The Roman Car Dyke
Billinghay Skirth
Lincolnshire

Archaeological Evaluation Report

Client: Environment Agency

OA East Report No: 1125
OASIS No: oxfordar3-64309
NGR: TF 15436 54443
The Roman Car Dyke, Billinghay Skirth, Lincolnshire

Archaeological Evaluation

By Rob Atkins BScSoc Sc Diparch

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Report Date: September 2009
Report Number: 1125
Site Name: The Roman Car Dyke, Billinghay Skirth, Lincolnshire
HER Event No: TBC
Date of Works: August 2009
Client Name: Environment Agency
Client Ref: Project No. 10858
Planning Ref: N/A
Grid Ref: TF 15436 54443
Site Code: BISK09
Finance Code: XLI BHS 09
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Prepared by: Rob Atkins
Position: Project Officer
Date: September 2009
Checked by: Aileen Connor
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Date: September

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Summary

An archaeological evaluation by Oxford Archaeology East took place in August 2009 on the western bank of the Billinghay Skirth, a watercourse thought to follow part of the route of the Roman Car Dyke in Lincolnshire. The evaluation comprised a single 13m long trench. Deposits possibly representing a buried soil sealed beneath bank material were found. Since no dating evidence was recovered it has not been possible to positively establish whether the bank deposits relate to the Roman Car Dyke.
1 INTRODUCTION

1.1 Location and scope of work

1.1.1 An archaeological evaluation was conducted adjacent to the Billinghay Skirth, an extant watercourse, that runs near the village of Billinghay in Lincolnshire. A single 13m long trench was excavated through the west bank of the watercourse (TF 15436 54443; Fig. 1).

1.1.2 The Environment Agency in consultation with Kesteven and Boston Borough Planning Archaeologists required that a scheme of archaeological work should be carried out to inform any archaeological implications on proposed improvement works to the Billinghay Skirth watercourse. The evaluation was undertaken in accordance with a Specification prepared by OA East (Connor 2009).

1.1.3 The present waterway is believed to follow the line of a Roman canal known as the Car Dyke, but it is likely to be obscured or obliterated by it along this stretch (Simmons and Cope-Faulkner 2006).

1.1.4 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

1.2.1 Billinghay is located at the north-western edge of the silt based fens that stretch from Kings Lynn towards Boston. The fens have largely been eroded and in the north-west fen the underlying clay is exposed at the surface in many areas (Lane 1993, 3). The Soil Survey of England and Wales (1983) puts the evaluation just within an area of Typical Stagnogley soils with Pelo-alluvial gley soils, directly (less than 50m) to the south-west.

1.2.2 The Billinghay Skirth was once navigable but now acts mainly as a drain leading into the river Witham to the north. The watercourse follows an approximately south to north orientation at the evaluation trench with a water level of 2.6m AOD. The western bank/berm forms a slope of just under twenty degrees over a distance of approximately 8m from the edge of the watercourse steepening to 30 degrees for about 3m before levelling out at a height of 5.65m AOD (Fig. 2) at the top of the bank.

1.3 Archaeological and historical background

1.3.1 It is thought that the Billinghay Skirth is a medieval waterway that follows or obscures the route of the Car Dyke (Simmons and Cope-Faulkner 2006, 21). The Car Dyke is generally believed to be a Roman canal, although the earliest records of the Car Dyke only date to the 12th century, it may be safe to assume it was constructed before AD 1000 (Simmons and Cope-Faulkner 2006, 16). The Lincolnshire Car Dyke is approximately 92km long and stretches from Lincoln in the north to Peterborough in the south. Its function is not fully understood and whilst it may have been used to transport goods it could also have been used as a catch-water drain which allowed water to flow in both directions depending on the state of the tide.

1.3.2 The Lincolnshire Car Dyke has received considerable attention and a number of observations and investigations have taken place along its length and are published in the Lincolnshire Archaeology and Heritage Report Series (Simmons and Cope-Faulkner 2006). In the 10km area around Billinghay there have been no investigations (ibid, fig. 11) and this section is the least known part of this former canal. Unexcavated profiles
were recorded across the Car Dyke “near” (possibly north of) Billinghay in 1872 and 1972 although the exact location and direction of view were not recorded (ibid, fig. 27a and 66-67). The profiles show the channel to be approximately 10m wide at ground level with a marked right-hand (probably eastern) bank and a more rounded wide left bank. These surveys found, “the right-hand bank is 2.1m high in 1972 and 1.7m high 100 years later, suggesting erosion” (ibid, 66).

1.3.3 Ordnance Survey observations made in 1964/5 of the stretch of Car Dyke between TF 138567 to TF 145557 note that the ditch was 2m deep with low widespread banks (Simmons and Cope-Faulkner 2006, 136). In 1972 the Car Dyke Research Group recorded recent dredging between TF 138566 and the Billinghay Skirth (TF 158550) where the visible banks represented recent up-cast (Simmons and Cope-Faulkner 2006, 136).

1.3.4 The section between Billinghay southwards to North Kyme (in which the present trench was located) has been subject to considerable changes resulting in a very deep and wide profile. Trollope in 1872 recorded that within this section the repaired banks formed a drain connected with the Billinghay Navigation (Simmons and Cope-Faulkner 2006, 136). The Car Dyke Research group in 1972 noted that this section joined the Billinghay Skirth and was used as a deep modern drainage channel, water filled and with large banks (Simmons and Cope-Faulkner 2006, 137). In 1996, Archaeological Project Services concluded that “the Billinghay Skirth obscures any traces of the Car Dyke” (Simmons and Cope-Faulkner 2006, 137).

1.3.5 Excavated sections through the Car Dyke at Billingborough, Baston and Helpringham produced similar profiles (Simmons and Cope-Faulkner 2006, fig. 24) with channels of between 12m and 17.2m wide (ibid, table 6).

1.3.6 The Helpringham section (excavated in 1999; Simmons and Cope-Faulkner 2006, Fig. 23, 57-58) is probably one of the best preserved sections to have been excavated. Here the distance between the outer edges of the banks was 50m; the channel was 17.2m wide and 5m deep with banks of up to 1.7m high. An old buried soil layer up to 0.5m deep and at least 17m long pre-dated this bank.

1.4 Acknowledgements

1.4.1 Thanks go to the Environment Agency for funding this project with Stuart Hunter and Stephen Kemp organising the work. The farmer, Mr Russell Page, for allowing access. The evaluation was carried out by Rob Atkins and the project managed on behalf of OA East by Aileen Connor. Thanks are extended to Jenny Young, Kesteven and Boston Borough Planning Archaeologist, for input into this scheme. Paddy and Mick from P and R Plant hire gave helpful advice and the trench was skilfully machined by Mick who also kindly helped to level in the site.
2 AIMS AND METHODOLOGY

2.1 Aims
2.1.1 The objective of this evaluation was to seek to establish the character, date, state of preservation and extent of any archaeological remains with particular emphasis on remains relating to the route of the Roman Car Dyke and the Billingham Skirth.

2.2 Methodology
2.2.1 A single 13m long by 1.5m wide trench was excavated using a wheeled JCB-type excavator fitted with a toothless ditching bucket. The trench was excavated under constant archaeological supervision and was widened to 2.5m where the trench depth required.

2.2.2 To ensure no spoil entered the watercourse a c.2.5m buffer was maintained between the water's edge and the trench (Fig.2).

2.2.3 All archaeological features and deposits were recorded using OA East's pro-forma recording sheets. Trench locations, plans and sections were recorded at a scale of 1:50 and colour and monochrome photographs were taken of all relevant features and deposits.

2.2.4 The evaluation took place in sunny, dry conditions.
3 RESULTS

3.1 Trench 1 (Fig. 2)

3.1.1 The earliest deposit comprised a mid to dark blue grey clay (105) that gently sloped down to the watercourse. This was sealed by a band of yellow brown clay sand with some patches of yellow white chalk (104). This deposit was up to 0.5m thick and may be redeposited natural upcast to form the base of a bank. Above it was a 0.2m thick band of mid grey brown clay silt flecked with charcoal (103). The presence of charcoal suggests that this layer may represent an old land surface (buried soil). Above it was yellow/orange brown chalk with clay silt up to 0.30m thick, probably redeposited natural (102). This was sealed by a mid grey brown clay silt (101). The upper layers may represent another phase of bank material. The entire sequence of bank deposits (101-104) was approximately 1.5m from base to top.

3.1.2 Sealing layer 101 was topsoil (100) which was only 0.1m thick near the water's edge deepening to up to 0.80m thick at the top of the slope on the western side. It comprised a dark grey brown loam. No artefacts were found from any of the layers within the trench.

4 DISCUSSION AND CONCLUSIONS

4.1 Overview

4.1.1 The evaluation has found buried deposits which may represent a bank associated with a watercourse now known as the Billinghay Skirth. The section excavated has some similarities to a section excavated across the Car Dyke at Helpringham where a buried soil layer was found sealed beneath bank deposits (see section 1.3.6 above). Whilst at Helpringham the section showed one phase of bank deposition, that at Billinghay appeared to show two phases.

4.1.2 It has been noted above that it is very likely that the Billinghay Skirth and recent dredging have removed most (if not all) of the former Car Dyke channel along this stretch. The section reported on here has provided no evidence that a former channel existed at this point along the watercourse. It has, however, provided evidence for two phases of a possible bank on its west side although there is no evidence for the construction date of either of the phases.

4.2 Significance

4.2.1 Medieval and modern drainage is likely to have removed most if not all of the former Car Dyke channel on the west side of the Billinghay Skirth in this area. Evidence for two phases of a possible bank has been found that is likely to be associated with the watercourse. The date of the bank phases would need to be established before drawing any conclusions as to whether either of them are evidence for the continuation of the Car Dyke.

4.3 Recommendations

4.3.1 Recommendations for any future work based upon this report will be made by the Environment Agency in consultation with the Lincolnshire County Archaeology Office.
APPENDIX A. HEALTH AND SAFETY STATEMENT

A.1.1 OA East will ensure that all work is carried out in accordance with relevant Health and Safety Policies, to standards defined in The Health and Safety at Work, etc. Act, 1974 and The Management of Health and Safety Regulations, 1992, and in accordance with the manual Health and Safety in Fieldwork Archaeology (SCAUM 1997).

A.1.2 Risk assessments prepared for the OA East office will be adhered to.

A.1.3 OA East has Public Liability Insurance. Separate professional insurance is covered by a Public Liability Policy.

Full details of the relevant Health and Safety Policies and the unit’s insurance cover can be provided on request.
## APPENDIX B. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

### Trench 1

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APPENDIX C. BIBLIOGRAPHY


Lane, T., 1993 The Fenland Project No.8: Lincolnshire Survey, The Northern Fen-Edge, E. Anglian Archaeol. 66 (Sleaford), 230-33


APPENDIX D. OASIS REPORT FORM
All fields are required unless they are not applicable.

Project Details

OASIS Number: oxford3-64309
Project Name: The Roman Car Dyke, Billinghay Skirth, Lincolnshire
Project Dates (fieldwork) Start: 26-08-2009  Finish: 27-08-2009
Previous Work (by OA East) No  Future Work Unknown

Project Reference Codes

Site Code: BISK09  Planning App. No: N/A
HER No:  Related HER/OASIS No: N/A

Type of Project/Techniques Used

Prompt: Direction from Local Planning Authority - Direction 4
Development Type: Farm Infrastructure

Please select all techniques used:

- [ ] Aerial Photography - interpretation
- [ ] Aerial Photography - new
- [ ] Annotated Sketch
- [ ] Augering
- [ ] Dendrochronological Survey
- [ ] Documentary Search
- [ ] Environmental Sampling
- [ ] Fieldwalking
- [ ] Geophysical Survey
- [ ] Grab-Sampling
- [ ] Gravity-Core
- [ ] Laser Scanning
- [ ] Measured Survey
- [ ] Metal Detectors
- [ ] Phosphate Survey
- [ ] Photogrammetric Survey
- [ ] Photographic Survey
- [ ] Rectified Photography
- [ ] Remote Operated Vehicle Survey
- [ ] Sample Trenches
- [x] Targeted Trenches
- [ ] Test Pits
- [ ] Topographic Survey
- [ ] Vibro-core
- [ ] Visual Inspection (Initial Site Visit)

Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

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<td>Drainage channel</td>
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Project Location

County: Lincolnshire
District: North Kesteven
Parish: Billinghay
HER: Lincolnshire HER
Study Area: 1km

Site Address (including postcode if possible): Farm field directly to the south of St Michael's Close, Billinghay, Lincolnshire
National Grid Reference: TF 15436 54443
### Project Originators

<table>
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<tr>
<td>Project Brief Originator</td>
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<tr>
<td>Project Design Originator</td>
<td>Aileen Connor</td>
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<tr>
<td>Project Manager</td>
<td>Aileen Connor</td>
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<td>Supervisor</td>
<td>Rob Atkins</td>
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### Project Archives

#### Physical Archive

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#### Digital Archive

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### Digital Media

- ☑ Database
- ☐ GIS
- ☐ Geophysics
- ☑ Images
- ☐ Illustrations
- ☐ Moving Image
- ☐ Spreadsheets
- ☐ Survey
- ☑ Text
- ☑ Virtual Reality

### Paper Media

- ☐ Aerial Photos
- ☐ Context Sheet
- ☑ Correspondence
- ☐ Diary
- ☑ Drawing
- ☐ Manuscript
- ☐ Map
- ☐ Matrices
- ☐ Microfilm
- ☐ Misc.
- ☑ Research/Notes
- ☑ Photos
- ☑ Plans
- ☐ Report
- ☑ Sections
- ☐ Survey

### Notes:

Possible digital and paper records relating to charcoal from a buried soil layer which may be sent for C14 dating.
Figure 1: Location map (A) and trench plan (B)
Figure 2: Section 1

Conventions

Limit of Excavation
Deposit Horizon
Top Surface/Top of Natural
Deposit Number
Ordnance Datum

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