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Environment Agency

Malton, Norton and Old Malton Flood Alleviation Scheme

Archaeological Sample Excavation – Supplement to Report January 2002

Introduction

Babtie Brown and Root acting on behalf of the Environment Agency commissioned a programme of trial excavations in Malton Norton and Old Malton North Yorkshire as part of an assessment of the archaeological impact of the construction of the flood alleviation scheme. The works were undertaken by Archaeology Services WYAS during September and October 2001 and a report was prepared in November 2001. This supplement has been prepared in response to comments made by English Heritage and the County Archaeologist at a meeting on 7 December 2001 in an e-mail dated 5 December 2001 and in a letter dated 20 December 2001. The supplement was prepared by Babtie Brown and Root in consultation with Archaeology Services WYAS.

Supplement to Section 13 ('EnVironmental Record')

Timber in Trench B4 - A group of wooden stakes or posts were found in Trench B4 (see paragraphs 5.6.2 to 5.6.4). The posts were left in-situ partly because it was not possible to extract them because of health and safety considerations and partly because they will be preserved in-situ. The design of the scheme no longer includes a cut-off in this area so there will be no disturbance at this depth and recharge from the river will not be prevented. No formal assessment was therefore made but we can provide the following supplementary information -

The posts (634) were approximately 0.1m in diameter and were driven into the underlying deposit (608). They were at least 1.82m in depth but had to be left in situ. The supervisor assessed the wood as well preserved but it appeared that shaping had removed the sapwood so it was unlikely to be feasible to obtain a felling date. Because they were left in situ it was not possible to examine the worked ends for toolmarks.

Sampling size – the Archaeological Contractor has applied the published guidelines from AEA and has followed the procedure for GBA samples given in paragraph A1 on page 6 of the AEA guidelines and retained subsamples as recommended there.

The specialist believes that the semi-qualitative nature of the assessment of soil samples meets the requirements of MAP2 (section 6.7) that any processing and recording should only be done to demonstrate that a particular topic has research potential.

The assessment given is sufficient to achieve the relevant aims and objectives of the evaluation defined in the specification as to determine the potential range, quality, quantity and nature of palaeoenvironmental evidence present. Given that the deposits are to be preserved in-situ further analysis would be directed at research aims that are not part of the evaluation.

There is no direct recommendation regarding further work on the environmental data to address such aims at mitigation stage. As available evidence does not allow the water channel in Area A to be clearly linked to the Doodales either physically or temporally we believe that the value of additional work on the existing assemblage is questionable. In any case these deposits are also preserved in-situ and available for further sampling in future.

In the light of comments from English Heritage about the calibration curve and AMS dating and in the light of the fact that both relevant deposits contained artefactual dating material we do not consider that there would be any value in giving consideration to C14 dating.

Insect preservation – The Contractor informs us that their specialist assessed the state of preservation of the insect remains on a subjective basis as were other categories of environmental material. Given the limited scope for inter-sample comparison we cannot assess whether the burial environment is changing.

Supplement to Section 12.4

Conservation assessment report – A copy of the x-ray report is attached. All of the iron objects are described as nails, bolts or fragments of sheet iron, and no conservation work is recommended. All of them came either from contexts of mid-19th century or later date or from metal-detecting the spoil heaps after mechanical excavation of these late deposits.

Statement of Potential

This text is supplementary to section 14 of the report (Statement of Potential) and Section 17 (Conclusions)

Old Malton

No pre-medieval archaeological features or deposits were identified. The only features of medieval date identified were a group of stakes in Trench B4 tentatively dated by associated artefacts to the 12th-13th centuries. The stakes underlay stone structures associated with a much later mill and lay on the edge of a later water channel; they also lie in close proximity to the medieval Gilbertine monastery at Old Malton. The nature of the structure of which the stakes formed part was not determined, but possibilities include fishtraps, revetment of the riverbank, water control features or a bridge/causeway linking the riverbank with an island in the river (known to have existed in the early 19th century). The identification of the stakes also indicates the likely presence of waterlogged deposits with good organic preservation within the area of the monastery, covered by significant depths of more recent dumped deposits.

The most complex and best-preserved group of structures identified were the wall footings associated with the mill in Trench B4. The mill appears to have been of 18th century construction, and cartographic evidence shows that in the early 19th century it stood on an island, linked to the riverbank by a bridge. The presence of the stakes suggests the potential for continuity of activity on this island from the 12th/13th century until the 19th century, although no other dateable features, deposits or artefacts earlier in date than the late 17th/early 18th century were identified. The ground-level layout of the mill itself may be recoverable, together with aspects of its functioning.

A large cut feature in Trench A2, interpreted as a water channel, was dated to the 16th/17th century on the basis of artefacts found in its basal fill. This feature lay in close proximity to The Doodales, a complex of fishponds assumed to be associated with the monastery and to be of medieval date. The precise function of the feature in Trench A2 and its relationship to the ponds was not determined, but its presence raises the possibility that the fishpond complex was still being used and modified well after the dissolution. Further investigation of this feature would provide significant potential to obtain information about the nature of the development and re-use of monastic economic assets after the reformation.

Other features and deposits identified in Old Malton (Areas A and B) were mainly dumped deposits of 19th century date. These include large-scale dumping to raise the ground level adjacent to the river and infill a broad pool just upstream of the mill, which appears to have been demolished at the same time (the late 1840s or early 1850s). While this activity represents a significant change in the local landscape, further information about the nature and purpose of the changes would be better obtained through documentary research than archaeological work.

Malton

Similar deposits were encountered in all the trenches in Malton itself (Area G) and have been reported in other trial excavations by MAP Archaeological Consultancy. Dumping continued into the 20th century. Fragments of walls within the thickness of the deposits both here and in Old Malton were of unclear function but may in some cases have been revetments and in others associated with 18th 20th century industrial/ commercial development. Two walls in Trench G4 are believed to be components of a dry-dock previously investigated during the extension of the Safeway building.

The origin of the dumped material both in Malton and Old Malton is unclear and it appears to contain residual pottery of earlier (18th century) date. The artefactual assemblages in the deposits could have potential for providing information on manufacturing and trading links in the area although this is limited by the lack of clarity about the origin of the dumped material. The timing of the dumping suggests that it is associated with the known commercial development of the riverside in Malton during the 19th century stimulated initially by the construction and operation of the Derwent Navigation. This connection is particularly clear in the case of the dry dock. Prior to this period cartographic evidence suggests that most of the riverside areas were gardens or garths.

Overall the dumped deposits and structures identified in Malton appear to be associated with a known process of morphological and economic change in the town largely stimulated by an increase in river-traffic on the Derwent Navigation. The key structure identified a dry-dock has already been investigated in more detail in connection with a previous development while the presence of dumped material had already been identified either by previous archaeological investigations or from cartographic sources. The origin of the majority of the material dumped to raise the ground levels is unknown. The main archaeological potential in the deposits examined is therefore to add detail to an already known picture.

Norton

Sample excavations on the Norton side of the river both upstream (Area C Norton Ings) downstream (Areas D and E) and in the town (Area J the picnic area) were largely negative in their results identifying mainly natural alluvial deposits. The exception was in the identification of brick-kilns and a backfilled borrow-pit in Area C. These industrial features appear to have represented a short lived episode potentially associated with a single major construction project such as one of the railways. If the date and duration of the activity could be more precisely determined and a link with any specific construction works established then there would be potential to obtain further information about the nature of such transient industrial activities.

Subject Scheduled Ancient Monuments and Archaeological Mitigation Works
Held at English Heritage, York
Date and time 7 December 2001, 2 00pm
Project number
Fde number BWA 290007
Present Dan Johnston (Babtie Brown and Root)
 Ian Edmonds (Halcrow)
 John McDonald (Interserve)
 Keith Emerick (English Heritage)
 Neil Campling (North Yorkshire County Council)
Distribution Those present
 T Fewster (Environment Agency)
 file (DS and CW to initial before filing)

<i>Item</i>	<i>Minute</i>	<i>Action by</i>
1	<p>Trial Excavation Report</p> <p>After introductions DAJ stated that the purpose of the meeting was to set the mitigation requirements for the whole scheme and particularly the SAMs and that the trial excavation report (previously circulated to KE, NC and IE) would be summarised as background information</p> <p>After DAJ s summary, NC, supported by KE, commented that the report had not adequately discussed the potential of the deposits for post-medieval archaeology, and that there should have been more detailed discussion of research potential in the report</p> <p>DAJ disagreed, stating that in his opinion the deposits referred to are of minimal interest and that the report fulfilled the limited aims of an evaluation There were recommendations for further post excavation analysis/reporting as part of the mitigation works, but this work was not required for the purpose of the evaluation</p> <p>KE referred to an e mail from Ian Panter (Regional Advisor on Archaeological Science) to DAJ commenting on certain aspects of the report, and stating that he intended to write to DAJ about wider archaeological issues DAJ made preliminary responses to Ian Panter s comments (see attached notes) but reserved formal response until after discussion with the archaeological contractor</p> <p>After some discussion, DAJ stated that, although open to some criticism, in his opinion the report as a whole was of good quality and much better than many evaluation reports NC and KE acknowledged this</p> <p>DAJ said that he did not intend to ask the archaeological contractor to revise the report, but would discuss the comments made with them and would either respond by letter or ask the contractor to do so</p>	<p>DAJ</p> <p>DAJ</p>
2	<p>Old Malton, including Scheduled Ancient Monument (Old Malton Priory)</p> <p>IE outlined the design of the Old Malton scheme, as follows</p> <ul style="list-style-type: none"> • embankment throughout, • line moved slightly since ES stage, • no cut-off required – excavation under bank limited to topsoil strip • deeper excavation required for a drain on the dry side of the bank, not extending into the SAM • man hole and penstock required on line of bank where it crosses the culvert within the SAM <p>KE asked how it would be possible to know exactly where to put the manhole IE replied that the exact line of the culvert would be plotted using a CCTV survey</p>	

Minutes of meeting continued

KE raised the issue of the appearance of wing-walls where The Cut is to be culverted under the embankment. DAJ stated that this was not part of the purpose of the meeting, but was to be addressed in accordance with a separate agreement between BBR and EH.

DAJ outlined proposed archaeological mitigation as follows:

- watching brief throughout Old Malton, with provision for investigation of any remains revealed,
- access for plant, vehicles etc within SAM to be restricted to footprint of defence
- topsoil strip within SAM to be done with a 360° tracked mechanical excavator using a toothless bucket, under control of an archaeologist,
- stripped surface within SAM to be hand-cleaned by archaeologists and any archaeological features to be recorded by plans/photographs/written records, without further excavation,
- cover stripped area with geotextile and build up from there

DAJ referred to KE's previous request that a resistivity survey should be conducted after topsoil stripping within the SAM. He suggested, and KE agreed, that this could be kept as a provisional item but would not be required if the initial topsoil strip provided a clear layout of the walls etc. of the relevant parts of the prior and mill.

KE and IE conducted a discussion of the potential maintenance regime, particularly on the probable need for small plant/vehicles to turn at the end of the embankment within the SAM and the responsibility for repairing ruts etc. Further consultation to take place on this issue.

IE/KE

DAJ to write to DCMS to propose a variation to the SMC application to include the manhole, stating that it has been discussed with KE.

DAJ

3 Norton, upstream of County Bridge

IE outlined the design for the whole of this area. Certain parts, including immediately upstream of the bridge, not yet finalised, and technically difficult. Where piling is to be used adjacent to the railway discussions are in progress with Railtrack to allow use of piling rig placed on railway track. It was agreed that for most parts of it the archaeological potential was very low. Archaeological mitigation works to consist of a targeted watching brief, not necessarily including full-time monitoring except in certain areas (to be proposed by DAJ, but likely to include the area between the old railway embankment and County Bridge).

4 Malton, upstream of County Bridge, including Scheduled Ancient Monument (Roman Fort)

Most of this area to have a sheet-piled wall defence, with a deep drain behind it. The drain is to be designed such that personnel can enter it as necessary. Design of defence around Malton Mill not finalised, but could include building up from an existing wall. Near the bridge, the defence would tie in to and pass through the interior of the Coach House then run through the car park on the landward side of the Boat House as a reinforced concrete wall, tying in to County Bridge. All necessary Listed Building Consents have been obtained.

Archaeological mitigation was agreed as a continuous watching brief during any excavation work, primarily the drain. NC asked what would happen if significant archaeology was found, giving as an example the Dover Boat (a bronze age boat found during deep excavations). DAJ stated that there would need to be a financial/programme contingency to allow for investigations, and that in the event of significant discoveries then NC and KE would be consulted.

During fieldwork the watching brief would include continuous monitoring of excavation work, with one archaeologist per mechanical excavator. Given the nature and depth of excavation, it would be important to be able to monitor the spoil as well as the actual trench. This would be done visually by the archaeologist at each location watching the spoil as it goes into the dumper and by scanning the spoil at the stockpile visually and with a metal detector.

No excavation would take place within the SAM. IE and JM were not able to give precise dimensions for the working area within the SAM, but its' order of magnitude was given as around 6m x 15m. A set of steps are required to link with an existing walkway, IE undertook to consult EH about the design of this requirement.

Minutes of meeting continued

DAJ has previously expressed concern about some elements of the proposed SMC conditions. KE and DAJ agreed to consult separately from the meeting to settle these issues, which are not likely to be controversial.

5 Malton, between County Bridge and Railway Bridge

IE outlined the proposed defence. Mainly reinforced concrete wall as close as possible to the existing river frontage, possibly with some localised sheet pile cut-offs. Depending on the exact line taken, it may be necessary to remove parts of the existing riverside wall which incorporates elements of former historic structures. The defence will cut across the line of a historic dry dock examined by one of the trial trenches.

Archaeological mitigation by targeted watching brief and by retaining dry dock walls in-situ. It would be preferable to avoid removing the riverside wall, but if this is necessary it should be mitigated by archaeological recording in advance of construction.

6 Malton, downstream of Railway Bridge

Design not finalised, but likely to include areas of grouting and of sheet pile walls. Any drainage requirements likely to be limited.

Mitigation by targeted watching brief.

7 Norton, County Bridge to the ox-bow lake

Mixed design, including use of existing walls, sheet-pile walls, RC walls and embankments without cut-offs.

Archaeological potential limited. Mitigation through targeted watching brief.

8 Responsibility for archaeological design and provision

Both the planning consent and SMC conditions will require production of Written Schemes of Investigation (WSI), which will require to be approved by KE for the SAMs and by NC for the remainder of the scheme. KE asked about whose responsibility it was to make provision for both production of the WSIs and for the mitigation works themselves.

DAJ indicated that he was not familiar with the relevant provisions of the existing Design and Build Contract, but that he understood that Interserve/Halcrow were responsible for archaeological provision. JM/IE confirmed this. It was strongly recommended by DAJ, KE and NC that there should be both a commissioning archaeologist (i.e. a consultant to design, procure and monitor the works) and an archaeological contractor. JM/IE confirmed their intention to do this, but neither has been appointed as yet.