SERF 2016: Millhaugh Project Design

Dene Wright

1.0 Background

1.0.1 The objectives for Phase 2 of the SERF Project is to carry out investigations to develop an understanding of the archaeology of Dunning and its place within the wider landscape (cf. Driscoll *et al*. 2010; Poller 2014).

1.0.2 The prehistoric element of the SERF Project moved its focus to Dunning following the completion of the fieldwork at Forteviot in 2010, and has explored a range of sites and monuments at Leadketty (Brophy *et al*. 2012), Baldinnies (Brophy and Wright 2013), and Wellhill (Wright 2014b, 2015b).

1.0.3 Subject to permissions from the landowner, Historic Environment Scotland 'HES' Archaeology Strategy as funder, and HES Casework as regulator for scheduled monument consent, the principal focus for 2016 will be Millhaugh. The proposed fieldwork will be undertaken in three phases. Please refer to figure 1 for notation of the fields at Millhaugh.

- Summer 2016 (18 June-10 July)
  Phase 1 MH14.4: Excavation;
- Late Summer/ Early Autumn 2016
  Phase 2 MH14.4: Geophysical survey and fieldwalking; and
  Phase 3 MH14.1: Excavation.

The precise dates for Phases 2 and 3 cannot be ascertained as yet because it is dependent on the ploughing schedules following the harvesting of the sown crops. HES will be notified prior to the commencement of fieldwork.

1.0.4 The fieldwork at Millhaugh is considered to be integral to the aims of Phase 2 of the SERF Project and developing an understanding of the archaeology of Dunning and its place within the wider landscape. The SERF research aims, set out below, for the proposed investigations at Millhaugh are taken from the *SERF Project Summary Document* (Poller 2014)

> "2.0 SERF Project Aims
>
> 2.4 The fourth research aim of the project is:
> 4. to contextualise the development of Forteviot as a centre of power and

ceremony at distinct points in the past by examining the long term shifts of power, ceremony and settlement in the wider landscape.
2.5 SERF is also a field school. Training participants in archaeological techniques is an important element of the project and therefore another aim is:
5. to provide a high standard of training in archaeological field practice, in a wide variety of skills, for students and volunteers
2.6 SERF had always included community involvement in its design, but as the project progressed it was necessary to extend this ambition and outline an overarching goal for the lasting legacy of the project. This aim is:
6. to promote and enhance the interest in the archaeology of Forteviot and Strathearn, providing a lasting archaeological legacy through the involvement and engagement of the local communities.

4.0 Phase 2 and the SERF Research Aims

4.2 The main goal, however, for Phase 2 has been to shift our attention onto the wider landscape in order to contextualise the results of the work at Forteviot (the fourth of the overall SERF aims). The SERF study area encapsulates several large parishes and includes substantial swathes of the uplands of the Ochils and the Earn valley. It is not the intention to research this extensive landscape at the same level of detail, but to draw out themes and case studies. Therefore, based on the results of Phase 1 as well as broadly examining the known evidence, particular places and areas of focus have been chosen for further research.
4.3 Dunning was seen to be an ideal counterpoint to the investigations at Forteviot. In the fields surrounding this village are an important range of prehistoric monuments and cropmarks. Extensive cropmarking has been recorded in the area to the north of Dunning, suggesting extensive activity in this area in prehistory, and the historic period. Central to this research is Leadketty, a similar complex of cropmark monuments to Forteviot, which includes an enormous palisaded enclosure, several hengiform enclosures, ring ditches, timber settings and a nearby large ditched enclosure.
4.4 Like Forteviot, there is also evidence of Late Iron Age or Pictish use of this landscape with a square barrow of first millennium AD type situated in the centre of the large ditched enclosure and other square barrows nearby. In addition the emergence of Dunning as a medieval power centre and its development into a thriving town by the early modern period will provide a contrasting trajectory to Forteviot.
4.6 Explicit methods to explore the cropmark evidence will be adopted in Phase 2 in order to add a more nuanced understanding of this archaeological resource, building on the results from the investigations at Forteviot in Phase 1. The overall aim will be to contribute to a revision of how this resource may be managed in the future.

4.9 An important focus for the second phase of the SERF project will be to develop a range of initiatives which will widen community participation and produce a lasting legacy."

1.0.5 Other than the SERF research aims, the specific focus for the proposed invasive fieldwork at Millhaugh may be summarised as:

MH14.4

- Square barrows
  To determine the character, and date of the square barrows, and compare those features excavated at Forteviot (Campbell 2010; Poller 2007) to tease out any nuances of difference in Early Medieval mortuary practice.
- Pit alignment
  The cropmark record infers a regularity to the size, and linearity of the pit alignment which is contrary to Wellhill (Wright 2014b), and MH14.1. The excavation seeks to determine the character, and date of the MH14.4 pit alignment for comparison.
- Neolithic mortuary enclosure
  The evidence from Wellhill (Wright 2014c, 2015b), and Dun Knock (Poller 2015) revealed evidence for settlement and agricultural practice during the Early Neolithic. The proposed excavation may provide for an aspect of broadly contemporary mortuary practice.

MH14.1

- Penannular enclosure
  To determine the character and date of the penannular enclosure, and ascertain the contemporaneity, or otherwise to the pit alignment.
- Pit alignment
  To determine the character, and date of the pit alignment to compare the pit alignments at Wellhill, MH14.4, and elsewhere.
- To determine the character, and date of the pit defined mortuary enclosure, and ascertain the contemporaneity, or otherwise to the pit alignment, and penannular enclosure.

The explicit research aims for the investigations at MH14.4 and MH14.1 may be found at 5.3 and 7.3, respectively.

1.0.6 The fieldwork proposed for Millhaugh will be the principal vehicle for teaching undergraduates and other participants excavation methodologies, techniques and the recording of data (RD Aims 5).



Figure 1: Location and notation of fields at Millhaugh. Image from Google Earth © 2015 Digital Globe; © 2015 Google.

2.0 Location

2.0.1 The track entrance to the steading at Millhaugh (centre National Grid Reference 'NGR' NO 02670 15864) is approximately 1.5km west of the centre of Dunning village on the B8062 to Auchterarder (Figure 2).

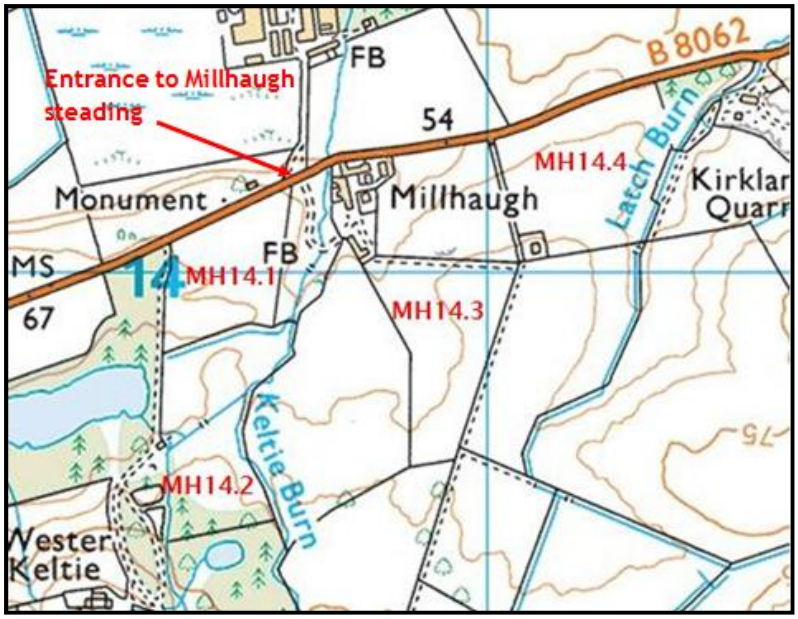


Figure 2: Location of track entrance to Millhaugh. © Crown copyright and database rights 2015 Ordnance Survey.

3.0 Archaeological background

3. 1 MH14.1

3.1.1.There is no record of any previous archaeological investigations at MH14.1, save for the fieldwalking undertaken in 2014 (Wright 2014a), and the test-pitting, geophysical survey and fieldwalking carried out in 2015 (Wright 2015a). The cropmarks were formally scheduled in June 1996 (NO01SW 34/NGR NO 0067813952 and NO01SW 36/NGR NO 0061514044) [Scheduled monument index 'SM' 5774]. They are recorded as a prehistoric settlement comprising a number of circular enclosures and other cropmarks; interpreted as an enclosure/barrow, pit alignment, ring ditch and later rig and furrow (Figure 2). A search using the online PastMap facility confirms that all of MH14.1 has been scheduled.

3.1.2 The footprint of the enclosure/barrow is broadly similar to the kerbed cairn in MH14.3, which was excavated in 2014 (cf. 3.3.1 below, and Brophy 2014). However, it appears that the putative ploughed down barrow is enclosed by a ditch. There is the intriguing possibility that the cropmark could be what survives of an Early Neolithic round barrow. There is only one such monument currently known in Scotland, and that is at Pitnacree, Perth & Kinross (cf. Brophy 2010, 2014; Coles *et al*. 1965).

3.1.3 Neolithic and Bronze Age lithic artefacts were collected during fieldwalking at MH14.1 in 2014, and 2015 (cf. Wright 2014a, 2015a).



Figure 3: Combined aerial photograph and draft transcription of the scheduled monuments located within MH14.1 (SM5774). Transcription by Cathy MacIver; Image Crown Copyright © HES.

3. 2 MH14.2

3.2.1 Prior to the fieldwalking in 2014 (Wright 2014a), there were no references to either any known archaeology, or archaeological investigations at MH14.2.

3. 3 MH 14.3: Millhaugh cairn

3.3.1 Prior to the SERF excavations in 2014 (Brophy 2014), no previous archaeological work had ever taken place at this monument, and indeed there is no tradition of this being a prehistoric burial mound until relatively recently. This prominent, upstanding, tree-topped mound was not even recorded formally as an archaeological site until 1991 when it was recognised by Gordon Barclay (1991), then Inspector of Ancient Monuments, as a possible barrow. The mound quickly became a scheduled ancient monument (SM5775). The site is also known as Parkside, and has NMRS no. NO01SW 41 with NGR NO 010140. Subject to the completion of post-excavation tasks, the excavations have demonstrated that the monument is a kerbed cairn, possibly Bronze Age in date (cf. Brophy 2014).

3.3.2 Other cropmarks were scheduled in 2001. They are located 200m south-east of the cairn and comprise of a putative barrow, sub-rectangular ditched enclosure and other indeterminate cropmarks (NO01SW69; NGR NO 0096613916).

3. 4 MH14.4

3.4.1 The cropmarks at NO 01SW28 (NGR 01128 14149)/NO 01SW43 (NGR NO 01195 14087) are described in the National Monuments Record as a settlement

comprising an interrupted ditched enclosure, putative pit enclosure and pit alignment. The cropmarks were scheduled in 1993 (SM5776).

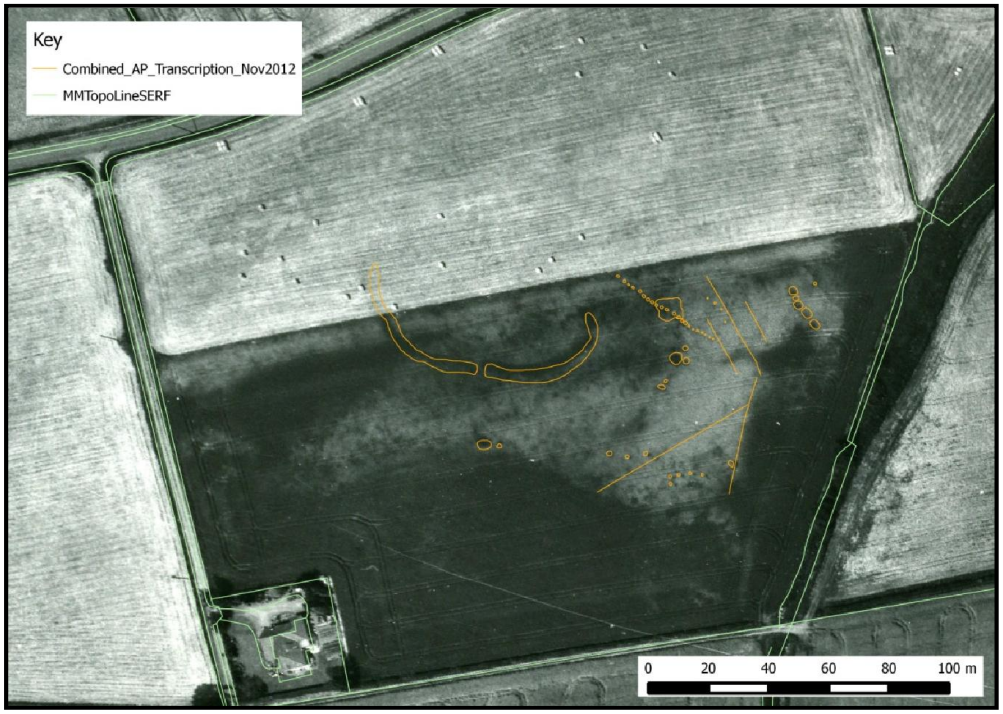


Figure 4: Combined aerial photograph and draft transcription of the scheduled monuments located within MH14.4 (SM5776). Transcription by Cathy MacIver; Image Crown Copyright © HES.

3.4.2 An interpretation of the cropmarks from a recent transcription of the cropmarks (Figures 4 and 5) suggests the presence of a putative Neolithic post defined mortuary enclosure, and Early Medieval square barrows along with the interrupted ditched enclosure, pit alignment, and pits/postholes.

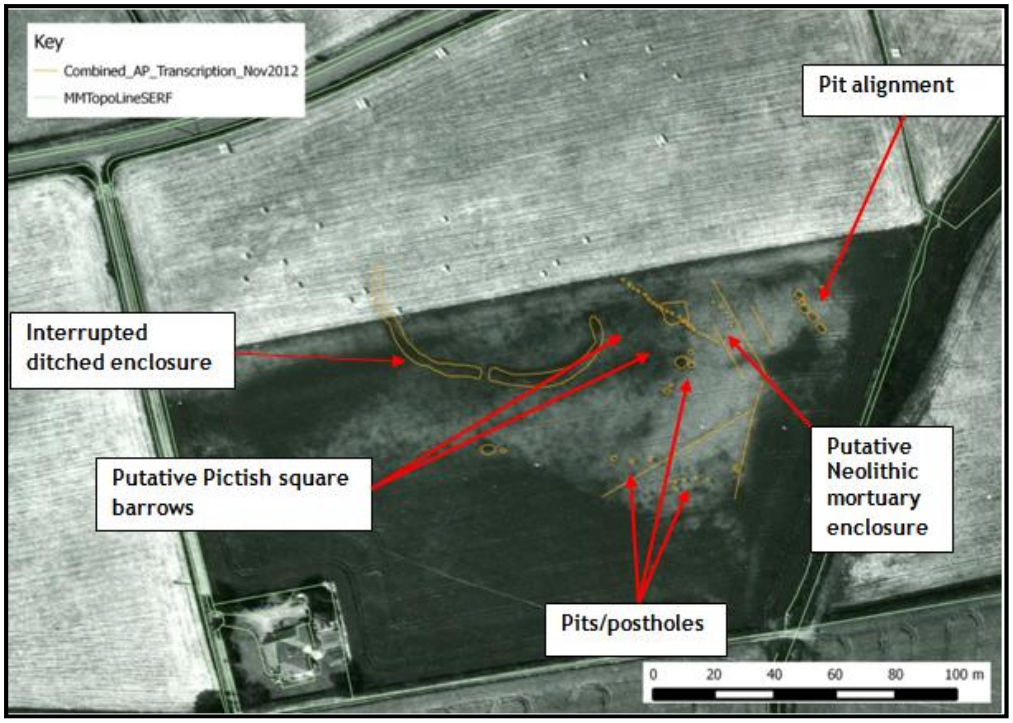


Figure 5: Annotated Combined aerial photograph and draft transcription of the scheduled monuments located within MH14.4 (SM5776). Transcription by Cathy MacIver; Image Crown Copyright © HES.

3.4.4 Pit defined mortuary enclosures are known in Perth & Kinross at Inchtuthil (Barclay and Maxwell 1991), and Castle Menzies, Aberfeldy (Halliday 2002), and elsewhere at Cowie Road, Bannockburn (Rideout 1997), and Douglasmuir, Angus (Kendrick 1995). Early Medieval square barrows were excavated at Forteviot (cf. Campbell 2010; Poller 2007). The uniformity and regularity of the pit alignment at Millhaugh potentially distinguishes it from the Early Neolithic quarry pit alignment excavated at Wellhill (cf. Wright 2014b).

3. 5 Scheduled areas at Millhaugh

3.5.1 A search at PastMap reveals the full extent of the areas scheduled for protection at Millhaugh (Figure 6).

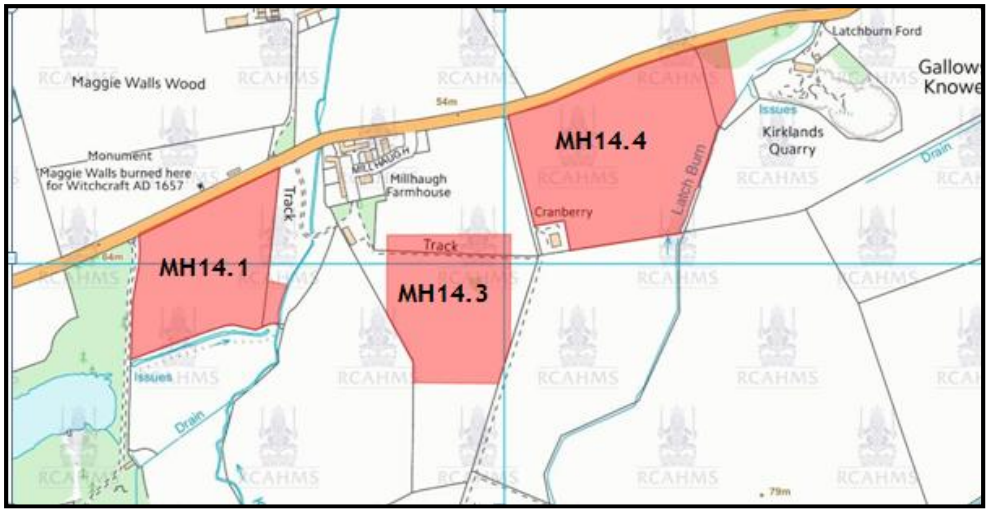


Figure 6: Geographic location of the scheduled areas of the prehistoric monuments at Millhaugh. Original image from PastMap © HES.

4.0 Solid and drift geology

4.0.1 The solid geology comprises of Sheriffmuir Sandstone. Glaciofluvial sheet deposits comprising sand and gravels are recorded as the principal drift geology for MH14.1, and glacial till for MH14.4. A band of alluvium and river terrace deposits is recorded at the western edge, and glacial till in the south-east corner of MH14.1. The presence of alluvium and river terrace deposits is also noted in the north-east of MH14.4 (Digimap® ED*i*NA Geology Roam) [Figure 7].

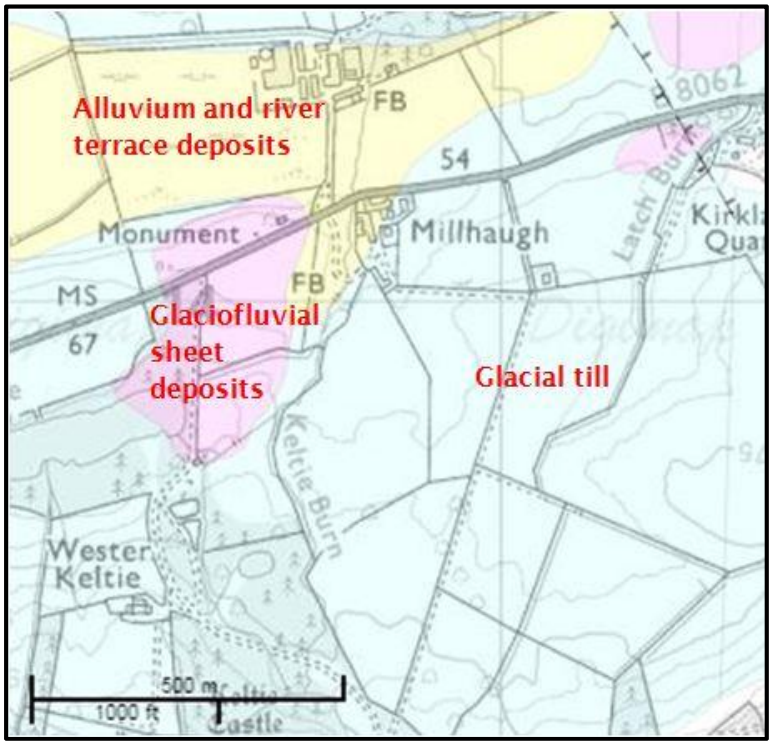


Figure 7: Drift geology at Millhaugh (Digimap® EDiNA Geology Roam online resource; © NERC/Crown copyright database right).

PROPOSED FIELDWORK

5.0 Summer 2016: MH14.4

5.1 Proposed excavations 18 June – 10 July 2016

5.1.1 Health and safety will be a priority, with appropriate safety gear and equipment provided for the excavation team. Health and safety briefings will be given on site and shoring used, where appropriate.

5.1.2 The site has been visited on a number of occasions. The land is used for arable farming, and falls away to the north before gradually levelling out approximately half-way across the field.

5.1.3 During the week ending 11June 2016, arrangements will be made for the trench to be machine stripped under careful supervision of Drs Dene Wright and Kenny Brophy. Thereafter, all excavation will be done by hand.

5.1.4 All contexts will be recorded in plan and section as appropriate by measured drawing, by digital photography and by written description on *pro forma* sheets.

5.1.5 The excavations will be directed by Drs Dene Wright and Ewan Campbell of the University of Glasgow. Two supervisors and two trainee supervisors will assist. The staff ratio of directors to supervisors is 1:2. It is expected that there will be no more than 40 students, giving a staff to student ratio of 1:6.7. There were eight volunteers at Dun Knock in 2015, and we would expect a similar number for 2016. This would give a staff to participant ratio of 1:8.

5.2 Trench CB16

5.2.1 'CB16' refers to Cranberry, which is the property at the south-west corner of MH14.4.

5.2.2 The trench will measure approximately 2,400m^2 [80m by 30m] (Figure 8).



Figure 8: Proposed location of CB16 (SM5776). Transcription by Cathy MacIver; Image Crown Copyright © HES.

5.2.1 This trench is located to detect features unknown to the archaeological record, and investigate those cropmarks comprising:

- the putative Neolithic mortuary enclosure;
- a section of the interrupted ditched enclosure;
- the pit alignment;
- pit/posthole features; and
- the Early Medieval square barrows.

5.2.2 The strategy is to balance preservation *in situ* against answering the research questions. Excavation should be limited to no more than 25% of surviving buried deposits revealed in the trench comprising the square barrows, and interrupted ditched enclosure. To determine the character of pits and postholes it is proposed that they should be half-sectioned. All burials will be fully excavated. If unexpected discoveries are made then any revision to increase the proposed excavation percentage of features would be subject to a site meeting, and formal agreement with HES Archaeology Strategy and HES Casework. For the avoidance of doubt, it is understood that once the trench is open, then permission cannot be sought from HES to extend the trench.

5.3 Research questions

5.3.1 In addition to the overall SERF Project objectives (cf. Driscoll *et al*. 2010; Poller 2014), the investigations will respond to the following research questions.

5.3.2 What is the character of the features revealed in CB16, and what do they represent?

5.3.3 Where features are recognised as post defined: what type of timber was used, what were the sizes of the posts, and how were they erected?

5.3.4 Is there any artefactual evidence for domestic events and/or tasks, and if so how does that evidence relate to the cropmarks and to farming settlement evidence at revealed at Wellhill?

5.3.5 What is the relationship of the prehistoric features to the cropmark complex at Leadketty (Brophy *et al*. 2012; Brophy and Wright 2013), the farming settlement at Wellhill (Wright 2014b, 2015b), and the Millhaugh cairn (Brophy 2014)?

5.3.6 What is the character of the Early Medieval square barrows in comparison to:

- those excavated at Forteviot (Campbell 2010; Poller 2007)?
- putative later activity at Baldinnies and the hints of Pictish / Early Medieval activity within Dunning village (RD Aims 3 and 4)?

5.3.7 Other than ploughing, is there any evidence for disturbance, and if so, how might this have an impact on dating strategies? A soil scientist will be consulted, and Kubiena tins samples will be taken as directed for post-excavation analysis.

6.0 Late Summer/Early Autumn 2016: MH14.4

6.1 Geophysical survey

6.1.1 A geophysical survey will be carried out at MH14.4 to attempt to locate northern boundaries to the interrupted ditched enclosure, and putative Neolithic mortuary enclosure (Figure 9). Based on the response from the survey at MH14.1 suggests magnetometry only (Wright 2015a). The area to be surveyed is approximately 5,985m^2 (133m by 45m).

6.1.2 The crop in the northern section of the field may be a contributory factor to the lack of cropmarks (Figure 9). However, none of the aerial photographs incorporating MH14.4 show cropmarks in the northern section. This suggests that it may be due to colluvium.

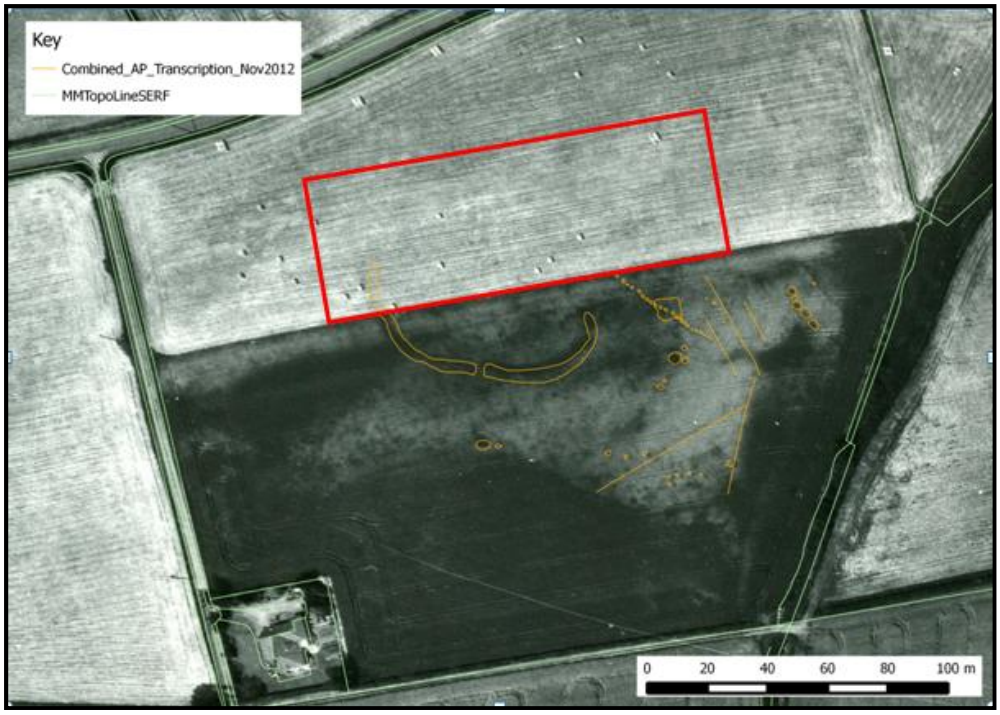


Figure 9: Target area for geophysical survey (SM5776) at MH14.4. Transcription by Cathy MacIver; Image Crown Copyright © HES.

6.2 Fieldwalking

6.2.1 The aims and objectives of the fieldwalking MH14.4 will seek to recover from the ploughed surface lithics, pottery and other artefacts to assist in the interpretation of the cropmarks and chronology of prehistoric, and Early Medieval events at Millhaugh.

6.2.2 Glass, metalwork and a sample of the sherds of post-Early Medieval pottery will also be collected.

6.2.3 Artefact recovery locations will be recorded using a Garmin® GPSMap® 62S, with an accuracy resolution of c.2-3m. This tolerance level is more than adequate for the surface collection of material from scattered locations.

6.2.4 Fieldwalkers will be set at five metre intervals for each transverse across the field. The fieldwork director will follow behind the fieldwalkers to ensure that artefacts are not missed.

6.2.5 The fieldwalkers will bag and place pin flags to highlight material to be examined. Following examination, each of the artefacts will be allocated a unique number with eastings and northings plotted using the GPS and bagged. The finds number will be written on the bag. All location data will be logged in the GPS as well as being recorded by hand in the fieldwalking daybook.

6.2.6 Using GIS all artefacts will be shown on a distribution map.

7.0 Late Summer/Early Autumn 2016: MH14.1

7.1 Proposed excavations: date to be determined

7.1.1 Health and safety will be a priority, with appropriate safety gear and equipment provided for the excavation team. Health and safety briefings will be given on site and shoring used, where appropriate.

7.1.2 The land is predominantly level, although it does fall away in the south-east corner of the field. It is used for arable farming.

7.1.3 Approximately 10 days before the commencement of the excavation, arrangements will be made for the trenches to be machine stripped under careful supervision of Dr Dene Wright. Thereafter, all excavation after this will be done by hand.

7.1.4 All contexts will be recorded in plan and section as appropriate by measured drawing, by digital photography and by written description on *pro forma* sheets.

7.1.5 The excavations, which are budgeted to take two weeks, will be directed by Dr Dene Wright of the University of Glasgow.

7.2 Trenches MH16.1 and MH 16.2

7.2.1 Trench MH16.1 and MH16.2 will measure approximately 400m^2 (40m by 10m), and 180m^2 (30m by 6m), respectively (Figure 10).

7.2.2 MH16.1 is sited to investigate the penannular enclosure and part of the pit alignment.

7.2.3 The strategy is to balance preservation *in situ* against answering the research questions. Excavation of the penannular enclosure (MN16.1) should be limited to no more than 25% of surviving buried deposits. To determine the character of pits and postholes it is proposed that they should be half-sectioned. All burials will be fully excavated. If unexpected discoveries are made then any revision to increase the proposed excavation percentage of the penannular enclosure would be subject to a site meeting, and formal agreement with HES Archaeology Strategy and HES Casework. For the avoidance of doubt, it is understood that once the trenches are open, then permission cannot be sought from HES to extend the trenches.

7.2.3 MH16.2 represents a transect into the putative enclosure/barrow.

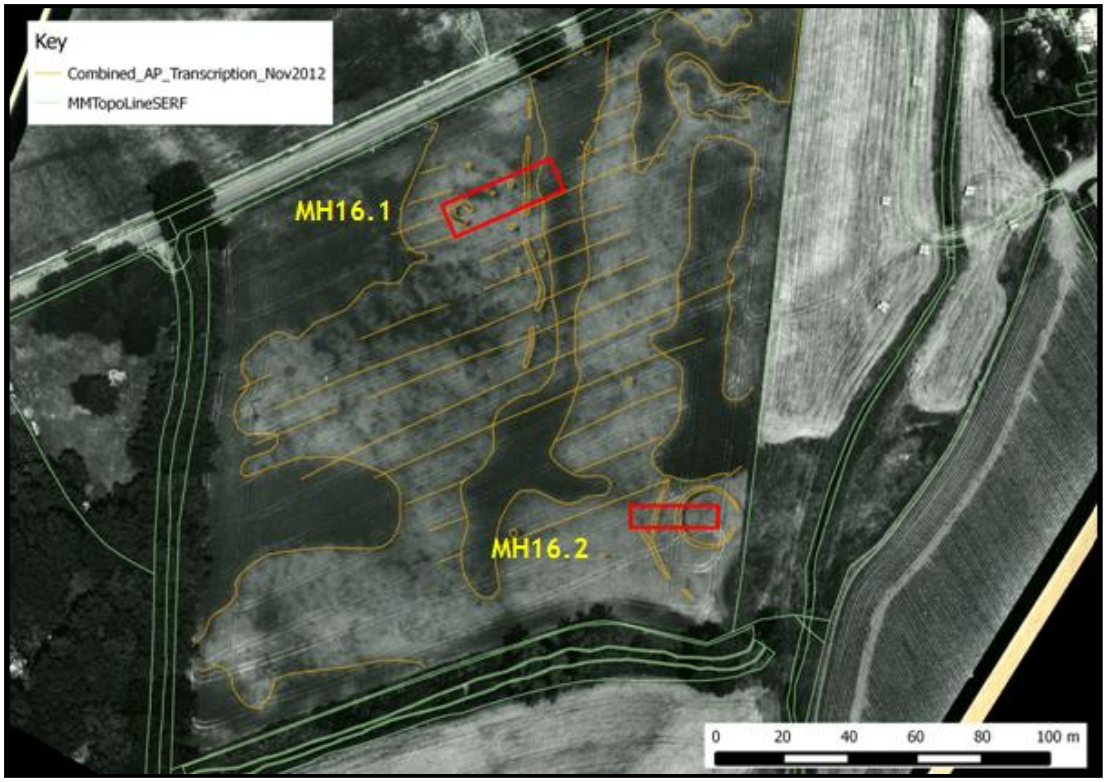


Figure 8: Proposed locations of MH16.1 and MH16.2 (SM5774). Transcription by Cathy MacIver; Image Crown Copyright © HES.

7.3 Research questions

7.3.1 In addition to the overall SERF Project objectives (cf. Driscoll *et al*. 2010; Poller 2014), the investigations will respond to the following research questions.

7.3.2 What is the character of the features revealed in MH16.1 and MH16.2, and what do they represent (RD Aims 3 and 4)?

7.3.3 What is the relationship of the penannular enclosure to the pit alignment (RD Aims 3 and 4)?

7.3.4 Where features are recognised as post defined. What type of timber was used, what were the sizes of posts, and how were they erected (RD Aims 3 and 4)?

7.3.5 What is the relationship of the putative enclosure/barrow to:

- the cropmark to the east;
- Millhaugh kerbed cairn (Brophy 2014);
- Pitnacree round barrow (Brophy 2010; Coles *et al*. 1965);
- the penannular enclosure and pit alignment; and
- the lithic artefacts recovered from fieldwalking (RD Aims 3 and 4)?

7.3.6 Is there any artefactual evidence for domestic events and/or tasks, and if so how does that evidence relate to the cropmarks and to farming settlement evidence at revealed at Wellhill (RD Aims 3 and 4)?

7.3.7 What is the relationship of the prehistoric features to the features revealed in CB16, the cropmark complex at Leadketty (Brophy *et al*. 2012; Brophy and Wright 2013), and the farming settlement at Wellhill (Wright 2014b, 2015b) [RD Aims 3 and 4]?

7.3.8 Is there any evidence for events relating to:

- the Early Medieval square barrows revealed in CB16;
- putative later activity at Baldinnies and the hints of Pictish / Early Medieval activity within Dunning village (RD Aims 3 and 4)

7.3.9 Other than ploughing, is there any evidence for disturbance, and if so, how might this impact on dating strategies (RD Aims 3 and 4)?

8.0 Sampling strategy as agreed with HES and other stakeholders

8.0.1 Extreme care will be taken at all times, and an agreed sampling system will be in place, in particular with regard to charcoal and organics. The system will follow guidelines put forward by English Heritage (Campbell *et al*. 2011). A systematic sampling methodology will be adopted, although judgement will also be required to ensure that unusual contexts are not overlooked (cf. Campbell *et al*. 2011, 11), and to ensure that sampling is directly linked to the research questions posed.

8.1 Soil sampling

8.1.1 During the course of the excavation soil sampling of cut features will follow the outlined sampling strategy, and a bulk sample of all sealed contexts will be taken. Suitable deposits for radiocarbon dating and botanical analysis will be recovered using standardised sample sizes of 40 litres, subject to the scale of the deposits encountered.

8.1.2 Soil will be excavated straight into sample bags. All samples will be double bagged for security and labelled both on bags with additional labels placed in the sealed bags. The samples will be sub-sampled and floated using a Siraf drum and closed water system, with retents and floated material collected on a 1mm sieve, 500 µm, and 300µm sieve. The flots and retents will be sorted and carbonised plant remains assessed by a botanist for their potential for ^{14}C dating. Suitable material for absolute dating would include identifiable seeds, cereals, nut shells and non-oak charcoal fragments. The sorting of retents is a valuable teaching exercise in post-excavation procedures for undergraduates.

8.1.3 The soil sampling will permit a full and robust palaeo-botanical analysis to be undertaken which will address questions relating to the use of resources and the environmental context of excavated features. This will be of particular importance to understand the character of the features, their immediate environs and may also assist in recognising patterning and contemporaneity of features.

8.2 Artefact collection

8.2.1 Assuming the soil conditions at CB16, MH16.1, and MH16.2 are broadly similar with those encountered at Wellhill, Forteviot, Leadketty and Baldinnies organic artefacts are unlikely to survive. Lithics, coarse stone, pottery, ceramic and metal may be recovered. Samples of top soil will be taken to be pH tested as part of the post excavation research design to ascertain levels of acidity/alkanity, which may inform interpretations on the possible lack of survival and recovery of organic artefacts.

8.2.2 All artefacts will be retrieved as special finds and recorded spatially in three dimensions. They will be treated in full accordance of standard guidelines for conservation in the field. A special facility for the cleaning and processing of finds has been established in Dunning. Pottery will be processed using procedures implemented by Dr Ana Jorge (University of Aberdeen) to preserve possible residues and lipid samples.

8.3 Human remains/burnt bone

8.3.1 It is possible that burnt bone may be recovered from either 'pit' features, or other *in situ* locations. Burnt bone will be retrieved by context and collected as a bulk sample for flotation and wet sieving before being processed for identification.

8.3.2 Redeposited burnt bone in the top soil or at the interface of the top soil and archaeology will be recorded in plan.

8.3.3 Human remains may be recovered from central burials in the Early Medieval square barrows. If so, the remains will be treated respectfully, and fully recorded *in situ* prior to removal by hand. Recording will comprise of measured drawing, digital photography, and by written description on *pro forma* sheets. The excavations at Forteviot revealed the survival of outer tooth enamel only in a few of the graves (cf. Campbell 2010; Poller 2007). Phosphate samples will be taken for analysis. Advice will be taken from an attending soil scientist with regard to any other samples and/or procedures deemed necessary.

9.0 Post-Excavation and Reporting

9.0.1 A fully illustrated data structure report ' DSR' of the investigations will be lodged with HES and Perth & Kinross Heritage Trust within three months of completion of the fieldwork. The reports will consider either the excavation

and/or survey results, and provide an initial assessment on how different excavation/survey techniques have complemented the results.

9.0.2 An entry for *Discovery and Excavation in Scotland* will be written alongside the DSR.

9.0.3 The longer term publication strategy for the Phase 2 prehistory will be a volume in the SERF monograph series, scheduled for publication in 2019.

9.0.4 An initial post-excavation research design 'PERD' for CB16, MH16.1, and MH16.2 will be undertaken following the completion of the DSR. This initial assessment will focus on soil sample processing and palaeobotanical analyses in order to address the main aims of the project, which would be to ascertain a chronology for the events at Millhaugh.

9.0.5 A detailed PERD for Phase 2 prehistory programme will be finalised after the completion of fieldwork in 2016. The PERD will include particulars about the process for the curation of the finds and archive. All document archives will be deposited in the National Monuments Record for Scotland.

Dr Dene Wright
11 December 2015

Acknowledgements

Many thanks to Calum Rollo (landowner) and John Neil (farmer) for their continued support of the SERF Project.

Bibliography

All SERF reports and more information about the project may be found at our web pages.

www.gla.ac.uk/schools/humanities/research/archaeologyresearch/projects/serf/

oOo

Barclay, G. J. 1991. Millhaugh (Dunning Parish): burial mound. *Discovery and Excavation in Scotland*: 73.

Barclay, G. J. and G. S. Maxwell. 1991. Excavation of a Neolithic long mortuary enclosure within the Roman legionary fortress at Inchtuthil, Perthshire. *Proceedings of The Society of Antiquaries of Scotland*, 121: 27-44.

Brophy, K. 2010. '…a place where they tried their criminals': Neolithic round mounds in Perth and Kinross. In J. Leary, T. Darvill, and D. Field (eds), *Neolithic mounds and monumentality in the British Neolithic and beyond*: 10-27. Oxford: Oxbow.

Brophy, K. 2014. Millhaugh Cairn Excavations 2014: Data Structure Report. Unpublished SERF DSR: University of Glasgow.

Brophy, K., A. Gould, G. Noble, A. D. Wright and R. Younger. 2012. Leadketty Excavations 2012: Data Structure Report. Unpublished SERF DSR: University of Glasgow.

Brophy, K. and A. D. Wright. 2013. Leadketty excavations 2013: Data Structure Report. Unpublished SERF DSR: University of Glasgow.

Campbell, E. 2010. Forteviot Pictish Cemetery Excavation 2010. Unpublished SERF DSR: University of Glasgow.

Campbell, G., L. Moffett and V. Straker. 2011. *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post Excavation* (2nd ed.). London: English Heritage.

Coles, J. M., D. D. A. Simpson and C. B. Denston. 1965. The Excavation of a Neolithic Round Barrow at Pitnacree, Perthshire, Scotland. *Proceedings of the Prehistoric Society*, 31: 43-57.

Driscoll, S. T., K. Brophy and G. Noble. 2010. The Strathearn Environs and Royal Forteviot Project (SERF). *Antiquity* 84 Project Gallery: www.antiquity.ac.uk/proigall/driscoll323/.

Halliday, S. 2002. Excavations at a Neolithic enclosure at Castle Menzies, Aberfeldy, Perthshire. *Tayside and Fife Archaeological Journal*, 8: 10-18.

Kendrick, J. 1995. Excavation of a Neolithic enclosure and Iron Age settlement at Douglasmuir, Angus: summary report. *Proceedings of The Society of Antiquaries of Scotland*, 125: 29-67.

Poller, T. 2007. Forteviot, Perthshire: Excavations of a Barrow and Unenclosed Grave Cemetery 2007. Data Structure Report. Unpublished SERF DSR: University of Glasgow.

Poller, T. 2014. SERF Project Summary. Unpublished SERF document: University of Glasgow.

Poller, T. 2015. Dun Knock Excavations 2015: Data Structure Report. Unpublished SERF DSR: University of Glasgow.

Rideout, J. S. 1997. Excavation of Neolithic enclosures at Cowie Road, Bannockburn, 1884-5. *Proceedings of The Society of Antiquaries of Scotland*, 127: 29-68.
Wright, A. D. 2014a. Millhaugh 2014: Fieldwalking MH14.1 and 14.2. Unpublished SERF Report: University of Glasgow.
Wright, A. D. 2014b. Wellhill excavations 2014: Data Structure Report. Unpublished SERF DSR: University of Glasgow.
Wright, A. D. 2014c. Wellhill: Test Pits and geophysics 2014. Data Structure Report. Unpublished SERF Data Structure Report: University of Glasgow.
Wright, A. D. 2015a. Millhaugh 2015: Fieldwalking, test pitting and geophysical survey at MH14.1. Unpublished SERF Report: University of Glasgow.
Wright, A. D. 2015b. Wellhill excavations 2015: Data Structure Report. Unpublished SERF DSR: University of Glasgow.