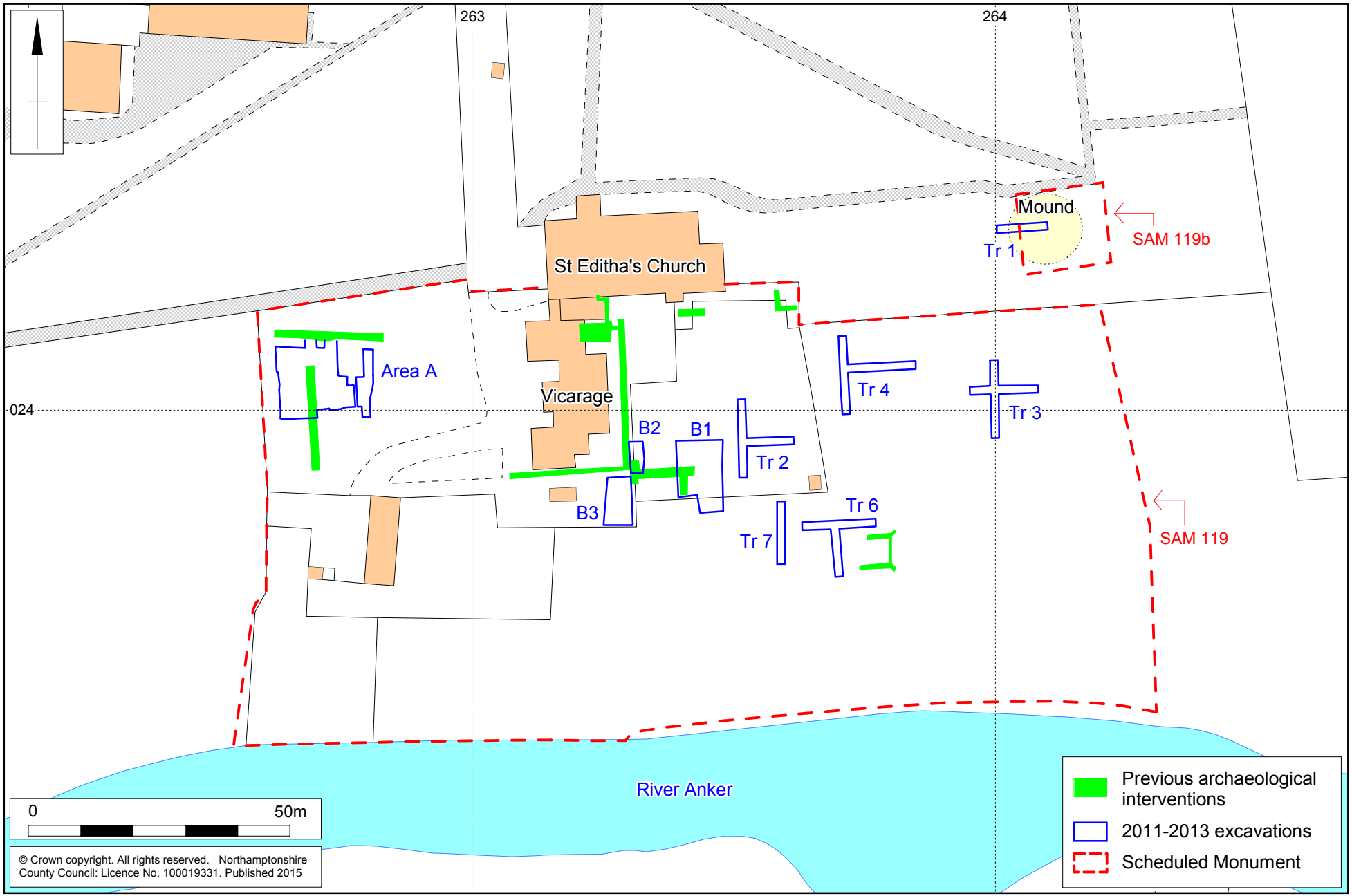
In 1656 the manor was sold to Michael Biddulph. Polesworth Hall was subject to cosmetic modernisation in the first half of the 18th century and other renovation works were carried out at this time on the church and gatehouse. In 1747 the estate was sold to Walter Chetwynd and from this time its fortune probably declined. Polesworth Hall itself stood until the 1870s when it was demolished to make way for the current vicarage.

Various archaeological interventions have taken place over the years (Fig 2). In 1959 archaeological excavations were undertaken in a field south of the church when the Coal Board altered the course of the River Anker. The excavations revealed walls and a drain subsequently interpreted as being the abbey's reredorter located at the southern end of the eastern range (Mytum 1976, 81).

In 1976 excavations were undertaken in land parcels in the western half of the former abbey precinct. These identified evidence of early modern open-cast coal mining. Frontage areas excavated next to the High Street recovered house foundations dating to the 18th and 19th-centuries.

In subsequent years a number of further archaeological trial trenches, watching briefs and other mitigation works were undertaken in the church, vicarage garden and surrounding land. These archaeological interventions provided evidence for the abbeys cloistral arrangements and post-medieval development of the site. A geophysical survey undertaken in 2007 also added evidence for the presence of structures in the surrounding abbey precinct (Smalley 2007).

From these works a tentative plan of the medieval abbey and post-medieval manor were devised which formed the model which was first tested by the 2011 excavations.



Trench locations Fig 2

3 OBJECTIVES AND METHODOLOGY

The project's research aims were laid out in a project brief prepared by PACIC (PACIC 2011). They combined the need to record archaeological features in areas designated for development as well as evaluating the site more generally in order to inform the conservation plan. The specific archaeological aims comprised:

1) Investigation of the monastic buildings located by the 2007 trial trenching within areas proposed for new building.

2) Further trial trenching in order to refine the reconstructed plan of the claustral ranges, to verify the presence of buildings suggested by a geophysical survey carried out in 2007 and to assess the state of preservation of these buildings.

To this end two open areas and six trial trenches were excavated in the following locations (Fig 2):

Area A: the late 13th/early 14th-century building in the area west of the existing vicarage proposed for the new parsonage
Area B: The southern cloistral area
Trench 1: the upstanding mound
Trench 2: the chapter house
Trench 3: the possibly infirmary
Trench 4: the south-east corner of the cloister, the frater and dorter
Trench 6: the reredorter
Trench 7: the southern range

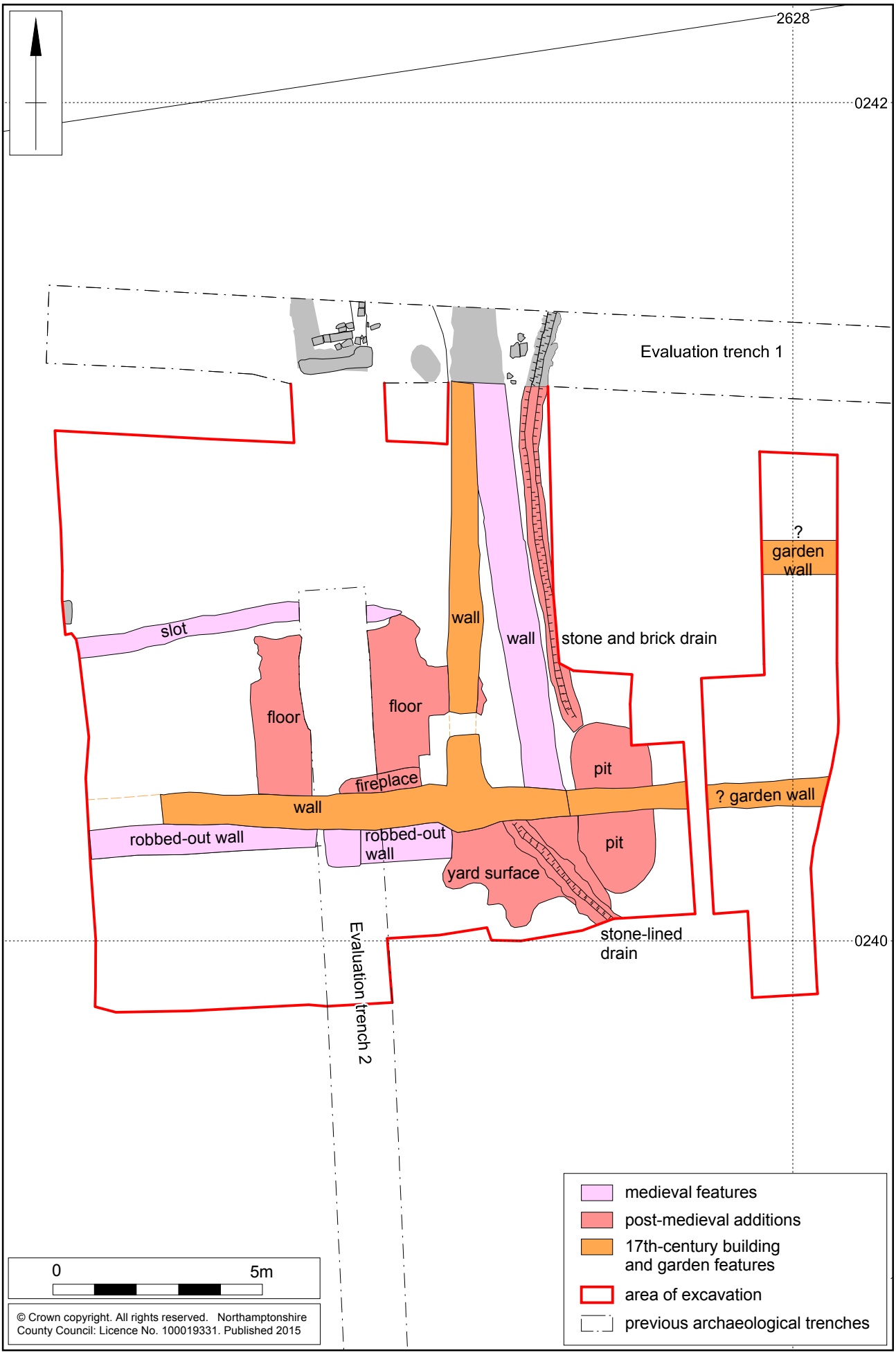
Trenches 1 to 4 were excavated in 2011 and Trenches 6 and 7 in 2012. Area A was commenced in 2011 but due to the complexity of the archaeology, continued into Season 2 in 2012 and Season 3 in 2013. Area B was excavated in 2012. Trench 5, designed to explore the post-medieval manor, was not excavated due to problems associated with its location in front of the existing vicarage and the presence of active services. The third season of work in 2013, titled 'Raising the Dead' focussed solely on the excavation of the human remains identified in Area A in the previous season's work.

A tracked mini-digger fitted with a toothless blade was used to remove overburden to archaeological levels in Areas A and B, after which excavation proceeded by hand. All the trial trenches were excavated entirely by hand. Excavation, recording and finds processing was undertaken by a team of volunteers supervised by Northamptonshire Archaeology staff.

The trenches were cleaned sufficiently to enable the identification and definition of archaeological features. Hand-drawn plans of all archaeological features were made at scales 1:50 or greater scale and were related to the Ordnance Survey National Grid. Archaeological deposits were examined by hand excavation to determine their nature. Recording followed standard Northamptonshire Archaeology procedures as described in the *Fieldwork Manual* (NA 2011). Deposits were described on *pro-forma* sheets to include measured and descriptive details of the context, its relationships, interpretation and a checklist of associated finds. Context sheets were cross-referenced to scale plans, section drawings and photographs. Photography was with 35mm black and white film and colour slides, supplemented with digital images. Sections were drawn at appropriate scales and related to Ordnance Survey datum. All works were conducted in accordance with the Institute for Archaeologists' *Code of Conduct* (IfA 2010) and *Standard and Guidance for Archaeological Field Evaluation*

(IfA 1994, revised 2008). Metal detecting of the excavated areas and spoilheaps was carried out during the excavations under the terms of the Scheduled Monument Consent. York Osteoarchaeology Ltd attended the site for two days during the 2013 season to conduct an *in-situ* analysis of the human remains from Area A.

In addition to the excavation work, other archaeological work was carried out during the project. A small resistivity survey was conducted in the fields immediately to the west and north of Area A in 2013. The survey area lay outside the Scheduled Monument, and was designed to try and locate the extent of the cemetery by identifying a boundary ditch or wall line. A contour survey, using a Leica GPS, was carried out in 2011 on the upstanding mound, prior to the excavation of Trench 1.



Scale 1: 125

Area A, selected archaeological features Fig 3

4 THE EXCAVATED EVIDENCE

4.1 Area A

Summary

Trial trench evaluation by Warwickshire County Council had identified late 13th century features in the north-west corner of the Scheduled Monument along with several undated inhumations (WMFS 2007). These features had been followed by the construction of what were interpreted as two late 13th to early 14th-century stone buildings which, it was suggested, might be ancillary buildings in the monastic outer court. Since the area was going to be impacted upon by the construction of a new vicarage it was decide to conduct an open area excavation which would recover the plan and fully excavate the interior of the southernmost of these buildings (Fig 3). Due to the complexity of the archaeology, the area was examined over all three seasons of the project. The structural elements were excavated in 2011 and 2012 with an underlying cemetery excavated in 2013.

The inhumations found during the trial trenching were shown to represent the south-eastern extent of a more extensive cemetery. The burials were all unaccompanied and so dating was achieved by taking radiocarbon samples. These produced dates in the Middle and Late Saxon periods indicating that the burials are likely to be associated with the original pre-Conquest Abbey.

A timber posthole structure was constructed to the south of the cemetery, however, it is unclear if the structure was contemporary with any phase of the cemetery and it may instead be associated with a series of pits in the vicinity. At least one of these pits cuts through a grave and so would appear to be a later, secular use of this part of the Abbey grounds, possibly dating to around the 13th or 14th century.

The area used for the cemetery, pits and timber structure was later covered by a single stone building, probably in the 14th or 15th century. The building's eastern side was defined by a well-constructed wall but its southern edge appeared to have been largely been robbed away. Both sides had been exposed in the previous season's excavations, however, at that time no corresponding western side had been located. It was the 2012 excavations that revealed the possible original plan of the medieval building. This was defined by the make-up for a floor surface (comprising crushed green sandstone), and a possible robber trench for the western and northern wall. The exact layout of the building was unclear, although the location of the floor make-ups and robber trenches, suggested an L-shaped range which had a fire-place sited at its southern end.

It seems that the building underwent some changes during its life and in the later medieval or early post-medieval period it appears to have been redesigned. A cobbled path was laid around the exterior of the building in the 16th century, demarcating a possible garden area with related features. Further developments in the post-medieval period saw subdivision of rooms with related floor surfaces which were excavated as part of the 2011 season of works.

A timber-framed building was later superimposed on the site on a slightly different alignment to the earlier stone structure but re-using some of its masonry. The pottery sequence suggests that the post-medieval structure was in use from *c* 1600 -1700. However, it may have continued standing for a period after this, before being demolished and the area entirely given over to gardens in the grounds of Polesworth Hall, possibly in the early 18th century. The range of pottery vessels present for the

post-medieval building comprised robust storage types. This may indicate that the building, at some point in its life, functioned as a kitchen, dairy or similar.

Phase 1: the cemetery

Fourteen graves were located in the north-west corner of the Scheduled Monument [162][165][168][171][174][177][180][206][209][212][215][218][225][228]. These burials are in addition to the three identified by the previous trial trenching. The graves were aligned east to west, arranged in rows, and thus are believed to form the south-eastern extent of a cemetery or burial plot. The details of individual graves are detailed in section 5.7.

The cemetery extended 6m into the site from the northern edge of excavation and comprised at least three rows of burials aligned east to west; there were fourteen burials in total (Figs 4 and 5). No further burials were identified to the south of this point. The northern, eastern and western extent of the cemetery, lying beyond the edge of excavation, is still unknown. Three further cuts, aligned east-west [139][182] and [184] may have been further graves but no burials survived and it may be that they simply represent the remnants of later pits.

Area A, cemetery looking south-west Fig 4

With only the southern edge of the cemetery present within the site, there is a limit to how far the organisation of the burials can be determined but there would appear to be some infilling between rows which may indicate that the cemetery had reached capacity or the earlier layout had become unclear. The graves all either cut the natural geology or truncated other grave fills. Two of the graves found during the previous evaluation were thought to cut through earlier subsoil {WM 144} which might indicate that an earlier soil horizon survives at the north-east of the area.

The burials were all supine inhumations with the skull to the west, the majority having the arms extended to sides with hands resting on pelvis but at least two had the arms flexed across their chests. Several of the inhumations appeared to of been tightly wrapped in a shroud with the shoulders pulled inwards and legs close together in shallow sub-rectangular cut graves.

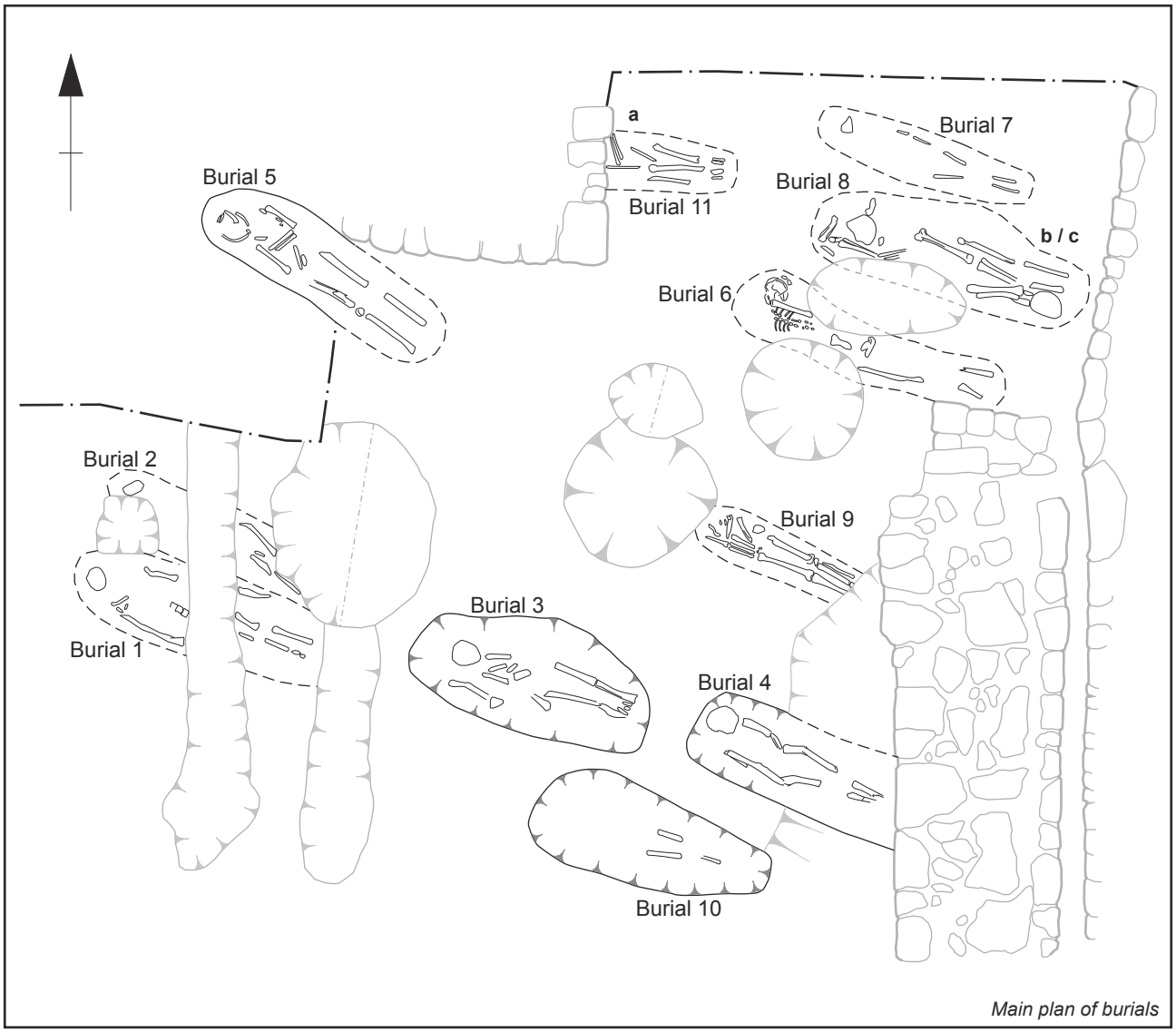
Towards the northern edge there were graves that contained multiple burials; one contained three articulated inhumations, the lowest primary burial being cut by the upper two secondary burials. The secondary inhumations appeared to of been buried together, or at least the upper burial hadn't disturbed the lower burial when interred. A second grave to the west contained two inhumations, although they were articulated they both had been truncated at pelvis level leaving only the legs.

Many of the burials had suffered attrition from later activity on the site with pits and wall footings truncating them to various depths. Preservation was generally poor throughout meaning that gender, age, pathology and other traits were difficult to ascertain.

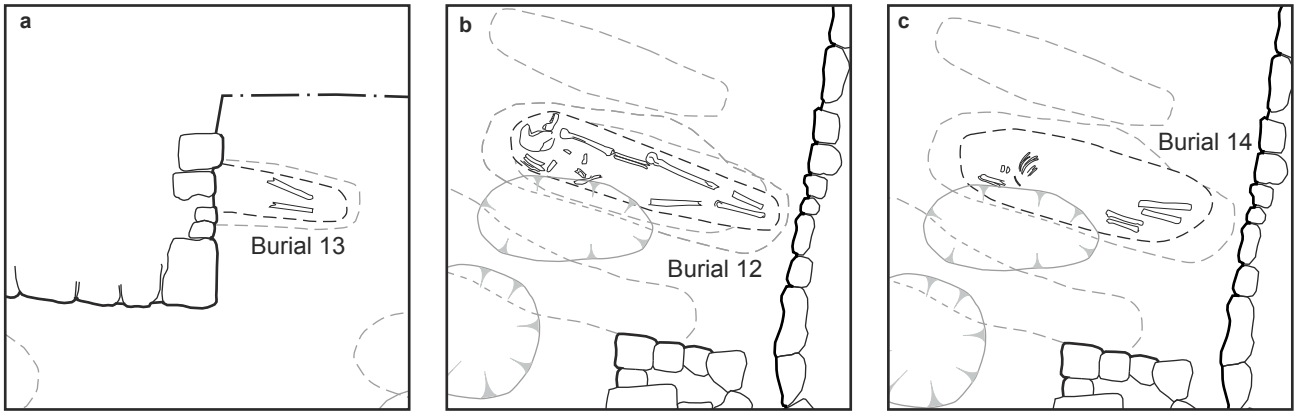
The grave fills, (160) (163) (166) (169) (172) (175) (178) (204) (207) (210) (213) (216)(223)(226), comprised a uniform greyish-brown silt sand with occasional pebbles. A soil sample taken from Grave 2 (165)(Sample 22) produced little of note, save for some evidence of oats, wheat and legumes that only shows that such crops were being used in the vicinity at the time.

A metal detecting survey was carried out under the conditions of Section 42 of the 1979 Ancient Monuments and Archaeological Areas Act (amended) with metal detecting licence (SL00059095 of 17th July 2013) granted by English Heritage. The area of the cemetery was detected, with each grave being individually checked prior to excavation. No grave furniture, objects or finds were identified associated with the burials but a signal was detected within one of the later pits cutting a burial. The site was marked and two lead spindle weights recovered during normal hand excavation.

Radiocarbon dating was undertaken on two of the burials. Burial 5 has been dated to Cal AD 890–1020 (95% confidence, 1090 +/-30 BP, Beta-363923) and Burial 8 has been dated to Cal AD 725 – 940 (95% confidence, 1190 +/- 30 BP, Beta-386751). The 9th and 10th century dates for these two burials support the hypothesis that the cemetery belongs to the pre-Conquest abbey.



Main plan of burials



Underlying burials

0 2m

Scale 1:50 (A4)

Area A: Plan of burials Fig 5

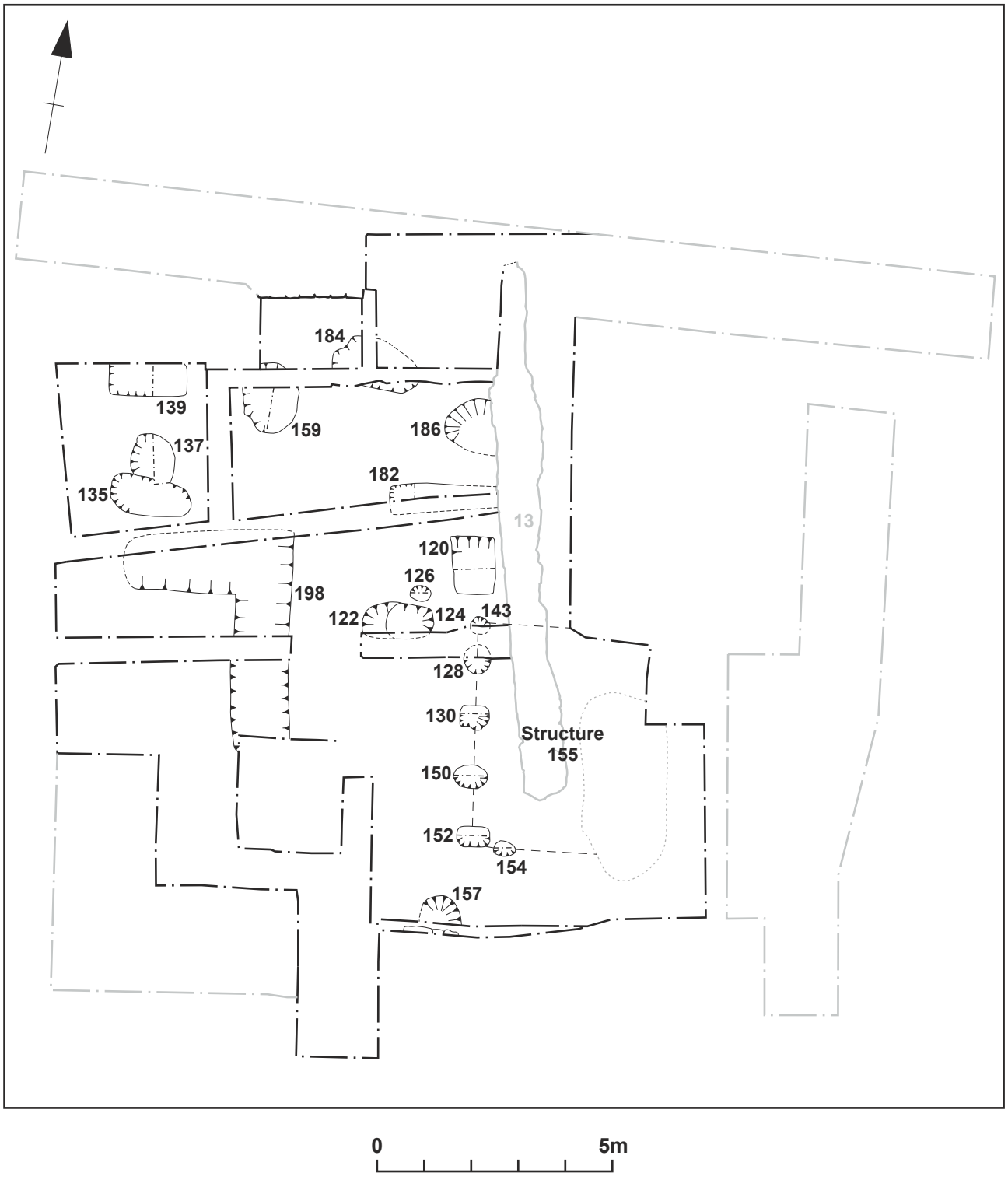
Phase 2: 13th to 14th-century features

The timber building
A possible timber building [155] was located immediately to the south of the cemetery (Figs 6 and 7). It comprised a series of five, equally spaced postholes forming the eastern end of the structure [128][130][143][150][152] with a single posthole on its southern side [154]. The postholes were oval in plan between 0.45m – 0.75m long by 0.17m – 0.39m wide with depths varying between 0.19m - 0.34m; this would produce a structure at least 4.00m wide but the majority of the eastern side of the building had been removed by later activity and so its exact proportions, layout and function could not be ascertained. The postholes all cut the natural geology and there were no associated floor or other surfaces surviving. Their fills (127)(129)(142)(149)(151)(153) comprised a mid greyish-brown sandy silt with small to large rounded pebbles. Pottery from two of the postholes suggests a 13th-14th century date, at least for its demolition, which would place it later than the adjacent cemetery.

Boundary ditch
To the west of timber building [155] was a L-shaped ditch, 1.2m wide and 0.35m deep [198]. The ditch was aligned north-south and east-west. It turned to the west prior to the southern cemetery edge but neither end of the ditch was clearly defined and its full extent could not be ascertained. It was filled with a light grey sandy silt (197) which produced no finds. The ditch was approximately 8m long, 1.2m wide and 0.35m deep with shallow sides and a flat but uneven base. It cut the natural geology and is tentatively proposed as a boundary ditch, possibly associated with the adjacent timber building and pits.

The pits
A series of pits were also present across the area [120][122][124][135][137][139] [157][159][186].

Pits [120], [122] [124] and [186] appear to form a group, having broadly similar dimensions and all located at the north-west of the timber structure. Pit [120] was rectangular in plan 0.36m deep with dimensions of 0.90m x 0.70m. It had been truncated by later stone wall [10]. Pit [122] was slightly more rounded in both plan and profile but was of a similar depth at 0.34m. It had been truncated by a later pit [124], 1.09m wide and 0.27m deep with a broad rounded base. Pit [186] had also been truncated by later stone wall [13] so its full dimensions could not be determined. It survived as sub-circular in plan, 1.2m wide and 0.55m deep. The function of these pits is unclear. They cut through the natural geology and possibly represent small extraction pits since the amount of detritus within them makes it seem unlikely that their primary role was for rubbish disposal. All were filled with single fills of similar dark greyish-brown sandy silt indicative of natural weathering (119)(121)(123)(185). Soil samples were taken from three of the pit fills: (119)(Sample 12), (121)(Sample 14) and (123)(Sample 13). These produced limited evidence of cereal grains and pulses, all probably simply stray detritus. The date range from pottery indicates that the infilling of the pits could have occurred from the 12th – 14th century. Although, if contemporary with other pits in the vicinity, a 13th – 14th century date range is more likely.



Scale 1:125 (A4) Area A: Phase 2, archaeological features Fig 6

Area A, timber building [155], looking north Fig 7

A large oval pit [159], 1.28m by 0.94m, cut through Burial 2 [164]. It was 0.23m deep with a broad U-shaped profile and filled with mid greyish-brown sandy silt (158). Pit [203] also cut through a grave, Burial 12 [217]. The pit was filled with a similar mid greyish-brown sandy silt (202).

Towards the north-west edge of the excavation were two inter-cutting oval pits. The latest of these, [135], was 0.91m long by 0.26m wide and 0.35m deep. It had an irregular profile and had been backfilled with a mid greyish-brown sandy silt containing large sandstone blocks (134). This cut through an earlier, shallower pit [137] 0.86m wide by 0.15m deep with a similar fill (136). Both these two features were cut through a layer of soil (131), 0.13m deep. The soil was a mid grey-brown sandy loam and directly overlay natural. It was only present in the north-west corner of Area A and probably represents a surviving subsoil. It contained frequent sherds of sandy coarsewares and Chilvers Coton A pottery indicating a 13th – 14th century date. It may equate with a similar layers (79) and (102), also directly overlying natural, found at the western part of the excavation area and (193)(199) and (201) found at the north.

Three pits [139][182][184][that were located in the area of the earlier cemetery. had alignments and forms which might suggest that they might have been graves but none contained bones or any other indication of an inhumation. Consequently it was impossible to conclusively differentiate them from the other pits. Pit [139] also cut through soil layer (131). It was up to 0.81m long by 0.64m wide and 0.39m deep. It was approximately rectangular in plan with a U-shaped profile. It was filled with a mid reddish-brown sandy silt (138) with very frequent rounded pebbles. Pit [182] was only partially exposed. Its eastern end was truncated by later stone wall [13] but it survived to a length of 1.05m and a depth of 0.28m. It cut through Burial 4 [171] and Burial 10 [212] and was filled with mid-grey brown sandy silt (181).

An undated, isolated pit [157], probably circular in shape was located at the southern end of the excavation. It had a diameter of 0.95m and was 0.54m deep with an uneven profile and was filled with a similar grey-brown sandy silt as the other pits (156).

Posthole
An undated posthole [126] may also belong to this phase of activity. This was located between pits [120] and [124]. Posthole [126] was circular in shape with a diameter of 0.43m. It had irregular sides and a flat base and was 0.19m deep and was filled with a greyish-brown sandy silt (125).

Phase 3: a 15th-century stone building
The eastern side of a stone building was defined by a wall aligned north-north-west to south-south-east [13] (Figs 8 and 9). The wall was 0.90m wide and comprised dressed stone blocks on its outer and inner faces with a rubble core. Patches of yellowish-white mortar survived in places. No construction cut was observed. Towards its northern end, re-used stone blocks had been incorporated into the wall.

The wall was 11.60m long and, at the north, extended into the 2007 evaluation trench 1 and out beyond the edges of excavation. Its southern extent was marked by a definite termination.

The line of the westerly return for the wall was delineated by a stretch of surviving masonry [65] and robber trenches [30] and [51]. Masonry [65] was a setting of stone blocks, 0.86m x 0.80m, comprising roughly-squared outer facing stones, with a rubble and mortar core. The masonry extends south of the projected line of the wall and therefore is thought to have formed a projection of some sort. The earlier evaluation had suggested that it may have been a chimney base associated with internal hearth [39] (WMFS 2007, 11), and robber trench [51] which continued its projected line to the west. The robber trench contained loose grey-brown sandy clay with very frequent pieces of stone rubble, slate and brick and tile fragments (50). pottery would suggest that this robbing took place in the 18th century. However, the stonework may have had some other structural function such as a buttress or possibly part of an entrance. In support of the latter proposal, a curved piece of masonry [113] was found immediately to the west of [65]. The stone was interpreted as possibly being part of a socket for a gate or door post.

Robber trench [30] continued the line of the projected western return for the stone building. It was vertically sided, 0.20m deep, and filled with dark yellowish-brown sandy clay with frequent flecks and small pieces of white mortar (29). Only its southern half was present as it had been cut through by later wall foundation [28] (Fig 10).

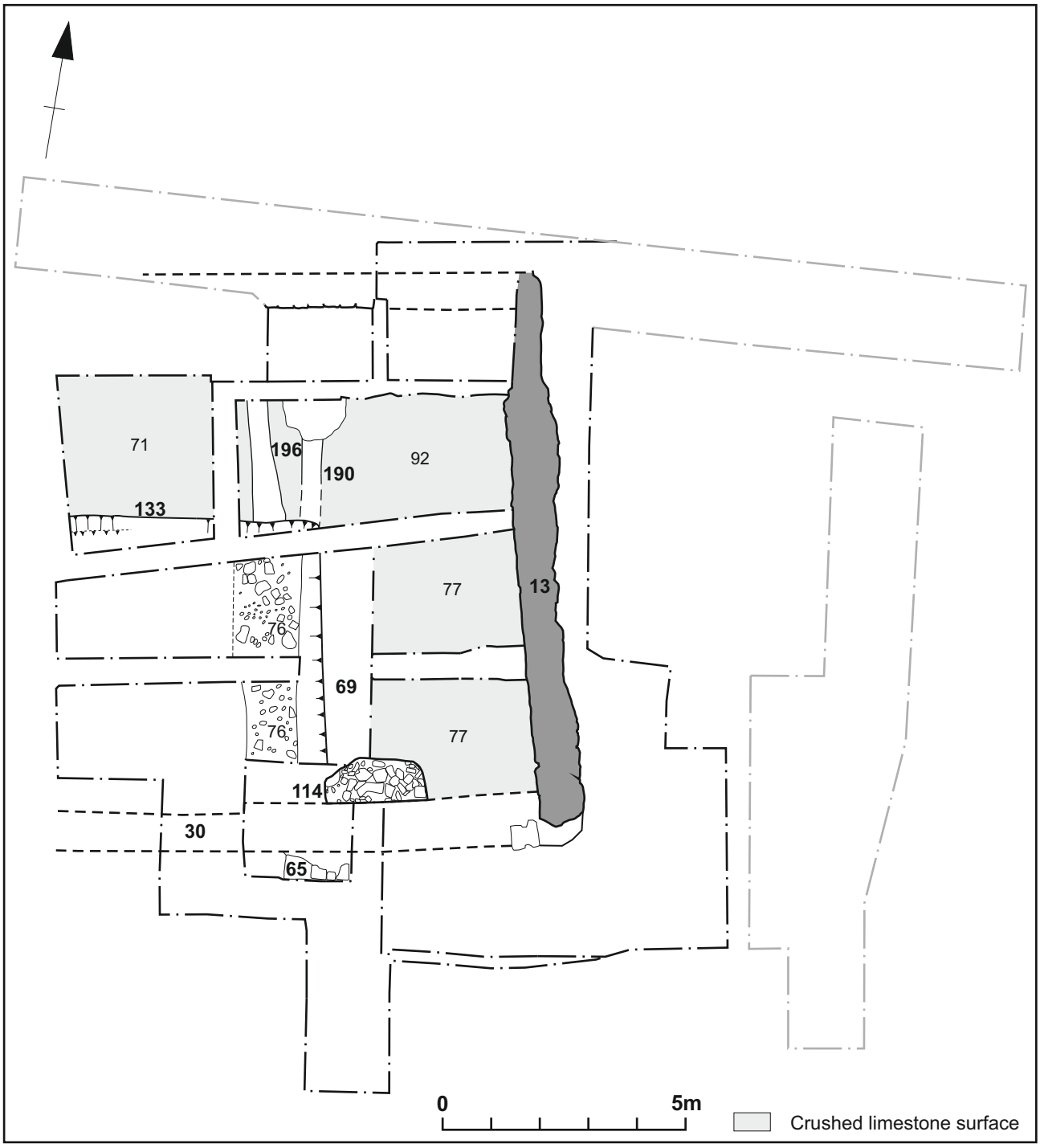
Although robber trench [30] continued westward, beyond the edge of excavation a further L-shaped robber trench [69][133][188] extends northwards from it. The north - south part of the robber trench [69] was 0.90m wide and 0.44m deep with a flat base. The east -west part [133] was slightly shallower at 0.36m deep but wider at 1.11m It was filled with a dark grey-brown sandy clay which included small rounded cobbles and occasional mortar, sandstone and worked stone fragments (68)(132)(187). Sherds of Chilvers Coton C and a sherd of Tudor Green ware from the fill possibly indicate a 15th century or later date for the robbing. It is suggested that this robber trench represents the line of a former stone wall running parallel with wall [30] before turning westwards. This would have created the eastern wing of a stone building centred around a possible courtyard area. The make-up for the base of a floor layer (67)(77), comprising firmly compacted light greyish-green crushed sandstone set

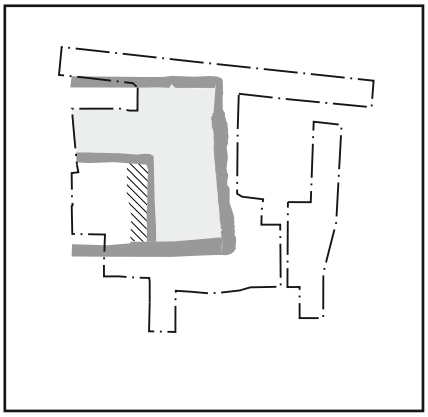
upon a compacted orange brown clay (78), was located between [69], [30] and [13] (Fig 9). Alongside large quantities of residual Chilvers Coton A ware, this basal layer produced sherds of Midlands Whiteware, Tudor Green ware and a single sherd of Midland Purple indicating a 15th century date for the floor.

A further robber trench [141] continued the line of [69] northwards. It was 1.24m wide and 0.31m deep. It was filled with a grey-brown sandy silt (140) from which 13th – 14th century pottery was recovered. A group of grey sandstone rubble blocks [196], possibly representing remains of the wall, continued the line beyond the edge of excavation. Immediately to its east was a parallel, flat-based slot [190]. It was only 0.13m deep and filled with a dark brown sandy clay (189). This might be seen as representing an internal division within the northern range of the building. However, the robbed-out features were sealed by floor make-up (77) and so pre-date this episode at least, possibly suggesting an earlier phase of construction.

The remains of a fireplace [114] measuring 1.84m by 0.84m and made up of roughly laid, flat stones between 100 x 120 x 20mm up to 250mm x 200mm x 40mm, some burnt, was located at the south of the room against the southern wall. Two associated areas of heat affected earth and stones [115][116] may represent the location of the hearth or chimney areas. An entrance at this location would have led along a path [76] comprising a mix of river cobbles (from *c* 20mm x 30mm up to 100mm x 120mm) and sandstone fragments (100m x 30mm) with occasional slate fragments.

As the northern and western extents of the building were not present within the excavation area, it is only possible to conclude that the overall size of the building would be greater than 11m by 12m. The date of the foundation of this building is unclear due to the equivocal nature of the pottery assemblage. However, a 14th or 15th century date is suggested, based upon the pottery and stratigraphic relationships with the earlier and later features at the site.

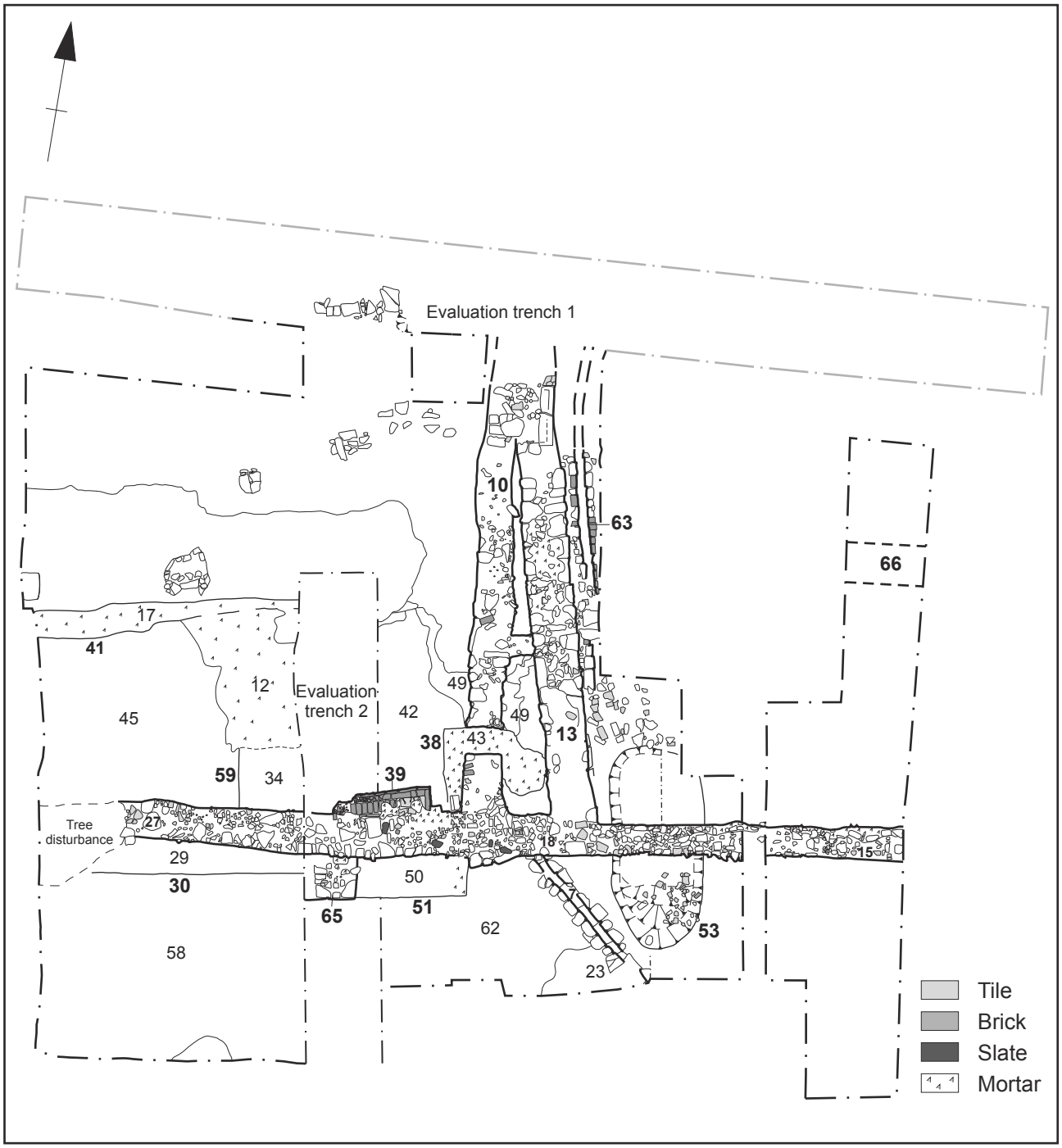




Scale 1:125 (A4) Area A: Phase 3, stone building Fig 8

Area A, medieval wall [13] (at left of picture) with crushed sandstone floor make-up (67)(77), looking south Fig 9

Area A: Robber trench [30] for medieval wall, cut through by later post-medieval foundation [27], looking north Fig 10


Evaluation trench 1
10
63
66
17
41
12
Evaluation trench 2
49
42
49
13
38
43
45
59
34
39
Tree disturbance
27
18
15
29
30
50
65
51
62
53
58
23
Tile
Brick
Slate
Mortar
0
5m

Phase 4: later modifications

The building and its environs were subject to a range of modifications through its lifetime (Fig 11).

Industrial activity
After path [76] went out of use it was covered by a dark brown sandy clay garden soil (80) which extended from the western edge of the building to beyond the edge of excavation in the putative courtyard area. The layer produced pottery indicative of a 15th century date. On top of this was evidence for some light industrial activity in the form of compacted charcoal and ash layers (100)(101) associated with a roughly circular base of heavily burnt stones [99] (Fig 12). This in turn overlay a 0.06m thick patch of white mortar (81). This was covered by a levelling layer, 0.10m thick, of mottled orange brown redeposited clay (91) and then by further layers of garden soil (70)(45) which, pottery suggests, probably date to the 15th century.

Area A, burning [99](100)(101), looking west.
Garden feature [75] in background Fig 12

Post-pads
A series of three small post-pads [86][88][90] were also cut into garden soil (80). They comprised vertical sided, flat-based cuts 0.30m diameter and 0.15m deep, packed with sandstone fragments bedded in a light yellow-orange mortar (85)(87)(89) and were located at the south of the excavation area immediately to the north of robbed-out wall [30]. No pattern could be discerned to suggest to what sort of structure they would have belonged.

Possibly associated with these was a further postpad to the east [98] which cut through floor makeup (77). Slightly larger at 1.50m diameter, it was 0.15m deep and

comprised two large stones with smaller sandstone fragments in a weak lime mortar mix (97).

An individual posthole [147] cut through backfilled robber trench [133]. It was at least 0.29m by 0.19m in plan, with vertical sides and a flat base. It was filled with a mid grey-brown sandy clay, with frequent rounded pebbles and fragments of crushed sandstone. It was possibly associated with the other post-pads. It was sealed by garden soils (91).

Floor surfaces

A complex series of superimposed clay, mortar and soil layers were present in the south-east corner of the building. These had previously been identified and partially excavated in evaluation Trench 2. The surfaces covered an area *c* 4.00m by 5.50m and are presumed to form the make-ups and floor surfaces of a separate room within the larger building.

At the west, the surfaces had been set down within a sunken area [59] cut into the garden soil layer (45)(22). At the north they extended up to the edge of a possible shallow timber slot or beam-setting [41], 0.05m deep and 0.47m wide filled with a mid orange-brown sandy clay with frequent white mortar flecks (17). The infilling contained pottery that was possibly indicative of a 16th century date. The earliest of the surfaces was an occupation or make up layer of dark brown loam (55)(60). This was overlain by a thin ash and charcoal rich layer (54) in the eastern half of the room and a mortar rich layer in the west (56). Although the relationship between the mortar and ash layers was broken by the presence of trial trench, the evaluation report suggests that the mortar layer pre-dated the ashy charcoal layer. Above the charcoal layer was an orange clay floor surface (46)(49) which was visible across the entire room and produced sherds of Cistercian ware and Midland Purple again, possibly suggesting a 16th century date.

Above the clay floor was a soil layer of dark grey sandy clay with very occasional small stones and very occasional flecks of charcoal (34)(42). This is presumed to be an occupational build-up which had been worn or cut away in places. The presence of Midland black pottery in the finds from this layer may date occupation to the 17th century. On the eastern side of the room this layer was overlain by mortar (31). The mortar was slightly 'lipped' along its western edge, possibly suggesting that tiles had previously been present at least along its edge. It was overlain by light yellowish-brown sandy clay (12).

The hearths

A brick and tile hearth was located on the southern side of the room [39] (Fig 13). The hearth was 1.90m long by 0.47m wide. On its northern side it was faced with red bricks laid on their sides. On its eastern side it was edged with thin red tiles laid edge on. Behind the facings the base of the hearth comprised two rows of bricks, one laid with headers showing, the other with stretchers. All bricks were hand-made and un-frogged and showed evidence of being fire-cracked and coloured. On top of the brick base tiles had been mortared into place. A shallow lenticular cut [48], immediately in front of the fireplace was filled with an ashy fill (47) and may be related to the fireplace. A sample of this material was take (Sample 1) but it was found to be mostly composed of coal. Although a small number of cereals and seeds were also present these could have derived from the use of straw or chaff as tinder or kindling.

It is unclear whether the hearth was inserted into wall [18] of the later timber-framed building or whether it is associated with the stone building. Curiously it is in the same

position as the earlier medieval fireplace [114], even though a layer of demolition material (103) lies between the two features.

The location of hearth [39], however, would associate it with a further fireplace found at the north in evaluation Trench 1 [93]. This latter fireplace comprised stone footings with later brick insertions. It was associated with a surface comprising compacted green-yellow mottled sandy clay mortar (92).

Area A, hearth [39], looking south Fig 13

Phase 4: external features

Yards and drains

An extensive layer of solid cobbles (107) was laid to the south and east of the stone building, probably in the 16th century (Fig 14). A layer of trample and repairs (106) occurred sporadically over the top of this. Immediately at the south of the building a yard surface was added on top of this at a later date. It comprised frequent small pieces of crushed red tile and grey slate set in a matrix of mixed greyish brown sandy silt with moderate small rounded pebbles (62).

At the north of the site, overlying floor make-up (77) were patches of dark greyish-brown sandy clay (11) containing very frequent small irregular stone fragments which may represent the remnants of a further yard surface.

A stone-built drain [7] had been inserted through the wall of the stone building in its south-east corner (Figs 11, 15 and 16). It was aligned north-west to south-east and sloped down away from the building across the yard surface (62). The internal channel was 0.16m wide by 0.12m deep and it had an overall width of 0.60m. Two outer lines of stone with squared-off inner edges were set 0.14m apart in order to

form the drainage channel. These were then sat upon a base of further worked stones. None of the stones were mortared but had been placed into a vertically-sided construction cut [20] which had been backfilled with dark grey-brown sandy silt (19) with frequent red tile and small stone rubble fragments. Within the drain was a dark greyish-brown sandy silt (6) from which sherds of Midland Yellow pottery were recovered, indicating a 17th century date. The drain's basal stones were in a range of sizes from 0.39m up to 0.62m long, with the larger of the stones being nearer the building. At its southern end, the drain was abutted by a patch of compact orange brown sandy clay (23). This may represent the remnants of a surface, cut away elsewhere and extending beyond the edge of excavation.

In the south-east corner of the building was a rectangular stone-lined, feature [109] 0.67m long by 0.61m wide and 0.42m deep. Its eastern side was formed by the main stone wall [13] and its southern side was formed in part by the end stones of drain [7]. Smaller dressed stones formed the northern side with smaller cobbles and pieces of slate, infilling the other parts. Its southern end to abuts wall [13] whilst its northern appeared to be keyed into the foundation. Its function was unclear although it may well be associated with drain [7] which appears to feed into it. It was infilled with a mid yellow-brown silty sand (108).

Area A: surface [107], looking south-east Fig 14

Area A, stone-built drain [7], looking north-west Fig 15

Area A, drain [7], leading into south-east corner of building and feature [109], looking south Fig 16

Area A, south-east corner of timber-framed building, looking north Fig 17

Phase 5: the timber-framed building

The timber-framed building was defined by wall foundations [10][18] (Fig 11 and 17). It was differentiated from the earlier stone wall [13] by the method of construction, the mortar used and its orientation. Its insubstantial nature, with no coursing and rough rubble make-up, suggests that rather than a wall foundation for a masonry structure it forms the dwarf wall for a timber-framed building. As with the stone structure, only two sides were present suggesting that the two buildings shared roughly the same footprint.

Wall [10] is 0.76m wide and survives to a height of 0.20m. It comprised rubble of unshaped grey stones and occasional red-brick bats set in a matrix of soft yellowish brown mortar. The stones vary in size from 100mm x 100mm x 50mm up to 650mm x 250mm x 120mm. It was aligned north-south and towards its northern end was bonded into stone wall [13].

This point may represent an entrance into the building, since the stonework [112] showed evidence of wear immediately adjacent to where a large stone had been placed over brick drain [63] (Fig 18). The re-used stone (SF 146) may have been a former fireplace surround. The outer edge of the entrance was formed by this re-used stone, with the inner edge being of smaller, irregular stones. Between the two was a rough rubble core, set in a weak yellowish-white mortar. Stones to the immediate north and south of the entrance showed traces of thick mortar, possibly representing former door post-pads which would have been recessed a little into the wall, possibly forming a porch, with the main entrance stones extending slightly proud of the wall line.

Area A, possible entrance [112] into timber-framed building, through wall foundation [10], with bridging stone placed over drain [63], looking west Fig 18

At its southern end, the wall foundation turns westwards [18] where it appears to contain a greater amount of worked stone and probably incorporates elements of the southern stone wall whose alignment it shares. The wall deviates slightly from a straight line at its western end [28]. Here the foundations (27) were reduced in height and contained a greater mixture of roof tile and slate than elsewhere. Although set in a similar mortar, it may be that this end of the feature was a later addition.

A linear east-west cut [105] located immediately at the north of wall [18] probably represents the original foundation trench for the wall. It cut through demolition layer (103) which separated the medieval and later post-medieval hearths and comprised 45^{o} sides sloping down to the walls foundations at a depth of 0.14m. It was backfilled with a soft yellow brown silty sand (104).

At some point a rectilinear hole [38] was made through wall foundation [10]. It had been backfilled with a mid brown sandy clay with frequent mortar and small pieces of tile (8)(43), possibly in the 18th or 19th centuries since two sherds of Blackware pancheon were recovered.

A brick drain
A roughly constructed brick and stone drain [63], revealed in evaluation trench 1, was shown to continue southward parallel with the outer edge of stone wall [10]. It was 0.48m wide with a central channel 0.18m wide (Fig 11). The outer edges were formed from single lines of re-used sandstone rubble and red brick. At its northern end the drain curved away from the stone wall towards the north-east, whilst at its southern end it curved away to the south-east. Its southern end appeared to be truncated by pit [53], although it was not observed continuing beyond the southern end of the pit and so may have originally terminated at this point**.**

The function of the drain is unclear and its location at the edge of excavation made interpretation difficult. Although it respects the stone wall, since it curves away at its northern and southern ends it would seem unlikely to be an eaves drip gully or similar. It may instead be a drain for yard surfaces at the east of the stone wall.

Phase 6: 18th-century garden and other later features

A pit
Immediately at the east of both the stone and timber-framed structures was a large, deep oval pit [53] (Figs 11 and 19). It was 4.90m long by 1.85m wide, and 0.85m deep, steep sided with an uneven base. It had been backfilled with tips of dark greyish brown sandy clay (52) containing frequent tile, brick and other detritus, possibly of 18th or 19th century date. The function of the pit is unclear. It may be a simple quarry which was backfilled with destruction debris. However, the shape of the pit is uniform and it may be that a previously existing feature, possibly associated with the drain which stops on its northern side, was dug away here. The pit cut through yard surface (62) and drain [63] and so probably post-dates at least the post-medieval phase of the stone structure. Garden wall [15] was subsequently built over the backfilled pit.

Area A, southern half of pit [53], overlain by garden wall [18], looking north Fig 19

Garden walls

The line of wall [18] continues eastwards out beyond the edge of excavation [15]. However, here it was of apparently more insubstantial construction. The wall was 0.60m wide and *c* 0.90m high and comprised a mix of irregular stone rubble, brick and tile. The mortar was similar to that of the post-medieval timber-framed building walls [10] and [18] and it is probably contemporary with these. The top surviving level of the wall had a partially removed ridge of very pale brown mortar adhering, which may have provided the base for a superstructure of some sorts.

The apparently roughly-built nature of the wall, the lack of any corresponding floor surfaces or return walls and the build-up of garden soil around the feature would suggest that it represents a small boundary wall, possibly for a garden.

About 2.50m to the north of garden wall [15] was a linear east-west spread of stones (66). Comprising fragments of sandstone and loose mortar its insubstantial nature meant its function could not be determined but it is possibly the remnants of a further garden wall (Fig 11).

Garden features

At the western edge of the site, an irregular-shaped pit [75], approximately 0.80m long by at least 0.50m wide, cut through redeposited clay (91) and mortar surface (81). It continued beyond the edge of excavation and so its full character could not be determined. It had vertical sides and a base which sloped down to the west, the top edge was defined by roughly shaped sandstone fragments [74]. It had been backfilled with a dark brown sandy clay (73). Although its function is unclear, it is perhaps best interpreted as a planting hollow or other similar garden feature.

Probably associated with [75] was another garden feature. This comprised a square pit, with sides of 1.30m by 1.30m which sloped down at 60^{o} towards a flat base. The

pit was 0.30m deep and filled with a mid-grey brown sandy clay (82) which extended past the edges of the pit to fill an area 2.0m by 1.50m, bounded on three sides by a row of un-bonded sandstone fragments [83]. The southern sides had been removed by later activity.

A third stone-surrounded garden feature [221] was located in the north-eastern part of the excavation area. It was oval in plan, 0.72m by 0.52m, with its edges outlined with rounded cobbles. It was filled with a dark brown loamy soil (222).

At the north of the area, there was a small circular pit [192], 1m diameter with vertical sides which was filled with a dark grey-brown silty sand (191). This probably represents a planting hollow, such as for a small tree. A second circular pit [220], adjacent to feature [222], had a diameter of 0.83m and was filled with a dark brown loam (220). Its fill would again suggest that it was a planting feature.

Industrial remains
At the extreme southern end of the excavation area, just beyond the main edge of excavation but visible in the evaluation trial trench, was a layer of very compacted layer of mixed read and orange clays with frequent heat affected stones and charcoal (200). This overlay cobbled layer [107] and appears to represent a major dump of industrial debris. As it lay beyond the edge of excavation it could not be characterised further.

Garden soils
To the north of the garden wall [15] overlying surface [107] was a demolition layer of light yellow brown sandy mortar with occasional large sandstone fragments (64)(95) up to 0.20m deep. Pottery from this layer indicates a 17th century date. Over this, and to both the north and and south of wall [15] dark grey loamy soils (32)(33)(37)(40)(44) had been deposited. The soils had a frequent ash content and their fine nature suggest that they are garden soils, possibly of 18th century date.

Phase 7: 19th-century demolition levels
The majority of the site was covered by spreads of soil and deposits containing frequent building materials such as rubble, mortar fragments and roof tiles (5)(14)(21)(24)(25)(26). These were especially evident to the east of the buildings over and around the garden wall [15] and probably represent the demolition levels of the post-medieval buildings in the 19th century.

Phase 8: modern developments
A thin layer of coal dust and coal waste (3)(4) was laid over the north-east quarter of the site. It was approximately 60mm thick where it stopped approximately 2.00m to the west of wall [10] but it resumed over the top of and to the east of stone wall [13] where it became up to 250mm thick. Above this, at the northern end of the site was a layer of subsoil 80mm thick (2) which was sealed by a uniform topsoil across the whole area (1).

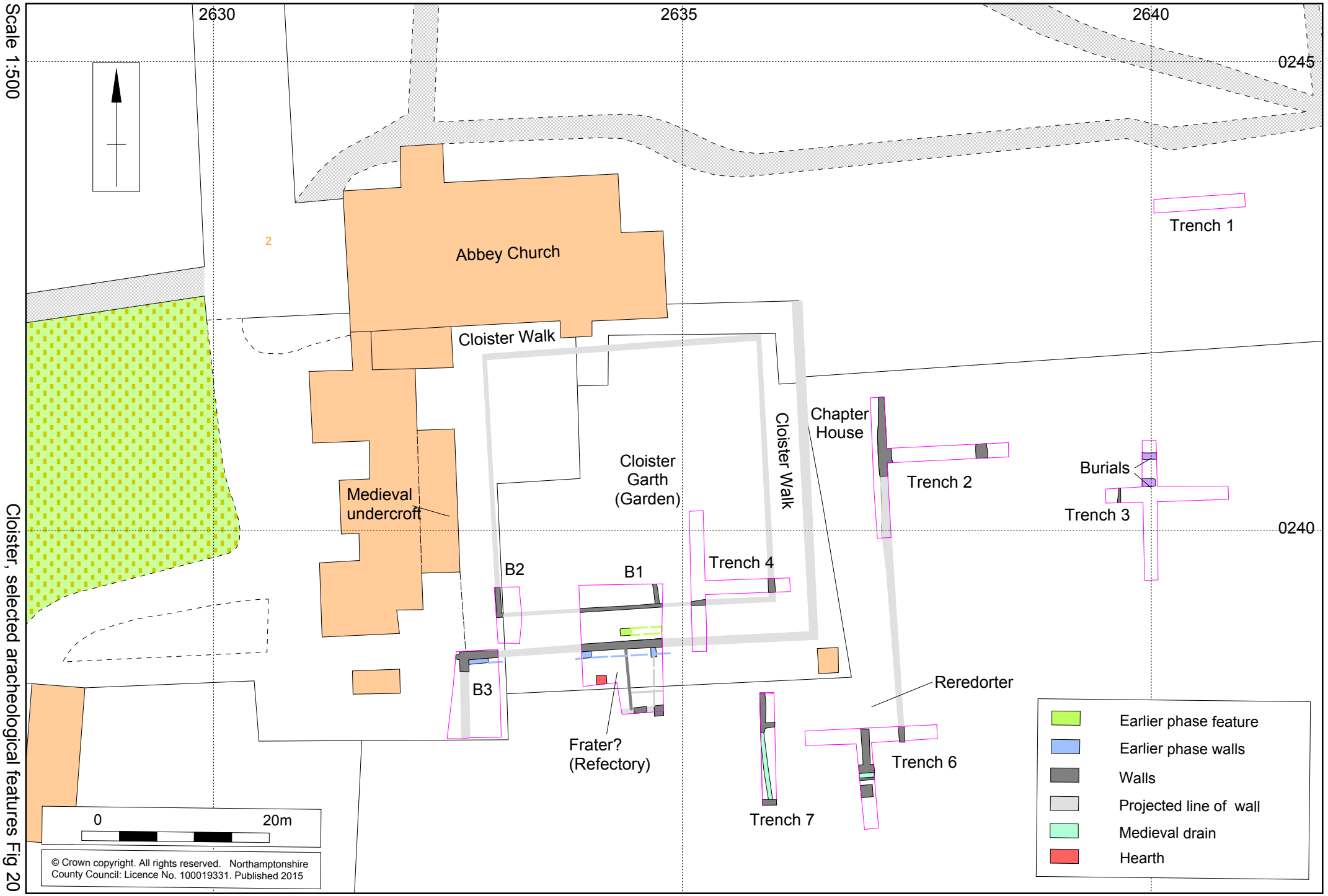
4.2 **Area B** (Fig 20)

Summary
Area B explored the southern part of the cloister and parts of the south range. It was divided into three separate sections, B1, B2 and B3 (Fig 20). In area B1, the southern arcade alley and part of the garth were examined, whilst in area B2 the south-west corner of the cloister arcade was exposed. In area B3 the eastern extent of the southern range was investigated.

An evaluation trench by Warwickshire County Concil (2007) revealed what was interpreted at the time as a separate substantial stone building of late 13th – early 14th century date. This overlay earlier medieval activity including possible evidence of metal working. The building was shown to have stayed in use until the Dissolution after which it was demolished and the area landscaped into gardens. The Warwickshire Museum's trench demonstrated a considerable depth of surviving stratigraphy.

In the event, excavations showed that the building identified was in fact part of the southern range – the cloister being larger than originally thought. The sequence of development, however, was shown to be correct. Pre-cloister activity survived in the form of ditches and postholes. The base of the cloister arcade wall was present but no floor levels from the arcade survived and, perhaps surprisingly, there was no evidence of any *in-situ* burials. Instead, it was demonstrated that the level of the arcade alley had been built up by the deposition of dumps of soil on top of the natural geology and silts and the earlier features. Within this soil were disarticulated human remains suggesting that this material had been derived from a previous burial area.

As had been demonstrated from excavations elsewhere in the cloister, the cloister garth itself had been subject to much alteration from later post-medieval landscaping. However, enough of the western and southern arcade walls survived to confirm the shape and dimensions of the cloister. This demonstrated that the cloister garth would have been approximately 28m square with an arcade 3.25m wide. This produced a cloister with an overall area of some 1,300 sq m. The foundations of a north-south stone wall, appended to the arcade, projected into the cloister garth. Although its upper levels had been truncated by the later post-medieval activity it suggests that there may have been a small structure, such as a *lavatorium*, present.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Medieval undercroft
Cloister Garth (Garden)
Cloister Walk
Chapter House
Trench 1
Trench 2
Trench 3
Burials
Trench 4
B1
B2
B3
Frater? (Refectory)
Reredorter
Trench 6
Trench 7
Earlier phase feature
Earlier phase walls
Walls
Projected line of wall
Medieval drain
Hearth
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20m
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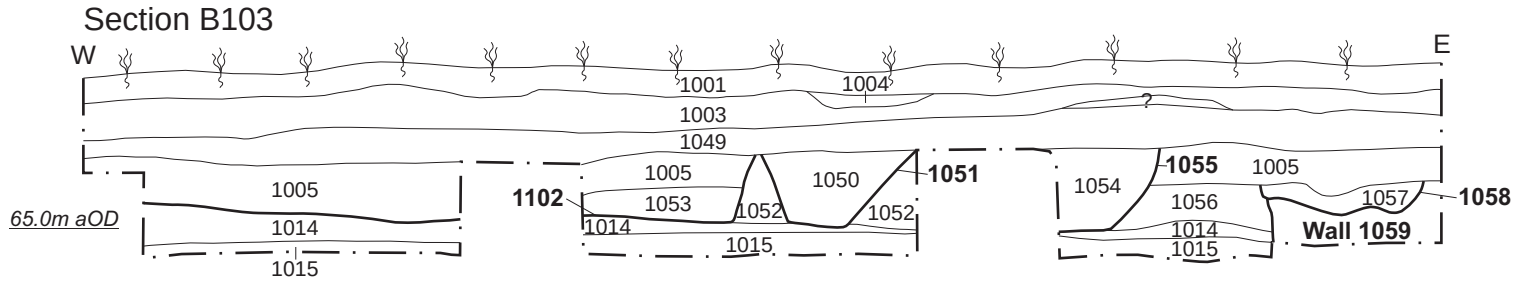
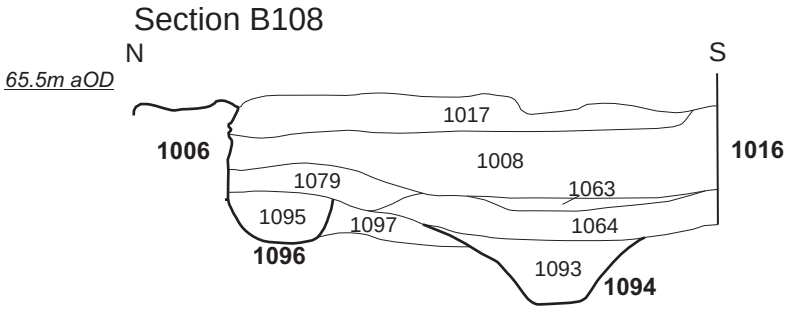
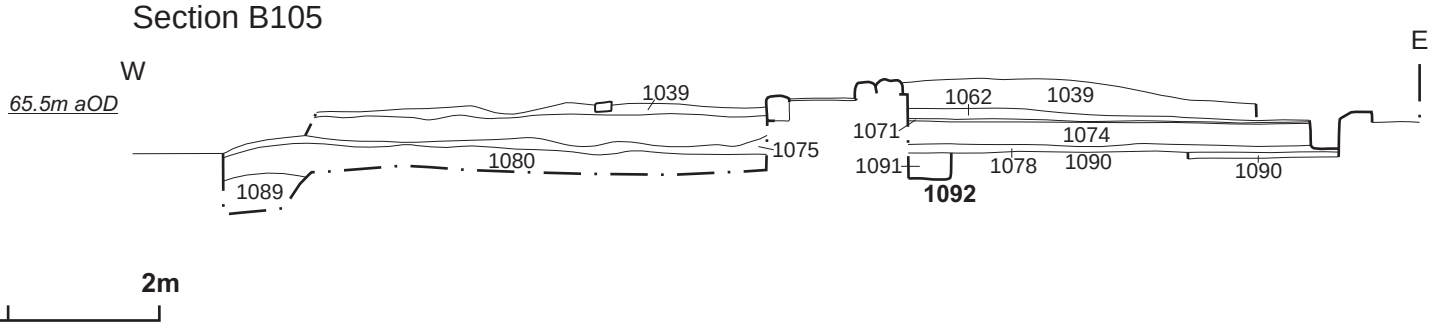
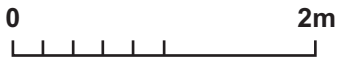
Cloister, selected aracheological features Fig 20

Scale 1:50









Area B1: Sections Fig 21

The substantial wall, interpreted by the earlier evaluation as a separate building, was shown to be the northern wall of the southern range. It survived, in places, to a height of some 0.60m above the medieval floor surface. Only towards the eastern end of the excavated area did it appear to have been heavily robbed-out. However, traces of a stone wall, presumed to be an earlier phase of the southern range, were located immediately adjacent to it. These were associated with possible floor make-up layers but the extent and depth of these layers meant that it was impossible to fully excavate them within the timescale of the excavation.

The layout of the southern range was not fully resolved by the excavations. In area B1, the successor to the earlier phase of activity comprised a room formed by the main southern cloister wall at the north and robbed-out southern and eastern walls which would have formed a range 6.00m wide. The southern back wall, however, did not appear to extend through to area B3 and it is likely that the overall layout is more complex than a simple linear east – west aligned range.

The room in area B1 had been remodelled on a number of occasions. A series of floor levels, were present, the latest of which had surviving mortared surfaces, with both tile-impressions and surviving *in-situ* decorated tiles. A tile hearth was also present. In its final form the room had been partitioned, and a raised eastern end created. Prior to excavation it had been proposed that this room served as the abbey frater, however the sub-divisions and the change in levels within the room perhaps make it unlikely that this was its function, at least in its latter years.

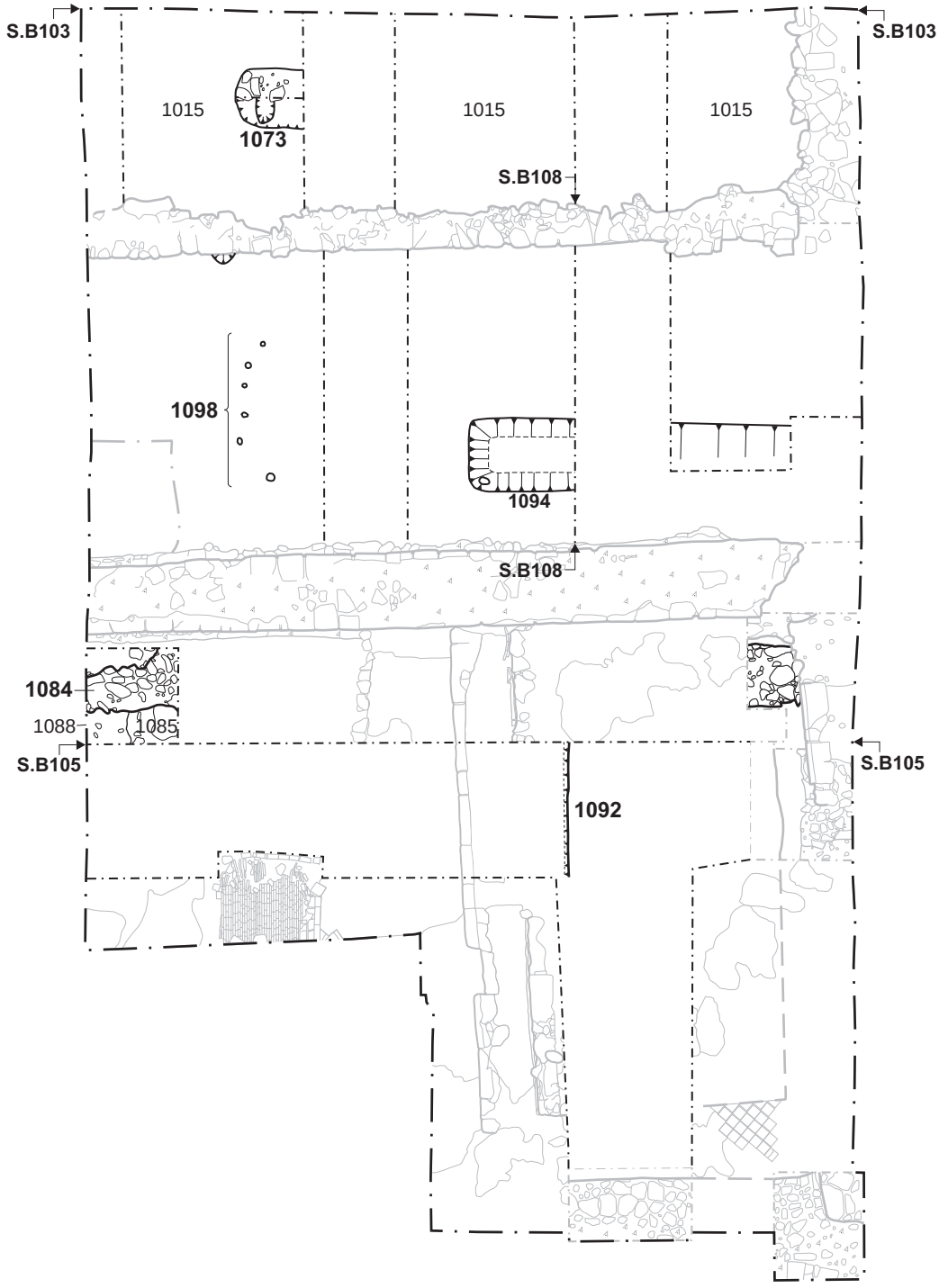
The main southern cloister wall continued into area B3. A doorway through this wall, leading from the western arcade alley was present, along with associated surfaces. As in area B1, the partial remains of an earlier phase of walling and associated floor levels were present and these had been truncated by the later remodelling of the area. The eastern extent of the southern range was represented by a major stone wall aligned north – south, which had been largely robbed away in the post-medieval period. To its west, further post-medieval deposits were present which suggested that significant remains associated with the later Polesworth Hall may survive beyond the edge of excavation.

The cloister arcade

The layout of the cloister was explored in two of the excavated areas. In area B2 the south-west corner of the cloister arcade was exposed, whilst in area B1, the southern arcade alley and part of the garth were examined. Both areas were excavated down to the natural geology.

Pre-cloister features (Fig 22)

The underlying natural geology, comprising an orange-brown silty sand (1099)(2009) was exposed in the base of area B2 and the northern half of area B1. At the northern end of Area B1 this was covered by a thin layer of river cobbles set in a grey-brown sandy silt (1015)(Fig 21 sections B103 and Fig 22). The cobbles ranged in size from 10mm x 10mm x 20mm up to 100mm x 80mm x 30mm, the larger more dense stones appearing at the north-west corner of the trench. On first exposure it was thought that the stones formed a deliberate metalling, however, their intermittent distribution possibly suggests that they may simply be part of a natural deposit (Fig 23).



0 2.5m

Later phase

Scale 1:75

Area B1, archaeological features Fig 22

Area B1, possible metalling layer (1015), looking south Fig 23

The earliest surviving features were two ditches, two postholes and possible stake holes.

The ditches both cut through a layer of grey-brown sandy clay with frequent orange sand and gravel inclusion (1097) which may possibly represent the remnants of subsoil above natural. No dating evidence was retrieved from this layer. In the central part of the excavation area was a ditch [1094] aligned east-west, 0.80m wide and 0.42m deep (Figs 21, section B108 and 24). It had even sloping sides which merged with a flat base and was filled with a grey brown sandy silt with orange sand flecks (1093). The ditch terminated with a rounded western end and extended eastwards beyond the edge of excavation. Ditch [1096] lay to the north of this and was 0.70m wide and 0.30m deep with a rounded U-shaped profile filled with a similar deposit (1095). However, it was only observed in section and so its character could not be fully determined (Fig 21, Section B108).

Area B1, ditch [1094], looking east Fig 24

Cut into the layer (1015) were two postholes. The largest of these [1073] comprised an oval cut, 0.75m x 0.60m with vertical sides dropping to a flat base with a central oval post-setting 0.20 – 0.30m wide and 0.40m deep (Fig 22). It was filled with dark grey sandy silt (1072) but contained large fragments of green, red and grey sandstone which were probably the remnants of packing. No further corresponding features were found but to the south of this was a smaller posthole [1101], 0.08 m deep and 0.20m wide, filled with a similar dark grey sandy silt (1100). It had been severely truncated by later wall [1006].

To the south of the two postholes and the west of the ditches were six voids set in an approximate arc [1098] (Figs 22 and 25). The voids were preserved in very slightly concreted soil. Each was about 0.04m diameter and may represent the location of previous stake holes, although their purpose could not be ascertained.

Area B1, stakeholes [1098], looking north Fig 25

Immediately overlying the natural and sealing posthole [1073] was a layer of grey sandy silt (1014)(Fig 21, section B103). Approximately 0.18m deep, it contained very occasional small rounded pebbles and occasional flecks of yellow clay and charcoal. A similar layer (2014) occurred in area B2 to the west and is interpreted as a silting episode. Although three sherds of possible Stamford Ware was recovered from this layer the remainder of the pottery mostly comprised sandy coarseware with some sherds of Chilvers Coton A ware, suggesting a 12th -14th century date. Another silting layer (1064) sealed ditches [1094][1096]. It contained a similar range of pottery and is probably the same layer (Fig 21, section B108). At the southern end of Area B3 a layer of brown sandy silt (2008) sat directly over natural.

In Area B3 the earliest level encountered was grey sandy silt (3035)(3037). Where excavated, this produced only sandy coarsewares and so may be relatively early in date and is possibly the same as (1015) in Area B1. A small circular pit [3034] 0.50m wide and 0.20m deep had been cut into this layer. Its eastern half lay beneath the edge of excavation and so its full dimensions could not be ascertained. It was filled with a greyish-brown sandy clay (3033) which contained very frequent sherds of solely sandy coarsewares, suggesting a 12th – 13th century date. This in turn had

been truncated by a large shallow pit [3031] which was filled with a very similar grey brown sandy clay (3030) and a possible L-shaped slot immediately at its south [3029] (Fig 26). The possible slot was very shallow and defined only by its contrasting fill of dark brown sandy clay (3028).

Area B3, pit [3031] and possible slot [3029], pre-excavation, looking south Fig 26

Construction of 15th-century cloister

The southern arcade comprised the northern wall of the southern range [1016] and the foundations of the arcade wall itself [1006]. In neither case was there an obvious sign of a construction cut.

Immediately above the possible silt layers there were a series of mixed deposits. A thin layer of pale brown sand (1063), with small decayed pieces of gravel, green sandstone and flecks of charcoal may represent a trampling layer associated with construction of this phase of cloister. Two small sherds of 13th to 14th-century Sandy Coarseware were recovered. A layer of grey sandy silt (1079) with very frequent burnt red clay, charcoal and flecks of sandstone overlay (1063). This layer was banked away from the main cloister wall and is also possibly associated with the construction of the cloister.

Above the layers associated with the construction of the cloister walls, was a major make-up layer (1008). It was a mid brown very sandy silt. It was notably for containing quantities of disarticulated human bone. This would suggest that the material was imported from a burial area elsewhere, to make up the foundation of the cloister walk; possibly from an earlier cloister. Pottery from this layer comprised residual sherds of Stamford ware along with a quantity of Sandy Coarseware sherds and single instances of Chilvers Coton A and C pottery, possibly suggesting a 13th to 14th-century *terminus ante quem* for its construction.

The southern cloister

The cloister was defined by a major southern wall [1016](Fig 30). The foundation comprised at least four courses of rough cobbles and dressed stone, ranging in size from 0.10m – 0.30m which was bonded with a whitish yellow coarse sand mortar. Above this were three surviving courses of dressed olive-grey limestone bonded with a similar mortar to the foundation layer. The dimensions of the dressed stones on its northern face were 0.27m long x 0.20m high. On its southern side, the stones varied 0.25m long x 0.17m high up to 0.40m long x 0.27m high.

The wall, running east – west through Area B1, continued into B3 [3011] where an entrance way through from the western cloister alley was present. The entrance was *c* 0.60m wide, with a large corner stone 0.39m x 0.28m x 0.33m high. The wall then proceeded westwards where it survived two courses high, at *c* 0.33m.

The arcade wall [1006] comprised olive sandstone blocks and rubble core fragments surviving to a width of 0.70m and a depth of 0.5m (Fig 27). It had been robbed on its northern side, leaving only the southern facing stones intact. The northern core contained very large pieces of an ironstone-like agglomeration. The surviving facing stones on the southern side, ranged in size from 150mm x 120mm x 50mm up to 300mm x 160mm x 70mm. There was no apparent coursing, with these facing stones being of irregular shape and sizes and bonded with a pinkish mortar.

Projecting northward from the arcade wall, and abutting but not keyed into it, were foundations for a north-south wall [1059] projecting into the cloister garth (Figs 21, section B103, 27 and 30). The foundations were very similar to those of the arcade wall itself, comprising frequent large pieces of ironstone concretion with occasional red sandstone pieces and squared-off grey and olive green sandstone pieces. The foundations were not bonded but there were traces of a white mortar. The base of the foundations was at the same level as that of the arcade wall and it possibly represents a structure in the garth, such as a *lavatorium*. A possible straight-sided [1103] cut through layer (1056) and may represent the remains of a construction cut. However, this was only visible in section and this relationship was equivocal. Only the base of the foundations survived, with the remainder having been cut away by a later robber trench [1058].

Area B1, southern arcade wall [1006], with foundation [1059] for a wall aligned north-south extending into the garth, looking south Fig 27

The vestiges of the southern arcade wall continued into area B2 but here it had been largely removed by a later stone drain [2006]. However, the footings for the western arcade wall did survive [2017]. It comprised similar ironstone concretion footings to those in Area B1.

The make-up for a possible floor surface in the cloister alley comprised a compacted yellowish-brown clay with moderate rounded pebbles (1017)(Fig 21, section B108). The layer did not completely extend flush to the arcade and cloister walls but was separated in each case by a slight gap [1009][1018] respectively. The gap was only *c* 0.10m wide in each case and possibly represents the location of a former feature against which the floor would have abutted.

There was no trace of any surviving floor levels within the cloister alley. Also, possibly surprisingly, there were no *in-situ* burials.

The southern range

The southern range was formed by the main cloister wall which ran east-west through Area B1 and into area B3, a southern back wall, the course of which was only located in Area B1, and the foundations for a western wall in area B3. The absence of the southern wall in Area B3 suggests that the layout of the range at this point may have been slightly different.

An early phase

Evidence for a possible earlier phase of cloister wall survived in both areas B1 and B3 (Fig 22). In area B1 this comprised two parts of an east-west foundation, immediately to the south of the later cloister wall on the eastern and western sides of the trench [1083][1084] (Fig 28). The foundations comprised irregular green sandstone pieces set into a loose orange-brown sandy mortar. The foundations

were 0.56m wide and were exposed to a depth of 0.25m. A foundation on a similar alignment and composition was exposed in trench B3 [3032]. Here the foundation had been cut away by the later southern cloister wall and other remodelling in the vicinity. The wall appeared to be associated with floor levels, although the exact relationship could not be determined.

Area B1, foundations for possible earlier cloister wall [1084], with white mortar surface [1085] abutting, looking north Fig 28

A linear band of orange-brown clay and yellow sand (1080) filled a possible shallow cut, 0.08m deep cut, aligned east-west [1081]. This may represent the base of a former feature against which a series of occupation and make-up layers had accumulated (1082)(1087)(1088)(1089) (Fig 29). These comprised brown sandy silts and compact orange clays. Cut into one of the clay make-up layers was a possible vertical-sided, flat-based slot [1092]. It was 0.16m deep and at least 0.28m wide. Its full extent was not exposed as it continued under later foundation [1033](Figs 21 and 22, section B105). It was filled with a dark brown sandy clay, with occasional small pebbles and flecks of orange clay (1091). Its function was not clear but it occupied roughly the same position as a later division of the room and so may be an earlier form of this partition. However, it was sealed by floor layer (1078) and so would not have been visible in later periods.

The finds from these floor layers, predominantly sandy coarseware pottery, also contained occasional Chilvers Coton A sherds, possibly indicating a 13th – 14th century date overall.

Overlying these layers was a possible floor surface. This comprised a very compact white mortar surface (1085) that abutted the wall. This surface was located in the base of the earlier evaluation trench and probably equates to further layers of compacted sand and mortar spread to the east (1075) and (1078)(Fig 21, Section B105). A further possible floor surface comprising a layer of crushed olive green

sandstone, 0.23m deep, was located to the east of kerb (1074). This was overlain by a dark brown sandy silt with flecked orange sand and occasional flecks of green sandstone (1071).

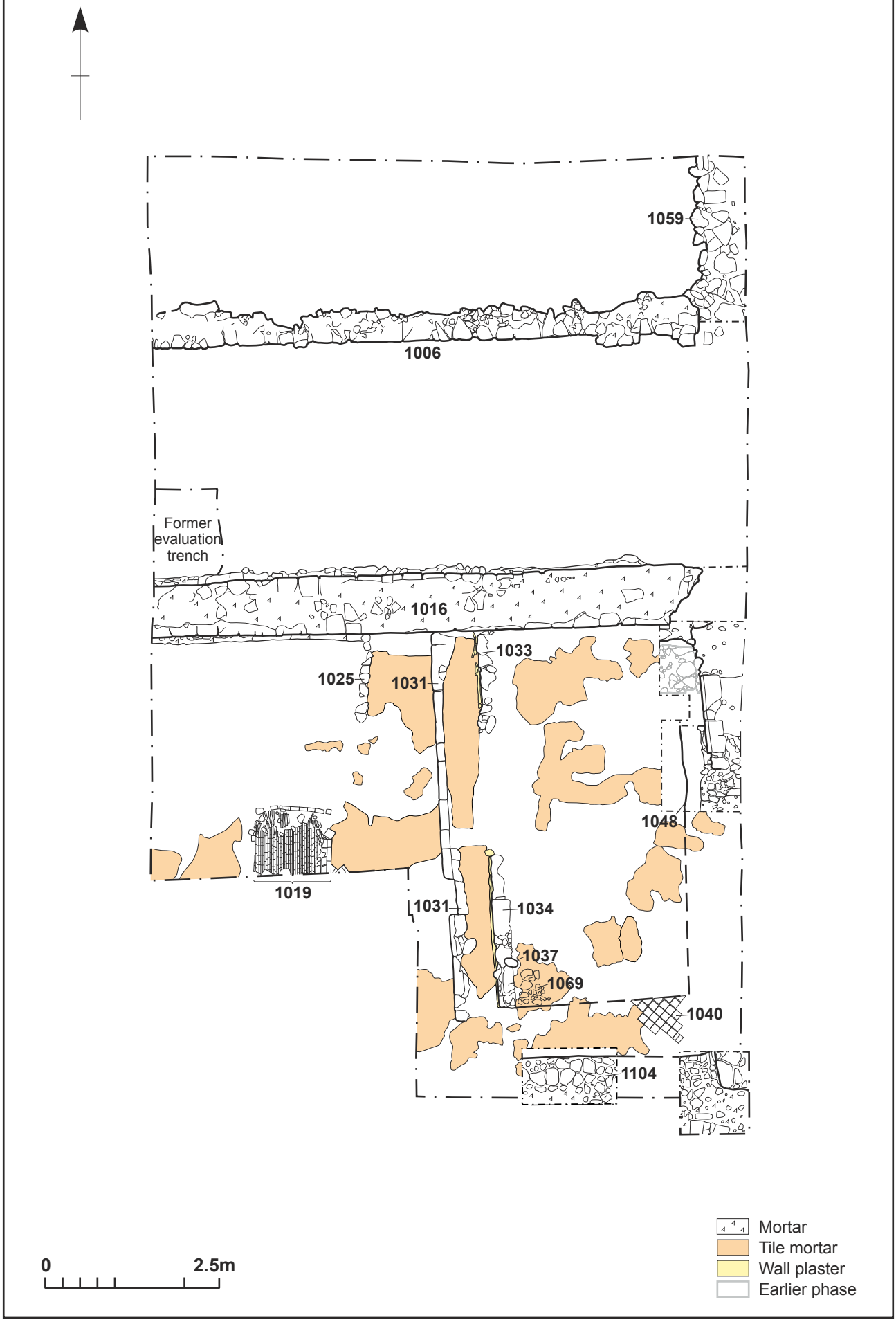
Area B1, surfaces sealed beneath hearth [1019], looking south Fig 29

Within Area B3 a similar series of soil layers were observed as in Area B1. Here they comprised alternating layers of a clean sandy make-up (3013)(3016)(3018) with darker soils, often with evidence of burning (3014)(3017)(3019). These were surmounted by a thick mortared floor surface (3012). A similar range of pottery was present as was found in the layers in trench B1.

The final phase

The room explored by area B1 was suggested as being the Abbey's frater. However, in its final phase at least, the arrangement of the rooms would not appear to support such a function since the area had been subdivided into a number of separate rooms, which would not provide the large communal area needed (Figs 30 and 31).

A layer of clean yellow-orange sand (1062) containing moderate small pebbles was deposited across the whole area to the south of the upstanding cloister wall, overlying the surfaces associated with the possible earlier cloister. It may represent a general make-up or bedding material associated with the re-modelling of the southern range. Two thin patches of a cream-brown sandy mortar, (1060) to the west and (1061) to the east were laid upon the bedding sand (1062). It may be that both were associated with the introduction of kerbing [1033](Fig 30).



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Area B1, Southern range Fig 30

Area B1, eastern room within southern range, looking north Fig 31

A step extending from the main cloister southward, separated the room into two halves; a lower western half and and higher eastern half (Figs 30 and 32). The division comprised a single course of kerbing stones made from dressed sandstone [1031]. The individual stones were 0.70m x 0.30m x 0.25m with a flat top and a rounded edge which chamfered down to a vertical western face. The stones were bonded with a grey-white lime mortar. To the east of this, marking the other side of the step, was a parallel but more fragmentary line of kerbing [1033][1034]. It was made of sandstone block as measuring 0.30m x 0.70m and up to 0.28m wide. The stones showed signs of heavy wear. The western face was dressed and had occasional patches of plaster adhering. Between the two lines of kerbing was a layer of greyish-white bedding mortar (1032) with the imprint of removed tiles, which would have been set parallel to the kerbing. This sat on a dark brown and yellow sharp bedding sand (1035).

Area B1, step with kerbing stones [1031], looking east Fig 32

The division terminated before the line of the southern wall of the range, and the remains of further footings for a return dwarf wall [1069] projected 0.50m eastwards. The foundation was 0.50m wide and comprised rough, mostly olive green sandstone pieces. These appeared to be un-mortared and abutted [1034]. Only a short length survived to a height of 0.10m with the remainder to the east having been removed by robber trench [1076].

Dwarf wall [1069] created a space 0.80m wide between itself and the southern wall [1104], which is interpreted as a corridor. This area had a patch of decorated tiles surviving *in situ* (1040) (Fig 33). However, their worn nature and mismatch of designs, suggests that these had been re-used in what was probably a generally unseen area. The tiles were set on a white - grey mortar base (1041) on a bed of dark brown and yellow sand with frequent mortar inclusions (1042). An ovoid hollow in the dividing wall [1037] is interpreted as a door post setting, suggesting an entrance into the easternmost room from the corridor. It was 0.20m long by 0.10m wide and 0.12m deep with a flattish base and near vertical sides.

The southern wall of the range [1104] had been removed down to its foundations and was marked solely by the line of the robber trench [1068].

Area B1, *in situ*, re-used tiles (1040), looking north Fig 33

The division is believed to be a dwarf wall onto which a possible timber structure or partition had been erected. The eastern room's dimensions would have been *c* 5.35m x 2.90m. The western extent of the western room was not established but it was exposed to a width of 4.70m.

However within the western room, to the west of kerbing [1031], there was evidence of possible further internal divisions. This comprised a 1.00m length of small limestone pieces and ceramic tile fragments bonded together with a coarse grey-white lime mortar to form a small foundation [1025]. It abutted the main cloister wall [1016] and projected southwards from it (Fig 30). The stones were roughly faced on their eastern side but overall had a ragged character. Its purpose is unclear, since if it was a dwarf foundation for such as a timber partition, it would appear to provide only a narrow division. It may be that it is an earlier feature pre-dating the kerbing, however, it appears contemporary with floor surfaces (1026) and (1027), to its east and west respectively.

The surfaces within the western room comprised surviving areas of yellowish-white lime mortar bedding for tiled floors with occasional impressions of former tiles surviving (1026)(1027)(1030). The surfaces were laid down on top of bedding material comprising coarse grey sands containing frequent mortar and occasional pebbles (1028) and darker brown and orange medium grained sands with fewer mortar inclusions (1029).

The floors of the eastern room were similarly constituted. Surviving patches of greyish white lime mortar had the impressions of former tiles surviving across them (1038). These impressions showed that the tiles would have been laid in a diagonal fashion across the room, rather than square to the rooms edges. The mortar was set on dark brown and orange sand bedding material (1039), equivalent to the similar

(1028)(1029) in the western room and (1041) in the southern corridor and overlying similar, earlier layer (1062)

The foundations of the eastern wall survived in part immediately adjacent to the main cloister wall. Here, built into foundation was a possible step or entrance through the wall [1086] into the easternmost room. It comprised two large light grey dressed sandstone blocks with chamfered edges, packed behind with smaller stones and orange clay. The stones appeared to be re-used. Further to the south the wall had been more heavily robbed and the line of the wall was visible only as a robber trench [1048].

Hearth

A tile hearth [1019] was located in the western part of are B1 (Figs 30 and 34). It was rectangular in plan, 1.10m long and exposed to 0.89m wide but it extended south beyond the edge of excavation, so its true dimensions could not be ascertained. It comprised rows of thin (0.17m x 0.02m) tiles set on edge and surrounded by thicker, square tiles (0.13m x 0.05m). There was no obvious mortar bonding, instead the hearth tiles were set into a friable brown sand (1021). The hearth has associated floors comprising mortar surfaces for a now removed tile floor (1020)(1022)(1047) which in turn sat on a bedding layer of sand (1023). There was evidence of burning on the tiles and also, in places, scraps of melted lead. This may suggest a secondary use for the hearth, as part of the Dissolution dismantling process. Its position would suggest that it was located in the middle of the room, which raises questions as to its original function, since no features relating to a chimney were present, at least within the excavated area.

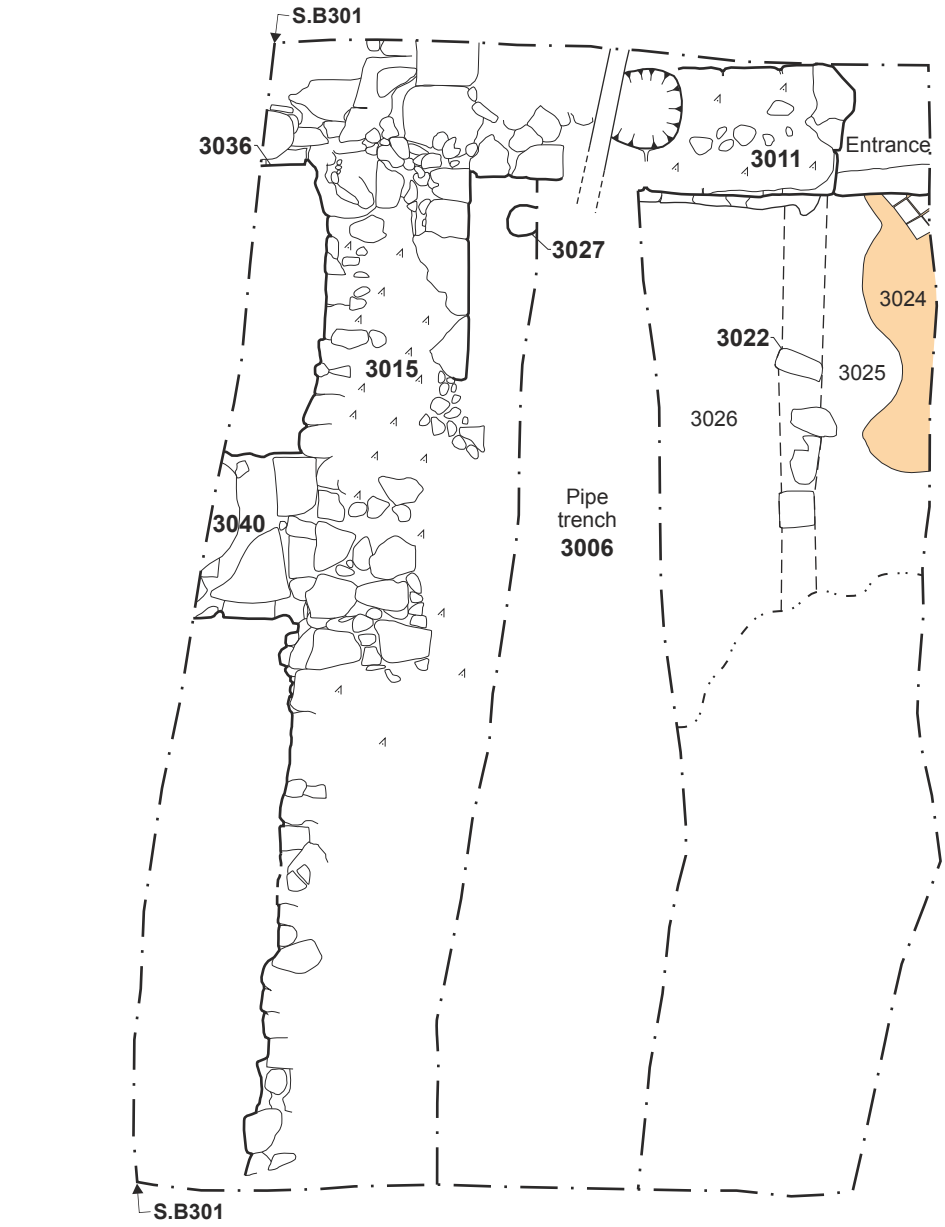
Area B1, hearth [1019] looking west Fig 34

Western end of the southern range

The western end of the southern range, as explored in Area B3, comprised a north-south aligned foundation of a 1.50m wide raft of rubble [2015]. On top of this parts of the wall survived, comprising faced blocks of stone, forming a wall 0.62m wide.

A possible corridor or ante chamber to the main southern range with an entrance leading from the cloister alley was located immediately to the east of this wall (Figs 35 and 36). A small area of *in-situ* decorated tile floor (3024) survived immediately inside entrance. This had previously been located by the Warwickshire Museum excavations {WM 312}. The tiles were worn, and set diagonally in relation to the surrounding walls. They were set in a light brown mortar which in turn sat on a bedding layer of orange brown sand, 0.05m thick (3025).

Although compromised by a modern service pipe bisecting the excavation area, a division of the area was apparent with the presence of differing mortared surfaces and a line of stones, possibly representing a former wooden wall support [3022]. The partition was represented solely by a sporadic line of red sandstone, olive green sandstone and limestone fragments. However, these were in line with the corner of the entrance through the cloister wall and the mortar surface to its west [3026], was different to tiled surface [3024] to its east, being less thick and not having any tile impressions. It would therefore appear that a partition may have extended from the cloister entrance southwards, creating a separate room *c* 2.30m wide at the western end of the range. Within the north-west corner of this area, a jug of late 15th century date had been set into the floor (Fig 37). It sat within a circular cut [3027] that had been dug, presumably through a floor surface, into the underlying foundations. Two large pieces of red roof tile provided packing for the jug. The purpose of this feature was not entirely clear but Soden (section 5.1 below) has suggested a possible connection with the Abbey's infirmary.



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Area B3, archaeological features Fig 35

Area B3: entrance from cloister into western end of southern range, facing south Fig 36

Area B3: jug [3027] set into floor, looking south Fig 37

The Dissolution and later activity

The Dissolution

As elsewhere on site, the Dissolution and later post-medieval activity was shown to be extensive. Apart from isolated survival, the tiled floors had been removed leaving only impressions in the underlying mortar surfaces. The main cloister wall had been taken down to a height of *c* 0.60m but had otherwise been left intact for most of its length. Only towards the eastern end of the excavated area did it appear to have been heavily robbed-out where robber trench [1048][1066] had removed an internal eastern stone wall which had projected southwards from it (Fig 30). This had been backfilled with a loose dark brown yellow sandy clay (1044)(1065) containing frequent irregular fragments of olive sandstone and grey limestone rubble. The southern wall of the range had also been removed down to foundation levels and backfilled with a similar loose, dark brown sandy clay with frequent small limestone fragments and tile pieces (1043). Internal partition wall [1069] was largely removed by robber trench [1077] and backfilled with a dark grey sandy clay (1076) but a small patch of the decorated tiled flooring survived here.

The western wall, as exposed in Area B3, was heavily robbed but the foundations survived intact. The northern side of the southern arcade wall foundation had been robbed away leaving only the southern facing stones intact whilst the western arcade wall, in Area B2, had been severely truncated to its foundation layer. The remains of possible *lavatorium* wall [1059] had similarly been heavily robbed down to its foundation. The robber trench [1058], backfilled with a light brown sandy silt with very frequent crushed mortar inclusions (1057), may have been truncated by later post-medieval garden activity as it only survived to a depth of 0.28m (Fig 21, section B103).

Possible evidence for the actual demolition process was occasionally present. Melted lead in hearth [1019] suggests a possible final use for this feature for processing lead from such as roofing and windows. Similarly, areas of burning, with scraps of melted lead against the western wall of the southern range, may also date to this period.

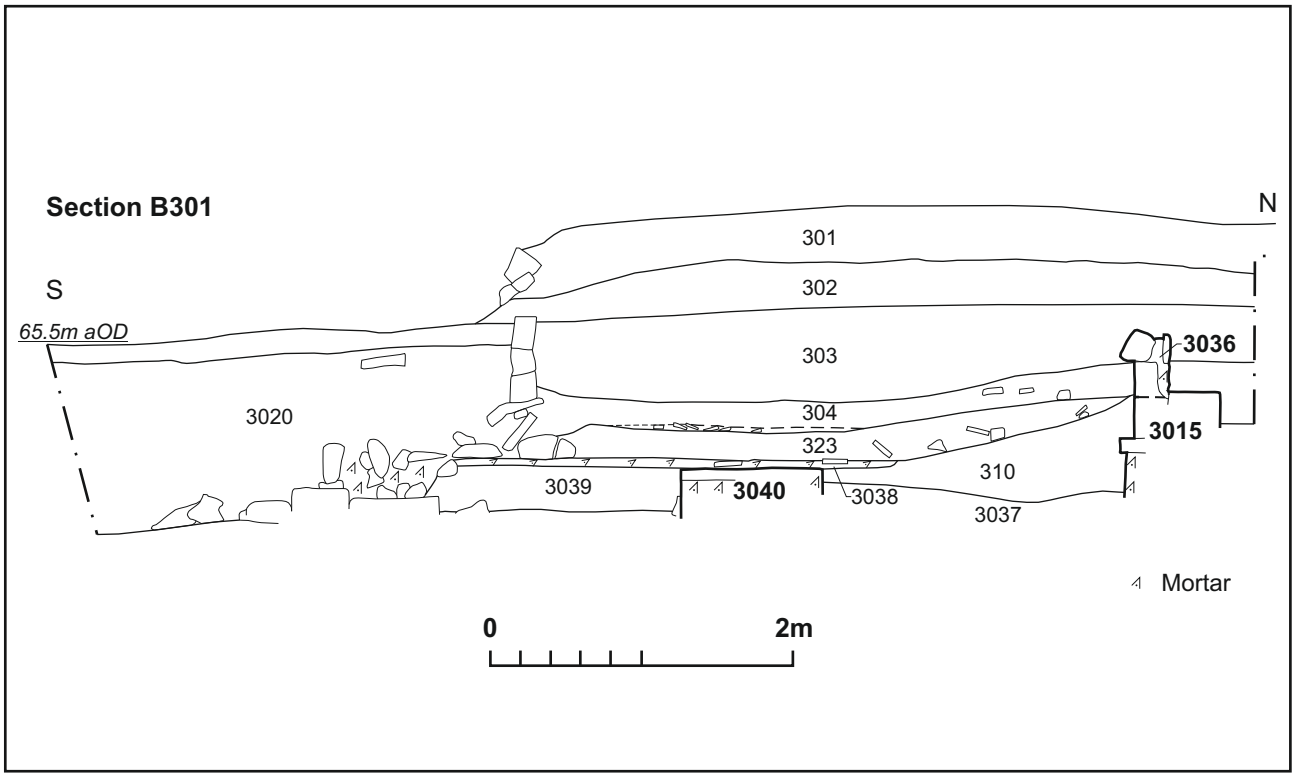
Post-medieval landscaping

Following the robbing out of the arcade foundations, the area of the garth was built up with introduced layers of soil (1005)(1052) comprising mid brown sandy with moderate small rounded pebbles and frequent mortar flecks. Into this had been cut a series of trenches or gullies, interpreted as garden features or planting beds [1051][1055][1102]. They all had a similar depth of *c* 0.52m with flat bases (Fig 21, section B103). Gully [1051] had near vertical sides whilst those of [1102] sloped down at 45^{o}. The profile of 1054 had more rounded sides. The fills of these features (1050)(1054)(1053) were very similar to the introduced soil into which they had been cut and so they were not all identified in plan. However, they would not have extended further south than the surviving parts of the arcade wall, which itself may well therefore have acted as a garden feature, or at least a division within the post-medieval garden, for some time. A similar sequence of deposition occurred in the south-west corner of the cloister as evident in Area B3.

Within the cloister walk itself, two linear trenches [1011] and [1013], aligned east - west had been dug. Cut [1011] was a roughly rectangular cut 0.75m wide, with uneven edges but near vertical sides and a flattish base, 0.13m deep. It was filled with a mid brown sandy clay with very frequent mortar and rubble fragments (1010). Cut [1013] was on a similar alignment but was narrower at 0.40m. It was also 0.13m deep. It contained similar mortar and rubble pieces but also frequent small, rounded river pebbles (1012). These features are also interpreted as garden features, such as planting beds, although it is also possible that they were dug to remove features within the cloister walk.

The primary demolition layer in the southern range comprised a dark grey sandy loam, with very frequent tile, large rubble and architectural fragments (1007)(1045)(1046). The layer was 300mm deep and extended over the whole of the southern part of Area B1. It had been spread across the area to level up and was located immediately below the topsoil.

In Area B3 there was a more complex depositional sequence associated with the post-Dissolution use of the site. Within the southern range, to the east of the western wall, a sequence of layers of dumped material was introduced to build up the ground level.



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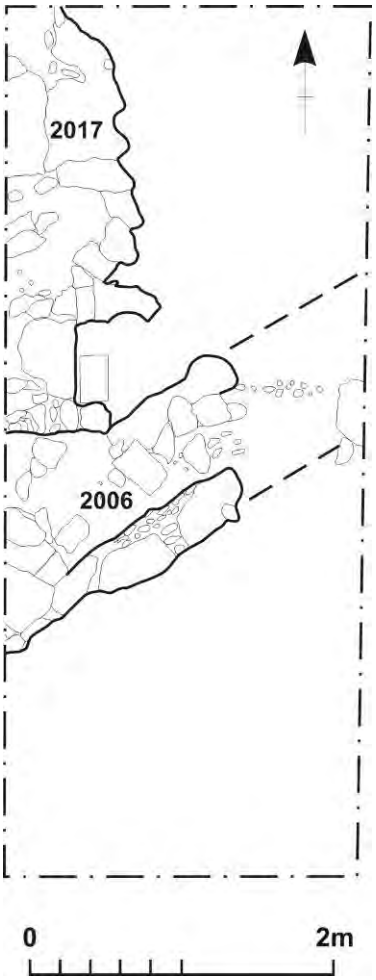
Area B3, section B301 Fig 38

To the west of the main wall, there was an apparent absence of 16th-century material, with the surviving infill being 17th-18th century in date suggesting that this area of the site may not have been part of the garden area (Fig 38, Section B301). These introduced soils comprised a loose, very dark grey sandy clay (3010) probably of 17th or 18th century date. This was overlain by a compact layer of crushed light brown mortar (3023) with very frequent red brick-bats, red roof tile and occasional small fragments of white mortar. This was overlain by a 0.30m deep compact very dark grey-brown sandy clay (3004). This layer contained frequent flecks and small pieces of coal, rounded pebbles and small fragments of tile and occasional large sandstone pieces. This may be a levelling layer.



Area B2, archaeological features Fig 39

Post-medieval features

A stone-lined, capped drain [2006] comprising grey sandstone blocks, with occasional orange clay packing was revealed in area B2 (Fig 39). Sitting at the base of a vertically sided construction cut [2013], it had been cut down through the post-medieval garden make-up layers in the south-west corner of the cloister (Figs 39 and 40). It was 1.00m wide, aligned north-east to south-west and was infilled with a brown sandy silt (2005). It is possible that the drain is associated with the post-medieval Polesworth Hall. It had been severely truncated on its eastern side with only vestigial pieces of rubble marking its line.

On the western side of the arcade wall footings was a remnant area of white grey mortar (2016). It seemed to be part of a surface that continued to the west beyond the edge of excavation. Although its function was unclear, it would suggest that the robbed foundations were left visible at some point in the post-medieval period.

Area B2, drain [2006], looking south-west Fig 40

In area B3, at the western edge of excavation, there were suggestions that significant post-medieval activity may survive further to the west. Two large upright dressed stones *c* 0.50m by 0.40m in size had been keyed into the earlier medieval wall forming a gap 0.30m wide [3036](Fig 35). The gap was infilled with orange clay sand containing small sandstone pieces. The function of the feature was not clear but it appears to either abut or cut through post-medieval levelling layer (2004), possibly suggesting a connection with the post-medieval garden or hall.

To the north and south of the arcade wall, the post-medieval garden layers were sealed by a layer of brown sandy clay (1049)(2011) up to 0.40m deep (Fig 21, section B103).

In the south-west corner of the former cloister (where exposed in Area B2) this layer was cut through by a number of later intrusions. A north to south cut [2017] had removed layer (2011) on the western side of the trench (Fig 39). Its backfill (2012), a mid brown sandy clay overlay the robbed-out western arcade wall. It was overlain by a very mixed layer of mortar, stone and tile fragments (2004).

A further intrusive cut into (2011) was a pit [2015], filled with rounded cobbles (2019) the edge of which was just visible in the eastern section of the excavation.

Polesworth Hall and modern activity
At the north of the main cloister wall the post-medieval garden layers and later dumps were overlain by a subsoil of dark brown sandy clay with frequent small pebbles, approximately 0.40m deep (1003)(2003). Sporadically across this was a spread of crushed coal (1004)(2002), 0.20m thick. This lay immediately beneath the dark grey sandy clay topsoil (1001)(2001) which itself was 0.20 – 0.30m deep.

In the western half of Area B3 was a light brown sand (3003), 0.40m thick, within which were very frequent pieces of mortar, brick-bats, red roof tile, slate, rubble and other destruction debris which were thought to be related to the demolition of a former structure, presumably the post-medieval manor house of Polesworth Hall, which was cleared for the new vicarage in the late 19th century. Here it overlay a mid grey-brown sandy clay (3002) which contained frequent pebbles, red tile, brick-bats and further destruction debris and was 0.35m deep. This may have been a levelling layer for a Victorian garden for the new vicarage.

The western wall of the range [2015] had been heavily truncated by Dissolution robbing but at its southern end it was subject to further attrition, probably in the Victorian period when a flight of garden steps was introduced. Although the steps had subsequently been removed, the construction cut [3021] remained, leaving the medieval wall foundations sloping down to the south. The area of the former steps had been infilled and the area levelled up with a dark brown sandy clay mixed with rubble (3020).

A rectangular cut [3009], surviving to 0.54m wide by 1m long, had been cut through the upper Dissolution layers. It was filled with a very dark grey brown sandy clay (3008) containing 19th to 20th-century pottery and other detritus such as animal bone. It presumably represents a Victorian or later rubbish pit.

It was overlain by a topsoil (3001) which became thicker (up to 0.60m) as it extended southwards, downslope, into the area of the former garden steps. A modern drain [3006], aligned north to south, ran from the modern pathway around the vicarage downslope towards the extant southern hedgeline. As it was an active service, it had to be left *in situ* and so a 1m-wide baulk was left effectively dividing Area B3 into two halves.

4.3 Trench 1

An earthen mound which stands in the churchyard had been subject to much varied speculation over the years forming a focal point for conjecture and local oral tradition for the village. A trench, 9.70m long, was dug through the mound, from its centre to the outer edge on its eastern side with the purpose of resolving the speculation as to its origin and construction (Fig 41). Due to the height of the mound, the trench had to be stepped throughout its length (Figs 41 and 42). The trench also had to be positioned so as to avoid the grave plots which were visible around its base. An earthwork survey was carried out to record the profile of the mound prior to the excavation (Fig 43).

Pre-mound levels

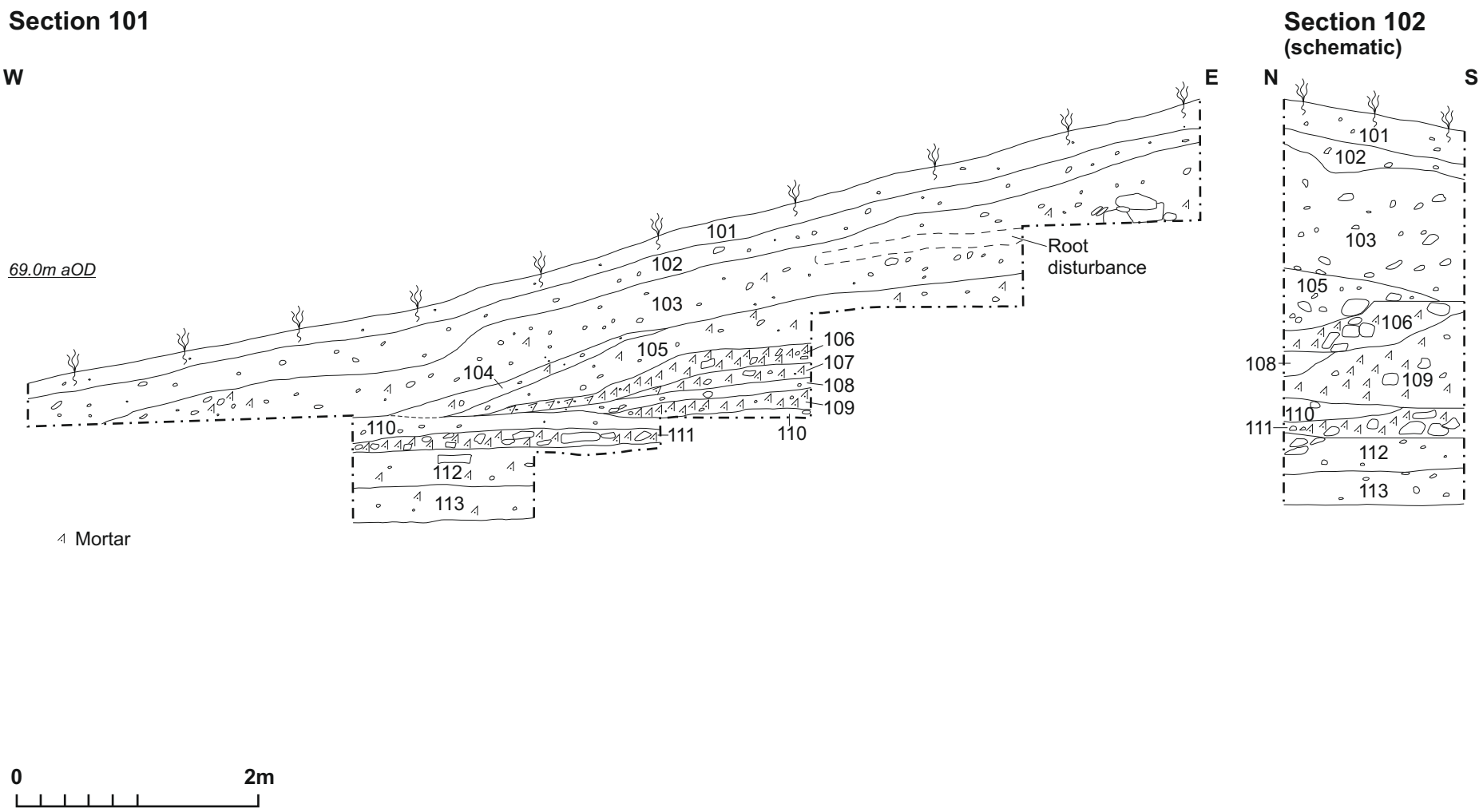
Natural geology was encountered at 3.35m below the top of the mound (114). Above this was a former subsoil comprising compact mid grey-brown sandy clay containing occasional flecks of mortar (113). This was overlain by a soil horizon comprising a dark orange-brown sandy clay which contained occasional rubble and flecks of mortar (112). It was onto this surface that the mound was built.

The mound (Fig 41)
The two lowest strata (111) and (110) were relatively level layers of soil containing mortar and rubble. Sherds of pottery dating to the 17th – early 18th centuries were recovered from (110). These layers were overlaid by a succession of similar but more intermixed layers (104) to (109) varying between 0.09m – 0.20m deep. Layer (106) had a particularly rich mortar content whilst layers (104) and (105) contained occasional disarticulated human remains within their fills.

It was difficult to fully untangle the sequence of deposition since the layers were often intermixed, suggesting a relatively rapid construction for the majority of the mound. The variation in soil types and inclusions would suggest the material was being brought from a variety of locations, although the presence of disarticulated human remains, mortar, rubble and other building materials would indicate that most derived from nearby demolition levels of the abbey.

The three upper layers of the mound significantly increased its width and height (possibly from *c* 13.00m long by 1.30m high to 20.00m by 2.75m). Layer (103) was 0.65m deep and contained frequent roof tile, rubble and other building material. It is possible that this was a later addition to the existing mound although no buried soil horizon was visible beneath it. Layer (102) was 0.32m deep and may itself mark the top of the mound prior to the formation of the overlying 20th century topsoil layer (101).

Scale 1:50

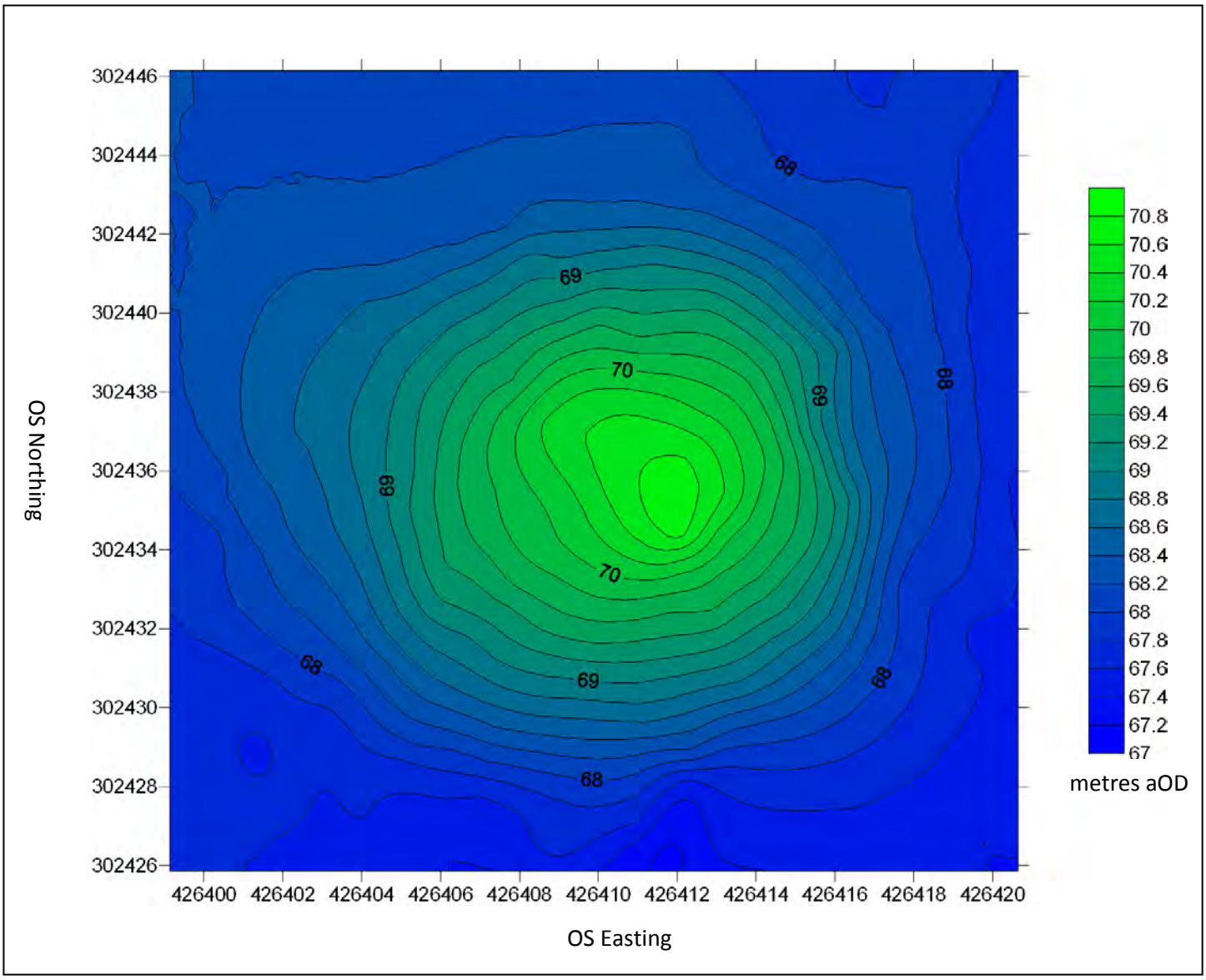


Trench 1 sections Fig 41

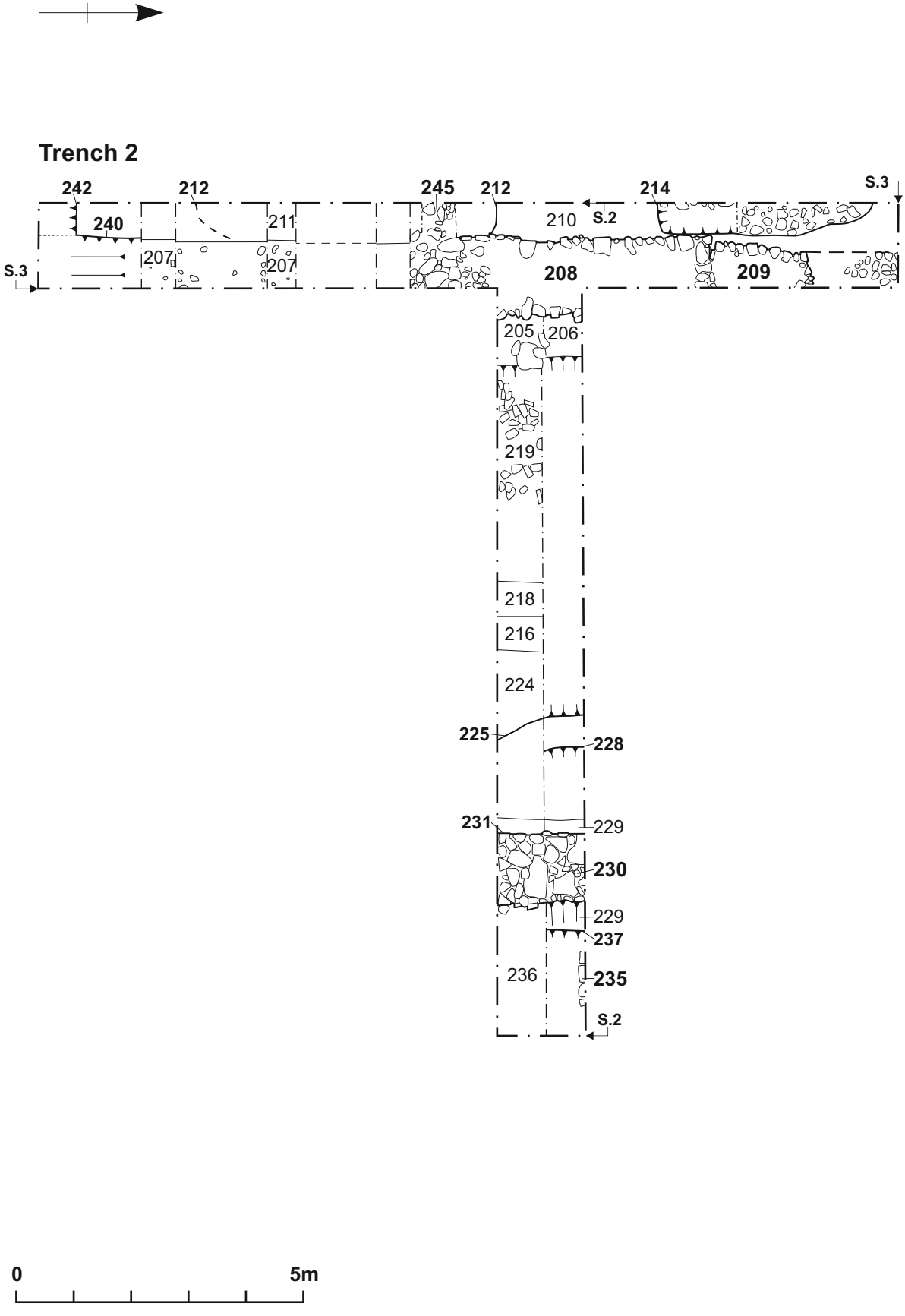
Trench 1, sections through mound, looking east Fig 42

Dating and function

There was no evidence to indicate that the mound was other than a post-medieval creation. The presence of building debris, along with the disarticulated human remains suggests that the mound was created from the spoil from the extensive 17th-century works witnessed elsewhere on site in the other archaeological interventions. Given its location it is possible that the monument functioned as a prospect mound within the wider 17th-century landscaped grounds of Polesworth Hall. It is also possible that mound was increased in size at a later date, possibly in the 19th century, when further demolition and construction works were taking place within the church grounds.



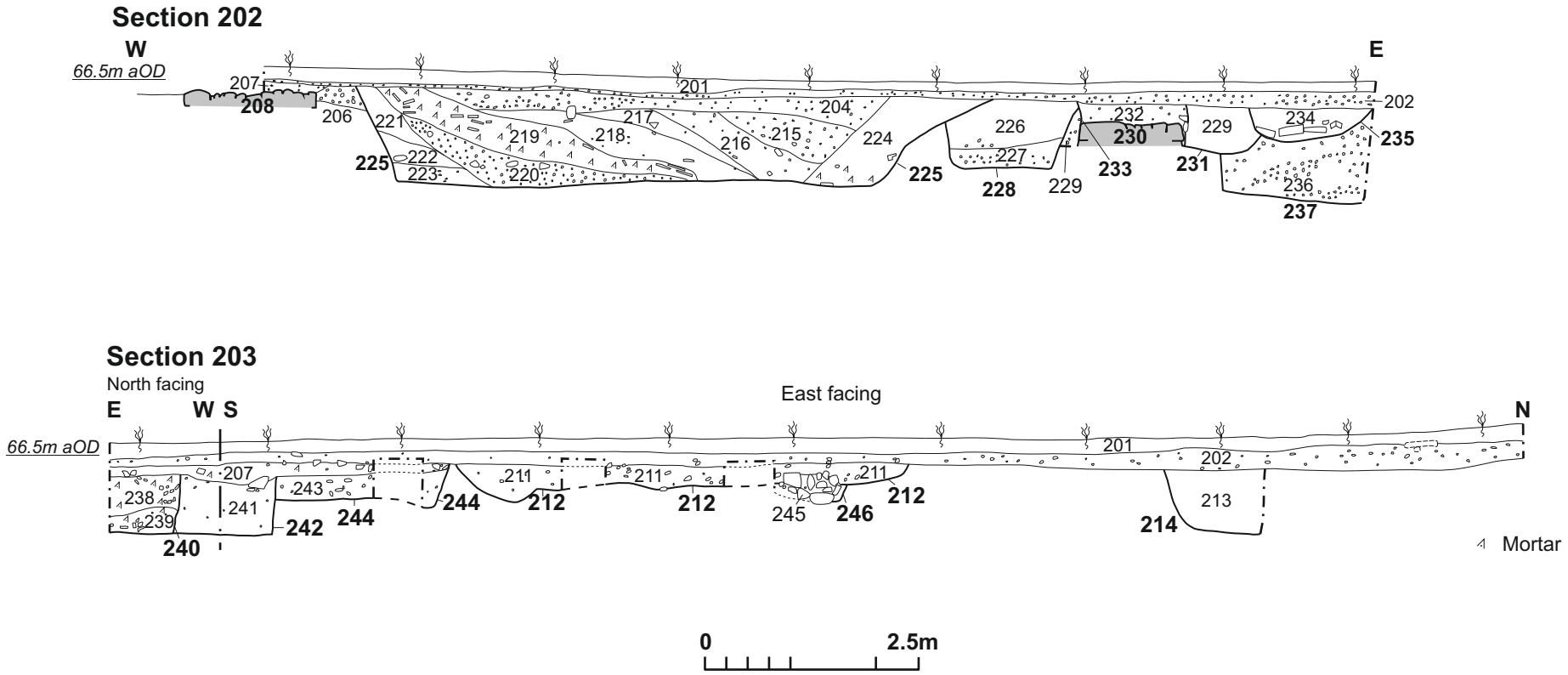
Trench 1, earthwork contour survey Fig 43



Scale 1:100

Trench 2, archaeological features Fig 44

Scale 1:75



Trench 2, sections Fig 45

4.4 Trench 2

Trench 2 was excavated in order to explore the eastern cloistral range of the abbey and in particular attempt to identify the location of the Chapter House (Figs 2, 44 and 45). Archaeological features were found at a depth of *c* 0.60m below the modern ground surface and comprised the remains of wall foundations associated with the abbey and Dissolution demolition and robbing. The post-medieval activity had removed all occupation levels within the area. However, an earlier phase of activity pre-dating the surviving abbey wall foundations was located to the east of the cloistral range.

Pre-building features

At the eastern end of the trench was a linear feature, probably a ditch, aligned north-south [237] (Fig 46). It was flat based and its western side was vertical. It was at least 1.70m wide but its eastern edge lay beyond the edge of excavation, so its full dimensions could not be established. It was filled with light grey-brown sandy clay which produced sherds of medieval sandy coarseware and a set of tweezers. It appears to have been cut through by wall foundation [231] and so must pre-date this phase of monastic construction.

Trench 2, ditch [237], looking north Fig 46

The eastern cloistral range

The foundations for the outer wall of the eastern cloistral range were present throughout the length of Trench 2. They had been heavily robbed at the southern end of the trench but they survived well in the northern half where they showed evidence of being at least two phases of construction.

At the northern end of the trench the wall foundation comprised a single course of irregular limestone pieces ranging in size from 130mm x 100mm x 30mm up to 200mm x 100mmm x 40mm, set in a yellow-brown mortar [209]. The foundation ran from the northern end of the trench for 3.20m before abutting a more substantial

constructed foundation [208]. This was made up of an outer row of squared limestone blocks up to 300mm x 270mm x 50mm in size with a more irregular rubble core. The wall was 1.45m long and 1.45m wide. It was shown to survive to a depth of three courses and was set into the natural sand and gravels. The change in construction is thought to mark a division within the range possibly between the slype to the north and the chapter house to the south (Fig 47).

Trench 2, eastern cloistral range, walls [208] and [209], looking south-east Fig 47

A further possible internal division within the range [245] was present 4.5m to the south of wall [209] (Fig 48). It comprised irregular-sized limestone rubble pieces set in a construction cut *c* 0.60m deep by 0.36m wide. It extended out to the west from wall [208], 4.5m to the south of the possible slype wall [209].

Trench 2, internal wall [245], looking north Fig 48

South of this point, the wall had been heavily robbed out and where sampled, it appeared that only vestiges of the line survived. However at the southern end of the trench was the line of a second north-south division, represented by robber trench [242]. This lay *c* 7m to the south of interior wall [245]**.**

An exterior building

The foundation of a substantial stone wall, aligned north south, was located 9m to the south of the eastern cloistral range [230] (Figs 44 and 49). It comprised roughly worked sandstone and limestone blocks up to 850mm x 440mm x 150mm in size with occasional yellow-brown mortar between the stones. It was 1.4m wide and 0.20m deep, surviving two courses high. The foundation had been set in a construction cut [231], at least 2.20m wide and 0.54m deep which had been filled with a packing of light orange-brown gravelly sandy clay (229).

An undated pit [228] lay to the immediate west of wall [230]. It was 1.6m wide and 0.80m deep. It had a near vertical western edge, with the southern and northern sides beyond the edges of excavation. Its primary fill comprised a mid grey-brown sandy silt (227). An upper secondary fill (226), similar in character but with fewer stones, shows that unlike several of the other robber trenches in the vicinity that it had been left open for a period of time. The pit was undated but cut through the foundation of wall [230] and in turn was cut by the large pit [225].

Trench 2, wall of exterior building [230], looking west Fig 49

Demolition of the eastern range

The remains of the monastic buildings had been subject to sustained attrition from robbing and other demolition activity. No *in-situ* floors survived and walls were represented only by foundations or robber trenches.

South of the internal division [245] the cloistral wall had been removed by a robber trench [240] for a length of 6.5m. The robber trench had near vertical sides was 0.80m wide and 0.78m deep. It had been backfilled initially with a dark-orange brown sandy clay which contained occasional painted plaster and brick and tile. A secondary fill of light orangey-brown silty clay overlay this. At the southern end of the trench a similarly vertically-sided robber trench [242], 0.68m deep and aligned east to west, indicates the position of a former internal division within the range. If this was the southern side of the Chapter House then the dimensions of the room would be approximately 11m x 8m.

Pits

A pit had been cut within the interior of the eastern cloister immediately north of the outer wall [214]. It had a squared south end but a slightly rounded north end, was 1.46m long and 0.76m deep (Fig 45, section 203). Only the eastern half lay within the trench to a width of 0.70m. It was steep-sided with a flat base and filled with very frequent irregular stone rubble set in an orange-brown sandy clay. It contained sherds of blackware possibly dating the feature to the 18th/19th centuries.

A shallow sub-rectangular pit [212], 5.2m long and 0.46m deep had been dug in the southern part of the trench, removing parts of the foundations of the eastern cloistral wall (Fig 45, section 203). It had an uneven base and was backfilled with a grey-brown silty clay (211) which contained some disarticulated human bone. The amount of bone was not great and it seems likely that the fill is from material dug up elsewhere on the site, rather than a deliberate re-interment of individuals.

Immediately at the south of [212] a further pit had been cut into the interior of the Chapter House [244]. It was filled with grey-brown silty clay and was 0.43m deep (243). Its proximity to the section edge, however, made further characterisation impossible.

Demolition of the exterior building

As within the eastern range, no floor levels survived associated with the wall foundations at the western end of the trench (Fig 45, section 202). Robber trench [233] cut through the earlier pit [228] and directly on top of the wall foundation [230]. It had been backfilled with light orange brown silty clay (233).

Other post-medieval features

The area between the eastern cloistral range and the wall of building [230] was dominated by a large, deep flat-based pit [225] (Fig 50). It was 1.20m deep and 7.00m wide and extended beyond the northern and southern edges of excavation (Figs 44 and 45, section 202). Its function is unclear although it may simply have been a large quarry pit. It was backfilled with a succession of (204)(215) – (220), containing pottery, clay tobacco-pipe and glass. There is the suggestion that the pit had been re-cut through earlier layers (221)-(224).

Trench 2, pit [225], looking north-west Fig 50

A small ditch [235], aligned north-south, cut through possible wall construction cut [231]. It had a rounded base and was filled with re-used stone rubble and mortar flecks set in light orange grey-brown sandy clay (234) (figs 44 and 45, section 202).

Later post-medieval consolidation
Over the top of the robbed-out walls a layer of grey-brown silty clay with moderate rubble and mortar had been deposited (207). It was 0.24m deep and appeared to be a levelling layer. Above this a 19th-century layer of grey-brown sandy clay containing frequent pebble inclusions overlay the whole trench (202)(203). The quantity of pebbles in some of the area suggests the presence of metalling, possibly deriving from a former pathway.

4.5 Trench 3

A previous geophysical survey had identified an area of high resistance that was thought to possibly indicate the presence of a building in the outer precinct to the west of the cloister. Trench 3 was dug to investigate this geophysical anomaly (Figs 51 – 52).

Soil horizons throughout trench 3 were not clear. The extremely dry conditions and the similarity of different soils made it difficult to clearly identify separate contexts. However, the discovery within the trench of two inhumations and possible further grave cuts suggests that this was the location of the abbey cemetery. The two inhumations were exposed and cleaned but not removed since they were not threatened with disturbance.

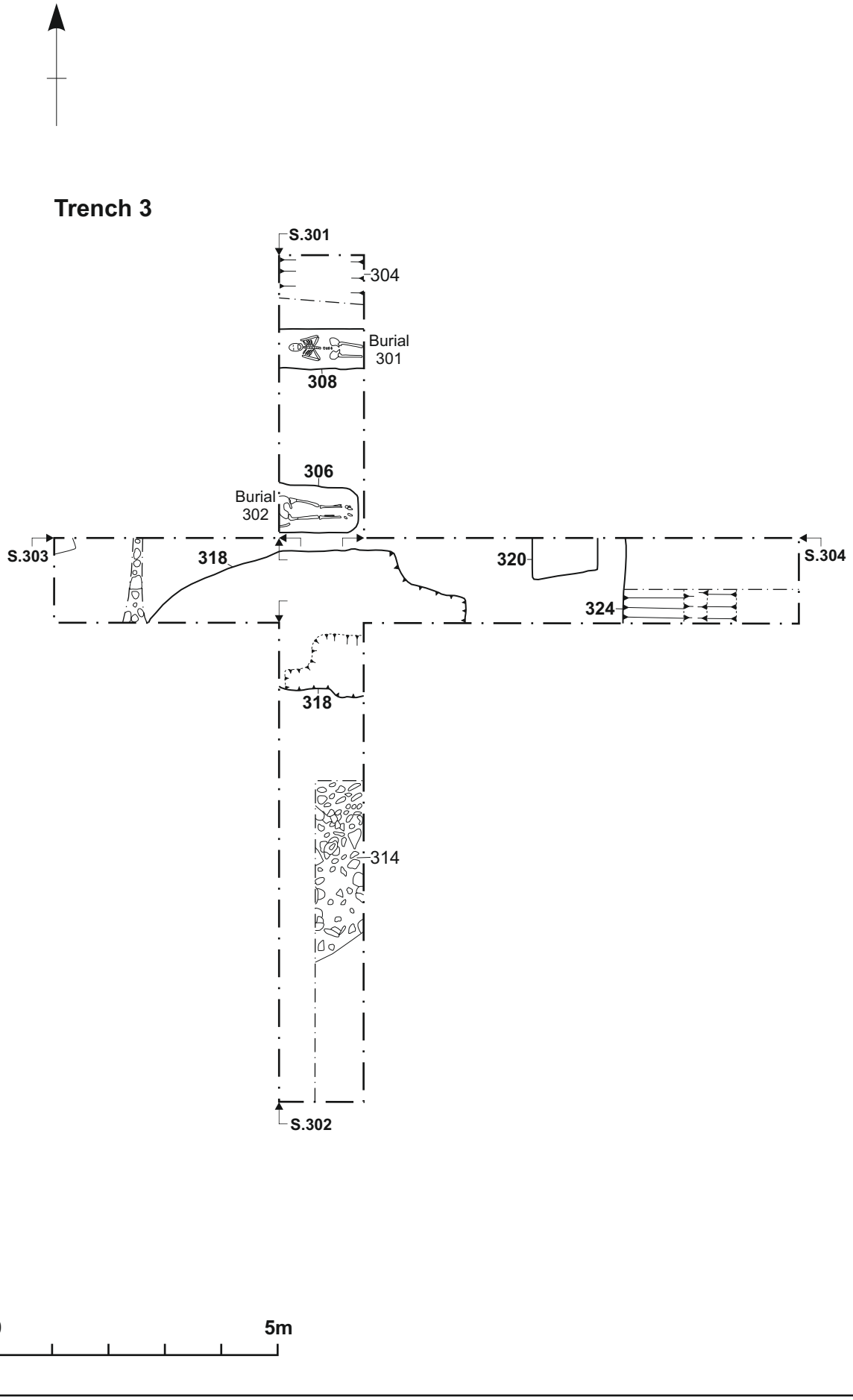
Earlier features, comprising a soil horizon and a possible boundary ditch, were present whilst post-medieval and modern activity saw 'landscaping' of the area with the introduction of a possible trackway and the deposition of layers of soil – some possibly deriving from the immediately adjacent 20th-century open cast coal mine.

No trace of any potential structures identified by the geophysical survey was encountered and it is likely that the geophysical anomaly was caused by the high resistance of the dry stony ground.

A boundary ditch
At the eastern end of the trench was an undated ditch [324], aligned north – south. It was 0.65m deep and 0.75m wide, although its eastern side extended beyond the edge of excavation (Fig 52, section 304). It had a bowl-shaped profile with shallow sides and was filled with mid grey-brown clay (323).

The remnants of a soil horizon (322) may also pre-date the burials found in the trench (see below).

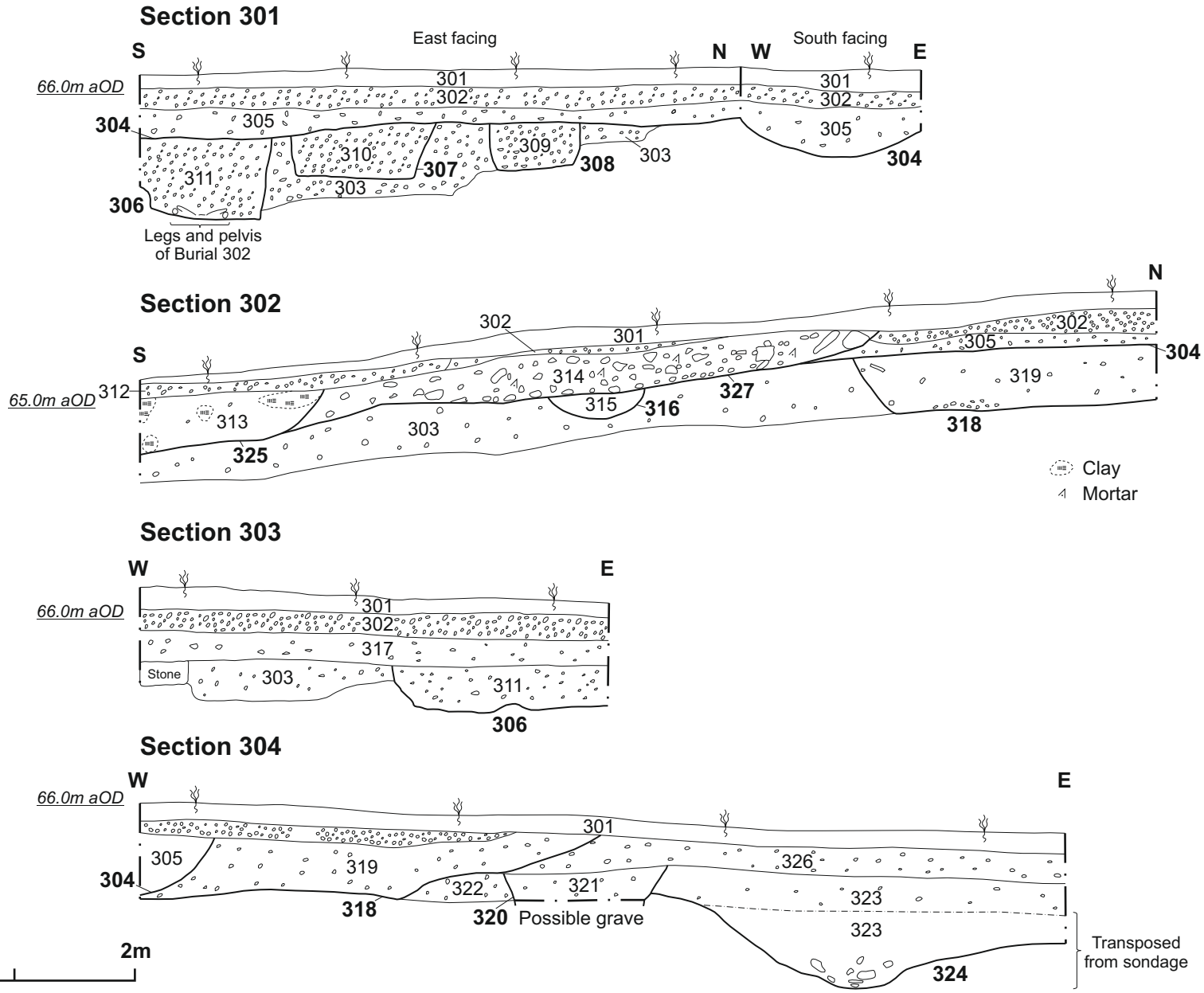
Cemetery
Overlying the natural geology throughout much of the trench was a mid grey-brown layer of silty clay with moderate rounded pebble inclusions (303). It was into this that the graves for two unaccompanied inhumations had been cut [306][308] both having steep vertical sides and flat bases (Figs 51- 53, section 301). Other cuts within the layer were visible [307][320] and may represent further graves. The grave fills were very similar to the surrounding earth making identification difficult and as such (303) can best be seen as a 'grave earth'. The positioning of the burials in relation to each other possibly suggests that rows, if present, may not have been perfectly aligned.



Scale 1:100

Trench 3, archaeological features Fig 51

Scale 1:50



Trench 3, sections Fig 52

Trench 3, Burials 1 and 2, looking west Fig 53

Burial 1: grave cut [308], grave fill (309)
A supine extended burial, aligned east-west with hands crossed over sternum (Fig 54). There was no evidence for a coffin and no shroud pins were present. An estimate based on casual observation suggested the burial was of a female of over thirty years of age. The burial had a stone within the mouth – but it was not clear if this was a deliberate depositional act or was simply coincidental.

Burial 2: grave cut [306], grave fill (311)
A supine extended burial but only the pelvis and legs were visible in the trench. Hands were laid straight out at the side. Based on pelvis dimensions the burial may have been that of an adult male.

Trench 3, Burial 1, looking west Fig 54

Post-cemetery activity

There was an amorphous cut [318] located within the centre of the trench, measuring approximately 2.5m by 5.5m and 0.50m deep, filled with light orange brown sandy clay (319). Its function was unclear but it may have served as a quarry pit.

A ditch [304], aligned north-south, ran through the majority of the length of the trench cutting though the medieval grave earth (303). It was 1.75m wide, 0.40m deep with a bowl shaped profile and filled with mid orange brown sandy silt containing charcoal flecks and fragments of tile (305) (Fig 52, section 301).

Towards the southern end of the trench, there was a small U-shaped ditch, aligned east-west, 0.70m wide and 0.25m deep [316], with a fill of light yellowish-brown sandy silt (315). It may be associated with north-south ditch [304] but the relationship could not be established (Fig 52, section 302).

Post-medieval landscaping

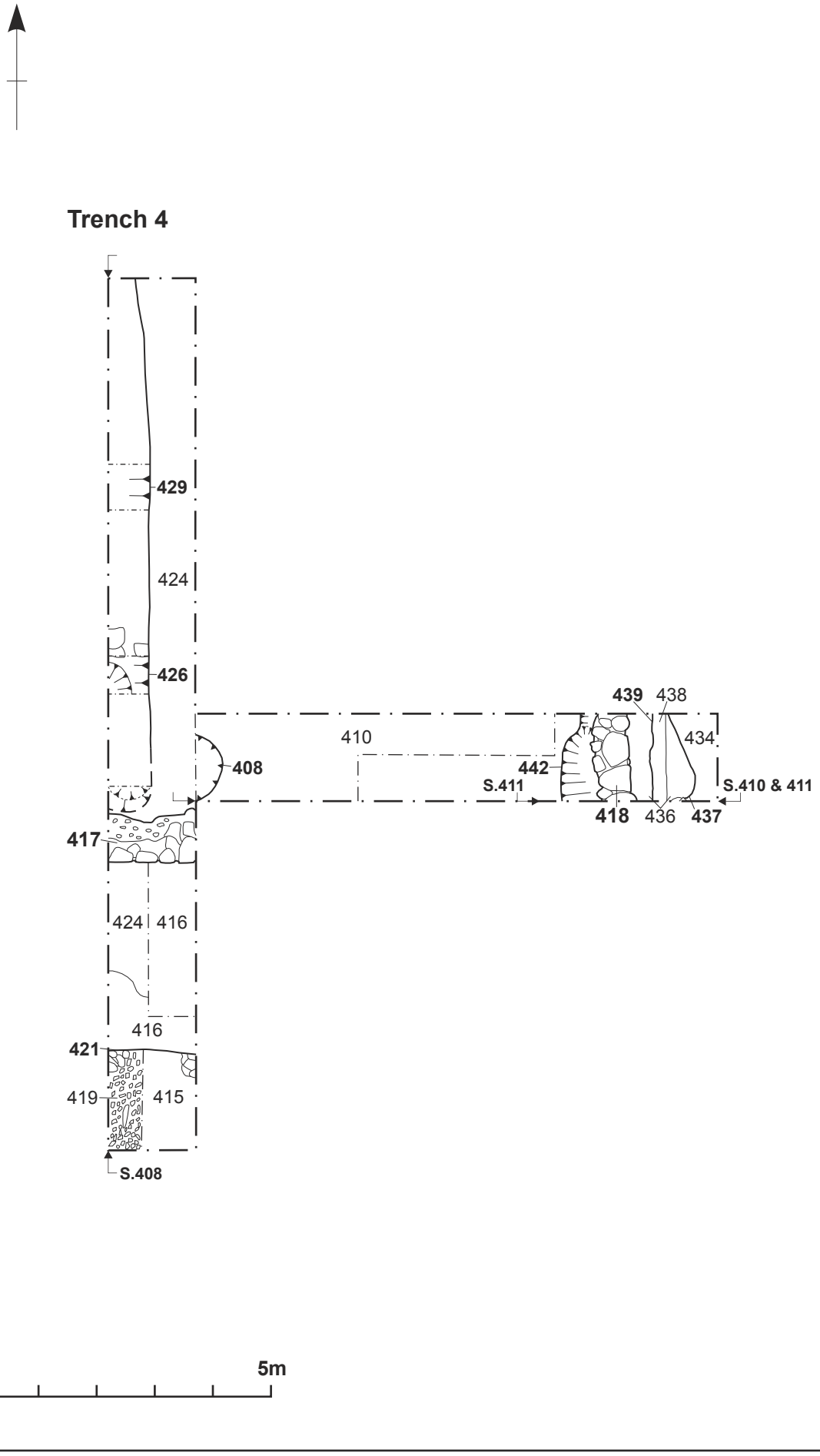
At the south of the trench, the remains of ditch [304] had been truncated by a shallow cut [327], with a fill of light grey-brown clay silt with frequent stones and rubble fragments (314) (Fig 55). This may have formed a surface or trackway and may

equate with a track shown on the 1850 Tithe Map. At the southern end of the trench this appeared to have been cut away by a flat-bottomed feature that extended beyond the end of the excavation [325] (Fig 52,section 302). The fill of the trench was similar, except with some clay content (313). Further make up or levelling layers comprising greyish-brown silty clays with occasional small stone inclusions (312) and mid orange-brown sandy silts with frequent pebbles (302) overlay the remainder of the trench immediately below the topsoil.

Trench 3, possible post-medieval trackway (314), looking south Fig 55

4.6 Trench 4

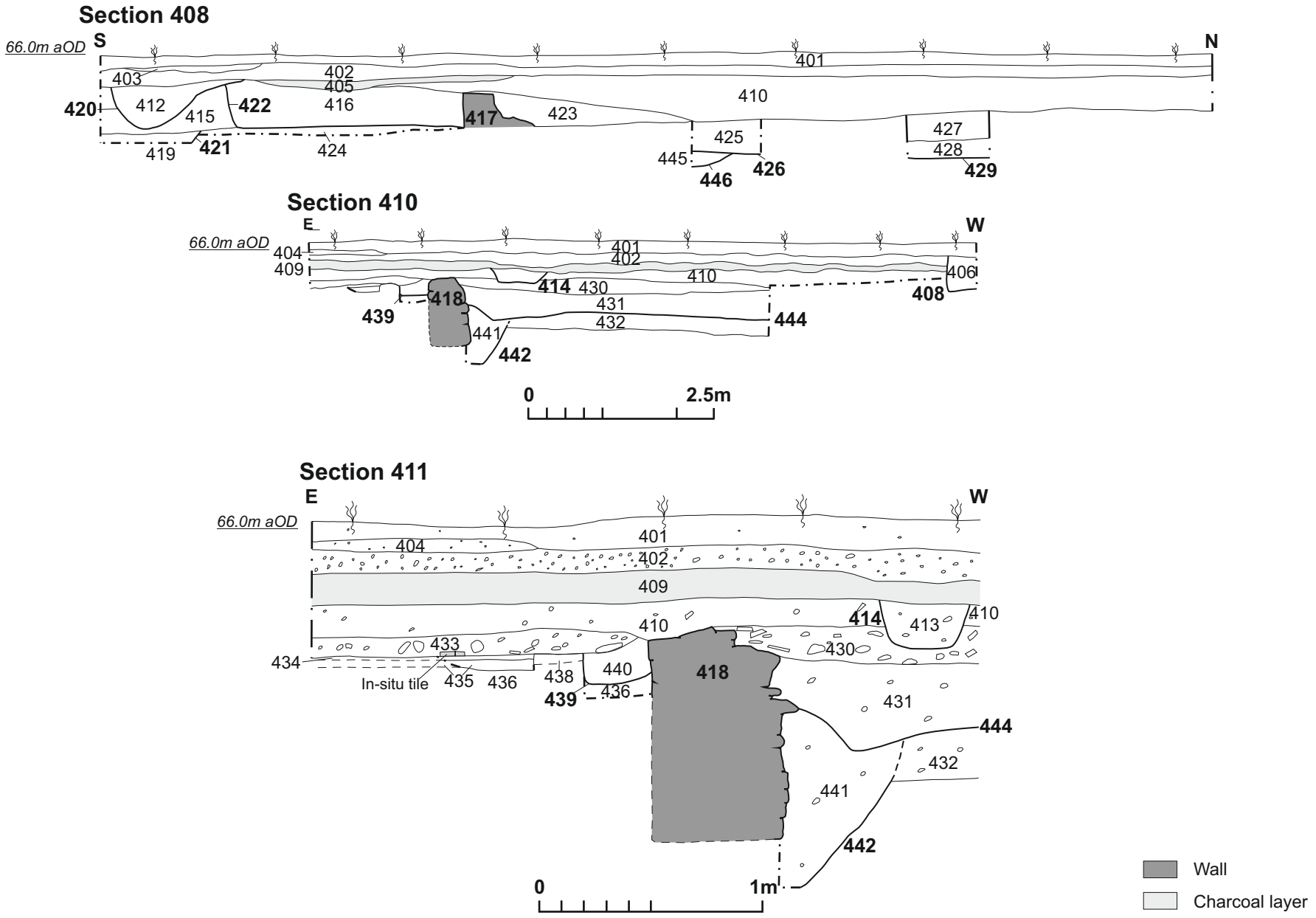
A T-shaped trench was dug in the modern vicarage garden in order to examine the southern and eastern sides of the cloister (Figs 2, 56 and 57). The earliest levels encountered in the trench comprised an undated soil horizon, directly overlying natural. It was into this layer that the walls of the Abbey cloister had been cut.



Scale 1:100

Trench 4, archaeological features Fig 56

Scale 1:75 & 1:25



Trench 4, sections Fig 57

The remains of the partly robbed eastern and southern arcade walls were located, with the eastern wall being associated with surviving mortar floors. A substantial, deep robber trench is thought to be the location of the southern cloister/northern frater wall. This would have created a cloister alley *c* 3.2m wide.

The robbing of the walls was part of a much wider transformation of the cloistral area after the destruction of the abbey, with indications of landscaping activity from the 17th century onwards.

Pre-cloister levels

A layer of light brown-grey sandy silt with occasional pebbles and light clay flecks was located in the eastern arm of the trench (432). It appeared to have been cut by the construction trench for the eastern arcade wall [418] and so is presumed to represent a pre-cloister soil horizon (Figs 56 and 57, sections 410 and 411). It was approximately 0.22m thick where excavated but produced no dating evidence. It equates to layer (424) which pre-dated the southern arcade and cloister area. The edge of a small pit which cuts this layer was observed in the base of post-Dissolution garden feature [426] and may be a pre-cloister feature.

The eastern arcade

Foundations for the wall of the eastern cloister arcade [418] were exposed in the eastern arm of the trench (Fig 58). It comprised a mixed rubble core of apparently burnt sandstone, large pieces of ironstone, smaller pieces of sandstone and pebbles. The largest piece of ironstone was 440mm x 440mm x 120mm. No facing stones were present. The foundation survived to a width of 0.52m and was exposed to a depth of 0.50m.

Trench 4, eastern arcade wall [418], with mortar foundation (438) cut through by robber trench [439], looking south Fig 58

A possible construction cut [442] was present on the inner (western) side of the cloister wall. It had a flat base and sides sloping down at 45°. It was filled with brown-grey sandy silt (441). It was unclear whether the wall sat in the base of the cut and it is possible that rather than a construction trench, the feature represents an earlier ditch over which the wall had been placed.

When aligned with the southern arcade wall (see below) it would appear that the trench had exposed the extreme south-east corner of the cloister and as such the eastern arcade wall would have to turn to the west immediately under the edge of the trench.

Within the interior of the arcade, to the east of the wall, a layer of light yellow mortar (438), 0.28m wide and 0.07m thick, had been laid on a make-up layer of dark brown silty clay (436). The mortar had been cut away at its west by a robber trench [439] (Fig 58). At its east it formed a straight edge probably representing the line up to which a former tiled surface had been laid. The tiles had almost entirely been removed by a shallow cut [437], however, a single example survived which sat on a compact mortar base (434) which in turn overlaid a make-up layer of mid orange brown silty clay (435).

Mortar band (438) was different in character to the make-ups for the mortar floor at its east and it may therefore represent a later modification or possibly the base for a feature set against the wall.

The southern arcade wall

The foundations for the wall of the southern arcade were located approximately halfway along the north-south arm of the trench [417] (Fig 59). Its southern face survived intact with roughly squared sandstone blocks of *c* 400mm x 290mm x 170mm. The north side of the foundations had been robbed away and the inner rubble core exposed. This was shown to comprise a mixture sandstone (sometimes burnt), Ironstone and river cobbles. It survived to a height of 0.30m and a width of 0.90m.

Trench 4, southern arcade wall, looking south Fig 59

Unlike the eastern arcade, there was no indication of associated floor levels surviving, these having been cut away by later robbing and landscaping activity. However, the wall was cut into a dark-greyish brown sandy silt with occasional charcoal flecks (424) which probably equates with pre-cloister layer (432) seen at the east of the trench.

The southern cloister wall

The southern cloister wall was represented by a robber trench at least 1.30m wide [421]. In its base was a compact layer of red sandstone pieces (419) (Fig 60). It is unclear whether these are the foundations for the wall or material put back into the robber trench. Their compact nature would possibly support the former interpretation but, due to the depth of the trench, they could not be explored further.

The distance to the southern arcade wall [417] would provide for a cloister alley 3.20m wide, which equates with observations made in previous excavations.

Trench 4, robber trench [421] for southern cloister wall, looking west Fig 60

Dissolution robbing and later landscaping

The southern cloister wall was removed by robber trench [421] and the ground was then levelled with the introduction of a layer of soil *c* 1m deep (415), presumably infilling the void left by removing the wall and possibly the alley which may also have been removed at this time. Curiously, the stump of the southern arcade foundations may have been left *in situ* to act as a stepped division across the newly created garden. A similar situation was evident along the eastern side of the cloister where the garth was removed by robber cut [444] up to the base of arcade wall [418] (Fig 57, section 410). This would have lowered the ground level, suggesting that the entire area of the former cloister garth was now a slightly sunken garden with the foundations of the arcade walls remaining visible.

The introduced soil (415) was then cut away to the south producing a flat-based pit or trench [422], 0.65m deep with near vertical sides, leading up to the remains of the arcade wall (Fig 57, section 410). The function of this cut is not clear but it would appear to post-date the robbing of the cloister alley and appears to be a landscaping feature.

At the north of the arcade wall, was a linear slot, 0.35m deep, aligned north-south [426] and cut into the reduced ground level. It's southern end terminated immediately in front of the arcade wall whilst to the north it extended beyond the end of the trench. Its western edge lay beyond the trench. Its eastern side sloped down steeply at *c* 70^{o} and merged with an uneven but relatively flat base. It was infilled with mid greyish-brown silty sands (425)(427)(428) which contained mortar flecks and small pieces of degraded sandstone and tile. The three sherds of pottery recovered, comprising Midland Purple, Cistercian Ware and Sandy coarseware, indicate a possible 15th or 16th century date and it would seem likely that the slot represents a garden feature, possibly a planting bed.

If trench [422] was not infilled, then the garden would have been divided in two by the low remains of the southern arcade foundations, with a mound covering the location of the former southern cloister wall. However, if trench [422] was a planting bed, immediately infilled with yellow-brown silty sand (416) then the southern arcade wall would have acted as a small retaining wall for the raised southern garden beds.

This bipartite garden arrangement was ended with the introduction of layers of mid grey-brown sandy silt (423)(430)(431) which simultaneously covered the southern end of planting bed [426] and mounded up to and over the remains of arcade walls [417] [418]. At the south, this would have produced a gentle slope up to garden bed [422].

A linear trench [420], aligned east-west and located directly over the line of the former southern arcade wall, was dug into levelling layer (415) (Fig 57, section 408). The trench was *c* 2.00m wide and 0.60m deep and had a rounded U-shaped profile which shallowed out towards the lip of its northern edge. It had been backfilled with a mid grey-brown silt containing frequent building debris including some pieces of worked stone [412]. The debris within the trench and its location would suggest that it was likely to be a robber trench, possibly for a wall that had been re-built along the line of the southern cloister wall and which presumably acted as a garden feature. Sherds of tin-glazed earthenware within the backfill would suggest a late 17th or 18th century date for its removal.

The landscaped garden was then levelled up with the introduction of a layer of mid orange-brown sandy silt (410), which was up to 0.55m deep in places and deposited across the majority of the area. Dating evidence from this levelling layer, which included pottery, clay tobacco pipe and animal bone, indicates a 19th century or later date for this operation.

A gully [414], aligned north-south, 0.33m wide and 0.15m deep with steep sides and an uneven base cut through the levelling layer (Fig 57, section 410). It was filled with a dark orange-brown sandy silt (413) containing small pieces of brick and tile, charcoal and limestone. Its purpose was not clear. Further levelling material was then introduced in the form of a layer of crushed coal (404)(409), *c* 0.12m thick spread across from the eastern arm and southern part of the trench. This material is presumed to derive from the local open cast mining and may relate to levelling the garden for a tennis court that was known to be here in the 1930s.

Above this and across the entire trench was a stony, dark grey loam layer (402) 0.10m thick. Two clinker, cinder and ash pathways, one aligned east-west (404) and one north-south (403) were constructed at this level; a local resident recalled that that in the 1960s debris from furnaces were emptied onto pathways at the vicarage.

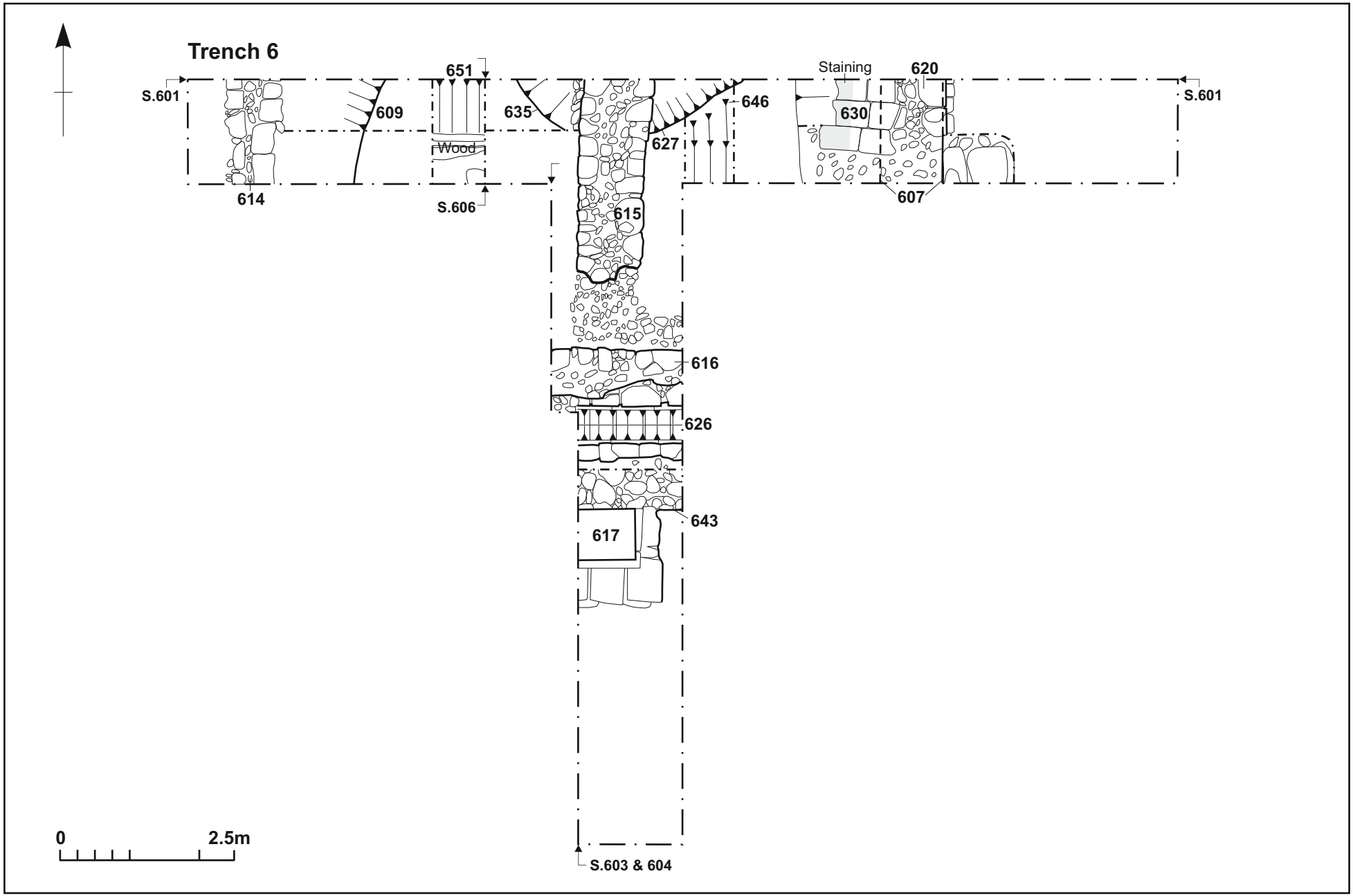
The most recent feature in the trench was a circular posthole [408], which had a diameter of 1.20m and was 0.50m deep, with vertical sides and a flat base. It contained a mid reddish-brown clay packing (406) and was infilled with a grey brown loam mixed with red sandy clay (407). Local residents remembered that this was the site of a 'totem pole' erected for a children's garden party at the vicarage in the 1990s.

4.7 Trench 6

Trench 6 was excavated in order to examine the southern end of the eastern range, thought to be the location of the reredorter (Figs 61 and 62). This area had previously been explored during rescue works during the late 1950s in advance of the re-routing of the River Anker. The current excavations showed that archaeological features survived at a depth of 0.40m below the modern ground surface and comprised the remains of wall foundations associated with the abbey and subsequent Dissolution demolition and robbing. Earlier phases of activity pre-dating the surviving abbey wall foundations were located in the northern part of the trench but the post-medieval and modern activity had removed many of the occupation levels within the area.

Prebuilding features
Natural geology, comprising orange clays, was encountered at *c* 1.30m below ground level. The earliest recorded archaeological feature was a ditch [646] and [651], aligned east to west, which was cut into the natural. This measured at least 1.50m wide and was at least 0.95m deep but within the trench only the middle and lower portion of its northern edge was visible. The upper part had a gradual slope which then broke to a steeper, concave lower portion. Three wooden beams had been placed at the base of the ditch [651], however, given the physical constraints of the trench it was impossible to characterise them fully or determine their function (Fig 63). Where seen at the western end of the trench, the lower fills (652), (653) of the ditch comprised greyish-brown cessy silts overlain by greyish-brown/grey sandy loams (654), (655) which produced quantities of sandy coarseware. Layer (605), a dark greyish-brown loam, overlay the upper fill of [651], however, it is not clear whether this was the final disuse infill. By contrast, at the eastern end of the trench, the lower fill (647) was loose whitish-yellow clayey sand. This was overlain by a sequence of greyish-brown/grey sandy loams (648, (649), (650) and possibly (632).

Cutting the upper fills of the ditch was the southern half of an ovoid-shaped pit [627] [635]. The northern half of the feature lay beyond the trench edge. The pit had a dish-shaped profile comprising a flattish base with steep, sharp breaks of slope rising to gradual/steep sloping sides. The fills (636) & (628), (629) and (639) of the pit comprised a sequence of orangey-brown or greyish-brown clayey loams from which sherds of sandy coarseware and Chilvers Coton A ware were recovered.



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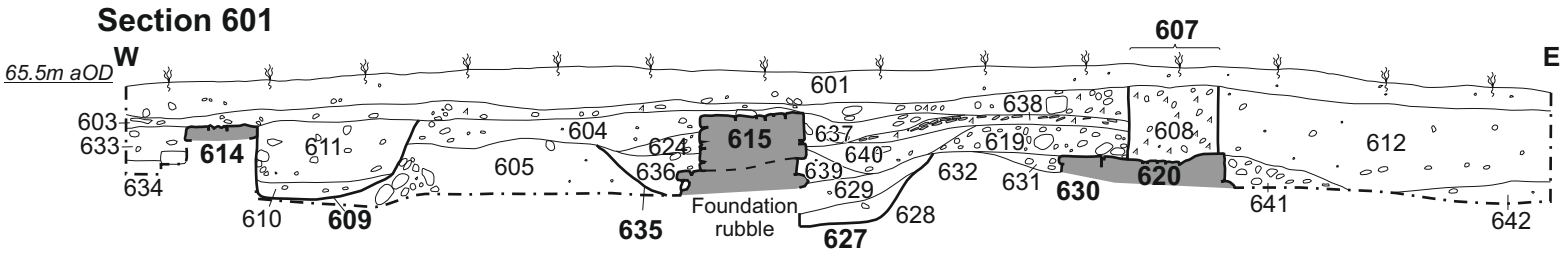
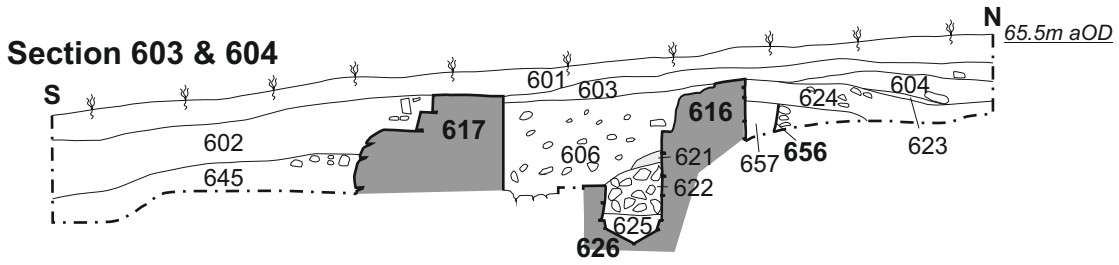
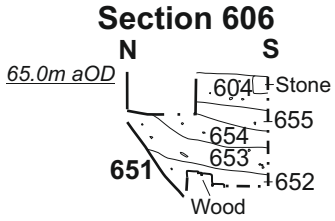
Trench 6, archaeological features Fig 61

Scale 1:75







Mortar

0 2.5m

Trench 6, sections Fig 62

Trench 6, ditch [651], with wooden beams in base, looking east Fig 63

The reredorter

Within Trench 6 there were at least two phases of stone building connected to the reredorter. The first phase comprised wall [615] and the later phase comprised walls [616] and [617]. A V-shaped stone-lined drain [626] lay between [616] and [617]. Other walls which cannot be assigned a phase comprise a north-south wall at the eastern end of the trench, the line of which survived only as a robber trench [620], and a line of a wall marked by a discrete single course of stones [614] (Fig 64).

At the eastern end of the trench robber trench [620], which had removed the remains of a wall aligned north-south, had been cut through a 0.91m deep layer of orange-brown sandy clay (612). It was impossible to determine whether this material had built up or been dumped against the former wall or alternatively if it represented an earlier soil layer into which the wall had been inserted. The soil layer contained pottery, possibly indicating a 15th century date. It overlay an undated layer, 0.35m deep, of pebbles and stones set in a reddish-brown sandy clay (641) which in turn overlay a thin layer of clay loam (642).

The fragmentary, discrete remains of a further possible wall foundation [614] were identified towards the western end of the trench. It is located on the correct line to be the eastern side of the southern range. However, its insubstantial character would appear to make it unsuitable for this role. The wall, 0.76m wide, was one course thick and comprised a sandstone rubble core flanked by roughly-dressed sandstone blocks, measuring up to 0.50m x 0.33m x 0.16m. Immediately at the west of this was dark grey loam (634), 0.17m deep, overlain by orange-brown sandy clay (633), 0.29m deep. These layers appeared to abut the line of the wall but they may represent earlier soil horizons into which wall [614] were set. The layers contained predominantly sandy coarsewares and so could date to the 12th – 14th centuries.

Trench 6, general view of trench,
wall [614] in the foreground, looking east Fig 64

In the centre of the trench was a stone wall [615], aligned north to south, which cut across pit [627][635]. Its sandstone rubble foundation extended south and then turned to the east (Fig 63). The wall comprised a rubble core sandwiched between two to three courses of roughly dressed sandstone blocks. The blocks measured up to 550mm x 300mm x 300mm in size. The wall was 0.98m wide and 0.70m high. On its eastern side were surviving patches of a mortar floor [613], which are presumed to relate to the wall.

Trench 6, general view of trench,
wall [615] in the foreground, looking south Fig 65

The southern end of wall [615] was cut away by a wall [616], aligned east to west, which was up to 0.87m wide and at least 0.60m high. This sandstone wall comprised a rubble core sandwiched between dressed stone. The wall may have originally had an opening which was subsequently infilled with roughly dressed and uncoursed stone. A construction cut for the wall was present [656] on its northern side (Fig 62, section 603 & 604). It was 0.29m wide, 0.44m deep, had a flat base and was filled with yellow orange sandy clay with occasional pebbles and flecks of mortar (657).

Wall [616] also formed the northern edge of a deep V-shaped stone-lined drain [626] aligned east to west (Fig 66). It was 0.63m wide and 0.96m deep and presumed to represent the main abbey drain leading from the reredorter. The southern edge of the drain was defined by two to three courses of dressed masonry which had been robbed out. The drain had been initially silted up with waterlogged, greyish-brown silt (625). From this silt material, sherds of Chilvers Coton A wares were produced. This was overlain by a layer of dark brownish-grey sandy loam with frequent large and angular blocks of stone (622). This fill, which probably comprise demolition material, was sealed by black coal deposit (621).

Trench 6, drain [626], looking west Fig 66

The truncated remains of a wall [617], 1.34m wide x 0.96m high and aligned east to west were situated 1.50m to the south of [616]. It comprised roughly-dressed sandstone and mortar, at least three courses high, sitting on a bed of sandstone rubble. Within the trench, the western part of the wall had been heavily truncated by the re-routing of the River Anker in the mid-20th century.

Approximately 3.60m to the east of wall [615], and 0.90m below modern ground level, was the foundation [620] of a parallel aligned wall (Figs 61 and 62, section 601). The foundation, which was later robbed out, comprised roughly-dressed sandstone blocks of varying sizes and measured 0.83m long and 0.82m wide. Immediately to the west was the remains of a sandstone stone flagged floor (630) which was sat within a mortared layer (631). The floor comprised six flags up to 0.50m long and 0.33m wide. The surface of the flags was heavily stained, perhaps indicative of a water channel. The mortar layer (631) may have occurred as part of the demolition and robbing process.

Demolition of the reredorter

The remains of the monastic buildings in this part of the abbey had been subjected to sustained attrition after the Dissolution and into the 20th century. After the buildings were dismantled the medieval remains were overlain with a sequence of demolition layers (604)(606)(619)(637)(638)(640)(644) which typically comprised orangey-brown sandy loams with frequent fragments of stone and areas of crushed mortar.

The 'above ground' structure of two of the walls [620] and [614] were removed as a result of the excavation of robber trenches [607]/ (608) and [609]/ (610), (611). It is not clear whether the main portion of wall [615] was removed during the medieval alterations or after the dissolution. Wall [617] was removed as a result of the re-routing of the river in the 20th century. The only portion of surviving floor level was represented by the fragmentary remains of a stone flagged floor (630).

The majority of the superstructure of wall [620] had been removed by a robber trench [607]. It had near vertical sides, was 0.90m wide and up to 0.80m deep. It had been backfilled with a mid brownish-orange sandy loam (608). At the western end of the trench a similar trench with steep, sloping sides [609] had been excavated to either remove a wall not seen in the trench or to remove [614]. This was 1.35m wide and up to 0.79m deep and had been backfilled with a greyish-brown loam (610) overlain by a light orangey-brown sandy clay loam (611).

Much of the post-medieval activity in the western part of the trench was covered in a demolition layer (603) comprising a dark blackish-brown loam with frequent, poorly sorted medium to large angular and rounded stones.

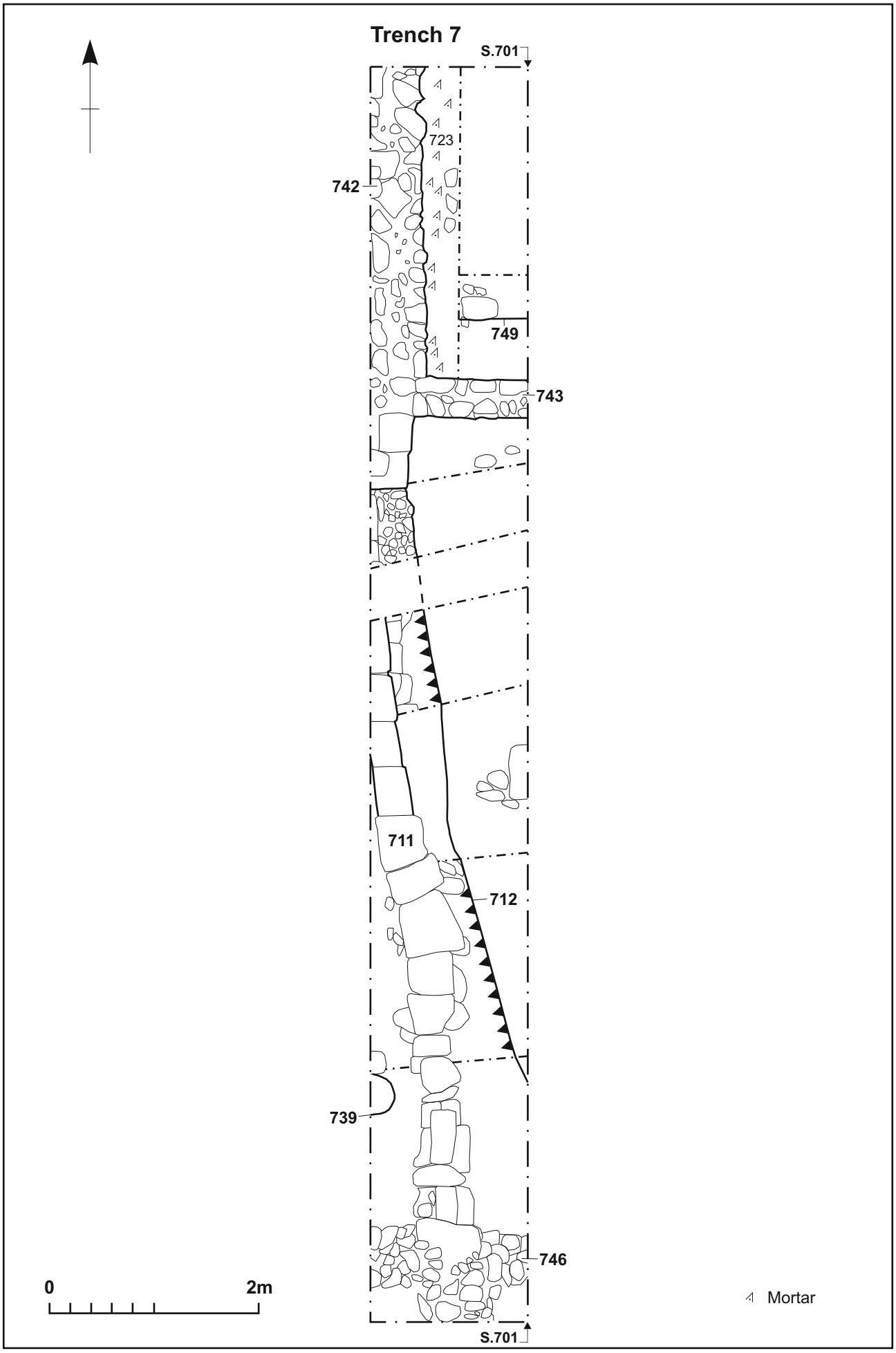
In the 20th century the River Anker was re-routed by the Coal Board to its current location *c* 20m to the south of the trench. As part of these works wall [617] and (603) had been cut away by part of the northern edge of the old watercourse [643] (Fig 67). The backfill material of the watercourse comprised dark greyish-brown sandy loam (645) overlain by a dark blackish-brown loam (602). The whole trench was covered by a dark grey loam topsoil (601).

Trench 6, view of the re-routed river [643] cutting away wall [617], looking north Fig 67

4.8 Trench 7

Trench 7 was positioned 3m to the west of Trench 6 in the area thought to be part of the southern range. Archaeological features were found at a depth of 0.16 to 0.42m below the modern ground surface and comprised the remains of drains and floor surfaces set within stone buildings (Figs 2, 68 and 69). Despite being a short distance away from Trench 6, the features found and recorded in Trench 7 could not be obviously related to those found in the other trench. The function of the buildings

and their relation to the overall abbey plan were also difficult to establish, however the large assemblage of pottery recovered may suggest a service function. As elsewhere, the buildings had been heavily affected by the demolition and robbing which took place at the Dissolution.



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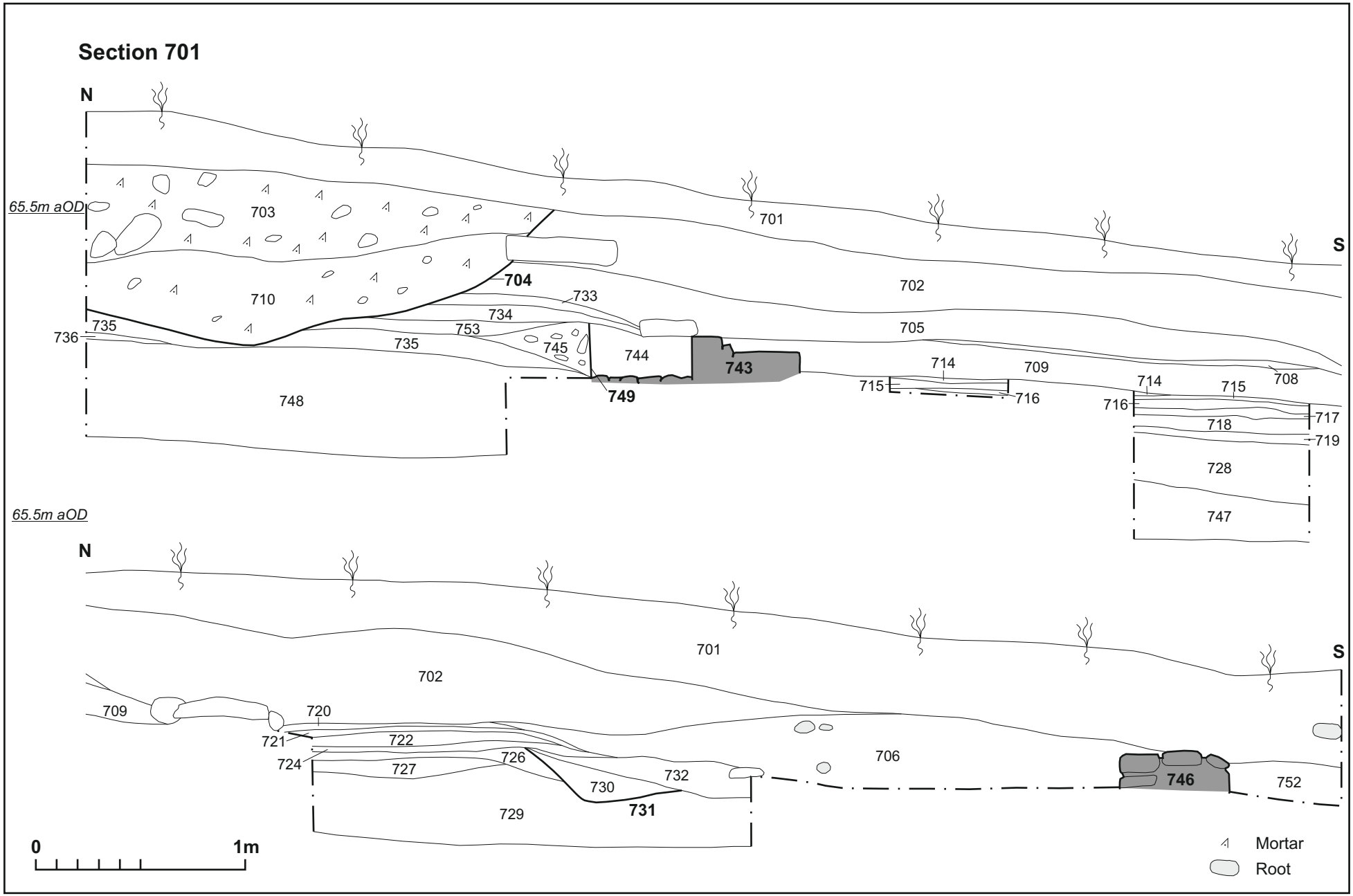
Trench 7, archaeological features Fig 68

Scale 1:25



Trench 7, section Fig 69

Pre-building features

Natural soils comprising orange sandy clays were encountered at 1.20m below modern ground level. Overlying this were a sequence of layers comprising greyish-brown sandy loams (750), (728), (748), orangey-brown sandy clayey loam (747), dark brown loams (729) and charcoal rich sandy clays (732) which produced large quantities of sandy coarsewares.

A posthole [739], cut into layer (750), was recorded in the east facing section of the trench. The posthole was 0.33m wide and 0.59m deep with a U-shaped profile comprising steep, near vertical sides and a rounded base. The fills comprised a packing deposit (740) of dark blackish-brown loam and a single medium-sized stone was at the southern edge of the fill. This was overlain by a dark blackish-brown loam (741), left behind after the removal of the post. The posthole was overlain by a dark greyish-brown sandy loam with occasional small rounded pebbles (757).

The south range

The medieval building remains comprised at least two phases of activity; in the first instance a stone drain [711] cut through the earlier deposits and was subsequently truncated or possibly incorporated into a stone building formed by walls [746], [742] and [743] (Fig 70). The fragmentary remains of clay and mortar surfaces may have been associated with this later building.

The stone drain [711] was aligned north north-west by south south-east and lay within a construction cut [712][737]. The cut, at least 0.90m wide and 0.13m deep, had a bowl-shaped profile. In the centre of the cut were two parallel lines of stones placed on edge, 0.16m apart, covered with roughly hewn flat capping stones. The capping stones to the northern end were well preserved and evenly placed, but the southern 1.50m of the drain was more ragged. The infill around the drain comprised a greyish-brown sandy loam (713)(738). Within the drain itself was a dark orange brown sandy silt (754). Pottery from this infilling dated to the 13th – 14th century whilst a soil sample (Sample 17) produced, amongst a range of cereals and other food plants, evidence of wetland plants.

Trench 7, general view of trench,
drain [711] in the centre, looking north Fig 70

At the southern end of the trench, the drain abutted wall [746] and to the northern end of the trench the drain continued underneath wall [742].

Wall [742] was aligned north to south and comprised two courses of grey sandstone roughly-dressed sandstone surviving to a height of 0.26m. It was 0.53m wide with a rubble core and formed a return to east-west wall [743] into which the stones were keyed. A series of layers (733)(734)(735)(736), overlying pre-building soil horizon (748), probably form floor levels within the structure defined by walls [742] and [743].

Layer (736) produced a large quantity of sandy coarsewares suggesting a 12th -14th century date for the activity.

Wall [746] was aligned east to west, 0.49m wide and at least 0.12m high. It comprised at least two courses of roughly dressed sandstone blocks with a white mortar bonding. Aligned parallel, approximately 7.95m to the north, was a length of wall [743] 0.43m wide and 0.43m high. It comprised a rubble and mortar core flanked by dressed stone. A vertical-sided channel [749], 0.18m deep and flat-based, had been cut immediately adjacent to the northern side of the wall. It was filled with a grey-brown loam (744). On its northern side it cut through a mixed layer of rubble, sandy clay and blue clay (745) but its function was unclear.

Between walls [746] and [743] was a sequence of layers, 0.28m thick overlying pre-building layer (728). The deposits, probably indicative of surface levels associated with the structures, extended 4.80m south from wall [743]. Near to wall [743], the deposits started with a deposit of very dark brown, charcoal rich sandy clay (719) from which a sample of the soil (Sample 10) was taken revealing a series of charred grains. A mix of orangey-brown silty sand (718) and greyish-brown silty loam (717) were later laid down and sealed by a yellow crushed sandstone horizon (716). In turn this was overlain by a dark greyish-brown silty loam with infrequent flecks of mortar (715). The final deposit, comprising an orange sandy loam with mortar flecking (714), covered drain [711].

By contrast the sequence of floor deposits nearer to wall [746] were different in character and nature (Fig 70), perhaps indicating that there may have been a further division within the building between walls [743] and [746]. Instead of sealing drain [711] the deposits (720) to (727) were cut by it and were affected by slippage or robbing to the south [731]. In general terms, the deposits comprised bands of charcoal (721), burnt clay (722), (724) and (727) interspersed with yellowish-brown sandy clay (725), orangey-yellow mortar (723) and sealed with a dark orangey-brown sandy clay (720).

Trench 7, detail of surface levels including (720), looking east Fig 71

Trench 7, general view of trench,
wall [742] in the foreground, looking south Fig 72

Dissolution and later

After the removal of the buildings the walls and floor surfaces were covered by a sequence of layers which sloped down from north to south.

A 0.20m deep layer (709) comprising many alternating thin bands of dark grey-brown, light yellow and dark orange sandy clay overlay earlier floor levels (714) and (715). It also overlay the remains of wall [743]. The individual layers appeared too thin to be floor levels. They were sealed by a very thin and patchy spread of crushed coal (708).

At the southern end of the trench, floor level (724) was truncated by a possible shallow gully [731], 0.25m wide and only 0.10m deep. It was filled with a mid yellow sandy clay with flecks of mortar (730). This was in turn sealed by a 0.25m thick layer of sandy clay (706) which also sealed stone drain [711].

A layer of reddish clay (707), 0.16m thick, extended across the trench at its northern end. It had deliberately placed red-roof tiles set into the clay, two deep in a single row which extended to the west beyond the trench edge. Its function was not clear but the clay contained two sherds of Cistercian ware suggesting a 16th century date.

The eastern side of layer (707) had been cut away by a possible pit [704] which also cut through spreads of demolition debris (702)(705). Measuring at least 1.92m long (north to south) and up to 0.80m deep the pit had a bowl-shaped profile comprising a broad flattish base rising to uneven concave sides. The lower fill comprising greyish-brown sandy loam (710) was overlain by a hard greyish-fawn loam with frequent angular medium to large stones (703). It is likely that the pit represents a late stage of post-dissolution robbing or dumping of demolition material. The pit was sealed by topsoil (701).

5 THE FINDS

The following sections provide analyses of the significant finds from the site. Due to the nature of the site and the methods used, large quantities of material were recovered and processed. However, as the majority of this material derives from unstratified or undated layers only material of intrinsic interest or from securely dated medieval or earlier layers will be retained in archive. A catalogue of discarded material will be included with the archive.

5.1 The medieval and post-medieval pottery by Iain Soden

Introduction

An assemblage of pottery from the 2011 and 2012 excavations was selected for analysis. This covered the trenches newly dug in 2012, to rest alongside that of 2011 already analysed (Soden 2013). The presentation, discussion and conclusions of both seasons are presented here together.

As with evaluation Trenches 1-4, dug in 2011, all of the stratified pottery from evaluation trenches 6 and 7 (there being no trench 5) was quantified and analysed. Unstratified pottery from the topsoil of Trenches 1-7 was merely scanned by eye and weighed en masse, attention being given only to noting the occurrence of any unusual or intrinsically-interesting items.

Area B, begun and largely completed in 2012, produced a full sequence from medieval to modern, and this has been dealt with, as with Area A, as a site on its own and in relation to the monastic precinct.

Cross-joins have not generally been sought, but merely noted in a few obvious cases. This is not a productive method of analysis since the trenches are slices through the archaeology and only a few layers or features can be said with confidence to be fully encompassed within the areas/trenches. Cross-joins represent a snapshot of site formation processes which is relevant to nowhere but the sequence in that trench. Much more of the site would need to be excavated to give such relationships meaning.

Almost all of the types and fabrics encountered in 2011 and 2012 are known by recognised simple names, already known from a host of other sites across Warwickshire and beyond.

All known types (34 in all) have been related to the Warwickshire Ceramic Type Series, either exactly or to the relevant petrological sub-group there. Other types are known from their native Staffordshire and from the City of Coventry. In discussion, their common names there are used throughout.

Summary of quantities analysed

The following comprise the assemblages:

Open area excavation

Area A (2011):	1204 stratified sherds recovered from completed post-medieval sequence, weighing a total of 21.06kg, in 26 types or fabrics
Area A (2012):	1910 stratified sherds recovered from a largely medieval sequence, weighing 19.26kg, in 24 types or fabrics

Area A total (2011 & 2012): 3,114 sherds, weighing 40.312kg, in 26 types or fabrics

Area B1 and B3 total (2012): 550, weighing 9.53kg, in 26 types or fabrics.

Evaluation trenches

Trench 1 (2011): Five stratified sherds recovered from the full sequence, weighing 57g and in 2 types or fabrics. An additional 686g of un-stratified material comes from topsoil.

Trench 2 (2011): 103 stratified sherds recovered from the full sequence, weighing 1.21kg and in 11 types or fabrics. An additional 987g of un-stratified material comes from topsoil.

Trench 3 (2011): 93 stratified sherds recovered from the full sequence, weighing 1.32kg and in 14 types or fabrics. An additional 1.48kg of un-stratified material comes from topsoil.

Trench 4 (2011): 216 stratified sherds recovered from the full sequence, weighing 2.70kg and in 22 types or fabrics. An additional 1.40kg of un-stratified material comes from topsoil.

Total from 2011 evaluations (stratified): 417sherds, weighing 5.29kg, in 22 types or fabrics

Trench 6 (2012): 329 stratified sherds, weighing 6.80kg, in 17 types or fabrics. None marked as un-stratified

Trench 7 (2012): 696 stratified sherds, weighing 8.00kg, in 21 fabrics or types. None marked as un-stratified.

Total from 2012 evaluations (stratified): 1,010 sherds, weighing 14.60kg, in 21 fabrics or types

Overall the excavations produced 5,106 stratified sherds weighing 69.94kg, representing 31 types or fabrics, dating from the 11th to the early 20th centuries.

The types and fabrics present

The following is arranged chronologically:

Table 1: Pottery types and fabrics

Type	County Type Series designation	Production range or date
Stamford ware	WW20	950-1100
Developed Stamford ware	WW20	1100-1225
Sandy coarseware	Sq	1100-1400
Coventry D ware	Sq	1150-1240
Midlands Whiteware (Staffs)	WW	1250-1400
Chilvers Coton A	WW01	1250-1400
Chilvers Coton C	SLM10	1350-1500
Late med reduced ware	Sq	15th century
Gritty unglazed ware	Sq	15th century
Tudor Green ware	WW02	15th century
Midland Purple	MP	15th-17th century
Cistercian ware	CIST	1475-1580
Glazed reduced ware	Sg	16th century
Glazed Red Earthenware	GRE	16th century
Late medieval redware	Sq	14th-16th century
Midland Black	MB + MB10	1600-1750
Frechen stoneware	STG03	1625-1700
Martincamp stoneware	IMP103	1550-1650
Midland Yellow	MY + MY10	1550-1700
Tin Gl Earthenware	TGE	1650-1750
Lt on dk slipware	SLPW02	1630-80
Dk on lt slipware	SLPW04	1630-80
Feathered slipware	SLPW01	1670-1740
Manganese Gl ware	MANG	1680-1740
Nottingham Stoneware	STE02	1700-1800
Wh salt-glazed stoneware	STE03	1720-80
Porcelain	PORC	18th century
Creamware	CRW	1750-90
Pearlware	PLW	1780-1820
Blackware Pancheon	MB	1800-1900
White glazed earthenware	MGW	19-20th century
Underglaze transfer printed	MGW	19-20th century
Unglazed earthenware	Sq	19-20th century
English stoneware	STE	19-20th century

The vessel forms

The following forms were present for each type:

Table 2: Vessel forms

Type	Forms present
Stamford ware	Unknown
Developed Stamford Ware	Unknown
Sandy coarseware	Cooking/storage pots, pipkin
Coventry D ware	Tripod pitcher
Midlands Whiteware	Jugs
Chilvers Coton A	Jugs, bowls
Chilvers Coton C	Jugs
Late med reduced ware	Unknown
Gritty unglazed ware	Unknown
Tudor Green ware	Jug, lobed cup
Midland Purple	Cisterns, jugs, pancheons
Cistercian ware	Drinking vessels
Type	**Forms present**

Type	Forms present
Glazed reduced ware	Unknown
Glazed Red Earthenware	Pipkin, bowls
Late medieval redware	Platter/bowl
Midland Black	Tygs, posset pots, bowls, chamber pots, steeping pans/pancheons
Frechen stoneware	Wine flasks or *bartmannskruge*
Martincamp stoneware	Wine flasks
Midland Yellow	Posset pots, pipkins, jars, tripod vessels, candlesticks
Tin Gl Earthenware	Ointment pot, platter
Lt on dk slipware	?bowl
Dk on lt slipware	?bowl
Feathered slipware	Posset pot, platter
Manganese Gl ware	Tankard, flask
Nottingham Stoneware	Unknown
Wh salt-glazed stoneware	Plates, bowl, tea cup
Porcelain	Unknown
Creamware	Plates
Pearlware	Plates
Blackware Pancheon	Pancheons
White glazed earthenware	Plates, cup
Underglaze transfer printed	Plates
Unglazed earthenware	Flower pots, lid.
English stoneware	Cider jar, blacking bottle, ginger beer jar

The challenge of residuality

A great deal of the pottery from the trial trenches is residual. This indicates just how much repeated post-medieval intrusion there has been in these areas and the value of the ceramic sequence is thus of less value than it might have been. The small sherd size generally suggests most *apparently* undisturbed medieval material is actually also part of secondary deposits and has been dumped from elsewhere, making close-dating impossible on ceramic grounds alone. It is possible to assign a *terminus post quem* to most contexts, but which needs to be modified to take account of stratification.

Discussion and Conclusions - Area A

Pre- and Post-Conquest

In both seasons small amounts of the 10th- to 11th-century fine Stamford ware were recovered. These are characterised by their very fine white or buff fabric, thin walls and a splashed apple green glaze which is patchy and washed out (Kilmurry 1980). Made at Stamford in Lincolnshire, from technologies developed in an Anglo-Scandinavian east-Midlands cultural mix, it is a type fossil for the period around the Norman Conquest, but is rarely attributable solely to the pre-Conquest period in the absence of other data or unless present in dominant quantities. Thus in practice there is usually doubt. Here it only occurs alongside other, later types, so is considered wholly residual. There are no features which on ceramic grounds alone can be said to date from the late Saxon period.

By the 12th century Stamford had moved on in its technologies and begun to produce a more highly- developed version of its successful products, by now distinguished by its fine white fabric as before but with a thick lustrous bottle green

glaze, often speckling lighter with impurities. This is represented in tiny quantities alongside much more mundane types.

From nearer to Polesworth comes a single sherd of the distinctive Coventry D ware, found in a number of rural locations in Warwickshire, but usually with a strong cultural link to Coventry in the 12th century, such as Coton, near Rugby. It is datable to the period *c*1150-1240 and its kilns have not yet been found, but are thought to exist just to the east of what is now Coventry city centre in what was called 'Potters Harnall' (Redknap 1985). As might be imagined from its name, it was first noted by archaeologists in that city, where its regular appearance beneath the historic city centre is synonymous with 12th- to 13th-century deposits and the city on the verge of growth. It is usually found alongside large quantities of sandy-quartz tempered, oxidised cooking pots, nearly always unglazed and generally having everted or collared rims. This is just the case here at Polesworth where such wares are in profusion. Some may be Coventry products too (sometimes called Coventry A ware), while others are probably undecorated Staffordshire derived wares (Foard 1995, 32) but the type is so widely spread and so widely used that every small pottery manufacturer, whether full- or part-time, working with the red Triassic Keuper Marl clays in central or north Warwickshire could and did produce comparable material for purely local use. It is rarely more than diagnostic of a 12th-14th century date, whether in Warwickshire or Staffordshire. Earlier material may be surmised (although not without some doubt) by the absence of Nuneaton products which only appeared around 1250, and destroyed the Coventry D ware industry overnight.

There is noticeably a dearth of the unglazed but well-potted and distinctively roulette-decorated Stafford-type wares (sometimes called Chester-type wares) which again indicate a 12th century date or earlier. Although found in dated contexts from 12th-century Coventry and other major centres up and down the main road-routes (most recently observed at Northampton Castle by the author), they are absent at Polesworth. Their presence would confirm 12th-century ceramic links with Stafford, where a number of kilns are known (and recent Tipping Street kiln-reports by Oxford Archaeology are in preparation).

The High Middle Ages

If a growing ceramic link with Coventry is to be expected from the 12th century, given the administrative links of Polesworth Abbey with the Benedictine Cathedral priory in that city, then an equal or greater link can be expected with the nearby pottery industry at Chilvers Coton, Nuneaton, in North Warwickshire, on the basis of simple proximity. The industry there grew suddenly and very quickly around the middle of the 13th century, leaving its Coventry-based rival drowning in its wake. It quickly came to dominate throughout the area and its products, with mainly highly decorative green-glazed baluster jugs and other pouring vessels to the fore. The white, grey or buff fabric and the vibrant splashed-green glazes are unmistakable (Mayes and Scott 1984).

Meanwhile other smaller industries may have emulated this remarkable success where the white-firing coal-measure clays were found to outcrop. Thus there are small quantities noted of what has been called more generically 'Midlands white wares' (Foard 1995, 12, 33-5). Here at Polesworth these vessels, again jugs, generally occur as body sherds distinguished by their Nuneaton-style fabric but having deliberate lines or occasionally splashed marks in red paint on the unglazed surface. Foard notes quite rightly (ibid) this is not a hallmark of Chilvers Coton pottery. There is also little evidence of green glazing such as Nuneaton practised. These Midlands White wares, in such small quantities, may never have rivalled the Nuneaton products anywhere, and certainly they are a tiny assemblage at

Polesworth, but they may indicate connections with another kiln source not far away, potentially in south-east Staffordshire, such as Drayton Bassett (Foard 1995, 7 & 33)

The following sequence is suggested from the pottery present:.

- In the immediate post-Conquest period, if not earlier, the site was kept clean or predominantly given over to non-rubbish disposal in the first instance (such as the cemetery);
- Although then built upon, it was initially with structures for uses which did not involve ceramics.

Later, when buildings were put up, the new works involved the introduction of pottery, but in a very broken state (and not including any primary deposits), within imported soils and other materials used as makeup and in later occupation of the buildings. This material comprised mainly pottery from the second half of the thirteenth century or the century after (as specifically including Chilvers Coton A wares). The inclusion of ubiquitous sandy quartz cooking pots is not significant as these may be found all over the site and comprises largely non-diagnostic material of *c* 1100-1400, from numerous sources. Some may derive from Coventry as there are certainly elements from Coventry D ware vessels. Where Coventry D ware vessel are present, there are likely to be cooking pots of the Sandy quartz tempered Coventry A ware also. Staffordshire too had its own sources for this type of material. None are further distinguished here.

The later medieval period
A relative paucity of later medieval (14th-16th century) types in Area A suggests that the area was again given over to uses which did not largely involve ceramics, limiting breakages and tell-tale discard in the immediate vicinity. There continued to be an occurrence of residual 13th-14th century cooking types as the former layers were disturbed over and again.

Another possibility is that the floor of the building here may have been boarded out and thus able to be easily kept clean. In those circumstances the floors would probably have been strewn with bracken, hay and herbs and swept out from time to time, and any additional floor debris with it.

Post-medieval
Soon after the Dissolution the medieval building here was replaced by another. During this phase a great deal of pottery was now introduced after the relative hiatus. This looks more like a mixture of use and discard, involving small and larger sherds. It still, however, does not involve re-constructible vessels or percentages of vessels high enough to postulate intensive on-site rubbish disposal. There are no deliberate rubbish pits with pit-groups and this still remains secondary deposition.

The nature of that occupation in the period *c*1600-1700 is specific, to judge from the pottery. Most, but not all, is of robust storage types and those vessel types associated with the kitchen and dairy. There is very little evidence for vessels associated with consumption. On this basis the new building in Area A may have been a scullery/kitchen, a dairy, or a store of some sort. It does not appear to have been preparing food directly for the table and for consumption of a household on a day-to-day basis. A dearth of drinking vessels is notable, most particularly when such types were prevalent in an era of consumption of low-countries beer and posset, in a host of purpose-made vessels.

The types present suggest a reliance on the local post-medieval Polesworth industry, principally in Midland Black and Midland Yellow types, already known to be staples products of a local industry, about which precious little is known. There are early Staffordshire types suspected, but they are not readily distinctive for the period, until well into the 18th century, by which time Area A buildings seem to have been abandoned.

Imports are present, namely Frechen (Rhineland) and Martincamp (French Coast) types, both known from other sites in Warwickshire, especially Coventry. Such types would have been accessible in the major markets of the county and those of Staffordshire. Again they are jars and flasks, for storage rather than consumption. Amidst a dearth of vessels for liquid consumption, it seems likely that liquids stored here were consumed elsewhere.

The end of the post-medieval building in area A probably came in the early 18th century, simply because of the absence of almost all the ceramic indicators of use after *c*1700. For instance the amounts of Slipware, Manganese glazed types etc are very few in number). While the building may have stood for some time longer, it may have been derelict or used simply as a store attracting little or no attention.

Discussion and Conclusions - Area B: buildings south of the cloister

The smaller quantities from Area B make understanding of the use of the area less certain. This is particularly noticeable when it is more clearly understood that the excavated area lies within the monastic core of the Abbey, the rooms on the south side of the cloister and the cloister alley itself, areas traditionally kept clean and most often floored with either floor tiles or stone flags.

The evidence here is that each of the rooms and spaces excavated were indeed floored in this way. Thus the pottery in each one comprises a mixture of re-deposited material which in each case contains medieval and post-medieval types from the 11th/12th centuries, right up to the 19th century in a bewildering mix of residuality connected with every phase of demolition, floor-robbing and gardening up to almost the present day. Ceramically this is a morass of material and takes some 240 sherds 44% of the excavated material out of any equation for understanding the monastic use of the area.

The majority of what remains in Area B is, like Area A, related to the 11th/12th – 14th centuries. As in Area A there is a predominant occurrence of Chilvers Coton wares, principally the white-firing type A, and large amounts of sandy-quartz cooking pots, although the quantities here (on sherd count) are considerably less than in Area A.

Stamford Wares are present as a pointer to occupation in the 11th century or perhaps even slightly earlier, but they occur here only as residual sherds alongside undated cooking pots, but more particularly the post-1250 Chilvers Coton products. Thus there is no confirmation of pre- or even just post-Conquest structures or occupation.

The greatest proportion of types present is again the mix of Chilvers Coton A and ubiquitous sandy-quartz cooking pots. Coventry D ware is also present as residual sherds. Thus the period best represented is that of *c*1250-1400. There is a dearth of later cooking types.

The period *c*1400-1539 is represented by small but significant quantities of table-wares, entirely in keeping with the expected former dining and serving function of the rooms off the south side of the cloister. These are predominantly tiny, scattered sherds of Tudor Green-type wares (probably lobed cups) and Cistercian Wares. These usually shattered into small fragments and odd pieces could easily escape all but the most assiduous room- or floor-cleaning regime.

One exception to this pattern of occurrence was the three-quarter survival of a squat jug in later 15th-century Midlands Purple set into an earth-and-rubble floor make-up (3027) near the corner of a room in Area B close to the doorway into the west end of the south cloister alley. The use of this jug here is unusual. While it dates the floor make-up to the later medieval period, its use in this position has nothing to do with either food preparation or serving. That the room is an ante-chamber to the main use of the south range may be of note, combined with the potential for the infirmary to lie close by, adjacent to the south range, where it could benefit from the nearby kitchens. It has been reported how pots deposited in this way in just such a location may have particular uses in a nunnery (Moorhouse 1993, 130). Thus Moorhouse (ibid) noted:

> '*It seems likely that there will be additional uses of earthen pots found in nunneries, because of the functioning of the female body. A body of literature on female ailments and diseases was produced during the Middle Ages…One cure for ailments of the uterus was to sit a patient on a siege, a three-legged stool with a hole in the middle, under which was placed an earthen pot containing coals and herbs…Despite contemporary protestations about the value of such a remedy for this and other ailments, the number of times it is found in medical collections shows that it was widely practiced…there are many 'remedies' for encouraging the menstrual flow, some of which involved the use of an earthen pot in the preparation of the prescription, and at least one where the pot had to be buried in the ground for a specified time…Many of these 'cures' were almost certainly ways of procuring abortions, which were outlawed by the church. That such practices would have been necessary within the nunneries is suggested by nuns having children, and visitation records, which suggest that some nunneries were run on far from purist theological principles*.'

It is a very pertinent factor in this drop in ceramic deposition that the tail-off occurs at just the time that ceramic tiled floors are introduced in the second half of the 14th-century. While the evidence for such floors is not universal in all the rooms and covered portions of Area B, (the cloister alley is an exception), the introduction of such hard floors means that all rubbish could be regularly swept away, not trampled into an earthen surface, and the floor kept clean. Thus the floor and its mortar sub-base provides a blinding layer, sealing below it the deposits of construction and pre-tile floor occupation, and presenting above it a period of occupation which was always probably going to be under-represented in terms of rubbish deposited and left in situ, right up to the Dissolution or the robbing out of those floors soon after.

This apparent gap in occupation has been noted at a number of pertinent monastic excavations, including most particularly in the refectory. At Ludlow's Carmelite Friary, the construction of the refectory involved the introduction of a clay sub-base, with a boarded-out floor conjectured (Roe 1987, 56-9, in Klein and Roe 1987). There the pottery dated from construction, but then with a gap until Dissolution, just as here at Polewsorth. Similar processes of non-deposition of pottery, or at least 'hard' flooring around the immediate cloister and main rooms being kept clean, have been noted at Leicester's Austin Friars and Kirkstall Abbey, Yorks (Mellor and Pearce

1981, 33; Moorhouse and Wrathmell 1987, 22). At the latter, the final phase of the refectory involved re-laying old tiles in the 15th century; the only pottery noted for that phase, prior to the strewing of Dissolution debris on top of the floors and their robbing, were tiny sherds of Cistercian ware incorporated into the mortar base for the tiles. This is very similar to the Polesworth experience.

That dramatic drop in numbers from sherds representing the period c1250-c1400 down to those of the period *c*1400-1539 is notable and may also owe something to the spirit of the times. While this is often portrayed as a period of decline and contraction due to pressures on society, such as The Black Death and related epidemics, of which there were documented examples in the locality in 1349, 1361, 1386, 1403, 1467 and 1475 (Soden 2011, 13 &18), perhaps just as pertinently the popularity of the old orders of Monks and Nuns was waning, not least those of the Benedictines, and the community may have been both poorer and less in number than it had been. In addition, by the late 14th century, the Benedictines in the area had to compete with the full range of monastic orders for public benefaction and patronage. Some degree of stagnation and contraction is perhaps to be expected, resulting in a far lighter 'footprint' of occupation on any part of their precinct. After patronage and numbers peaked in the 13th century, rubbish disposal on the site may well have been reduced as the community simply produced less in succeeding generations. Keeping areas clear of rubbish for comparatively small numbers of nuns may have presented no problem at all.

It is also notable that in relation to a refectory and kitchen area, with ancillary rooms around, ceramics were not always the material of choice. Metal vessels (iron, bronze, pewter), glass vessels, leather and treen (turned wood), would all have had their place at table and in the kitchen (FRG/MPRG 1987). Traditionally expensive metals such as copper alloys were looked after, melted down for re-use or mended when broken, while leather and treen only survive in ideally waterlogged ground conditions. Glass is usually used and stored in locations separate from most ceramics. Pottery very rarely ever makes it into kitchen inventories, so unimportant and cheap was it considered.

Medieval ceramic trade

There is no doubt that for the period 1250-1400 the principal origin of the pottery on the site was Chilvers Coton, Nuneaton.

The travel restrictions which society put on Nuns and their cloistered existence meant that many of the tasks they needed to carry out were performed by male intermediaries. Therefore it is highly likely that they would have got their ceramics wherever those helpers chose to go. It is just as likely therefore, that the pottery which emanated from Chilvers Coton, for example, was actually bought at a focal market, such as Coventry, where different markets were held every day of the week, Sunday being the exception.

For any period between *c*1250 and 1539 it is likely that most pottery used at Polesworth was made in Nuneaton, not far away, but it probably came via the principal markets in the towns. Both nunneries and monasteries had their agents travel a long way to buy materials, such as Catesby nunnery, Northamptonshire (Cistercian, with Catesby family patron- links to Coventry), which sent 25 miles to the city for 700 ceramic (probably floor) tiles in 1415 (Soden 2005, 182). Catesby also bought livestock (particularly cattle) at Coventry, as did the Benedictines of Peterborough Abbey. Thus although the majority of pottery may have been produced nearer Polesworth at Chilvers Coton, there is no evidence that the material indicates a direct link between those places, but rather the principal markets where the

commodities were traded and to which the monastic agents travelled: Coventry, Nuneaton, Tamworth.

Tablewares too may have travelled further than needed to be purchased at the market centres. While Chilvers Coton is known to have produced Midland Purples, Cistercian wares and sometimes Tudor-Green-type wares, so too did Ticknall to the north (Spavold and Brown 2005); their wares were most prevalent for purchase in the towns of Staffordshire and Warwickshire.

The following lists note the identified places producing pottery used at Polesworth:

Medieval
Stamford; Coventry; Chilvers Coton; Drayton Bassett?; Stafford; Ticknall?; ?Polesworth.
Post-medieval
Chilvers Coton; Polesworth; Ticknall?; Nottingham; Stoke-on-Trent; France; Germany.

Future research and limitations of the evidence
Over two years the site has produced a great deal of pottery. It is clear that early pottery is present, indicating a presence potentially both sides of the Norman Conquest. However, the size and massing of the medieval foundations and the monastic footprint in general suggest that there may be little of the early monastery to search for, all early pottery being residual in later contexts. It may however, be argued that the early monastery is under-represented by these few sherds, since its deposits have not yet been tapped.

The numbers of sherds and types present and demonstrably from the period *c*1100-1250 are notable but not significant. They are indicated by the presence of developed Stamford ware and Coventry D ware. Both however, are much better known from occupation and consumer sites in nearby Coventry and in rural Warwickshire locations such as Coton Park, Rugby. These few sherds are not thought likely to be the source of valuable research in the future, since they are limited by numbers, their relative incompleteness and variety of vessels. The absence of pit groups marks out the assemblage.

From the period *c*1250-1400, the site exhibits the same surrender in ceramic terms to the Chilvers Coton industry, seen all over north Warwickshire. Again, the occurrence of the wares in large quantities but residual, abraded and largely very fragmentary, makes this a poor consumer site for the study of the pottery. In common with other monastic sites, where it can be shown that floors were largely kept clean, in the absence of pit-groups the pottery is valuable only for dating construction episodes, the uses of rooms between those episodes being better served by a look at architecture and relative layout in a formulaic monastic environment.

From *c*1400 until the Dissolution the site offers almost nothing to ceramic studies as the excavated areas appear to have been kept clean. Again ceramic studies here would be best served by the discovery of a well-dated dump of material or pit-groups.

The post-Dissolution period is dominated by local wares in storage forms. This suggests that the building excavated in Area A was a storage facility for the Elizabethan house which was built after the Dissolution. Again, just as in the monastic precursor, the discard of rubbish is key to understanding the uses of the site and the potential layout of the house and its environs. Clearly, the excavated

area is somewhat removed from any occupation focus, as evidenced by a relatively restricted range of vessel forms present.

While buildings on Area B had disappeared in the sixteenth century as a result of The Dissolution and in Area A as a result of abandonment at the end of the seventeenth century, robbing for materials and gardening continued to overturn primarily the upper layers, further disturbing the existing stratigraphy and adding to levels of residuality. New, later post-medieval types have been introduced, and the sequence extended to the end of the 19th-century and a time when the Vicarage focus is well known.

Collection and analysis of the ceramic assemblages have been an interesting exercise which promised much but delivered little. The areas chosen for excavation have certainly all benefited from relative dating in terms of pottery, but no spotlight has been thrown on any of them by the discovery of specific ceramic groups. In the medieval period, after indicating the growth of the nunnery, the comparative absence of interpretable pottery has been key. In monastic terms, it has enabled considerable site interpretation but in relation to pottery studies alone the site as excavated is limited.

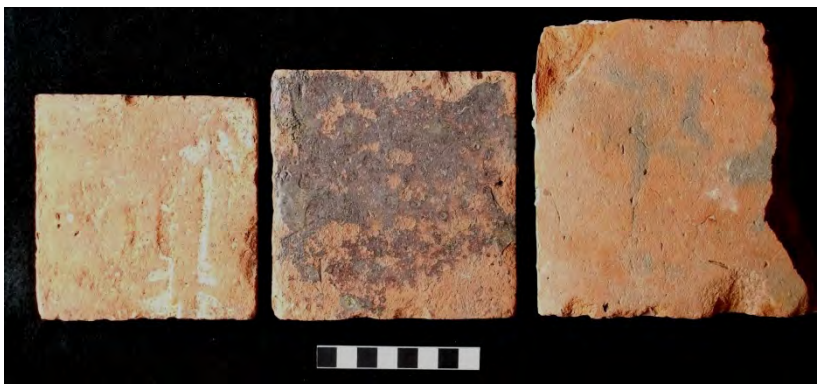
5.2 Decorated medieval floor tiles by Iain Soden and Pat Chapman

This report covers the full assemblage of floor tile, and incorporates a discussion by Iain Soden on 33 stamp-decorated medieval floor tiles in 14 designs from *in-situ* floor fragments (or disturbed from those floors) in Area B1, recovered during the 2012 excavations.

The tile assemblage

This assemblage comprises 832 floor tile sherds, weighing 151.2kg, from all excavated areas (Table 4). The vast majority, 710, came from Area B, in particular 293 tiles from context B1007 and 175 from context B1002.

They are made from a sandy orange to orange-brown, occasionally red-brown clay fabric. There are a few which are orange-brown with large grey patches and a slight bulge in the body, the result of overfiring, as are the few sherds fired to mauve-brown and or overfired to purple-black. Nearly all the tiles are bevelled to allow space below for mortar so they can be laid edge to edge without spaces. They were made in square moulds with variations in size and in thickness (Fig 73, Table 3). One tile had a curved edge as the result of wear from a probable secondary use (Fig 79, Design 20).



Variations in tile dimensions (scale 80mm) Fig 73

Table 3: Floor tile dimensions

Dimensions (mm)	inches
58 wide x 20 thick	2¼ x ¾
105 wide x 17 thick	4⅛ x ⅝
112 wide x 18-21 thick	4½ x ¾
118 wide x 18-19 thick	4⅝ x ¾
137 wide x 28 thick	5⅜ x 1⅛
145 wide x 30 thick	5¾ x 1¼

The majority of the tiles are very worn and subsequently appear to be plain and unglazed. However, many of these have faint traces of slip or glaze surviving, indicating that it is usage, not lack of decoration, that has given this impression.

Twenty-five tiles survive complete: twenty-one are plain with six glazed in green, yellow or black, one overfired and four decorated. A further three decorated tiles are complete but broken.

Only two cross joins were noted, on decorated tiles only; design 15, a complete tile from contexts B1002 and B1039 (Fig 78) and a partial tile with design 3 (see Fig 76) from contexts B1002 and B1007.

One hundred and five tiles are either triangles or marked out for triangles, either as halves or quarters. A line would be scored diagonally across the tile before firing, so it could be split afterwards; one triangle comes from the only small tile (58mm wide), a quarter size of the usual tiles The triangles include green, yellow or black glazed and decorated tiles (Fig 72).

Small and average tile triangles (scale 20mm) Fig 74

The majority of the tiles are green glazed, the most common glaze, or yellow, and occasionally black.

There are 117 decorated tiles with 24 different designs. Many other tiles had either an element of design, but insufficient to identify the whole, or with just a trace of slip or a mark to indicate that there had been decoration. In Table 4 below, D refers to tiles with fragments of decoration surviving.

The first 14 designs illustrated have been described by Iain Soden in the report following.

The repeating geometric design of Design 1 of four intersecting quadrants of a circle and four smaller quadrants at the corners is a four-tile design with an endlessly repetitive pattern just using the one stamp (Fig 75). See Whitcomb (1956), no 236, with parallels in Leicestershire, Derbyshire, Staffordshire and Warwickshire, including Polesworth.

Designs 15-18 are shields closely resembling designs recorded in Leicestershire by Whitcomb (1956) with references to parallels at Maxstoke Priory in Warwickshire (Fig 78). Design 18 is possibly the arms of the See of Lichfield. The fragment of Design 18 does not appear to have been stamped correctly, and was possibly overstamped with another design.

The spray of oak leaves that is Design 19 (Fig 79) is a variant of oak, holly and generic leaf sprays that can be found either singly or as part of a sixteen-tile design (Whitcomb 1056, nos 92, 179-181) as seen at Bradgate House Leicestershire and in Northamptonshire, Oxfordshire and particularly Coventry in Warwickshire.

Part of a larger tile from context A32, Design 21 appears to be one end of a vesica containing a fleur-de-lis with a further motif below, and inverted Vs on the exterior of the vesica lines (Fig 79). A vesica is a pointed oval made by two intersecting circles of the same radius where the centre of each circle lies on the perimeter of the other. A single vesica was often used to enclose the figure of Christ or saints. Two intersecting vesicas was a common design on tiles around the country, with the centre containing a figure, a face or a flower, with other spaces filled or left blank as desired. The inverted V also appears on Design 23; the only other use of the V noted so far is on a few tiles from Cleeve Abbey in Somerset (Lowe 2003, no 224).

There is no direct parallel with Design 22 that has the appearance of a large petal (Fig 79). However, it is a variant of a widespread common design that comprises four intersecting semicircles which creates four-petalled flowers separated by lozenges when placed side by side. Whitcomb illustrated two types (1956, nos 107 and 108) from Leicestershire and Nottinghamshire and there are variations in Suffolk (Sherlock nd, no 147), Somerset (Lowe 2003, nos 216-218) and Dorset (Emden 1977, nos 39 and 40).

No parallels have been found for Design 24 (Fig 80). It comprises probably 10 curved rays, presumably of the sun, in conjunction with three concentric arcs with the inner one being a cogwheel/continuous zigzags. A seven-rayed sun in splendour is recorded in Somerset at Glastonbury and Muchelney Abbeys (Lowe 2003, no 278) and a ten-rayed sun at Thelnetham in Suffolk from a tilery near Kings Lynn. However, no parallels for the rayed sun in conjunction with the three concentric arcs have yet emerged.

Catalogue of illustrated tiles

Figs 75-80

1 Repeating geometric design of four tiles, context (103). 19 examples. Side 120mm x 18mm thick

2 Lobes of a quatrefoil or four-leaved or petal motif, lightly impressed (B1002), 1 example. 20mm thick

3 Sacred monogram IHS, the first three letters of Jesus in Greek (iota eta sigma), deeply impressed. (B1040); 10 examples. 118mm x 110mm, 22mm thick

4 Bands and dots from a 9-tile interlocking design, deeply-impressed but worn. (B1002); 2 examples. 25mm thick

5 Stylised foliage, such as ivy, in bands tile from a 9-tile interlocking design, deeply impressed. (B1007); 1 example. Side 116mm x 23mm thick

6 Geometric swirl of points and lobes, interlaced, unevenly impressed, complete tile in two halves. (B1007); 2 examples. 112mm x 21mm

7 Armorial tile, with arms diagonally placed, showing a simple St Andrew's cross with foliate/floral motifs around it, deeply impressed. (B1007); 4 examples. Side 110mm x 20mm thick

8 Almost complete armorial tile, deeply impressed with arms of, possibly, St George diagonally placed. Pairs of leaves infill the tile corners where these survive. (B1007); 3 examples. 115mm x 112mm, 18mm thick

9 Concentric circles enclosing oak-leaf foliage and stylised acorns, leaves adorn the corner outside the circle, deeply impressed but very worn tile from a four-tile design, complete tile in two halves. (B1007); 12 examples. 114mm x 111mm, 20mm thick

10 Part of a design bearing four fleur-de-lys emanating outwards from the tile centre. (B1032); 1 example. Side 111mm x 21mm thick

11 Half of an armorial tile, bearing a shield of two colours with alternating horizontal bands, corners filled by stylised leaves. (B1040); 3 examples. Side 117mm x 22mm thick

12 Letter tile showing INR (Latin acronym of Iesus Nazarenus Rex). Although it makes perfect sense here without addition, it may or may not be a mis-interpretation of the inscription above Christ on the cross, INR(I): Iesus Nazarenus Rex Iudaeorum (Jesus of Nazareth, King of the Jews), deeply impressed. (B1040); 2 examples. 108mm x 11mm, 20mm thick

13 A circle with four monograms of an 'M' crowned, a design denoting Mary, Queen of Heaven, part of a four-tile design. The corner beyond the circle is in-filled with a fleur-de-lys. A simple squared border separates the tile from those around. (B1040); 15 examples. 115mm x 111mm, 21mm thick

14 Fleur-de-lys within a scalloped border, well-impressed. Unstratified; 25 examples. 115mm x 112mm, 19mm thick

15 Shield placed diagonally with feathery leaves in the corners, deeply impressed, complete but broken, found in two contexts (B1002) and (B1039); 3 examples. Whitcomb (1956), no 170, parallels Leicestershire, Warwickshire. 114mm x 114mm, by 20mm thick

16 Half of a shield placed diagonally, probable Arms of Stafford, feathery leaves in the corners, deeply impressed. (B1043); 1 example. Side 113mm x 20mm thick. Whitcomb (1956), no 172, parallels Leicestershire, Warwickshire

17 Fragment of a shield placed diagonally with one main cross and a cross in each corner, feathery leaves in the corners. Possibly the arms for the See of Lichfield. (B1002 and B1039); 3 examples. See Whitcomb (1956), no 168. Side 120mm x 20mm thick

18 Third of a possible shield, damaged, placed diagonally, narrow border with fretwork and feathery leaves within a border in the corner, uneven impression. (B1040); 1 example. See Whitcomb (1956), no 171. Side 116mm x 18mm thick

19 Spray of oak leaves set diagonally, deeply impressed but unevenly worn. (A40); 1 example. At least 25mm thick-base missing

20 Corner with 3 or 4 petalled flower with outer border, set 35-40mm in from the edge of possibly a large tile. One edge worn to a curve. (A12); 3 examples. 22mm thick

21 Central fragment of large tile in two pieces, likely to be pointed end of a vesica, from intersecting vesicas design. Possible variant of Whitcomb (1956), no 116 (A32); 1 example. More than 130mm a side and 23mm thick

22 Large petal, most likely fragment of geometric design that comprises four intersecting semicircles. (303); 8 examples. See Whitcomb for variations (1956, nos 107 and 108). 20mm thick

23 Part of a circular band with inverted Vs on the outside, lozenges within and a trefoil on the corner. (B1012); 1 example. Side 113mm x 18mm thick

24 Cog wheel/zigzag curve and many-armed sun in splendour in triangles and partial tile. 10 examples. No parallels seen

Table 4: List of floor tiles

Context/feature	No	Wt (g)	Description
A 5 /	2	812	1-complete-gg
A 12 /	2	407	Designs 1 and 20
A15 /	1	500	Complete overfired
A 32 /	5	907	Design 21x1; 3-D;1 complete
A33 /	9	1573	1-complete; 3-D; 1 triangle
A37 /	4	300	Design 22x3; 1-D
A40 /	1	342	Design 19
A45 /	2	233	Design 24x1 gg
A52 /	1	50	triangle
A57 /	1	16	D-gg
A60 /	1	210	Design 1 marked for triangle
A68 /	1	15	fragment
A70 /	4	50	fragments
A72 /	1	250	yg
A95 /	3	350	Design 1x1; 1gg, 1 D
A96 /	1	450	yg marked for triangles
A104 /	1	350	yg marked for triangles
A107 /	2	100	Design 1x2
Totals Area A	***42***	***6915***	
Trench 1/	6	1607	5-D
103	10	1610	Design 1x1; 11x1; 24x1; 1-D; 1-gg; 1-bg
110 /	6	500	Design 22x1;1-straight grooves
201 /	1	66	triangle
202 /	3	250	Design 22x1
204 /	1	85	Design 1
206 /	2	177	1-D
210 /	5	754	gg
213 /	4	1310	1 D
216 /	1	80	-
218 /	4	362	-
219 /	1	794	Plain complete
222 /	1	46	-
239 /	2	175	Designs 1-yg; 22
301 /	3	207	1-D-; 1 triangle-gg
302 /	1	163	D
303 /	4	435	Design 22x1 gg; 3-D
401 /	1	64	-
402 /	1	80	Design 1 gg
404 /	1	37	-
410 /	7	715	Design 24x1; triangle-yg
412 /	2	161	Design 1x1; 1 D
430 /	3	688	Design 24x1;
Totals Trenches 1-4	**70**	**10366**	
601 /	5	400	1 triangle
603 /	1	150	Design 24
Totals Trench 6	***6***	***550***	
702 /	1	250	Plain-gg
703 /	2	150	Designs 24 yg; 22 yg
707 /	1	150	Design 24 gg
Totals Trench 7	***4***	***550***	
B1001 /	18	3050	Design 1x1; 22x1; 2xtriangles marked out
B1002 /	175	32700	Designs 3x3; 8x3; 9x3; 10; 13x5; 14x7; 6 D; 44 triangles ready/marked out; bg & yg
B1005 /	2	450	Design 1x1
B1007 /	293	44275	Designs 3x3; 7x2; 9x6; 13x9; 14x11 30 triangles-yg or D; 4 complete plain
B1012 /	13	2600	Designs 23x1; 24x1; 1D 2 plain complete-1 gg;
B1017 /	1	10	-

Context/feature	No	Wt (g)	Description
B1021 /	10	1650	Design 3x1; 2 complete-1yg; 3 triangles-bg
B1038 /	24	3600	7 triangles – 6-bg & 1yg
B1039 /	28	10500	Designs 3x2; 7x1; 9x1; 14x1; 15x1; 1D
B1040 /	26	10650	Designs 3x1; 6x1; 13x2; 15x5 7 triangles-2 marked up
B1043 /	82	14350	Designs 7x1; 9x2; 13x1; 14x1; 16x3; 20x2 4 triangles marked up
B1044 /	2	500	Triangle; D
B1062 /	1	25	triangle
B2004 /	13	2900	Design 1x4; 3x1; 22x1 2 complete plain
B3001 /	1	100	-
B3004 /	3	750	1 complete-bg
B3007 /	8	1325	1 complete-gg
B3008 /	1	50	Design 11
B3024 /	9	3350	3 complete plain; 5 triangles
Totals Area B	***710***	***132835***	
Totals	**832**	**151216**	

Key
D= unknown decoration; gg=green glaze, yg=yellow glaze, bg=black glaze

In situ floor tiles from Area B1 by Iain Soden

A total of 33 stamp-decorated medieval floor tiles were recovered in 14 designs from *in-situ* floor fragments (or disturbed from those floors) in Area B1, deriving from contexts 1002, 1007, 1032 and 1040 during the 2012 excavations. The excavations also produced a few examples of plain floor tiles from the same floors, which are not reported here.

The wear on all of the tiles, however complete, was moderate to high, and it was clear that all of the floor fragments represented the final use of tiles which had previously lain elsewhere. This is far from unusual and such floors, the tiles sometimes moved around more than once, were in use on monastic sites right up until The Dissolution in the late 1530s.

Four questions of the tiles from this site are important:

- Irrespective of their re-use, when were the tiles most likely made?
- Are the stamps found anywhere else?
- Is there anything which characterises the designs found here?
- From the distribution of the designs and their character, does the location of a tilery or tiler emerge?

The date of the tiles
The tiles vary in the quality of their decoration but mostly the designs are sufficiently well and deeply-enough impressed for them to date to the second half of the 14th century or perhaps the very early years of the 15th century. After that, the quality and depth of the design became more of a print than a stamp and the pattern becomes much more ephemeral.

Excavations in Coventry, where there was a major tiling industry throughout the later medieval period, suggests that by the 1470s, if not before, the penchant for decorated floor tiles had waned considerably. Dated high-profile floors in Warwick's Beauchamp Chapel (1444) and Coventry Charterhouse Phase 4 nave (*c*1475) are almost exclusively plain from the outset, although the orders for the new infirmary

floor at Maxstoke Priory specifically included stamped tiles in 1449 (Halliday 1874, 81), so the trend was not necessarily uniform across the county.

The distribution and origins of the designs

The following excavated and published sites have been checked for the decorated floor tiles they have produced, in a geographical circle around Polesworth, also bearing in mind the known tile kiln sites which have already been excavated in Warwickshire at Stoke (Coventry) and Warwick (Table 5).

Table 5: Decorated floor tiles, related sites

Polesworth number	Published monastic or manorial site	Ref	Distribution
None	Coventry Benedictine Priory (Hobley 1971; Rylatt & Mason 2003)	-	-
None	Coventry Whitefriars (Woodfield 2007)	-	-
None	Coventry Charterhouse (Soden 1995)	-	-
1	Dudley Priory (Locock 1995)	No 4	-
None	Cheylesmore Manor, Coventry (Soden 1992)		-
1	Sandwell Priory (Hodder 1991)	Fig 26.S4	Staffs & NW Warks
3, 13	Maxstoke Priory (Halliday 1874)	Pl3; p81	-
None	Stafford Castle (Soden 2007)	-	-
None	Hulton Abbey, Staffs (Wise 1985)	-	-
None	Leicester Austin Friars (Mellor & Pearce 1981)	-	-
None	Bordesley Abbey (Hirst *et al* 1983)	-	-

Even before the current excavations, the excavators of both Dudley and Sandwell Priories both noted that there were parallels to their tiles from Polesworth, already published in county collections or known from antiquarian sources.

The following distribution is noted from the national medieval floor tile collection in The British Museum and published in the local county synthesis, namely:

Table 6: Decorated floor tiles, parallels for designs

Polesworth number	Published collection	Ref	Places of origin
1	The British Museum (Eames 1980)	No 183	Teynham (Penn)
3	The British Museum (Eames 1980)	No 1414	unknown
12	The British Museum (Eames 1980)	No 1583	Bordesley Abbey, Worcs (but not in Hirst *et al* 1983)
11	The British Museum (Eames 1980)	No 1624-5	unknown
6	The British Museum (Eames 1980)	Nos 184-6 ?	Teynham (Penn)
1	Warwickshire tiles (Chatwin 1936)	8:8	Polesworth, Coventry
6	Warwickshire tiles (Chatwin 1936)	12:4	Polesworth, inc wasters
1	Leicestershire (Whitcomb 1956)	236	Line impressed, Polesworth only

Polesworth number	Published collection	Ref	Places of origin
8	Leicestershire (Whitcomb 1956)	169	Foston, Misterton; Gresley(Derbys)

It can be seen that of the 14 tile/stamp designs present from the *in situ* tiles, only six have ever been published from elsewhere or reside in the national collection or are covered in the two published local county syntheses.

Despite the nunnery's administrative links with Coventry, the absence of any overlap in designs with the city is remarkable, especially since so many tiles have been excavated and published from its monastic sites. It was well served by its own tiling industry at Stoke from the mid-14th century right up to at least the 1470s. Warwick too had its own industry in the mid-14th century, a kiln having been excavated recently adjacent to the Racecourse.

A known industry at Penn, noted in Eames (1980) may well have been sending a few tiles or designs to Polesworth or been influencing tilers working at Polesworth, but there is no evidence that this was widespread.

Tiles by their nature are very heavy, and it would have taken a determined consumer to move the necessary numbers long distances, with attendant carriage costs. Thus the Cistercian Catesby Nunnery's order for 700 tiles to be brought from Coventry in 1416 (Soden 2005, 182) might be considered unusual, unless they had no suitable clay sources nearby. In that purchase the tiles cost three for a farthing, (12 for a penny; 144 for a shilling), presumably plus carriage costs. In 1449 stamp-decorated tiles purchased for Maxstoke Priory's infirmary cost 30 shillings, with 3s 2d carriage; in the same year they paved the dormitory in the same way for 20 shillings, with carriage 2s 2d (Halliday 1874, 81). Unfortunately it is not recorded how many tiles were purchased, although it is likely to be many hundreds. At the Catesby exchange rate of 1415, Maxstoke's purchases would have been for 4320 and 2880 for the infirmary and dormitory.

A single, complete tile from Polesworth with no mortar adhering, was chosen and weighed 536g (1.18lb). This equates to just under 1900 tiles in a ton. Even if the cost of carriage was not so great at Maxstoke (seemingly adding some 10%), they may not have had to come far, perhaps from Coventry. For Polesworth, the distance to Coventry was much greater.

Wasters reported previously from Polesworth (Chatwin 1936) suggest there was a tiling industry in the village, potentially with the nunnery as a principal client. The simple fact that, while the *in situ* tiles from Area B have produced only 14 tile designs, only six of them are known outside the area (and two of those are traceable back to Polesworth), this theory now has considerable weight and discovering the whereabouts of medieval tile kilns in or near the village now seems like a reasonable proposition. The only prerequisites are that it or they must lie near their clay source, water and fuel (coppiced woodland probably or possibly coal).

It is also pertinent that such resources could only come to the nuns in the form of a land grant or a grant of tiles themselves or the money for such floor-laying, dependent upon who were the nunnery's benefactors in the second half of the 14th century and where their geographical influences lay. The nuns would have had few dealings with the outside world and most purchases would have been via male intermediaries to their patrons. Tiles would probably come to them locally because a

local patron already had the requisite land, mineral resources (and was prepared to exploit them) and could bring in a competent tiler in the first instance.

The character of the Polesworth tiles

There is a degree of unreliability in conjecturing from such a small body of material (when a monastic infirmary at Maxstoke could need 4320 tiles). Polesworth's *in situ* decorated tiles amount to only 33 stratified examples in 14 designs. By comparison to many former monastic sites, this is a very small total, and the site has clearly been very heavily robbed of its medieval tiled floors, or they have been smashed and scattered.

However, what seems clear is that while many more tiles certainly existed, the few designs excavated seem very focussed on individual tiles, be they armorial or religious. This is quite different from the assemblages at Coventry's monastic sites where 9- and 16-tile designs are very common. Such multiple tile designs can still be seen in Warwickshire at Wormleighton Church (Coventry tiling products). While on the one hand this imbalance at Polesworth may reflect a penchant among those in the 16th century who were robbing the tiled floors (for whom the armorial bearings would probably be irrelevant, and the religious themes overtly 'papist'), on the other hand it may yet be truly representative of what was originally there - a simply rather restricted range.

It is possible that the local kilns the nuns espoused concentrated more on individual tile designs. Among these there is also a propensity for a border to surround the main motif (Figs 76 and 77, Designs 3, 6, and 13), something not seen on Coventry designs, or indeed in any of the published consumer sites across Staffordshire or Leicestershire. This too may be a Polesworth tiling trait and should be borne in mind in future.

The petrology of the tiles is unremarkable. The coal measure clays of North Warwickshire are uniform and their red-firing finishes are not thought to be sufficiently distinctive to warrant separation, where the distribution of designs is clearly pointing to local manufacture. On the basis of the occurrence or absence of designs, it now seems likely that Polesworth nunnery had its own very local supplier of decorated floor tiles.

Design 1 (Scale 1:2)

Decorated floor tiles: Design 1 with reconstruction of full pattern Fig 75

Design 2

Design 3

Design 4

Design 5

Design 6

Design 7

Decorated floor tile designs 2-7 (Scale 1:2) Fig 76

Design 8

Design 9

Design 10

Design 11

Design 12

Design 13

Decorated floor tile designs 8-13 (Scale 1:2) Fig 77

Design 14

Design 15

Design 16

Design 16 on larger tile

Design 17

Design 18

Decorated floor tile designs 14-18 (Scale 1:2) Fig 78

Design 19

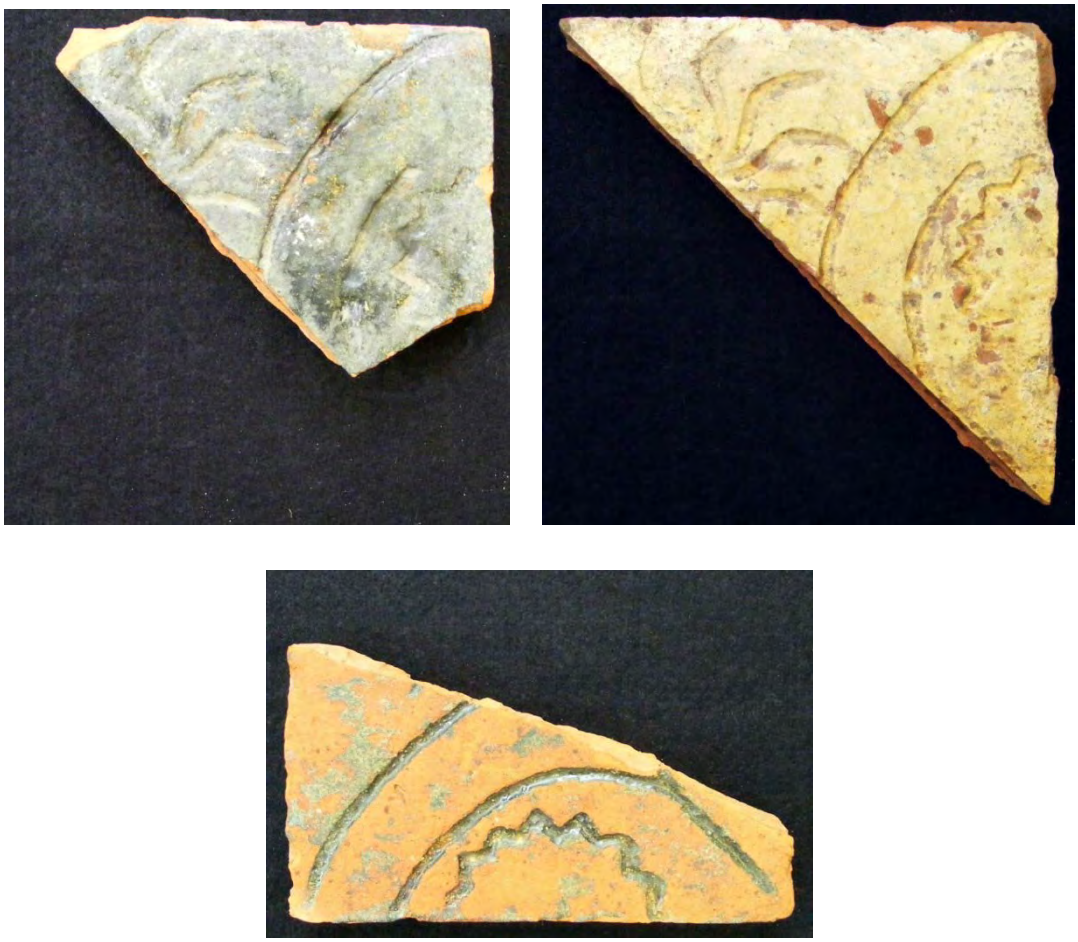
Design 20 on large tile

Design 21

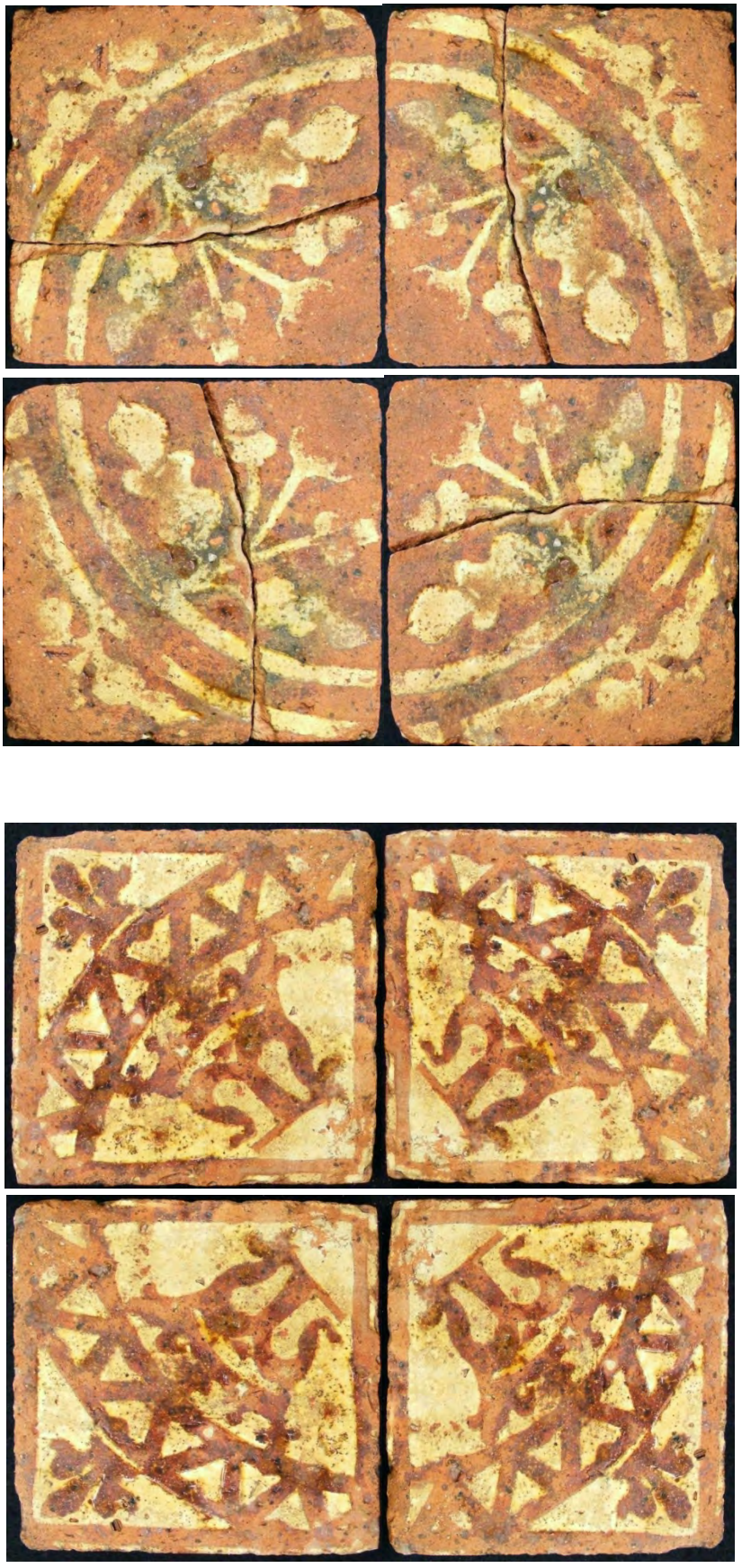
Design 22

Design 23

Decorated floor tile designs 19-23 (Scale 1:2) Fig 79



Decorated floor tile design 24, on triangular and square tiles (Scale 1:2) Fig 80



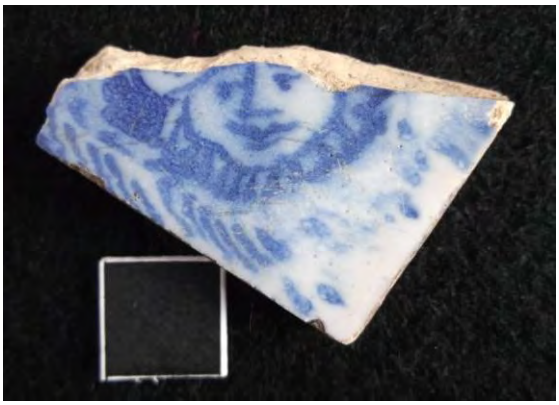
Four-tile patterns from designs 9 and 13 reconstructed Fig 81

5.3 Other building materials by Pat Chapman

Post-medieval tiles

There is a small assemblage of tile sherds, comprising 19 wall tiles and six floor tiles, weighing 365g (Table 7). The wall tiles are typically 5mm thick, a few 7mm and 9mm thick.

The earliest is a corner of a blue and white Delftware tin-glazed tile with a bearded face, 17th-18th century in date (Fig 80).



Delftware tile with bearded face (scale 10mm) Fig 82

The other 17 wall tiles are mainly white glazed with buff or grey additions, one green and one blue and white transfer printed floral design, all 5-9mm thick. The floor tiles, 10-14mm thick, comprise one red quarry tile and three black and brown coarser tiles. All these tiles are factory-made of 19th-20th century date.

Table 7: Post-medieval tiles

Context/feature	No	Wt (g)	Description
A u/s	1	9	Wall, light green, cracked glaze
201 /layer	9	75	Wall, white mixed with brown; white; Floor 15mm thick, red
202 /layer	1	12	Wall, blue and white transfer printed, floral
301 /layer	11	202	Wall x 7, white, buff, white and grey Floor x 4, 1-red quarry; 3-black and brown
401 /layer	2	45	Wall, blue and white tin-glazed, bearded face, 17th-18th century Floor, white, buff surface
403 /layer	1	22	Wall, red quarry type
Totals	**25**	**365**	

Brick

This assemblage of 134 bricks and brick fragments weighs 69kg (Table 9). They are virtually all handmade of varying size and quality, and are most likely local. Ten bricks are fully measurable (Table 8). Other bricks, with measurable dimensions, are 105-125mm wide, while the thickness varies between 43mm and 70mm.

Table 8: Brick dimensions

Fill / cut	Dimensions mm	Dimensions inches
A005 /	225 x 105 x 65	8⅞ x 4⅛ x 2½
A10 /	220 x 128 x 65	8⅝ x 5 x 2½
A10 /	230 x 105 x 65	9 x 4⅛ x 2½
110 /	230 x 110 x 58	9 x 4½ x 2¼
218 /	245 x 123 x 45	9½ x 4½ x 1¾
218 /	240 x 115 x 50	9⅝ x 4⅞ x 2
218 /	255 x 125 x 50	10 x 4⅞ x 2
B3002 /	215 x 105 x 40-60	8½ x 4⅛ x 1½-2⅜
B3002 /	220 x 105 x 45-50	8⅝ x 4⅛ x 1¾-2
B3004 /	220 x 100 x 60	8⅝ x 4 x 2⅜

There are various fabrics. They comprise hard coarse sandy orange-brown or red-brown to brown and a somewhat finer more friable sandy bright orange. The hard fine denser fabrics are orange-brown, dark red-brown and often overfired to dark red to black and purple-brown to black. These fabrics have small stone inclusions and occasional pebbles up to 20mm long. Other fragments are made from a harsh fractured but fine yellow clay and a fine orange-pink clay with buff streaks.

Several of the bricks still had white mortar adhering to them, apart from one factory-made brick with cement. A few bricks had been subject to high temperatures that has caused some vitrification on the sides.

There are Tudor bricks in this assemblage, including the dark overfired bricks which could have been used for decoration, such as the well known diaper pattern. A plinth header comes from context (A15).

There are modern bricks. Three oven drying brick/tile sherds come from B3002. They are 30mm thick with open 14mm squares one side and four perforations per square on the other. This type would be used in any cereal drying oven or kiln. A very hard fine grey brick, 45mm thick, almost glassy to the touch and possibly furnace or kiln lining comes from context (A104). A possible paviour comes from context (A33).

These bricks could date from the 16th century up to the early 20th century, the lack of a frog and the variable quality of manufacture is no indication of period.

Table 9: Quantification of bricks

Fill / cut	No	Wt (g)	Comment
A005 /	16	9410	1 complete
A10 /	2	1260	2 complete
A12 /	2	1579	-
A15 /	3	4250	Plinth header
A025 /	1	633	-
A032 /	2	250	-
A033 /	1	1011	Paviour
A052 /	6	7500	-
A96 /	1	150	-
A104 /	1	725	Possible furnace/kiln lining
Totals A	***34***	***26768***	
101 /	4	677	-
103 /	1	470	-
110 /	1	1260	Complete
201 /	12	1209	-
202 /	2	637	-
218 /	5	12250	3 complete

Fill / cut	No	Wt (g)	Comment
301 /	30	3055	Brick with cement; yellow brick
302 /	1	45	Yellow brick
401 /	7	1292	-
402 /	1	61	-
403 /	1	68	-
404 /	2	415	-
410 /	1	213	-
412 /	2	1996	-
415 /	3	3144	-
Totals trenches 1-4	***73***	***26792***	
B1007 /	1	550	-
B1012 /	1	550	-
B1043 /	1	550	-
B3001 /	1	1550	-
B3002 /	5	7000	3 perforated oven/kiln drying 2 complete bricks
B3004 /	9	13975	1 complete
Totals B	***13***	***10200***	
601 /	3	1100	-
602 /	1	575	-
603 /	2	1175	-
612 /	1	200	-
653 /	1	75	-
654 /	2	450	-
Totals T6	***10***	***3575***	
701 /	1	300	-
713 /	2	1650	-
748 /	1	50	-
Totals T7	***4***	***2000***	-
Overall totals	**134**	**69335**	

Fired clay

Two large fragments of fired clay among the brick assemblage were made of thin layers of hard fine silty red-brown and white clay overfired along the edges, the largest piece was 130x80mm and 35mm thick.

Slate roof tile

There are 162 whole or fragments of slate roof tiles, weighing 48.1kg (Table 10). The slate appears to be of two types, the predominant slate varies in hue between grey, grey-green and blue-grey, while ten slates from Area A and trench 1 have dense bands of green with dark or pale bands on the same alignment (Fig 83, middle row, second from right).

There are 36 more or less complete slates comprising 28 rectangles, four triangles and four bell-shapes (Fig 83). The largest rectangle is 230x130mm (9x5 inches) and the smallest is 90x40mm (3½x1½ inches), and they are between 6-25mm thick. A few small slates had odd shapes as if cut to fill a particular gap. One unusual slate is 165mm wide x 70mm high with a hole in each corner. The circular pegholes are 6-9mm in diameter, with a few up to 15mm, two slate fragments have two complete holes. Flake scars survive behind the pegholes, indicating from which surface the hole was struck. A few tiles still have some white lime mortar adhering to the surfaces, one with a layer 10mm thick.

Slate roof tiles (scale 80mm) Fig 83

The slate probably comes from the Swithland/Groby area in north-west Leicestershire only a few miles away. Roof tiles has been produced in that area from the Roman period, as used at Rothley (Upson-Smith 2011, Ramsey 2007), until the 19th century when the cheaper and lighter Welsh slate became available to all via the railways.

The method of making slate tiles, and the tools, have remained the same for centuries, so dating is problematic. No Welsh slate was noted in this assemblage, suggesting that it is all of medieval and early post-medieval date.

Table 10: Quantification of slate roof tile

Fill / cut	No	Wt (g)	Dimensions (mm)
A04 /	4	480	1 green slate
A05 /	1	320	green slate
A10 /	1	100	-
A11 /	3	115	1 green slate
A12 /	1	155	-
A22 /	1	200	-
A27 /	2	380	rectangular 195x75x15; 1 green slate
A40 /	4	5675	rectangular 120x95x17; 115x60x15; chevron 130x80x15
A044 /	1	460	rectangular 185x100x18
A045 /	1	400	-
A052 /	6	675	1-white mortar; 3 green slates
A057 /	1	50	-
A060 /	1	475	rectangular 165x110x20
A76 /	1	1000	-
A77 /	1	25	rectangular 90x40x6
A94 /	2	150	rectangular 140x60x10
A96 /	1	675	-
A193 /	4	450	-
Totals A	***36***	***11785***	
T1	2	190	-
101 /	3	660	rectangular 140x75x15
103 /	1	475	rectangular 200x90x20
201 /	2	375	rectangular 170x90x15
202 /	1	40	-
203	1	125	-
204 /	2	770	rectangular 215x120x15

Fill / cut	No	Wt (g)	Dimensions (mm)
216 /	2	130	-
221 /	1	220	rectangular 115x90x15
239 /	3	1900	rectangular 230x130x25 triangle 226x120x25
301 /	2	120	-
302 /	5	780	-
303 /	1	145	-
401 /	1	70	-
402 /	1	20	-
410 /	7	1410	1 green slate
412 /	4	2045	bells 185x145x15; 215x160x17; 1 green slate
423 /	1	825	-
430 /	5	950	rectangular 190x80x12; 1 green slate
Totals trenches 1-4	***45***	***11250***	
B1001 /	3	1400	rectangular 210x130x13; 140x70x8
B1002 /	4	1600	rectangular 190x80x12; 120x105x7 bell shape 45-100x100x9
B1003 /	2	750	-
B1004 /	3	1000	rectangular 195x135x15; bell 130x60-90x13 unusual 165 wide x 70x10-hole each corner
B1005 /	11	1400	triangle 145x10-125
B1007 /	3	1325	rectangular 210x130x20
B1010 /	1	175	Triangle 165x20-100-20
B1043 /	1	250	-
B2004 /	3	1250	rectangular 155x85x15; 180x105x25
B3001 /	2	350	-
B3004 /	5	150	rectangular 170x90x8
B3007 /	2	150	-
B3008 /	2	500	-
Totals B	***42***	***11025***	
601 /	4	975	-
602 /	4	750	-
603 /	6	2600	rectangular 240x150x22; 170x140x18
606 /	1	250	rectangular 150x75x15
612 /	2	600	-
624 /	1	200	-
Totals T6	***18***	***5375***	
701 /	2	1700	rectangular 310x170x18
702 /	6	3075	rectangular 280x150x25; 170x80x13
703 /	2	500	-
705 /	6	800	rectangular 160x120x12
707 /	2	350	-
709 /	3	2250	triangle 350x75-180x14
Totals T7	***21***	***8675***	
All totals	**162**	**48110**	

Ceramic roof tile

This is a large assemblage of 1113 roof tile sherds, weighing 172.4kg. They are nearly all plain flat nib tiles, ranging in size from complete tiles to tiny sherds (Table 12).

Plain flat nib roof tiles (scale 80mm) Fig 84

The fabric of the vast majority of roof tiles is hard sandy clay orange to orange-brown or red-brown, occasionally overfired to dark red with a brown surface, or black. This fabric would be considered the earliest, dating from the 13th or 14th centuries and the most long lived type, the style and manufacture of plain roof tiles varied little for centuries. Some small green glazed ridge tile sherds are made from a white fabric of 13th or 14th century date. Some tiles are made in fine red or buff sandy clay with very fine inclusions red with buff and red surfaces, a Midland purple style datable from the late 14th century to 16th centuries. Only three tiles are complete, and 59 others have measurable widths (Fig 84; Table 11). The flat tiles are typically 15-17mm thick, the ridge tiles vary between 10mm and 20mm thick.

Table 11: Flat roof tile dimensions

Dimensions (mm)	Dimensions (inches)	Comment
290 x 168 x ⅝	11½ x 6⅝ x ½	Complete tile
287 x 153 x 15	11⅜ x 6 x ⅝	Complete tile
285 x 165 x 15	11¼ x 6½ x ⅝	Complete tile
- x 155 x 13	- x 6⅛ x ½	Min and max widths
- x 180 x 18	- x 7⅛ x ¾	of broken tiles

One flat tile sherd had a peghole, another sherd had a peghole with a nib. There are 23 ridge tile sherds, some of which are green glazed, the only tiles that are glazed, apart from a few tiles spotted with glaze. The crest, or possible finial, from context (430) had very worn traces of glaze on the outer surface (Fig 85). One plain ridge tile, from context B3004, has a small horn-shaped crest with just the end missing (Fig 86). There are also three bonnet or hip tiles and two other curved sherds whose function is unclear. The tiles were found across all the areas. White slip was seen on two sherds and pawprints on two sherds, as well as random marks occurring on some

sherds. The only joining sherds were in Area B, from contexts (3007) and (3027), noted due to a narrow comb mark running vertically down the tile.

Crest or possible finial (scale 20mm) Fig 85

Ridge tile with crest (scale 20mm) Fig 86

White lime mortar still adhered to the surface of many tiles and in two cases, from context (412), tiles had been mortared together.

There are also some factory-made sherds made from orange or buff clay with shiny purple surfaces, particularly from contexts (401), B1001, B1002, and a 'Rosemary' tile from context (301), all dating from the 19th century onwards. These sherds have two or three nibs along the top of the tile and often pegholes as well, though none were seen on these tiles.

Table 12: Quantification of ceramic roof tile

Context/feature	No	Wt (g)	Comment, Dimensions mm
Au/s	11	1625	1 splash green glaze; 1 pawprint
A04 /	8	1630	165; nail fragment on tile
A005 /	47	9745	Widths 174; 160; 173; 183
A008 /	4	550	-
A009 /	3	500	-
A010 /	2	2230	Width 165
A011 /	12	880	
A012 /	23	5845	Widths 160; 163
A014 /	18	1100	-
A017 /	1	50	-
A021 /	6	1075	-
A022 /	24	1300	1 ridge tile
A025 /	17	1560	-
A027 /	5	325	-
A029 /	2	335	1 faded green glaze
A032 /	15	2350	pawprint
A033 /	23	2535	-
A040 /	15	2865	167
A043 /	2	35	-
A044 /	3	230	1 curved tile
A045 /	4	950	1 bonnet tile
A052 /	26	6900	Complete 290 x 168 x 13;1 ridge tile Widths 155; 165; 175
A055 /95\ /	1	208	Iron nail attached
A057 /	8	169	--
A058 /	12	650	--
A061	7	1840	Widths 168; 160
A67 /	5	725	-
A77 /	2	575	-
A80 /	1	100	-
A94 /	2	200	unfinished peghole
A95 /	3	825	2 ridge tiles; width 168
A96 /	3	525	-
A104 /	1	100	-
A107 /	1	25	-
A108 /	1	50	-
A111 /	1	25	-
A117 /	1	200	-
A201 /	10	950	1 ridge tile
Totals A	***277***	***43084***	
T1	4	306	-
101 /	27	2596	-
103 /	24	3050	-
110 /	4	237	-
201 /	83	4820	-
202 /	33	4369	ridge white - green glaze widths170; 165; 168
203 /	16	941	Ridge white – green glaze
204 /	9	8415	Widths 163; 166; 168, 169; 170; 172
213 /	2	1067	Width 165
216 /	1	1540	Complete 287 x 153 x 15
217 /	1	600	-
218 /	6	4607	Complete 285 x 165 x 15 Widths 160; 164; 165
301 /	82	3612	1 rosemary sherd
302 /	18	1006	Ridge white-green glaze, crest broken
303 /	3	341	Ridge green glaze
401 /	152	13454	49- factory made 4-plain ridge tile; bonnet tile 1-ridge, external height *c* 160mm Widths 180; 177; 158; 160
402 /	47	3248	-
403 /	8	347	-
404 /	45	2218	-

Context/feature	No	Wt (g)	Comment, Dimensions mm
406 /	5	480	-
410 /	52	6169	Widths 168; 163; faint pawprint
412 /	25	11546	2 and 3 mortared together Widths 160; 170; 175; 180 Length 290
413 /	2	200	-
415 /	3	150	-
416 /	4	650	-
427 /	3	620	Width 163
430 /	23	7003	2 with opposed curves; Ridge pink fine ware with finial/crest Widths 163; 170
Totals Ts 1-4	***683***	***83592***	
B1001 /	17	3400	1 ridge ; 3 machine Widths 163; 158
B1002 /	9	1500	5 machine made
B1005 /	7	1975	Width 162
B1010 /	4	400	-
B1012 /	4	1100	-
B1017 /	1	50	-
B1038 /	2	300	-
B1043 /	2	400	-
B1044 /	3	150	-
B1065 /	1	100	-
B2004 /	7	1650	Ridge white-green glaze; width 176
B2012 /	2	375	-
B3001 /	5	275	Width 164
B3002 /	4	3950	Ridge tile; curved tile
B3004 /	4	2080	Ridge with crest; width 163
B3007 /	7	3000	Bonnet tile 110-190 wide Widths 180; 165 Tile joins with B3027
B3008 /	4	450	Ridge tile green glaze
B3010 /	2	250	-
B3012 /	1	150	-
B3027	3	1150	2 join and joins B3007
Totals B	***89***	***22705***	
601 /	4	1750	Ridge tile
602 /	7	2450	Ridge tile; width 166
603 /	7	3725	Width 160
604 /	6	3750	Widths 163; 183; finger print
611 /.	2	725	Width 170
612 /	2	450	-
624 /	1	250	Width 164
Totals T6	***29***	***13100***	
701 /	6	1250	Ridge tile
702 /	7	400	10 thick, probably all one tile,
703 /	4	1100	-
705 /	11	4950	Ridge, peghole 10 diam; Widths 180; 160
707 /	5	1900	Widths 175; 163
709 /	2	125	-
710 /	1	225	Peghole 12 diam with nib
Totals T7	***36***	***9950***	
Overall totals	**1113**	**172431**	

General discussion

The majority of these floor tile and roof tiles assemblages are of medieval to early post-medieval date. Religious foundations often had their own tileries and employed itinerant tillers, particularly for decorated floor tiles. However, it is also possible that the roof and floor tiles could have been ordered from an established tile kiln, such as that at Chilvers Coton, near Nuneaton, which is only a few miles away (Mayes and Scott 1984).

Mortar

The mortar fragments vary from small flat pieces or small lumps to quite large lumps and two large rectangular pieces measuring 140x70x50mm and 140x60x30mm. The assemblage weighs 2.3kg and 1.66g, or about 70%, comes from Area A (Table 13). Most of this mortar is white lime with black flecks except in three separate contexts: two very small fragments that are fine soft yellow; two large pink lumps, one with a bit of roof tile still embedded within it; and one with small white flecks and red/burnt stone up to 20mm long. Some of the pieces still hold the structural impressions from the tile, brick or stone originally mortared together. Within trench 4, there was a considerable amount of mortar on an assemblage of roof tiles from context (412), including two still held together.

Smooth thin plaster was noted on a few small fragments. The plaster was usually white except for one piece with faint yellow stains and one with pinkish patches and flecks of red and black that could be decorative or just random marks.

Table 13: Quantification of mortar

Contents/feature	Wt (g)	Comment
A005 /layer	44	-
A011 /layer	60	-
A017 /A041	33	-
A012 /layer	886	1 Plaster; and 2 large pieces
A025 /layer	103	-
A032 /layer	10	-
A043 /A038	115	2 Plaster
A044 /layer	9	-
A045 /layer	92	-
A052 /A053	180	-
A057 /layer	124	-
A058 /layer	6	2 small soft fine yellow mortar
101 /layer	43	1 Plaster, yellowish; mortar white flecks & red/burnt stone
110 /layer	419	Pink mortar, 1 with roof tile still embedded
202 /layer	9	1 plaster with pinkish areas & small frags of red and black
239 /240	165	-
406 /408	25	-
Total	**2323**	

5.4 Glass by Pat Chapman

This is an assemblage of 745 sherds, weighing 5.7kg, found across all the trenches. They come from various glass products; bottles of all types, windows, drinking vessels and jars.

There are at least 70 thick green patinated sherds from wine bottles, *c* 180 sherds from different types of bottles, carafes and/or decanters in thin green, brown, bluish or clear glass, occasionally moulded and about ten round and square bottles with makers' names and the top of a glass stopper. Blue, red, decorated pink and clear sherds come from a number of small delicate bottles or vessels of different sizes and styles that could have been for medicine or perfume. A few sherds have a crosshatch style moulded decoration and a lid from a pot that could be part of a dressing table set. A large number of sherds including a few opaque come from vessels of various sorts. There is one small clear marble with a blue swirl.

One nearly complete bowl from a small wine glass was noted and several sherds that probably came from similar vessels. Forty-eight mainly large thin leaf green sherds may have come from a bowl.

Window glass accounts for at least 146 sherds, ranging from thin slightly patinated sherds to modern clear glass. No stained glass was noted.

Table 14: Quantification of glass

Context/feature	No	Wt (g)	Comment
Au/s	87	606	17 large thin green vessel 12 wine bottle; 43 window; 15 misc
A002 /layer	1	106	1 wine bottle shed
A005 /layer	44	272	29 green vessel; 5 wine bottle; 2 window; 1 small drinking glass bowl; 1 small scent bottle type; 6 misc
A008 /layer	1	7	Brown makers' name
A009 /layer	3	10	Smaller bottle glass
A018 /wall	1	15	Window
A024 /layer	34	222	2 wine bottle, 3 drinking glass; 1 scent; 1 dec lid; 1 dec sherd; 6 window, 20 misc
A025 /layer	19	84	2 wine; 15 window; 2 other bottles
A029 /A030	6	24	1 wine bottle; 4 vessels; 1 dec
A032 /layer	89	480	1 wine bottle; 3 'carafe' type top and 71 more of same – leaf green; 14 window
A033 / layer		146	12 wine bottle; I small bottle; 3 window
A037 /layer	3	3	3 window
A040 /layer	11	58	9 bottle; 2 window
A044 /layer	7	17	6 delicate bottle; 1 opaque
A052 /A053	21	459	3 tiny fine red; 6 wine; 3 fine purple-red base narrow vessel; 7 window; 2 misc
A057 /layer	1	2	vessel
A058 /layer	1	56	Wine bottle
A064 /layer	1	1	Thin window/vessel
101 /layer	22	237	1 jar top (broken; 15 clear glass vessel; 2 window; 2 wine; 1 blue to white; 1 misc; 1 marble+non glass
103 /layer	16	166	1 bottle in 16 sherds
201 /layer	48	240	17 window; 12 bottle, 2 thin moulded 'basket' design; 19 various incl 2 bright clear green; 8 green chips
202 /layer	10	22	7 green bottle; 3 clear window
204 /layer	5	37	Bottle-3 green 2 clear
217 /225	109	1110	97- bottles and vessels; 8 window; 5 clear thin moulded dec – 4 one vessel
218 /225	13	125	12 bottle incl wide wine; 1 window
219 /225	2	11	1 bottle; 1 vessel
223 /225	1	2	bottle
301 /layer	117	681	1 small pot; 6 makers' names; 24 bottle; 4 small bottles; 1 glass stopper top; 5 opaque; 14 small vessel; 1 small dimple dec; 66 misc; I fluted; 1 ink blue; 1 blue to whitel; 2 pink dec
302 /layer	2	25	1 bottle; 1 opaque
401 /layer	23	244	Various bottles
402 /layer	29	148	15 bottle; 7 window; 7 melted
403 /layer	3	13	2 bottle; 1 window
404 /layer	5	29	3 wine; 1 clear, 1 window
406 /408	7	16	2 bottle; 5 window
410 /layer	1	5	window
412 /420	2	1	window
Totals	**745**	**5680**	

5.5 Industrial debris by Andy Chapman

Eleven contexts produced a total of 4.57kg of industrial waste (Table 15).

All of this material is consistent in nature and falls under the broad category of clinker, the waste from post-medieval/modern industrial processes, 18th century or later in date. There is a mixture of light and vesicular fuel ash slags and waste coke, the residue of the fuel that was being used. Some of the fuel ash slag has a glassy appearance. It is all likely to have derived from coke-fuelled boilers or furnaces, rather than domestic use.

From context A011, there are three irregular fragments, weighing 50g, of waste copper alloy, also of post-medieval/modern date.

Table 15: Quantification of industrial waste

Context	Weight (g)
A024	136
A057	30
110	120
216	57
218	46
301	270
401	2090
402	18
403	293
404	1385
406	120
Total	**4565**

5.6 Clay tobacco-pipes by Tora Hylton

A large group of *c* 520 clay tobacco-pipe fragments were recovered from Trenches 1-6 and Areas A and B. The assemblage comprises 61 complete or fragmented pipe-bowls and 459 stem fragments, which together span the early/mid17th to late 19th and early 20th centuries. The assemblage was widely dispersed across the excavation area, with many of the fragments occurring as residual in modern deposits. The majority of tobacco-pipes were recovered from Area A. Much of the assemblage displays signs of wear and abrasion, suggesting that the fragments had been lying around for sometime prior to deposition.

Twenty-four of the pipe bowls are sufficiently complete to enable dating. The majority of datable bowls are represented by Broseley Types and these were manufactured *c* 45 miles to the west of Polesworth in Shropshire. The Broseley pipe bowls have been classified according to Atkinson's dating as reproduced in Oswald (1975, 50). In addition, there are a small number of pipes which have been identified using Oswald's simplified typology using bowl and foot/spur forms (Ibid, 1975, 37-41). The datable bowls provide a date range of *c* 1610-1730, while one or two individual fragments date to the 19th/20th centuries. Chronologically the earliest bowl forms represented are Oswald Types dating from *c* 1610-70 (Types G16, G17) and these were recovered from Areas A and B. From the mid/late 17th century Broseley Types (2a/b, 3, 4, 5a/c) appear to dominate and forms dating from *c* 1660 to *c* 1730 are represented. The majority of complete bowls and fragments are ornamented with a partial or complete

band of rouletting or a linear band set just below the lip of the bowl, a common motif until *c* 1710 (Moore 1980, 6).

Seventeen Broseley pipe bowls/bowl fragments preserve maker's marks, eight with initials on the base of the foot or spur and six with full name stamps on the underside of the foot and three with an incuse wheel on the base of the foot. Examples of datable bowl forms with initials on the base of the foot are slightly earlier in date than the bowls with full name stamps, which date to *c* 1680-1730.

The stem fragments measure up to 74mm in length and seven are furnished with mouth pieces. Two stem fragments are decorated, one with a simple transverse motif and another with an incised motif.

Table 16: Contexts with datable pipe bowls present

Context/ Feature	A005/ layer	A024/ layer	A025/ layer	A032/ layer	A033/ layer	A040/ layer	B1003	B2004	B3004	B3020
Oswald type										
G16 (1610-40)	-	1	-	-	-	-	-	-	-	-
G17 (1640-70)	-	1	-	1	-	-	-	-	-	-
G6 (1660-80)	-	-	-	1	-	-	-	1	-	-
G18 (1660-80)	-	-	-	-	-	-	-	-	1	-
Broseley type										
2a/b (1660-80)	-	-	1	1	2	6	-	-	-	1
4 (1690-1720)	-	-	-	-	-	-	-	-	-	-
5a (1680-1730)	1	-	-	-	-	-	1	-	-	-
6 (c 1720)	-	-	-	-	-	-		-	-	-
Other (19th/ 20th century)	-	-	-	-	-	-	-	-	-	-

Context/ Feature	A U/S	218/ 225	302/ layer	401/ layer	601/ layer
Oswald type					
G16 (1610-40)	-	-	-	-	-
G17 (1640-70)	-	-	-	-	-
G6 (1660-80)	-	-	-	-	-
Broseley type					
2a/b (1660-80)	1	1	-	-	-
4 (1690-1720)	-	-	1	-	-
5a (1680-1730)	-	-	-	-	1
6 (c 1720)	-	-	-	-	-
Other (19th/ 20th century)	-	-	-	1	-

Table 17: Catalogue of Broseley Pipes (Atkinson's dating): Trenches 1 to 6

Trench/ Context	**Broseley Pipes (Atkinson's Dating)**					**Comments**
	Bowl types			***Bowl frags***	***Stem (no)***	
	2 a/b	4	5			
Trench 1						
101	-	-	-	-	4	One with mouth piece
Trench 2	-	-	-	-		
201	-	-	-	1	16	Bowl fragment – Broseley type
202	-	-	1	1	11	- Base of foot marked with "MD" with two pellets above). - Full name stamp on base "MORRIS DECON". Similar stamp on a pipe from Coventry dated 1680-1720 (Muldoon 1979, fig 4, 21)
204	-	-	-	-	4	-
218	1 (b)	-	-	1	11	Broseley type 2b (1660-80), rouletting,

						burnished. Two stem/foot fragments preserving makers marks on underside of the foot – "IG" in a toothed circle (?John Gething) and "MD"
219	-	-	-	-	1	Foot fragment marked with "IC" on underside
Trench 3						
301	-	-	-	2	11	-
302	-	1			12	Broseley Type 4 (1690-1720), "TH" on base of spur (possibly Thomas Hartshorne)
303	-	-	-	-	3	-
Trench 4	-	-	-	-		
401	-	-	-	9	19	Two bowls with relief decoration in the form of a line of leaves along the front seam. One fragment with a vestige a buffalo (head/horns) – RAOB (Royal Antediluvian Order of Buffaloes) – late 19th/20th centuries), For similar example see Moore 1980, fig 12, 51). One stem fragment with transverse linear roulette motif
402	-	-	-	-	8	-
403	-	-	-	-	4	-
406	-	-	-	-	2	-
410	-	-	-	-	1	-
411	-	-	-	-	1	Stem decorated
412	-	-	-	-	1	-
Trench 6	-	-	-	-		
601	-		1	1	8	Broseley type 5a (1680-1730), rouletting. Full name stamp on underside of the foot, marked with "THOM EVANS" – Thomas Evans *c* 1700
Trench 7						
701	-	-	-	-	11	One stem decorated with incised motif

Table 18: Catalogue of Broseley Pipes (Atkinson's dating): Area A

Trench/ Context	Broseley Pipes (Atkinson's Dating)				Comments
	Bowl types		***Bowl frags***	***Stem (no)***	
	Broseley Type 2 a/b	Other			
A002	-	-	-	1	-
A004	-	-	-	1	-
A005	-	-	4	34	Two stem fragments with elliptical mouth pieces. Four stems with foot attached, inc. Broseley pipe with splayed foot, heart-shaped with long tail – example of Atkinson's Type 5c (1680-1730). Vestige of whole name stamp on base, letters "HOR" visible, presumably for maker John Hartshorne Also base of foot marked with conjoined "HB" in a heart (Henry Bradley)
A009	-	-	-	1	-
A010	-	-	-	1	-
A011	-	-	-	3	-
A014	-	-	-	2	-
A021	-	-	-	3	-
A024	-	1	3	6	Bowl resembles an Oswald type G17 (1640-70) and one fragment looks like a G16 (1610-40)
A025	1	-	4	29	Burnt bowl Broseley type 2a (1660-80). Two Broseley pipe fragments marked with whole name stamps - "JOHN HARTS HORNE" and "IOHN MATS" Plus one marked with "MD" on base of foot

A032	1	4	1	19	Broseley type 2a (1660-80), burnished roulette with makers marks stamped on base of foot "IW". Three Oswald type G17 (1640-70), burnished and rouletted Bowl – Oswald type G6 with chamfered rim. Fragment of "Mulberry" pipe, possibly alehouse sign, dated to *c* 1660-90 (Oswald 1975, 96)
A033	2	-	5	50	Two stem fragments with plain mouth piece (elliptical cross-section). Two Broseley type 2a.b (1660-80), rouletted and burnished and one marked with an incuse wheel on the base of the foot
A034	-	-	-	1	Chamfered with longitudinal facets
A037	-	-	-	1	-
A040	6	-	1	55	Two stem with mouth piece. Bowls represent Broseley type 2a/b, all burnished and roulette and two with wheel stamp on base of foot like example from context A033. The other four bowls are plain
A052	-	-	-	16	-
A067	-	-	-	1	-
A070	-	-	-	1	-
A095	-	-	-	1	-
A096	-	-	-	1	-
U/S	1	-	2	68	-

Table 19: Catalogue of Broseley Pipes (Atkinson's dating): Area B

Trench/ Context	Broseley Pipes (Atkinson's Dating)					Comments
	Bowl types			***Bowl frags***	***Stem (no)***	
	3	5	Other			
B1001	-	-	-	-	7	-
B1002	-	-	-	-	6	-
B1003	-	1	-	-	-	Broseley Type 5a (1680-1730). Makers mark (square full name mark) stamped on base of foot "IOHN MATS", similar bowl from Coventry dated 1689 (ref. Muldoon 1979, fig 8, 37)
B2004	-	-	1		1	Oswald Type G6 (1660-80), rouletted and extremely abraded
B3001	-	-		1	3	-
B3004	-	-	1		2	Oswald type G18 (1660-80), burnished
B3007	-	-	-		11	-
B3008	-	-	-	1	5	-
B3020	1	-	-	-	1	Broseley Type 3 (c.1660-80) makers mark stamped on base of foot "IOHN MATS", *c* 1649-63(Oswald 1975, 191) See dated example above

5.6 **Other finds** by Tora Hylton

The excavations at Polesworth produced nearly 600 recorded finds spanning the prehistoric through to the post-medieval/modern periods. The majority of the finds are residual within later deposits, a result of extensive earth moving and soil disturbances during the post dissolution period. Prehistoric and Roman activity is represented by the presence of a worked flint and an illegible Roman coin, while Saxon activity is represented by a *sceat* and an ornate dress pin. The majority of the finds are medieval and post-medieval in date, the former were mainly recovered from deposits associated with the late 13th/early 14-century building (Area A), the southern Cloistral area (Area B) and the Reredorter (Trench 6). In addition residual

medieval finds were recovered from topsoil/subsoil and post dissolution deposits, together with the large number of post-medieval finds.

The assemblage is dominated by iron nails, over half the assemblage (*c* 385), the majority of these presumably originating from the buildings that existed on the site. Other forms of structural debris are represented by iron fittings, lead window came, numerous lead off cuts and fragments of painted window glass, the latter presumably originating from ecclesiastical buildings. The range of finds is broad and includes items for personal use (dress accessories, toilet equipment, recreation), household equipment (locks, keys) and a range of tools (knives, spindlewhorl), together with items relating to the use of horses and trade. Their presence forms an assemblage comparable to sites of a similar date and function, such as Whitefriars, Coventry (Woodfield 2005).

Table 20: Small finds quantified by material type

MATERIAL	TOTAL
Silver	5
Copper alloy	74
Iron objects	439
Lead	48
Stone	9
Bone	2
Glass	18
Ceramic	1
Plaster	1
Total	**597**

Table 21: Small finds quantified by functional category

Functional category	Tr 1	Tr 2	Tr 3	Tr 4	Tr 6	Tr 7	A	B1	B2	B3
Personal Possessions										
Costume and jewellery	-	1	-	3	5	3	7	14	2	
Toilet equipment	-	1	-	-	-	-	-	-	-	-
Recreation	-	-	-	1	-	-	-	-	-	1
Equipment and furnishings										
Building equipment	-	-	-	-	-	-	-	-	-	-
General ironwork	-	-	1	1	-	-	2	1	-	1
Nails	3	8	3	11	18	29	227	50	17	19
Window glass	1	-	-	-	-	-	8	6	1	2
Window came (lead)	-	-	1	1	1	-	3	-	-	2
Household equipment	-	1	-	-	-	1	-	-	1	-
Locks and keys	-	-	1	-	-	-	1	1	-	2
Knives	-	-	-	-	-	-	2	-	1	-
Hones/sharpeners	-	-	-	-	-	-	2	-	-	-
Weights	-	2	-	-	-	-	-	-	-	1
Tools										
Textile working	-	1	-	-	2	-	1-	-	-	-
Horse furniture										
Fittings	-	-	-	-	1	-	2	-	-	-
Horseshoes	-	-	-	-	-	-	5	1	-	-
Nails	-	-	-	-	-	-	-	-	-	-

Functional category	Tr 1	Tr 2	Tr 3	Tr 4	Tr 6	Tr 7	A	B1	B2	B3
Weapons				1						
Trade										
Coins/Jettons	-	-	1	1	8	1	3	5	-	-
Tokens	-	-	-	1	3	-	1	1	-	-
Miscellaneous and unidentified										
Copper alloy	-	-	-	-	-	4	6	5	-	-
Iron	2	1	1	-	3	2	8	4	2	1
Lead	-	-	2	-	7	1	10	8	3	2
Plaster	-	1	-	-	-	-	-	-	-	-
Stone	-	1	-	-	-	-	-	-	-	-
Flint	-	-	-	1	-	-	1	1	-	-

A total of 35 iron objects (excluding nails, small fragments and objects that are obviously post-medieval in date) were submitted for X-ray. This was undertaken by Beth Werret, Conservator with Wiltshire Conservation service. This provided a permanent record, assisted identification and revealed technical details not previously visible, particularly the lock mechanisms and two objects were seen to be coated in non-ferrous metal. No stabilization was necessary.

Worked flint by Yvonne-Wolframm-Murray
One piece of worked flint was recovered as a residual find from the make-up layer of the abbey cloister(1008). The retouched flake was 36mm long and 30mm wide. The right lateral edge and part of the left lateral edge were invasively retouched on the dorsal surface.

The condition of the flake is good with the flint showing post-depositional edge damage in the shape of occasional nicks on the edges. The raw material is mid grey vitreous flint, with mid brown coloured cortex on the dorsal surface and striking platform. The raw material was likely to have originated from local gravel deposits.

The technological characteristic of the partially worked implement date it between the early Neolithic and early Bronze Age.

Roman finds by Ian Meadows
A single copper alloy coin (SF 90) was recovered from Tr 3/319.

Description: AE3, House of Constantine type bust. The coin is severely worn and corroded, removing most of the original surface, with the exception of a small portion of the bust, none of the original legend survives on either the obverse or reverse and closer dating is not possible. Diam: 17mm, Wear:EW/EW , Weight: 1.5g
Location: SF 90, Trench 3, Context 319, ? Infirmary

Saxon finds
Evidence for Saxon activity is represented by a copper alloy *sceat* (SF 238) from the Southern Range [728] (Fig 87) and an ornate copper alloy dress pin (SF 147) from the Southern Arcade Alley [B1017] (Fig 88).

The sceat identification by Paul Clements
Description: 'Porcupine' sceat, copper alloy (600-800AD).
Diam: 12mm
Wear: VW/C
Weight: 1.1g.

Location: SF 238, Trench 7, Context 728, Southern Range

Anglo-Saxon copper alloy *sceat* (SF 238) (scale 20mm) Fig 87

Copper alloy dress pin

The pin has a globular/spherical head with a collar beneath and a slightly swollen shank. Typologically it conforms to Flixborough Type 132 (Rogers 2009, fig 1.23, 300), the commonest type recovered from sites of middle Saxon date (Ibid 2009, 33). Women used pins as part of their everyday dress and they are found in large numbers on female monastic sites (Webster and Backhouse 1991, 84). Other similar examples are known from York (Waterman 1959, fig 11,5 and 10).

Anglo-Saxon copper alloy dress pin (SF 147) (scale 20mm) Fig 88

Medieval finds

The majority of medieval finds were recovered from Areas A and B, while smaller numbers were recovered from the Chapter House (Trench 2), the Reredorter (Trench 6) and the Southern Range (Trench 7). Areas A and B produced a varied and

interesting assemblage and the range represented provides a brief insight into some aspects of life at the settlement and the activities which may have taken place. In tandem with most medieval sites there is a range of personal items, these include small portable items which would have been used to either secure or visually enhance items of clothing (lace chapes, pins, mounts), or held by an individual for personal use (tweezers) or recreation (bone tuning peg). There are no items of jewellery.

In comparison to the huge number of nails recovered there is a dearth of iron fittings suggesting that most of the structural fittings were removed prior to abandonment, presumably for reuse or recycling. Of interest is a small group of locks and keys, their presence attesting to the need for security. These include a small barrel padlock case and a spring bolt from Area B1 (Southern Arcade Alley) and a sliding bolt and two keys for mounted locks from Area B3 (South Range). Other finds types represented include equipment related to the use of horses from Area A and B, and a small group of tools, alluding to the hand activity of spinning. Trade is represented by the presence of four hammered silver coins, two are attributed to Henry III (1216-72) and two are illegible, all were recovered from unstratified deposits.

Personal possessions

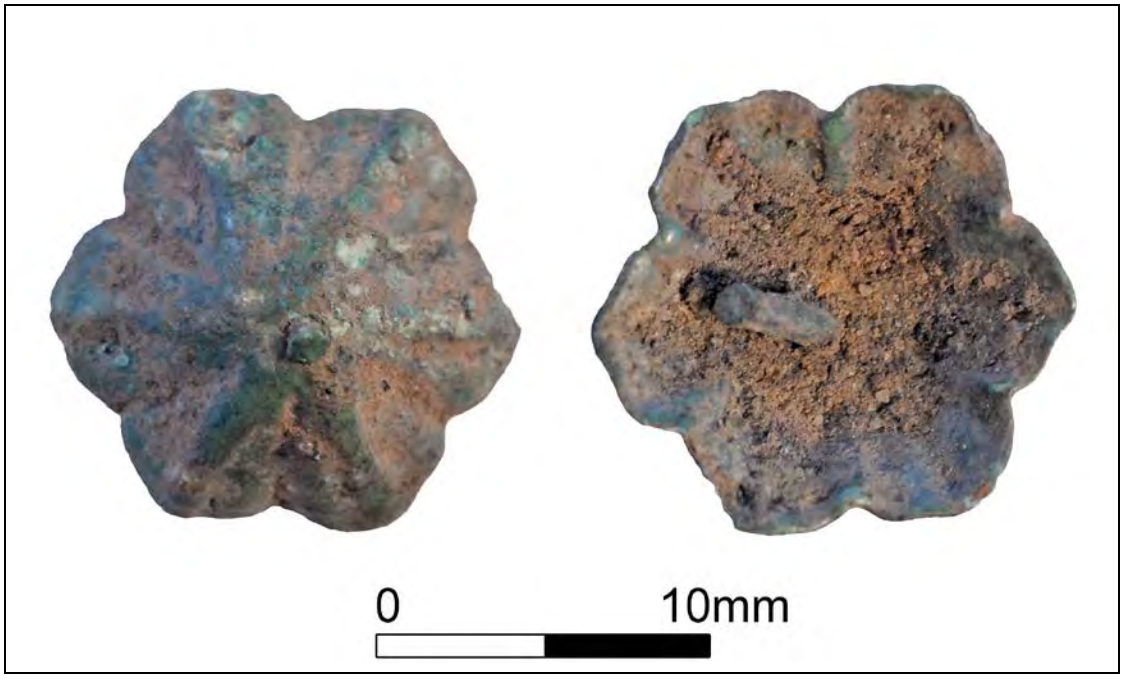
This category comprises a range of portable items which would have formed part of a person's clothing (costume fittings) or been held by an individual for personal use (toilet equipment). In addition, this category also includes items relating to the use of musical instruments (recreational objects). It is interesting to note that with the exception of one bead, no items of jewellery were recovered.

Costume fittings

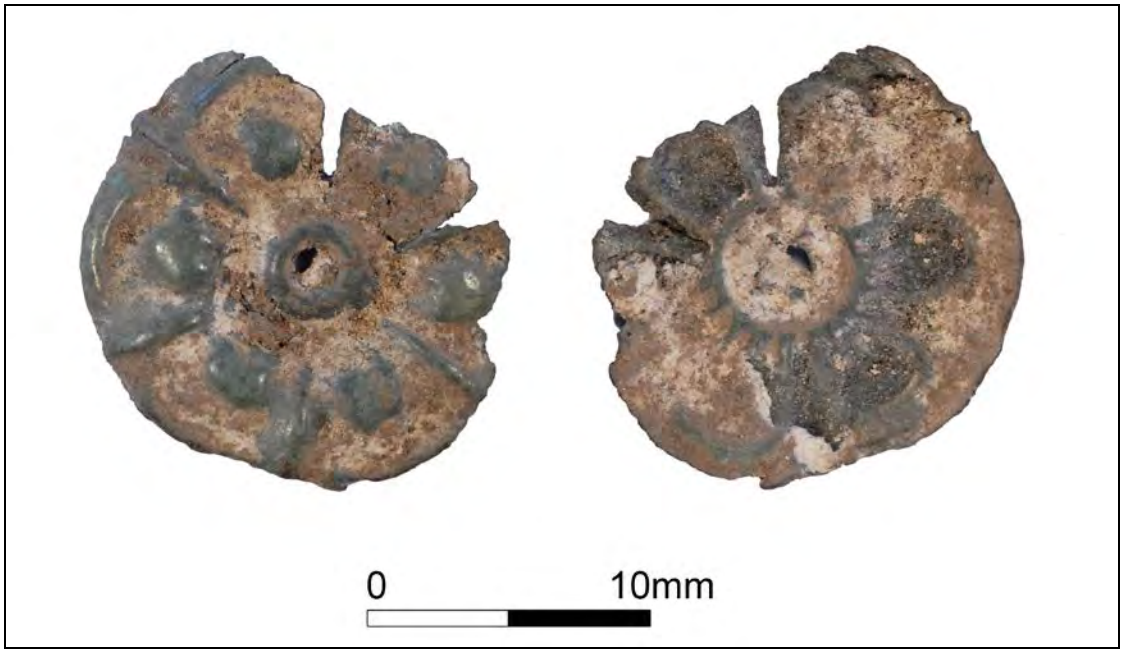
There are a range of dress fittings which would have formed part of a person's attire, they include four lace chapes, three mounts, 24 pins and two bells.

Lace chapes for securing the terminals of laces are made from copper alloy sheet which was rolled to form a tapered cylinder. Complete examples measure 22-33mm in length and one example is perforated, *c* 5mm from the wide end and it still retains the copper alloy rivet, which would have secured it to the lace (cf. Woodfield 1981, fig 5, 36a).

There are three copper alloy mounts, two types are represented, sexfoil mounts and an arched pendant mount. The sexfoil mounts measure *c* 15-16mm in diameter; they would have been secured by rivets and used to visually enhance items of textile or leather. Two forms are represented, one is domed and relatively naturalistic with shaped petals and a central vein (SF 270) (Fig 89) and the other is flat with a domed centre and raised lines between the domed lobes (SF 286) (Fig 90).



Copper alloy sexfoil mount (SF 270) (10mm scale) Fig 89



Copper alloy sexfoil mount (SF 286) (10mm scale) Fig 90

The arched pendant mount would have been used to suspend purses and knives. It measures 47mm long and it comprises an oval aperture flanked by an inverted U-shaped arch and at the junction of both there are cusps protruding from the external angles (SF 124) (Fig 91). The terminals of the mount are collared and these would have been attached to a belt, by means of two bar mounts (cf. Egan 1991, fig 140, 1198). Typologically this mount may be paralleled by examples from London (Ibid 1991, fig 140, 1197) and Winchester (Biddle 1990, fig 2394) which were recovered from 14th and 15th-century deposits.

Medieval copper alloy arched pendant mount (SF 124) (50mm scale) Fig 91

Pins

There are 24 copper alloy pins. Of that number twelve were recovered from Area B1 (Southern Arcade Alley), while smaller numbers were recovered from Area A (x 4) and Trenches 2 (x1), 4 (x 1), 6 (x3) and 7(x 3). Nine pins are incomplete and six of these are shank fragments (no head). Head types represented include four pins with solid copper alloy heads (SF189) (Fig 92) and 14 drawn wire pins with spiral wound heads (SF127) (Fig 93). Pins with solid heads have spherical heads (cf. Robinson and Griffiths 2000, fig 6.5, 46) and complete examples range in recorded length from 40-*c* 90mm in length and they may be classed as dress pins Pins with wound-wire heads are smaller in size and range from 23-54mm in length (Ibid 2000, fig 6.5, 47-64).

Medieval copper alloy pins with solid copper alloy heads (SF 189) (20mm scale) Fig 92

Medieval copper alloy, drawn wire pin
with spiral wound head (SF 127) (20mm scale) Fig 93

Bells

There are two small rumbler bells, most probably for use as an accessory for dress, both are identical and represent a category of closed bell, which has a 'pea' inside. One (SF 92) was recovered from Area A [A055] and the other (SF 169) from Trench 6 [622]. They have been manufactured from four individual pieces which have been assembled to form a bell with a hollow body made in two halves and soldered together, a strip of copper alloy sheet which has been passed through a hole in the top to form a suspension loop and finally an iron sounding 'pea'. The bells measure 15mm in diameter and they may be paralleled by examples from London (Pritchard 1991, fig 221, 1645) and the Free Grammer School, Coventry (Woodfield, 1981, fig 7, 121). In London stratified examples were recovered from deposits dating from the late 13th to the early 15th century. Bells of this type may also have been attached to dogs collars, horse trappings or used as hawking bells (Woodfield 1981, 99).

Toilet equipment

Cosmetic implements are represented by an incomplete pair of tweezers (SF 104) from the Trench 2 (Chapter House). The tweezers are plain and they have been manufactured from a strip of sheet copper alloy which has been folded in half widthways (one piece type). There is a small bow for holding the tension and the arms are parallel. A similar complete example has been recovered from York (Ottaway and Rogers 2002, fig 1501, 15229).

Recreational objects

Evidence for music making is represented by a bone tuning peg from a medieval stringed instrument (SF 185) (Fig 94). The tuning peg was recovered from the South Range (B3 004) and although incomplete and measuring just 52mm in length, enough survives to indicate that it represents a Lawson's Type A (1990, fig 201, iii). It comprises a tapered circular-sectioned shank which terminates in a small transverse perforation at one end (through which the string would have passed) and square-sectioned terminal at the other (the head). The head measures 13mm long and it displays signs of excessive wear, the top of the head is highly polished and each of the four corners is rounded and worn to a depth of *c* 8.5mm, this wear implies the use of a key or tuning wrench (MacGregor 1985, 148). Lawson (1990, 713) has suggested that this type of tuning peg would have been used to tune instruments such as harps, lyres and fiddles.

Medieval bone tuning peg [SF 185] (50mm scale) Fig 94

Beads
A single translucent orange amber bead was recovered from sampled deposit [1082], it may have originated from a rosary or an item of jewellery. The bead is complete and of polyhedral form, a cuboid with facets in each of the four corners. Similar beads have been recovered from late 13th and early 14th-century deposits in London (see reconstruction, Egan, 1991, fig 205, cat.no 1512).

Building equipment
In comparison with the large number of nails recovered, structural fittings are poorly represented. The assemblage includes a large amount of undiagnostic iron/lead fragments, some of which presumably represent the remains of structural fittings and lead flashing etc. Identifiable pieces of general ironwork include a hinge pivot, double spiked loop and a staple. In addition there are fragments of lead window came and shards of medieval painted window glass.

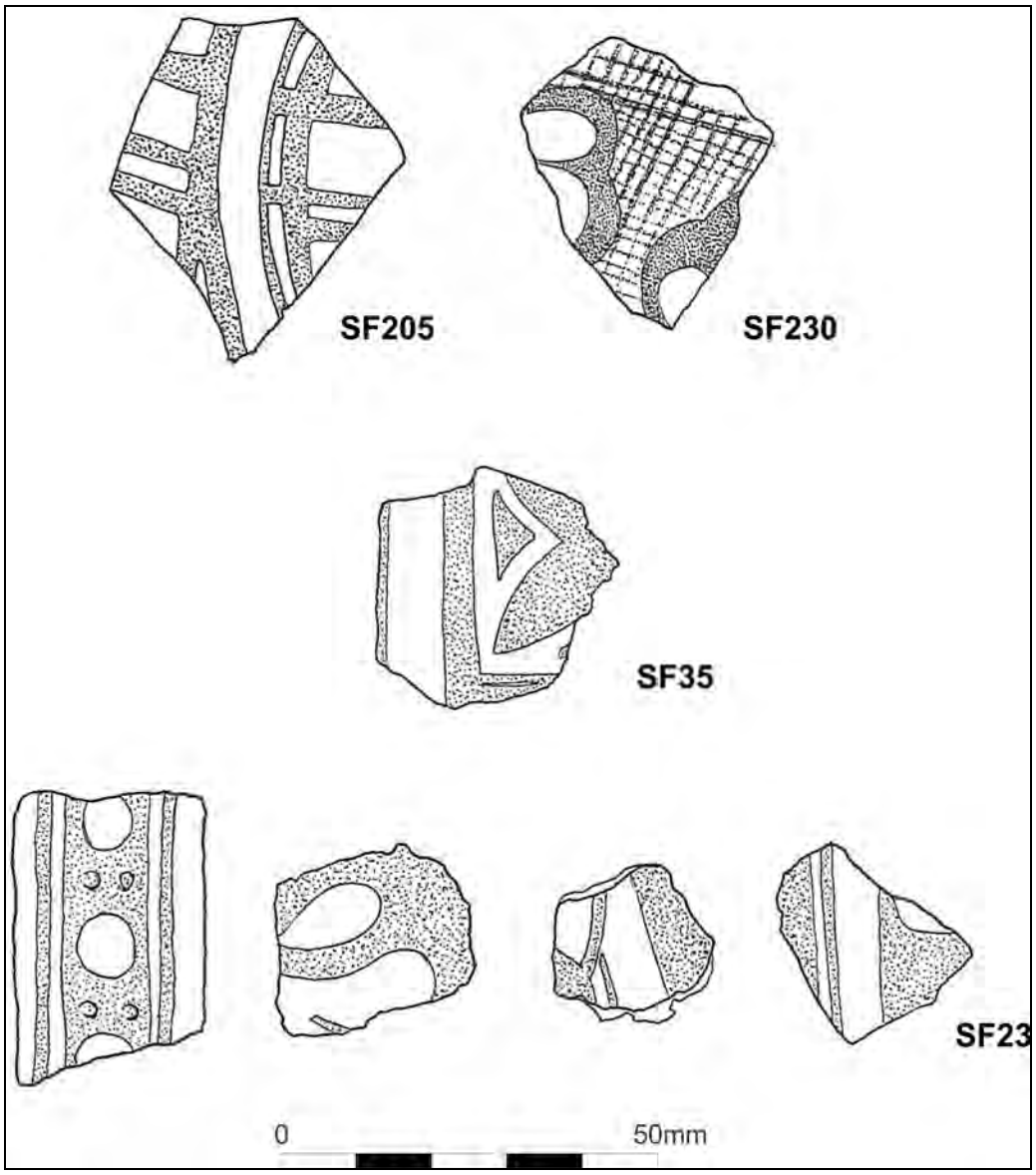
A single hinge pivot (SF223) was recovered from Area A (A108). It comprises a rectangular sectioned shank, 85mm long, which is tapered to a fine point and a circular sectioned pivot, 40mm in height. The shank would have been driven into the wood leaving the pivot free to retain the hanging eye of a strap hinge attached to a shutter, door or gate.

Double-spiked loops and U-shaped staples would have been driven in to wood and used as a fixing point for chains, rings and hasps. The double-spiked loop (SF 19) was recovered from the south-east corner of the Cloister [423]. It comprises a rectangular-sectioned strip with pointed terminals, which has been folded in half to form a sub-circular loop with parallel arms. One terminal is missing and the other is splayed, indicating that it had been driven through a piece of wood and then clenched (cf. Goodall 1990, fig 9.4, 230). The U-shaped staple (SF 85) was recovered from topsoil over lying Trench 3. It has a square cross-section with tapered terminals (one clenched) and it measures *c* 40mm wide and *c* 60mm long (Goodall 2000, fig 6.20, 24). Such objects would have been attached to structural timbers, doors, shutter or chests and externally they may have been used on gates etc.

Window glass
Forty fragments of window glass were retrieved from 18 contexts within Areas A and B. Much of the glass is fragmented and abraded, with decayed surfaces displaying the characteristics of dehydration. The assemblage includes *c* 16 shards of medieval

window glass; these are fragmentary (up to 38mm x 25mm) with blackened surfaces. The fragments measure 1-4mm thick and a small number still retain grozed edges indicating that they are fragments from leaded window lights. One piece has three adjacent grozed edges suggesting that originally the quarry light would have been rectangular in shape.

The blackened surfaces of the glass obscures much of the decorative detail, but it is possible to determine that seven fragments of glass are embellished with motifs in a reddish brown iron oxide pigment; five of the fragments were recovered from Area A (SF 23, 35) and Area B (SF 205, 230) (Fig 95). Of interest is the presence of a rectangular fragment from Area A (SF 23), which may have formed the border around a painted window. It is decorated with marginal lines either side of a longitudinal central panel containing dots and rings (SF 23). The motif displays similarities to a border fragment recovered from the Great East Window Tree of Jesse, Church and Cloister, Coventry Cathedral (Woodfield 2005, fig 111, 19-24) which stylistically dates to *c* 1400 or slightly earlier. Other decorated fragments suggest decorative schemes involving architecture, including 'tracery' (SF35), while another piece is furnished with a ?'floral' design with crosshatching (SF 230).



Fragments of window glass
(SF 23)(SF 35)(SF 205)(SF 230) (50mm scale) Fig 95

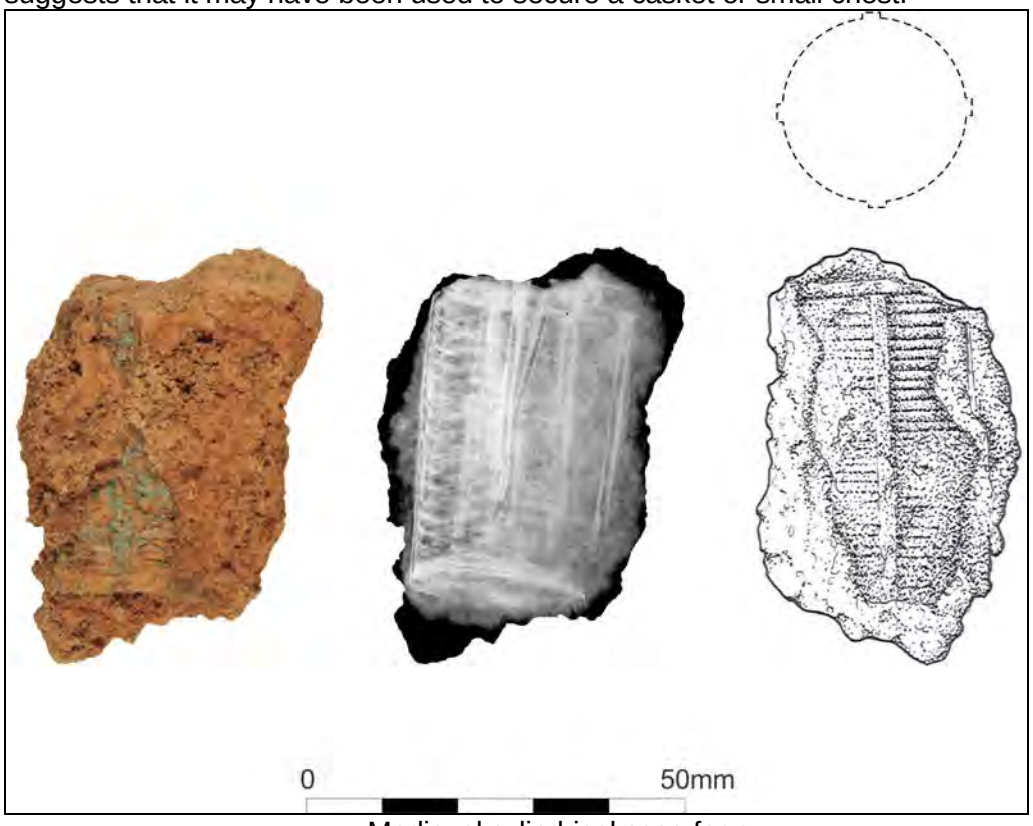
Locks and keys

The presence of locks and keys attests to the need for security. Three individual pieces of lock mechanism have been identified, representing, barrel padlocks and mounted locks. The former, as their name suggests, are cylindrical in shape with an exterior U-shaped free arm connected to a bolt. The latter consist of a tumbler and sliding bolt, mounted within an iron or wooden housing. Both types are for securing doors, gates and furniture. In addition there are three keys for mounted locks and a 'triangular/shield-shaped' lock escutcheon plate.

Locks

Barrel padlocks are represented by a cylindrical case and a T-shaped spring bolt, both are from different padlocks and they were recovered from the Southern Arcade Alley [B1005, B1014].

The cylindrical case is made from rolled ferrous metal sheet which has been strengthened and supported by horizontally and vertically applied strips (SF202) (Fig 96). Beneath the strips the surface of the case is furnished with 'corrugations' measuring c.2mm wide and similar to those seen on examples from Kings Lynn (Goodall and Carter 1977, fig 132, 1) and Winchester (Goodall 1990, fig 311, 3647). The case is coated externally with copper alloy, this acts as a braze, to fix the applied strips and as a preservative to ensure the longevity of the iron and to enhance the locks appearance (Niemeyer 2010, 414ff). The x-ray reveals that part of the internal mechanism survives within the case, in the form of a double spine, with leaf springs attached (one set is visible on the x-ray); the closing plate is missing. Because this case is not complete, it is difficult to be sure which type it represents**,** but its small size suggests that it may have been used to secure a casket or small chest.



Medieval cylindrical case for a
ferrous barrel lock (SF 202) (50mm scale) Fig 96

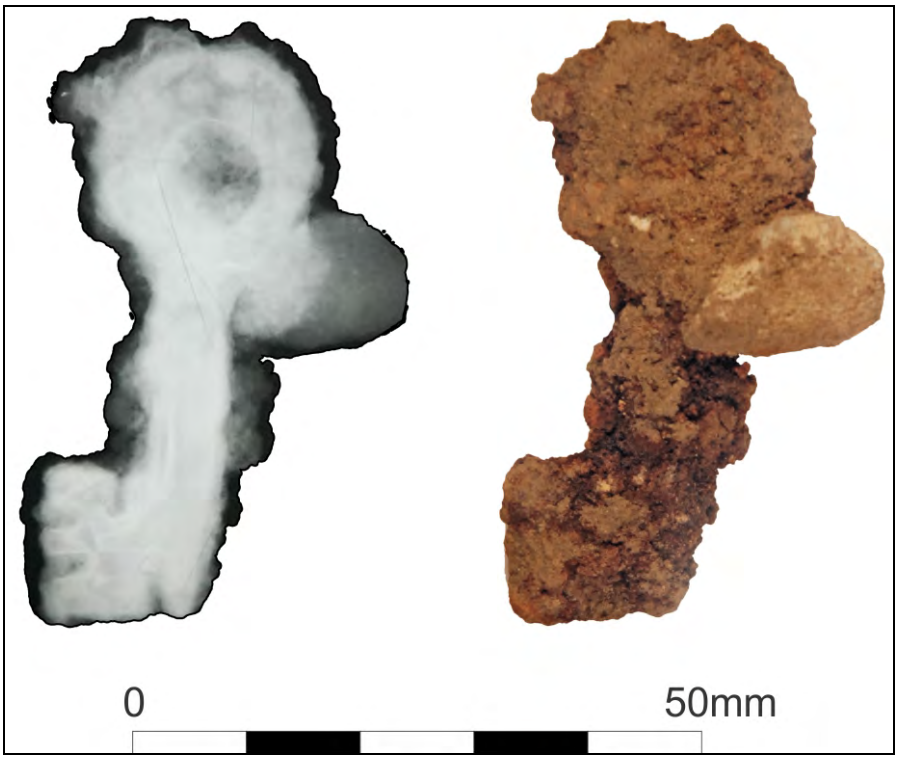
The spring bolt (SF 224) has a circular closing plate with two spines, 70mm long, each with double leaf springs attached. The spines are set at right angles and this

configuration forms a T-shape, the bolt could only be released by a key of the appropriate size and shape. It is not possible to determine from the x-ray how the leaf springs are attached, but it would have been either by rivets or a braze.

Mounted locks are represented by a sliding lock bolt, this was recovered with two small rotary keys from the South Range [B3007]. The sliding bolt is broken in three pieces, *c* 150mm long and 14-19mm wide, and it comprises a tapered rectangular sectioned bar with two adjacent projections protruding from one side (one broken). Mounted locks were operated by revolving a key, which passed a ward or collar before lifting the tumbler and throwing the bolt.

Keys

There are three iron rotary keys for use with mounted locks. Two of the keys are small (52-55mm in length) and they were recovered together from the South Range [B3007]. They are complete and similar in form; they have ring bows and solid stems which terminate on the same alignment as the asymmetrical bits (SF226)(Fig 97). The x-ray reveals that one of the keys is coated in a non-ferrous coating. In contrast to the previous keys which can only be used from one side of the lock (eg for caskets or chests), a large key with symmetrical bits, indicating that it can be used from both sides of the lock (eg. a door) was recovered from the infirmary [303]. The key measures *c* 170mm long, it has a D-shaped bow and a solid stem which projects beyond the end of the bit. This type continued in use until the post-medieval period.



Medieval iron key (SF 226) (50mm scale) Fig 97

Finally part of a keyhole escutcheon plate (upper edge missing) was recovered from the south west cloister arcade [B2004]. The plate is sub-triangular (?shield-shaped) and it has a classic key-hole void, 27mm long, cut into to it. It measures *c* 82 x42mm and presumably it would have been for use on a chest or a piece of furniture.

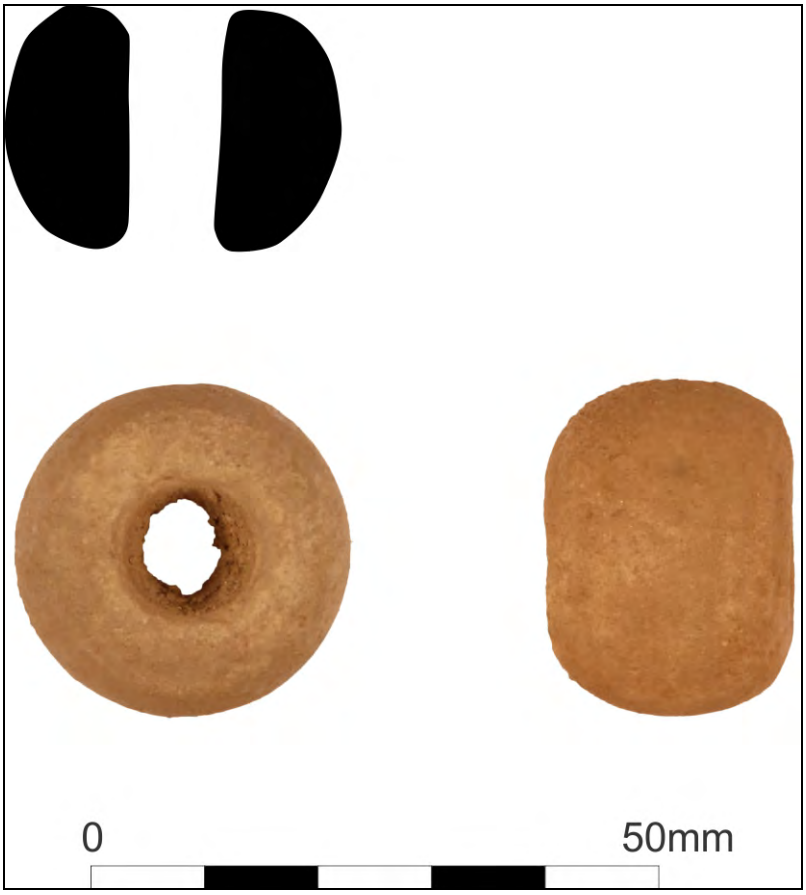
Tools

Knives and hones
Two whittle-tang knives were identified. They are characterised by a tapered prong, which would have been inserted into an organic handle of wood, horn or bone. Both examples represent medieval forms, one (SF 308) was recovered from deposits relating to the late 13th/14th -century building (A134) and the other from the south-west corner of the cloister arcade (SF 248). The knives measure up to 110mm in length and they are similar in form; the tang is central to the blade with a sloping shoulder and the cutting edge and the back of the blade are horizontal then curve to the tip (SF 248) (Fig 98).

Iron whittle-tang knife (SF 248) (scale 50mm) Fig 98

The excavations also produced two whetstones for the sharpening of ferrous metal knives and tools. There are two distinct types, a small personal hone for suspension from a belt and a much larger unperforated hone for general use, both were recovered from Area A. The small personal hone is incomplete (perforated terminal missing), tapered and survives to a length of 72mm (SF 318). It is made from schist, often referred to as Norwegian Ragstone, it was mined at Eidsborg in southern Norway and was traded in great quantities during the medieval period. Finally there is a fragment of a slightly micaceous sandstone hone (58mm x 34mm x 20mm), it has a rectangular cross-section and faint knife point sharpening grooves are visible on two of the surfaces.

Other tools include two spindle whorls for the hand activity of spinning and a pair of shears for cutting of wool, cloth or any other organic fibre. A lathe turned limestone whorl was recovered from Area A (A71), It is globular in shape and it measures 29mm in diameter; the spindle hole has been drilled from both sides, forming a waisted perforation measuring *c* 7-11mm in diameter (SF 243) (Fig 99). The lead whorl was recovered from topsoil deposits over laying the Reredorter [601], it is spherical with flattened poles (Diameter: 25mm) and the central perforation tapers from 7-9mm (SF 112). The whorls weigh 22g and 48g respectively, well within the median range for spindlewhorls, suggesting that that they would have been used to spin finer threads.



Limestone spindle whorl (SF 243) (50mm scale) Fig 99

Part of a pair of shears comprising the lower section of the arm and part of the blade was recovered from subsoil deposits overlying the Chapter House [202]. The top of the blade is plain and measures 23mm wide. The rectangular-sectioned arm measures 90mm long and it has broken at the point where the arm expands to form the bow (SF 11). The size and form of the shear suggests a late medieval/early post-medieval date.

Horse Equipment

Items associated with the use of horses include horseshoes and a spur. Four of the horseshoes and the spur were recovered from the same deposit in Area A [A107].

Horseshoes

There are six horseshoes, comprising one complete shoe and five fragments. Three types were identified; based on shoe shape, counter sinking and nail hole shapes, using John Clark's work on medieval horseshoes (1995) for guidance.

Early horseshoes display varying degrees of waviness, created during the punching of the counter sunk depressions; they have rectangular or oval countersinkings with circular or rectangular nail holes. Chronologically the earliest type represented is Clark Type 2a (1995, fig 81), often referred to as the "Norman" shoe. Incomplete examples were recovered from Areas A (A107) and B (B1005). Type 2a horseshoes have deep oval countersinkings with circular holes (usually three on each branch), and the branch tapers towards the heel. Horseshoes of this type date to the 11th-12th centuries. Later shoe types are represented by less wavy examples with a smoother profile and broader webs. These include one example of Clarks Type 3 (a transitional form), which has rectangular countersinkings with rectangular holes and three examples of Clark's Type 4 which has rectangular/square nail holes and no countersinking, a late medieval form.

Two horseshoe heels are furnished with calkins, which help to prevent the horse from slipping on soft ground. Two different forms have been identified; thickened calkins and a right-angled calkins (see Clarke 1995, fig 52 a-b).

Spurs
Part of an iron rowle spur was recovered from Area A [A107]. Rowle spurs were introduced during the 13th century and although this example is incomplete (both terminals and most of the rowle is missing), enough survives to suggest that it dates to the *c* 14th/15th centuries. The neck is straight with a circular cross-section and just a vestige of rowle box survives. The sides of the spur are shaped to fit around the heel and they slope down towards the ankle, they are broad with a D-shaped cross-section and they taper towards the now missing terminals.

Trade

Coins identified by Paul Clements
Four silver hammered coins were recovered. Chronologically the earliest coins are two silver short cross pennies of Henry III, one was recovered from the Reredorter, together with an illegible long cross penny (Trench 6) and the other was unstratified in Area A. In addition three illegible fragments were recovered from the southern arcade alley (Area B1).

Catalogue
Description: Henry III (1216-72), half cut silver penny, Obv: VS REX
Rev: CANTER, Axis: 2, Diam: 18mm, Weight: 0.7g
Mint: Canterbury
Wear: W/SW
Location: SF 105, Trench 6, Context 601, Reredorter

Description: Henry III (1216-72), short cross silver penny, Obv: HENRIC[VS] [REX]
Rev: ELIS ON [LV]NDEN, Axis: 10, Diam: 18mm, Weight: 6.1g (1217-1236)
Mint: London
Moneyer: Elis.
Wear: VW/VW
Reference: North, Cat: 978
Location: SF 232, Unstratified, Area A

Description: A long cross silver penny (1247+), Obv/Rev: Illegible, Diam: 19mm, Weight: 0.9g. Made of very low grade silver, the flan has a cupric coating when the copper has leached out of the silver.
Wear: VW/VW
Location: SF132, Trench 6, Context 601, Reredorter

Description: Silver penny, three fragments comprising about half the flan, Obv/Rev: Illegible, Weight: 0.6g
Location: SF 213, Area B1, southern arcade alley

Miscellanea
An unusual ceramic object was recovered from topsoil deposits overlying Trench 2 [201]. It is made from unglazed fired grey clay and although incomplete (one corner survives), it appears that originally the object may have been square or rectangular in form, 85mm x 70mm and 42mm thick. It comprises a series of 13 complete and one incomplete tapering holes. The holes measure *c* 8mm in diameter and taper towards the base of the piece, generally they do not penetrate the lower surface of the block. A not dissimilar object from Colchester has been identified as a mould (Crummy

1988, fig 95, 3285) and other similar objects from Byland Abbey (Dunning, 1961, 307) and Coventry (Woodfield 1981, fig 14) have been identified as ink wells.

Post-medieval finds

A range of post-medieval and modern artefacts, were recovered from topsoil deposits and disturbed soils overlying the area of excavation. The range of identifiable objects is represented by small portable items which may have been casually lost. They include four lead tokens dating from the *c* late 17th to the 18th centuries (Table 22), 12 coins spanning the early 18th through to the mid-20th centuries (Table 23) and an assemblage of clay tobacco-pipes which span the early/mid17th to late 19th and early 20th centuries (see below). Other more personal items include part of a Georgian shoe buckle (*c* 1720-1790), buttons, cufflinks, a heel iron for protecting the heel of a shoe (*c* 19th century) and a slate pencil.

Trade Tokens

A small group of five non-regular lead tokens were recovered. With the exception of one from Area A [A49], they were recovered from topsoil deposits overlying Trenches 4 and 6. Tokens are presumed to have circulated as small change (Egan 2005, 165).

Table 22: Trade tokens

Trench/Area	Identification	Context
Trench 4	SF3 Small circular lead token, diameter 17mm One side furnished with a cross and a single pellet in each quarter. Similar example from London (Egan 2005, fig 165, 936) Date *c* late 17th/early18th centuries	Topsoil (301)
Trench 6	SF111 A large plain circular disc , diameter 32mm It is unclear if it was intended as a token SF113 A sub circular token, diameter *c* 18mm Irregular radiate design on one side (cf. Egan 2005, fig 165, 932) and the other face is plain SF119 A circular token, diameter 16mm One face decorated with eight-pointed star with a single pellet between each arm. The other face is plain	Topsoil (601)
Area A	SF181 A small circular token, diameter 12mm One side with legend IS, S is reversed like an example from London (Egan 2005, fig 165, 925), and other face is plain. Date: *c* 17th century	A49

Table 23: Post-medieval coins

Trench/Area	SF No	Identification	Date	Context
Trench 4	14	George II penny	1912	Topsoil (401)
Trench 6	200	William III halfpenny	1695-1701	Unstratfied
	117	George I halfpenny	1720	Topsoil (601)
	110	George III halfpenny	1806	
	109	George III halfpenny	1807	
	107	Victoria penny	1873	
	108	Victoria halfpenny	1885	
Area A	10	?George II– very worn		(A01)
	17	George II	1734	
	131	?George II farthing		Topsoil (B1001)

Area B	120	George V sixpence	1931	Topsoil (B1001)
	130	Elizabeth II sixpence	1957	Topsoil (B1001)

5.7 The human bone by Malin Holst, Katie Keefe, Sophy Charlton

The fact that the burials discovered at Polesworth were only examined *in situ* has meant that it was not possible to obtain the full level of detail that is normally recorded during analysis of fully excavated skeletons. This was because the position of the bone elements in the ground may have been such that particular features useful for age and sex estimation could not be observed, and because the bones were unwashed and soil adhering to the bones would have obscured finer details and potentially evidence of subtle pathology. Additionally, Burials 8, 11 and 12 were not fully exposed when they were being recorded. Nevertheless, assessment of the skeletons still revealed useful data on the demographic profile, pathological conditions and funerary practices.

All of the skeletons were poorly preserved. There was a tendency for the smaller and more fragile bones to be damaged or completely lost through taphonomic processes. Vulnerable bones included the ribs, vertebrae, bones of the hands and feet, and the ends of the long bones. The graves of fourteen skeletons were fully uncovered. Nine of these individuals were considered to be less than 25% complete, while the remaining five were 25-50% complete. The incomplete nature of the burials was due largely to the conditions of the burial environment, which had led to the loss of the majority of the smaller more delicate bones. The lower limbs of two individuals (Burials 1 & 2) were truncated by a later pipe trench, which passed through the graves on a north south alignment., while a further two burials were truncated by later structures (Burials 4 & 11); Burial 4 was missing the feet while Burial 11 was missing its skull.

The most frequently observed skeletal element was the femur. Thirteen left femoral shafts were present amongst the fourteen burials; as a result a minimum number of thirteen individuals could be osteologically identified.

All fourteen articulated skeletons appeared to be adults, unfortunately sex could not be determined for any of them (Table 24). Age was also difficult to determine, with most being assigned to an 18+ year old age category. Only three individuals could be aged more precisely. Burials 4, 5 & 6 were considered to be young middle adults (26-35 years of age), although the age estimations were based solely upon the degree of dental attrition (tooth wear) which can be affected by factors other than age.

There was no evidence for the presence of children or adolescents within the excavated area of the cemetery. The fact that no children were discovered in either the current excavations may suggest that this part of the cemetery was reserved for adult burials. Scott (1999, 90) has observed that expected levels of infant mortality ought to result in infant burials alone making up *c* 15-30% of the cemetery population, and these figures would not account for the deaths of older children.

Stature could not be estimated for any of the individuals due to the incomplete nature of all the long bones from the fourteen skeletons.

There was no evidence for pathological conditions observed amongst any of the skeletal remains, though observations may have been hindered by the fact the skeletons remained *in situ* and the bones were not washed

A small number of the burials revealed evidence for dental disease. Two young middle adults (Burials 4 & 6) had slight deposits of calculus (mineralised plaque) of some of their teeth. Calculus is relatively frequently observed in most archaeological

populations. For example, 39.2% of teeth from early medieval British population had deposits of calculus (Roberts and Cox 2003, 194).

The skeletons appeared to have been buried in two north to south rows with similar mortuary practices, indicating a degree of organisation. They were all interred in an extended and supine position, with their heads to the west. Where arm position could be determined, six individuals were placed with their arms extended by their sides, one individual had their right arm extended and their left hand slightly flexed at the elbow with the hand on the pelvis and another individual had both arms tightly flexed at the elbow with hands on the chest.

Overall, the pattern of burial seen at Polesworth is consistent with that observed in the early Christian period. Beginning in the late 7th to early 8th century AD, there was a tendency for unfurnished, uniform burials in simple graves (Daniell and Thompson 1999, 72).

Table 24: Summary of osteological, pathological and funerary data

Burial No	Orientation	Position	C %	P	Age	Age group	Sex	Stature	Dental Pathology	Pathology
1	West-East	Supine, Extended	1-25	Poor	18+	a	?	-	-	-
2	West-East	Supine, Extended	1-25	Poor	18+	a	?	-	-	-
3	West-East	Supine, Extended	25-50	Poor	18+	a	?	-	-	-
4	West-East	Supine, Extended	1-25	Poor	26-35	yma	?	-	-	Dental calculus
5	West-East	Supine, Extended	25-50	Poor	26-35	yma	?	-	-	Dental calculus
6	West-East	Supine, Extended	1-25	Poor	26-35	yma	?	-	-	-
7	West-East	Supine, Extended	1-25	Poor	18+	a	?	-	-	-
8	West-East	Supine, Extended	25-50	Poor	18+	a	?	-	-	-
9	West-East	Supine, Extended	35-50	Poor	18+	a	?	-	-	-
10	West-East	Supine, Extended	1-25	Poor	18+	a	?	-	-	-
11	West-East	Supine, Extended	1-25	Poor	18+	a	?	-	-	-
12	West-East	Supine, Extended	25-50	Poor	18+	a	?	-	-	-
13	West-East	Supine, Extended	1-25	Poor	-	-	?	-	-	-
14	West-East	Supine, Extended	1-25	Poor	-	-	?	-	-	-

Surface preservation, concerning the condition of the bone cortex, was assessed using an adaptation of the seven-category grading system defined by McKinley (2004), with categories simplified to ‘good’, ‘moderate’ and poor. Good preservation implied no/limited bone surface erosion and a clear surface morphology, whereas poor preservation indicated heavy (potentially penetrating) erosion of the bone surface resulting in complete loss of surface morphology and modification of the bone

profile. The completeness of each skeleton was assessed as 1-25%, 25-50%, 50-75%, or 75-100% complete.

The age categories used were as follows. Non-adults were subdivided into 'foetus' (f: where the age estimate clearly fell below 38-40 *weeks in utero*), 'perinate' (p: where the age estimates converged around birth), 'neonate' (n: where the age estimate suggested 0-1 month), 'infant' (i; 1-12 months), juvenile (j; 1-12 years), and adolescent (ad; 13-17 years). Adults were divided into 'young adult' (ya; 18-25 years), young middle adult (yma; 26-35 years), old middle adult (oma; 36-45 years), and mature adult (46+ years). A category of 'adult' (a) was used to designate those individuals whose age could not be determined beyond the fact that they were eighteen or older.

5.9 The animal bone by Adam Reid

Introduction

A total of 69.57kg of animal bone was recovered from the site. Its occurrence is detailed below in Table 19:

Table 25: Animal bone occurrence

Context/feature	Wt (g)	Context/feature	Wt (g)	Context/feature	Wt (g)
A002	61	B1001	1739	631	10
A004	1522	B1002	659	632	200
A005	1508	B1003	1093	633	130
A008	7	B1007	1624	634	17
A010	52	B1008	122	645	58
A011	134	B1010	105	648	458
A012	511	B1064	233	652	130
A014	111	B1071	58	653	174
A017	38	B1088	151	654	599
A021	404	B2001	58	705	5
A022	202	B2004	3963	706	86
A024	1724	B2005	119	715	59
A025	1814	B2008	123	721	1
A029	104	B2012	181	724	22
A031	17	B2014	179	728	231
A032	1816	B3001	194	729	181
A033	2116	B3004	985	732	2
A034	20	B3005	22	735	2
A037	1723	B3007	2338	736	86
A040	412	B3008	524	738	86
A043	27	B3010	15	744	27
A044	1035	B3014	435	747	47
A045	890	B3019	802	748	39
A046	131	B3020	230	750	36
A049	17	B3024	23	751	48
A051	29	B3028	198	752	35
A052	1469	B3035	106	754	4
A055	57	101	819	**TOTAL**	69570
A057	158	102	672		
A058	4	201	422		
A060	221	202	419		
A061	87	203	41		
A062	713	204	334		
A064	144	210	49		
A067	204	211	25		
A068	155	216	173		
A070	179	217	56		
A071	457	218	140		

Context/feature	Wt (g)	Context/feature	Wt (g)	Context/feature	Wt (g)
A072	86	222	80		
A073	8	301	100		
A076	158	302	1052		
A077/	139	303	680		
A079	893	311	3		
A080	385	312	114		
A081	40	401	93		
A082	35	402	164		
A091	52	404	15		
A094	409	406	13		
A095	720	410	2590		
A096	2355	411	42		
A102	764	412	496		
A103	49	413	10		
A104	229	415	53		
A107	3451	416	448		
A108	2	423	207		
A111	383	425	393		
A117	18	427	100		
A119	53	430	3550		
A121	148	431	575		
A129	16	433	8		
A131	30	601	78		
A134	27	602	510		
A136	136	603	567		
A138	92	604	581		
A140	180	605	171		
A169	23	606	133		
A172	170	611	20		
A185	119	612	1678		
A191	15	624	179		
A193r	1106	625	53		
A201	193	629	49		

A total of 0.79kg of shell was recovered from the site (Table 26).

Table 26: Marine shell occurrence

Context/feature	Wt (g)	Context/feature	Wt (g)
A002/layer	20	A049 /layer	3
A004 /layer	8	A062 /layer	3
A005 /layer	58	A064 /layer	144
A008 /layer	2	101 /layer	63
A012 /layer	7	201 /layer	55
A014 /layer	8	202 /layer	8
A017 /A041	8	204 /layer	5
A021 /layer	7	216 /225	3
A024 /layer	11	217 /225	1
A025 /layer	11	218 /225	27
A031 /layer	7	219 /225	7
A033 /layer	21	401 /layer	40
A037 /layer	32	404 /layer	3
A040 /layer	35	412 /420	10
A042 /layer	3	430 /layer	19
A044 /layer	103	431 /layer	4
A045 /layer	32	----	----
A046 /layer	25	**Totals**	**793**

The majority of both the animal bone and shell from the site comes from secondary contexts and so its value in contributing to an understanding of the economy of the

site initially appears limited. The problem of residuality has been raised by Soden (Section 5.1). However, an analysis of the animal bone assemblage has been undertaken on dateable contexts in order to provide an increased understanding of the animal resources that may have been utilised at the site.

The faunal evidence from this analysis consists of 9.0kg of bone collected by hand from a total of 58 contexts originating from six parts of the site.

Method

All material had been washed prior to analysis. Identifiable bones were noted, and were examined for signs of butchery and the state of epiphyseal fusion. Avian remains are difficult to identify to species and were thus grouped where possible into the categories of Large Bird (eg. goose, swan), Medium Bird (eg. chicken, pheasant). Identifications that are attributed to the cervid family may represent roe deer, red deer or fallow deer, and canid identifications may represent dog, fox or wolf.

Preservation

The state of preservation varied between areas, with only bones from Area A demonstrating frequent evidence of surface abrasion. Bones from all areas were moderately to highly fragmented, and a total of 1178 (77%) of mammal bones were unidentifiable. A small proportion of bone (0.2%) was calcined, suggesting that it had been heated to high temperatures.

Quantification

An overview of the identified fragments is presented below (Table 27). Area B provided the largest quantity of fragments, comprising 61% of the total assemblage. As may be expected, the main domestic species (i.e. cattle, sheep/goat and pig) make up the majority (89%) of identified mammal specimens, with a small proportion of deer and canid remains also identified from several areas. A small number of poorly preserved fragments (17, or 1% of total) were identified as human bone. Bird remains were fairly frequent; making up 9% of the total assemblage, with "medium sized" birds being most common. At 0.3%, the proportion of fish remains appears smaller than could be expected for an ecclesiastical site. The occurrence of small mammal bones was high (5% of total), with 93% of these recovered from the floor make-up deposits of Area B.

Table 27: animal bone, taxa present

Location	Cattle *Bos*	Sheep/Goat *Ovicaprid*	Pig *Sus*	Horse *Equus*	Deer *Cervid*	*Canid*	*Felid*	Small mammal	Large bird	Medium bird	Indet. mammal	Indet. fish	Total
Area A	10	5	1	-	-	-	-	1	-	-	60	-	**77**
Area B	12	43	31	4	1	10	1	77	9	99	732	3	**1033**
Tr 3	7	6	-	-	1	4	-	-	-	-	28	-	**46**
Tr 4	4	6	1	-	-	-	-	-	-	-	31	-	**45**
Tr 6	32	20	24	-	3	-	-	2	5	24	207	2	**322**
Tr 7	5	10	5	-	-	2	-	3	3	12	121	-	**161**
Total	**70**	**90**	**62**	**4**	**5**	**16**	**1**	**83**	**17**	**135**	**1178**	**5**	**1684**

Butchery

Evidence of butchery was noted on 81 specimens – 5% of the total assemblage. All instances occurred on mammal bones and were identified almost exclusively on rib or vertebral fragments. There was no evidence from any contexts to suggest systematic butchery for consumption or industry.

Conclusion

The faunal remains provide few surprises, with the primary meat bearing taxa making up the majority of the assemblage. There is a low occurrence of elements that would provide a limited meat yield, such as mandibles, which may suggest that animals were being butchered elsewhere and joints of meat were arriving on site prior to consumption. The proportion of fish remains is small and may be a reflection of the collection method, as the use of sieves would likely result in the identification of further specimens.

5.10 **The radiocarbon dating** by Andy Chapman, Mark Holmes

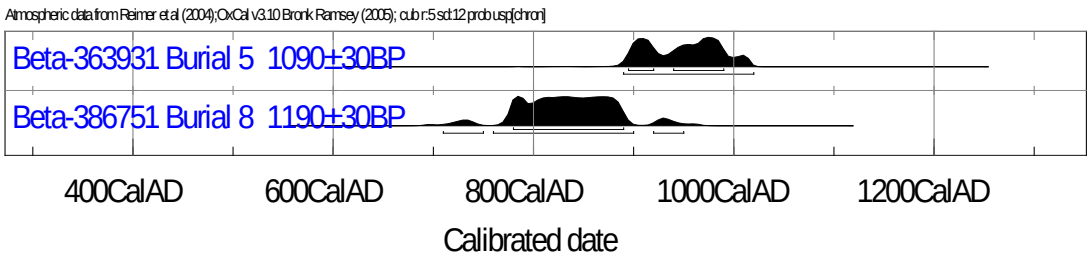
In order to provide an assessment as to the date of the cemetery in Area A, two radiocarbon dates were sought from Burials 5 and Burial 8.

The results show that the bones date to the Middle to Late Saxon period, sometime between 725-1020 cal BC. Burial 5 produced relatively tight dates within the 10th century whilst Burial 8 produced broader intercepts with spread of results indicating a slightly earlier date.

Table 28: The radiocarbon determination

Lab. & Sample No.	Context	Sample details	C13/C12 15N/14N	Conventional Radiocarbon Age BP	Cal AD intercept *68% confidence* **95% confidence**
Beta-363923 POL13/B5	Burial 5 (173)	Human bone	-20.3 +11.6	1090+/-30	970 *900-920 & 940-990* **890-1020**
Beta-386751 POL12/205	Burial 8 (205)	Human bone	-19.0 +11.1	1190+/-30	780/790/870 *775-885* **725-740/770-895/925-940**

Laboratory: Beta Analytic, Miami, Florida, USA
Calibration: INTCAL13 Radiocarbon Age Calibration



5.11 Plant macrofossils and other remains by Val Fryer

Introduction and method statement

Nineteen soil samples for the retrieval of the plant macrofossil assemblages were taken from features recorded during excavations within the precincts of St Editha's Parish Church. It was hoped that analysis of the material would:

- provide data about the day-to-day functioning of the Benedictine nunnery during the medieval period;
- pinpoint the source of any materials imported into the abbey;
- provide details about the local habitat.

The samples were bulk sieved by MOLA Northampton and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Tables 29 to 35. Identifications were made by comparison with modern reference specimens and nomenclature within the tables follows Stace (1997). Most macrofossils were charred, but the remains from ditch [651] (sample 19) appear to have been intermittently waterlogged.

As none of the assemblages contained a sufficient density of material for quantification (i.e. 100+ specimens), counts of the remains were not undertaken. However, the density of material within each assemblage is expressed in the tables as follows: x = 1 – 10 specimens, xx = 11 – 50 specimens, xxx = 51 – 100 specimens and xxxx = 100+ specimens. Other abbreviations used in the tables are explained at the end of the text section.

Table 29: 2011 excavations, environmental samples 1 and 2

Sample No.		**1**	**2**
Context No.		**A47**	**A54**
Feature No.		**A48**	**-**
Area/Trench		**A**	**A**
Feature type		**Hearth**	**Floor**
Date		**P.Med**	**P.Med**
Cereals	**Common name**		
Avena sp. (grains)	Oat	xcf	-
Triticum sp. (grains)	Wheat	-	-
Cereal indet. (grains)		x	-
Herbs			
Anthemis cotula L.	Stinking mayweed	x	-
Fabaceae indet.	Small legumes	x	-
Small Poaceae indet.	Grasses	x	-
Large Poaceae indet.		-	-
Other plant macrofossils			
Charcoal <2mm		xx	xxxx
Charcoal >2mm		xxx	xxxx
Charcoal >5mm		x	xxx
Charcoal >10mm		-	x
Charred root/stem		x	-
Other remains			
Black porous material		xxxx	x

Sample No.		**1**	**2**
Context No.		**A47**	**A54**
Feature No.		**A48**	**-**
Area/Trench		**A**	**A**
Feature type		**Hearth**	**Floor**
Date		**P.Med**	**P.Med**
Black tarry material		xxxx	-
Bone		-	x
Burnt/fired clay		-	-
Fish bone		-	-
Small coal frags.		xxxx	x
Molluscs			
Woodland/shade loving species			
Carychium sp.		x	-
Punctum pygmaeum		x	x
Open country species			
Pupilla muscorum		-	-
Catholic species			
Trichia hispida group		-	x
Freshwater obligate species			
Anisus leucostoma		x	-
Sample volume (litres)		**5**	**20**
Volume of flot (litres)		**0.4**	**0.7**
% flot sorted		**25%**	**12.50%**

Table 30: 2011 excavations, environmental samples 3 and 4

Sample No.		**3**	**4**
Context No.		**432**	**A37**
Feature No.		**-**	**-**
Area/Trench		**Tr4**	**A**
Feature type		**Layer**	**Layer**
Date		**Med**	**P.Med**
Cereals	**Common name**		
Avena sp. (grains)	Oat	-	-
Triticum sp. (grains)	Wheat	xcf	-
Cereal indet. (grains)		xfg	-
Herbs			
Anthemis cotula L.	Stinking mayweed	-	-
Fabaceae indet.	Small legumes	-	-
Small Poaceae indet.	Grasses	-	-
Large Poaceae indet.		x	-
Other plant macrofossils			
Charcoal <2mm		xxxx	xx
Charcoal >2mm		x	xx
Charcoal >5mm		x	x
Charcoal >10mm		-	x

Sample No.	**3**	**4**
Context No.	**432**	**A37**
Feature No.	**-**	**-**
Area/Trench	**Tr4**	**A**
Feature type	**Layer**	**Layer**
Date	**Med**	**P.Med**
Charred root/stem	-	-
Other remains		
Black porous material	x	xxxx
Black tarry material	x	-
Bone	-	x
Burnt/fired clay	x	-
Fish bone	x	x
Small coal frags.	xx	xxx
Molluscs		
Woodland/shade loving species		
Carychium sp.	-	-
Punctum pygmaeum	-	-
Open country species		
Pupilla muscorum	x	-
Catholic species		
Trichia hispida group	-	-
Freshwater obligate species		
Anisus leucostoma	-	-
Sample volume (litres)	**40**	**40**
Volume of flot (litres)	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**

Table 31: 2012 excavations, environmental samples 5, 6 and 8

Sample No.		**5**	**6**	**8**
Context No.		**621**	**625**	**100**
Feature No.		**626**	**626**	
Area/Trench		**Tr6**	**Tr6**	**A**
Feature type		**SLD**	**SLD**	**Layer**
Date		**Med**	**Med**	**P.Med**
Cereals and other food plants	**Common name**			
Avena sp. (grains)	Oat	-	-	-
Hordeum sp. (grains)	Barley	-	-	-
Hordeum/Secale cereale type (rachis nodes)	Barley/Rye type	-	-	-
Secale cereale L. (grains)	Rye	-	-	-
Triticum sp. (grains)	Wheat	-	-	x
T. aestivum/compactum type (rachis nodes)	Bread wheat type	-	-	-
Cereal indet. (grains)		x	x	xx
Pisum sativum L.	Pea	-	-	xcf
Large Fabaceae indet.		-	-	-
Herbs				
Anthemis arvensis L.	Corn chamomile	-	-	-

Sample No.		**5**	**6**	**8**
Context No.		**621**	**625**	**100**
Feature No.		**626**	**626**	
Area/Trench		**Tr6**	**Tr6**	**A**
Feature type		**SLD**	**SLD**	**Layer**
Date		**Med**	**Med**	**P.Med**
A. cotula L.	Stinking mayweed	x	-	-
Asteraceae indet.		-	-	-
Atriplex sp.	Orache	-	-	-
Bromus sp.	Brome	-	-	-
Chenopodiaceae indet.		-	-	-
Conium maculatum L.	Hemlock	-	-	-
Fabaceae indet.	Small legumes	-	-	x
Fumaria officinalis L.	Fumitory	-	-	-
Galeopsis sp.	Hemp-nettle	-	-	-
Galium aparine L.	Goosegrass	-	-	-
Hyoscyamus niger L.	Henbane	-	-	-
Lamium sp.	Dead-nettle	-	-	-
Medicago/Trifolium/Lotus sp.	Clover type	-	-	-
Plantago lanceolata L.	Ribwort plantain	-	-	-
Small Poaceae indet.	Grasses	-	-	x
Large Poaceae indet.		-	-	-
Polygonaceae indet.		-	-	-
Potentilla sp.	Cinquefoil	-	-	-
Ranunculus sp.	Buttercup	-	-	-
Rumex sp.	Dock	-	-	x
R. acetosella L.	Sheep's sorrel	-	-	-
Solanum nigrum L.	Black nightshade	-	-	-
Stellaria sp.	Stitchwort	-	-	-
Tripleurospermum inodorum (L.)Schultz-Bip	Scentless mayweed	-	-	x
Urtica dioica L.	Stinging nettle	-	-	-
Wetland plants				
Carex sp.	Sedge	-	-	-
Eleocharis sp.	Spike-rush	-	-	-
Tree/shrub macrofossils				
Corylus avellana L.	Hazel	-	-	xcf
Crataegus sp.	Hawthorn	-	-	-
Rubus sect. *Glandulosus* Wimmer & Grab	Bramble	-	-	-
R. idaeus L.	Raspberry	-	-	-
Sambucus nigra L.	Elderberry	-	-	-
Other plant macrofossils				
Charcoal <2mm		xxxx	xxxx	xxxx
Charcoal >2mm		xx	-	xx
Charcoal >5mm		x	-	x
Charcoal >10mm		x	-	-
Charred root/stem		-	-	-
Uncharred root/stem		-	-	-
Indet.culm nodes		-	-	-

Sample No.	**5**	**6**	**8**
Context No.	**621**	**625**	**100**
Feature No.	**626**	**626**	
Area/Trench	**Tr6**	**Tr6**	**A**
Feature type	**SLD**	**SLD**	**Layer**
Date	**Med**	**Med**	**P.Med**
Indet.seeds	-	-	-
Other remains			
Arthropod remains	-	-	-
Black porous material	x	x	x
Black tarry material	-	-	-
Bone	x	-	x
Burnt/fired clay	-	-	-
Ferrous globule	-	-	-
Fish bone	-	-	x
Mortar/plaster	x	-	-
Small coal frags.	xxxx	xx	
Small mammal/amphibian bones	x	-	x
Vitreous material	-	x	-
Molluscs			
Woodland/shade loving species			
Aegopinella sp.	x	-	-
Discus rotundatus	x	-	-
Punctum pygmaeum	-	-	-
Zonitidae indet.	-	-	-
Open country species			
Vallonia sp.	x	-	-
Catholic species			
Cochlicopa sp.	-	-	-
Trichia hispida group	x	-	x
Sample volume (litres)	**40**	**60**	**20**
Volume of flot (litres)	**<0.1**	**<0.1**	**0.2**
% flot sorted	**100%**	**100%**	**50%**

Table 32: 2012 excavations, environmental samples 10, 11 and 12

Sample No.		**10**	**11**	**12**
Context No.		**719**	**A129**	**A119**
Feature No.			**A130**	**A120**
Area/Trench		**Tr7**	**A**	**A**
Feature type		**Layer**	**ph**	**Pit**
Date		**Med**	**Med**	**Med**
Cereals and other food plants	**Common name**			
Avena sp. (grains)	Oat	xcf	x	x
Hordeum sp. (grains)	Barley	-	x	-
Hordeum/Secale cereale type (rachis nodes)	Barley/Rye type	-	x	-
Secale cereale L. (grains)	Rye	-	xcf	xcf
Triticum sp. (grains)	Wheat	x	xx	x

Sample No.		**10**	**11**	**12**
Context No.		**719**	**A129**	**A119**
Feature No.			**A130**	**A120**
Area/Trench		**Tr7**	**A**	**A**
Feature type		**Layer**	**ph**	**Pit**
Date		**Med**	**Med**	**Med**
T. aestivum/compactum type (rachis nodes)	Bread wheat type	-	-	x
Cereal indet. (grains)		x	xx	x
Pisum sativum L.	Pea	-	-	-
Large Fabaceae indet.		-	-	-
Herbs				
Anthemis arvensis L.	Corn chamomile	-	-	-
A. cotula L.	Stinking mayweed	-	xx	x
Asteraceae indet.		-	-	x
Atriplex sp.	Orache	-	-	-
Bromus sp.	Brome	-	xcffg	-
Chenopodiaceae indet.		-	x	-
Conium maculatum L.	Hemlock	-	-	-
Fabaceae indet.	Small legumes	-	x	-
Fumaria officinalis L.	Fumitory	-	-	-
Galeopsis sp.	Hemp-nettle	-	-	-
Galium aparine L.	Goosegrass	-	x	x
Hyoscyamus niger L.	Henbane	-	-	-
Lamium sp.	Dead-nettle	-	-	-
Medicago/Trifolium/Lotus sp.	Clover type	-	-	-
Plantago lanceolata L.	Ribwort plantain	-	-	-
Small Poaceae indet.	Grasses	-	-	-
Large Poaceae indet.		-	x	x
Polygonaceae indet.		x	-	-
Potentilla sp.	Cinquefoil	-	-	-
Ranunculus sp.	Buttercup	-	x	-
Rumex sp.	Dock	-	x	-
R. acetosella L.	Sheep's sorrel	-	x	-
Solanum nigrum L.	Black nightshade	-	-	-
Stellaria sp.	Stitchwort	-	-	-
Tripleurospermum inodorum (L.)Schultz-Bip	Scentless mayweed	-	-	-
Urtica dioica L.	Stinging nettle	-	-	-
Wetland plants				
Carex sp.	Sedge	-	-	-
Eleocharis sp.	Spike-rush	-	-	-
Tree/shrub macrofossils				
Corylus avellana L.	Hazel	x	x	-
Crataegus sp.	Hawthorn	-	-	-
Rubus sect. *Glandulosus* Wimmer & Grab	Bramble	-	-	-
R. idaeus L.	Raspberry	-	-	-
Sambucus nigra L.	Elderberry	-	-	-
Other plant macrofossils				
Charcoal <2mm		xxxx	xxxx	xxx

Sample No.	**10**	**11**	**12**
Context No.	**719**	**A129**	**A119**
Feature No.		**A130**	**A120**
Area/Trench	**Tr7**	**A**	**A**
Feature type	**Layer**	**ph**	**Pit**
Date	**Med**	**Med**	**Med**
Charcoal >2mm	xx	xx	x
Charcoal >5mm	x	x	-
Charcoal >10mm	-	-	-
Charred root/stem	-	-	-
Uncharred root/stem	-	-	-
Indet.culm nodes	-	x	x
Indet.seeds	-	x	x
Other remains			
Arthropod remains	-	-	-
Black porous material	x	x	x
Black tarry material	-	-	x
Bone	x xb	x	-
Burnt/fired clay	x	x	-
Ferrous globule	-		-
Fish bone	x	x	-
Mortar/plaster	-	-	-
Small coal frags.	x	-	x
Small mammal/amphibian bones	-	-	x
Vitreous material	x	x	x
Molluscs			
Woodland/shade loving species			
Aegopinella sp.	-	-	-
Discus rotundatus	-	-	-
Punctum pygmaeum	-	-	-
Zonitidae indet.	-	-	-
Open country species			
Vallonia sp.	-	-	-
Catholic species			
Cochlicopa sp.	-	-	-
Trichia hispida group	-	-	-
Sample volume (litres)	**10**	**40**	**20**
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**	**100%**

Table 33: 2012 excavations, environmental samples 13, 14 and 16

Sample No.		**13**	**14**	**16**
Context No.		**A123**	**A121**	**B1079**
Feature No.		**A124**	**A122**	
Area/Trench		**A**	**A**	**B1**
Feature type		**Pit**	**Pit**	**Layer**
Date		**Med**	**Med**	**Med**
Cereals and other food plants	**Common name**			

Sample No.		**13**	**14**	**16**
Context No.		**A123**	**A121**	**B1079**
Feature No.		**A124**	**A122**	
Area/Trench		**A**	**A**	**B1**
Feature type		**Pit**	**Pit**	**Layer**
Date		**Med**	**Med**	**Med**
Avena sp. (grains)	Oat	x	xcf	x
Hordeum sp. (grains)	Barley	-	-	-
Hordeum/Secale cereale type (rachis nodes)	Barley/Rye type	-	-	-
Secale cereale L. (grains)	Rye	xcf	xcf	-
Triticum sp. (grains)	Wheat	x	x	x
T. aestivum/compactum type (rachis nodes)	Bread wheat type	x	-	-
Cereal indet. (grains)		x	x	x
Pisum sativum L.	Pea	-	-	-
Large Fabaceae indet.		-	-	-
Herbs				
Anthemis arvensis L.	Corn chamomile	-	-	-
A. cotula L.	Stinking mayweed	-	x	-
Asteraceae indet.		-	-	-
Atriplex sp.	Orache	-	-	-
Bromus sp.	Brome	-	-	-
Chenopodiaceae indet.		-	-	-
Conium maculatum L.	Hemlock	-	-	-
Fabaceae indet.	Small legumes	xcf	-	x
Fumaria officinalis L.	Fumitory	-	-	-
Galeopsis sp.	Hemp-nettle	-	-	-
Galium aparine L.	Goosegrass	-	-	-
Hyoscyamus niger L.	Henbane	-	-	-
Lamium sp.	Dead-nettle	-	-	-
Medicago/Trifolium/Lotus sp.	Clover type	-	-	-
Plantago lanceolata L.	Ribwort plantain	-	-	-
Small Poaceae indet.	Grasses	x	-	-
Large Poaceae indet.		x	-	-
Polygonaceae indet.		-	-	-
Potentilla sp.	Cinquefoil	-	-	-
Ranunculus sp.	Buttercup	x	-	-
Rumex sp.	Dock	-	-	-
R. acetosella L.	Sheep's sorrel	-	-	-
Solanum nigrum L.	Black nightshade	-	-	-
Stellaria sp.	Stitchwort	-	-	-
Tripleurospermum inodorum (L.)Schultz-Bip	Scentless mayweed	-	-	-
Urtica dioica L.	Stinging nettle	-	-	-
Wetland plants				
Carex sp.	Sedge	x	-	-
Eleocharis sp.	Spike-rush	-	-	-
Tree/shrub macrofossils				
Corylus avellana L.	Hazel	-	-	-
Crataegus sp.	Hawthorn	-	-	-

Sample No.		**13**	**14**	**16**
Context No.		**A123**	**A121**	**B1079**
Feature No.		**A124**	**A122**	
Area/Trench		**A**	**A**	**B1**
Feature type		**Pit**	**Pit**	**Layer**
Date		**Med**	**Med**	**Med**
Rubus sect. *Glandulosus* Wimmer & Grab	Bramble	-	-	-
R. idaeus L.	Raspberry	-	-	-
Sambucus nigra L.	Elderberry	-	-	-
Other plant macrofossils				
Charcoal <2mm		xxxx	xx	xxx
Charcoal >2mm		xx	x	xxx
Charcoal >5mm		-	-	x
Charcoal >10mm		-	-	x
Charred root/stem		-	-	-
Uncharred root/stem		-	-	-
Indet.culm nodes		-	-	-
Indet.seeds		-	-	-
Other remains				
Arthropod remains		-	-	-
Black porous material		x	x	x
Black tarry material		-	-	-
Bone		x	-	-
Burnt/fired clay		-	-	-
Ferrous globule		-	-	-
Fish bone		-	-	-
Mortar/plaster		-	-	-
Small coal frags.		-	x	-
Small mammal/amphibian bones		-	-	-
Vitreous material		x	-	-
Molluscs				
Woodland/shade loving species				
Aegopinella sp.		-	-	-
Discus rotundatus		-	-	-
Punctum pygmaeum		x	-	-
Zonitidae indet.		-	-	-
Open country species				
Vallonia sp.		-	-	-
Catholic species				
Cochlicopa sp.		-	-	-
Trichia hispida group		-	-	-
Sample volume (litres)		**20**	**20**	**10**
Volume of flot (litres)		**<0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**

Table 34: 2012 excavations, environmental samples 17, 18 and 19

Sample No.		**17**	**18**	**19**
Context No.		**754**	**653**	**625**
Feature No.		**711**	**651**	**651**
Area/Trench		**B1**	**Tr6**	**Tr6**
Feature type		**SLD**	**Ditch**	**Ditch**
Date		**?Med**	**Med**	**Med**
Cereals and other food plants	**Common name**			
Avena sp. (grains)	Oat	x	x	-
Hordeum sp. (grains)	Barley	xcf	-	-
Hordeum/Secale cereale type (rachis nodes)	Barley/Rye type	x	-	-
Secale cereale L. (grains)	Rye	-	-	-
Triticum sp. (grains)	Wheat	x	x	-
T. aestivum/compactum type (rachis nodes)	Bread wheat type	-	-	-
Cereal indet. (grains)		xx	x	-
Pisum sativum L.	Pea	xcf	-	-
Large Fabaceae indet.		x	-	-
Herbs				
Anthemis arvensis L.	Corn chamomile	xcf	-	-
A. cotula L.	Stinking mayweed	-	x	-
Asteraceae indet.		-	-	-
Atriplex sp.	Orache	-	-	xnc
Bromus sp.	Brome	-	-	-
Chenopodiaceae indet.		-	-	-
Conium maculatum L.	Hemlock	-	-	xnc
Fabaceae indet.	Small legumes	x	-	-
Fumaria officinalis L.	Fumitory	-	-	xnc
Galeopsis sp.	Hemp-nettle	-	-	xnc
Galium aparine L.	Goosegrass	-	-	-
Hyoscyamus niger L.	Henbane	-	-	xnc
Lamium sp.	Dead-nettle	-	-	xnc
Medicago/Trifolium/Lotus sp.	Clover type	-	-	-
Plantago lanceolata L.	Ribwort plantain	-	-	-
Small Poaceae indet.	Grasses	-	-	-
Large Poaceae indet.		-	-	-
Polygonaceae indet.		-	-	-
Potentilla sp.	Cinquefoil	-	-	xxnc
Ranunculus sp.	Buttercup	-	-	-
Rumex sp.	Dock	-	-	-
R. acetosella L.	Sheep's sorrel	-	-	-
Solanum nigrum L.	Black nightshade	-	-	xxnc
Stellaria sp.	Stitchwort	-	-	xnc
Tripleurospermum inodorum (L.)Schultz-Bip	Scentless mayweed	-	-	-
Urtica dioica L.	Stinging nettle	-	-	xxnc
Wetland plants				
Carex sp.	Sedge	x	-	xxnc
Eleocharis sp.	Spike-rush	x	-	xnc
Tree/shrub macrofossils				

Sample No.		**17**	**18**	**19**
Context No.		**754**	**653**	**625**
Feature No.		**711**	**651**	**651**
Area/Trench		**B1**	**Tr6**	**Tr6**
Feature type		**SLD**	**Ditch**	**Ditch**
Date		**?Med**	**Med**	**Med**
Corylus avellana L.	Hazel	-	xcf	-
Crataegus sp.	Hawthorn	-	-	xcfnc
Rubus sect. *Glandulosus* Wimmer & Grab	Bramble	-	-	xxnc
R. idaeus L.	Raspberry	-	-	xcfnc
Sambucus nigra L.	Elderberry	-	-	xxnc
Other plant macrofossils				
Charcoal <2mm		xxxx	xx	xx
Charcoal >2mm		xxx	x	x
Charcoal >5mm		xx	x	-
Charcoal >10mm			x	-
Charred root/stem		x	-	-
Uncharred root/stem		-	-	xx
Indet.culm nodes		-	-	-
Indet.seeds		-	x	xnc
Other remains				
Arthropod remains		-	-	xnc
Black porous material		xx	-	-
Black tarry material		x	-	x
Bone		-	-	-
Burnt/fired clay		-	-	-
Ferrous globule		x	-	-
Fish bone		x	-	-
Mortar/plaster		-	-	-
Small coal frags.		xx	-	-
Small mammal/amphibian bones		x	x	-
Vitreous material		-	-	-
Molluscs				
Woodland/shade loving species				
Aegopinella sp.		xx	-	-
Discus rotundatus		-	-	-
Punctum pygmaeum		-	-	-
Zonitidae indet.		x	-	-
Open country species				
Vallonia sp.		-	-	-
Catholic species				
Cochlicopa sp.		-	-	-
Trichia hispida group		x	-	-
Sample volume (litres)		**40**	**40**	**10**
Volume of flot (litres)		**0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**

Table 35: 2012 excavations, environmental samples 20, 21 and 22

Sample No.		**20**	**21**	**22**
Context No.		**1082**	**B1064**	**A165**
Feature No.				
Area/Trench		**B1**	**B1**	**A**
Feature type		**Floor**	**Layer**	**Grave**
Date		**Med**	**Med**	**LS/EM**
Cereals and other food plants	**Common name**			
Avena sp. (grains)	Oat	-	xx	x
Hordeum sp. (grains)	Barley	-	-	-
Hordeum/Secale cereale type (rachis nodes)	Barley/Rye type	-	-	-
Secale cereale L. (grains)	Rye	-	-	-
Triticum sp. (grains)	Wheat	-	x	x
T. aestivum/compactum type (rachis nodes)	Bread wheat type	-	-	-
Cereal indet. (grains)		-	xx	x
Pisum sativum L.	Pea	-	-	
Large Fabaceae indet.		-	-	x
Herbs				
Anthemis arvensis L.	Corn chamomile	-	-	-
A. cotula L.	Stinking mayweed	-	x	-
Asteraceae indet.		-	-	-
Atriplex sp.	Orache	-	-	-
Bromus sp.	Brome	-	-	-
Chenopodiaceae indet.		-	-	-
Conium maculatum L.	Hemlock	-	-	-
Fabaceae indet.	Small legumes	x	x	-
Fumaria officinalis L.	Fumitory	-	-	-
Galeopsis sp.	Hemp-nettle	-	-	-
Galium aparine L.	Goosegrass	-	x	-
Hyoscyamus niger L.	Henbane	-	-	-
Lamium sp.	Dead-nettle	-	-	-
Medicago/Trifolium/Lotus sp.	Clover type	-	x	-
Plantago lanceolata L.	Ribwort plantain	-	xcf	-
Small Poaceae indet.	Grasses	-	x	-
Large Poaceae indet.		-	-	-
Polygonaceae indet.		-	x	-
Potentilla sp.	Cinquefoil	-	-	-
Ranunculus sp.	Buttercup	-	-	-
Rumex sp.	Dock	-	x	-
R. acetosella L.	Sheep's sorrel	-	-	-
Solanum nigrum L.	Black nightshade	-	-	-
Stellaria sp.	Stitchwort	-	-	-
Tripleurospermum inodorum (L.)Schultz-Bip	Scentless mayweed	-	-	-
Urtica dioica L.	Stinging nettle	-	-	-
Wetland plants				
Carex sp.	Sedge	-	-	-
Eleocharis sp.	Spike-rush	-	-	-
Tree/shrub macrofossils				

Sample No.		**20**	**21**	**22**
Context No.		**1082**	**B1064**	**A165**
Feature No.				
Area/Trench		**B1**	**B1**	**A**
Feature type		**Floor**	**Layer**	**Grave**
Date		**Med**	**Med**	**LS/EM**
Corylus avellana L.	Hazel	-	x	-
Crataegus sp.	Hawthorn	-	-	-
Rubus sect. *Glandulosus* Wimmer & Grab	Bramble	-	-	-
R. idaeus L.	Raspberry	-	-	-
Sambucus nigra L.	Elderberry	-	-	-
Other plant macrofossils				
Charcoal <2mm		xxxx	xxx	xxx
Charcoal >2mm		xxx	xx	xx
Charcoal >5mm		xx	x	x
Charcoal >10mm		x	-	x
Charred root/stem		-	-	x
Uncharred root/stem		-	-	-
Indet.culm nodes		-	-	-
Indet.seeds		-	-	-
Other remains				
Arthropod remains		-	-	-
Black porous material		-	xx	xx
Black tarry material		-	x	x
Bone		-	-	-
Burnt/fired clay		-	-	-
Ferrous globule		-	-	-
Fish bone		x	-	-
Mortar/plaster		-	-	-
Small coal frags.		x	-	x
Small mammal/amphibian bones		-	-	-
Vitreous material		-	x	x
Molluscs				
Woodland/shade loving species				
Aegopinella sp.		-	-	-
Discus rotundatus		-	-	-
Punctum pygmaeum		-	-	-
Zonitidae indet.		-	-	-
Open country species				
Vallonia sp.		-	-	-
Catholic species				
Cochlicopa sp.		x	-	-
Trichia hispida group		x	-	-
Sample volume (litres)		**10**	**40**	**40**
Volume of flot (litres)		**0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**

Sample composition

Cereal grains/chaff and seeds of common weeds were present at a low to moderate density within all but two of the assemblages studied. Preservation of the charred remains was generally quite poor, with many of the grains and some seeds being puffed and distorted (probably as result of combustion at very high temperatures) and very fragmentary. The de-watered remains from sample 19 were moderately well preserved, although some distortion had occurred due to the compaction of the deposit.

Oat (*Avena* sp.), barley (*Hordeum* sp.), rye (*Secale cereale*) and wheat (*Triticum* sp.) grains were recorded along with a number of cereals which were too poorly preserved for close identification. Of the identifiable grains, wheat occurred most frequently, although oats were also moderately common. Chaff was exceedingly scarce, but bread wheat (*T. aestivum/compactum*) type rachis nodes with characteristic crescentic glume inserts were noted within the assemblages from medieval pits A120 (sample 12) and A124 (sample 13), and samples 11 (post-hole [A130] and 17 (stone lined drain [711]) both included single barley/rye type rachis nodes. Other potential food crop remains were also scarce, but possible rounded pea (*Pisum sativum*) seeds were recorded from samples 17 and 8 (Post-medieval layer [100]).

Charred weed seeds occurred infrequently, with most being recorded as single specimens within an assemblage. All were of common segetal weeds or grassland herbs, with taxa noted including stinking mayweed (*Anthemis cotula*), small legumes (Fabaceae), goosegrass (*Galium aparine*), grasses (Poaceae), buttercup (*Ranunculus* sp.) and dock (*Rumex* sp.). The de-watered assemblage from sample 19 was slightly more comprehensive, containing seeds of a number of common ruderal weeds including hemlock (*Conium maculatum*), dead-nettle (*Lamium* sp.), cinquefoil (*Potentilla* sp.), black nightshade (*Solanum nigrum*) and stinging nettle (*Urtica dioica*). Charred and de-watered nutlets of sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.), both common wetland plants, were noted within the assemblages from samples 13, 17 and 19. Tree/shrub macrofossils occurred infrequently, but charred fragments of hazel (*Corylus avellana*) nutshell were noted within five assemblages and sample 19 included a possible hawthorn (*Crataegus* sp.) fruit stone along with bramble (*Rubus* sect. *Glandulosus*) 'pips' and elderberry (*Sambucus nigra*) seeds. Charcoal/charred wood fragments were present throughout, but other plant macrofossils were exceedingly scarce.

Although some of the fragments of black porous material were probable residues of the combustion of organic remains (including cereal grains) at very high temperatures, others were very hard and brittle, and it was thought most likely that these were bi-products of the combustion of coal, small pieces of which were also present within most assemblages. Other remains occurred less frequently, but did include small pieces of bone and fish bones/scales.

Although specific sieving for molluscan remains was not undertaken, a small number of shells were recorded. However, as some still retained delicate surface structures and coloration, it was unclear whether any were contemporary with the features from which the samples were taken.

Discussion

2011 excavations

Of the nineteen samples submitted for analysis, four were taken from features recorded during the 2011 excavations. Sample 3 is from a medieval soil layer within the cloister/frater area in Trench 4 (context [432]). The recovered assemblage is

small and very limited in composition, and it would appear most likely that the few remains which are recorded are derived from scattered or wind dispersed midden waste. The remaining samples, which are all of post-medieval date, are from features recorded during the excavation of the ancillary building in Area A. The assemblage from sample 1 (fireplace [A39]) is quite large (circa 0.4 litres in volume), but is almost entirely composed of coal and fragments of black porous and tarry material. A small number of cereals and seeds are also present, but these could be derived from the use of straw or chaff as tinder/kindling. The remaining two assemblages from floor [A54] (sample 2) and garden soil [A37] (sample 4) again appear to be largely derived from spent fuel, although in these instances, plant macrofossils other than charcoal/charred wood are entirely absent.

2012 excavations
The fifteen assemblages from the 2012 excavations are from a variety of contexts including a grave (context A165 sample 22), two stone-lined drains (features [626] and [711]), ditch [651], pits, a post-hole and other discrete layers and deposits. Most features are medieval, although the grave is probably Late Saxon and layer [100] is of post-medieval date.

The highest densities of material are recorded from features within areas A (ancillary buildings) and B1 (frater), although even here, the assemblages rarely exceed 0.1 litres in volume. Cereals are present throughout, with wheat and oats occurring most frequently. As many of the oats are large, mature grains, it is presumed that they are present as a crop in their own right rather than contaminants of the main wheat crop. The extremely low density of barley is, perhaps, a little unusual as this was the only grain which was consistently used whole for human consumption, both in soups and stews and for the brewing of ale (cf Murphy 1985). As there is very little evidence that cereals were being processed in the near vicinity, it is presumed that the occupants of the abbey were reliant on batches of imported semi-cleaned or prime grain. Although little can be deduced about where the grain was grown, the occurrence of seeds of stinking mayweed within a number of the assemblages may indicate that nearby areas of heavier clay soil were being cultivated, while the presence of small legumes alongside the grains possibly suggests that fields were being cropped on a rotational basis.

Plant macrofossils other than cereals are relatively scarce, and the overall assemblage is generally inconclusive. However, the material within sample 19, from a ditch associated with the dorter or reredorter is, perhaps, of note for a number of reasons. These are the only de-watered remains recorded, and as such they are more likely to be indicative of the range of plants growing within the vicinity of the ditch during the medieval period. Perhaps surprisingly, ruderal weeds, colonising herbs, wetland plants and tree/shrub macrofossils are predominant, suggesting that the ditch was damp, overgrown and poorly maintained. The ruderal weed assemblage includes species which are commonly found in phosphate rich conditions (for example henbane (Hyoscyamus niger), black nightshade and stinging nettles), probably indicating that the ditch contained sewage residues from the reredorter. However, it is possibly of note that at least three of the plants were also commonly used as medicinal herbs, although there is little or nothing to suggest that they were being utilised as such in this particular instance.

The remaining assemblages contain little of particular note, and it is thought most likely that the remains which are recorded are largely derived from scattered refuse or midden detritus.

Conclusions

In summary, the paucity of macrofossils within the assemblages appears to indicate that the various excavated structures were kept very clean, with any refuse being disposed of away from the buildings, either within pits or on middens. Cereals and pulses were being imported to the abbey, but it is, perhaps, the materials which are under-represented within the assemblages which are of most note. As stated above, barley is virtually absent and the remains of fish, which would have formed an important part of the cloistral diet, are limited to a very few scales and a single vertebra. Notwithstanding this, the overall composition of the assemblages suggests that while the abbey was fully functional (if a little under maintained) during the medieval period, the dissolution witnessed an immediate curtailment of activity within the main range of buildings, which appear to have been very quickly robbed of all useful materials. The plant macrofossil samples of post-medieval date are very limited, and it is thought most likely that the few remains which are recorded are derived from residual remains which were disturbed during the digging of robber trenches and the reappointing of Polesworth Hall.

5.12 Earth resistance survey by John Walford

Introduction

During the 2013 fieldwork season, an earth resistance survey was undertaken across two areas of land to the north and west of Excavation Area A. This survey had not been envisaged in the original project design and came about as a more or less impromptu effort to take advantage of the enthusiasm of the many unscheduled volunteers who presented themselves on site each day.

Some of the results are of a good quality and well recorded but because of the inexperience of some operators there are also some corrupted grids of data and other grids for which no trustworthy locational information appears to have been recorded. In consequence, this report has had to be restricted to a summary and discussion of only the more reliable and informative elements of the survey results.

Methodology

The earth resistance survey was conducted with a Geoscan Research RM15 resistance meter. This was deployed in twin probe configuration with a mobile probe spacing of 0.5m and the remote probes spaced a similar distance apart. Measurements of earth resistance were recorded to a precision of 0.1 Ohms (Ω). This instrument configuration is standard for archaeological survey and its use accords with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data was collected at 1m intervals within 20m grid square units. The grids were established manually, with a tape measure and optical square, and were tied in to the Ordnance Survey National Grid by measurement with a Leica Viva RTK GPS. Regrettably, an inspection of the GPS data has revealed that some of the grids were not accurately marked out on the ground, and this may have caused distortions of up to +/- 1m in the positional accuracy of the data.

The survey data was visualised and processed with Geoplot v3.01 software. The individual grids were combined into composite files, then ‘edge matched’ to balance out variations resulting from re-positioning of the remote probes. Finally, a ‘despiking’ filter was employed to identify high contact resistance spikes and replace these with appropriate mean values.

Results

The starting point for an interpretation of earth resistance data is the recognition that areas of ground with a low electrical resistance are likely to be relatively moist, and those with a high resistance are likelier to be drier and possibly also stonier. The overall trend of the data from Polesworth fits with these principles, as the lower resistance readings are concentrated in the south, towards the river, and higher resistance readings are concentrated upslope to the north. However, it is not clear to what extent the resistance variations are due to the underlying patterns of geology and groundwater and to what extent they represent increased concentrations of building foundations and rubble on the higher and dryer parts of the site.

An attribution of specific causes to specific resistance anomalies is generally quite difficult, especially in a case such as this where the anomalies are mostly ill-defined and the sub-surface stratigraphy is potentially complex. Only a few anomalies merit individual discussion, as enumerated below and on the interpretation plan (Fig XX)

1 An area of very high resistance (>500 Ω) at the northern end of the survey areas. This is by far the highest resistance anomaly detected, and the most plausible indication of stone building rubble or footings.

2. A broad, linear low resistance anomaly, possibly representing a ditch or a sunken trackway running from south-west to north-east across the northern survey area.

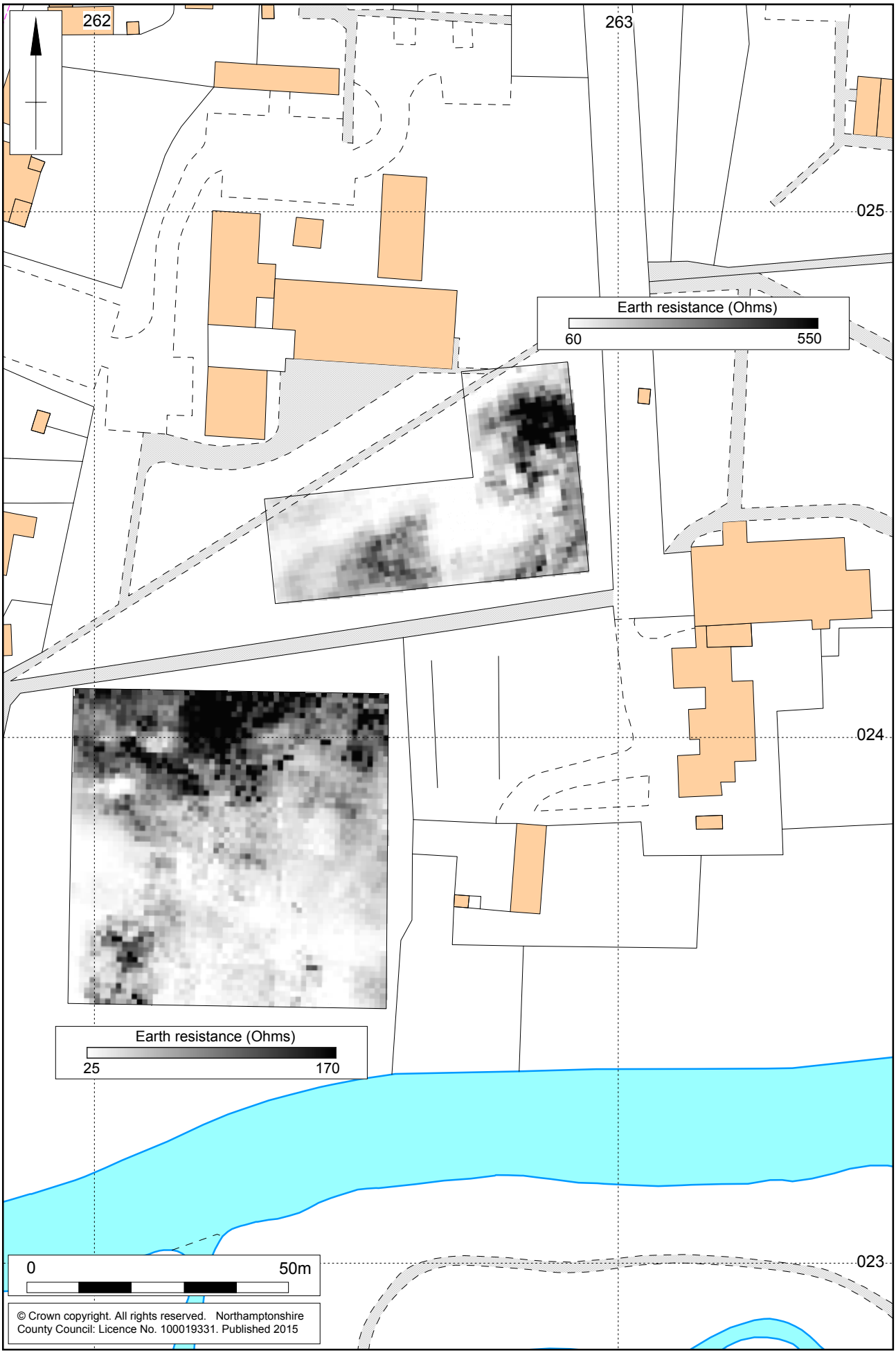
3 A positive linear anomaly in the northern survey area and a negative linear anomaly in the southern area. Both lie on much the same alignment, and they possibly represent two elements of a single feature of indeterminate character.

4 A small ring of relatively low resistance surrounding a moderately high resistance core. Whilst this could represent a structure feature, similar anomalies can also be associated with temporary location of cattle feeders, with the low resistance reflecting a ring of trampled ground around the feeder itself.

5 A large bulbous area of low resistance (*c* 30-40Ω) with a spur leading to the south. This is suggestive of a large damp hollow - possibly a spring, a cut-off section of river channel, or a backfilled clay or gravel pit.

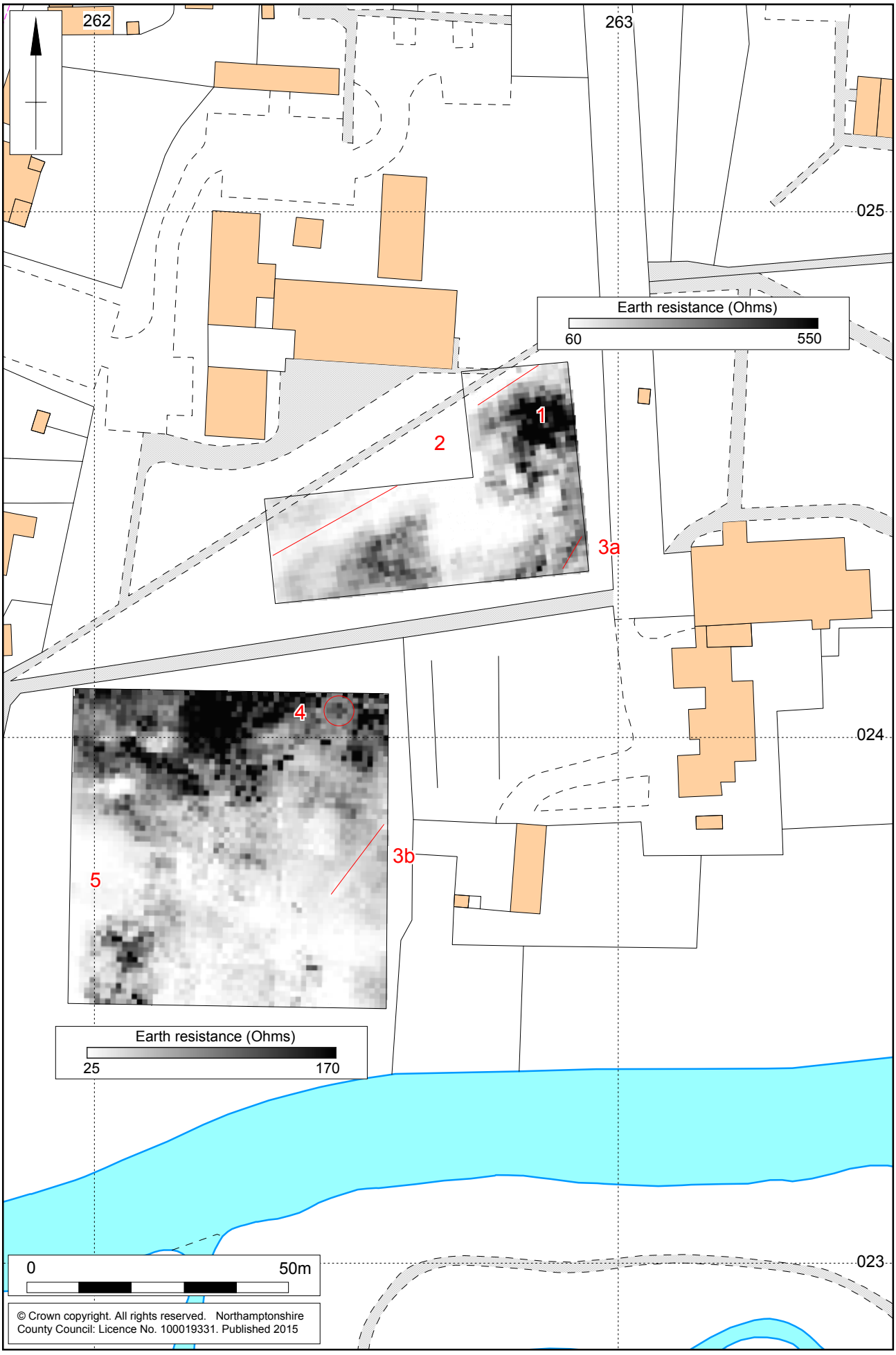
Conclusion

Despite the difficulties noted above, the earth resistance survey at Polesworth has produced some reasonably useful results. The data exhibits a few features of possible interest, and may be of greater value in the future it is possible to refine the interpretation by trenching or other intrusive investigations.



1:1000

Earth resistance survey results Fig 100



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Earth resistance survey interpretation Fig 101

6 SUMMARY AND CONCLUSIONS

6.1 Pre-abbey

Evidence for pre Anglo-Saxon human activity across the site was very limited and comprised solely stray finds rather than surviving features. The earliest of these was a single, partially worked flint implement of late Neolithic or early Bronze Age date. From the Roman period a very worn coin also occurred as a residual find within later contexts.

The lack of evidence for earlier activity at the site is notable and may show that the Anglo-Saxon abbey was established on virgin land. However, the abbey, its medieval successor and subsequent secular use of the site had a significant impact on the landscape and it is possible that any evidence of previous occupation would have been removed.

6.2 The Anglo-Saxon period

Tradition has the establishment of the first abbey at Polesworth in 827AD, although there is a confusion of different stories and legends surrounding the foundation. The earliest documentary reference to the abbey's royal founder, Editha, suggests the existence of the abbey around the mid-9th century although some have posited an earlier 7th or 8th century date for St Editha herself (Palmer 2011, 27-8).

During the 2011-13 excavations part of a cemetery, comprising fourteen inhumations was excavated *c* 40m to the west of the current church. A further three inhumations had been discovered during previous trial trenching by Warwickshire Museum. All the burials were extended, supine, orientated south-east to north-west and unaccompanied by grave goods or grave furniture. Initially undated, two samples were taken for radiocarbon dating which returned dates placing them firmly in the mid to late Anglo-Saxon period; one being of 10th century date and the second being earlier, between the 8th and 9th centuries. The conclusion being that this was a cemetery associated with the Anglo-Saxon abbey church.

Due to the poor survival of the skeletal remains no meaningful anthropological data could be gained from the cemetery aside from noting that there were no infants or juveniles amongst the burials. Therefore, it is impossible to speculate whether this was a lay or monastic cemetery. A timber post-hole built structure and a boundary ditch were found immediately to the south of the cemetery and although it is possible that they are associated with the cemetery, pottery would suggest that it is more likely that they lie in the post-Conquest period instead.

Although various genealogies have been advanced for Editha, they all appear to concur that she was of royal descent and thus Polesworth abbey falls into the relatively common category of religious houses founded or associated with female Anglo-Saxon nobility. John Blair has suggested that the settlement at Polesworth, along with Tamworth and Derby, would have formed an important satellite to a major centre (probably Tutbury) in the 8th century (Palmer *pers comm*). Consequently, the establishment of the abbey at Polesworth would have to be seen in this context.

Aside from the three inhumations found during the evaluation, there has been little or no evidence from the Anglo-Saxon period recovered from any of the previous excavations at the site and consequently the exact location of this monastery has not been established. Since monastic settlements of this period did not follow a formal layout, the location of the cemetery does not give any definite clues as to the location of other elements of the monastery. However, the burials were all aligned from

south-east to north-west, rather than a strict east-west alignment and it is possible that this reflects the orientation of contemporary nearby structures.

The lack of pre-Conquest pottery is perhaps notable. Sixteen sherds of residual Stamford Ware (six of which came from a single context) were found during the three seasons of excavation and none were found during the earlier evaluations. No middle Saxon pottery was present but there were two finds from this period - a 'porcupine' sceat and a decorated pin, again both residual in later contexts.

In the area of the later cloister, two ditches aligned east - west, two postholes and some possible stake holes cut the underlying natural geology. They were all undated but could conceivably belong to this early period since they did not appear to relate to any later activity. Although the lack of substantive finds from the period may suggest that the core of the monastic settlement lay elsewhere, it is perhaps more probable that the absence is due to the substantial interventions and attrition from later developments at the site.

With an Anglo-Saxon abbey, one would typically expect a boundary in the form of a *vallum monasterium* and a possible candidate for this may be a large, deep ditch partially exposed beneath what would later become the southern cloistral range. This ditch, aligned east-west, sat at the top of the slope overlooking the River Anker to the south. The earliest fills contained sandy coarsewares which may show that it was either still open in the post-Conquest period or that it is, in fact, a later medieval feature rather than part of the original Anglo-Saxon abbey. Surprisingly, the ditch also contained what appeared to be *in-situ* timbers but unfortunately, they could not be fully explored, as the ditch lay at the edge of one of the evaluation trenches and space was too restricted to investigate further.

6.3 The re-foundation and the 12th century abbey

The nuns were reputedly expelled from the abbey at the time of the Norman Conquest and re-located to Oldbury but no evidence for the resulting hiatus at the site was recovered during the excavations and the reason for the translation is unknown. The abbey was subsequently re-founded by Robert Marmion II in *c* 1130 and the nuns allowed to return to Polesworth (Palmer 2011); presumably an instance of the more general wave of monastic revival that was taking place across England in the 12th century.

Evidence for this 12th century activity at the site, however, was limited. As with the Anglo-Saxon period, this may be due to attrition from later development but there is also the problem of dating features from pottery assemblages. The earliest post-Conquest period pottery from site comprises the Warwickshire sandy coarsewares which were in use for two or three hundred years from the 12th – 14th centuries. The broadness of this date range makes it difficult to pin down the date of features which, stratigraphically, could be considered as belonging to an early phase of activity on the site.

Approximately 50m to the south-east of the current church, beyond the area of the later eastern range, two burials and a possible boundary ditch were found which are presumed to belong to the post-Conquest abbey cemetery. It would seem likely that the abbey cemetery would have been established at the same time as the re-foundation in the 12th century and that these burials belong to it. A second, undated ditch, found beneath the foundations of the later eastern range, may also belong to this period as does a pit located under the later southern cloister.

The substantial east-west aligned ditch found beneath the later southern range has been very tentatively identified as the Anglo-Saxon *vallum monasterium*. It would certainly appear, stratigraphically, to be an early feature but it may instead belong to the 12th century abbey. If that is the case, its function is unclear but the presence of timbers in its base is intriguing and would point to the feature lying outside and beyond the 12th century cloistral ranges.

Evidence for this period is certainly visible in the fabric of the church, which was presumably re-built at that time. Following a standard Benedictine layout, the cloister would have been located on the southern side of the church and indeed a 12th century processional doorway, which would have presumably led from the cloister, survives in the church wall. Working from the position of this doorway, the layout of the church and the location of parts of the Chapter House wall which remained standing into the 18th century, a putative plan of the abbey was devised (Palmer 2011, 24, fig 2.12). This suggested a cloister of approximately 24m x 24m and a church that would have been 74m long (extending at least another *c* 25m to the west of the current church in order to accommodate the cloistral buildings).

The length of the church is significant since it puts it towards the top of the scale of known medieval nunnery churches in the country for which information is available. An analysis of the length of such churches by Roberta Gilchrist, concluded that the mean total length was 49.9m with over half being below 31m (Gilchrist 1994, 44-45). Polesworth would therefore rank fourth in Gilchrist's list of nunnery churches (Table 36).

Table 36 : Length of nunnery churches (based upon Gilchrist 1994, table 2)

Nunnery	Length of church (m)
Barking	102.9
Romsey	78
Shaftesbury	76.2
Polesworth	? 74
Nuneaton	70.5
Elstow	64
Watton	61
Carrow	61
Malling	60.8
St Radegund's, Cambridge	57.7
Lacock	43.6
Brewood	40
Polsloe	39
Davington	38
Ickleton	37.5
Bishopsgate	36.6
Ellerton	? 35.8
Dartford	? 31
Denney	31

Nunnery	Length of church (m)
Burnham	29.2
Wykeham	27.4
Easebourne	25.9
Kirklees	24.4
Little Marlow	23.7
Cornworthy	21.3
Chester	20.5
Pinley	19.5
Guyzance	18.6
Littlemore	18.6
Baysdale	18.3
Thicket	18.3
Wilberforce	18.3
Aconbury	17
Nunkeeling	14

However, the length of the Polesworth church may have been shorter, possibly closer to 54m, if it had a rectangular rather than a cruciform plan.

The 2011 – 13 excavations recovered some evidence for the original abbey cloister. This comprised the foundations of an early wall, which lay immediately to the south of the later southern cloister wall. Comprising olive green sandstone rubble (reflecting the material used for the rebuilding of the church) possible associated floor surfaces also survived. If these remains do belong to the 12th century cloister then they expand significantly on the size previously postulated. Possibly supporting this was the fact that no trace of a southern wall or alley was found where the smaller cloister model predicted it should lie. However, accepting a larger cloister raises the problem of the function of the 12th century door into the church, since this would no longer function as a traditional processional doorway set in the western corner of the alley.

The scattered and truncated nature of these possible early remains, make it difficult to establish the layout of the 12th century abbey. However, the ditches and other such features that survive under what would become building ranges in later periods, indicate that the size of the overall abbey was probably smaller than that which had developed by the time of the Dissolution.

6.4 13th and 14th century development

In the vicinity of the pre-Conquest cemetery, a timber building was constructed and a series of pits dug. Some of these pits cut through the earlier burials and so it would seem likely that the cemetery was no longer demarcated or visible (although secular incursions into cemeteries were not unknown in the medieval period). Pottery from the pits and the postholes, would suggest a 13th century date.

The pits do not appear to have been used for rubbish disposal and may be small quarry pits, possibly connected with the bout of major construction that was taking place at the abbey in this period. The function of the timber structure is similarly unknown, only one of its sides survived and there were no floor levels but it may

have served as a pre-cursor to a substantial stone building which was later built in this period.

The stone building was an L-shaped structure with its ranges arranged around a central courtyard. Although the original floor levels did not survive, the presence of a hearth shows that the building was intended to be occupied and it may have acted as a lodge. Alternatively, it is also possible that it may have functioned as a *farmery* (infirmary) but its location on the western side of the precinct may make this suggestion unlikely. Its construction probably coincides with the building of the gatehouse at the northern entrance to the abbey.

The construction of the buildings in the outer precinct was part of a phase of wider development of the site in the 13th and 14th centuries. Evidence from both the earlier evaluations and the 2011-13 excavations demonstrated a substantial expansion of the cloister and associated abbey buildings in this period.

It seems likely that the earlier abbey was entirely re-modelled, an enterprise which in part must attest to the success or popularity of the religious community or simply to the benefice of its patron. However, it was also an example of many similar monastic expansions occurring throughout the country due to the extensive economic growth of the 13th century (Platt 1978, 63-4). At Polesworth, the earlier walls were removed, ground levels raised through the introduction of imported soils, new substantial walls raised and a larger abbey built. The resulting new abbey was large; the length of the church has already been remarked upon and the cloister would have measured c 35m x 35m.

The plan of the newly expanded abbey appears to have followed a standard Benedictine layout. The Abbesses lodgings were likely to be in the western range, the frater to the south of the cloister, and the dorter, reredorter, chapter house and slype in the eastern range with the Abbey church at the north. The layout of the claustral buildings may simply be a continuation of the 12th century abbey arrangements, however, evidence from the excavations in the area of the southern range and reredorter suggests that some of these elements were additions in this period.

Although evidence for the division of various rooms in the the eastern range was recovered, later robbing had removed floors and other structural elements. Consequently, it is difficult to be confident in assigning specific use to these rooms. There was certainly a room in the supposed location of the Chapter House however, it was fully contained within the width of the eastern range and its size may be considered too mean for an Abbey on the scale of Polesworth. Chapter Houses were only usually kept within the width of the claustral range in modestly sized houses. In larger monasteries the Chapter House often projected out to the east. Examination of the earlier geophysical survey shows a multi-angled anomaly further to the south which could be interpreted as a structure projecting from the range but it's position this far south would be unusual and would not concur with the later engravings showing the Chapter House entrance to the north.

The soil dumped to form the new cloister walk contained frequent unstratified and jumbled human bone which must indicate that a burial area, possibly the earlier Anglo-Saxon abbey cemetery or later favoured areas in the abbey such as the earlier cloister or chapter house, had been disturbed to provide the build-up material. If the latter, it would display a specific attitude to the mortal remains of the former nuns.

The excavations also recorded evidence for buildings outside the main cloister. A substantial wall foundation at the east of the eastern range presumably belongs to a

structure such as a *farmery* (infirmary) which traditionally would be on the quieter eastern sides of the precinct, away from the noise of the outer court (Gilyard-Beer 1959, 34). In the southern range, the drain of the reredorter appears to have been added at this time and buildings added or adapted to the south of the frater. The function of these latter buildings is unclear but the location to the south of the frater and the presence of a stone-lined drain running from them may suggest that are a kitchen – possibly the meat kitchen for the abbey, as was found at Kirkstall Abbey (Owen 1955, 29-30).

6.5 15th century modifications

Unsurprisingly, it seems likely that the abbey was subject to continual, minor modifications throughout its lifetime: presumably the result of changing fashion, fortune, organisation and patronage. The last major modifications appear to have taken place in the 15th century.

Within the frater, these modifications appeared substantial. The former large open space was subdivided, a raised eastern end was created and internal partitions added. The introduction of a large tiled hearth in the lower western half of the area further suggests a change of use for the area. These changes probably reflect a more general trend in monastic life that had seen a move away from the original ideas of fully communal living and commonality towards expressions of individuality and privacy (Power 1922, 316-17). In many monasteries of the period these changes were seen in architectural modifications such as the introduction of individual cubicles in dormitories and the abandonment of the communal frater (Platt 1978, 166). The relaxing of religious dietary rules had seen the increased use of the *misericord* (where meat could be eaten) and many monastic refectories were divided into two stories with an upper frater and a lower misericord (Power *op cit)*. This happened at Kirkstall Abbey where a new floor was inserted and a chimney constructed to warm the lower chamber where the former *pulpitum* stood. The presence of a hearth in the modifications to the frater at Polesworth may reflect a similar history and purpose.

In the outer precinct, the stone building underwent a change in form and possibly function. The courtyard area was overlain by introduced soil layers and some light industrial activity took place. Post-pads and postholes, also of this period, indicate some minor structural elements being added. All these features may be associated with temporary structural work on the main building, as they were subsequently sealed by a further layer of introduced, possibly garden, soil.

6.6 The Dissolution and 16th century secular use

Despite protestations by the Dissolution Commissioners as to the nuns' *bona fides* and their necessity to the wider community of Polesworth (Power 1922, 159), the abbey was eventually surrendered to the Crown in 1539 and sold to property speculator Francis Goodere in 1544. Evidence for the Dissolution activity is marked throughout the site, however the destruction, though extensive, was not absolute.

The demolition activities do not appear to have included the stone building in the outer courtyard which continued in use. This could have been either because the building was fulfilling a useful community role which needed to continue or that it had been altered to a changed use. Whichever was the case, in the 16th century the building was modified with a re-arranged interior marked by introduction of new floor levels and the installation of fireplaces. On the exterior, a well-built stone-lined drain was built which ran across an extensive newly laid-yard surface. Although the exact

dating of these changes is impossible to determine, the Suppression of the abbey and its passing into secular hands would appear to make a convenient point to which to assign them. However, they could equally well belong to an earlier part of the century and simply mark a change in its conventual use.

The claustral buildings suffered more severely. The eastern, nun's end, of the abbey church was totally demolished leaving the crossing tower and the western end to carry on functioning as the parish church. Throughout the cloister, walls were removed largely down to floor level. Tiles were lifted from the floors and only two, very small *in-situ* patches survived, one at the doorway leading from the southern range into the cloister alley and one in a corridor to the south of the former frater. Elsewhere, where tiles had been lifted, the impressions in the underlying mortar bedding showed their former positions. The robbing appears to have been near complete, with few useful building materials being left. The remaining debris, including architectural fragments, was spread across the floor of the southern range. Although no direct evidence of the process of dismantling the abbey was found, scraps of melted lead on the hearth in the frater and areas of burning in the destruction levels of the southern range may belong to this period.

Goodere, or possibly his son, built a manor house, Polesworth Hall, on the site of the western range. This is likely to have been the location of the Abbess' lodgings and the existing undercroft was re-used for cellarage.

Although the majority of the walls had been reduced to ground and floor level, the western half of the southern range's northern wall was left standing to a height of about 0.5m. Antiquarian drawings of the site also show that the walls in the north-east corner of the cloister including the Chapter House entrance were also retained (Palmer 2011, 45). Palmer has pointed out that this occurred at other former monastic sites and may have been part of a deliberate policy of garden design. However, the concept of incorporating scenic 'antiquarian' ruins within gardens didn't take hold in England until the early-mid 18th century and it is therefore likely that leaving the structures *in-situ* was a purely practical rather than aesthetic step: the low walls could be incorporated into terraces and standing walls could be used to partition the garden. This would show that some forethought was being given to the development and future layout of the property at the very time of the purchase.

6.7 The 17th century

During the 17th century, extensive works were undertaken in the grounds of Polesworth Hall. A mound was created to the east of the parish church, constructed from the soil removed from the groundworks, and may have served as a prospect mound from which either the Gooderes or the Nethersoles and their guests could survey their grounds. However, today, it is not the largest of mounds and even in the 18th century, visitors thought it too small to be an 'observatory' (Palmer 2011, 53).

Some evidence for the gardens at Polesworth Hall was recovered. The abbey walling that had been left standing would probably have maintained a least the basic divisions of the cloister, although given its ruined state this probably could not be described as a walled garden and other new walls would have need to have been built or hedges planted to create a fully enclosed garden. The southern cloister wall and the foundations of the alley probably functioned as minor terracing revetments or simple divisions and the soil from the former garth seems to have been removed whether to use elsewhere or simply create a sunken area. The base of a possible linear planting bed was dug into this sunken area. Later the garth area was infilled, creating a more level garden and further planting beds were dug. A stone-lined drain, running into the south-east corner of the garden and possibly leading from

extant buildings in the western range, may belong to this period. However, it seems unclear as to where and why water was being transported here.

There was little direct evidence found of the hall itself, however at the edge of excavations in the western corner of the claustral range, there appeared to be stonework and layers, possibly indicating that structural remains associated with the hall may survive further to the west.

In the early 17th century, after three or four hundred years of use, the stone building in the outer courtyard was demolished and replaced with a timber-framed building. Presumably this reflected the style of the recently constructed Polesworth Hall. Curiously, the building was set on a slightly different alignment to the earlier structure and its dwarf-wall would have crossed over the previous stone foundations. It is unclear why the builders didn't fully re-use these earlier foundations and how the presence, at ground level, of a solid line of masonry would have been incorporated into the use or style of the building. Because of the location of these earlier foundations, a contemporary brick and stone drain had to be installed tight against their outer edge. As with the earlier stone building, the exact layout of the building was difficult to determine. The southern and eastern sides of the building were well defined, with an entrance, and threshold, in its latter wall. However, the building appeared to go beyond the edges of the excavated area and so would have formed a potentially large structure.

This had now presumably become an ancillary building to the new Polesworth Hall. It lasted for about a century of use and the range of pottery found in its subsequent destruction layers suggest that it may have functioned as a storage area. However, given the probable scale of the building this may simply have been a secondary use in the latter years of it life.

6.8 18th century

There is little evidence for much activity in the 18th century and it is likely that Polesworth Hall and its grounds went into something of a decline. The timber frame building to the west of the hall went out of use in the early 18th century and was later demolished, although this may be contemporaneous with the development of construction of a half-timbered tithe barn and the Dovecote in the north-west. More soils were introduced to the area, presumably converting the area to gardens which were further later developed with the introduction of small walls, planting beds and other garden features. This may have functioned as the main garden for the house, since contemporary drawings seem to show the gardens in the area of the former cloister to be flat and featureless (Palmer 2011, fig 3.22).

6.9 19th and 20th century developments

The hall was demolished in the late 19th century to make way for a new vicarage. Evidence for its demolition survives as demolition layers pushed into the south-western corners of the claustral range. The main garden appears to have been lawned with the introduction of a tennis court and steps were added at the west of the site leading from the main path behind the vicarage to the lower ground beyond.

This was the last major alteration that the excavations detected in the area of the claustral buildings. However between the late 1950s and the early 1970s a major and extensive open cast coal mine was dug immediately to the east of the site. It came so close that it removed part of the reredorter and the resulting exposures were recorded in contemporary excavations (Mytum 1980, 81-2). Evidence for these changes was also found in the 2011- 12 excavations. The land was subsequently

reinstated and the river course restored – a piece of work which is only the most recent of the major landscaping of the site that had begun with the Anglo-Saxon monastic builders.

6.10 Conclusions

The excavations across the site have revealed evidence of activity from the late Saxon period up to the present day. Although the excavations have demonstrated survival of elements of the former medieval Abbey, they have also highlighted the significant effects of the post-medieval robbing, re-modelling and landscaping which are important elements in the development and history of the site.

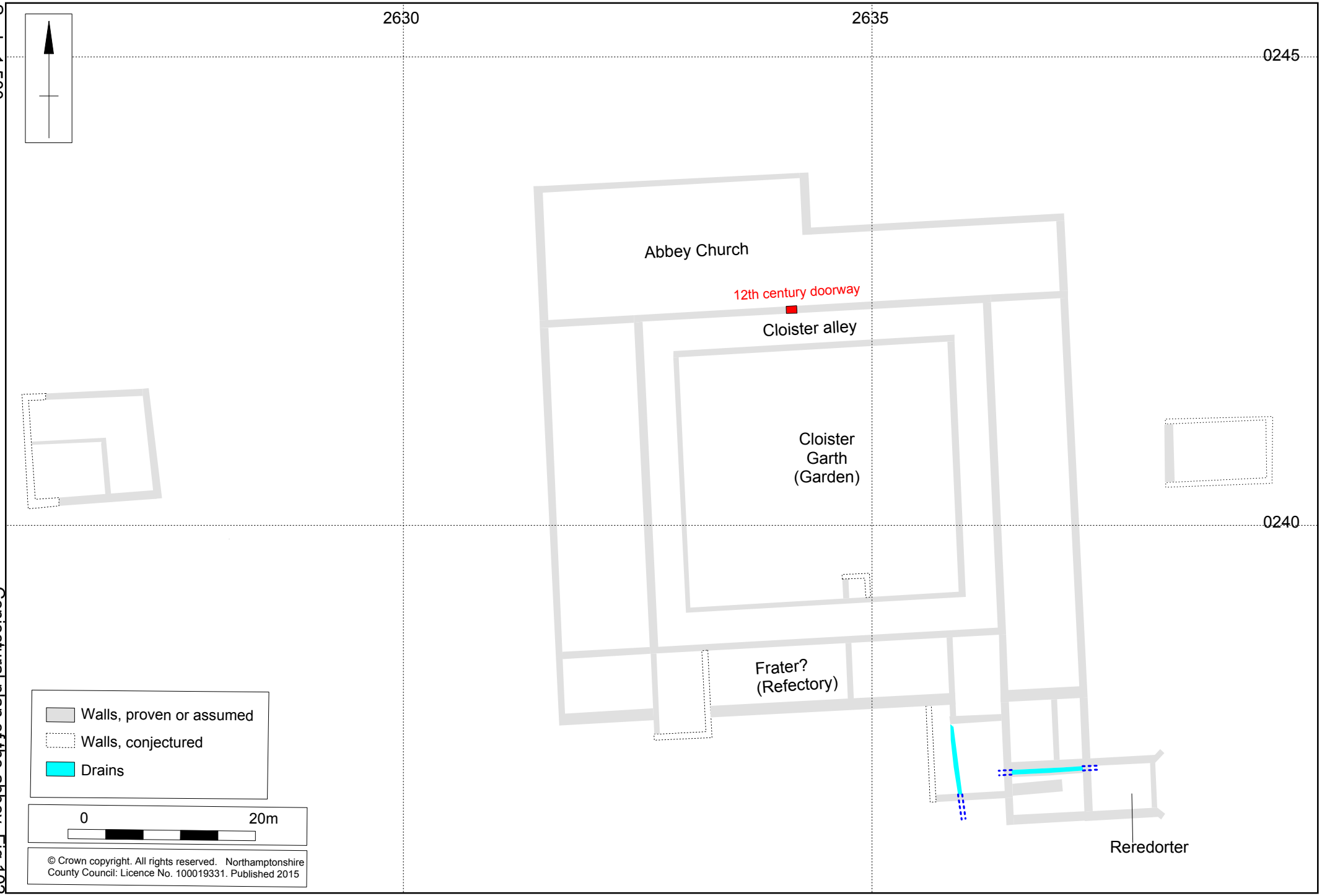
Layout

Elements that illustrate the evolution and layout of the post-Conquest Abbey were identified and these can be tied-in with the known history of the site as whole, including architectural developments of the church and abbey gatehouse. The south side of the cloister was demonstrated to have lain further south than previously thought (at least in its 13th-14th century form) and consequently the overall scale of the abbey is perhaps larger than originally imagined - making it a significant size for a nunnery of the period (Fig 102). However, the precise detail of the claustral layout was difficult to establish and assigning functions to the rooms within the ranges has largely been determined by comparison with other medieval Benedictine abbeys and monasteries. This imprecision was in part due to the large degree of residuality in the material culture recovered and the large degree of robbing at the Dissolution.

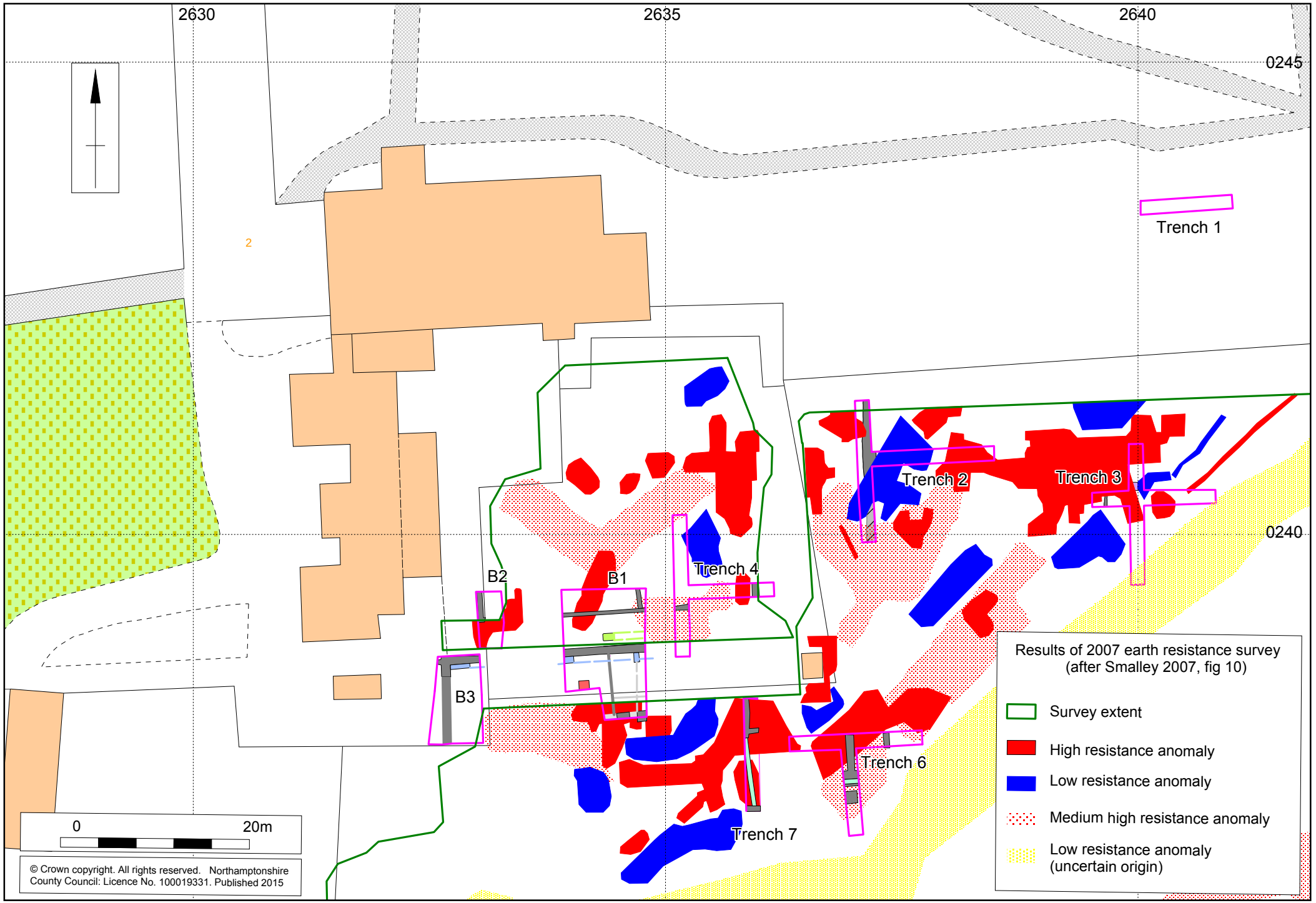
A complete understanding of the layout was also complicated by some apparent anomalies. Most notable, perhaps is the position of the processional door in the church which fits with the original model of a smaller cloister but not with the larger cloister as excavated (Fig 102). This may point to the cloister being significantly enlarged only in the 13th - 14th century expansion. The southern wall of the western part of the church nave was re-built in the mid-18th century (Palmer 2011, 50) and it may be that the western processional entrance for the larger cloister was removed at this point. However, a round-headed door shown on Stringer's 1785 drawing of the church may at least fossilise the position of this putative earlier entrance.

Palmer (2011, 37) has pointed out the unconventional position of the church tower built in the 14th century and possibly replacing an earlier tower. It is located on the east end of the north aisle of the church and Palmer points out how this would have served to enhance the parish part of the church. However, in terms of the functioning of the abbey, if a cruciform plan is accepted (it may be that a simpler rectangular plan was employed as in Fig 102) the transept for the church and the crossing point would need to have been located at the original eastern end of the church. This would raise the question as to whether the now demolished eastern end of the church was or became the Nunnery church, with the whole of the western end being used by the parish. This may have implications as to whether there would have needed to be a second tower at the eastern end, along with specifically nunnery bells, and even whether the extant 12th century processional door was in use in the highly unusual position central to the northern alley.

The earth resistance anomalies detected by the earlier geophysical surveys were tested (Fig 102). These had highlighted areas of potential buildings in the outer precinct but in the event no new structures corresponding to these were found, although wall foundations, not highlighted by the geophysical survey were found. It seems likely that the resistance anomalies were largely caused by changes in soils, possibly deriving from the nearby 20th century mining landscape.



Conjectural plan of the abbey Fig 102



Chronology

Establishing the chronology of the site was made more difficult by the degree of residuality in the pottery assemblage. However, the broad periods of activity at the site can, to some extent, be ascertained from the grouping of amounts and approximate periods of pottery (Table 37).

Table 37: Pottery, number of sherds by pottery type, grouped by approximate period

		Area		Trench						
Pottery type	**Date range**	**A**	**B**	**1**	**2**	**3**	**4**	**6**	**7**	**Total**
Stamford ware	950-1100	1	12	-	-	-	3	-	-	**16**
Developed Stamford ware	1100-1225	3	-	-	-	-	-	-	1	**4**
Sandy coarseware	1100-1400	290	212	-	14	44	18	128	375	**1081**
Coventry D ware	1150-1240	4	2	-	-	-	-	-	11	**17**
Midlands Whiteware (Staffs)	1250-1400	22	-	-	-	-	-	13	1	**36**
Chilvers Coton A	1250-1400	1534	154	-	10	20	17	78	183	**1996**
Chilvers Coton C	1350-1500	16	18	-	3	3	5	12	22	**79**
Late med reduced ware	15th C	3	-	-	-	2	-	-	-	**5**
Gritty unglazed ware	15th C	5	2	-	-	-	2	2	-	**11**
Tudor Green ware	15th C	7	12	-	-	1	3	9	1	**33**
Midland Purple	15th-17th C	132	28	1	1		4	22	17	**205**
Cistercian ware	1475-1580	69	65	-	5	3	20	2	5	**169**
Glazed reduced ware	16th C	1	-	-	-	1	-	-	-	**2**
Glazed Red Earthenware	16th C	6	-	-	-	1	1	-	-	**8**
Late medieval redware	14th-16th C	-	16	-	-	-	2	-	-	**18**
Midland Black	1600-1750	349	19	3	35	8	54	6	7	**481**
Frechen stoneware	1625-1700	44	2	-	-	-	-	1	-	**47**
Martincamp stoneware	1550-1650	11	-	-	-	-	2	-	-	**13**
Midland Yellow	1550-1700	314	17	-	6	-	5	9	2	**353**
Tin Gl Earthenware	1650-1750	31	10	-	7	1	2	-	-	**51**
Lt on dk slipware	1630-80	1	-	-	-	-	-	-	-	**1**
Dk on lt slipware	1630-80	3	1	-	-	-	-	-	-	**4**
Feathered slipware	1670-1740	5	7	-	1	2	2	-	-	**17**
Manganese Gl ware	1680-1740	7	9	1	2	1	8	2	2	**32**
Nottingham Stoneware	1700-1800	-	-	-	-	-	1	-	3	**4**
Wh salt-glazed stoneware	1720-80	-	2	-	-	-	16	2	4	**24**
Porcelain	18th C	3	-	-	-	-	-	-	1	**4**
Creamware	1750-90	-	3	-	7	-	8	-	-	**18**
Pearlware	1780-1820	-	-	-	1	-	-	-	-	**1**
Blackware Pancheon	1800-1900	126	15	-	8	-	15	24	13	**201**
White glazed earthenware	19th-20th C	6	19	-	-	4	9	9	34	**81**
Underglaze transfer printed	19th-20th C	10	16	-	1	2	4	3	4	**40**
Unglazed earthenware	19th-20th C	4	4	-	1	-	8	1	3	**21**
English stoneware	19th-20th C	3	10	-	1	-	4	2	-	**20**

The major medieval period represented through the pottery assemblage is the 12th-14th centuries. In the early part of this period the assemblage appears approximately equally distributed between the cloistral area and the outer precinct. However, with the introduction of the Chilver Coton wares the majority of the pottery derives from the outer precinct, presumably representing differential use and disposal patterns between the two areas. Possibly significantly, there is also a concentration of these wares in Trench 7 which may reflect the function of this particular part of the southern range.

There appears to be a tail-off in pottery in the early to mid 15th century although the later 15th and 16th centuries are represented through Midland Purple and Cistercian wares, which are again heavily biased towards the outer precinct.

Seventeenth century pottery occurs predominantly in the outer precinct, presumably because the cloisters were turned into gardens at this time. Likewise, 18th century wares occur in very low numbers across the whole site, possibly due to Area A also becoming gardens at this time.

Preservation

Preservation across the site was generally good, with the majority of the destruction to the medieval abbey having occurred during the Dissolution dismantling of the abbey and the subsequent landscaping of the gardens. All remains were generally close to the surface, except where garden activity had introduced a build-up of soil or where demolition debris had been spread around. The presence of the Anglo-Saxon period cemetery and the survival of cut features in the natural geology indicate that further features belonging to this early period may survive in places across the site. Structural elements probably belonging to the 12th century phase of the abbey were found although it's likely that much of this construction will have been removed by later modifications.

Animal bone preservation was generally good, although the residuality of much of the assemblage meant that it had suffered greatly from attrition making identification difficult. The environmental evidence did not prove especially conclusive, there being no significant contexts for sampling. However, the presence of waterlogged wood in Trench 6 shows that there is potential for such evidence in places on the site.

Community

Perhaps the greatest success of the project was not the archaeological evidence gleaned but the participation of the local community. The numbers taking part on a day to day basis far exceeded anticipated levels, with over a hundred people of all ages attending each season. The vast majority of these volunteers had no previous archaeological experience but under the supervision of the professional archaeologists undertook the vast majority of excavation and finds processing tasks. It is to their credit that so much was able to be achieved in recovering the history of the abbey.

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