

The Burnswark Project: Archaeological Investigations 2016

Written Scheme of Investigation



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Background

The Burnswark Project is an HLF-funded project operated by the Trimontium Trust to conduct archaeological investigations at and around Burnswark, south-east of Lockerbie. The area is designated a Scheduled Monument. This document supports an application for Scheduled Monument Consent for a programme of intrusive archaeological investigation, following on from the non-intrusive works consented in 2013 (HS Case ID 201207617) and excavation on and around the hillfort carried out in August-September 2015 (Case ID: 201502096).

1 Introduction

This Written Scheme of Investigation is for investigative works on the site of the two Roman camps flanking the Iron Age hillfort. The complex is a Scheduled Monument (Historic Environment Scotland ref: 667). The WSI should be read in conjunction with the associated 2016 Research Design.

The Burnswark Project commenced with a non-intrusive metal detector survey in 2013-4 and subsequent further survey and excavation in 2015. The results of this work, as well as the archaeological background of investigations on the site, are presented in the 2016 Research Design, enclosed separately.

It is proposed to finish the systematic detecting survey, covering the lower slopes of the west side of the hill, and a wedge of undetected ground to the north and east of the South Camp.

A previously unsurveyed area to the east of the North Camp, outwith the scheduled area, where Danish detectorists discovered a number of Roman coins in 2013, will be subject to geophysical survey by Dr Richard Jones of Glasgow University to determine if the finds are an isolated deposit or related to structural features of a previously unknown Roman site in the complex.

The proposed archaeological works comprise the targeted excavation of three small trenches to ground-truth the results of previous metal-detecting surveys, and to confirm the relationship of detected objects to any site features and stratigraphy. It will also examine the condition and survival of metal artefacts to allow assessment of the threat of loss to corrosion by the highly acidic soil.

The findings of the archaeological investigations will inform the future development of the project and the potential need for further archaeological works. The use of Lead Isotope Analysis on excavated groups of lead bullets from both camps would demonstrate the likelihood that the ballistic events were contemporaneous, something which has never before been established and has a direct bearing on the understanding of this site. If this is confirmed this will have a major impact on our understanding of the sequence of events and by extrapolation, the nature of Roman siege (assault) tactics which will be of international significance.

Andrew Nicholson of Dumfries and Galloway Council's Archaeology Service has been appointed to act with regard to the preparation of this scheme. The works described below define the proposed archaeological works and have been designed to comply with the requirements of the Burnswark Project and Historic Environment Scotland.

The excavation is projected to run from 20 August 2016 to 4 September 2016, dependant upon receiving consent. Historic Environment Scotland will be notified of the confirmed dates.

2 Aims and Objectives

- implement the excavation of the three hand-cut trenches (5m by 2m; 10m by 1.5m and 6m by 4m) under archaeological supervision, at locations agreed with Historic Environment Scotland, designed to focus on specific areas identified during non-intrusive survey.
- recording and excavation of any archaeological remains that are located to determine the character, extent and significance of any archaeological features or deposits.

- production of a Data Structure Report detailing the findings of the archaeological investigative works.
- submission of entries to Discovery & Excavation in Scotland and OASIS.
- production of a scheme of post-excavation analysis, and recommendations for future works

All works will adhere with the Chartered Institute for Archaeology's Standards and Policy Statements and Code of Conduct, and Historic Environment Scotland Guidance documents.

3 Project Works

Methodology

The investigative works will be implemented through hand-cut trenches that will be excavated under archaeological supervision. Up to fifteen volunteers will be working on site at any one time, supervised by five experienced archaeologists. Each trench will have a nominated supervisor drawn from the experienced members of the project team.

Trenches will be excavated stratigraphically, hand-cleaned and recorded on a single context basis, using pro-forma sheets, to assess the nature and date of archaeological features or deposits. Excavation will continue until either clean geological deposits (expected on the basis of previous excavations and core samples to be bedrock) or significant archaeological deposits not suited to excavation in narrow trenches are encountered. If negative-cut features are encountered, they will be 50% excavated by half-sectioning, to determine their stratigraphic sequence and allow for profiles and sections to be drawn, prior to their complete removal.

Should exceptional circumstances arise, such as the exposure of remains or artefacts of an unexpected or complex nature, HES will be advised and any such left in situ until on-site discussions have been held and agreement on an appropriate course of action confirmed in writing.

The excavation will be conducted in the context of the recognition of the need for minimal intervention in the Scheduled Monument, the available time and resources and the need to re-instate the area of excavation as it was prior to excavation, including re-turfing. In this context there will be ongoing evaluation and if necessary a restriction in the area to be excavated.

Should the archaeological deposits exceed a safe working depth, 1.2m below existing ground surface or less as local circumstances dictate, consultation will take place with Historic Environment Scotland. If it is deemed necessary to proceed to greater depth the trenches will be enlarged to allow steps or the edges will be battered.

In accordance with policy the local constabulary, Dumfries & Galloway Council Archaeology Service and Historic Environment Scotland will be notified should articulated in situ human remains be uncovered in the course of excavations. If removal is required this will take place in compliance with Historic Scotland's Policy Paper 'The Treatment of Human Remains in Archaeology'.

Risk Assessment and Safe Working Procedure

All work will be undertaken in accordance with current H&S legislation. A risk assessment has been undertaken for the proposed works, and is compiled with a SWP in a separate document which will be circulated to participants and made available on-site.

Recording

All recording will be done using the standard single context recording method of practice: individual trench plans at 1:100, sections drawn at 1:10, individual features will be planned at 1:20 scale and recorded in a register. All drawings will be allocated a unique number and recorded in a register, all will be located on the site grid (tied to the National Grid). All levels on plans and sections and all drawings will be related to Ordnance Datum. A trench location plan will be recorded by digital survey (Leica TCR307 Total Station), relative to the National Grid and Ordnance Datum, utilising base points established by RCAHMS in 2015.

All context, small finds and environmental samples will be given unique numbers. Record photographs including a metric scale and general site photographs will be taken and recorded in a register that includes information on context and direction of shot.

Finds will be collected by context and small finds will be three dimensionally plotted where appropriate. Finds will be cleaned, dried and stored as appropriate and in accordance with *First Aid for Finds* (Watkinson & Neal 1998). All artefacts will be labelled, packed and stored in appropriate materials and conditions to ensure that no avoidable deterioration occurs. Processing and storage will be carried out in accordance with UKIC (United Kingdom Institute for Conservation) guidelines and will accord with relevant Chartered Institute for Archaeologists Guidelines on Finds Work. They will be catalogued and assessed by an appropriate specialist and the assessment results included in the data structure report.

Finds of objects will be subject to the Scots Laws of Treasure Trove and *Bona Vacantia*. The procedures of documentation and declaration to the Treasure Trove Unit will be followed in keeping with their Practice Guide for reporting artefacts recovered.

Environmental samples will be taken from archaeologically significant contexts, if the analysis of these samples would aid significantly in the interpretation of any features identified. Bulk environmental samples (up to 20 litres) will be collected from primary archaeological contexts and a representative number processed by wet sieving and floatation. The resulting artefacts and environmental remains shall be collected and assessed by an appropriately experienced specialist at AOC Archaeology, Loanhead at the conclusion of excavation.

Specialist advice for finds conservation and sampling strategies, should it be required, will be provided by Dr Louise Turner, Post-Excavation Coordinator at Rathmell Archaeology Ltd.

Reporting

The draft Data Structure Report will be completed within six weeks of the end of the excavation, and will contain the following:

- the location and National Grid Reference of the site;
- a non technical summary describing briefly the work undertaken;
- a full descriptive text detailing the archaeological features identified during excavation and an interpretation of their date and purpose;
- appropriate lists and diagrams summarising the contexts and artefacts recovered and the records made of them; as well as a preliminary assessment of the assemblages
- A selection of digital photographs to illustrate the written report;
- Fully referenced bibliography and cartographic sources;
- Photographic print and slide registers as an Appendix;
- Environmental sample register as an Appendix;
- *Discovery and Excavation in Scotland* (DES) Entry as an Appendix;

A full draft of the DSR will be circulated to HES for comment. Copies of the finalised DSR will be sent to HES, the National Record of the Historic Environment (formerly the NMRS) and D&G Council HER.

Following completion of fieldwork and approval/acceptance of the report by HES, an ordered archive of both object and paper elements will be prepared according to the RCAHMS Guidelines for Archiving of Archaeological Projects (2009).

Post-Excavation strategy

A Post-Excavation Research Design will be prepared in conjunction with the final anticipated Data Structure Report. This will identify the recommended analyses for the recovered material as well as providing the names and brief CVs for the appropriately qualified and experienced specialists who will carry out the works. It will also recommend the structure for the publication and dissemination of the results.

Until the on-site works are complete the exact nature and size of any post excavation works will be unknown. Should archaeologically significant material be recovered then this will be a significant stage of works. To some degree the examination will be led by the nature of the materials recovered. However any work is likely to focus on artefact analysis, palaeo-environmental analysis, radiometric dating and stratigraphic interpretation.

Copyright

The Burnswark Project will retain full copyright of any commissioned reports or any other project documents under the Copyright, Designs and Patents Act 1988.

Dissemination and Archiving

The results of the project will be published in an appropriate archaeological journal or monograph should the fieldwork results warrant this. The suitable level of publication will be dependent on the significance of the project results.

The project archive originally prepared during the initial site reporting will be expanded during reporting to cover all new materials generated by the post-excavation and reporting works. The finalised archive will be organised and deposited in line with relevant guidance and submitted to the National Record of the Historic Environment at the conclusion of the project.

The lists of finds submitted to the Treasure Trove Unit will be renewed at the conclusion of the project will. The finds will be retained until they can be collected by, or delivered to the institution awarded the collection by the Treasure Trove Unit.

4 Trench location

The three trench locations (see attached plan) are designed to take in areas of distinct concentrations of reading from the metal-detecting survey that are thought to indicate lead finds, and the possible location of Roman sling bullets (see research design). The third trench will examine a group of non-lead readings to determine their nature and composition. Micro-siting will take place once the location of detected objects is re-established.

The first trench, 5m by 2m, is proposed to be in the northern corner of the North Camp where a distinct cluster of readings was a notable result from the 2015 survey, to verify the readings and test the relationship of the objects uncovered to the stratigraphic sequence within the interior of the camp.

The second trench, 10m by 1.5m in the South Camp, behind the central portion of the north rampart, to confirm the detected presence of sling bullets there and to test the deposits comprising the ramparts, to locate the buried former ground surface and to test for the presence or absence of an intra-mural road.

A third trench, 6m by 4m, also on the back of the central portion of the north rampart of the South Camp to examine a cluster of non-lead readings. This will allow the mid-range of detecting signals to be ground-truthed, allowing a better interpretation of the numerous other signals recorded during previous surveys, and to establish the survival, condition and conservation status of the non-lead finds from the site. Between both of the proposed trenches in the South Camp the full spectrum of signals recorded in earlier surveys will be able to be tested and verified.

NB. Although numbered Trenches 1 -3 for the purposes of the application, in site recording and the final reports they will be numbered 3 – 5, following the excavations of Trenches 1 and 2 in 2015).

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5 References

RCAHMS 2009. *Guidelines for Archiving of Archaeological Projects.*

CIfA 2014 Standard & Guidance for Archaeological Excavation

CIfA 2014: *Standards and Guidance for the Collection, Documentation, Conservation and Research Of Archaeological Materials*

Watkinson D & Neal V 1998 *First Aid for Finds.*



