

HISTORIC SCOTLAND PROPERTIES IN CARE
MINOR ARCHAEOLOGICAL WORKS 2011

Rough Castle: Fin Drain Trenches Watching Brief, March 2011.

HS PIC Index Number: 90013

Site: Rough Castle, Antonine Wall, near Bonnybridge.

NGR: NS 8431 7991

Project Description: Partial Watching Brief during the excavation of fin drain trenches in the Antonine Ditch at Rough Castle.

Project Code: HSCO-90013-2011-02

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Short Archaeological Report

**30th April 2011
Kirkdale Archaeology**

INTRODUCTION

Under the terms of its PIC call-off contract with Historic Scotland, Kirkdale Archaeology was asked to monitor the initial stage of the insertion of a series of fin drains within the Antonine Ditch at Rough Castle. This followed a test trenching exercise in February 2011 which raised the possibility that artefacts could be recovered during the current drain trenching exercise.

The purpose of the monitoring was to establish whether it was feasible or practical to carry out a full archaeological watching brief based on the conditions and methodology being employed during the cutting of the drains.

The existing drainage system consisted of a central drain comprising a pipe covered in pebbles and wrapped in a Gore-Tex terram. The terram was effectively preventing water from entering the drain and this was causing water to stand in the ditch. To solve the problem a series of fin drains was cut diagonally from the base of the S ditch slope, deepening towards the central drain. When the fin drain met the central drain, the Gore-Tex terram was cut back to expose the pebble fill within. The fin drain was then filled with washed pebbles (without finings to prevent clogging) so that water could now percolate down the fin drain, into the central channel and away.

The trenches were manually de-turfed and excavated by a mini-digger with a 9" flat-bladed bucket. Of the eleven trenches marked out on the W side of the ditch, the first four were monitored until it became apparent that a watching brief during this stage would yield no more information than had been noted during the test trenching in February. The nature of the machine scrape meant that relatively large volumes of spoil were removed quickly, making the chances of recovering any artefacts extremely unlikely. This, coupled with the fact that the ground had been disturbed during drainage installation work in the 1960s, as well as during more recent

drainage works, suggested that an archaeological watching brief was not required. The initial trenches were cut and monitored on 23rd March 2011.

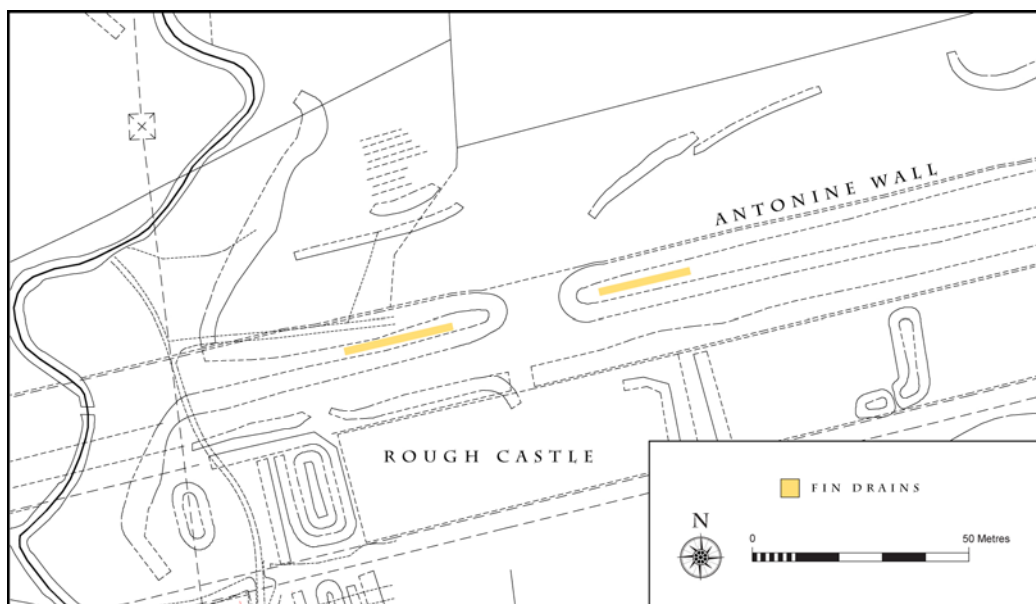


Figure 1: Location map of the works.

DESCRIPTION

The fin drains were excavated from W to E starting on the W side of the ditch (see Fig. 1). There were eleven fin drains in total to the W. Each was approximately 4m long, 0.2m - 0.25m wide, and deeper to the NW (0.8m) than to the SE (0.2m). They were spaced between 1m - 3m apart. As discussed during the test trenching, the trenches were cut through re-deposited material upcast from the original drainage work in the 1960s. The trenches were initially de-turfed and the turfs were kept aside for re-instatement. The re-deposited fill was then excavated, put in a dumper and taken off-site. When the terram surrounding the central drain was reached, it was cut back with a blade to expose the pebble fill within. The dumper (having already dumped the spoil) then returned with a load of gravel consisting of sub-rounded pebbles (<0.05m) without finings. This was placed into the fin drain and covered with turf. The methodology for the insertion of the fin drains in the third and subsequent trenches was identical to that just described, with the addition that a piece of plastic pipe was inserted to help the water flow. Having monitored the first

four trenches, and noted and recorded the methodology, it was no longer deemed necessary to maintain an archaeological presence on site.

CONCLUSIONS

The purpose of monitoring this initial stage of the fin drain excavation was to assess the need for a permanent archaeological presence. The methodology proved prohibitive to any form of artefact recovery and nothing was noted during the excavations. The disturbed nature of the ground, and the depth of the trenches, also meant that nothing further could be added to our knowledge of the site beyond those observations already made during the earlier phase of test trenching. The monitoring did allow the methodology of the drain insertion to be recorded, but it was ultimately decided that continued archaeological supervision was unnecessary.

LIST OF DIGITAL PHOTOGRAPHS

No.	Description	From	Date
01	W side of ditch with fin drains marked-out.	E	23/3/2011
02	Excavating first drain with mini-digger.	SE	23/3/2011
03	Work in progress.	SE	23/3/2011
04	Work in progress.	S	23/3/2011
05	Work in progress.	SE	23/3/2011
06	Work in progress.	S	23/3/2011
07	First fin drain connected to central drain.	SE	23/3/2011
08	Central drain with terram breached.	S	23/3/2011
09	NE-facing section of first fin drain.	NE	23/3/2011
10	NE-facing section of first fin drain.	N	23/3/2011
11	Insertion of washed pebbles into first drain.	SE	23/3/2011
12	Insertion of washed pebbles into first drain.	S	23/3/2011
13	Insertion of washed pebbles into first drain.	SE	23/3/2011
14	Insertion of washed pebbles into first drain.	SE	23/3/2011
15	Boulders at burn where ditch drain exits.	NW	23/3/2011
16	Work in progress.	SE	23/3/2011
17	Post-excavation shot of first fin drain.	SE	23/3/2011
18	Breached terram at end of second fin drain.	SE	23/3/2011
19	Breached terram at end of second fin drain.	SW	23/3/2011
20	Fin drains filled with pebbles.	SE	23/3/2011
21	First two fin drains backfilled and re-turfed.	NW	23/3/2011
22	First two fin drains backfilled and re-turfed.	NE	23/3/2011
23	Post-excavation shot of third fin drain.	SE	23/3/2011
24	Breached terram at end of third fin drain.	SW	23/3/2011
25	SW-facing section of third fin drain.	SW	23/3/2011
26	SW-facing section of third fin drain.	W	23/3/2011
27	Insertion of pipe and pebbles into third fin drain.	S	23/3/2011
28	Excavating fourth fin drain with mini-digger.	SE	23/3/2011
29	Post-excavation shot of fourth fin drain.	SE	23/3/2011
30	Breached terram at end of fourth fin drain.	SW	23/3/2011
31	Insertion of pipe into fourth fin drain.	SE	23/3/2011
32	General shot of W side of ditch.	E	23/3/2011