Horncastle Water Mill

Watching brief on construction footing trench

NGR 525979 370026

Network Archaeology Ltd

for

Daubney Commercial Properties Ltd

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CONTENTS

List of Figures

List of Plates

Appendix

NON-TECHNICAL SUMMARY

Monitoring of the excavation of a trench for building footings at the Horncastle Watermill, Watermill Lane, Horncastle, Lincolnshire, was undertaken from the 5th to 6th February 2009.

The property is situated on the River Bain 300m north of the historic market place. Archaeological remains have been found in the Horncastle area that date as early as the Mesolithic period. The River Bain was used extensively from the Roman phase of the town through to the canalisation of the river, which was completed in 1802. This suggested that the presence of well-preserved archaeological remains was a possibility.

Monitoring of the work, however, revealed only nineteenth and twentieth century layers, deliberately deposited to raise ground level. No archaeological features were encountered, and low levels of modern artefacts were recovered from the base of the trench.

1 INTRODUCTION

This report presents the results of archaeological monitoring, carried out in fulfilment of a scheme of archaeological works, undertaken during the excavation of a trench for structural wall footings. The work was undertaken by Network Archaeology on behalf of Daubney Commercial Properties Ltd.

1.1 The Development

The development took place within the fenced perimeter of the water mill and the associated property (see 1.8 for location). The trench was located in the north-east corner of the property, 4.8m from the eastern boundary and 3.6m from its northern boundary (Figure 1).

A trench measuring 0.50m wide, up to 0.90m deep and 2m in length was excavated by a Kubota mini-digger fitted with a 0.5m wide toothless ditching bucket. Up to 300mm of concrete had to be removed with a pneumatic drill from the location of the trench before excavation.

The archaeological works took place on the 5th and 6th of February 2009, and were carried out by an experienced archaeological Project Officer.

1.2 Legislation, Regulations and Guidance

Planning Permission under application number S/086/02530/07 is pending for this development. A previous application (S/086/1990/05) contained condition 10: 'Before development commences an archaeologist must be commissioned to be on site to undertake a watching brief when all footings and other trenches are excavated. They must record any archaeological evidence revealed or artefacts recovered. A copy of the records must be submitted to the Local Planning Authority before the dwellings are brought into use'. This condition was imposed to ensure that satisfactory arrangements are made for the investigation, retrieval and recording of any possible archaeological remains on the site in accordance with the provisions of Policy C6 of the East Lindsey Local Plan Alteration 1999.

A scheme of archaeological works was produced by Network Archaeology Limited detailing the procedures for fulfilment of this condition. This was supplied to Lincolnshire County Council Historic Environment Team for approval prior to the commencement of work.

1.3 Aims

The objectives of the watching brief, as laid out in the scheme of archaeological works, were to:

- establish the presence or absence, extent, condition, character, quality and date of any archaeological remains;
- locate, recover, identify, and conserve where appropriate any archaeological artefacts;
- locate, sample, interpret and record archaeological deposits;
- determine the palaeo-environmental and palaeo-economic potential of any archaeological remains;
- assess the overall archaeological significance of any archaeological remains;

- produce and submit a suitable archive to Lincolnshire Museum;
- produce a report that addresses the above;
- provide information for accession to the County Historic Environment Record (HER);
- publish significant results in an appropriate journal, if appropriate.

1.4 Limitations

Visibility of archaeological remains is always a significant factor during archaeological monitoring. Visibility is dependent on many factors including machine type, depth of trench, weather and geology.

In this instance, the trench was relatively small in relation to the size of the development which limited the potential for locating any archaeological remains. The trench did not reach a sufficient depth to expose remains earlier than the nineteenth century.

1.5 Field Records

Project Code

The project code for the Horncastle Water Mill watching brief is WMH 09.

Written Records

Network Archaeology Ltd uses a system of pro forma record sheets for on-site recording. This system is in a format acceptable to the IfA. All archaeological deposits during the watching brief were recorded.

A total of ten context numbers were issued during the work.

Drawn Records

Drawn records took the form of one 1:10 scale section drawing of the soil and masonry profiles revealed in the sides of the trench (Figures 3-5).

Photographic Records

A photographic record was maintained in colour print, monochrome and digital formats

Survey

The senior ground worker employed by F Steadman and Sons, the company contracted to carry out the groundworks, located the trench. The surveying was achieved by means of steel tapes and a ground plan used to measure from the boundary of the property.

1.6 Artefacts and Sample Processing

In total, seven fragments including glass, pottery and clay pipe were removed from one context. The ceramic assemblage was analysed by post Roman pottery specialist, Jane Young. The modern glass was recorded in-house.

Context	No.of bags	No.of frags	Weight (g)	Material
010	1	2	41	Glass
010	1	1	7	Clay pipe
010	1	1	2	Pottery
010	1	3	20	Pottery

1.7 Archive and Archive Deposition

The project archive has been prepared in accordance with the guidelines outlined in Management of Research Projects in the Historic Environment (English Heritage 2006, 31) and to established professional standards (IFA 2008). It is currently housed at the Lincoln office of Network Archaeology Ltd. Lincolnshire Historic Environment Record will receive the document archive.

1.8 Location and Topography

Horncastle water mill is located 300m north of Horncastle market place on the River Bain, situated on the corner of Watermill Road (Figure 2), Lincolnshire (NGR 525979 370026). The mill lies at 30.7m AOD and as its situation is close to the river it is on relatively flat land. Much of the ground in the immediate area appears to have been deliberately raised to prevent flooding and is consequently level.

1.9 Geology, Soils and Landuse

The solid geology is Kimmeridge Clays overlain by drift geology characterised by chalk-rich glacial boulder clay and Lower River Terrace deposits (British Geological Survey 1980). No topsoil was encountered as the location of the trench was within a concreted area. The land to the immediate north has recently been developed into a housing estate and the land to the north of that is an active brickworks. Land to the south and east of the site has been developed for housing.

1.10 Archaeological Background

There is evidence for human settlement in the Horncastle area from as early as the Mesolithic period. The town has gone through three major phases of development, including construction of a Roman town, a Danish and medieval market town and the eighteenth and nineteenth century industrialisation of the region (Robinson 1983). The watermill and its associated land are contemporary with this later phase of development (Clarke 1990).

Prehistoric remains have been identified in the Horncastle area including flint tools that range from Mesolithic to Neolithic in date. The well-drained river terraces would have been an ideal environment for these communities to exploit. Bronze Age barrows have been identified on the gravels around Firsby which suggests intermittent prehistoric settlement.

Falling sea levels in the first century BC resulted in settlement expansion across the region. The Roman town developed in the first century AD on these well-drained gravels at the convergence of the Bain and the Waring. A fort was constructed in approximately AD 280 on

the junction of the two rivers. It has been assumed that the Roman crossing across the River Bain would have been in the modern market place as it is the narrowest part of the river. As the market place is only 300 metres south of the water mill, the presence of Romano-British remains in the vicinity was possible. Whether the Bain was navigable by larger vessels is contestable as the rivers levels have always been erratic. If this was the case then river side exploitation around the site of the water mill in the Roman period is likely. The modern development of various buildings around Horncastle including the former workhouse and Boston Street did unearth considerable amounts of Roman pottery and human remains (Robinson 1983).

The Roman fort was later appropriated in the Anglo-Saxon period (Cameron 1998). As a consequence of this settlement a series of small nucleated Anglo-Saxon settlements developed around Horncastle, with the town subsequently becoming a Danish administration centre (Robinson 1983)

The industrialisation of Horncastle can be directly linked to the construction of the canal in 1792. The impact of the canal on Horncastle can not be understated, and this is highlighted by the population boom after the opening of the canal in 1802. Between 1792 and 1811 the population of Horncastle increased from 1,834 to 2,622 (Clarke 1990). Three grindstone mills were constructed on the River Bain around this period. The watermills were located at Fulsby, Kirkby on Bain and the mill on Watermill Road. The grindstone mills were later replaced by metal roller presses in the late nineteenth century and used into the twentieth century.

2 RESULTS

Few archaeological remains were identified during the excavation of the trench. The deposits exposed appear to have been deliberately deposited in the last 200 years to create a surface conducive to building close to the River Bain (Figure 3). The depositional sequence exposed during the digging of the foundation trench is summarised below.

Depth below ground surface	Context No.	Description	Interpretation
0-0.16m	001	Grey, solid concrete	Modern occupation layer
0.16-0.25m	002	Loose, poorly sorted flint gravel	Material used to level ground before concrete
0.25-0.37m	003	Loose, white limestone	Thin layer applied before flint gravel
0.37-0.41m	004	Loose, yellow sand	Bedding material
0.41-0.5m	005	Compact sandy silt	Modern made ground.
0.5-0.59m	006	Loose brown sand	Modern made ground
0.59-0.78m	007	Brick/tile/sand	Demolished building material
0.78-1.07m	008	Compact dark brown silt	Modern made ground
1.07-1.12m	009	Carbonised timber planking	Demolished building material
1.12-1.25m	010	Mid-grey firm clay	Modern made ground

The concrete layer (001) on the surface and the five layers beneath all probably relate to the same phase of construction to level the ground. The profiles of contexts (004), (005) and (006) have the appearance of having been rolled flat or may have been mechanically flattened. As all of these contexts gradually create a flat surface, it suggests that they were contemporary. The consistencies of these deposits were what would be expected of materials which would be associated with the levelling and raising of the ground.

The layer consisting of brick, tile and sand (007) was roughly deposited. Some of the bricks within the layer were bonded together with mortar and all of the bricks that were observed were abraded and may have come from the demolition of a surrounding building, rather than the brickyard to the north.

The silt layer (008) below (007) contains occasional chalk flecks. This layer is likely to be another deliberate deposit used to raise the ground level. Judging by the silty composition of the material it is likely that it originated from the river. The carbonised timber below context (008) appears to have been planked and does not appear to have been serving any structural function. The clay layer (010) beneath the timber contains brick and chalk as inclusions. This material may be re-deposited natural boulder clay used to create a higher land surface upon which to construct buildings. Pottery, clay pipe and glass were recovered from deposit (010). All of the pottery recovered from this context is early to mid-nineteenth century.

3 CONCLUSIONS

The aims of the watching brief have been successfully achieved, in that the work was able to assess the extent of archaeological remains within the excavation area and establish that they were of very low significance.

Although the potential for discovering significant archaeology in the area is quite high, no significant remains were found. This may be because the development of the water mill disturbed earlier remains, though the more likely hypothesis is that the ground was deliberately raised by levelling layers deposited as a surface on which to build.

As the proposed building works will not involve the excavation of footing trenches any lower than the 0.9m observed within the trench, it is unlikely that any earlier archaeological deposits would be disturbed. The brick and tile within context (007) and the burnt timber (009), however, may have come from an earlier phase of the mill now demolished. Any further development of the property may reveal the footings of a now demolished earlier phase.

4 ACKNOWLEDGEMENTS

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Paul Daubney

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Chris Taylor	Senior Project Manager and Editor
Michael Wood	Project Manager and Editor
Paul Flintoft	Project Officer
Jacqueline Harding and Julian Sleap	Illustrations

Freelance pottery expert

Jane Young

5 STATEMENT OF INDEMNITY

Every effort has been taken in the preparation and submission of this report in order to provide as complete an assessment as possible within the terms of the brief and all statements and opinions are offered in good faith. Network Archaeology Ltd cannot accept responsibility for errors of fact or opinion resulting from data supplied by any third party, or for any loss or other consequences arising from decisions or actions made upon the basis of facts or opinions expressed in this report and any supplementary papers, howsoever such facts and opinions may have been derived, or as a result of unforeseen and undiscovered sites or artefacts.

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APPENDIX

Post-Roman pottery assessment

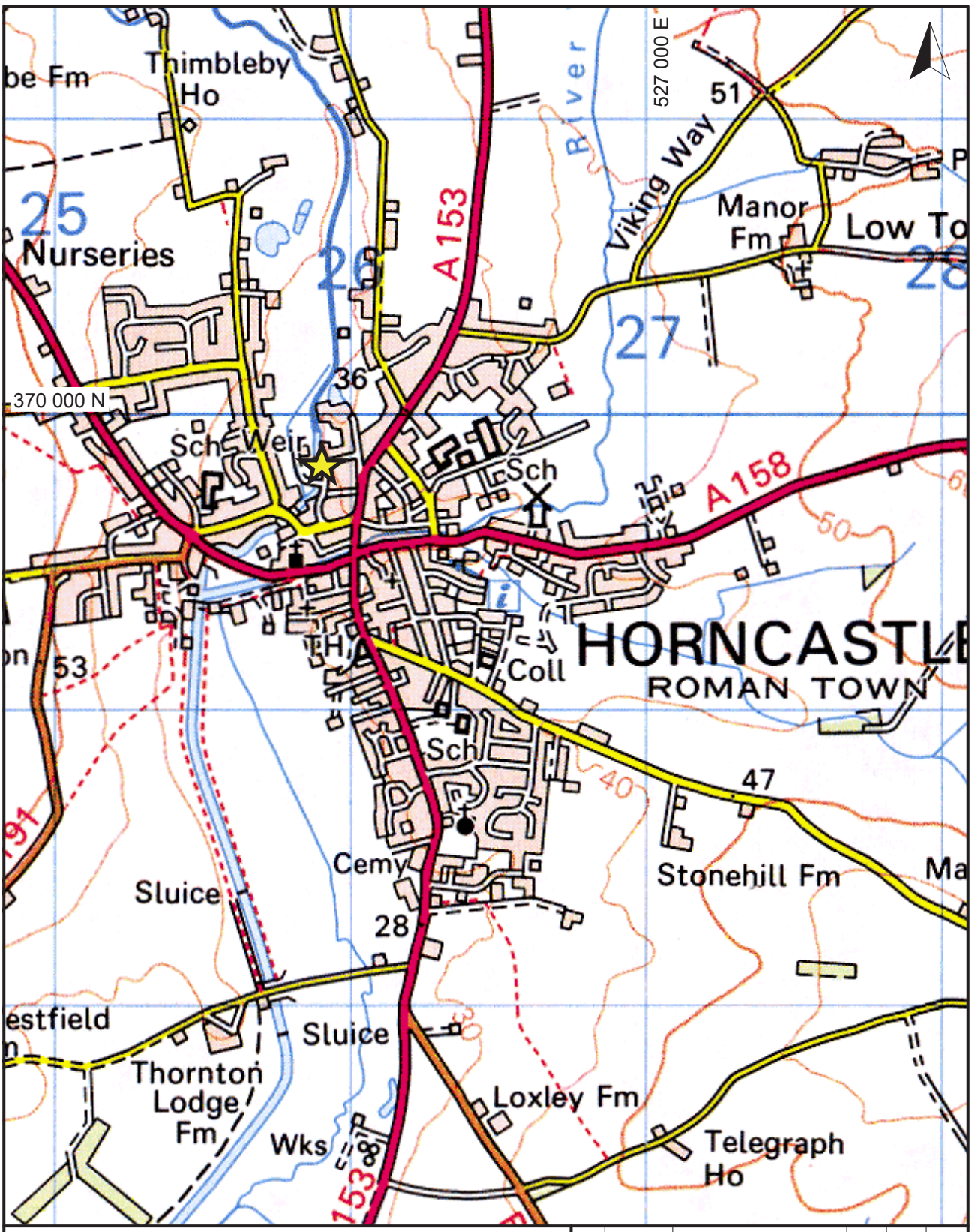
Type	Colour	Description	Date
Pottery	White	Base of small jar with blue banding	19th-Early 20th Century
Pottery	TPW (Transfer printed)	Base of small plate with Chinese design	19th-Early 20th Century
Pottery	Pearl ware	Base of small jar with blue, sponged decoration.	Late 18th-Mid 19th Century
Pottery	Cream	Plate fragment	Late 18th-Early 20th Century.
Clay pipe		Pipe stem	Late 18th Early 20th Century

A small group of early modern pottery, probably all of early to mid-nineteenth century date. All of the pottery is in a stable condition and is no further work is recommended.

Two fragments of glass were also recovered from a nineteenth century bottle

All of the artefacts recovered are suitable for discard.

FIGURES

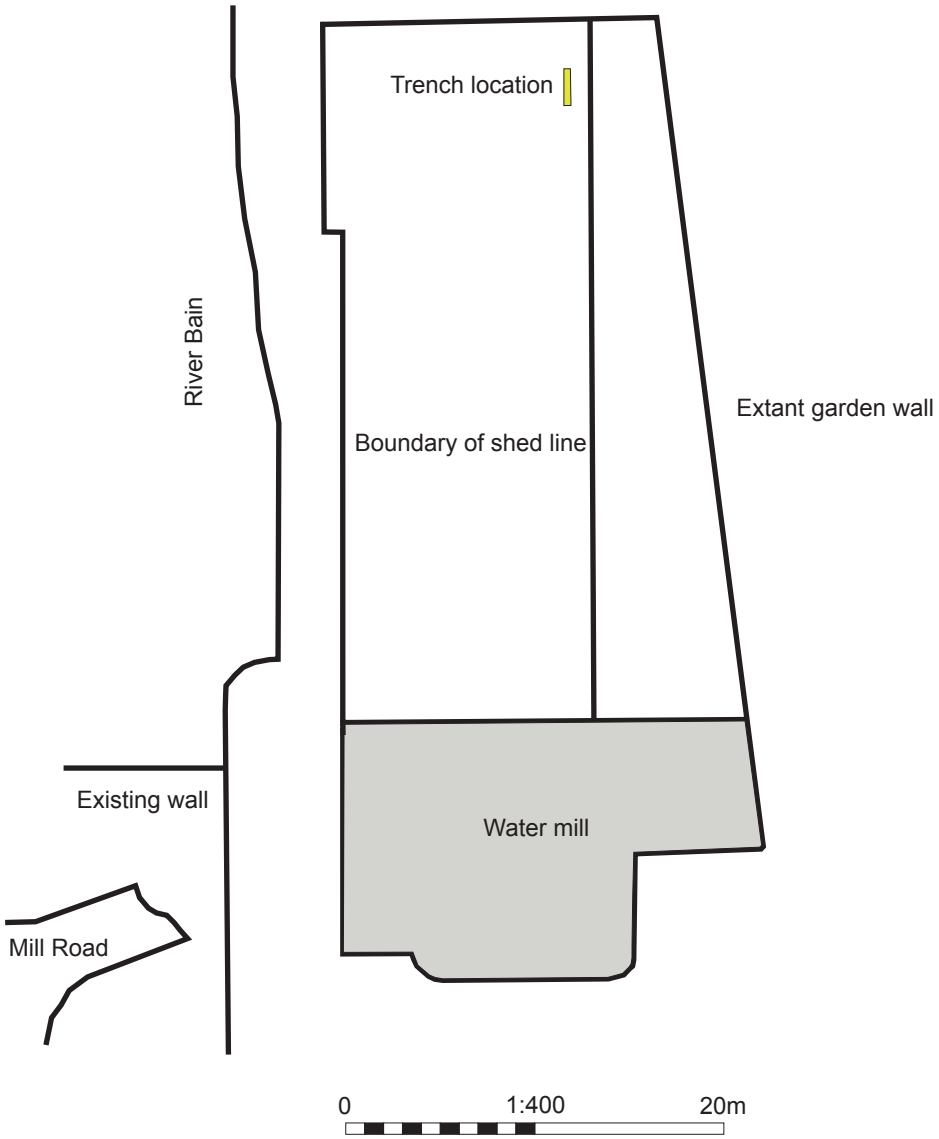


Key

Watching brief site

Ver	Date	Description	DM	Chk	App
1.0	16/2/09	Location of site	JS	PF	CT

WMH 09
Figure 1: Location of site
Scale 1:20,000



Key

Trench location

Ver	Date	Description			
1.0	16/2/09	Trench location	JS	PF	CT

WMH 09

Figure 2: Location of trench within area of development.
Scale 1:400

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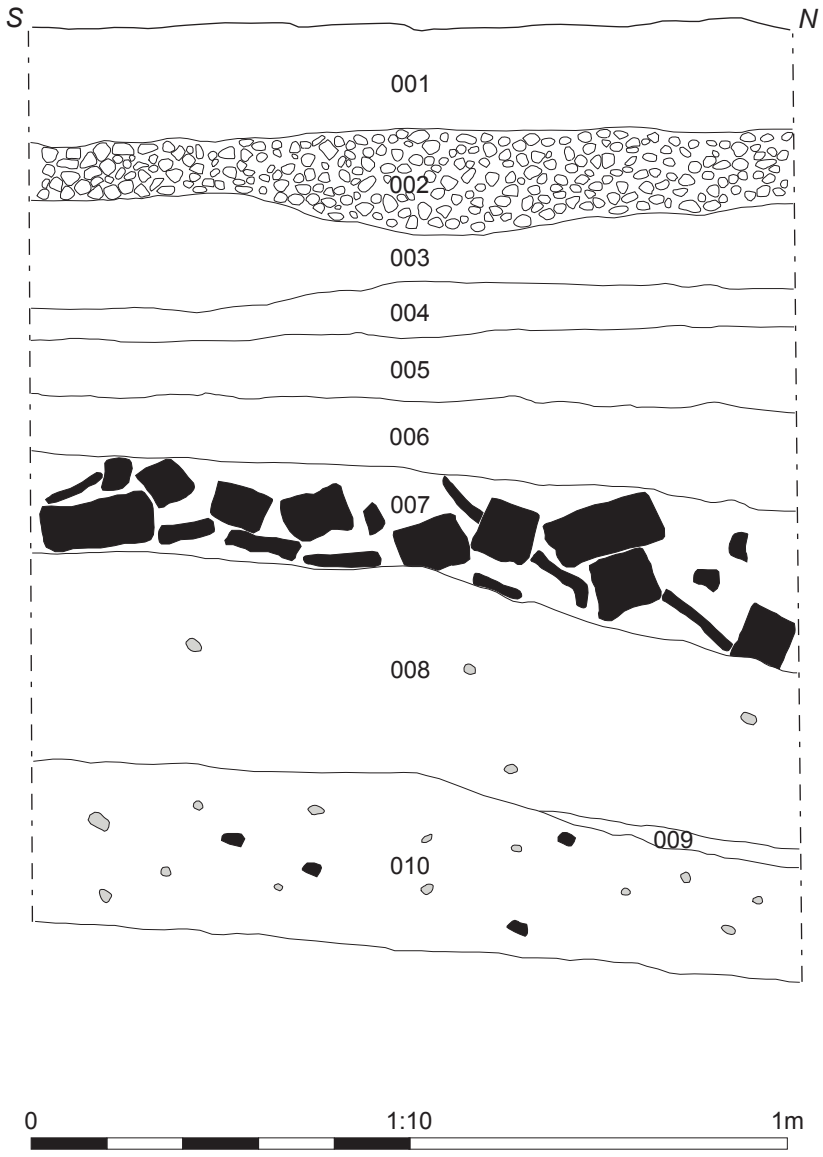

Key

Stones

Chalk

CBM (brick & tile)

1.0	16/2/09	E facing section	JS	PF	CT
Ver	Date	Description	DM	Chk	App

WMH 09
Figure 3: E facing section.
Scale 1:10

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PLATES

Plate 1 East-facing trench profile.

Plate 2 Location of trench at rear of the watermill

Plate 3 Watermill entrance on Watermill Road