

Moredun Top Hillfort, Moncreiffe Hill, Perth

Project Design 2016-17

Moredun Top Hillfort, Moncreiffe Hill, Perth

Excavation Project Design 2016-17

David Strachan, Perth and Kinross Heritage Trust, July 2016

NON TECHNICAL SUMMARY

This project design outlines the proposals for a second and third season of archaeological excavation at Moredun Top hillfort, Perth, further to an initial evaluation in 2015.

The work is to be carried out as part of the Tay Landscape Partnership (TLP) scheme Hillforts of the Tay project. This document presents knowledge about the site to date, the results of survey and excavation, carried out by TLP, and outlines the methodology for limited archaeological excavation with the overarching objective to establish a chronology for the development of this complex of sites, from prehistory to modern times.

The project will be directed by Perth and Kinross Heritage Trust and delivered through TLP staff working with archaeological contractors AOC Archaeology Ltd. The project will involve large-scale community engagement and student involvement. Previous SMC was granted for the first phase of this project in 2015. Although a continuation of the same project a separate SMC application allowed us to steer our research aims in response to our initial evaluation of the fort.

1 Moredun Top: background

1.1 The site

Moredun Top Hillfort (NGR: NO 1355 1995; NMRS: NO11NW23; PKHER: MPK5232; Scheduled Monument: 9440) is the larger of two hillforts on Moncreiffe hill, to the SE of Perth (Figs 1 and 2). The hill itself is a key geographical feature in the landscape, located at the meeting of the Rivers Tay and Earn and so dominating the lower straths of both rivers. The monument itself comprises a clearly multi-period site with the remains of at least two forts of late Iron Age and/or Early Historic date, as well as traces of other buildings. The monument lies between 190-225m O.D. and crowns the summit of Moredun Top, the highest part of Moncreiffe Hill. Its location exploits the naturally defensive cliffs on the south face of the hill, and affords extensive views of the surrounding landscape in all directions, truly dominating the landscape at the tryst of these important river systems.

Both Moredun Top, and its neighbour Moncreiffe fort (NGR: NO 131 198), sit on exposed bedrock of the Ochil Volcanic Formation, being pyroxene – andesite, with the drift geology of the surrounding area consists of Glaciofluvial till, gravels, sands and silts (British Geological Survey 1:50000 digital data).

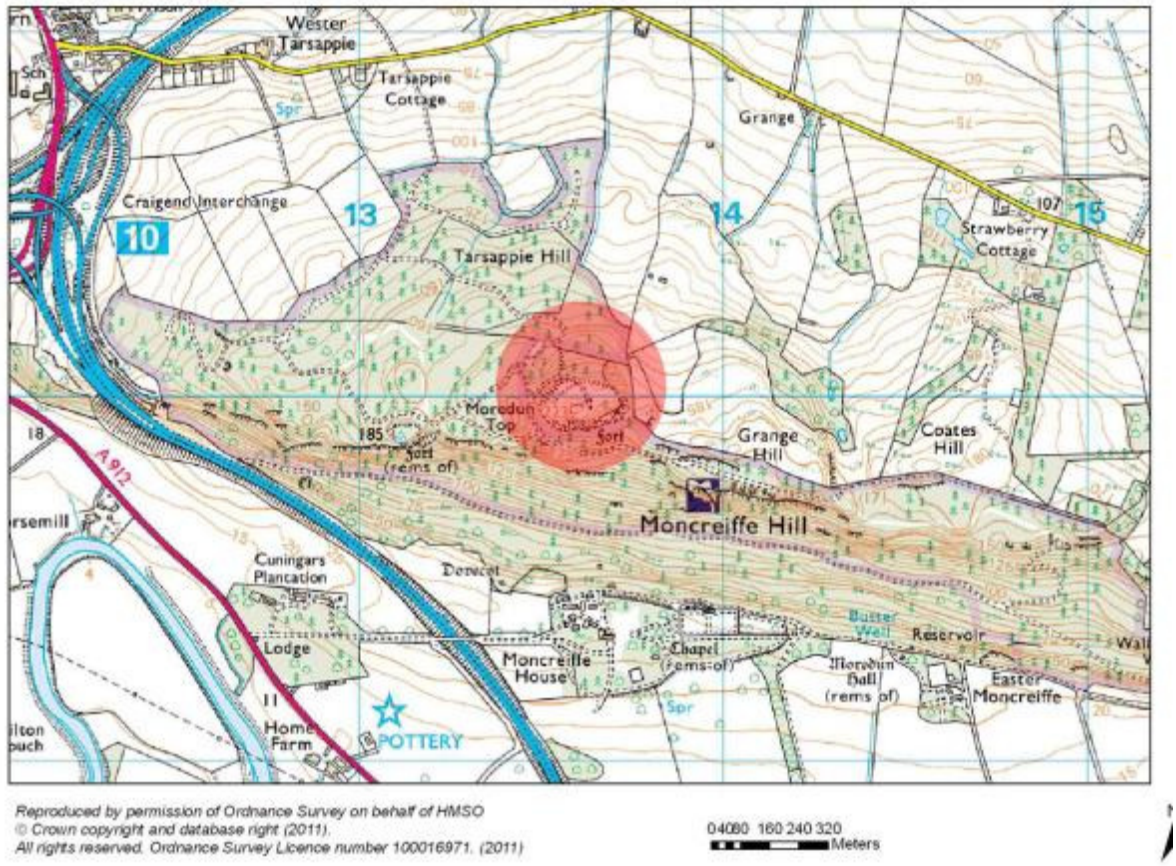


Fig 1: The location of Moredun Top hillfort, crowning the highest part of Moncreiffe hill, Perth.

1.2 Scheduled status

All of the currently identified earthworks relating to the site are included in the scheduled area (Fig. 2). The Scheduled Monument designation documentation from March 2001 includes the following summary:

> *The monument comprises the remains of a hillfort with evidence for use dating from both the late Iron Age and the Early Historic period. The monument lies between 190-225m O.D. and crowns the summit of Moredun Top, the highest part of Moncreiffe Hill. From this point, it commands extensive views of the surrounding landscape and exploits the naturally defensive cliffs on the S face of the hill. The fort appears to show two main phases of construction and use. The first phase is a large roughly oval enclosure, measuring approximately 175m E-W by 100m N-S, defined by a stone and earth rampart. A second, inner, rampart may also date from this phase. The summit of the hill is enclosed*

by a double set of stone ramparts or walls. These define another roughly oval area approximately 50m NW-SE by 35m transversely. A further rampart following the natural contours of the hill on the N side encloses a large semi-circular "court" or annex, reminiscent of Early Historic sites throughout Scotland. Traces of possible footings for circular buildings have been recorded on the hill summit, but it is not clear if these relate to one or both of the phases of defensive activity. In addition to the physical remains, the site may also have historic associations. In AD728 a significant battle in the struggle for control of the Pictish Kingdom was fought at Monad Croib, also known as Monad Craebi. The modern "Moncreiffe" may derive from these earlier place names. The area proposed for scheduling comprises the remains described and an area around them within which related material may be expected to survive. It is an irregular area, measuring a maximum of 260m N-S by 250m E-W, as marked in red on the accompanying map extract

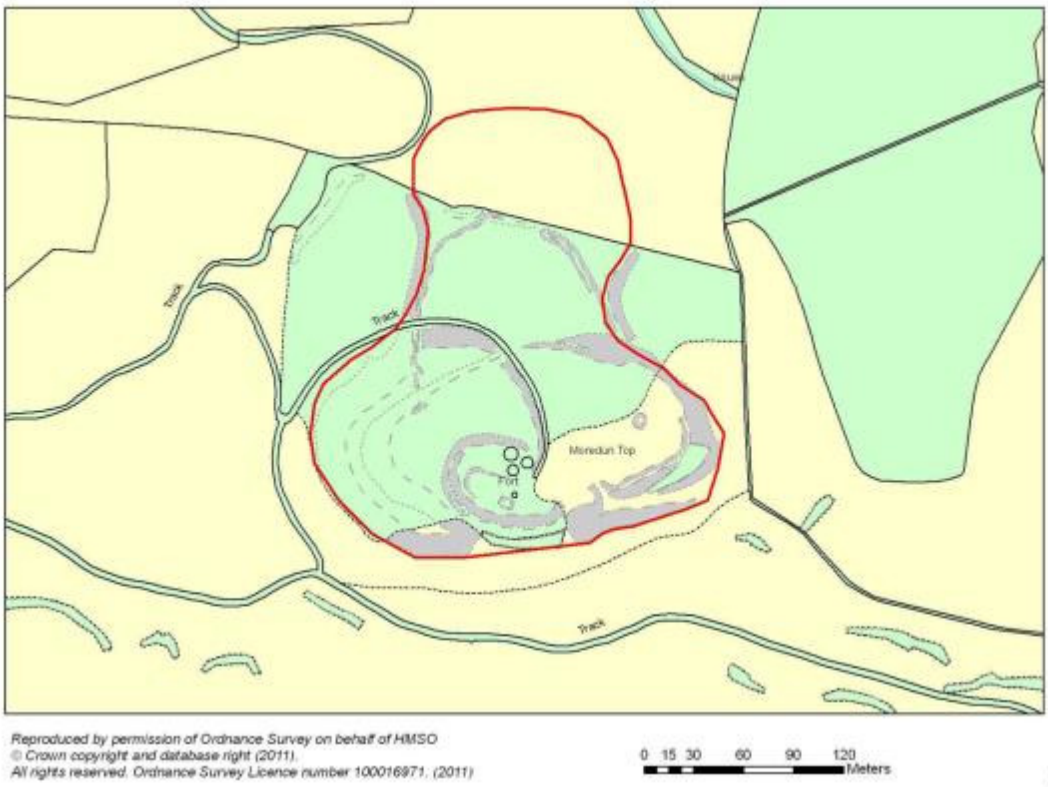


Fig 2: The schedule area at Moredun Top.

2 Previous archaeological work

2.1 Early records

While there is no mention of either hillfort in the Old and New Statistical Accounts (1791-99 and 1834-45 respectively), the author of the Old Statistical Account notes that:

> "The view from the top of Moredun is extensive, various, and grand. The ingenious Mr Pennant, on account of the richness and variety of this prospect, calls it "The Glory of Scotland".

The site appears annotated as 'Carnac fort (Remains of)' on the OS 1st edition 6" map (Fig 3). Christison notes relatively little about Moredun, noting that the 'remains are so dilapidated and overgrown that it is difficult to plan them' (1900, 81). He identifies only the central 'nuclear' fort, however he does note the existence of some external features and 'several small, round, saucer-shaped hollows' (ibid). The fort is subsequently described by Wainwright (1955) and Feachem (1963), the latter noting the multi-phased occupation with a 'dun-like structure' within a larger fort, and suggesting that the later could be post-Roman in date, and also noting that the roundhouses identified by Christison appeared to post-date both of these features. The 1:2,500 scale map is also revised following a visited by the OS in October 1963, while RCAHMS made a visit in December 1996.

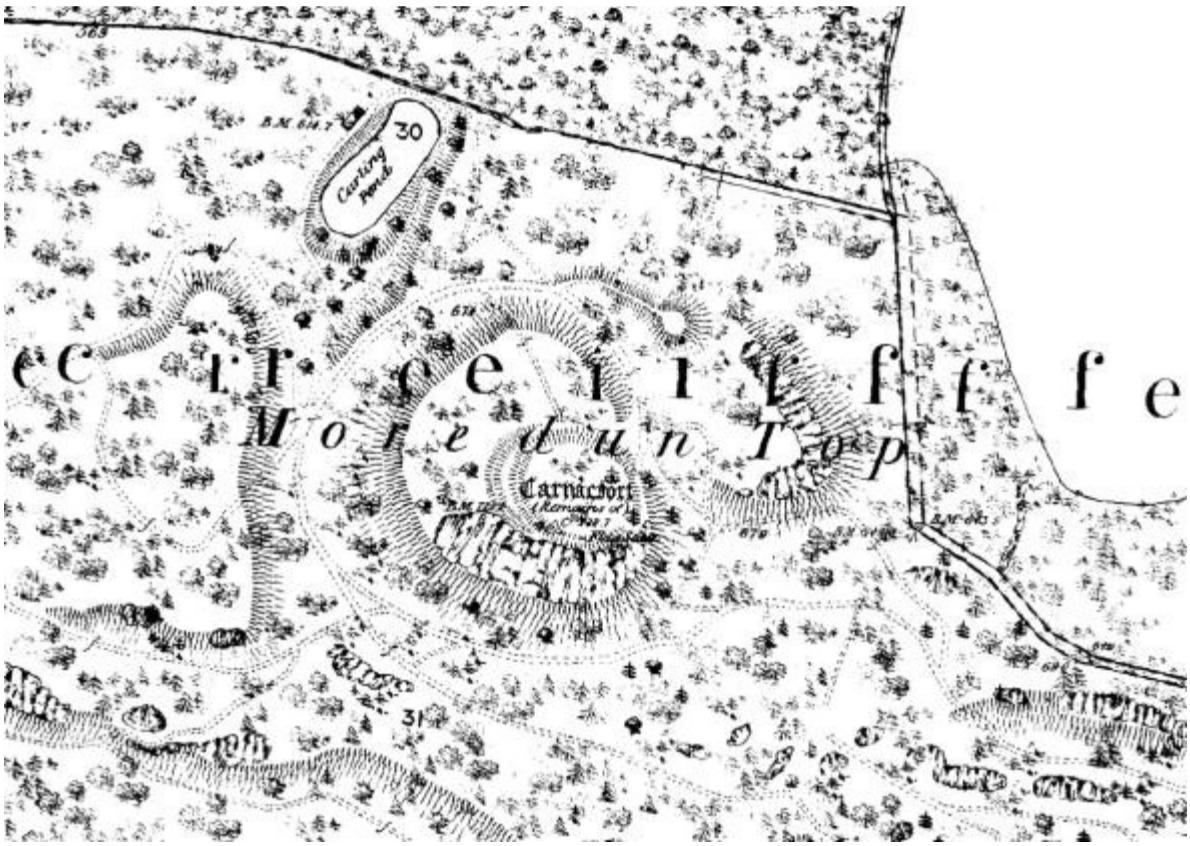


Fig 3: The site as it appears on the first edition Ordnance Survey map, surveyed in 1859 & 1860.

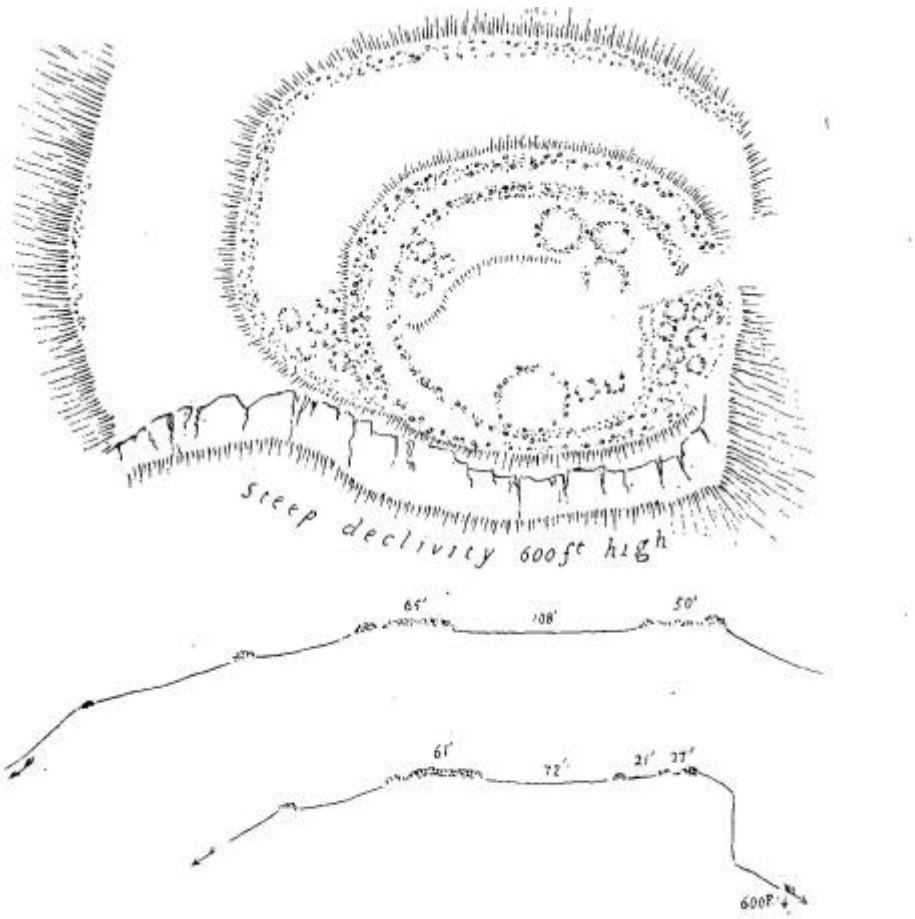


Fig. 37. Carnac, Hill of Moncreiffe.

Fig 4: The site as mapped by Christison (1900).



Fig 5: The dominating location of the site is illustrated by late 19th C view from Newburgh (AK Bell library, Perth).

3 Tay Landscape Partnership (TLP) work to date

3.1 Background to the TLP project

The development of the TLP scheme identified the potential for a research project focussing on the series of undated hill-forts along the Ochil and Sidlaw Hills, distinctive landmarks, about which little is actually known. A Citizen-science project, with professional archaeologists engaging with volunteers and students was developed to archaeologically excavate a number of the sites and to publish the findings and incorporate the information into outreach material produced by the scheme. The project as planned recognised that:

- while hill-forts generally date from the Iron Age, in Scotland some have been shown to have been occupied from the Late Bronze Age and others into the early medieval period, a time when the TLP area was critical in the evolving merge of smaller independent polities that would result in the medieval nation-state of Scotland.

- only one of the group has been previously explored (Abernethy Law) and this was in the 19th century, before scientific dating was available.

- there is little understanding of how the sites relate to one another, or even how old they really are.

- while being well-known landmarks their real contribution to the landscape value of the area remains untapped. The project would aim to celebrate the sites by engaging volunteers, led by professionals, to archaeologically excavate the sites and to publish the findings and incorporate the information into outreach material by the scheme.

3.2 TLP research agenda

In addition to the social and educational aspects to the excavation proposal outlined above, the TLP Hillforts of the Tay project is based on a set of research objectives designed in response to both the national Scottish Archaeological Research Framework (ScARF)[1] , the *Historic Environment Scotland Policy Statement* (HES 2016) and in the context of a number of ongoing regional research initiatives.

3.2.1 ScARF has identified lack of information about a number of aspects relating to hillforts within the Iron Age section 6 Enclosed places and

[1] http://www.scottishheritagehub.com/

specific ScARF research recommendations that will be addressed by the project are as follows:

- "Enquiry must move to a situation where regions can be compared on a more equal footing. Some key 'black holes' sitting between other better understood areas are immediate targets for research (e.g. Fife, between the Lothians and Angus; the western seaboard between Galloway and Argyll; the central and western Highlands."

- "Why did people choose to inhabit places such as hilltops, promontories jutting into the ocean and artificial islands in lochs? There is a need not only to study the setting of sites but also to try to reach a better understanding of how landscapes were conceived."

- "There is no overall picture regarding the role of 'hillforts', whether as tribal capitals, (seasonal) meeting places, elite residences, or other functions and it is likely that their role varied across time and space. This impacts directly on social models for the Iron Age; regionally-based diachronic models are a key desiderata."

- "What lies behind the diversity of enclosure forms in some areas? A regionally-structured review of the classification and social context of enclosed places is required."

- "The lack of dating evidence for enclosed sites is an issue across the board, as it is a severe constraint in understanding them. 'Key-hole' offers the prospect of obtaining at least an outline chronology in an area relatively quickly, but with the caveat that such approaches will inevitably simplify each site sequence and can only produce a first-stage model."

- "The lack of evidence for activities within enclosed sites, due to limited work in enclosure interiors, is a severe constraint, as are the difficulties in connecting interior activity to enclosure sequences. Geophysical survey offers a cost-effective approach to assessing enclosure interiors in favourable circumstances."

- "The nature of the largest forts (e.g. Traprain Law, Eildon Hill North, Burnswark) in relation to the wider settlement sequence remains an area requiring further work."

3.2.2 While it is fair to say dating of hillforts is a central question for Iron Age ScARF (Sanders pers comm), however, it should be noted that:

- "Good dating evidence is an issue across the board. Recent 'key-hole' work e.g. in Strathdon (Cook 2010) offers the prospect of obtaining at least an outline chronology in an area relatively quickly, if stratigraphically-secure material can be identified. Such approaches will inevitably simplify each site sequence, being

focussed only on enclosure phases, and need to be followed by more extensive excavations on key sites to develop the picture."

- "Methods of enclosure have so far refused to show widespread sequences; identification of local and regional trends seems the best way forward."

It may be possible that a focus on entrance forms may form a useful focus of examination.

3.2.3 There are also relevant research issues identified in the Medieval ScARF:

- "Turning to the study of the later use of hillforts, work in the Moray Firth (Craig Phadrig, Portknockie, Burghead) remains unpublished and it would be good to reinvigorate this series of projects emphasising the prehistoric context (as at Traprain Law) and the protohistoric settlement context (with the SERF project beginning to address this). Whether protohistoric people are re-using a hillfort for defence or legitimation or are 'making reference' to earlier religious loyalities is perhaps more likely to emerge from studying the surrounding territory… rather than the site itself. However, if a hillfort site is to be examined small-scale excavation must be superceded by a range of new approaches, including the use of survey techniques such as Lidar… laser scanning, TST… survey, and area excavation."

3.2.4 The research objectives of the project will contribute to the conservation of the cultural significance of the monument in line with *Historic Environment Scotland Policy Statement* (2016), strengthening the validity of Scheduled Monument status by improving our understanding of the monuments overall character, form and importantly date, and therefore our understanding of its cultural significance.

3.2.5 The Strathearn Environs and Royal Forteviot (SERF)[2] project is a long-term study, by the Universities of Glasgow and Aberdeen, to the study the area around Forteviot, not only site of a major royal centre in the 9th and 10 centuries AD, but also one of the most extensive concentrations of early prehistoric ritual monuments on mainland Scotland. Since it began in 2006, SERF has explored forts and hillforts in the area directly to the west of Moncreiffe Hill (for example, Poller 2010 and 2011; Poller and Goldberg 2007; and Poller and James 2012).

While, the results of the SERF hillforts project is currently in preparation (Poller pers comm), it is clear that there is a significant opportunity to

[2] http://www.gla.ac.uk/schools/humanities/research/archaeologyresearch/projects/serf/

bring together a wider body of data for hillforts from lower Strathearn and the Tay that will be of greater value in answering some of the questions raised by ScARF above. The collective results of these studies will illuminate their chronology and function and enhance our understanding of these monuments on a regional scale, and their context within a national scale. This sort of regional definition for groups of hillforts within key areas has been recognised as key for further understanding by the Atlas of Hillforts in Britain and Ireland project.[3]

3.2.6 Finally, the work of the TLP Hillforts of the Tay project will feed into a wider programme of research by Perth and Kinross Heritage Trust into settlement types and patterns covering throughout the wider area from c.1,000 BC to c. AD 1,000. This work has included excavation of a broadly contemporary and related site in highland Perthshire (Strachan 2013), which add regional context to the analysis of the architectural tradition, and research into later settlement-types that may reflect deeply engrained cultural boundaries, that persist across the long Iron Age, perhaps reflected both in the lack of monumental Iron Age architecture to the east of the Tay in the Strathardle and Glenshee, where an early medieval turf longhouse tradition evolved.[4]

In conclusion, the TLP project presents an opportunity to begin to clarify the chronology and use of hillforts in the lowlands of Perth and Kinross, and possibly cast light on related site-types in highland Perthshire and beyond.

Comparative plans of hillforts from around the Tay estuary, based on the TLP Desk Based Assessment (Strachan 2012), illustrates both considerable diversity of form, but with a number of re-occurring themes (Fig 6), however it is clear that Moredun is both the largest and most complex in this local group.

[3] http://www.arch.ox.ac.uk/hillforts-atlas.html
[4] http://www.glenshee-archaeology.co.uk/index.php



Fig 6: Comparative plans from the Tay Estuary (Strachan 2012)

3.3 TLP development year work

The *TLP Hillforts of the Tay* project has progressed three main areas of work relating to Moredun hillfort to date:

- Desk Based Assessment (DBA)

  A Desk Based Assessment (DBA) Hill-forts of the Tay/Earn Confluence (Strachan 2012) collated known information from 10 hillforts and fort sites from the estuary confluence area to identify targets for possible excavation. Analysis of the results of this survey informed candidates for further consideration through topographical survey.

- Initial topographical Survey

  Following the DBA a topographic survey of four sites, including Moncreiffe and Moredun Top, was commissioned from Oxford North Archaeology with the aim of identifying and mapping surviving

archaeological earthworks and improve existing available OS mapping, with a view to the production of a ground plan of upstanding remains as a basis for directing and locating targets for excavation (Fig 7).

- Geophysical Survey

  A geophysical survey, in the form of magnetic gradiometer (Fig 8) and resistivity survey (Fig 9), was carried out from 2013–2015 on behalf of TLP with the aim of identifying and mapping sub-surface anomalies which could inform evaluation through trenching. The results of this work are currently being written up.

- RCAHMS topographical and interpretative survey

  TLP commissioned RCAHMS to undertake a detailed survey and interpretative mapping of extant archaeological features, building on the Oxford survey carried out in 2012. The objective was to produce an interpretive ground plan of upstanding remains as a basis for directing and locating targets for excavation. In May 2014 a team from RCAHMS undertook 5-days of survey which identified an impressive array of features (Fig 10; Appendix 2).

  A preliminary interpretation of the phasing of features has (Fig.11) suggests that occupation on the hill may well contain significant monuments from the prehistory, the early medieval period, and the post-medieval period. A large, flat topped mound (1) may be the earliest surviving feature, possibly a cairn, much disturbed by later small-scale quarrying. A large oval fort (2) would appear to be the earliest in a series of three hill-fort enclosures, the second, slightly smaller example (3) has a later annexe added to the north (4), while the last (5) is relatively small given the scale of the enclosing wall, and a form often referred to with the terms 'nuclear' or 'citadel'. The late small fort (5) has clear parallels locally with Abernethy Law, Deuchny Wood and perhaps Moncreiffe Hill (Fig 6) and more widely in for example, Dundurn and Dunadd.

  It would appear that at least some of the visible roundhouses (6) in the area of fort 5, post-date it. There is clearly therefore a long history of hillfort construction and modification at the site, potentially in the site of earlier prehistoric remains. The survey has also highlighted the extent and nature of later quarrying around all of the above monuments (7) and also identified antiquarian or early archaeological excavations (8). In addition later features such as trackways and the curling pond are indicative of more recent leisure use and hint at a designed landscape perhaps an attempt to formalise 'Pennants view' and related to ancient site of 'Carnac'.

- TLP excavations 2015 summary – (Cook et al 2015)

The 2015 works comprised five trenches, which investigated the three main lines of ramparts, an annex enclosure. Within the hillfort a large flat topped mound along with a double ring hut circle were investigated.

The excavation of the ramparts demonstrated that there was a complex sequence of enclosure at the hillfort. The trench excavated across the two main enclosing banks demonstrated that both of these had at least two separate phases of construction with primary earth banks being overlain by stone ramparts. A similarly long sequence of occupation deposits internal to the upper of the main rampart lines was recorded. Across all the lines of enclosure the massive and monumental nature of the dry-stone ramparts was revealed.

Excavations within the interior of the hillfort focussed on a flat topped mound. Here another large dry-stone wall was exposed probably the outer wall of a monumental roundhouse. In the interior of this structure were a series of in-situ burnt deposits probably derived from the burning of structural elements of the roundhouse. Limited excavation was also undertaken at a double ring hut circle within the interior.

A series of radiocarbon dates from across the site were obtained all of which dated to the 2nd half of the 1st millennium BC.



Figure 4: Moredun Hillfort, over all plan

Fig 7: The Oxford North Archaeology survey of archaeological features (2012) showing the scheduled area.

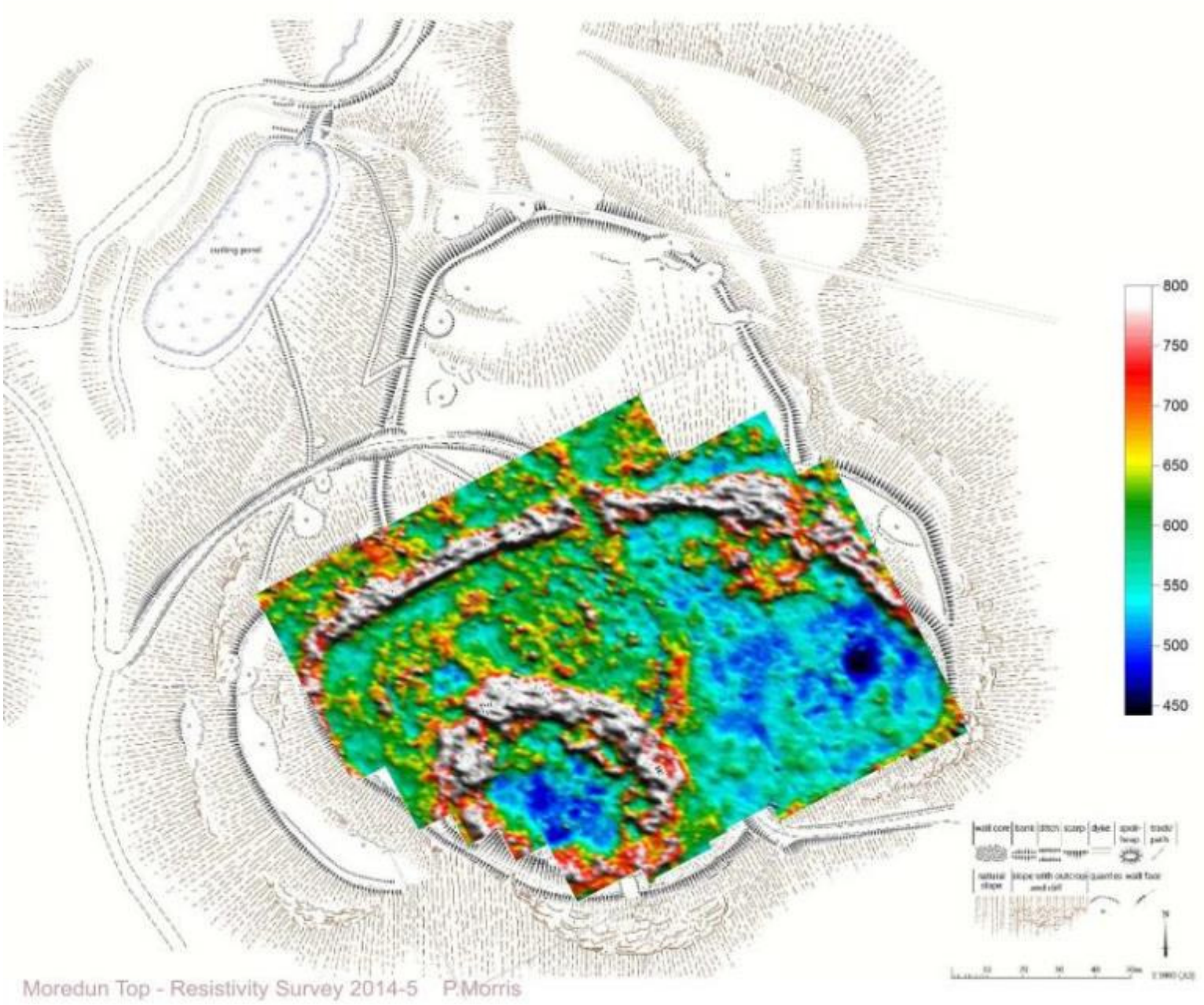


Fig 8: Resistivity survey carried out over 2013-15 (P.Morris)

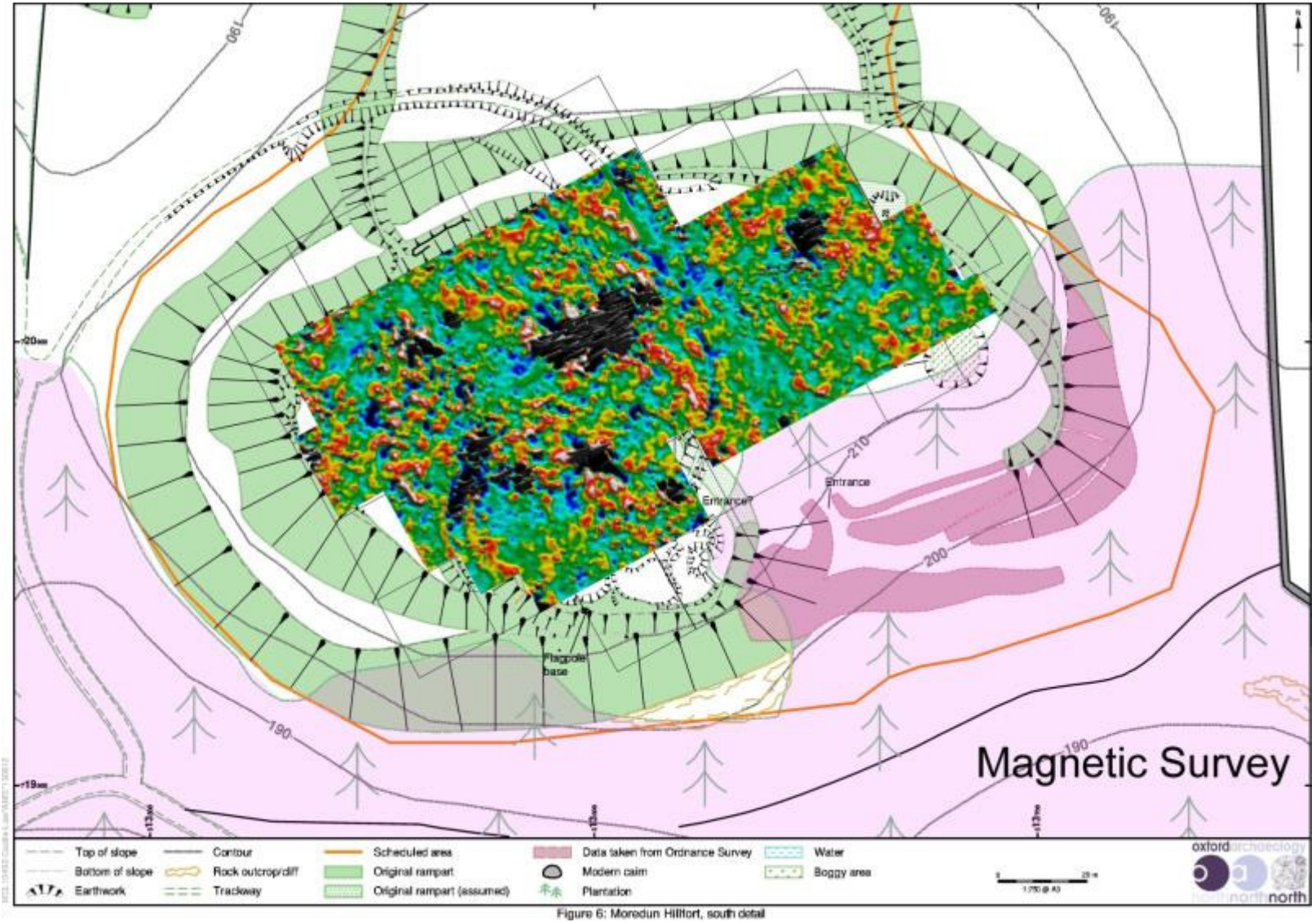


Figure 6: Moredun Hillfort, south detail

Fig 9: Magnetic survey carried out over 2013-14 (P Morris)

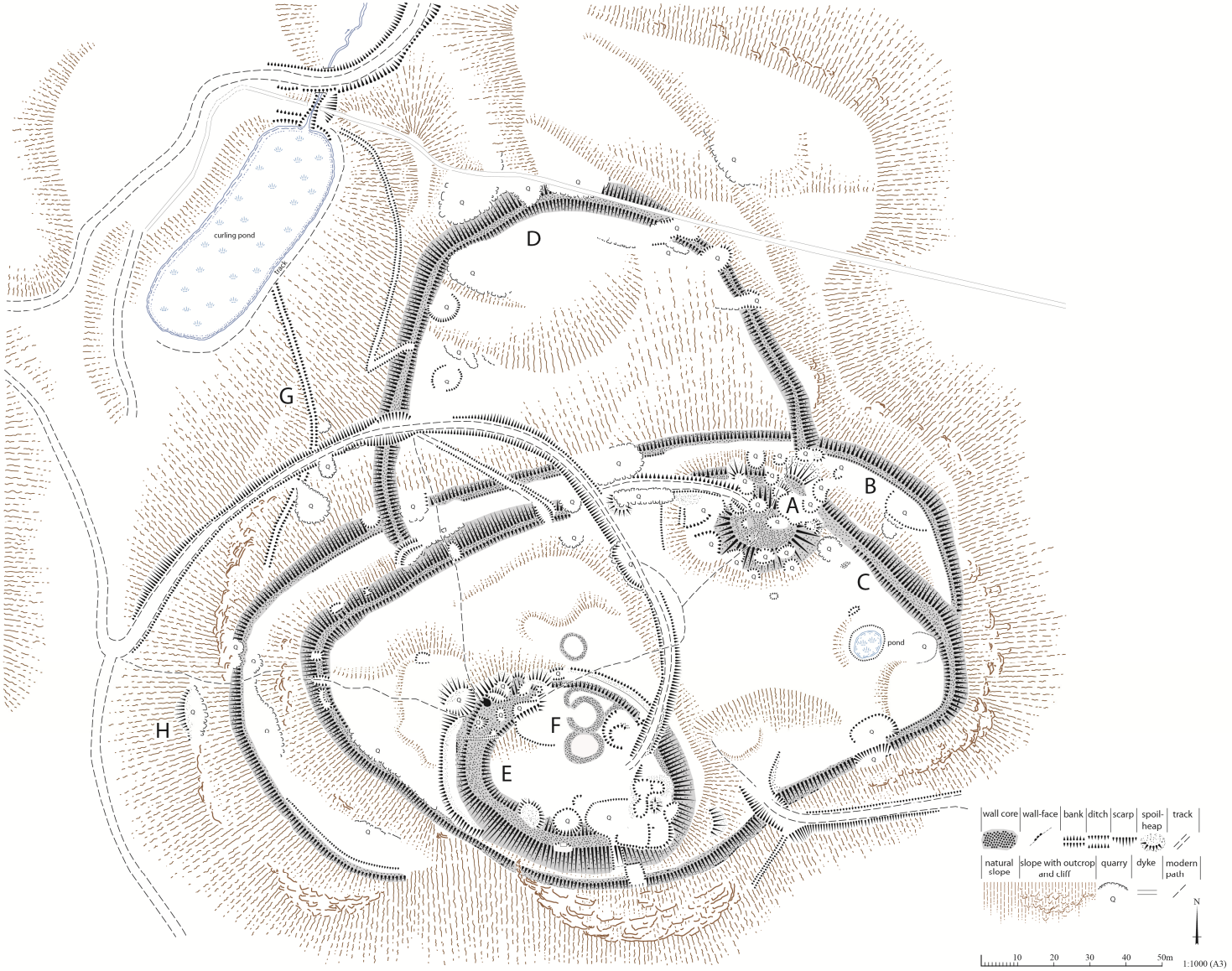


Fig 10: The RCAHMS survey of archaeological features (2014)

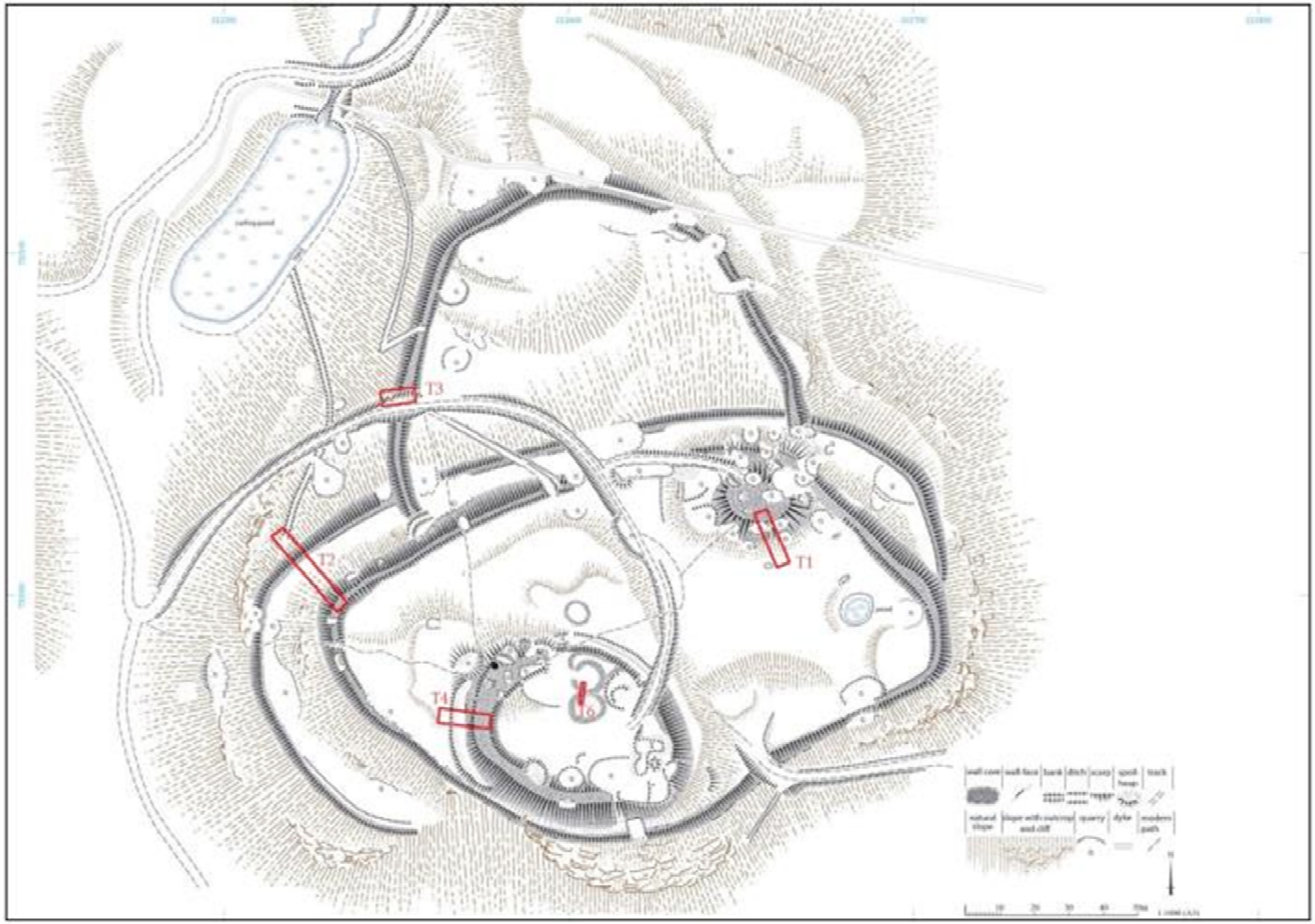


Fig 11: Map showing tranches excavated in 2015.

4 Methodology for proposed excavations 2016

4.1 Aims and Objectives

Prior to evaluation in 2015, a project steering group consisting of the author, Stratford Halliday (Edinburgh University), George Geddes (RCAHMS), Tessa Poller (Glasgow University) and Sophie Nicol (PKHT) have discussed the available data and possible approaches to excavation in light of ScARF research objectives, the results of data of the SERF hillforts project and wider approaches to hillfort studies across the UK. The group have proposed the following:

- The overarching objective should be to 'establish a chronology for the development of this complex of sites'.
- Specific targets through which to achieve this objective are the mound, ramparts of the enclosures, and interior of the enclosures.

In response an excavation strategy was developed with consideration to available resources to for evaluation in Year 1 (Strachan 2015) through trenches identified in Fig 11. Consideration was also given to Years 2 and 3, depending on results of the evaluation, with an overall aim to investigate:

- the Mound: further excavation depending on results of yr 1
- Ramparts: further excavation to confirm construction through exposing larger stretches of wall (10-15m).
- Ramparts: further excavation to clarify relationships through investigation of junctions.
- Interiors: potential for larger area excavation alongside prospective trenching of blank areas.

4.2 At the start of the 2015 project SMC was obtained for the first season's evaluation. The full three seasons were discussed with Oliver Lewis of HES, and the trench layout agreed in principle. SMC will be confirmed this year for the final two seasons.

4.3 Timescales and Resources:

The excavations planned for Year 2 and 3 are for a 4 week period over September 2016 and a similar period of work over April/May 2017.

Planned teams will consist of PKHT staff, David Strachan (Project Director) and Sophie Nicol (Site Director), Martin Cook (Site Director), and at least 5 contracted professional staff (Dr Dawn McLaren, Jess Lumb, Cathy McIvor, Katie Roper, Jamie Humble) with 30-38 volunteers (a ratio of 1 professional to 6 volunteers) as outlined below:

2016

Trench	size	Professional staff	volunteers
A		2	12
B		1	6
C		2	12
D		1	5
TOTALS		**6**	**35**

2017

Trench	size	Professional staff	volunteers
A		2	8
B		1	6
C		2	8
E		1	8
F		1	4
G		1	4
H			
TOTALS		**8**	**38**

4.4 Excavation Methodology: trench configuration

The proposed trenches (see Fig. 12) will address the above through a total of 8 trenches.

A range of options have been considered for this configuration in order to address the objectives identified in section 4.1 above, and the proposed layout offers the optimal balance of preservation *in situ* against the benefit of the generation of new knowledge about the monument.

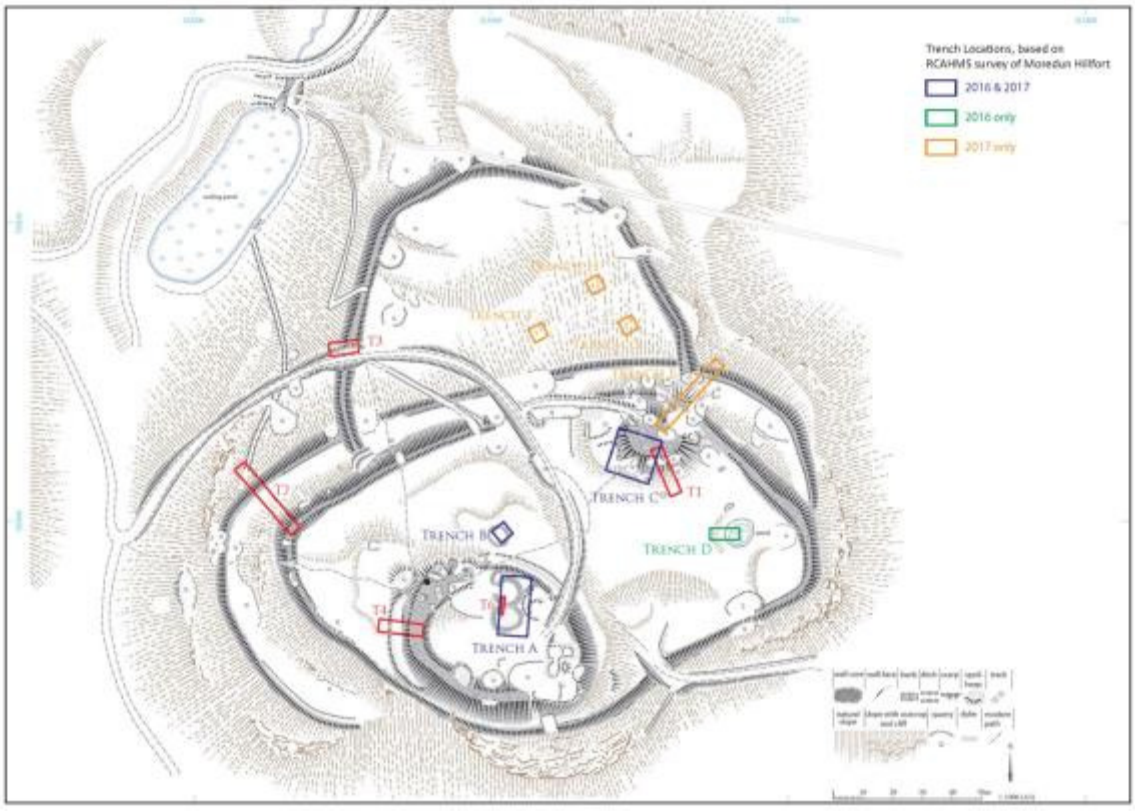


Fig 12: The configuration of 8 proposed areas of excavation over 2016 and 2017.

•Trench A (2016 and 2017)

A 10 x 20 m trench will to investigate the nature relationship of the two round-houses identified in survey, and during the 2015 evaluation.

Aim: *the trench will excavate in plan the round houses in order to assess their relationship to one another and to the main enclosure in which they are located.*

•Trench B (2016 and 2017)

A 5 x 5 m trench to investigate the nature the round-house identified by survey (Fig 11).

Aim: *the trench will assess/date the proposed round house.*

•Trench C (2016 and 2017)

A 15 x 15 m trench will be opened across the SW south side of mound A (Fig 10). Full excavation will only occur in sondages within this area, but the entire area will be excavated to a depth whereby the remains of the structure can be studied in plan

Aim: *to open up the structure identified in 2015 in plan in order to identify nature and date of construction*. *Is this the badly damaged remains of a broch, and if not, what is it?*

•Trench D (2016 only)

A 4 x 10 m trench to investigate the nature of the circular pond through excavation to bedrock.

Aim: *to assess the nature and date of the pond – is it rock-cut, what is the organic survival within.*

•Trench E (2017 only)

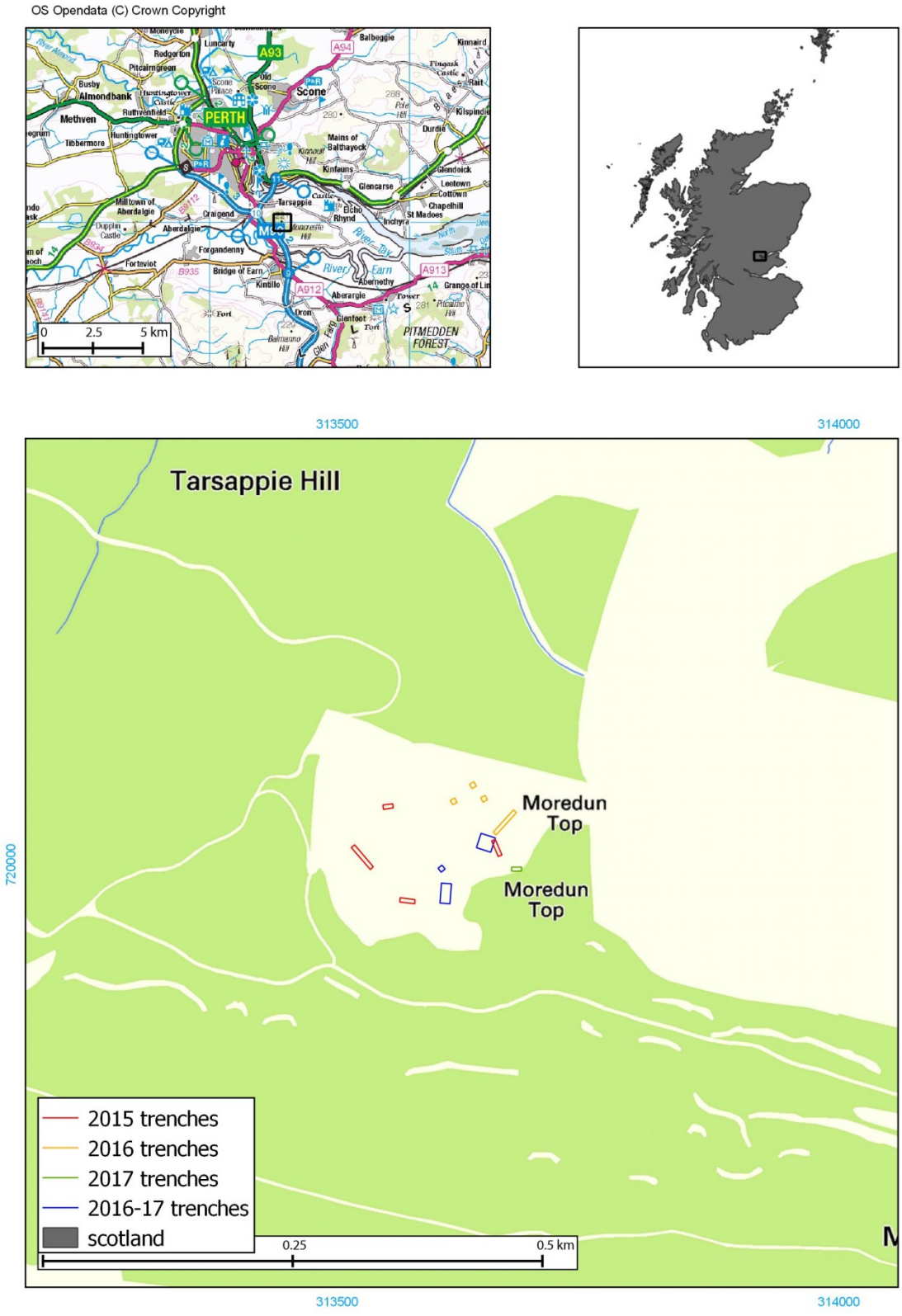
A 4 x 30 m trench running NE from mound A.

Aim: *to investigate the relationship of the mound A and the walls of enclosures B and C, and annexe D.*

•Trench F-H (2017)

A 5 x 5 m trench to investigate the nature relationship of the round-houses 6 (Fig 11). *Aim*: *the trench will assess/date the proposed round house features.*

Aim: *to investigate the internal area of annexe D, targeting any anomalies identified in geophysical survey from 2016. NOTE: exact location of trenches F-H will be positioned to investigate targets from this survey in winter 2016, and their position on Fig 11 is indicative at this stage.*



Trench locations overlain on OS map background

Figure 13: Proposed trenches over OS with location map

4.5 Excavation Methodology: standards

This project design has been prepared following current best archaeological practice and established industry standards, including:

- Standard and Guidance for Archaeological Excavation (Institute for Archaeologists 2001);
- Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (Institute for Archaeologists 2001), and
- Code of Conduct (Institute for Archaeologists 2000).

4.5.1 Excavation

All turf will be removed by hand and stored in coursed stacks and excavation will proceed by hand. After removal of the topsoil each excavation trench will be recorded in plan at the first significant archaeological horizon encountered.

In trenches opened over the fort walls, excavation will continue to the base of the wall. Excavation will continue through any wall tumble and rubble ground to any sealed deposits beneath. Any discrete features encountered will be investigated in section and 50% excavated.

In the event that excavation trenches will exceed the working depth of 1.2m, trench sides will be stepped to prevent sections from exceeding safe limits and potentially collapsing. Excavations will be stepped or battered back depending on the nature of the underling material.

At the close of the excavations all areas will be backfilled by hand with the soil returned to its original angle of repose and the turf will be replaced.

Contingency: The Tay Landscape Partnership holds a contingency budget to cover unexpected finds or complexity of deposits encountered.

Post-excavation condition monitoring: Monthly site visits will be carried out to assess the condition of backfilled trenches and remedial action taken to address any problems of erosion.

4.5.2 Recording and Sampling

A single context recording system will be employed and all deposits, fills and cuts will be identified as separate contexts and given unique numbers.

Significant archaeological horizons will be recorded in plan by measured drawing at a scale of 1:20. Sections will generally be recorded at a scale of 1:10.

A digital photographic record will be maintained throughout the fieldwork, including pre-excavation photographs, images to record individual features at different stages of excavation, photographs of cleaned sections, post-excavation photographs of features and general working and landscape images.

Spot heights will be taken at appropriate points to record differences in level above Ordnance Datum between archaeological features.

Relationships will be ascertained and recorded between contexts and a Harris matrix maintained for each excavation area.

Bulk samples (minimum 10L) will be taken of all significant archaeological deposits, including old ground surfaces sealed beneath banks and negative features, for subsequent flotation to retrieve macroplant remains. Control samples will also be taken of sterile subsoil.

In one of the baulks between trenches across the structure, column samples will be taken through the full profile of the bank and any underlying ground surfaces for subsequent pedological analysis.

Artefacts recovered from secure contexts will be individually bagged and their locations recorded by context or in three dimensions, as appropriate. Artefacts from topsoil will be bagged by context and excavation area.

Bulk samples and artefacts will be given unique numbers and recorded on pro forma record sheets.

Trench outlines and locations will be recorded by hand planning them into the site grid established through instrument.

4.5.3 Pollen sampling

The project is currently funding Richard Tipping of Stirling University to C14 date a peat core from the curling pond to the North-west of the site with a view to environmental study through pollen analysis. This work will be outwith the scheduled area.

4.5.4 Reporting and archiving

Concordances and trench narrative will be completed in the field and a fully illustrated Data Structure Report (DSR) will be lodged with Historic Scotland within 3 months of completion of the excavation. The report would consider the excavation results and provide an initial assessment of how the different the different survey techniques, outlined above, have complemented the excavation results.

The data structure report will consist of the following sections:

- A title page, including site name, NGR and code; and author(s).
- A non-technical summary of the findings;
- A description of the site location and the surrounding topography and geology;
- A description of the aims and objectives of the fieldwork;
- An account of the methodologies used to achieve the objectives;
- A description of the archaeological results, including an account of the process of excavation;
- An image of the survey created during the fieldwork;
- Site and trench location plans;
- Plan drawings of trenches showing archaeological features encountered;
- Section drawings of significant archaeological features;
- Photographs, including detailed images of significant features and general images of the site;
- Preliminary interpretations of the hillfort in light of the findings, and a discussion of the main interpretative issues and research questions raised through the fieldwork;
- Lists of contexts, artefacts and samples, and
- A brief specialist assessment of any artefacts.

The report will also be submitted to the OASIS database, and an entry will be submitted to Discovery and Excavation Scotland.

A longer term publication strategy for the TLP Hillforts of the Tay project is for full academic publication as a monograph, either in hard copy or online through, for example, SAIR. This final report will provide a more

detailed synthesis of the different types of data acquired and a wider context provided by, for example place-name studies, walk-over and field-walking results, and architectural analysis of the archaeology encountered.

Following the completion of all stages of the project, the paper and digital archive will be prepared according to current best practice and deposited as appropriate with the National Monuments Record.

4.5.5 Finds

Artefacts recovered will be cleaned, bagged and boxed according to the guidelines presented in UKIC's Conservation Guidelines No 2.

Artefacts will be sent to appropriate specialists to produce succinct reports on the objects' date, character, manufacture, cultural affinities and condition, and inform recommendations about their analysis, to be presented in the post-excavation research design.

The need for stabilisation of any artefacts recovered, including emergency conservation if required, will be assessed on site.

The DSR will make recommendations for post-excavation analysis, conservation of finds and full reporting (post-excavation research design).

All finds will be declared through the Treasure Trove process and lists of finds submitted to the Treasure Trove Unit who will be updated at the conclusion of the project. An archaeological contractor will provide appropriate interim storage for artefacts until they can be collected by the institution awarded the collection.

4.5.6 C14 dating

The results of AMS dating and specialist analysis of sediments, artefacts and botanical remains will be integrated with the stratigraphic observations made during excavations to refine interpretations of the formation processes, phasing and post-depositional changes evident from the excavated areas.

4.5.7 Timetable

The proposed evaluation trenching would be carried out 1-26 September over a 20-day period, with an assessment of any artefacts and environmental evidence, and a DSR produced by 6 January 2016, along with a post-excavation research design.

4.5.8 Health and Safety and amenities

The fieldwork will be compliant with the Health and Safety at Work Act (1974) and all applicable regulations and codes of practice. Staff and volunteers will carry out their work in accordance with safe working practices.

A risk assessment will be prepared for the project in advance and a safety plan prepared.

The fieldwork will commence with a safety talk and all staff will be expected to read and sign the safety plan. Continuous risk assessment will take place throughout the fieldwork so that mitigation measures can be put in place as and when necessary.
At least one qualified First Aider will be on site throughout the project and an emergency first aid plan will be in place. All staff will have appropriate PPE for working on an archaeological excavation. Work may be suspended for a period in the event of high winds or heavy rain to maintain safe working conditions.

In order to provide shelter and welfare facilities for staff and volunteers, facilities for First Aid and storage for equipment, a staff compound will be established at the foot of the hill where access to the site is made. This will include a portable toilet. Staff vehicles will be parked at the compound or on site during working hours. Tents, for immediate shelter on site, will be available.

5 Future work

Alongside the above programme of research, the following related work will be carried out over 2015-17:

- Continued walkover survey of woodland on the wider hill to identify historic features.

- Mapping and interpretation from historic vertical air photographs, such as the RAF 1946 national survey, Ordnance Survey etc) to establish tree cover history and identify new sites.

- RCAHMS working in partnership with PKHT have targeted the sites for aerial survey providing low level oblique images (see front cover). The site has been photographed twice in 2015, once before and once after the tree removal to the south-east of the site. The second flight took advantage of flat light to provide over-lapping imagery suitable for photogrammetry.

  Very low level air photographs will also be secured by drone and assessed for photogrammetry.

• Continued archival research to investigate themes such as the quarrying history of the site, the early archaeological excavations, and the possibility of designed landscaping by the estate.

• exploration of additional non-intrusive techniques such as available LIDAR, commissioning of new LIDAR, and/or restricted use of ground laser scanning.

• Further excavation based on the results of 2015.

6 References

Alcock, L, Alcock, E, & S Driscoll 1989 'Reconnaissance excavations on Early Historic fortifications and other royal sites in Scotland 1974-84: 3, Excavations at Dundurn, Strathearn, Perthshire, 1976-77', *Proc Soc Antiq Scot*, vol. 119, 189-226.

Bell, E W 1892 'Notes on the British Fort on Castle Law, at Forgandenny, Perthshire, Partially Excavated During the Summer of 1892', *Proc Soc Antiq Scot* 1892-1893, 14-22.

Carver, M, Barrett, J, Downes, J, and Hooper, J 2012, 'Pictish Byre-houses at Pitcarmick and their landscape: investigations 1993–*5' Proc Soc Antiq Scot* 142, pp 145-199

Christison, D. 1900 'The forts, "camps", and other field-works of Perth, Forfar and Kincardine.' *Proc Soc Antiq Scot* 80, pp 43-120.

Collis, J (2010), "Why do we still dig Iron Age ramparts?" (PDF), Collection Bibracte 19: 27–36, ISBN 978-2-909668-64-2

Cook, M et al (2015), 'Moredun Top Community Excavations Data Structure Report' (PDF), by AOC Archaeology Ltd for the Tay Landscape Partnership

Driscoll, S T 1987 The Early Historic Landscape of Strathearn: The Achaeology of a Pictish Kingdom. Unpublished PhD thesis, Department of Archaeology, University of Glasgow.

Dunwell, A & Ralston, I 2008 'Up hill and down dale – the forts of Angus', Chapter 5 in Archaeology and Early History of Angus. Stroud. Tempus.

Historic Environment Scotland 2016 *Historic Environment Scotland Policy Statement June 2016*. Edinburgh

Ordnance Survey Name Book. c,1862 Original Name Books of the Ordnance Survey. Book No. 23, 11

Poller, T 2010 ‘Law of Dumbuils Hillfort Excavation 2010’ Data Structure Report by Strathearn Environs and Royal Forteviot (SERF) project.

Poller, T 2011 ‘Ben Effrey Hillfort Excavations 2011’ Data Structure Report by Strathearn Environs and Royal Forteviot (SERF) project.

Poller, T and Goldberg M 2007 ‘Jackschairs Wood Hillfort Excavations 2007’ Data Structure Report by Strathearn Environs and Royal Forteviot (SERF) project.

Poller, T and James, H 2012 ‘Rossie Law Excavations 2012’ Data Structure Report by Strathearn Environs and Royal Forteviot (SERF) project.

Ralston, I 2006 *Celtic Fortifications*. Stroud. Tempus.

ScARF 2014 Hunter, F & Carruthers, M (eds) Iron Age Scotland: ScARF Panel Report. Scottish Archaeological Research Framework: Society of Antiquaries of Scotland. Available online at *http://www.scottishheritagehub.com/content/iron-age-panel-report*

Sherriff, J R 1978 *The Prehistoric Fortifications of Strathearn, Perthshire*. Unpublished undergraduate thesis, Department of Archaeology, University College Cardiff.

Strachan, D 2012 Hill-forts of the Tay/Earn Confluence. PKHT/TLP unpublished report.

Strachan, D 2013 *Excavations and The Black Spout, Pitlochry and the Iron Age Monumental Roundhouses of North West Perthshire*. PKHT, Perth.

Strachan, D and Sneddon, D 2012 ‘Glenshee Archaeology Project 2012. Excavation Lair, Glenshee, Perth & Kinross’ Perth & Kinross Heritage Trust and Northlight Heritage (Report 46) Data Structure Report.

Strachan, D and Sneddon, D 2013 ‘Glenshee Archaeology Project 2013. Excavation Lair, Glenshee, Perth & Kinross’ Perth & Kinross Heritage Trust and Northlight Heritage (Report 72) Data Structure Report.

Strachan, D 2015 Moredun Top Project Design, PKHT/TLP unpublished report.