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Archaeological Services

An Archaeological Watching Brief during conservation works to the medieval fishpond at Grace Dieu Priory, Belton, Leicestershire NGR: SK (NGR SK 433 182)

Sue Henderson

ULAS Report No. 2014-214

An Archaeological Watching Brief during conservation works to the medieval fishpond at Grace Dieu Priory, Belton, Leicestershire NGR: SK (NGR SK 433 182)

Scheduled Monument 17074

Sue Henderson
November 2014

Client: Friends of Grace Dieu Priory

Approved by

Signed:  **Date**: 22/12/2014.

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Contents

Figures

An Archaeological Watching Brief during conservation works to the medieval fishpond at Grace Dieu Priory, Belton, Leicestershire NGR: SK (NGR SK 433 182)

Sue Henderson. November 2014

Summary

A watching brief was carried out by the University of Leicester Archaeological Services (ULAS) during groundworks associated with works to conserve the medieval fishpond at Grace Dieu Priory, Leicestershire. The brief involved archaeological attendance for inspection and recording during these works. There were three aspects to the works: the first, an area of trenching to seal the pond bank, revealed two masonry features in section and these were recorded. The second aspect, stabilisation of the embankment, was completed successfully and the archaeology appropriately protected. The third aspect, the creation of a spillway, will need to be amended in the spring, as the work was not completed as planned.

The archive will be deposited with the Leicestershire and Rutland Sites and Monuments Record under the accession number X.A106.2014

1. Introduction.

Grace Dieu Priory, including two ponds and a fishpond, is a Scheduled Monument (SMR Reference 17074). The ruins of Grace Dieu Priory are a Grade II* listed building in Belton, Leicestershire (Scheduled Ancient Monument No14), at Grid Reference SK434182 (Figure 1). The Friends of Grace Dieu Priory Trust wish to restore hydrological features which were once an integral part of the priory and later manor house. The large pond in Priory Field is suffering from low water levels and is reverting to soil and scrub. Hydrological and archaeological works (Morris 2014) have identified a possible cause of water being lost from the pond underneath the northern embankment. Works under this contract designed to address this problem will include:

- 'sealing' the northern bank of the pond to minimise water losses
- stabilisation of the outer face of the embankment at the point of failure to prevent erosion of archaeology
- construction of a small spillway to mitigate against possible damage caused by any future high water levels.

The Inspector of Ancient Monuments, English Heritage recommended a watching brief to ensure that any archaeological remains during the conservation works were adequately recorded. ULAS, on behalf of the client, the Friends of Grace Dieu Priory Trust, implemented a watching brief in November 2014 to cover the proposed groundworks.

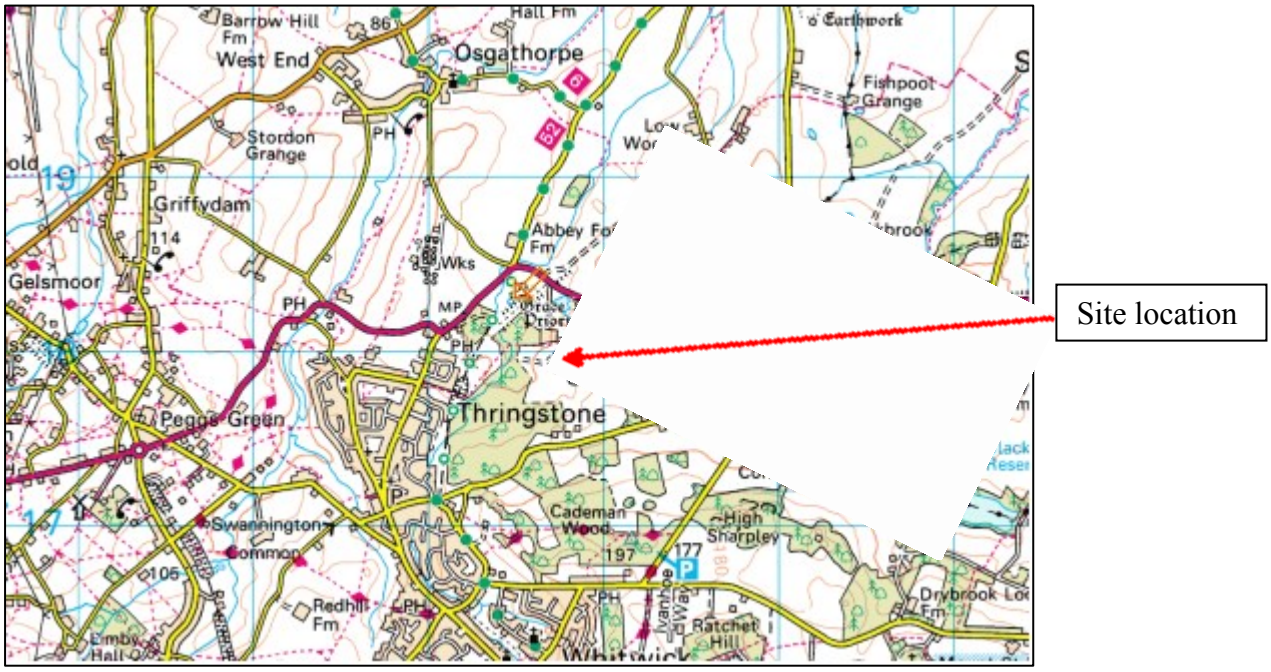

Figure 1. Site location

2. Geology and Topography.

The priory pond is immediately south-west of the priory ruins at *c*.85m aOD (Figure 2). The pond is bordered on three sides by embankments and on the fourth side, to the south, the now disused Charnwood Forest Canal and Coalville to Loughborough railway. Beyond the pond embankments, the land rises to the south and falls away to the north and west, in the direction of the Grace Dieu Brook.

The British Geological Survey shows that underlying the pond is a small limestone inlier of the Carboniferous Ticknall Limestone Formation, surrounded by sandstone of the Triassic Shepshed Sandstone Member. To the west of the pond, along the line of the Grace Dieu Brook, are superficial deposits of alluvium (clay, silt, sand and gravel) (BGS OpenGeoscience).

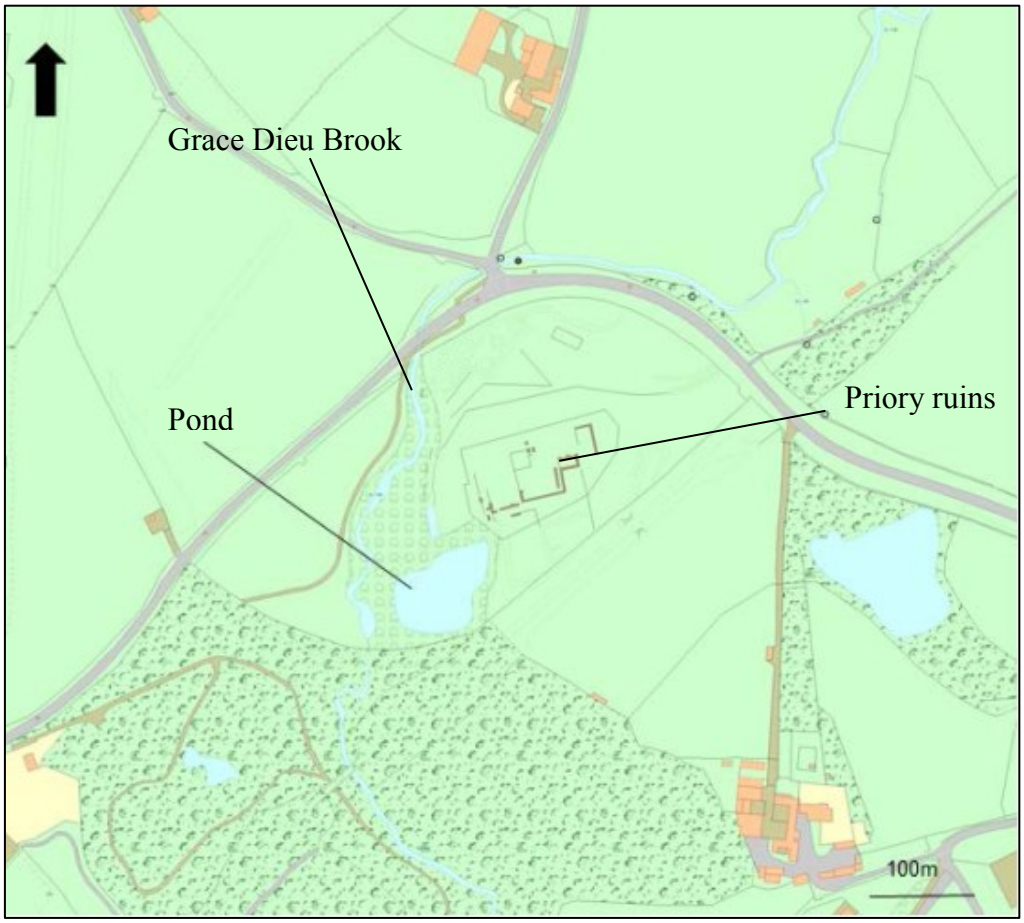

Figure 2. Location of pond and site features

3. Background.

The ruins of Grace Dieu Priory are statutorily protected as a Scheduled Monument (17074). The Priory was one of only two nunneries in Leicestershire and was founded between 1236 and 1242 by Roesia de Verdun. In 1377 there were 16 nuns and a hospital for 12 poor people. At the Dissolution the priory was converted into a Tudor mansion by John Beaumont, but by 1696 had fallen in to disuse. The surviving buildings are accompanied by an extensive range of earthworks which include two ponds, a fishpond and a section of boundary ditch and wall situated alongside the Grace Dieu Brook. The large pond, the focus of the works, is thought to have been in use since the priory's foundation and roughly forms a parallelogram, measuring approximately 100m x 60m. Evidence suggests that it may have originally formed part of a clean water supply for downstream fishponds. The pond is also thought to have been much larger before the construction of the Charnwood Forest Canal and Coalville to Loughborough railway. Most certainly the pond has been subject to several phases of use since the priory's dissolution, most recently as a possible head of water for a nearby mill (SWCM 2014). Today the pond suffers from low water levels and the area is reverting to soil and scrub.

4. Archaeological Objectives

The main objectives through the archaeological supervision of groundworks by the client's contractors were:

- To identify the presence/absence of any earlier building phases or archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To record any archaeological deposits to be affected by the ground works.
- To produce an archive and report of any results.

Work was considered in the light of the updated research agenda and strategy for the Historic Environment of the East Midlands (Knight *et al*. 2012) and had the potential to contribute to the following research questions:

- High Medieval: Religion. Can we discern significant differences in the planning, economy and landscape impact of the different monastic orders? (7.5.2)
- High Medieval: The agrarian landscape and food-producing economy. What may fish bones and other environmental data contribute to studies of the exploitation and distribution of freshwater and marine fish? (7.7.5)
- Post-Medieval: What was the impact of the Reformation upon ecclesiastical buildings and monastic estates? (8.6.1)

5. Methodology

There were three different aspects to the monitoring of groundworks (Figure 3). Firstly, was to monitor the 'sealing' of the northern bank of the pond, this being an attempt to minimise water losses. A trench was to be excavated, along the northern bank of the pond using a 5 tonne rubber-tracked excavator with a 0.6 metre toothed ditching bucket. The depth of this trench would vary according to the depth of the existing clay pond lining and the depth necessary to make the sealing process effective. The trench was to be lined with a geo-synthetic 'Claymat' curtain containing sodium bentonite clay. When hydrated this has the same lining effect as a metre of solid clay.

Secondly, was to monitor the stabilisation of the outer face of the embankment at a point where this had been breached in the past, thus aiming to protect the archaeology

and prevent further erosion. A GeoGrid 30/30 membrane was to be used to form a geotextile terrace. This would prevent slippage and bank compression. A quantity of red marl totalling 100mm over the 3m x 1m area was to be used to re-instate the bank. A retaining layer of Geocell coconut mesh was to cover this and the area then seeded with grass. The work was to be completed using a mini rubber tracked dumper and a 5 tonne rubber tracked excavator with 0.6m toothed ditching bucket.

Finally, the watching brief was to monitor the construction of a small blue brick spillway and spillway channel 20m long x 1m wide. This work was to mitigate against possible damage caused by any future high water levels. Work was completed using a 5 tonne rubber tracked excavator with a 0.6m toothed ditching bucket.

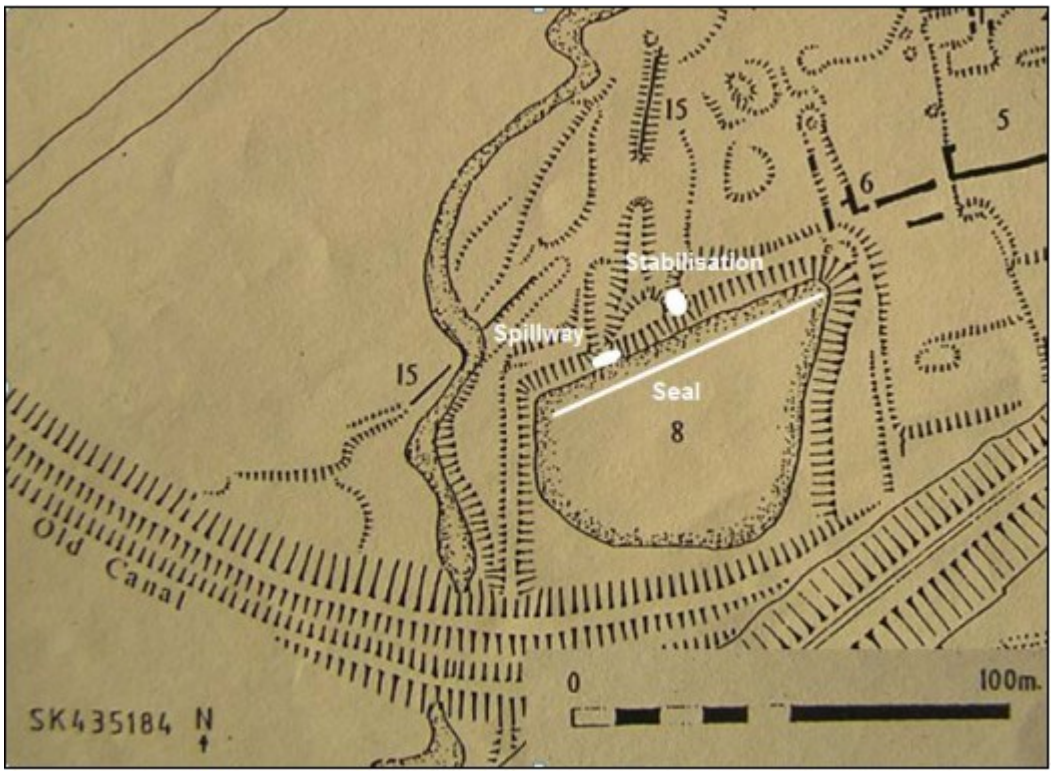

Figure 3. Locations for sealing the northern bank, construction of spillway & stabilisation of outside embankment

Any archaeological deposits seen to be present were to be excavated and recorded as appropriate. All work was to adhere to the Chartered Institute for Archaeologist's (CIfA) Code of Conduct and Standard and Guidance for Archaeological Watching Briefs and the Guidelines for Archaeological work in Leicestershire and Rutland (LMARS).

6. Results

Trenching for the seal began at the north-eastern end of the pond, obliquely, initially, approximately 5.00m from the base of the northern embankment. After 2.50m the trench straightened and maintained a rough distance of 3.0m from the embankment along to the end. A profile of deposits was recorded every 5.0m and reproduced in drawing 8.1. The total length of the trench was 82.00m and the average depth reached was 0.5m. The profile revealed, generally, a layer of pond silt (28) lying above a layer of red clay pond lining (29). In the first 20m the pond silt was rich in domestic refuse: pottery, ceramic building material and bone (Table 1). The remainder of the trench, however, produced far fewer finds. Perhaps, being the closest point to the priory buildings, this part of the pond was routinely used for the dumping of domestic refuse. Trench B1 in the trial trenching (Morris 2014) had produced a quantity of shell. The area of seal trench adjacent to this, whilst producing some fragmented shell material, did not produce quantities that would suggest cultivation of shellfish.

Figure 4. Outset of trenching looking west

At two points along the trench, masonry features were recorded. On the northern edge at 2.40m along the trench a small linear feature (30) was revealed in section, clay bonded (Figure 4). No obvious cut could be observed in section, but the matrix (31) was quite distinct from the pond silt and there was possibly some material absent

to the east. The masonry may have been an area of consolidation on the fringes of the pond or the partial remains of a drain running in to the pond itself.

Figure 5. Linear feature in northern trench section, looking north

At 52m the line of the trench was diverted to avoid an area of masonry encountered. A small expanse of rough-hewn granite and limestone blocks was uncovered, bonded by clayey silt bank material. There existed up to three courses in places, but distributed in a way which suggested a spread rather than a wall. The material may best be interpreted as the outermost core to the northern embankment. The spread appeared to occur further south here than elsewhere along the pond fringes. There may have been a collapse of the embankment at this point or alternatively, there may have been additional consolidation. The spread cannot, however, be related to any features identified in the evaluation. The revealed stonework was covered over when the trench was backfilled.

Figure 6. Masonry observed in section at mid- point of trenching looking west.

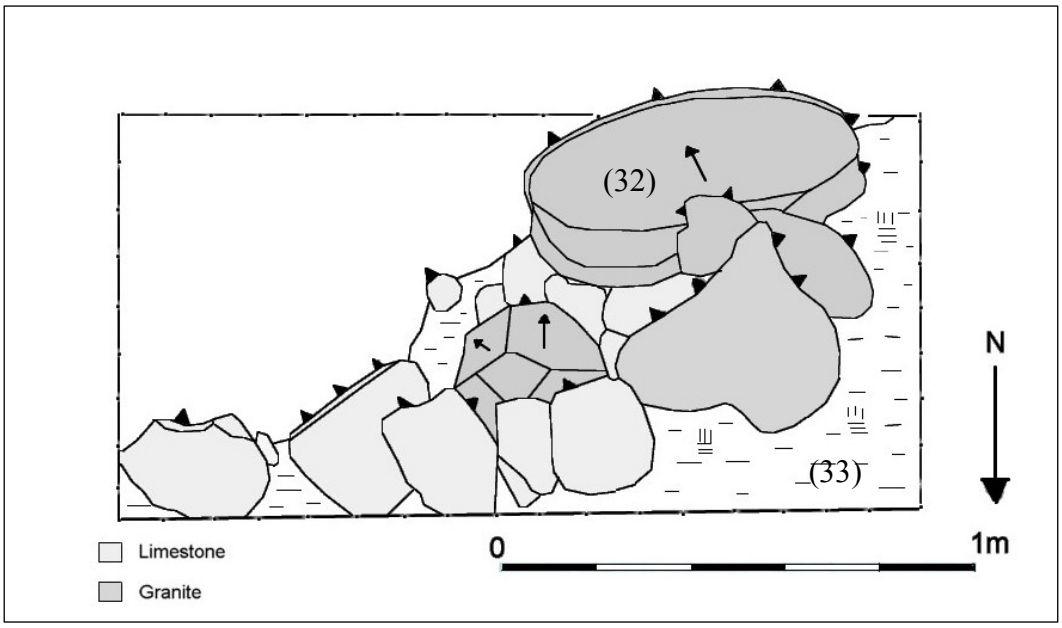

Figure 7. Plan of masonry (32) in northern bank of seal trench

At approximately 55m along the seal trench, the profile revealed a layer of dark silt in section to both north and south and measured to a depth of 1.10m. This aligned with the area identified in the trial trenching (Trench A1), as a late 19th-century brick plinth designed either as a fishing platform or as bank repair. The suggestion is perhaps of a long term passage of water through this area and so probably supports more convincingly the latter theory.

Stabilisation of the bank was straightforwardly completed by installing the GeoGrid membrane to secure the bank core (Figure 8). The membrane was pegged to the ground surface around the exposed masonry. Approximately two thirds of the volume of clay was laid, followed by a second membrane and then the remaining clay. A final layer of GeoCell coconut mesh was laid and seeded.

Figure 8. Installation of the GeoGrid membrane and so securing the bank core.

Preparation for the spillway involved removal by hand, at the outset, of 0.6m of topsoil and some rubble. The material uncovered at this stage, was photographed and recorded and comprised a rough line of granite and limestone. The position and nature of this line did not resemble the wall (5) identified in the trial trenching (Morris 2014), that existed further south and was clearly bonded, whereas the matrix here was of loose bank material. Beneath this line were roughly grouped, roughly hewn, granite and limestone pieces, lumps of pink mortar and an isolated handmade brick. Some of the granite pieces had mortar adhering, but these were clearly not *in-situ.* This arrangement suggests an attempt with some re-used materials to block the breach in the embankment at some point in the more recent past. Some of this material was removed to allow the depth of 0.6m needed for the spillway to be reached. A cement and brick spillway was created and an area approximately 4.0m by 5.0m lined with gel membrane. The embankment was then landscaped with some of the material which had been removed earlier, a layer of coconut mesh and some loose granite from the northern slope (Figure 9).

Figure 9. Creation of the spillway looking south west. Covering of gel membrane to the left and laying of coconut mesh around brick spillway to the right.

7. Conclusion

Monitoring of these groundworks has certainly added to our knowledge of the site and the work itself should go some way to restoring the pond water levels as desired. The bank is now more protected from potential erosion. The seal trenching did reveal two features in section, one a possible drain remnant, running in to the north east corner of the pond and the second a sample of bank core construction which contained substantial rough-hewn granite in a reddish brown clayey silt matrix. Neither feature, however, produced dateable material or can be linked to any features identified in the evaluation. Finds from the pond silt, largely from the north east corner, constituted an interesting late medieval and early post medieval assemblage and reflected both the medieval and post-dissolution phases of occupation on the site (Sawday, below).

There is some discussion over the work completed on the spillway and the need to revisit the plans in spring 2015 and amend the design. The work completed during this watching brief involved the removal and replacement of some rubble which was, in effect, earlier loose bank repair. If the changed works involve deeper excavation, it cannot be assumed that this will also be the case and so a further watching brief may be necessary to ensure any archaeology is safeguarded.

8. Archive

The archive for this watching brief will be stored along with the site archive for the trial trenching completed in July 2014. This archive consists of a site indices, context sheets, plan and section drawings, digital and monochrome photographs, pottery, bone, shell, building material and metalwork. The archive will be held by Leicestershire Museum Service under the accession number X.A106.2014. The Friends of Grace Dieu have requested the finds from both the trial trenching and the watching brief for their own archive.

9. Publication

Since 2004 ULAS has reported the results of all archaeological work to the *Online Access to the Index of archaeological investigations* (OASIS) database held by the Archaeological Data Service (ADS) at the University of York (see Table 2).

Table 2: Summary of OASIS information

Project OASIS no.	
Project Name	Grace Dieu Priory Pond
Project Type	Watching Brief
Project Manager	Richard Buckley
Project Supervisor	Mathew Morris
Previous/Future work	Trial Trenching
Current Land Use	Scheduled Ancient Monument
Development Type	Estate management
Reason for Investigation	Scheduled Monument Consent
Position in the Planning Process	N/A
Site Co-ordinates	SK 434 182
Start/end dates of field work	10.11.14 to 15.11.14
Archive Recipient	Leicestershire Museum Service
Study Area	40 sq m

A summary of the work will also be submitted for publication in the local archaeological journal, the *Transactions of the Leicestershire Archaeological and Historical Society*, in due course.

10. Acknowledgements

Thanks are extended to the all the Friends of Grace Dieu Priory for their assistance and interest throughout the project. Thanks also to the contractors, AGA group and to Jon Hillman of Soil, Water and Catchment Management for their expertise.

Fieldwork was undertaken by the author, Sue Henderson, finds were processed and examined by Deborah Sawday and the project was managed for ULAS by Richard Buckley.

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APPENDIX: THE POST ROMAN POTTERY & TILE FROM ARCHAEOLOGICAL WORK AT GRACE DIEU, NEAR THRINGSTONE, LEICS.

Deborah Sawday

The Finds

The pottery, seventeen sherds, weighing 350 grams, and the ceramic building material; two fragments of floor and ridge or roof tile, were catalogued with reference to the guidelines set out by the Medieval Pottery Research Group, (MPRG 1998, MPRG, 2001) and the ULAS fabric series (Davies and Sawday 1999, Sawday 2009).

The results are shown below, (Table 1).

The medieval pottery comprised two later medieval wares; a Midland Purple cistern and a fine table ware in Cistercian, both commonly found on monastic sites and associated with communal living (Woodland 1981). Similarly, the ridge and floor tile are not unexpected finds on the site of a medieval priory, which would have been a building of some status.

The two salt glazed stoneware bearded face jugs or bellarmines (Plates 1 and 2) are possibly continental imports from Frechen or Cologne; both fragments have a bead rim and double cordons from which springs the handle. These vessels were copied by English potters working at Fulham and elsewhere from the later 17th century. The face masks on both the Rhenish and English types are known to occur in a wide variety of types, and are not closely datable. The absence also, of a vessel profile and of the heraldic medallions or rosettes which generally occur below the mask (Hurst *et al* 1973), makes a more positive identification difficult. However, one mask (Plate 1)

Plate 1: Frechen/Cologne Bellarmine

is very similar to a Frechen example found during excavations at Basing House, Hampshire, (Moorhouse 1970, fig.23.268) dated to the first half of the 17th century, and a general date range of *c*.1625 to *c*.1675 is suggested for the two vessels.

Plate 2: Frechen/Cologne Bellarmine

The pottery and tile, which was all found in context 28, the back-fill of a medieval fish pond, make up an interesting late medieval and early post medieval assemblage. The finds reflect both the medieval and post-dissolution phases of occupation on the site.

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Table 1: The medieval and later pottery & tile by fabric, sherd numbers and weight (grams) by context.

Context	Fabric/Ware	No.	Gr.	Comments
POT				
28	MP2 – Midland Purple 2	1	174	Cistern base with plain spiggot/bung hole. Reduced body, brown/purple glaze run on exterior. Similar found in Leicester (Woodland 1981, fig.37.158) and the county, later medieval *c.*1400-1550.
28	MP2	1	12	Body – hard-fired, *c.*1400-1550.
28	CW/MB – Cistercian	1	30	Glazed body, cylindrical vessel, *c.*1450/75 – 1550+.
28	FR/CL	1	116	Rim and handle stub of a mottled brown salt glazed bellarmine, with only part of the face-mask surviving. Fine pale grey fabric with quartz inclusions. Rim diameter 35mm. A similar mask in Frechen was recorded at Basing House, Hampshire, (Moorhouse 1970, fig.23.268) where it was date to the 17th C. Plate 1
28	FR/CL –Frechen/ Cologne Salt Glazed Stoneware	1	186	Rim and handle stub of a mottled brown salt glaze, bellarmine; the bearded

				face-mask has an hour glass mouth. Fine pale grey fabric with quartz inclusions. Rim diameter 38mm, 17th C. Plate 2.
28	FR/CL	1	9	Mottled brown salt glazed body sherd.
28	EA2 – Earthenware 2	11	823	Minimum of two wide mouthed bowls and a jar. Oxidised a light buff with a lead glaze which has fired brown over an iron rich slip, 17th C.
TILE				
28	MS – Medieval Sandy ware	1	256	Monochrome floor tile, black glazed, 14th – 15th C.
28	CC1 – Chilvers Coton A ware	1	137	Ridge tile, very abraded, no glaze survived on upper surface, c.1250-14th C.

Site/ Parish: Grace Dieu, near Thringstone, Leics Accession No.: XA106.2014 Document Ref: gracedieu1a.docx Material: pot/tile Site Type: Priory	Submitter: S. Henderson Identifier: D. Sawday. Date of Identification: 09.01.2015 Method of Recovery: wb Job Number: 15-030

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