

# CFA Archaeology Ltd

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*Geophysical Survey*


## **Minor Archaeological Services Call-Off Contract**

**Ring of Brodgar, Orkney  
PIC313**

**Archaeological Watching Brief of Path Repair  
Works, May 2017**

**Report No. HES-PIC313-2017-01**

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This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

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# **1. INTRODUCTION**

## **1.1 General**

This report presents the results of an archaeological watching brief carried out by CFA Archaeology Ltd (CFA) in May 2017 in order to monitor the Phase 4 and 5 works on the south-western side of the Ring of Brodgar, Orkney (NGR: HY 29400 13300) (Fig. 1). These works were the final part of an ongoing programme to improve drainage and repair path erosion on the perimeter path and entrances to the site. The work was commissioned by Historic Environment Scotland as part of the Minor Archaeological Services Call-off Contract.

A Written Scheme of Investigation (WSI) dated 15 February 2017 was produced by Kirkdale Archaeology for this programme of works. The WSI was designed to fulfil the terms of the Scheduled Monument Consent (SMC) and was agreed with Historic Environment Scotland (HES) in advance of the work taking place.

## **1.2 Background**

Scheduled Monument Consent was granted by HES; the consent contained a condition that an archaeological watching brief be undertaken during all groundbreaking works.

The site is regarded as being of international importance, it is designated as a Scheduled Monument (SM90042), and also falls within the Heart of Neolithic Orkney World Heritage Site (WHS4). The site is in the ownership of HES as a Property in Care (PIC313). The monument comprises an enormous henge and interior stone circle probably dating from between 2500 and 2000 BC. The individual stones have a mixed history: some are lost, some still lie where they fell and some were re-erected by the Victorians while the remainder still stand in their original position. Some 36 stones now remain, surrounded by a rock-cut ditch, with two opposed causeways providing points of entry and exit to the north-west and south-east. Around it are at least 13 prehistoric burial mounds and a stone setting (2500 – 1500 BC), also included within the PIC boundary. One of the standing stones within the circle carries a Norse runic inscription. The PIC forms part of the Heart of Neolithic Orkney World Heritage Site (WHS4).

The turf of the present boundary path is easily saturated due to its low lying topography, and is very susceptible to erosion by visitor footfall; there is a danger that this could potentially damage the underlying archaeological deposits and also constitute a slip hazard to visitors.

Over the years this erosion has been constantly monitored via the Ring of Brodgar Path Erosion Monitoring Project and areas identified as problematic have been repaired with pieced-in turf, the incremental addition of which will have a gradual effect on the appearance of the site. During the high season the turf requires constant repair which is highly demanding in terms of time and resources (Fig. 2).

In the earlier phase of path repair and drainage installation, a series of 17 explorative slit trenches were excavated on the eastern side of the ring in August/September 2012,

including the south-eastern causeway. This revealed considerable variation in the composition of modern path material, plus the nature and location of previous interventions. Excavation stopped where the earlier ground surface was exposed. Above this, the degree and nature of modern additions was highly variable, and even where the sequence of deposits appeared more regular (*e.g.* in trenches 1 – 9), the ground surface of underlying peat was less predictable, and in places uneven. Although the point where the peat interfaces with the modern deposits is clear, its irregular nature means that the modern layers cannot simply be cut back to expose it. In addition, a number of particularly archaeologically sensitive areas were identified where the peat was exposed with no overlying modern deposits.

Whilst the 2012 excavations proved to be a valuable exercise in characterising the complicated nature of path repair around the perimeter, a similar process of evaluative slit-trenching will not be completed for the proposed works.

Work undertaken previously in 2017 by Kirkdale on the north-east side involved the removal of residual modern turf and recently imported material to allow the installation of hidden drainage within a slightly raised pathway. This comprised the removal of modern additions to reveal the peat or archaeological surface below, upon which was laid a geotextile membrane with perforated corrugated plastic pipe drainage hidden within a raised path of pea gravel topped with sandy soil and turf.

### **1.3 Objectives**

The objectives of the programme of archaeological works were:

- To conduct an appropriate programme of archaeological investigation (watching brief) to monitor groundbreaking works.
- To mitigate the effects of construction on any archaeological deposits or features identified during the watching brief by excavation and recording and to produce a report on them.

## 2. WORKING METHODS

### 2.1 General

All work was conducted in accordance with the Chartered Institute for Archaeologists' (CIfA) Code of Conduct, and other relevant CIfA Standards and Guidance.

### 2.2 Watching Brief

The ground-breaking works were undertaken by hand using spades. All ground-breaking works were carried out under constant archaeological supervision.

All excavation and on-site recording was carried out according to standard CFA procedures and by completing standard CFA record forms. The extents of the watching brief areas were recorded with GPS.

## 3. ARCHAEOLOGICAL RESULTS

Numbers in bold refer to contexts, a full list of which is contained in Appendix 2.

In this phase of work, only high areas of turf within the existing path and areas left high around the stones, both upstanding and prone, were removed (Figs. 3 and 4). The removal was conducted to maximum depth of 0.1m and thus did not impact on the underlying archaeological levels. In addition, one linear strip 0.5m wide and 0.1m deep was dug to allow a number of the existing plastic drainage pipes to flow into and then away from the pathway (Fig. 5). Only the turf layer was excavated in order to create a level area that could then be built up with the addition of 150mm of pea gravel and turf in order to create a new pathway surface.

Due to the limited nature of the excavations only a single context (**001**) was disturbed. Context (**001**) comprised turf and topsoil, and was observed to a maximum excavated depth of 0.1m within the watching brief areas (Fig. 1).

No features, deposits or artefacts of archaeological significance were identified.

## 4. CONCLUSION

A watching brief was carried out within the Ring of Brodgar Stone Circle, Orkney. No features, deposits or artefacts of archaeological significance were identified.

The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Record for the Historic Environment (NRHE) and copies of reports will be lodged with Orkney Council Sites and Monuments Record.

A summary statement will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 3) and will also be reported on through *OASIS Scotland*.

## APPENDIX 1: Photographic Register

Photo No.	Description	Taken From
1-2	General site shots showing extent of erosion	Various
3-14	Shots showing the removal of turf around the stones	Various
15	Shallow drain channel post excavation	N
16-20	Shots showing the removal of turf around the stones	Various

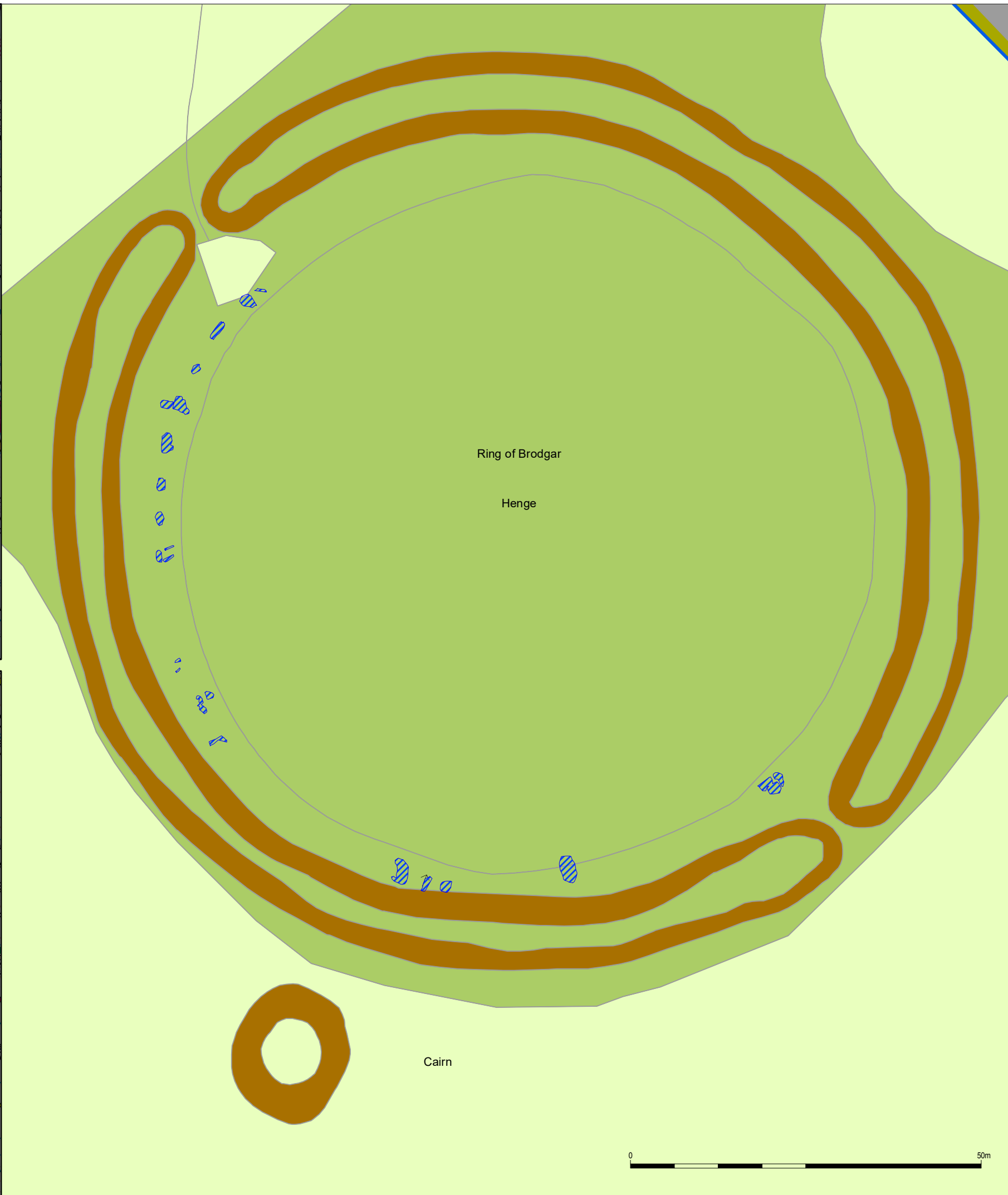
## APPENDIX 2: Context Register

Context no.	Fill of	Description
001	N/A	Turf and topsoil layer

### APPENDIX 3: Discovery and Excavation in Scotland Entry

<b>LOCAL AUTHORITY:</b>	Orkney Islands
<b>PROJECT TITLE/SITE NAME:</b>	Ring of Brodgar, Orkney
<b>PROJECT CODE:</b>	MINA1
<b>PARISH:</b>	Stenness
<b>NAME OF CONTRIBUTOR:</b>	Graeme Carruthers
<b>NAME OF ORGANISATION:</b>	CFA Archaeology Ltd
<b>TYPE(S) OF PROJECT:</b>	Watching Brief
<b>NMRS NO(S):</b>	N/A
<b>SITE/MONUMENT TYPE(S):</b>	N/A
<b>SIGNIFICANT FINDS:</b>	N/A
<b>NGR (2 letters, 6 figures)</b>	HY 29400 13300
<b>START DATE (this season)</b>	May 2017
<b>END DATE (this season)</b>	May 2017
<b>PREVIOUS WORK (incl. <i>DES</i> ref.)</b>	None
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	A watching brief was carried out by CFA Archaeology Ltd within the Scheduled Monument of the Ring of Brodgar Stone Circle, Orkney during path remediation works as part of the Minor Archaeological Services Call-Off Contract. Only the turf/topsoil layer was excavated and only in small areas in order to create a level area that would be built up with the addition of 150mm of pea gravel and turf in order to create a new path surface. No features, deposits or artefacts of archaeological significance were identified.
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	None
<b>SPONSOR OR FUNDING BODY:</b>	Historic Environment Scotland
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ.
<b>EMAIL ADDRESS:</b>	<a href="mailto:cfa@cfa-archaeology.co.uk">cfa@cfa-archaeology.co.uk</a>
<b>ARCHIVE LOCATION (intended/deposited)</b>	Archive to be deposited with NRHE, Reports lodged with SMR.





**Key:**

Watching Brief

Contains Historic Environment Scotland data  
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Title:  
**Location map and site plan showing areas of excavation monitored**

Project:  
**Ring of Brodgar, Orkney**

Client:  
**Historic Environment Scotland**

Scale at A3:  
**1:600**

Drawn by: <b>SW</b>	Checked: <b>MJ</b>	Date: <b>09/06/2017</b>
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Report No: <b>3560</b>	Fig. No: <b>1</b>
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Fig. 2 - General shot showing area of erosion on the path



Fig. 3 - Removal of turf from around base of upright stone

Project:  
Ring of Brodgar, Orkney



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Fig. 4 - Removal of turf from around prone stone



Fig. 5 - Drain channel post-excavation

Project:  
Ring of Brodgar, Orkney



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Report No: <b>3560</b>		Fig. No: <b>4 - 5</b>