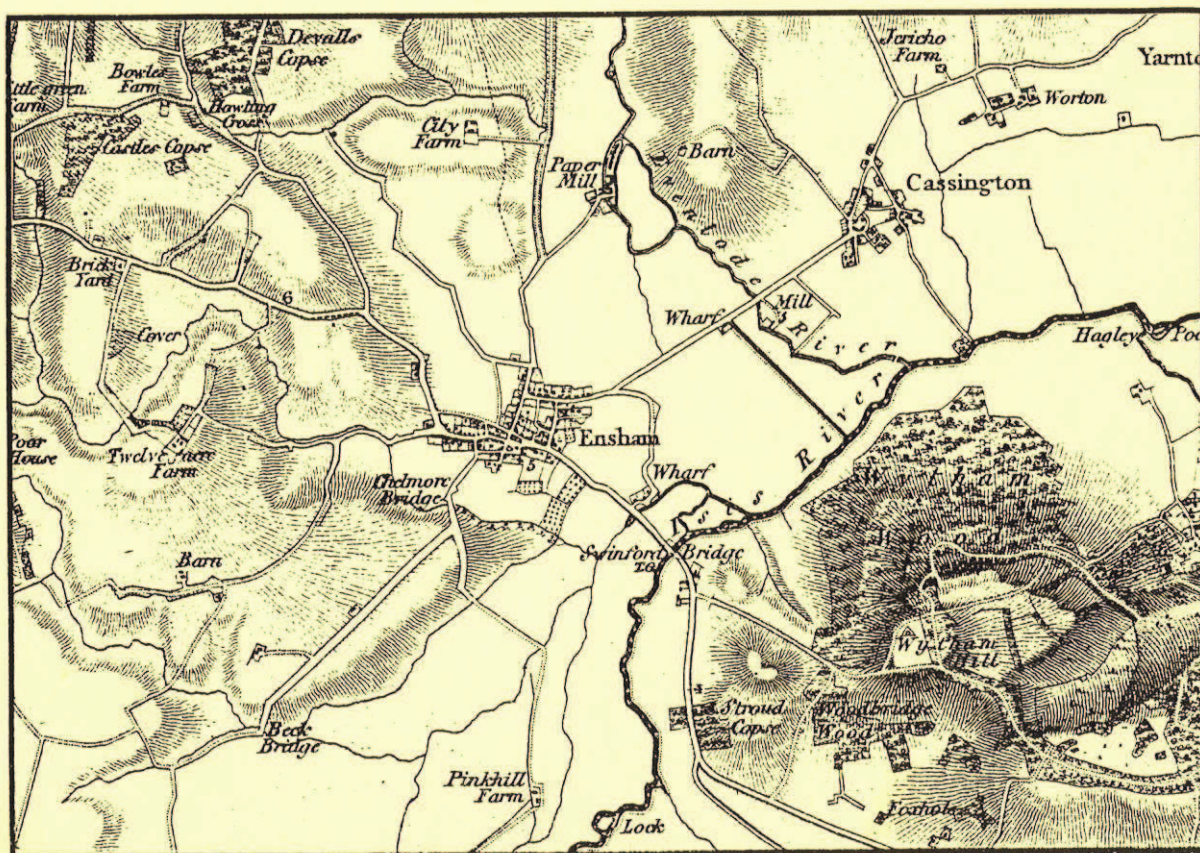


THAMES WATER RISING MAIN SEWER, EYNHAM, OXFORDSHIRE

Archaeological Evaluation Report



OXFORD ARCHAEOLOGICAL UNIT
December 1991



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1 INTRODUCTION

Thames Water Utilities Ltd intends to construct a new rising main sewer around the east and south sides of Eynsham, Oxfordshire. Approximately two-thirds of the pipeline route lies within the precinct of Eynsham Abbey. The Oxford Archaeological Unit was commissioned by Thames Water to undertake an archaeological evaluation of the pipeline route within the Abbey precinct in order to determine the potential need for further work. A project specification was submitted to Thames Water in November 1991 after consultations with English Heritage and Oxfordshire County Council's County Archaeological Service. This document describes the results of the evaluation and sets out recommendations for the next stage of work. A revised schedule of costs is provided. Three appendices contain full descriptions of the fieldwork results.

The evaluation strategy had three main components: a brief search through the Eynsham Cartulary (Salter 1906-7 and 1908), the principal documentary resource for the Abbey, and the Victoria County History (Crossley 1990); a geophysical survey of the western half of the pipeline route (Fig. 1); and trial trenching to determine whether or not archaeological remains might be present (Figs 1-3). The aim of the project as a whole is to minimise the impact of the pipeline upon the archaeology of the Outer Ward, especially at the western end of the route where it crosses a field containing fishponds and other medieval earthworks. The geophysical survey took place at the end of November. The documentary research was undertaken at the beginning of December, and the trial trenches were excavated in the second week of that month.

The specification recommended that topsoil and other non-archaeological deposits (eg alluvium) should be removed by machine in Trenches 1-4, but by hand in Trenches 5-11. Extreme frost throughout the week in which the trial trenching was undertaken caused the ground to be permanently frozen to a depth of 0.15 m or more. Accordingly a mechanical excavator had to be used to remove non-archaeological deposits in all trenches.

Only Trenches 6 and 7 and 9 contained significant archaeological deposits. These were sampled by hand, although again the frozen ground conditions made the work difficult. The deposits in Trench 9 could not be recorded in detail because of extreme instability of the trench edges and water inflow precluded detailed recording. Trenches 3 and 11 contained deposits of some interest, and the field at the east end of the evaluation area was found to contain ridge-and-furrow earthworks.

2 RESULTS

Documentary research

In the eleventh and twelfth centuries AD the Abbey precinct was bounded on the west by Abbey Street. This is now a cul-de-sac, but originally it continued southwards to link up with the Stanton Harcourt road. The south side of the precinct seems to have been marked by a wide ditch corresponding to the south edge of St Peter's and St Leonard's churchyards and the Nursey Field. During the incumbency of Abbot Adam (AD 1213-1228), however, the precinct was greatly enlarged to the west and south. This involved the purchase of several landholdings from private individuals, and also necessitated rearrangements to the road system whereby Abbey Street was blocked off, and what is now Station Road was opened up (see Fig. 1). Fishponds were built in the newly-extended precinct to the east of Station Road and south of Abbey Farm. The creation of the ponds entailed the diversion of the Chilbrook into its current channel, south of its original course.

The extension of the precinct involved the acquisition of at least three major landholdings and two licences for blocking existing roads. One of the landholdings is of particular significance for the current project: sometime between AD 1213-1217 a house, courtyard and croft which stood beyond the brook (ie on the south side of the original course of the Chilbrook) towards Stanton Harcourt (ie adjacent to the old Stanton Harcourt road) was bought from Harvey, the son of Peter (Eynsham Cartulary i, document 216). This site corresponds closely with an earthwork, apparently a moat,

crossed by the pipeline route (see below). To the west of this earthwork the route crosses a slight depression which may represent the original course of the Chilbrook. In AD 1217 Abbot Adam acquired a licence to divert the Abbey Street/Stanton Harcourt road into the new Station Road, thus cutting off the moated site within the extended precinct. Harvey's property does not appear to be recorded separately in Domesday Book, and neither is it referred to again after AD 1217.

Geophysical Survey (see Appendix 1)

The transect from the Eynsham playing fields through to Station Road did not record any major archaeological anomalies. A few minor anomalies in the playing field transect may represent archaeological features, but these could not be confirmed by trial trenching. Substantial anomalies of apparently modern date caused by the presence of iron objects in the topsoil were noted throughout the survey area. This probably reflects the combined effects of rubbish tipping in the fishpond field and ground disturbance during levelling of the playing fields. The magnetic susceptibility of the topsoil suggested that there had been little or no archaeological enhancement of its magnetism; it should be noted, however, that in most of the trial trenches (and especially in the playing fields) the modern topsoil represented a dumped levelling layer which sealed the original topsoil. It must also be recognised that the survey results did not distinguish between modern iron-induced anomalies and those caused by iron objects in archaeological deposits; the uppermost archaeological layers in Trench 7 contained numerous iron objects and fragments of iron slag, but these were not distinguishable as archaeological anomalies. It may be significant, however, that the higher magnetic susceptibility readings noted in Transect 3 coincide with the position of the moated site. Furthermore the original topsoil did not appear to have been disturbed here.

Trial Trenching (see Appendix 2)

Only archaeologically significant discoveries are described here. Trenches 2, 4, 5, 8 and 10, therefore, are not mentioned. Appendix 2 summarises the results from all trenches. All trenches were 1 m wide.

Trench 1

Although Trench 1 contained no archaeological deposits, upstanding ridge-and-furrow field earthworks were noted in the south half of the field at least. The earthworks were not as clear closer to the Oxford Road. The strips were oriented roughly north-east to south-west, in line with the current field boundaries; these are bisected by the B4044 Eynsham Bypass. This field originally lay within the Abbey Precinct; the survival of ridge-and-furrow fields is therefore of considerable interest in relation to medieval land use.

Trench 3

Trench 3 contained a palaeochannel (old stream bed) aligned roughly north-south, and sealed by alluvium. The channel was filled with interstratified layers of organic material and fine silt, but as it was submerged by water immediately after machining these could not be sampled. The channel cut the north edge of a linear feature, probably a ditch or gully, which ran along the south side of the trench. No finds were recovered from either feature. The position of the channel roughly corresponds with a drain linking Nursery Field to the Chilbrook shown on some recent maps. This channel has been filled in, presumably as part of the levelling for the playing fields. It seems unlikely that the palaeochannel and the drain are the same feature, as the latter should clearly cut the alluvium whereas the former was sealed by it.

Trenches 6, 7 and 9

Trenches 6, 7 and 9 sampled the moated site in the fishpond field. Trench 6 was sited in the east arm of the moat, Trench 7 on the platform, and Trench 9 in the western arm (Fig. 2). As has already been said, Trench 9 could not be fully recorded, but Trenches 6 and 7 were sampled by hand and their sections drawn (Fig. 3).

Trench 6 was 8.6 m long, its west end lying just below the break of slope from the moat platform into its eastern arm. The topsoil (6/1) overlay a thick layer of silty clay containing a small amount of Roman and late Saxon pottery. This layer may represent erosion of the moat platform, or levelling. Layer 6/4 appeared to represent dumping associated with the construction of the platform. It sealed a surface (6/5) probably belonging to an earlier phase of mound construction. These layers were only sampled at the west end of the trench, however, and further work will be needed to determine their true character. The relationship of these deposits to layer 6/3 could not be determined; 6/3 consisted of compacted gravel and limestone and appeared to represent the lining of the moat. A deposit of black organic soil was noted overlying 6/3 at the east end of the trench (ie roughly in the centre of the moat ditch).

Trench 7, 6.5 m long, lay on the west side of the moat platform. Below the topsoil (7/1) were a series of sand and sand/gravel surfaces (eg 7/2, 7/3, 7/5) separated by layers of dumped silty clay (7/4 and 7/6-8). At the bottom of the trench was a deposit (7/9) very similar in character to layer 6/5. Layers 7/6-8 represented the upper, middle and lower spits of an apparently homogenous deposit. Experience from other sites, however, suggests that such layers can be built up gradually without necessarily displaying any variations in colour or texture. Indeed these layers were identical in character to layer 7/4, and they could only be separated by the presence of the sand layer 7/5 between them. It is therefore significant that the dating of the pottery from layers 7/6-8 reflects their sequence: layer 7/8 contains mid-late eleventh century material; layer 7/7, late eleventh-early twelfth; and layer 7/6, twelfth-thirteenth century (with some tenth-eleventh century sherds as well). It is also notable that Roman pottery is present in all layers from this trench except the topsoil, and that the Roman sherds tend to be larger and less worn than much of the medieval pottery. This might indicate the presence of a Roman site near to or underneath the moated site.

Trench 9, 7.9 m long, lay on the west side of the moat's western arm. The topsoil (9/1) overlay a silty clay layer (9/2) which covered the bottom of the moat ditch; this layer was similar in character to alluvium and may represent gradual siltation of the moat. At the west end of the trench the layer covered the cut-away edge of a natural clayey sand layer (9/3); this deposit was very unstable. At the centre and east end of the trench, 9/2 sealed a blue-gray layer of gravel and clayey sand (9/4) different in character to 9/3. No relationship between 9/3 and 9/4 could be determined, and it was not clear whether 9/4 was a lining of the moat or a natural deposit.

Trench 11

Trench 11 lay close to the west end of the pipeline route, on the east side of a slight hollow which may be the pre-fishpond course of the Chilbrook. The topsoil (11/1) sealed a thick layer of alluvium (11/2). Beneath this, and overlying the natural gravel (11/4), was a thin layer of blue, waterlogged clay.

3 THE SIGNIFICANCE OF THE MOATED SITE

The evaluation confirmed that the earthwork on the central southern edge of the fishpond field was a medieval moated site. The pottery recovered from the moat platform suggested a date range for its construction and use from the mid-late eleventh to the thirteenth centuries AD. No evidence of structures was forthcoming, but it is notable that the platform is more raised to the south of the pipeline route, and this may be where buildings were sited; the geophysical survey, however, did not provide any evidence for this. The moat appears to have been lined with compacted gravel and limestone (eastern arm) and possibly gravel and clayey sand (western arm). An entrance causeway was provided on the east side of the moat. The capacity of the moat to hold water was graphically

demonstrated during the evaluation (see section of Trench 6, Fig. 3).

The dating evidence and the position of the moat supports the identification of the site as the property of Harvey, son of Peter, sold to Eynsham Abbey in the first quarter of the thirteenth century. The absence of later material suggests that the moat did not continue in use thereafter. There was some evidence from Trenches 6 and 9 to suggest that the arms of the moat were allowed to silt up once the site had been deserted.

It would appear that Harvey's property stood on the west side of the original road to Stanton Harcourt (ie the road blocked by Abbot Adam in AD 1217). This is supported by the existence of an entrance causeway across the eastern arm of the moat. In this context the extension of the higher magnetic susceptibility readings beyond the east side of the moat may be significant.

The presence of ninth-tenth century pottery in layers 6/2 and 7/6 hints at an earlier phase of activity on the site. This would be of considerable importance if confirmed by subsequent work. Furthermore the presence of Roman pottery, including large unworn sherds, hints at the presence of yet earlier activity in the near vicinity. The current excavations at Eynsham Abbey, by contrast, have not found any Roman occupation, and potsherds of this date tend to be small and worn.

Regardless of any earlier activity, the moat is important because of its apparently early origin. John Steane (1985, 61) suggests that the main period of moat building occurred from AD 1150-1325 (Phases II and III), with the earliest examples belonging to the mid-twelfth century. This, however, is too restricted a date range, as excavations at Goltho, Lincolnshire, clearly show. Here a substantial moated site was built c. AD 1080, on a site which had seen continuous use as a defended enclosure since the middle of the ninth century (Beresford 1987, Chapters 3-6). The Goltho moat, approximately 76 m x 72 m, surrounded a motte-and-bailey castle rather than a domestic enclosure. The Eynsham moat is approximately 50 m square.

4 RECOMMENDATIONS FOR FURTHER WORK

The evaluation represents Stage 1 of a two-tier archaeological response to the pipeline, as defined in the Project Specification. Stage 1 has established that one major site is threatened by the pipeline, but that elsewhere within the Abbey Precinct there are no major archaeological implications. This allows for some redistribution of manpower and costs within Stage 2 as defined in the Project Specification. Furthermore an underspend of approximately £1000 occurred on the evaluation and this also can be redistributed to Stage 2. The requirement for detailed work on the moated site, however, inevitably has additional cost implications. These are set out in Part 5 below. The recommendations for further work presented here are set out in the same order as in the Project Specification.

Land north of Oxford Road

Watching brief of topsoil strip and pipeline excavation. Salvage excavation of archaeological features as necessary.

Abbey precinct: meadow field south of Oxford road

Watching brief of topsoil strip and pipeline excavation. Levels to be taken along the pipeline transect across the medieval ridge-and-furrow to provide a record of the state of preservation of the earthworks. Salvage excavation of archaeological features as necessary.

Playing field up to fishpond leat

The evaluation produced minimal evidence for archaeological features. Watching brief of topsoil strip and pipeline excavation. Salvage excavation of archaeological features as necessary. Obtain environmental sample(s) from palaeochannel noted in Trench 3. Take advice on potential of palaeochannel deposits for Optical Dating of sediments; sample if necessary.

Fishponds field

Watching brief of topsoil strip and pipeline excavation. Salvage excavation and environmental sampling as necessary in the original channel of Chilbrook close to the west end of the line.

Excavation of the pipeline route across the moated site. Remove topsoil by machine in a strip 50 m x 3.5 m, with additional 5 m x 1 m extensions at either end, the latter to determine the level of the contemporary ground surface from which the moat was built. If the eastern extension locates a metalled or other trackway, the extension to be continued until both sides of the track have been defined. It should be possible to record the track (if present) during the pipeline watching brief. All archaeological deposits to be excavated by hand both on the platform and in the arms of the moat. The excavation to be stepped in to a width of 1 m at a depth of c. 1.3 m below current ground level on the moat platform. Pumps to be provided by Thames Water or the main contractor for dewatering in the arms of the moat. Environmental samples to be taken as necessary. All recording, and finds recovery and processing, to be according to the Oxford Archaeological Unit's standard practice.

Plant site next to Station Road pumping station

Watching brief of any topsoil strip.

Post-excavation, publication, and archive

The Stage 1 evaluation has established that the Project will produce archaeological data of considerable importance for the study of Eynsham's past, and most particularly for the study of Eynsham Abbey. Post-excavation work, therefore, will inevitably need to make reference to the Eynsham Abbey Project currently being sponsored by English Heritage. The study of the ceramics from the moated site identified in this evaluation, for instance, will need to make considerable reference to the large assemblage of Saxon and medieval pottery from the Abbey excavations.

Post-excavation work would begin immediately after the end of the Stage 2 fieldwork. The site archive will be processed at this stage. Analysis of the excavation and other data will result in the compilation of an initial research archive. These results would be incorporated into the research archive of the Abbey project.

The results of the post-excavation analysis would be published in the anticipated monographs on the Abbey excavations and survey. Evidence of earlier activity, particularly on the moated site, would also be included.

Some conservation of unstable finds may be necessary, and this has been accounted for in the budget. It is envisaged that the archive - including, subject to landowners' permission, all finds except any which become subject to laws governing Treasure Trove - will be stored with the Abbey excavation archive. This will be placed with the Oxfordshire County Museum Service.

5 REVISED STAGE 2 COSTINGS AND ESTIMATED TOTAL PROJECT BUDGET¹

STAGE 2: REVISED COSTS

WATCHING BRIEF			
STAFF	1480		
TRAVEL	175		
		1655	
MOAT EXCAVATION			
STAFF	5665		
TRAVEL	525		
PLANT	505		
		6695	
CONTINGENCY			
STAFF	845		
TRAVEL	105		
		950	
POST-EXCAVATION AND ARCHIVE			
STAFF	5425		
CONSERVATION	350		
EXPENSES	200		
PUBLICATION	500		
ARCHIVE STORAGE (EST.)	500		
		6975	
			16275
SET UP AND EVALUATION ESTIMATED COST			
			3405
TOTAL ESTIMATED PROJECT COST			19680
ORIGINAL PROJECT BUDGET			14840
BUDGET INCREASE			4840

¹ The precise amount of the underspend on the evaluation was not available at the time of writing.

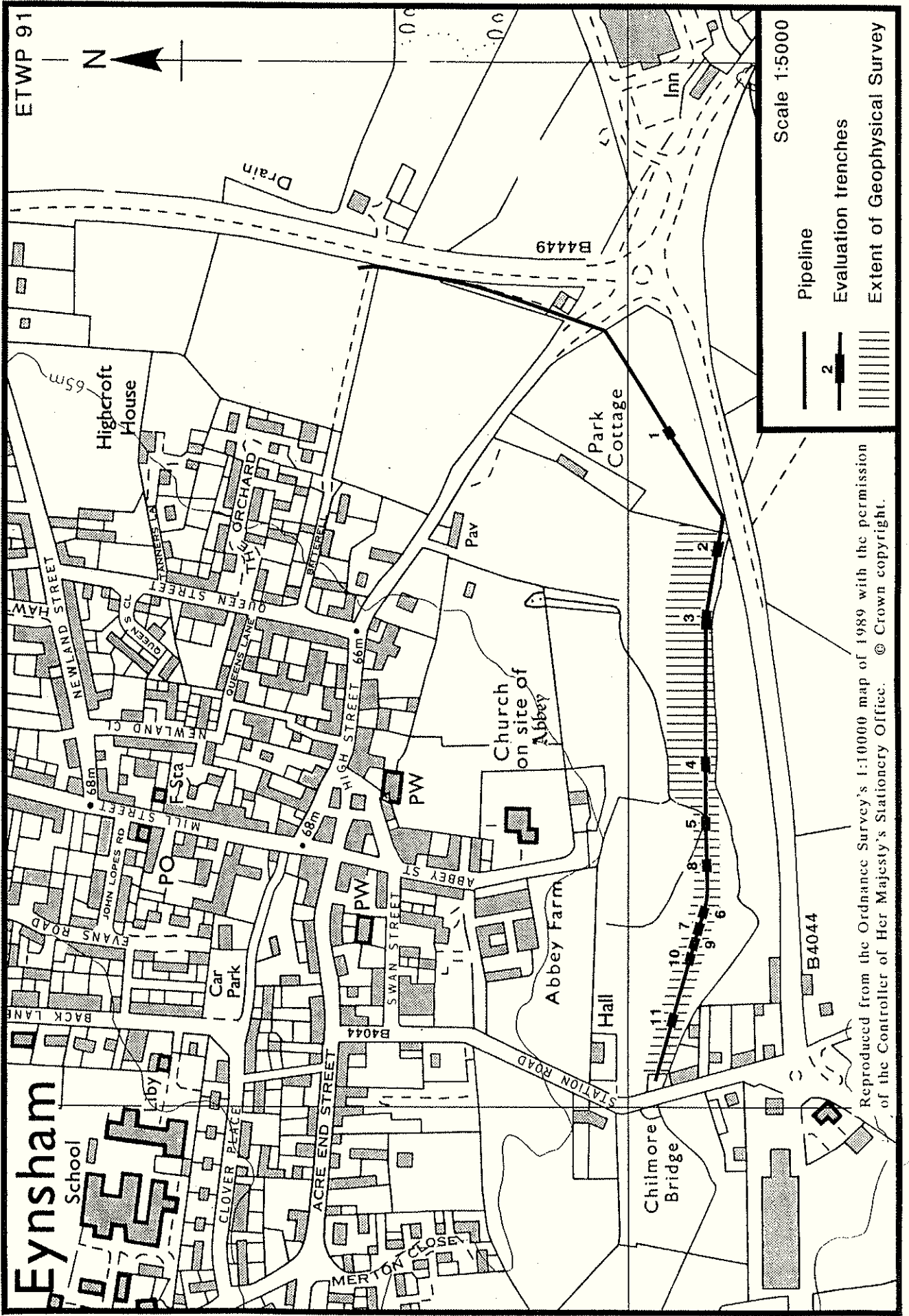
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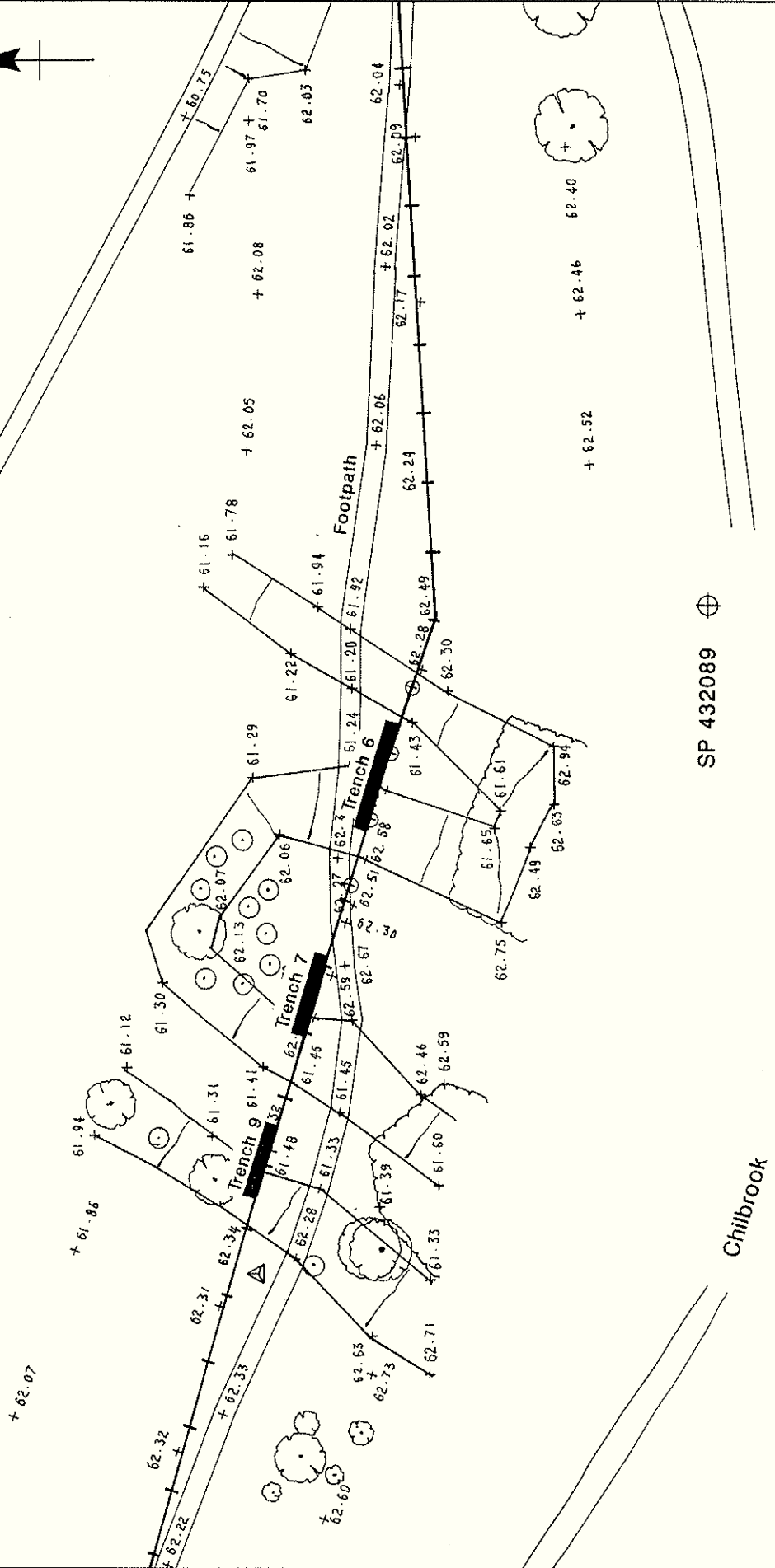
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Fig. 1

ETWP 91

Location of trenches on Medieval Moated Site,
Eynsham Thames Water Pipeline

Fishpond drain



SP 432089 ⊕



50 m.

Scale 1:500

Fig.2

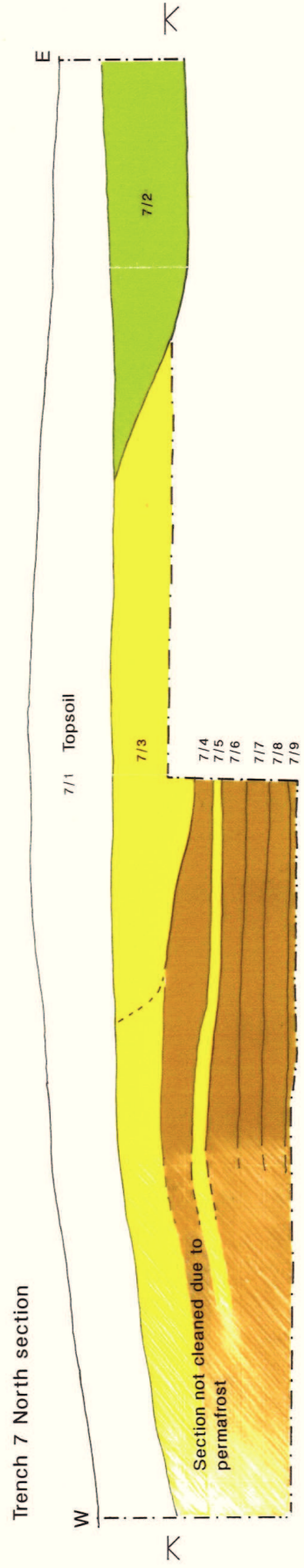
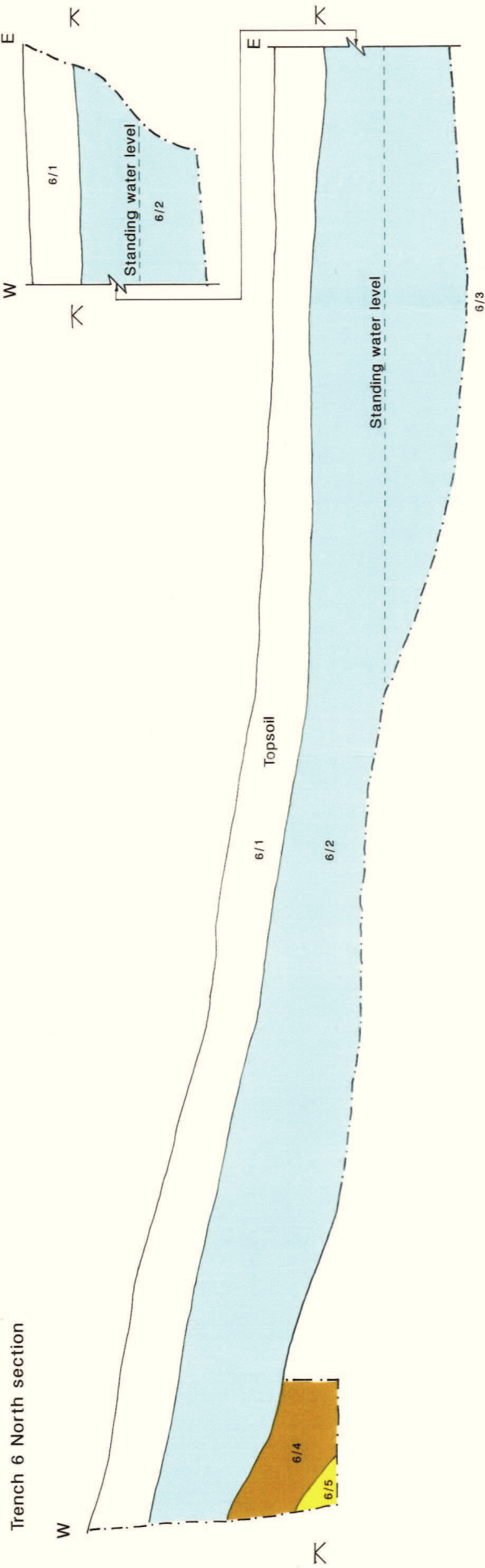


Fig.3

APPENDIX 1: GEOPHYSICAL SURVEY REPORT

REPORT ON
MAGNETOMETER SURVEY
AT
EYNHAM,
OXFORDSHIRE

1991

A. D. H. Bartlett

EYNHAM, OXFORD

Magnetometer Survey of Proposed Pipeline Route, 1991

Introduction

This survey was requested by the Oxford Archaeological Unit as part of an investigation of the route of a proposed sewer pipe to the south of the site of Eynsham Abbey within the former abbey precinct. The areas surveyed are marked in outline on a plan of the pipeline route (supplied to OAU by Thames Water), which is shown on the plan enclosed. Sections 1 - 3 of the survey were located by reference to pegs marking the pipeline which were found in place at the site, and sections 4 - 6 by means of measurements to trees and boundaries. Three alternative presentations of the survey data are included on the plan. Measurements were also made of the magnetic susceptibility of topsoil samples collected at intervals across the site, and a plot of the readings is inset on the plan. Fieldwork was carried out between 27 -30 November 1991, and an initial set of plots was then supplied.

The site lies on Oxford Clay, and in its western half (sections 1-3 of the survey) is uneven and ill-drained, but with substantial hollows which may represent remains of the monastic fish ponds. The eastern half of the route is less disturbed, and at its western end (section 6) has been levelled to form part of the playing field. The pipeline route lies immediately to the north of the Chil Brook, which could have been the site of a monastic mill, or there could have been other outlying buildings in this part of the precinct.

A magnetic survey will not usually respond directly to masonry, for which a resistivity survey is required, or to small-scale foundation trenches, but a building which provides a focus for domestic or industrial activity of any intensity should give rise to magnetic disturbances in some form, perhaps as magnetic anomalies representing associated hearths, pits or ditches. The magnetometer can therefore be used for an efficient initial evaluation of a site, and any areas of interest then surveyed also by resistivity (which is a much slower process) to test whether structural remains are present.

Magnetometer Survey

The graphical and half-tone plots of the survey (i and ii) show the results after numerical filtering to reduce the apparent background noise level and emphasise the more extended or coherent features which may be archaeologically significant. The plots show considerable magnetic disturbance throughout the survey, but almost all the detected magnetic anomalies take the form of narrow spikes which are characteristic of buried iron. These features can be seen most clearly in the plot of the initial unprocessed data (iii) which is included for comparison.

The interference from buried iron extends throughout the survey, and would be consistent with the use of the site as waste ground for rubbish dumping in recent times (as reported by my colleague B. Turton who visited the site in the 1940s). The interference is slightly less conspicuous in section 6 of the survey, where the ground has been levelled, and perhaps some of the rubbish removed, but it is still more concentrated than would be expected in an undisturbed field. There is also additional interference here along the southern edge of the survey close to the stream. There is an alignment of anomalies probably caused by an iron pipe between sections 5 and 6 of the survey, and perhaps another in section 1, as labelled on plot (i).

An attempt has been made on the smoothed plot (ii) to identify magnetic anomalies with a more rounded profile indicating non-ferrous disturbances, but few can be found. Anomalies which could represent pits or ditch-like features have been shaded on the plot, but they are small and isolated, and could well represent only superficial or random variations in topsoil depth.

Magnetic Susceptibility Tests

The magnetic susceptibility results from the site are consistent with the observed lack of intensive archaeological activity. Topsoil samples were collected at 30m intervals along the pipeline route, and along the northern edge of the survey where it crosses level ground in sections 5 and 6 (ie, along the lines labelled A - B and C - D on the plan). They were measured using a Bartington susceptibility meter to give the results as shown on plot (v).

Most of the readings are low (in the range $10 - 24 \times 10^{-8}$ SI/kg), but there is an exception in section 3 where three slightly higher readings (27 - 54 SI) coincide with an area relatively free of interference from buried iron. This area does not however show any distinct magnetic anomalies other than the doubtful pit-like feature shaded at the east end of section 2.

Clay soils are variable in their magnetic response, but the soil here appears to offer considerable potential for magnetic enhancement as a result of human activities, even if such enhancement has not in this case taken place. Three of the soil samples were heated in a gas flame to convert the iron oxides present to strongly magnetic forms, and then measured to give susceptibility values in the range 212 - 670 SI. This gives an indication of the maximum enhancement which could occur in ideal conditions, and shows that there are sufficient iron oxides in the soil for significant susceptibility increases to be possible. The ratio of the initial susceptibility values to the values after heating for these samples (the fractional conversion) was between 0.02 and 0.1, which (according to examples given in M.S. Tite, *Methods of Physical Examination in Archaeology*, 1972) is typical of sites where no archaeological enhancement has taken place. Higher values of fractional conversion will be found on archaeologically productive sites where more of the oxides have been converted to magnetite and maghaemite.

Conclusions

The susceptibility tests show that the magnetic properties of the soil do not appear to have been significantly affected by past human activities (to the extent that such a conclusion can be based on the limited number of background samples tested), although the soil should be capable of enhancement if any intensive industrial or domestic activity had taken place. Modern dumping or levelling could however mean that not all the samples collected are representative of the natural topsoil of the site.

The magnetometer survey produced only a few weak and inconclusive anomalies, but there was a high background noise level and much buried iron, which both suggest the site has suffered extensive modern interference. Archaeological features which are not likely to be associated with strong magnetic enhancement (such as farm buildings) might not in these circumstances be detectable. The susceptibility findings showed slight enhancement in section 3 of the survey, but in the absence of any findings here from the magnetometer survey, this may not be very significant.

APPENDIX 2: SUMMARY OF TRIAL TRENCH RESULTS

The location of each trial trench is shown on Figure 1. Trenches 6, 7 and 9 are also shown on Figure 2.

Trench 1

1 m square. Excavated to depth of 1.1m. Topsoil (1/1), a silty clay loam 0.25 m thick, overlay yellow-brown alluvium (1/2), 0.85 m thick. This overlay the natural gravel (1/3, not excavated). Water seepage noted at base of pit before backfilling. No archaeology; no finds. Upstanding ridge-and-furrow covered most of the field.

Trench 2

5 m x 1 m. Excavated to a depth of 1.4 m. 'Topsoil' (2/1), 0.25 m thick, consisted of a sandy loam containing limestone fragments, scrap iron and iron slag. This represented a levelling deposit for the playing field. Under it was the original topsoil (2/2), also 0.25 m thick, consisting of dark brown silty clay loam with occasional gravel inclusions. This sealed the first of two alluvial deposits (2/3, overlying 2/4 - 0.3 m and 0.6 m thick respectively); the upper alluvium was darker in colour, and the two were separated by a distinct gravel lens. This may indicate ancient cultivation.

Trench 3

5 m x 1 m. Excavated to a depth of 0.9 m. 'Topsoil' (3/1), 0.25 m thick, consisted of sandy, gravelly loam with modern scrap iron, slag etc.; this was a modern levelling layer. It sealed the original topsoil (3/2) identical to layer 2/2, 0.15 m thick. This in turn overlay alluvium (3/3), 0.5 m thick. The alluvium sealed a palaeochannel (3/5) 0.85 m wide. This was filled with interstratified layers of black organic material and fine sandy silt. The channel cut a linear feature (3/6) running east-west along the south side of the trench; only the north side of this feature was present. No finds were recovered. The feature was cut into natural sand/gravel (3/4).

Trench 4

5 m x 1 m. Excavated to a depth of 1.5 m. The 'topsoil' (4/1) was identical in character and thickness to layers 2/1 and 3/1. The original topsoil (4/2) was likewise the same as 2/2 and 3/2, and was 0.15 m thick. Below this was a 1.1 m thick layer of alluvium (4/3) sealing a linear feature (4/4), approximately 1 m wide and oriented east-west. This was cut into the natural sandy gravel. An immediate and major inflow of water from a depth of 1.3 m below ground level precluded further examination or recording of this feature. Its fill was similar to that of 3/5; it may, therefore, be a palaeochannel, perhaps representing an early course of the Chilbrook.

Trench 5

2 m x 1 m. Excavated to a depth of 0.5 m. The topsoil (5/1) appeared to consist of dredged material from the fishpond leat, consisting of very dark brown silty clay with very few inclusions other than small snail shells. The layer was 0.35 m thick. This overlay a gravelly layer (5/2) at least 0.15 m thick. The trench was not excavated further because toads were hibernating within the soil.

Trench 8

3 m x 1 m. Excavated to a depth of 0.9 m. The topsoil (8/1), a silty clay 0.3 m thick, appeared to be original and undisturbed. It overlay a layer of alluvium (8/2) 0.6 m thick. This lay directly on the natural gravel (8/3).

Trench 6

8.6 m x 1 m. Excavated to depth of 1.16 m maximum. The undisturbed topsoil (6/1), a silty loam 0.24 m - 0.27 m thick, overlay a layer of silty clay (6/2); the layer was up to 0.6 m thick, and appeared to represent slumping/erosion from the moat platform. 6/2 sealed a layer of sandy silt (6/4), 0.36 m thick; this was only excavated in a 1 m sondage at the west end of the trench. It appeared to be a make-up layer for the moat platform. Underneath 6/4 was a layer of silty sand (6/5), again only excavated in the western sondage to a depth of 0.16 m. This may have been the edge of a surface on the moat platform.

The moat ditch could not be examined adequately because of standing water. Before this ingressed, however, it could be seen that the moat had a base of compacted gravel and limestone (6/3), at least 0.1 m thick. At the east end of the trench this was overlain by a black, highly organic layer.

Trench 7

6.5 m x 1 m. Excavated to a depth of 1.14 m maximum. The undisturbed topsoil (7/1), a sandy loam 0.18 m - 0.36 m thick, overlay a layer of mixed gravel and silty sand (7/2) at the east end of the trench. The layer was up to 0.35 m thick and appeared to be a late surface or repair on the moat platform. 7/2 overlay a layer of sand (7/3), 0.35 m thick, which occupied the remainder of the trench. Further excavation was restricted to a 1 m sondage in the centre of the trench adjacent to a machine-dug sondage (permafrost area on Fig. 3). 7/3 overlay a dumped silty clay make-up layer (7/4) 0.18 m thick. This in turn sealed a patchy, thin (0.06 m) sand surface (7/5); this may represent a decomposed sandstone surface. Under this was an apparently homogenous layer of silty clay 0.35 m thick; this was excavated in three spits, each of approximately 0.12 m (layers 7/6-8). The pottery from these spits suggests that the layer built up gradually from the mid-late eleventh to late twelfth/early thirteenth centuries. Below 7/8, and at the bottom of the sondage, the top of a further layer (7/9) was exposed. This was not excavated, but it seemed to be similar in character to layer 6/5.

Trench 9

7.9 m x 1 m. Excavated to a depth of 1.1 m. The topsoil (9/1) could be separated into two zones: the upper 0.3 m appeared to be disturbed and contained scrap iron and slag, while the lower 0.3 m appeared to be undisturbed. The basic soil matrix, however, was essentially the same. The topsoil overlay a layer of silty clay (9/2), 0.4 m thick, resembling alluvium and covering the bottom of the moat ditch. At the west end of the trench this lay against a natural deposit of clayey sand (9/3) at least 0.4 m thick. A layer of gravel and clayey sand (9/4) was exposed at the bottom of the moat ditch, but it was not possible to determine whether this was a deliberate lining or a natural layer.

Trench 10

5 m x 1 m. Excavated to a depth of 2.2 m. The topsoil (10/1), 0.6 m thick, showed the same 'zones' as noted in 9/1. Below this was a 1.6 m thick layer of alluvium (10/2) overlying natural clayey sand (10/3).

Trench 11

5 m x 1 m. Excavated to a depth of 1.7 m. The topsoil (11/1) was identical in character and depth to 9/1 and 10/1. It sealed a 1 m thick layer of alluvium (11/2). Below this was a lens of waterlogged blue clay (11/3), 0.1 m thick, above the natural gravel (11/4). The blue clay would be consistent with a palaeochannel siltation deposit.

**APPENDIX 3:
AN ASSESSMENT OF THE POTTERY FROM THE MEDIEVAL MOATED SITE, EYNSHAM**

Introduction

A total of 86 sherds weighing 768 grammes was recovered from Trenches 6 and 7. Most of the material came from contexts 7/6, 7/7 and 7/8. The assemblage was divided into basic fabric types, and these have been compared with local Oxfordshire types. A limited number of diagnostic sherds were present; these have been drawn and catalogued for further reference and to provide a date range for the ceramics. It should be noted that 40% of the assemblage (by number) consisted of Roman pottery, most notably cordoned grey-ware jars. Such pottery was especially evident in contexts 6/2, 7/2 and 7/3.

The medieval pottery

The medieval pottery consists of calcareous and flint-tempered fabrics. The earliest fabric type is an ill-sorted shelly limestone fabric, comparable to the proto-St Neot's type ware (Fabric A) in Oxford and dateable to the ninth-tenth century. This was recovered from context 6/2. A thickened, slightly everted rim in the same fabric from context 7/6 can be dated to the mid-late tenth century.

The main fabric type is an ill-sorted grey flint and coarse limestone-tempered fabric similar to fabric types in Abingdon (ABAT LSM 20), Wallingford (FT 13) and Banbury (FT 1). This fabric type dates to the eleventh-twelfth century and is a development of the St Neot's fabric types. A cooking pot rim with fingertip decoration in this fabric in context 7/6 is dated to the eleventh century. A developed St Neot's type flat-topped rim dated to the mid-late eleventh century was recovered from context 7/7.

The coarse sandy/coarse sandy and limestone fabric types seem to be variations within the same fabric group. A long-necked, flat-topped cooking pot rim with a lip projecting into the interior from context 7/7 can be dated to the early twelfth century by comparison to rim types from Oxford. These fabrics tend to be long-lived, extending into the thirteenth century.

Summary

The available rim forms and the presence of St Neot's type and later limestone-tempered wares indicates a date range from late Saxon (tenth century) through Saxo-Norman (eleventh-twelfth century) and into the medieval period (twelfth-thirteenth centuries). It is suggested that the moat was established in the middle period and was developed in the latter. This will provide invaluable information on the development of a Saxo-Norman moated site. The analysis can also be compared to the much larger assemblage from the current excavations at Eynsham Abbey.



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