Highland Archaeology Services Ltd

Archaeology Development Plan:

Highland Wildlife Park, Kincraig

Report No:	HAS041101
Client	The Royal Zoological Society of Scotland
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CDROM Contents

- This report (Adobe Acrobat 6 pdf format). Copies or extracts can be readily printed out as required.
- Images Folder contains all photographs (JPEGs) with hyperlinked Catalogue (Excel 2003)
- Gazetteer of sites (Excel 2003)
- Digital versions of survey including background maps (ArcView 3.2 shapefiles; Autocad dxf files)

Figures

Acknowledgements

The assistance of the staff of the Highland Council's Sites and Monuments Record (SMR), the National Monuments Record for Scotland (NMRS), the National Library of Scotland, and especially those of the Highland Wildlife Park itself, has been invaluable and is much appreciated.

Figure 1 Location map.
Reproduced by permission of the Ordnance Survey: Licence 100043217

Introduction

Summary

This report has been commissioned by the Royal Zoological Society of Scotland to assist in considering future developments at the Highland Wildlife Park, Kincraig, Inverness-shire. It briefly outlines the nature, extent, condition, date and significance of the archaeological features recorded, and considers the potential for further archaeological discoveries. It then recommends a management and interpretation strategy compliant with best practice, national and local policies, and planning guidance.

The Highland Wildlife Park contains many historic landscape features that show the area to have been occupied and farmed for at least 2000 years. It is therefore well placed to tell the story of the interaction of people with their environment over the centuries in a highland context, and challenge the assumptions of some visitors about the 'wilderness' character of northern Scotland.

Although all the archaeological features found within the park are quite commonly found in the highlands, for the most part they are not very accessible or visible to visitors apart from those who undertake rough hill-walking. There is therefore an opportunity here to present some fairly typical examples of highland archaeology to a public that would otherwise be unlikely to see it. The main area of interest lies along the NW boundary of the Park, much of it outside the present perimeter fence. A walking route through the archaeological area is recommended, with seasonal access.

The conservation and presentation of the archaeological / historic landscape interest can complement the biological interest; and the proximity of the Highland Folk Museum at Kingussie and Newtonmore might offer potential to develop some joint initiatives to enhance visitor experience and maximise attendance at all three venues.

Background

The Royal Zoological Society of Scotland holds a long lease of the Highland Wildlife Park land from the Dunachton Estate. The Park was started in 1972. When the present A9 was built, 3 – 4 fields were lost.

Historic Scotland and the Cairngorm partnership sponsored a rabbit control programme in 1997-8, for which a rapid archaeological survey was carried out (Rankin 1997). This identified seven features of archaeological interest within the project boundary.

More recently the Society has been in discussion with the Estate to clarify boundaries, especially along the park's western edge. This has provided an opportunity to record, manage and present a number of archaeological sites currently outside the park fence as well as associated features inside it.

This plan has therefore been produced to help manage and present the historic and archaeological features of the Park so that they can be enjoyed by visitors and also conserved for the future. It was produced in autumn 2004 by John Wood of Highland Archaeology Services Ltd. following a desk based and a walk-over field survey of the area. Highland Wildlife Park staff made possible access to areas of the Park normally inaccessible to pedestrians and assisted throughout the fieldwork stage.

The weather in general was changeable with showers interspersed with periods of sunshine.

Method, scope and limitations of this report

A walk-over DGPS (Differential Global Positioning System) survey was carried out by the writer during August – October 2004. Some digital photography was undertaken to provide an indication of the types of archaeology and conditions, but a comprehensive and detailed photographic record was not attempted.

A DGPS MAX backpack unit was used, with a field computer running Penmap software. This provided sub-metre accuracy and enabled the survey to be checked in the field. Unfortunately the complete failure of the field computer and other unexpected technical difficulties delayed completion of the fieldwork. Both beacons and satellites (WAAS and EGNOS) were used for the differential correction as signal strength was low in the area. The resulting data was then adjusted to the Ordnance Survey base (which is reproduced under OS Licence No 100043217).

Relevant archaeological records and aerial photographs held in Inverness and Edinburgh were also checked. This report draws on these, as well as published sources, and the writer's own knowledge and experience of highland archaeology. However it does not claim to be exhaustive, and (for example) cannot establish the nature and extent of buried archaeological features. Further field research, in particular excavation, would be needed to clarify this.

Stakeholders

Stakeholders include the staff and visitors at the Highland Wildlife Park itself, as well as the wider community in Badenoch and Strathspey which could benefit educationally, economically and socially from any development here. There is scope for schools visits to the Park to include a taste of archaeology; and for possible partnership arrangements with the Highland Folk Museum. The Dunachton Estate, which is the Royal Zoological Society's landlord and neighbour, is also a stakeholder, as is the Estate's grazing tenant. At this stage however consultation has been limited to *ad hoc* discussions with individual staff at the Highland Wildlife Park.

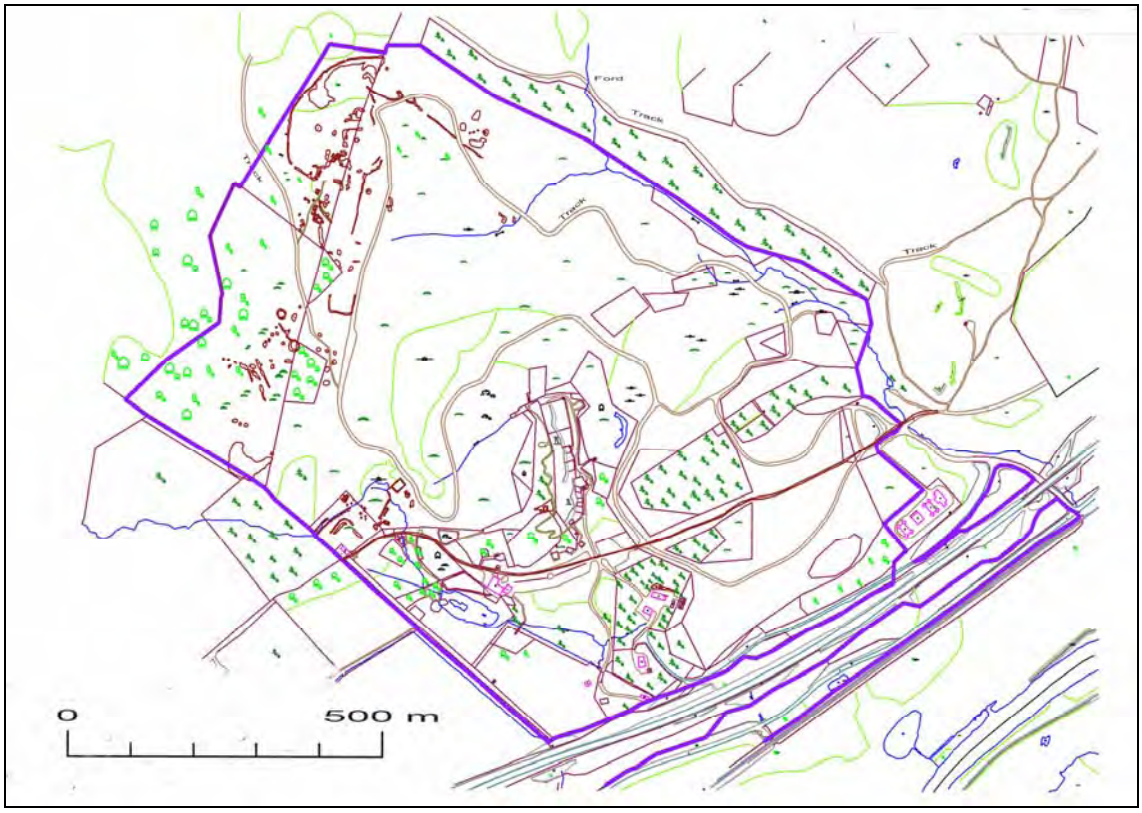

Figure 2 Archaeological survey
Park boundary in purple; archaeological features shown in dark red. Ordnance Survey background reproduced under licence.

The Archaeology

The features in the park consist of several deserted and ruined buildings, mostly representing the last phase in a long history of occupation and land-use. These have associated trackways, field boundaries, former arable lands and field clearance cairns. There are two kilns for drying grain – later perhaps also used for burning lime. There are also at least two Iron Age round houses, with associated walls and cairns.

The most visible features are the remains of the post-medieval houses and the kilns. Three roofed and two unroofed buildings are shown on the Ordnance Survey Six Inch County Map (1872) as 'Keppochmuir' (see below). Keppochmuir also appears on Bartholomew's map of 1912, but by that time the name has disappeared from the Ordnance Survey maps so perhaps the Bartholomew map is based on old information.

Although a search of late 19th and early 20th c. Valuation Rolls and electoral rolls held in the Highland Council's Archives in Inverness failed to find any mention of the name, it does occur in an estate survey of 1834. (SRO: GD128/31/3). This refers to pasture 'common to the tenants of Dunachton, Craggandiemore, Kyleandine, Torbrech and Keppoch Muir', so Keppochmuir seems to have been a township with common grazing rights rather than simply

a late established farm. Interestingly, there are references in the same document to areas of 'arable interspersed with cairns' which accurately describes some of the areas noted in the survey. Unfortunately the map that originally went with this document is missing, and these areas cannot be identified.

Figure 3 Site 35
Field clearance cairns and old trackway to Keppochmuir

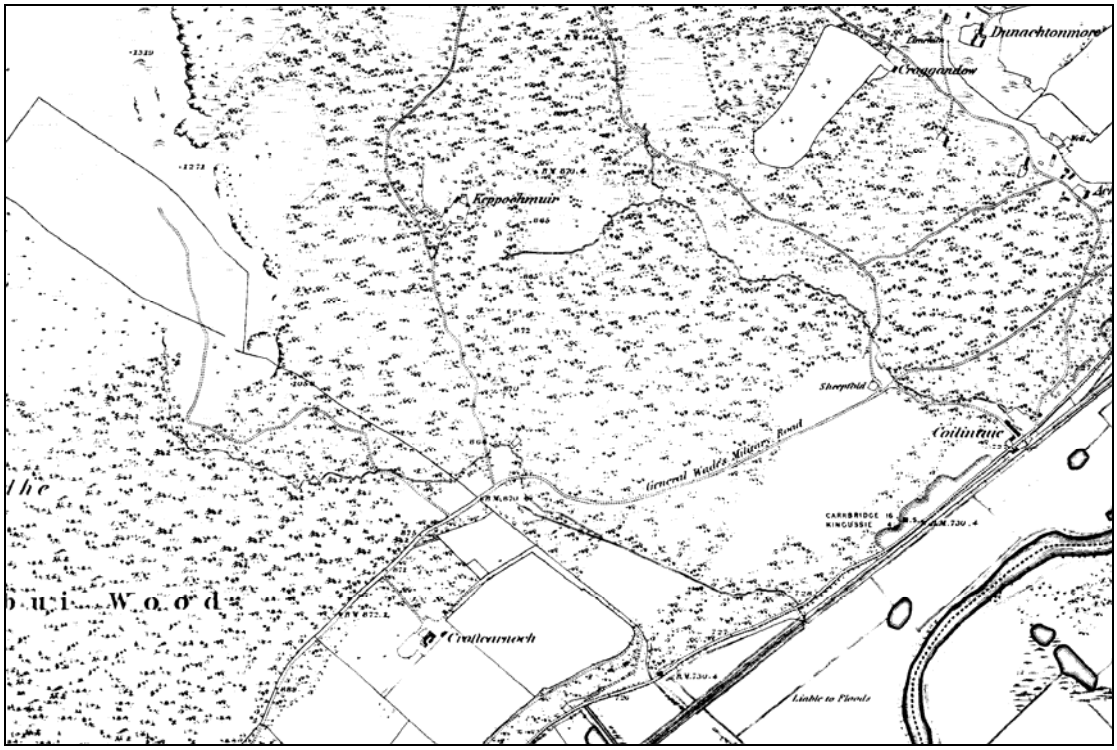

Figure 4 Ordnance Survey 1872 6 inch (1:10560) map showing Keppochmuir.
The name does not appear on the second edition (revised 1899, published 1901)

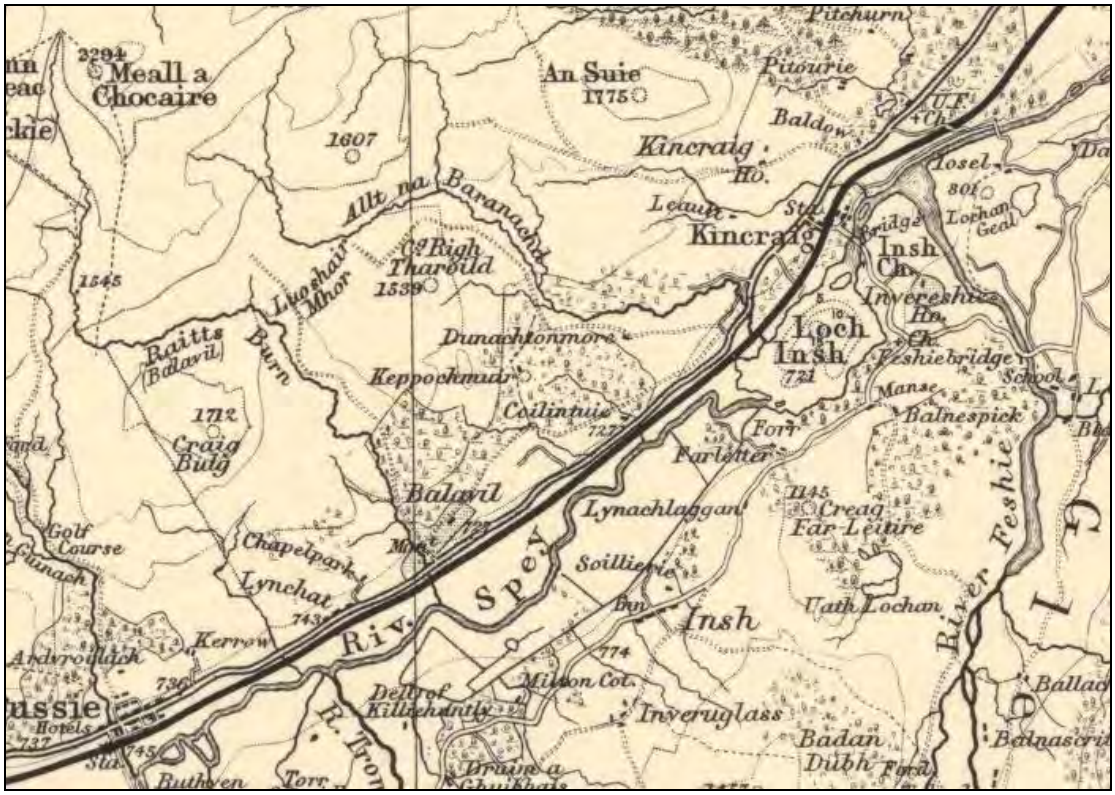

Figure 5 Bartholomew's map (1912), showing Keppochmuir

According to the place-name scholar W.J. Watson, the name Keppoch is an anglicised version of the Gaelic *a' cheapaich* meaning 'the tillage plot'. The Muir element may be Scots in origin, with a meaning like the modern one (English moor or plain). This would fit the situation. Alternatively it could be from the Gaelic *mòr* (great) or even *Muire* (Mary or St. Mary). Sometimes the Gaelic *muir* 'sea' seems to be used to indicate a wide, wet inland area.

Whether or not the name is ancient, it accurately describes the settlement which has clearly defined areas of formerly ploughed land attached to it. These earliest archaeological features recorded by this survey are the hut circles - remains of round houses dating to the later Bronze Age or Iron Age (about 3,500 to 1,500 years ago). The latest are the rectangular buildings which match those shown on early Ordnance Survey maps, and must be 18th or 19th century in date. A settlement is likely to have existed here – not necessarily continuously – for about 2000 years. It is not clear when or why it was deserted. No evidence has been found that Dunachton suffered major clearances like those at Raitts and elsewhere on the adjoining Balavil (or Belleville) estate. Buildings at Keppochmuir are shown as roofed by the Ordnance Survey in 1872. However the shooting rights were being let from about 1873-6 (SRO: GD176/1480), and conflicts with tenants arose almost immediately, so it may be that this tenancy ceased after about this time. Batholomew's map shows the whole area now forming the Highland Wildlife Park as wooded. This picture is reinforced by the Ordnance Survey's one Inch map of 1927.

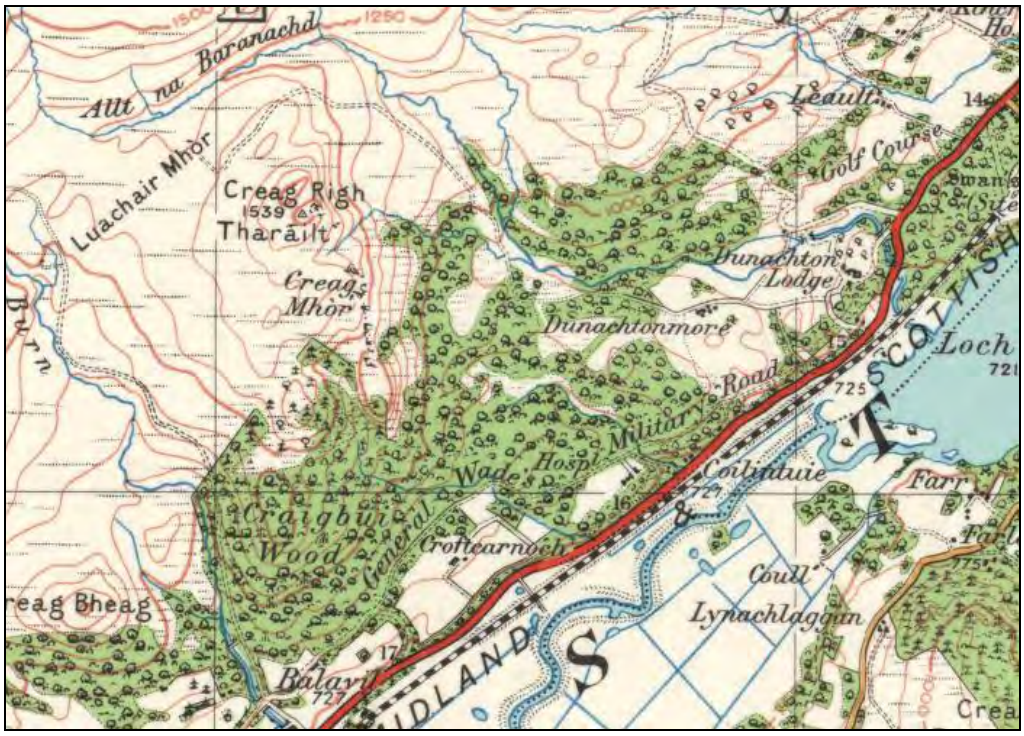

Figure 6 Ordnance Survey One Inch map 1927

Gazetteer of archaeological features

(A version of this gazetteer is also available as a table in Excel 2003 format on the CDROM)

Ordnance Survey Grid references are given followed by any available cross references to existing records. *NMRS:* National Monuments Record for Scotland; *SMR:* Highland Council Sites and Monuments Record; *Rankin:* survey by D Rankin (Rankin 1997)

1 Keppochmuir: Rectangular building
NH 8012 0433. Probably 18th or 19th century (see Fig 9)

2 Keppochmuir: Enclosing stone dyke, with gaps
From NH 8010 0439 to NH 8002 0422. Of uncertain date. From its character, it is possible that this could have started as a cultivated hill field (*achadh*) in the 15th – 17th centuries and later become the focus of permanent settlement. However, very little is yet known archaeologically about these features and archaeological fieldwork might help to clarify its origins. (see Fig 10)
NMRS: NH80SW29 SMR: NH80SW0030

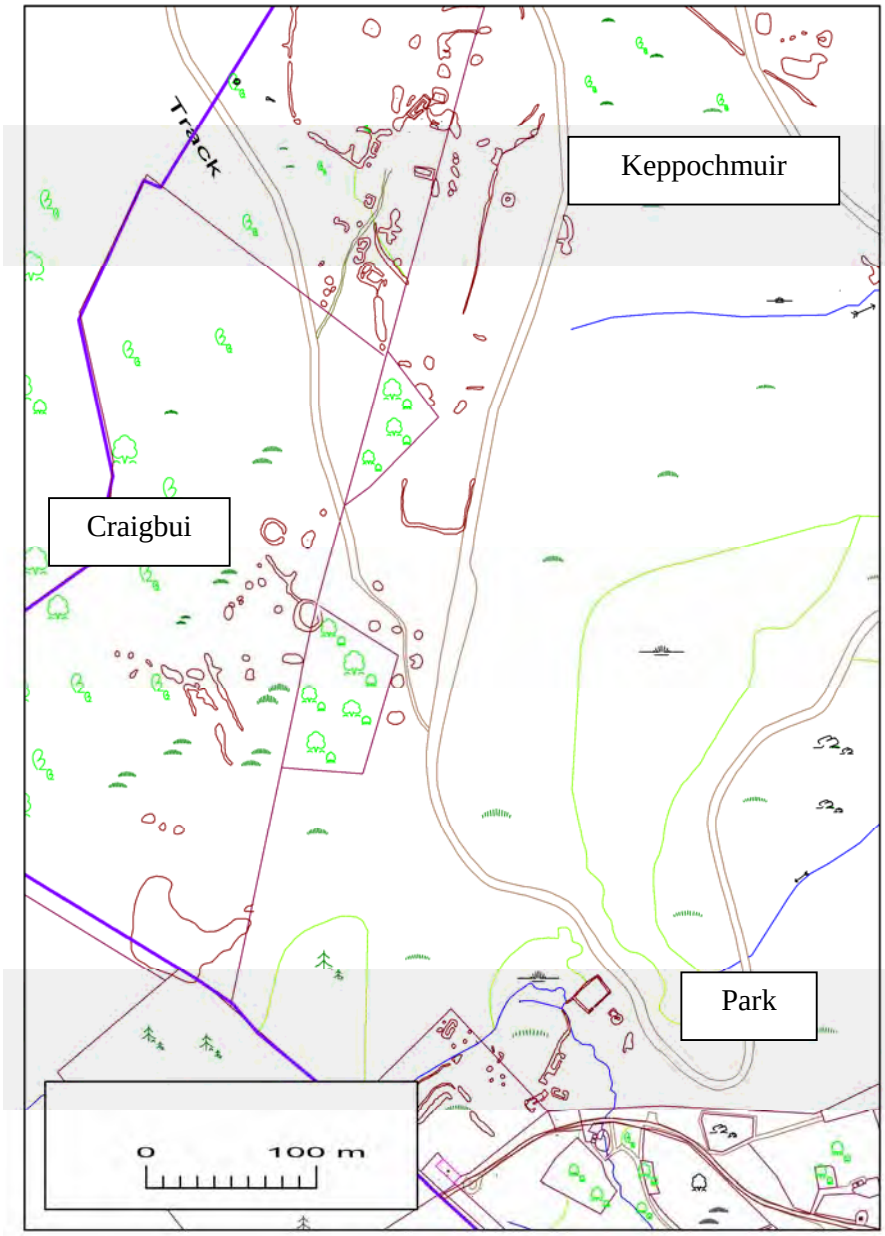

Figure 7 Main Archaeological areas

3 Keppochmuir: Field clearance heaps

a) NH 8000 0427 b) NH 8002 0427 c) NH 8004 0425 d) NH 8006 0426 e) NH 8001 0423 These appear to be 18th or 19th century in date but could obscure earlier structures beneath. (see Fig 10)
NMRS: NH80SW29 SMR: NH80SW0030

4 Keppochmuir: Farmstead

NH 8003 0423. Only two of the three buildings found here are shown on the OS maps, which also indicate the main house itself as shorter than found by the survey. However no

evidence of extension or reduction was found. The smaller building to the north-east has been submerged in stones cleared from the surrounding area. This farmstead is probably 18th or 19th century in date and seems to be the last occupied element in what was once a much larger settlement. A documentary search unfortunately failed to find details of tenants. (see Fig 10)
NMRS: NH80SW29 SMR: NH80SW0030

Figure 8 Sites 2 and 5
Photo DSCN 1236

5 Keppochmuir: Building
NH 8000 0420 Small cottage or barn built onto an adjoining dyke. Not shown on the late 19th century (or later) OS Maps, and possibly already ruinous at that time. (see Figs 10, 11)
NMRS: NH80SW29 SMR: NH80SW0030

6 Keppochmuir: Rectangular building
NH 8003 0419. Probably 18th or 19th century. (see Figs 10, 11)
NMRS: NH80SW29 SMR: NH80SW0030

7 Keppochmuir: Stone dyke
From NH 8007 0434 to NH 8015 0431 (junction with No.8) Broken by the modern Park drive and fence-line. Uncertain date. (see Fig 10)

8 Keppochmuir: Stone dyke
From NH 8015 0432 to NH 8025 0423. Uncertain date. The northern end of this feature is lost beneath the modern road. The eastern end tails away - perhaps removed. (see Fig 9)

9 Keppochmuir: Group of field clearance cairns

(Centred) NH 8024 0427. Probably 17th - 19th century, but possibly on the site of earlier cairns. (see Fig 9)

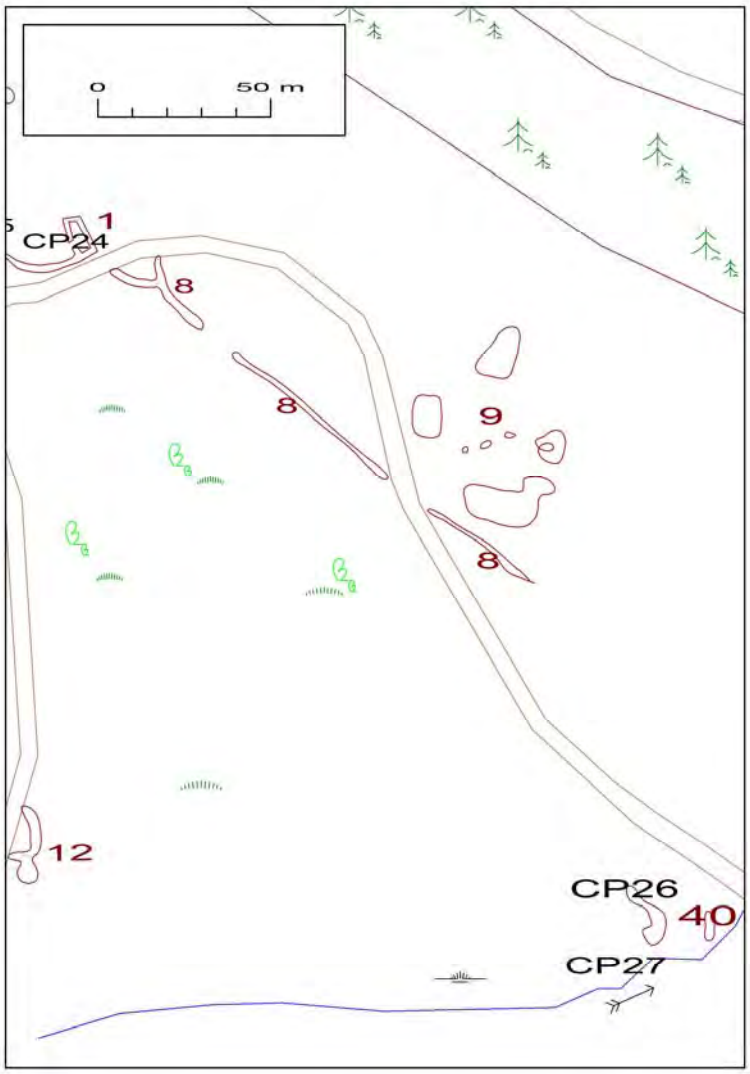

Figure 9 Fragmentary features to E of Keppochmuir
Site numbers in red, CP indicates approx camera locations (see Appendix 1)

10 Keppochmuir: Round field clearance cairn

NH 8008 0417. Probably 17th - 19th century, but possibly on the site of earlier features. . (see Figs 10, 11)

11 Keppochmuir: Group of field clearance cairns

(Centred) NH 8004 0419. Probably 17th - 19th century, but possibly on the site of earlier cairns. (see Figs 10, 11)

12 Keppochmuir: Field clearance cairn (irregular)

NH 8011 0415 Probably 17th - 19th century, but possibly on the site of earlier features. . (see Figs 9, 10, 11)

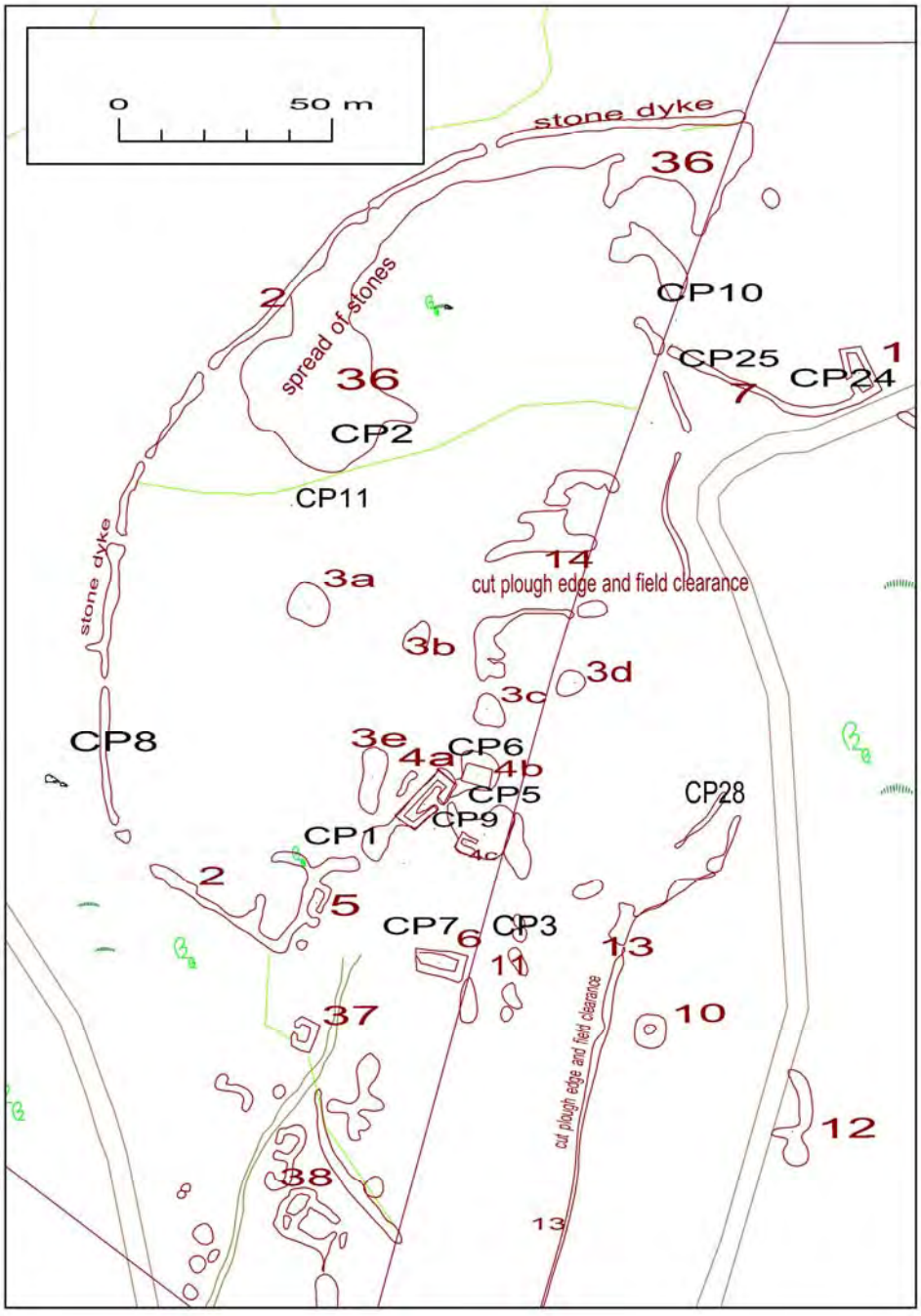

Figure 10 Keppochmuir.
Site numbers in red, CP indicates approx camera locations (see Appendix 1)

13 Keppochmuir: Cut plough edge

NH 8007 0420. Uncertain date, but indicating the (W) limit of former arable land. Clearance stones lie along the uncut edge. The visible edge represents the last ploughing episode, probably in the mid - late19th century. The early 20th.c maps show the area as scattered woodland. (see Figs 10, 11)

14 Keppochmuir: Cut plough edges

NH 8006 0427. Uncertain date, but indicating the limits of former arable land. Some clearance stones lie along the uncut edges. The arable land lay where the text is placed between the two features. (see Fig 10)

15 Keppochmuir: Cairns.

(Centred) NH 8002 0407. Probably 17th - 19th century, but possibly on the site of earlier features. Note that it was not possible to survey the plantation area which may contain further examples. (see Fig 11)

NMRS: NH80SW30 SMR: NH80SW0010

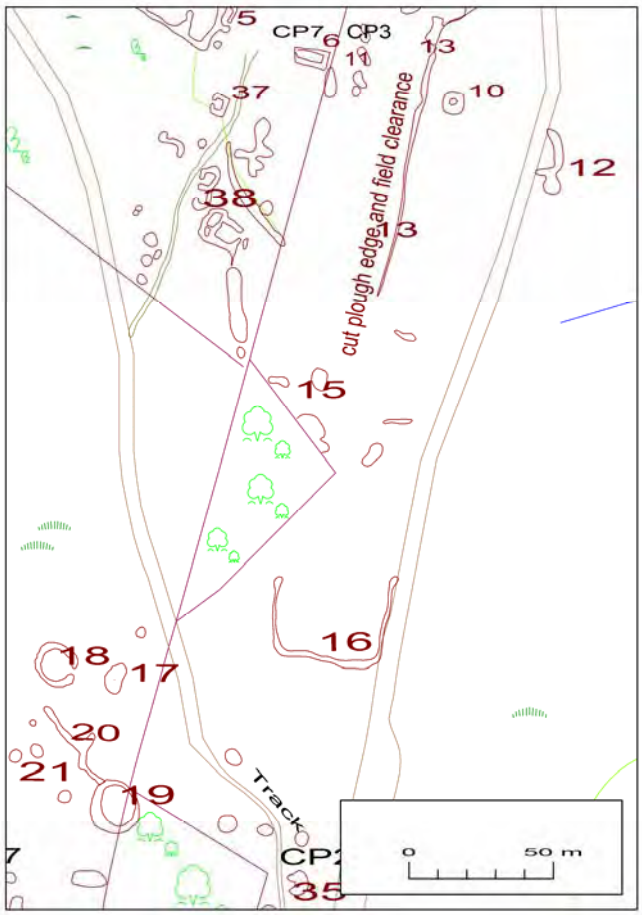

Figure 11 Cairns and other features south of Keppochmuir
Site numbers in red, CP indicates approx camera locations (see Appendix 1)

16 Keppochmuir: Rectangular enclosure

NH 8003 0398. Open to the north. Probably limit of arable cultivation; 17th - 19th century. (see Figs 11, 12)

17 Keppochmuir: Cairn

NH 7996 0397. Probably 17th - 19th century, but possibly on the site of earlier features. (see Figs 11, 12)

18 Craigbui: Hut circle

NH 7994 0398. The entrance is to the ESE - a typical orientation for these buildings, which despite their name were substantial houses for an extended family. A conical thatched roof would have been supported on an internal ring of posts. It probably dates to the later Bronze Age or Iron Age, i.e. from about 3,000 years ago to about 1,500 years ago. (see Figs 11, 12)

19 Craigbui: Hut circle

NH 7996 0393. See 18. The entrance is probably to the east or south east but this edge is obscured by rising ground within the young plantation. It was not possible to survey within the plantation area. (see Figs 11, 12)

20 Craigbui: Stone dyke

NH 7994 0395. This is attached to 19 and apparently associated with the hut circles. It could be contemporary with them, or with a later re-use of the area. (see Figs 11, 12)

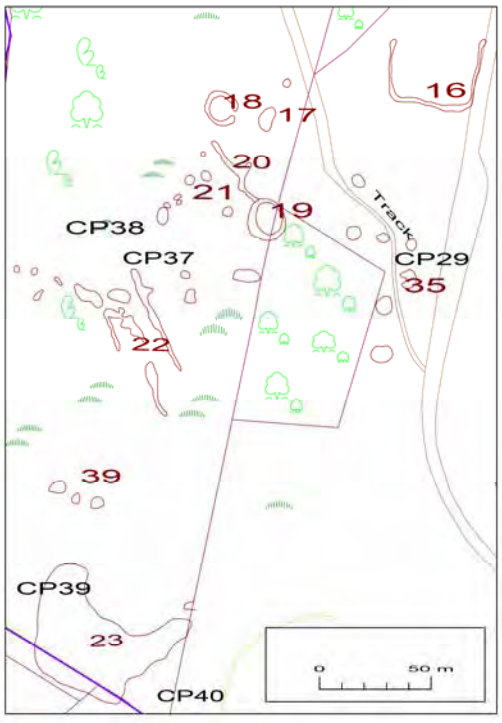

Figure 12 Craigbui survey area
Site numbers in red, CP indicates approx camera locations (see Appendix 1)

21 Craigbui: Small round field clearance cairns

NH 793 0394. This type of cairn is often found associated with hut circles and could be contemporary with them. Sometimes this type of cairn presents evidence of re-use for burials. (see Figs 11, 12)

22 Craigbui: Fragmentary remains of walls

NH 7989 0388. There are very fragmentary remains here of stone walls. The date is uncertain, but they are possibly earlier than the more prominent 18th or 19th c. features. They might repay further investigation. (see Fig 12)

23 Craigbui: Possible peat cuttings

NH 7988 0374. Quite an extensive area. Probably 17th- 19th c. in date but quite possibly in use much earlier than this. (see Fig 12)

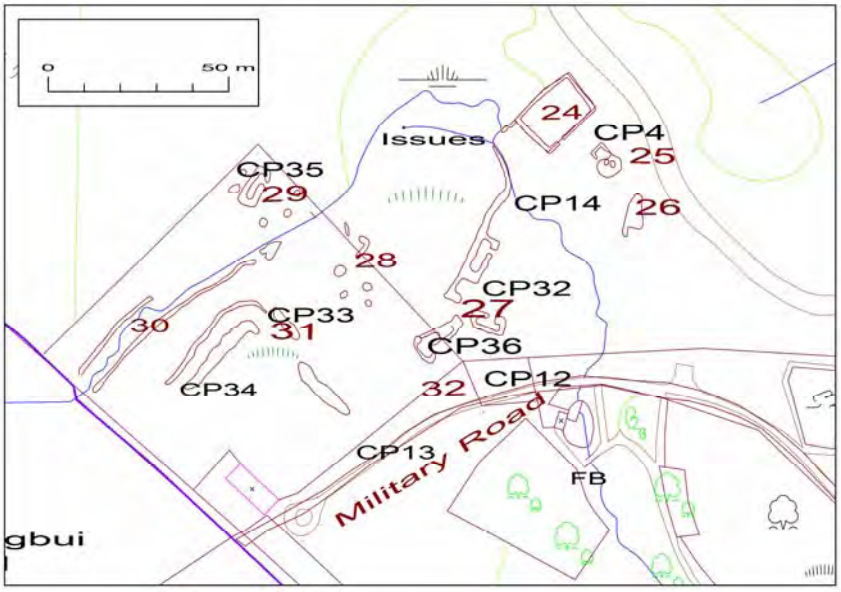

Figure 13 Sites in 'Park' survey area
Site numbers in red, CP indicates approx camera locations (see Appendix 1)

24 Park: Rectangular enclosure

NH 8013 0370. This prominent feature is shown on all the OS maps. It was possibly used for peat stacking and / or cutting for fuelling the kiln nearby. 18th - 19th c. (see Fig 13)
Rankin: 97 NMRS: NH80SW43 SMR: NH80SW0054

25 Park: Corn-drying Kiln

NH 8014 0346. Probably a double bowl kiln, but possibly a large bowl to the east with a substantial draw-hole on its western side. Adjoining on the north is a small rectangular service building. It might have been used for burning lime in the later 19th c. but its form is that of a corn-dryer. 18th - 19th c. (see Fig 13)
Rankin: 96 NMRS: NH80SW43 SMR: NH80SW0061

26 Park: Field clearance heap
NH 8015 0368. Probably 17th - 19th century, but possibly on the site of earlier features. (see Fig 13)

27 Park: Farmstead
NH 8010 0364. 3 Rectangular buildings, with adjoining dyke. Probably 17th - 19th century, but possibly on the site of earlier features. (see Fig 13)
Rankin: 8 NMRS: NH80SW53 SMR: NH80SW0062

28 Park: Group of field clearance cairns
(Centred) NH 8007 0366. 17th - 19th century, but possibly on the site of earlier cairns. (see Fig 13)

29 Park: Rectangular building, with round clearance heaps or stack-bases around it
NH 8004 0369. Probably 17th - 19th century, but possibly on the site of earlier features. (see Figs 13, 14)
Rankin: 99 NMRS: NH80SW54 SMR: NH80SW0063

Figure 14 Site 29
Photo DSCN1411

30 Park: Double banks
NH 8001 0364. These contain a burn and are apparently to control flooding. Probably 18th - 20th century. (see Fig 13)

31 Park: Fragmentary linear features - uncertain
NH 8005 0364. There are some fragmentary stone features here of uncertain date or purpose. Probably 18th – 19th century. (see Fig 13)
Rankin: 98

32 Wade's Road: Military road

This enters the Park on the western edge at NH 8004 0359; exits on the east at NH 8092 0381. Much of the military road line is now used by modern tracks but a section survives as a grass-covered earthwork. This section of road in particular has potential for survival of the original fabric as it has gone out of use as a route. So it could contain buried 18th c. features such as culverts, water-bars etc., as well as evidence for the general construction of these roads. Few now survive in this state as mostly they have been re-used as modern roads and trackways. Alongside the whole military road there is potential for evidence of associated features or finds including buildings, temporary structures, or markers. (see Figs 13, 15, 16,17)

Rankin: 103 (=grassed over eastern section)NMRS: - SMR: NH80SW0059 (= western section); NH80SW0064 (= grassed over eastern section)

Figure 15 Military road, as earthwork, looking east
From CP30 – see below. Photo DSCN1337

33 Park Offices: Kiln and stone heap

NH 8054 0354. The kiln is large, and has a large draw area opening to the south. It is set into a bank directly N of the Park offices and partly obscured by an extensive stone heap. This may be a corn drying kiln, perhaps converted to use as a lime kiln. The stone heap is very extensive and probably results from clearance of associated buildings from the area to its north, now a conifer plantation. It was not possible to survey the plantation area, but a rapid inspection did not reveal surviving features there. The area to the south of the stone bank has been cut away to provide a level platform for the Park offices and workshops. Owing to its location this site is unlikely to be readily presented to the public except through a guided tour. It does however deserve more active management, including the removal of scrub and vegetation growing inside it. (see Figs 17, 18)

Rankin: 95 (headed '97' in text) NMRS: NH80SW52 SMR: NH80SW0060

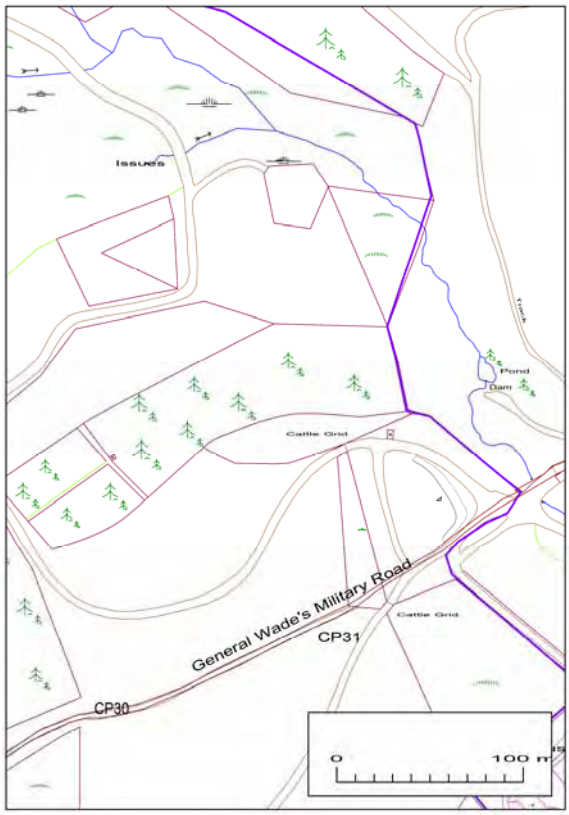

Figure 16 Military road (Site 32)

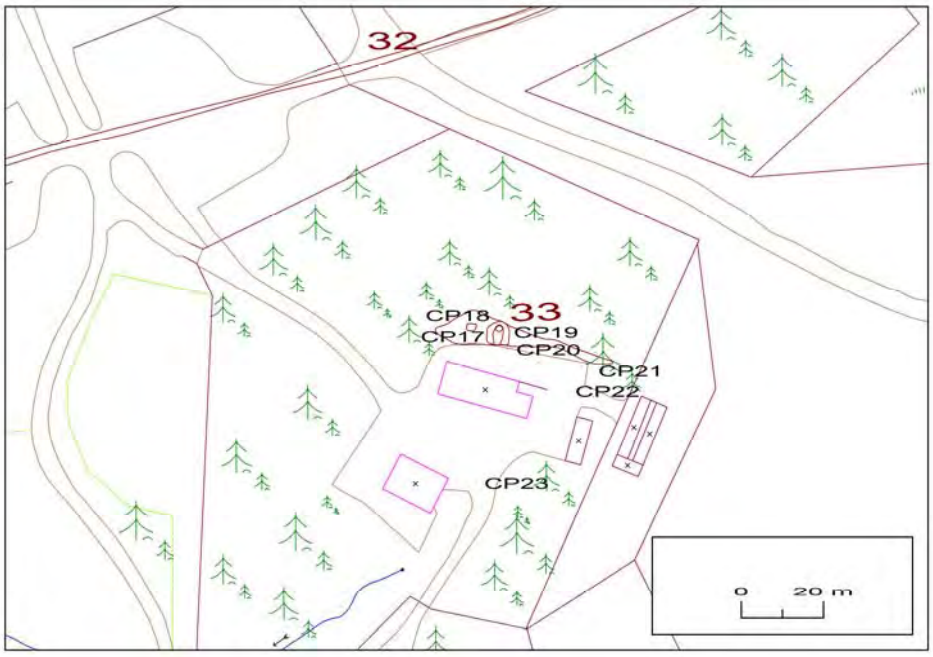

Figure 17 Location of cairn 33
Site numbers in red, CP indicates approx camera locations (see Appendix 1)
Note the military road runs beneath the modern car park to the north.

Figure 18 Kiln north of Park offices (Site 33)
(Photo DSCN 1262)

34 Viewpoint: Stone scatter and fragmentary building remains
NH 8036 0367. Probably 17th - 19th century, but possibly on the site of earlier features. (see Fig 19)

35 Keppochmuir: Cairn field
NH 8010 0370. Probably 17th - 19th century, but possibly on the site of earlier features. Note that it was not possible to survey the young plantations in this area and that some cairns probably survive within them. There are also various fragmentary remains in the area. Some of the cairns are hollowed in the top where they have apparently be used as sources of stone for other uses later. These cairns appear to be 17th - 19th century in date but may occupy the sites of earlier ones, especially given the proximity of the hut circles 18 and 19. (see Figs 11,12)
Rankin: 100 NMRS: NH80SW30 SMR: NH80SW0010

36 Keppochmuir: Stony area
NH 7999 0433. Field clearance and collapsed material from dyke 2. Probably 17th - 19th century, but possibly obscuring earlier features. (see Fig 10)
NMRS: NH80SW29 SMR: NH80SW0030

37 Keppochmuir: Rectangular building
NH 7999 0417. Probably 18th-19th century (see Fig 10)
NMRS: NH80SW29 SMR: NH80SW0030

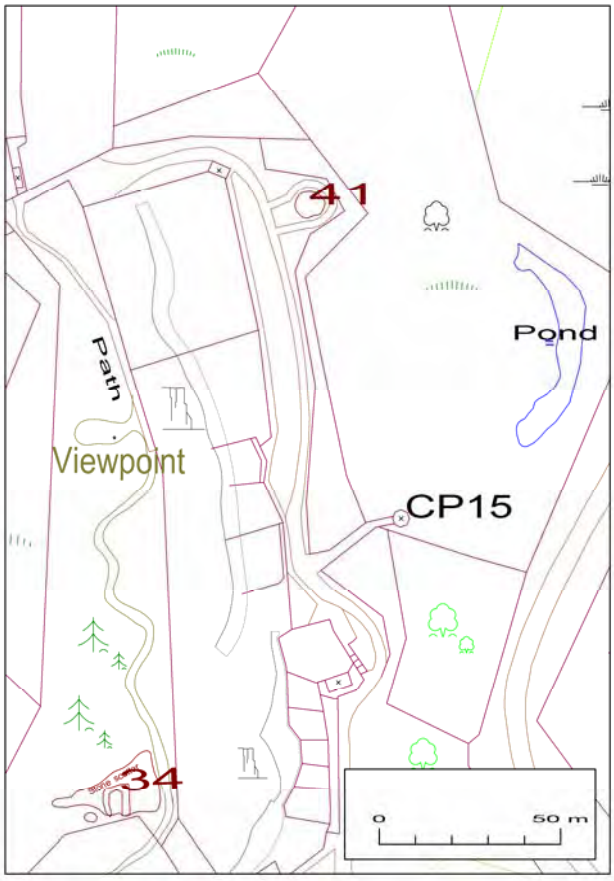

Figure 19 Viewpoint survey area
Site numbers in red, CP indicates approx camera locations (see Appendix 1)

38 Keppochmuir: Fragmentary building remains and clearance heaps
NH 7999 0413. Probably 17th - 19th century. (see Fig 10)

39 Craigbui: Three small cairns
NH 7987 0381. Uncertain date, but possibly contemporary with the hut circles 18, 19. (see Fig 12)

40 Park (East): Field Clearance Cairns and fragmentary remains
NH8029 0413. Probably 17th - 19th century, but possibly on the site of earlier features. (see Fig 9)

41 Viewpoint: Cairn
NH 8041 0383. A large cairn of uncertain date, built on a natural knoll. (see Fig 10)

Figure 20 Fragmentary remains (Site 40)
(Photo DSCN 1273)

Figure 21 Peat cuttings (Site 23)
Photo DSCN1419

Archaeological Assessment

For many years, assessments of archaeological importance have been concerned with wider issues than just evidence of past activity. Historic or archaeological sites and monuments may also have aesthetic, symbolic, associative, economic and /or ecological value (Lipe 1984; Brisbane and Wood 1996). In this the *Australia ICOMOS Charter for the Conservation of Places of Cultural Significance 1999* (the Burra Charter) has become a generally accepted international standard. It emphasises the need for historic places to be given compatible uses, based on an assessment of their cultural significance defined as 'aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.' (Article 1.2)

Increasingly archaeologists have become aware of the importance not just of sites, monuments and finds themselves but also of their wider setting. We now have to think in terms of landscapes rather than just individual features. A farmstead or a corn-drying kiln needs to be understood in the context of the activities that took place there, the fields and the crops and stock in them; how they were defined, protected and managed. This is where the dykes and the plough-cut edges come in. As we piece these parts of the overall jigsaw together we gain a greater understanding of the whole.

Although there are no exceptionally rare individual archaeological features within the Park, taken together they form a multi-period historic landscape which can tell a story of the last 2000 years or more. Much of what is visible now on the surface is probably 17th or 18th century or later in date, but it very likely stands on the site of earlier settlements. At Grid Ref NH 799 039 (Sites 18, 19) there are two 'hut circles' – that is, the footings of round houses which are Iron Age (c. 1,500 to 2,500 years old), with a large number of rough cairns nearby. These cairns have the characteristics of medieval or later field clearance, but small field clearance cairns are quite often found around hut circles and it is likely that these cairns may well have been started by the inhabitants of the houses. They have then been added to a good deal by later generations. This is a good point to make to visitors, many of whom may well think of the highlands as a wilderness. In fact, of course, it has been occupied and managed by people for over 7,000 years. Prehistoric cairns are not just added to: they can also attract later burials and activities, and there may be buried evidence of this.

The adding of material to old cairns also makes the point that settlement in the highlands, once established, tends to stay put. Clearing fields is hard work and there is normally little incentive to break in new land unless one is forced to. One of the complaints of the 19th c crofting tenants was that they took on such work over several years only to find their rents increased as they raised the value of their land – and were then moved on to start the process again!

The deserted buildings and walls within the Highland Wildlife Park are part of a much wider archaeological landscape in the area. Research by Olivia Lelong and others is beginning to clarify how this developed. However, understanding medieval and later rural settlements in the highlands is difficult owing to the nature of the remains and of the society that produced them.

The problem for the archaeologist is the apparent lack of physical evidence for medieval settlements in the area. Kincraig, Raitts, Kingussie and other settlements are mentioned in medieval and later documents, and must therefore have existed as landholdings, but what the nature of the settlements at these places was we cannot be sure. In the 1960s and 1970s there was a general assumption that medieval cottages were flimsy affairs that were frequently demolished and rebuilt on different sites. This seemed to be borne out by Fairhurst's excavations at Rosal in Strathnaver (Fairhurst 1968) and by Beresford and Hurst at Wharram Percy in North Yorkshire (for example, see Beresford and Hurst 1971). However, the Wharram excavation records have since been completely reinterpreted by Stuart Wrathmell, who has instead found that the houses there were built with solid cruck frames, which stood for many years, while the thatch and wall infill was replaced as needed (see for example Wrathmell 1989). Excavation evidence at Easter Raitts, Badenoch, was found to be consistent with this new interpretation.

The focus of these excavations was on the buildings themselves, in order to seek information which could be used in the experimental reconstruction of a township at the Highland Folk Museum at Newtonmore. It quickly became clear that these buildings, like those at Wharram Percy, depended for their stability on a sturdy wooden frame, used recyclable materials for their walls and roof, and were always kept very clean and swept out. Artefacts in general use were made either of organic materials such as leather, bone, wool, peat, wood, straw, withies and suchlike, that seldom survives, or of iron or other metals which can be melted down and reused. Such cultural artefacts as may survive are likely to be found among the fields where the manure was taken out and spread – and here they will probably have suffered damage from subsequent cultivation.

With current field archaeology techniques, therefore, small-scale excavation of the buildings might prove unproductive, and there is a danger that features could be seriously compromised for future research without delivering real gains in current understanding. Any excavation should therefore be undertaken only as part of a very specific research-led programme (perhaps in association with a university) to examine particular aspects.

Better research potential might be offered by analysis and investigation of the stone dykes, unploughed areas, and especially the field clearance heaps. While many of these heaps are no doubt 18th or 19th century in date, at least some of them may stand on top of smaller Bronze Age clearance cairns or even earlier heaps that have been added to over the centuries. Some no doubt were added to prehistoric burial cairns, and later field clearance cairns are also sometimes found to have been used for burials. There is the possibility that dating material and structural changes could be found within some that would provide useful information about periods of active use. Buried soil horizons beneath them might also prove instructive.

Aerial photography is capable of producing good information if the weather and ground conditions are favourable. The best type of photography for archaeological purposes is oblique rather than vertical and taken either at the height of a very dry summer to observe possible parch-marks, or during winter days of low sun to show up undulations on the ground. This technique is even better when there is melting snow lying.

However there are several difficulties with aerial photography, especially as it usually has to be undertaken at short notice when conditions are right – and in the highlands, conditions can vary widely between one place and another and from one hour to the next. The nearest airport with the necessary operators and facilities is at Inverness, and flying time to Strathspey in a small Cessna or similar aircraft has to be allowed for. In addition, photography needs to be done by someone who has the necessary training and experience to note, recognize and locate the features seen, while the Civil Aviation Authority regulations governing archaeological aerial reconnaissance have been tightened considerably in recent years, reducing the availability of pilots and aircraft and increasing costs substantially.

The RCAHMS has conducted a limited aerial photography programme in Scotland since 1976, operating from one centre, Edinburgh. There are also a few local volunteer flyers, partly funded by the RCAHMS. However, the further from Edinburgh the greater the practical difficulties of distance, terrain, weather and military zones. The programme also has only a small budget and has to set itself strict priorities. Nevertheless it might be worthwhile contacting the RCAHMS to see if the Highland Wildlife Park could be included in their flying programme.

There is also scope for more documentary research as only a limited, rapid trawl through the Scottish Records Office in Edinburgh and the Highland Council's Archives in Inverness was possible for this report. Further desk-based research might include a visit to the extensive collection of aerial photographs held by Cambridge University, which includes a great deal of archaeological value. However as yet it is not clear what the University holds for Strathspey.

At present, however, much archaeological research into highland rural settlements must await the development of new and better techniques. The most promising areas would seem to include the examination of biological remains through environmental archaeology, new dating methods (such as X- ray luminescence), and high accuracy 3D digital recording. Research might also focus on waterlogged areas where anaerobic conditions are likely to preserve organic remains. Unfortunately highland conditions are generally not good for remote sensing (including geophysical survey and ground penetrating radar). It may be that opportunities will arise to conduct experiments to develop some of these techniques and approaches at the Highland Wildlife Park.

Legal and policy framework

Government policy documents NPPG 5 and PAN42: Archaeology and Planning (both 1994), indicate the importance attached to preservation in situ, and within an appropriate setting, of archaeological sites. A small number of archaeological sites of 'national importance' are protected by the Ancient Monuments and Archaeological Areas Act 1979, but there are none of these within the Park boundary.

The Highland Council's Structure Plan (2001) together with the Badenoch and Strathspey Local Plan (1997) currently provide the planning policy framework for Badenoch and Strathspey. The Cairngorms National Park, which came into existence in 2003, has now taken responsibility for developing the Local Plan within its area. This will set out in detail the planning framework for the Cairngorms for the next 5 years and beyond. A preliminary draft is due to be published in spring 2005. The Park Authority also has the power to decide on planning applications that it thinks are of significance to the Park's aims. However the new Local Plan will have to co-ordinate with the relevant Structure Plans for the areas covered by the Park.

The Highland Council's Structure Plan policies seek to 'preserve and promote its built heritage as a valuable tourist, recreational and educational resource wherever possible'. (Paragraph 2.15.2). The Plan recognizes the region's 'wide and varied archaeological and built heritage' and notes that, 'Archaeological and historic sites and features are cultural and environmental resources for research, information, education, local identity and economic development. In many cases, sites and monuments have developed important natural habitats for wildlife. They are, therefore, a key element of the Plan's approach to sustainable development.' (2.15.3-4)

As paragraph 2.15.6 indicates, Strategic Policy G2 preserves archaeological sites and their settings wherever possible. Specific policies include:

> **Policy BC1: Archaeological sites affected by development proposals should be preserved, or, in exceptional circumstances where preservation is impossible, the sites will be recorded at developers' expense to professional standards. Provision will be made in Local Plans for the appropriate protection, preservation and enhancement of archaeological sites.**
>
> **Policy BC2: Sympathetically developed and well-managed proposals which increase the tourism potential of archaeological sites or increase public understanding and awareness through research projects will generally be supported.**
>
> **Policy BC3: Local Plans will identify and zone areas of exceptional archaeological and historic interest, and make appropriate provision for the protection and interpretation of features of interest**
>
> **Policy BC5: The Council will seek to preserve Highland's buildings and groups of buildings of historic or architectural interest, some of which may be at risk from neglect, by the identification in Local Plans of opportunities for their productive and appropriate use.**

There are no listed buildings within the Park.

Given the above policies it is reasonable to expect that the Council and the new National Park Authority will be supportive of initiatives to conserve and develop sustainable public benefits from the Park's archaeology. There are no identifiable policy conflicts.

Figure 22 Woodland regenerating in the Craigbui survey area
Photo DSCN1417

Impacts and issues

Threats

The archaeological features within the Park are unlikely to be threatened by building development but could be damaged by plants, animals, or people.

1. Damage by plants often results from active root action by bushes or trees disturbing stratified buried deposits, conifers falling and uprooting, and branches falling on walls. Prevention of these threats is generally by controlled grazing with sheep or cattle (or other species!). This is generally seen as the most effective management for the types of feature represented here, and it has the advantage of maintaining a short grass sward which makes the details of sites much easier to see. In the absence of grazing, an alternative method of controlling the growth of scrub is needed, such as by occasional cutting to ground level and poisoning the re-growth. Uprooting young trees and shrubs should not be done unless they are less than about 450mm (18 inches) high. Where species such as juniper are concerned discussion needs to take place with SNH staff about management.

2. Damage by animals occurs mainly through poaching and trampling, rubbing, and wear and tear from tracks. Where sites are managed by grazing, care needs to be taken with sheep to avoid over-wintering them on the site as they tend to create scrapes which can be damaging. With cattle, areas where they congregate can become very churned up and they can also rub on fragile walls and other features. In all cases, feeding areas need to be kept well away from recorded features. Usually, a short period of intensive spring grazing, when ground conditions are not too wet, followed by a period of complete removal is recommended. This is often done using electric fencing or similar movable barriers.

3. People have the greatest potential to damage sites and features, usually through ignorance or a lack of concern. This divides into two main areas: damage from land management activities and damage from visitors.

    a. Damaging management activities include driving vehicles and machinery over features, especially when ground conditions are wet, and excessive walking or cycling on sensitive areas by large numbers of people can also cause severe erosion. Sites of buildings and other structures should not be used as stock-feeding or picnic areas. The building of paths, signs, fences, shelters and other structures should be done in consultation with an archaeologist to minimise both direct and visual impacts. Often the minor relocation of a proposed structure, or small design change, can make all the difference.

    b. Damage by visitors can range from deliberate vandalism to problems caused by those wishing to take home souvenirs or leave their mark. The use of metal detectors should only be allowed under supervision by staff, and even then not in or around ruined buildings where there is a high likelihood of stratified buried evidence. The problem here is not with the technology itself, but with the

subsequent digging out and removal of buried artefacts from their context. This can destroy a site's archaeological value completely, even if the only items retrieved are old bottle-tops, buttons or similar. Excavation should only be undertaken by people with appropriate qualifications and experience. Membership of the Institute of Field Archaeologists (IFA) indicates independently assessed competence and a commitment to subscribe to professional standards.

4. There may also be some potential for damage to animals and people from the archaeology - in other words, health and safety issues need to be considered. Hazards to animals depend very much on the species. Those to people can include uneven ground, danger of tripping over loose stones, falls of stones from unstable walls, wet and slippery areas. These are all common hazards faced by anyone walking in the countryside but nevertheless, if access is to be encouraged, should be pointed out to visitors. To minimise these, ease access for those with walking difficulties, and channel and manage visitor pressure, consideration should be given to made paths around the sites.

Maintenance

Extensive maintenance is unlikely to be required. However, ad hoc monitoring and more formal annual inspections by staff should be planned for. Miminum intervention is recommended - the temptation to carry out high intervention maintenance, eg by mortaring old walls, should be resisted, and repairs should only be undertaken following professional advice.

Assessing impacts of capital works

Any planned capital works should be carefully considered to minimise their impact on archaeological features. Advice should be sought where necessary. Preservation as found, in situ, is the preferred option unless in the context of a planned, designed and fully justified research project.

Disaster planning

The risk of major disasters befalling the archaeology is considered to be very low, provided vehicles are kept at a distance, and visitors are strongly discouraged from lighting fires or dropping litter. Health and safety issues for visitors and staff can be addressed through the existing warden system. Providing all sensible precautions are taken, a separate disaster plan for the archaeological features is not necessary.

Monitoring and Review

The plan will need to be regularly monitored and reviewed. Recommended frequency is for annual monitoring and a five yearly review.

Legislative and organisational changes are in train that will need to be monitored and if necessary the plan may have to be updated. For example, the advent of the Cairngorms

National Park Authority, organisational changes now taking place within Historic Scotland, and possible future changes in legislation for the cultural heritage could all affect it.

Once the archaeology has been interpreted and made available to visitors, feedback should be obtained by questionnaires and also through questioning by volunteers. This should then be fed through into the first plan review.

Figure 23 Forestry ploughing near the Park office and workshop
Photo DSCN1271

Recommendations

Research potential

The difficulties and potential avenues for future research into the types of archaeological feature found in the Wildlife Park have been discussed above. Links should be developed with a university with relevant research interests to create a structured research programme that would aim to develop appropriate techniques and methods to further the study of medieval and later rural settlement. This might include targeted sampling excavation.

In the meantime, the remains here should be preserved as found and used primarily for the benefit of informing and educating the public. Conservation and interpretation readily go hand-in-hand here, and there is an opportunity to engage visitors with issues of research and management as well as with the bare facts of the sites themselves. This could provide a dimension to their experience not generally available elsewhere.

The possibility of experimental excavation and reconstruction of the kiln (site 25) has also been considered. However, the Highland Folk Museum has already reconstructed a kiln at Newtonmore, and rather than duplicate that work it might be better to refer visitors to the existing example there.

Management

If possible the archaeological features should be divided by as few fences as possible. This will help to reduce the physical impact on buried archaeological layers of the fence itself, and minimise erosion of the adjoining area by animals. It will also make the whole area visible to visitors as a coherent, meaningful whole. I appreciate this may not be easy. As far as possible, movable temporary fence-lines could be set up that allow for flexible management options to suit conditions from season to season; where permanent fences are necessary they should be sited to avoid the archaeological features. A fence is needed to define the present Park boundary along the north-west and west sides as this is unclear at present, and without a fence there is no means to control grazing.

The key management objectives for the archaeological features are:

- Maintain a good grass sward without areas of erosion
- Prevent encroachment by scrub and rank weeds
- Monitor the condition of stone walls and structures and maintain as found as far as possible. The minimum of intervention should be made to maintain their current condition and for health and safety (where loose stones are seen to be a danger to the public).

These objectives are best met by a programme of controlled grazing, and by visitor management. Short periods of intensive grazing should be undertaken, combined if necessary with cutting of rank vegetation and scrub re-growth to maintain a good sward. There may be opportunities to encourage species-rich grassland if for example meadow plants are allowed to flower and set seed in the spring. A closed period for ground-nesting birds would also reduce the pressure on the archaeology. Animals should be kept off in the winter when ground and weather conditions make erosion likely. Sheep for example can start erosion by making scrapes beside stone dykes and walls. Movable temporary electric fences may offer the most flexible method of managing grazing pressures.

Visitors could be offered free walking access to the archaeological areas at particular times of year; at other times, accompanied visits might be made by appointment. Peak times, such as the Easter, summer, and October school holidays might be appropriate for open access, but actual times would need to fit in with wider Wildlife Park management requirements.

Visitor pressure is probably best managed by providing a defined route for visitors to follow. This could be a strip of grass reinforced with Terram, or a path surfaced with gravel or similar. Any path construction should avoid sensitive areas and where necessary paths should be built up from ground level with imported material rather than dug in. The old track shown on the early OS maps and still traceable on the ground today, might be incorporated into the route.

Scrub re-growth should be prevented where root action would cause damage to buried archaeology – certainly within, and within at least 10m of the nearest visible edge of all features. Old, well established trees and bushes in these areas should be cut to ground level, taking care to prevent them falling across walls or other features. The stumps should then be treated to kill them off and the loppings removed from the area. Where there are new seedlings coming through, the general rule is to pull these if they are less than about 450mm (1.5 feet) tall; if larger, the disturbance to archaeology caused by pulling them out may be unacceptable and they should be cut off.

Tractors, diggers and other heavy vehicles or machinery should never be driven over archaeological features, especially in wet conditions where wheel-slip is likely. Where machinery has to be used close to archaeological sites, light weight machines fitted with low-pressure tyres will minimise compaction. Dry days should also be chosen wherever possible when the ground is unlikely to be churned up.

Presentation

A walking (and if possible a wheelchair) access route should be provided around the features. Unless visitor pressure is proving very erosive, those that wish to walk off the path should not be prevented from accessing the archaeology if they wish. However the existence of a path would provide a clear route for people to follow and so help to channel the pressures into defined areas.

I do not recommend interpretative panels at the sites in this case. These inevitably require maintenance and can be intrusive. They could also detract from the visitor's experience which I would argue should include a sense of discovery. However, some more subtle guidance is necessary. I therefore propose simple, numbered posts or stones which key to a map or audio tour unit that visitors carry with them. These could be made available at the reception building. Wooden posts could be used, but they can prove difficult to drive into thin soils and they will require maintenance and eventual replacement. Instead it would be worth considering cutting the marker numbers into natural boulders and perhaps painting them to make them more visible. They should last many years with very little maintenance, and would require little or no ground disturbance. If heavy boulders were chosen, and there is a good supply of natural boulders in the area, they could be positioned on the ground using a mechanical digger and readily moved if necessary in the future, while being too heavy for visitors to move manually. They would also naturally fit into the landscape.

Visitors would guide themselves around the numbered points using either printed maps or an audio tour. These could be integrated into existing visitor tour facilities at the park, or operated separately. If both audio and printed versions were available it would allow both the deaf and the visually impaired to be catered for. For audio tours it might well be worthwhile considering mp3 technology which has no moving parts.

Finally, the archaeology present at the Highland Wildlife Park is of a type that is well interpreted at the Highland Folk Museum at Kingussie and Newtonmore. Consideration should therefore be given to encouraging visitors to move between the three venues. This would enhance the visitor experience and also help to raise visitor numbers for both. Options might range from mutual promotion through leaflets or posters, to offering an overall reduction if both are visited, or even perhaps to the provision of a linking bus service during the summer season.

Key Recommendations summarised

1. Integrate the results of this survey and plan with the Park's overall development plans and resolve any conflicts.
2. Seek funding for implementation of proposals.
3. Develop a management and grazing regime in discussion with an archaeologist along the lines set out above and tailored to the circumstances and requirements of the Park. This would include grazing arrangements and indicative dates.
4. Re-site fences to agreed new lines, enabling the archaeology to be understood and managed as a single entity. Create sockets for temporary fence lines at agreed points.
5. Define and create a walking path around the features suitable for wheelchairs.
6. Create numbered markers using natural boulders found on site and place them at agreed positions along the path.
7. Design and produce a map / leaflet and / or an audio tour for visitors' use.
8. Approach the Highland Folk Museum for possible partnership working.
9. Timetable plan monitoring and review.

Bibliography and References

Books

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Watson, W J 1904 *Place-names of Ross and Cromarty* reprinted 1996 Highland Heritage Books

Wrathmell S 1989 'Peasant Houses, Farmsteads and Villages in North-East England' in

Aston M, Austin D, and Dyer C (eds), *The Rural Settlements of Medieval England* (Blackwell)

Web resources

Am Baile	http://www.ambaile.org.uk
Archaeology Data Service	http://ads.ahds.ac.uk
National Library of Scotland (Maps)	http://www.nls.uk
National Monuments Record for Scotland	http://www.rcahms.gov.uk
The Statistical Accounts of Scotland	http://edina.ac.uk/statacc/

Documentary Sources

Highland Council Sites and Monuments Record, Highland Council HQ, Glenurquhart Road, Inverness IV3 5NX

National Monuments Record for Scotland, Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) John Sinclair House, 16 Bernard Terrace, Edinburgh EH8 9NX

(references for the above have been included in the Gazetteer of sites above)
Aerial photographs were checked in the NMRS

Highland Council Archives, Inverness

Valuation Rolls for Alvie parish, Inverness-shire (selected)
Electoral Rolls for Alvie Parish, Inverness-shire (selected)

Scottish Records Office, Register House, Edinburgh

The full list of items checked in the SRO index is extensive and has therefore been produced as a separate document. However, it was only possible to check a small number of these in the original and none produced significant new information. The following were checked:

GD44/28/10 Disposition by the Duke of Gordon's Trustees to Alexander Macintosh 1831-4

GD128/31/3 Contents of the Barony of Dunachton, surveyed Summer 1834. It is the reference document for an estate plan which is apparently missing. This might repay further study, especially if the map can be traced.

GD176/1453 Tacks and draft tacks, 1821 – 1846. The length of the agreements ranges from 14 to 19 years, and they seem to be for farms rather than small crofts. Tenants include military men, a miller and a drover. However, there is no clear reference to Keppoch Muir or other features located within the park boundary.

GD176/1480 Leases and draft leases – shooting rights 1873 – 1890. In the first three years, there are three draft leases of three years each to three different tenants. However from 1876, John Austen took a lease of the shooting which was extended to at least 1890. Part of the arrangement was that the agricultural tenants were to be restricted in their heather-burning, taking of game (including rabbits) and other activities.

Other items checked:

GD176/1360

GD176/2547

GD128/31/1-5

Appendix: Catalogue of Photographs

Copies of this table are available on the CDROM in Microsoft Excel 2003, with hyperlinks to the photographs themselves. All photography was digital at a resolution of 3.2megapixels

No. (Hyperlink)	*Approx camera location*	*See Figure*	*Notes*	*Date*	*Taken by*
DSCN0272	CP1	10	view NE	09/06/2004	JW
DSCN0273	CP1	10	view N	09/06/2004	JW
DSCN0274	CP1	10	view NW	09/06/2004	JW
DSCN0275	CP1	10	view NW	09/06/2004	JW
DSCN0276	CP2	10	view NW, showing sites 2,36	09/06/2004	JW
DSCN0277	CP3	10,11	view E	09/06/2004	JW
DSCN0278	CP4	13	view NW	09/06/2004	JW
DSCN0279	CP4	13	site 25	09/06/2004	JW
DSCN0280	CP4	13	site 25	09/06/2004	JW
DSCN1224	CP5	10	site 4	13/09/2004	JW
DSCN1225	CP5	10	view W	13/09/2004	JW
DSCN1235	CP6	10	view N	21/09/2004	JW
DSCN1236	CP7	10,11	site 5	21/09/2004	JW
DSCN1237	CP8	10	looking E	21/09/2004	JW
DSCN1238	CP8	10	looking NE	21/09/2004	JW
DSCN1239	CP9	10	site 4	21/09/2004	JW
DSCN1240	CP9	10	site 4	21/09/2004	JW
DSCN1241	CP9	10	site 4	21/09/2004	JW
DSCN1242	CP9	10	site 5	21/09/2004	JW
DSCN1243	CP10	10	view NW	21/09/2004	JW
DSCN1244	CP10	10	looking S along fence	21/09/2004	JW
DSCN1245	CP10	10	Through fence	21/09/2004	JW
DSCN1246	CP11	10	looking E	21/09/2004	JW
DSCN1247	CP11	10	looking NNE	21/09/2004	JW
DSCN1248	CP13	13	Through fence - view N	22/09/2004	JW
DSCN1249	CP12	13	Through fence - view N	22/09/2004	JW
DSCN1250	CP12	13	looking NNE	22/09/2004	JW
DSCN1251	CP14	13	looking NE	22/09/2004	JW
DSCN1252	CP14	13	looking E	22/09/2004	JW
DSCN1253	CP15	19	looking NE	23/09/2004	JW
DSCN1254	CP15	19	looking E	23/09/2004	JW
DSCN1255	CP15	19	looking SE	23/09/2004	JW

No. (Hyperlink)	*Approx camera location*	*See Figure*	*Notes*	*Date*	*Taken by*
DSCN1256	CP15	19	looking E	23/09/2004	JW
DSCN1261	CP17	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1262	CP17	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1263	CP18	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1264	CP18	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1265	CP19	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1266	CP20	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1267	CP21	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1268	CP21	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1269	CP21	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1270	CP22	17	site 33 (kiln and stone bank)	23/09/2004	JW
DSCN1271	CP23	17	Forestry Ploughing	23/09/2004	JW
DSCN1272	CP26	9	site 40	24/09/2004	JW
DSCN1273	CP26	9	site 40	24/09/2004	JW
DSCN1274	CP26	9	site 40	24/09/2004	JW
DSCN1275	CP27	9	site 40	24/09/2004	JW
DSCN1276	CP24	9, 10	view W	24/09/2004	JW
DSCN1277	CP25	10	view S	24/09/2004	JW
DSCN1278	CP28	10	view S	24/09/2004	JW
DSCN1283	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1284	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1285	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1286	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1287	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1288	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1289	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1290	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1291	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1292	CP29	12	Panorama section - site 35	24/09/2004	JW
DSCN1293	CP29	12	Panorama section - site 35	24/09/2004	JW
Panorama	CP29	12	Completed panorama - site 35	24/09/2004	JW
DSCN1337	CP30	16	Military Road (site 32), looking E	30/09/2004	JW
DSCN1338	CP31	16	Military Road (site 32), looking W	30/09/2004	JW
DSCN1406	CP32	13	view E	14/10/2004	JW
DSCN1407	CP32	13	view E	14/10/2004	JW

No. (Hyperlink)	*Approx camera location*	*See Figure*	*Notes*	*Date*	*Taken by*
DSCN1408	CP33	13	view W - site 31	14/10/2004	JW
DSCN1409	CP33	13	view N - sites 28-9	14/10/2004	JW
DSCN1410	CP34	13	view E - site 31	14/10/2004	JW
DSCN1411	CP35	13	view S - site 29	14/10/2004	JW
DSCN1412	CP36	13	view NW - site 27	14/10/2004	JW
DSCN1413	CP36	13	view SW	14/10/2004	JW
DSCN1414	CP37	12	view W	14/10/2004	JW
DSCN1415	CP37	12	view E	14/10/2004	JW
DSCN1416	CP37	12	view N - site 21	14/10/2004	JW
DSCN1417	CP38	12	view S - site 22	14/10/2004	JW
DSCN1418	CP39	12	view E - site 23	14/10/2004	JW
DSCN1419	CP40	12	view W - site 23	14/10/2004	JW