



Practice Guide

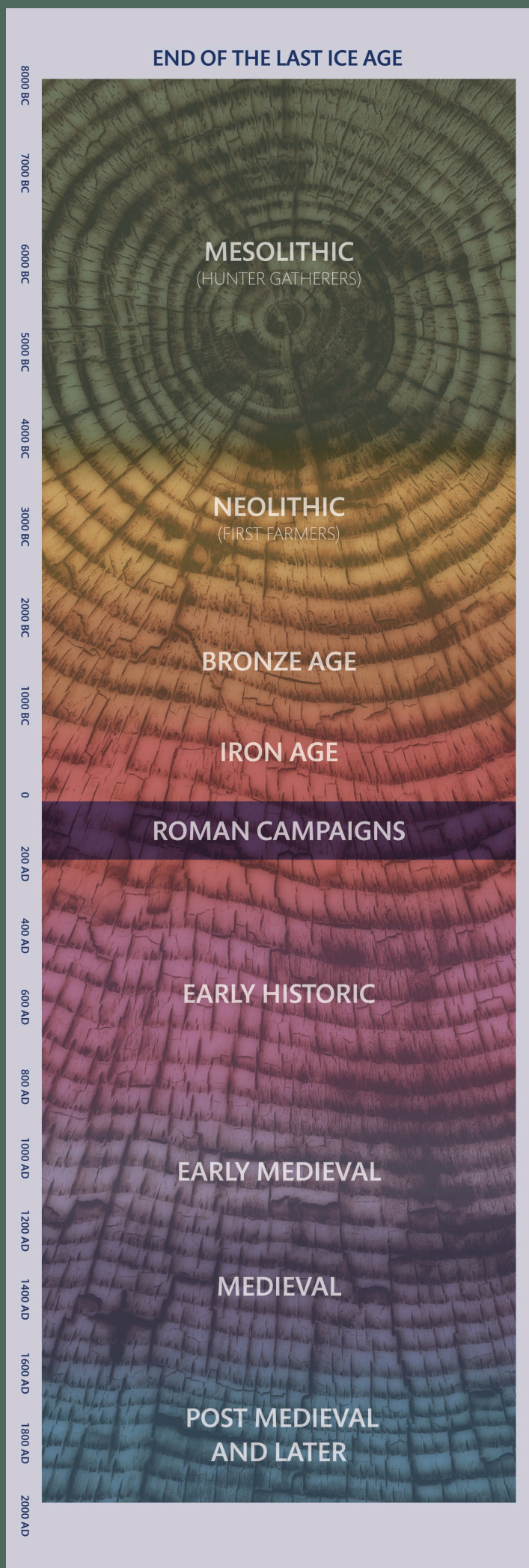
Identifying the historic environment in Scotland's forests and woodlands



Archaeological timeline

People have been living in Scotland since the end of the last Ice Age. As the timeline shows, transitions between different chronological periods, technologies and cultures were often gradual, such as the introduction of farming in the Neolithic. Divisions are no longer absolute and transition periods should be considered as blurred. However, they remain useful as descriptive identifiers and are used throughout this booklet - and, specific events such as the Roman occupation can sometimes leave distinct archaeological remains.

The 10,000 years of human settlement mean that the earliest remains have often been obscured or destroyed by later human actions. This means that most archaeological features survive from the recent past. However, significant remains survive from all periods contributing to our understanding of Scotland's past.





Practice Guide

Identifying the historic environment in Scotland's forests and woodlands

Matthew Ritchie and
Jonathan Wordsworth

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Enquiries relating to this publication should be addressed to:

Forestry Commission Scotland
231 Corstorphine Road
Edinburgh
EH12 7AT

T: 0131 334 0303
F: 0131 316 4344
E: publications@forestry.gsi.gov.uk

The author may be contacted at:

Forestry Commission Scotland
Forest Enterprise Scotland Head Office
1 Highlander Way
Inverness
IV2 7GB

T: 01463252635
E: matthew.ritchie@forestry.gsi.gov.uk

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Where not otherwise credited, photographs were supplied by the authors. You can order the RCAHMS images used within this leaflet at www.rcahms.gov.uk/orderimages.

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Introduction

The purpose of this guide is to enable people active in managing woodlands to investigate, identify and record the historic environment. It contains details of the simple steps that can be taken to identify and record archaeological sites and historic features. The guide does not attempt to offer advice in relation to the evaluation of the significance of an individual archaeological site or historic landscape. Nor does it detail examples of conservation management. It is not intended to be a definitive list of all the features likely to be found but is designed to help forest workers and managers recognise when archaeology is an issue and trigger the protection measures that are required as part of sustainable forestry management. This is consistent with Scottish Government policy as outlined in *Scotland's Woodlands and the Historic Environment* (2008).

Interpretation of archaeological sites and historic landscapes can be a difficult and complex task, often requiring experience and knowledge of a wide range of archaeological site types, alongside an understanding of local and regional history and prehistory. However, an understanding and knowledge of the local landscape is also very important, knowing what to expect and where. All forest workers and other land managers are usually familiar with their woodland landscape and surroundings. They can be well placed to both acquire and use some basic archaeological skills to enhance their knowledge of the historic environment throughout the woodlands in their stewardship.

Investigating the historic environment

It is essential before attempting to identify archaeological and historic sites in woodland to gather together all that is already known about the area. This will also help to inform any woodland plan or strategy. Knowledge of existing records will help inform any proposed archaeological survey or interpretation work and will help identify new discoveries. An accompanying guidance note to this booklet, *Historic Environment Information and Advice for Forest and Woodland Managers*, may be found on the FCS website (www.forestry.gov.uk/scotland). This comprehensive review details the current range of historic environment information available in Scotland, summarised below.

Scotland's national collection

The Royal Commission on the Ancient and Historical Monuments of Scotland holds Scotland's National Collection relating to the archaeological, architectural and historical environment. Information is available to search online (www.rcahms.gov.uk) via the Canmore database. It contains details of around 270,000 archaeological sites, monuments, buildings and maritime sites in Scotland, together with an index to the drawings, manuscripts and photographs in the collections. Images of over 80,000 of the photographs or drawings in the collection are also available in Canmore. You can search for information by name, location, site type or collection or search using the Canmore mapping service. However, as with the Historic Environment Record data described below, many of these are limited to point data references rather than area descriptions.

Inclusion of a building or site in Canmore does not mean that it is **Listed** or **Scheduled**, the principal legal designations concerning important elements of the historic environment. For

more information about Listed Buildings or Scheduled Monuments please consult Pastmap (www.pastmap.org.uk) or search the online databases held by Historic Scotland (www.historic-scotland.gov.uk).

Figure 1 This map is part of a Survey of Assynt, carried out by John Home in 1774 and is reproduced courtesy of Sutherland Estates. It can be viewed online at www.nls.uk/maps



Historic environment records

The majority of the local authorities in Scotland maintain an Historic Environment Record (also known as a Sites and Monuments Record or SMR) containing information on all the known archaeological and historic features in their area. The HER may also hold useful information in regard to any earlier archaeological surveys. Most HERs are moving towards GIS (Geographical Information Systems) coverage of sites allowing the data to be cross referenced with other data sets. However, as with the Canmore data, many of these are limited to point data references rather than area descriptions. Assistance may need to be sought from the HER provider as to the extent of individual sites. For a complete list of Local Authority archaeological services in Scotland (and a number of other useful links) please consult the RCAHMS website (www.rcahms.gov.uk/links).

Historic land-use assessment

Over 70% of Scotland has now been covered by a comprehensive desk-based Historic Land-use Assessment (HLA). This initiative uses old maps and aerial photographs to produce a landscape-scale assessment identifying areas of historic and archaeological interest, describing them by period, form and function. This is an important geographical tool for identifying relict historic areas and for targeting more intensive survey (www.hla.rcahms.gov.uk). It may also be interactively interrogated under licence using suitable GIS applications.

Figure 2 The River Tweed near Melrose shows the complexity of Scotland's historic landscapes. In the background are the Eildon Hills, the site of one of the largest prehistoric forts in Scotland. By the river is the town of Melrose, built around the abbey associated with St Cuthbert in the 7th century. In the foreground, the major Roman Fort complex of Newstead or Trimontium lies under the 19th century fields and hedgerows. In turn, they are overlain by recent field systems and bisected by modern roads and the rail line.



Old maps

Old maps can be a vital source of information on both woodland and archaeological site history, indicating when sites were occupied and when boundaries were in use. The National Library of Scotland has the largest map collection in Scotland and many excellent online resources (www.nls.uk/maps). These include some of the earliest maps of Scotland (such as those by Timothy Pont from the 1580s and 90s), the Roy Military Survey of Scotland (undertaken from 1747 to 1755) and a range of the Ordnance Survey (OS) Maps from 1832 onwards. Estate Maps can be particularly detailed and may be found in the National Archives of Scotland Map Library, local archives or museums, or still in the possession of the original or current landowner. All maps must be used with caution as what is shown may be schematic (as is the case with much of the woodland and settlement information shown on the Roy survey) or selective (for example a building may not be shown on an OS map but may still have been extant when the initial survey was carried out). The Ordnance Survey 1st edition maps can also provide valuable information on the historical structure of individual woodland, as their mapping distinguished between closed canopy woodland and open grazed woodlands.

Documentary sources

Unless you have clear evidence as to which documents are relevant for studying the particular woodland or estate this can be a time-consuming search and may best be contracted out if required. However, some estate records may give detailed information on the establishment or harvesting of individual woodlands. They may also tell when boundaries or roads were built and used. Secondary sources can also be useful and your local reference library may be able to help

Figure 3

This detail of the Farm of Nedd, part of the Survey of Assynt described previously, shows how old maps can be useful for both identifying archaeological features and woodland history.



Reproduced courtesy of Sutherland Estates.

Figure 4

This Ordnance Survey plan of the farms of Nedd and Leraig shows how the woodland has expanded obscuring the settlement features visible 100 years earlier.



Sheet 107 Lochaber surveyed 1872-3, published 1881. Reproduced by permission of the Trustees of the National Library of Scotland.

identify relevant material. The national collection of census data, estate records, including maps, rentals and other records can be accessed at the National Archives of Scotland (www.nas.gov.uk). A number of local authority archive services also exist and hold additional material complimentary to the national collection.

Figure 5 A Polish Eagle and Scottish Lion incised into the concrete of WWII defences at Tentsmuir, Fife. The oral history of this camp illustrates the recent history of this area in a way not possible by conventional archaeology.



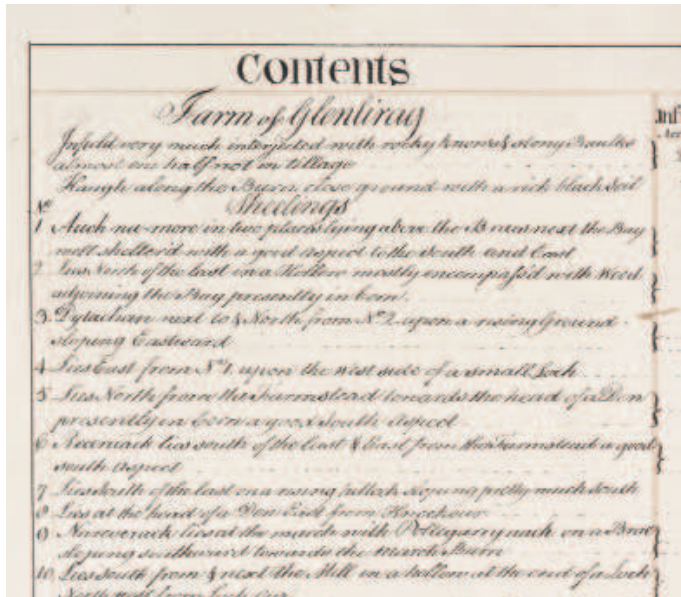


Figure 6

Like all historic documents, this contents list of the Farm of Glenlirag (from the Survey of Assynt) has to be used with caution. However, the written description complements the information depicted on the map.

Reproduced courtesy of Sutherland Estates.

Oral sources

Former workers or local knowledge may well help identify sites that are not yet recorded. Historical images and information are also available online on the Forestry Memories website (www.forestry-memories.org.uk). You are encouraged to submit any relevant information that you uncover or record in regard to the people who work or have worked in the Forestry Industries in Scotland to Forestry Memories.

Photographs

Old photographs, particularly aerial views, such as the RAF photographs taken during the systematic aerial survey of Britain undertaken in the late 1940s, can supply useful information either before woodland was planted or within a different cycle of tree growth. Subject to copyright restrictions, enlargement of prints by scanners can help enhance photographs taken at a small scale. Remember that just because a previously recorded archaeological feature does not show on a photograph, this does not mean it has been destroyed. Shadow, vegetation cover and the direction of the picture can all obscure features. A useful database of the aerial photography held by the RCAHMS (both national vertical collections and special collections such as those taken by the Luftwaffe during the war) is available online using the AirPhotoFinder utility (www.rcahms.gov.uk).

Archaeological surveys

An archaeological survey commissioned specifically for a forest or woodland plan should not only identify the archaeological sites and historic landscape features but also recommend both the areas to be protected and the appropriate management for each site. An archaeologist will be able to identify, evaluate, record and mark sites on the ground (particularly important in order to relocate them). They will also be able to assess the importance of individual sites and the physical and historical context within which they lie. Once undertaken, a professional archaeological survey should result in a useful management tool for all current and future work.

Figure 7 RCAHMS surveyors recording archaeological remains on the slopes of Ben Lawers. The upright stones by the tree are all that remains of a robbed-out Neolithic chambered tomb.



Identifying the historic environment

With the knowledge gained by consulting existing sources – or if you are simply going about your work in the forests – it is time to start looking for the archaeology yourself.

What to look for

Archaeological sites and historic environment features can be found in both natural woodland and conifer plantation, as well as in the surrounding open countryside. However, in areas where forestry ploughing has taken place only the most robust of archaeological sites will have survived. Effort should therefore be concentrated on areas where less physical intervention has occurred. Although tree roots can damage buried archaeological deposits and unstable trees can cause extensive disturbance if they blow over, old woodland has often protected historic features from more intensive land-uses.

Lumps and bumps

Mounds of earth and stone may often mark archaeological sites, particularly if they are of a regular shape. Wall foundations, masonry and piles of stone will all mark archaeological sites, while regular earthworks, banks and ditches are also indicators of human settlement. Dense areas of mounds might mark cairnfields, an abandoned settlement or industrial workings.

Hollows

Pits and ditches cut below the normal soil level will retain their form even when largely silted up. The present size of a feature should not be the guide to its original dimensions. What are now slight depressions may once have been a considerable depth. Infilling may have occurred, both deliberately and through gradual silting over time. With a largely filled-in feature it may be

difficult to decide whether a pit has been deliberately dug or is the result of a natural process such as tree throw. In most cases, man-made features show a consistent shape in comparison to the irregular shapes of natural features.

Lines

Former field boundaries may now appear as low linear banks, while old paths and tracks often survive as linear hollows or terraces across the landscape. Their routes can be followed to identify other archaeological sites.

Unusual vegetation

Because archaeological sites may have been enriched by organic deposits like dung, by mortar from crumbling walls or unusual minerals where industrial working has been carried out, they may be distinguished by distinctive vegetation patches. Nettles, for example, often grow over house, byre and midden sites because of greater density of nitrates. Sometimes archaeological remains will affect the physical conditions for the local vegetation. Thus stone floors and roads will have less soil cover than undisturbed soils whereas ditches, pits and channels may have a more vigorous vegetation cover. Bracken spores and rhizomes also spread best over disturbed ground and may indicate areas of previous cultivation.

Figure 8

This line of stones at Rogart in Sutherland marks the remains of an old field boundary. An oak tree has grown up on the edge of the former boundary.



Figure 9

The enriched soils of this former shieling in Glen Marksie support a more diverse grassland vegetation in contrast to the surrounding heather moorland.



Box 1 Woodland of historic interest

In many cases woodlands themselves can be of archaeological and historic interest. Within the structure of surviving trees and nearby archaeological remains it is possible to reconstruct the past history of specific woodland areas. Tree species, mix and age will all show whether woodland has been planted or managed rather than regenerating naturally. This is important for understanding woodland history and composition. The commercial value of other trees such as oak will have led to such trees being planted, weeded to prevent competition from other species and enclosed to prevent animals grazing on young saplings. Traces of all these actions can be viewed in the surviving woodland and are important for understanding the present woodland composition.

Veteran trees: over-mature trees of any species can be defined as veteran trees and they are distinguished by their greater age or girth and generally exhibit signs of senescence such as dead wood in the canopy or rot holes. Some veterans show signs of historic pollarding which indicates human intervention and historical management.

Maidens: where a single species of even diameter trees are noted, then these are sometimes referred to as maidens. These are part of a single-event plantation of seedlings or regeneration after clearfell and enclosure which has subsequently been thinned. Oaks are the most common species recognised in this form, though it can occur with many other species including ash, alder, beech and Scots pine. In some cases natural regeneration over an area suddenly abandoned may give the effect of a deliberate plantation. This is however rare and in general a group of maidens marks a plantation and a search of the surrounding area may reveal a dyke or bank defining the plantation area. As these plantings were usually carried out by estates, there may be maps and documents recording the history of such a plantation.

Figure 10

Veteran oak tree in parkland at Blair Drummond, Perthshire.



Figure 11

19th century plantation of maiden oak trees at Dochfour by Loch Ness.



Coppicing and pollarding: as part of the harvesting cycle of woodland, trees might be coppiced or pollarded. Survivals of such events such as coppice stools and multi-stemmed trunks and crowns are an important part of woodland history. They may well be associated with charcoal burning and trails for extracting the wood and charcoal. In

general woods being exploited in this way would have been enclosed by some form of bank, ditch or fence. Finding such a boundary may help define the area which will need special management.

Wood pasture: it is being increasingly recognised that certain woods were used seasonally or even permanently for grazing animals. In some cases these were deliberately managed as hunting reserves and the grazing done by wild animals such as deer and wild boar. In others the open spaces were created by domestic animals. Trees that have formed part of a wood pasture characteristically have an open-grown canopy. They are also likely to have been nibbled by sheep and goats - and the stress that this causes often forms a distinct and recognisable swelling around the base.

Figure 12

This multi-stemmed birch at Nedd, Assynt was probably deliberately coppiced. It is growing on the edge of an old stone dyke, the boundary of a small field that is depicted on the Home survey of 1774.



Where to look

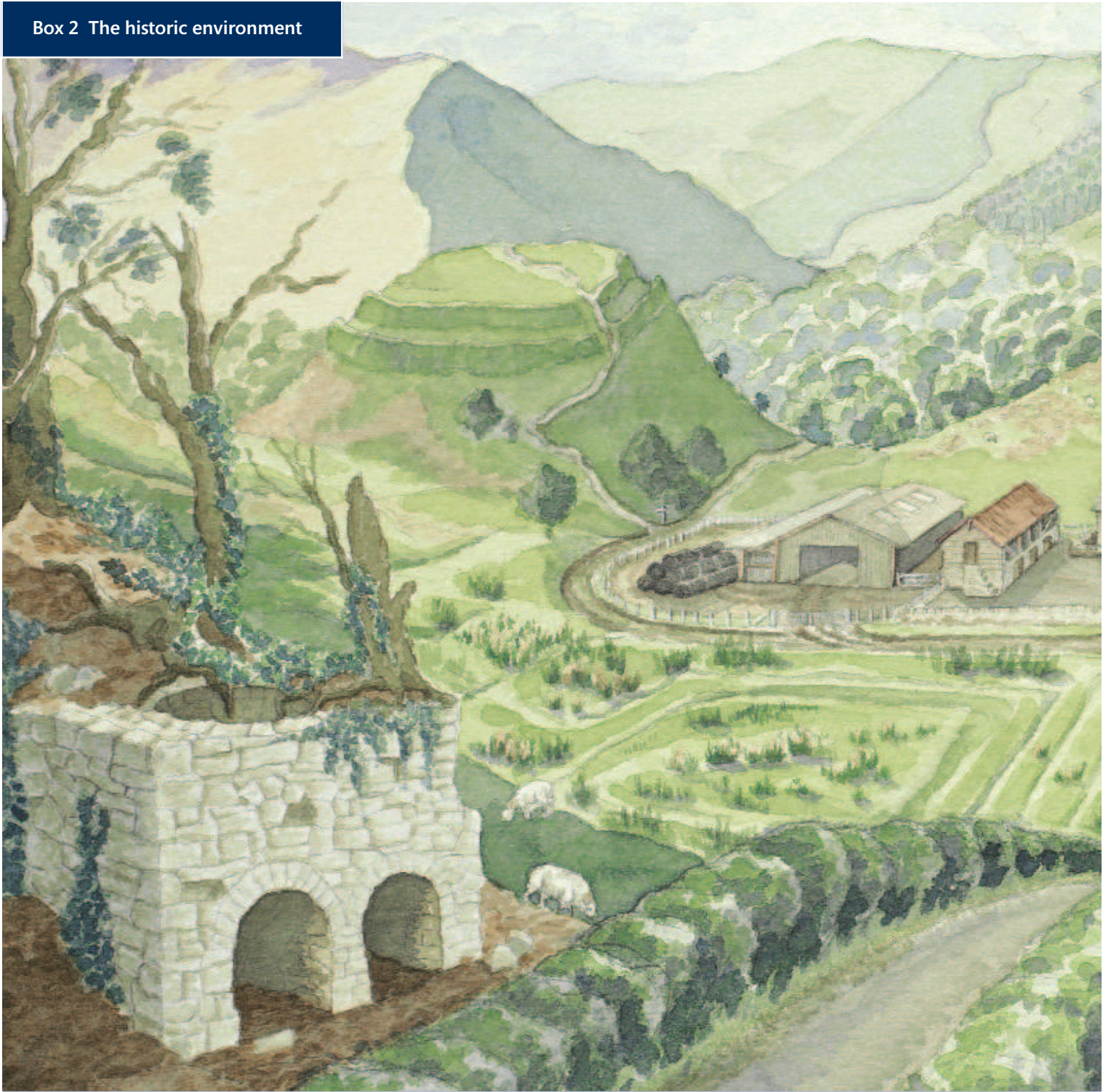
It is important to remember that even 'native' or 'natural' woodlands can still hide archaeological sites. Considering that evidence survives of people having lived in Scotland for at least 10,000 years and land management changes have allowed woodland to develop in areas formerly cultivated or used as open space, it is not surprising that large numbers of archaeological sites survive within woodlands. No single tree is as old as the impact of mankind on the countryside and even *refugia*, such as gorge woodlands, have been affected by grazing animals and other restrictions on woodland development and expansion.

'Good location archaeology'

Location is important when considering the land's potential for settlement, agriculture or industry. When examining a woodland landscape it helps to visualise it without trees, as these may have been planted or colonised an area after a former period of human occupation or use.

For example, topography and aspect can be very significant. Most buildings are to be found in locations that benefit from the maximum amount of sunlight. This often led to domestic buildings being sited to face south. In most cases they would be built out of the way of the prevailing wind, though equally frost and shaded hollows would generally have been avoided (remembering that an area might not have been shaded or sheltered by trees at periods in the past). Industrial sites such as mills and charcoal-burning areas are constrained by the natural resources that were being exploited. Prehistoric funerary and ritual monuments (such as burial cairns and standing stones) were often placed in locations with wide views around the surrounding landscape.

Box 2 The historic environment



The rural landscape offers great opportunities to discover upstanding archaeological earthworks and historic ruins. Areas of woodland and forest often contain hidden archaeological features, which, depending upon past landuse, can be in a better state of preservation than those in surrounding areas.

For example, while archaeological features are often found preserved in the corners of fields or as part of field boundaries, many more have been lost to intensive farming. However, prominent features such as burial cairns and hill forts often survive in open moorland and in woodland. More recent features such as drystone walls and limekilns also form part of the historic landscape.



Care should be taken during forestry operations in unimproved or historic landscapes. For example, deserted farmsteads and old field systems often contain archaeological information, sometimes linking with historic maps and plans of the local area.

It is often of benefit to all such monuments if the land around is left as permanent grassland. However, scrub and bracken obscure and damage fragile archaeological monuments and such growth should be carefully removed, while construction of new drains, tracks, paths and roads should all avoid damaging archaeological monuments.

Land type will have influenced where and when settlement occurred. Heavy clay soils could not be worked for agriculture until the technology of iron plough shares and larger plough teams of cattle and horses were introduced. Remember that soil types can change through impoverishment, podsolisation and climate change. What is now peat or wetland may once have been well-drained and fertile – and earlier features may still be found under the peat or within the wetland. Prehistoric settlement and field systems can often be found on south-facing and sunny upland slopes and not on the lower valleys and terraces where drainage would have been poor.

Changing environmental conditions can also have played a part. In the second millennium BC, for example, the climate was warmer and drier than it is today, allowing for cultivation to take place on higher slopes. Indeed, throughout history, higher altitude sites, inhospitable in winter, could still be used as summer grazings, for cutting peat or for industrial purposes such as charcoal burning or mining.

Figure 13 The mound in the centre of this photograph is a substantial prehistoric burial cairn that has been incorporated into the boundary of a field. It is now partially obscured by scrub vegetation and, on the other side of the dyke, has been largely quarried away.



'Good location archaeology' within woodland and forest

Plantations of both hardwoods and softwoods have been established in Scotland since at least the 16th century. While the impacts of forestry ploughing, especially during the significant forest expansion period of mid to late 20th century, and some planting and harvesting practices have had a damaging effect on surviving archaeological remains, significant sites may still be preserved within plantations. Searching for potential sites, particularly in dense conifer stands, may seem unproductive but following the principles of good location archaeology may make it easier to find surviving sites. Identifying areas with appropriate topography, aspect or location are all important in searching for possible sites in plantations. Archaeological sites are less likely to be found on steep or rocky slopes and most settlement remains are recorded in more level areas. However, if it is suspected that the area was once used (for charcoal burning for example) then even steep slopes should be examined (especially close to watercourses where hardwoods may once have grown). Similarly, where an early track, boundary bank or old drystone dyke is found, the area should be explored to see if it is part of a larger monument or settlement or part of a wider historic landscape.

Figure 14 Where archaeological sites are visible as earthwork features in pasture (as here at Rottal in Glen Clova), it is worth looking to see if further sites survive as upstanding features in adjacent woodland.



Basic archaeological field guide

This next section is designed as a rough field guide to monuments in order to help identify the archaeological sites and historic environment features that can be found in Scotland's woodlands and forests. However, it is not comprehensive and is necessarily brief with broad generalisations; neither does it attempt to categorise significance or importance. The following site types are commonly found within Scotland's woodlands and forests. More unusual or unlikely types of sites have not been included; nor has mention been made of artefacts or buried archaeological deposits. Each theme is organised broadly chronologically, with the earlier sites discussed first.

Settlements

After the last ice age ended around 10,000 years ago, the Mesolithic hunter-gatherers of Scotland lived in temporary structures (probably similar to yurts or teepees) that leave little trace, although occasionally spreads of small chipped flints exposed in mole hills or plough soil may reveal sites. These can be found in both coastal and upland areas. However, archaeological evidence of the rectangular timber houses belonging to the first farming communities is even rarer. Dating from the Neolithic period (the fourth and third millennia BC), it is only in areas where wood was scarce like Orkney and Caithness that substantial stone buildings such as those at Skara Brae have been found.

Round houses and hut circles

In contrast to the houses of the earliest farmers and those of later periods where the basic house shape is rectangular, during the Bronze Age and Iron Age periods (broadly the second and first millennia BC respectively), the preferred house shape throughout Britain was circular (the terms round house and hut circle can both be used). They can be found singularly and in groups in both enclosed and unenclosed settlements, the houses usually measuring between 5 m and 10 m in internal diameter. These small farmsteads with their low walls of turf and stone survive particularly in upland landscapes where pastoral systems have been maintained for millennia.

Figure 15 The roundhouses, clearance cairns and field systems visible here at Wester Peathaugh in Perthshire have been made more visible by a light dusting of snow. This settlement will have originally extended into the area now occupied by a modern plantation.



Many more must have occupied the lowlands, the evidence of their timber construction largely erased by continuous agriculture and land-use, their distinctive shape still surviving as circular cropmarks. Associated field systems sometimes survive, comprised of small irregular fields defined by low earth and stone banks or tumbled walls and small terraces. Small clearance cairns are often contained within them.

Platform settlements

In the Borders area particularly, timber roundhouses were built on semi-circular platforms cut into the hillside. Only the platforms now survive, cut into the hill slope and terraced out as a curving apron. They can be distinguished from later charcoal-burning sites by their location (they are rarely found on very steep slopes) and generally larger size.

Figure 16

This platform at Normanhill Rig, Peebleshire shows how the house site was terraced into the hill slope.



Figure 17

This circular ditch in the Cheviot Hills marks the place where a prehistoric timber roundhouse once stood.



Medieval and later houses and settlements

In general, medieval and later buildings are rectangular and thus distinct from prehistoric round houses. Walls were mostly built of turf or turf and stone, with the weight of the roof being supported on curved timber posts known as crucks. As a result, only the stone foundations or the lower courses of the walls may survive, although often the cruck slots can still be seen within the walls, often in pairs situated opposite each other. Very few rural houses have been found in Scotland that can be dated to the medieval period. This may be because the majority of the population lived in turf-walled buildings which leave little trace on the ground. Substantial stone structures like gable-ended buildings tend to be 18th or 19th century in date, when landowners discouraged the use of turf in buildings. Mortared walls (unless they form part of more significant buildings like castles, lairds' houses or churches) are also likely to be 18th century or later.



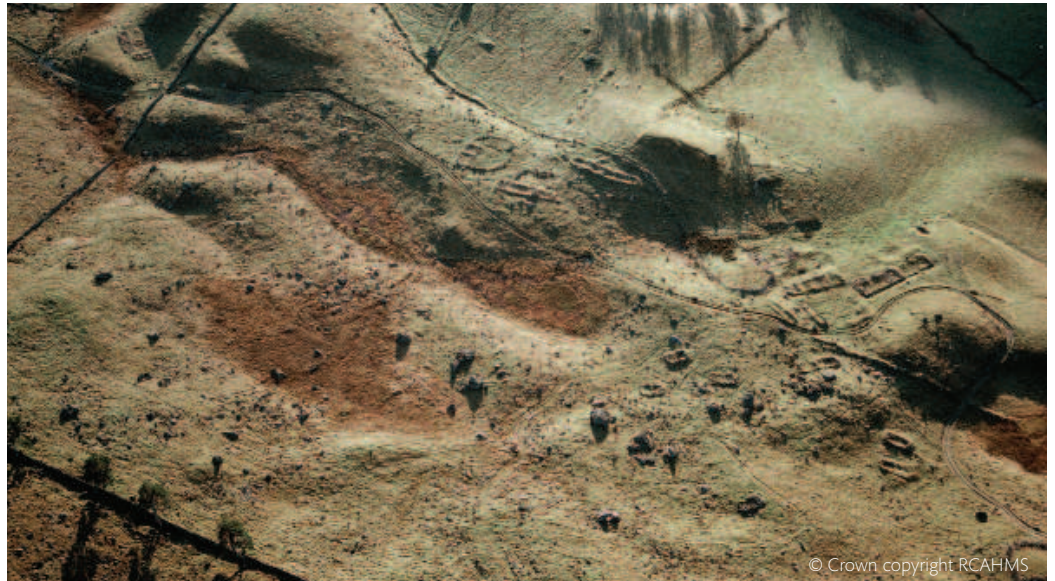
Figure 18

Radiocarbon dating has shown that charcoal excavated from within these rectangular building foundations at Pitcarmick, Perthshire, dates to around 800 AD. This makes it one of the few surviving examples of an early historic house.

Deserted bailtean, fermtouns and townships

Deserted buildings, barns, kilns, enclosures, stackyards and kailyards of rural Scotland can be found throughout our woodlands and forests. Associated with a system of short-term tenancies, these townships were of many shapes and sizes. They were known as *bailtean* in the Gaelic Highlands and *fermtouns* in the Scottish Lowlands. Houses usually took the form of long houses, with the animal byre found at one end. Corn-drying kilns (often within associated buildings known as kiln barns), separate winnowing barns (for threshing) and byres, stack yards (for drying hay), kail-yards (or garden enclosures) and other outbuildings were all associated with the long houses and enclosed within a head-dyke. Usually, such features now survive as rectangular footings and circular mounds, defined by low grass and stone banks, tumbled drystone walls and earthen and rubble mounds. Many of these townships were cleared as part of the agricultural improvements of the 18th and 19th centuries or were gradually deserted as their occupants abandoned the harsh subsistence economy for life in the developing towns and cities.

Figure 19 A series of rectangular buildings survive at the edge of later fields here at Inverreddrie, Perthshire. Several different periods of occupation are present, with the latest being the square-ended buildings at the centre right.



Shielings

Shieling grounds were an integral part of the township system. Huts were built in the uplands for use during the summer grazing period and can be found in large groups or singly. Shieling settlements may include other structures such as animal folds, dairies for processing the milk products and small stores. Shieling huts may be quite small rectangular buildings, typically measuring 3 m by 2 m internally, but come in many forms and include rectangular, circular and composite structures with several chambers. Earlier forms were turf walled on stone footings and are difficult to spot. They sometimes show as more verdant areas in coarse grassland and heather moorland. They are usually considered to be medieval or post-medieval in date, for although there may well have been transhumance (the practice of summer grazing upon the uplands) at earlier periods such sites cannot be readily identified. Repeated re-building can lead to distinct mounds having been created, often with midden mounds formed adjacent to the entrance.

Figure 20 The foundations of a turf and stone shieling hut on the slopes of Ben Lawers above Loch Tay.



19th century buildings and crofts

Until the agricultural improvements of the 18th and 19th centuries led to the modern farming landscape with which we are now familiar, there were settlements up many straths and valleys in areas that would now be termed 'wild' or remote land. Because of a shift from subsistence agriculture and also because of clearances by landlords to create sheep farms and shooting estates, many settlements were abandoned. Remains of later shepherd's and keeper's houses can now be found, sometimes in association with a deserted township. They are sometimes shown on OS 1st edition maps, although it is important to remember that only upstanding walls will have been recorded and that the foundations of earlier buildings may not have been recorded. In some cases, small crofts can be identified, small land holdings that were developed (often in coastal areas) to house the cleared township populations. Crofters were obliged to adopt a harsh subsistence lifestyle, tempered by fishing, weaving and kelp-burning (gathering and burning seaweed in clamps and kilns in order to produce soda ash for fertiliser and iodine). Sheep folds (fanks), stells and enclosures are also often found, as are now abandoned later 19th and 20th century farmsteads and cottages (often identified by mortared masonry, surviving gable ends and other features).

Figure 21 The ruinous gable of a barn at West Drumclair, near Falkirk. This building is typical of the many hundreds of farm buildings now abandoned in our forests and woodlands.



Farming and industry

Burnt mounds

These are low round or crescentic mounds of fire-cracked stones, usually located near a stream and measuring between around 5 m and 15 m in diameter. Most are now covered by vegetation and are only distinguishable from cairns and other mounds by the distinctive angular cracking of the burnt stones visible where erosion, ploughing or mole hills have exposed them. The classic form is C-shaped on plan with a central hollow between two arms. They are the remains of areas used for heating water by dropping hot stones into a central stone or wooden trough, probably in order to cook or to create a sauna effect. They have been found to date from between around 1500 BC to 500 AD.

Prehistoric field systems

Early farmers cleared their fields by piling the stones in heaps in what are now irregular patterns. Some of these cairns are quite substantial and can easily be confused for burial cairns. Some, but not all, of these early fields were defined by irregular stone walls. These walls and cairns can sometimes be buried by later peat and vegetation to seem less significant features in the landscape. In unimproved areas remains of ridges formed by spade or plough cultivation can sometimes be found. Early rigs tend to be narrower (up to 1.25 m wide) and shorter than rigs of medieval and later periods when heavier plough teams are thought to have been used. These early rigs are known as cord rig.

Figure 22

The Cheviots are notable for the extensive prehistoric farming landscapes that are preserved on the high ridges, prompting one archaeologist to enthuse about 'the peculiar nature of the Cheviot turf'. Cord rig such as this remains visible after thousands of years.



Figure 23

These low mounds at Pitcarmick, Perthshire mark where stones have been cleared to create arable ground. Note also the low sinuous field wall to the right defining the area of cultivation.



Medieval and later field systems

Arable areas in the south and east of Scotland in this period tend to be large and defined by long strips either as rigs or terraces where heavy plough teams could operate. Ploughing over a number of years produced quite substantial linear ridges and depressions often known as rig and furrow. Field boundaries were made of earth, turf and stone (and sometimes topped by timber fences that have not survived). While the rigs tend to be broader and longer than for the prehistoric period, the fields in which they lie tend to have curvilinear boundaries relating to the sinuous shape of the rig. In the north and west, spade cultivation was still being extensively used until the 19th and even 20th centuries and resulted in shorter, high-backed curved rigs known as lazy beds.

Figure 24 Medieval broad rigs at Sherrifmuir, Stirlingshire created by ox or horse-drawn plough. Note the distinct S-shape caused by the turn of the ploughs at the end of the furrows.



Improved fields

In the 18th and 19th centuries, improved agricultural techniques included systematic draining, liming and re-ordering of the farming landscape. This led to the rectilinear field pattern of hedges and stone dykes that is now the dominant form in the countryside. Within woods, the distinctive edges of fields can be traced by following drystone walls and also by looking out for former hedge lines where hawthorn or beech may have grown up into lines of individual trees.

Drove roads

Before the 18th century the only overland trade of any magnitude in the Highlands was the droving of cattle and livestock to the southern markets, notably the 'trysts' (or markets) of Crieff and Falkirk. The practice of droving has left its mark on the landscape, with stances or resting places indicated by still verdant areas of grassland, modified by years of grazing and dunging; associated woodland (for shelter) and watering places; as well as the drove roads themselves and the associated hostels and inns. The drove roads are often now only visible as hollowed tracks and hoof-worn bedrock.

Designed landscapes

Some landscapes form part of a deliberate unified pattern, known as a designed landscape. Trees, hedgerows, fields and avenues were all planted and designed to create a vista from one large house or from key viewpoints. Within such landscapes there may have been individual features such as follies, ice houses, lakes, copses and ha-has (a type of wall with its top at ground level and its base in a ditch, designed to control livestock and deer but not to impede views). Historic Scotland has compiled an *Inventory of Gardens and Designed Landscapes* in Scotland, with details of the most significant designed landscapes. The Inventory can be searched online (www.historic-scotland.gov.uk/index/heritage/gardens/gardenssearch). Local authority HERs and HLA mapping may help you identify other designed landscapes in your area.

Figure 25

The pattern of improved fields around Loch Lomond can clearly be seen in this aerial photograph. The historic land-use of Scotland may be investigated using the Historic Land-use Assessment (see page 2).



Figure 26

This aerial view of the House of Dun near Montrose shows a landscape formed as part of a fixed design.



Deer parks and hunting

Deer parks or forests are first recorded in the medieval period and were areas where settlement and grazing were restricted because they were protected as hunting reserves. The term '*forest*' refers to the protected area and does not imply the area was necessarily wooded. A deer park was an enclosed reserve, while a hunting forest was an area of land where forest law applied. Surviving remains can include a substantial enclosing bank with a ditch within the enclosed area (designed to make it easy for deer to leap in, but difficult for them to get out). Deer Parks became popular as an alternative to forests in the late medieval period as the pressure on land increased. Indeed, although the concept of the Deer Park was never abandoned, the areas used often changed as they began to be encroached on by later settlement. Some new Deer Parks were established in the 19th century. Some hunting areas had distinct traps, also known as *elrigs*, to herd deer so they could be more easily killed. Complex individual traps for both deer and wolves are also occasionally found.

Peat cutting

Peat was the most common fuel for many upland areas. Traces on the ground include not only the rectangular cuttings and peat banks, but also pony and cart tracks with raised or terraced stances nearby to store the peat until it dried.

Figure 27 The bank surviving here at Buzzart Dykes near Blairgowrie forms part of a medieval deer enclosure or trap. The bank would have been originally topped by a timber palisade. Note how the ditch faces inward to stop the deer jumping out.



Figure 28

A platform used to form a stack for drying peats. Note how it is a level platform in contrast to the raised wall foundations of buildings like shieling huts.

Illicit whisky stills

In the 18th and early 19th centuries, illicit distilling was rife in the north of Scotland. During the period, according to the then Minister of Strathdon, *“to be engaged in distillation, and to defraud the excise, was neither looked upon as a crime, nor considered a disgrace”* (NSA, xii, Aberdeenshire, 549). However, in 1823 an Act of Parliament was passed to regulate distilling; and the minister continues, *“[by 1838] the lawless life of the smuggling ‘bothie’ was wholly abandoned.”* Illicit stills are often difficult to distinguish from shieling huts and the like – but most occur singly, are well hidden and close to a source of water. Some still have small lades visible running from the burn, in order to feed the still with water – necessary both to steep the barley prior to distillation and for the distillation process itself. The still itself, comprising a copper pot-still, combined head and lyne-arm, coiled worm and worm tub, was often designed to be quickly dismantled and concealed. Juniper was said to produce the perfect wood for the fire – no smoke and therefore less chance of detection.

Figure 29 The site of an Illicit whisky still hidden behind an overhanging rock at Dog Falls, Glen Affric.



Bloomeries

Bloomeries comprise the waste material formed from tapping iron-smelting furnaces and are usually found as low mounds containing charcoal and iron slag. Iron slag is a heavy metallic stone with holes formed when hot gases bubbled out. As the early furnaces used large quantities of bog-iron they were generally situated near the source and can be found in many areas including remote upland sites. They were first used around 700 BC, although the majority of surviving examples probably date to the end of the medieval period, before the introduction of large-scale industrial production. They are frequently buried by peat and sometimes only found after forestry ploughing.

Charcoal burning

Circular platforms were cut into hillsides within woodlands to hold charcoal-burning heaps where wood was converted into charcoal. The majority so far recorded lie on the west coast and supplied the 18th and 19th century iron working industry. A few may date from earlier times or have previously been used as house platforms, but in general they have been placed on slopes or other locations not suitable for house sites. They may now be found in areas no longer wooded. They are often associated with coppiced trees and wood banks where the trees were protected from stock.

Extraction industries

People have extracted metal ores and quarried stone from prehistoric through to modern times. Quarries can be slight borrow pits adjacent to road lines, early bell pits, channelled hushings (created by releasing dammed water to remove the topsoil) or substantial exposures of angular rock. They can usually be distinguished from natural forms by the irregular 'unnatural' topography, waste tips and track or railways. Scotland has many important industrial sites tracing the growth and development of the Industrial Revolution, including iron works, coal pits, slate mines and lead mines. Associated evidence can include worker's housing, workshops, tramways, inclines, horse-gangs, slagheaps, spoil tips and adits .

Figure 30

Charcoal associated with iron slag exposed in mole hills out of the low mounds here on the slopes of Ben Wyvis has been dated to the late 15th century.



Figure 31

This platform was used for stacking wood to convert to charcoal in the 18th and 19th centuries at Rahoy Oak woods in Argyll.



Figure 32 Pits and buildings for the ironworks at Wilsontown still partly obscured by woodland before its recent felling. Further details can be seen at www.forestry.gov.uk/wilsontown



Limekilns

Limekilns are restricted to areas of lime outcrops but may also have been built on individual farms where encouraged by improving landlords. They do not need to be on an industrial-scale and some may survive as slight depressions cut into a slope. These are known as clamp-kilns. Lime-rich stone was burnt in order to produce lime, either for use as a fertiliser or to produce lime mortar.

Mills and mill lades

While mostly used for grinding grain, mills have also been used for many other industrial processes such as beating or fulling cloth. The site of a mill can often be inferred from map evidence (such as *Milton* or *Mhuilinn* in Gaelic). Most were powered by running water via lades or mill ponds and this remained the main industrial source until steam power was introduced in the 18th century. Horizontal mills (sometimes referred to as a *Click* or *Norse mills*) can be found both singly and in groups along steep burns on the west coast and islands. The development of industry and growth of population led to an increasing demand for mills, so that most substantial examples date to the 18th or 19th centuries. The discovery of a mill dam and its lade can be used to trace the mill site they served.

Figure 33

This limekiln is a large example built on the slopes of the Lomond Hills above Loch Leven.



Figure 34

The ruins shown here are part of a horizontal mill at Leraig - also depicted on the Survey of Assynt, carried out by John Home in 1774.



Fortification and defence

Hillforts

The majority of hillforts in Scotland date from the later half of the first millennium BC (the Iron Age), although some were constructed (or reused) in the Early Historic period. Hillforts are the major surviving evidence of a period of great social and cultural change. In contrast to the relatively open settlement of the Bronze Age, the increasing preoccupation with defence during the Iron Age may be explained by reference to a marked deterioration in the British climate that began around 1250 BC and reached its coolest and wettest around 650 BC. The cooler summers and increased rainfall will have driven communities from the upland areas and the poorer-draining lowlands which had previously supported agriculture. The pressure upon the better-drained and fertile lowlands and competition over resources must have increased tension and conflict, leading to a necessary emphasis upon defence and clear statements of land ownership and tribal belonging.

The earliest hillforts usually comprised simple timber palisaded enclosures. Complex hillforts with more than one row of banks and ditches may have had several phases of construction and repair, with particular emphasis placed on impressive and complex entrances. Promontory forts had defences that cut off the neck of a headland and can be found both on coastal cliffs and inland, situated between two converging stream valleys. These forts often existed alongside unenclosed homesteads and larger settlements.

Figure 35 The Iron Age hillfort of Bessies Hill in Dumfriesshire is part of a much wider historic landscape, with associated settlement and field systems.



Brochs and duns

The Atlantic coast of Europe in the later first millennium BC is dominated by a rather different settlement pattern: that of the small defended enclosure. All would appear to be variations on a simple theme and examples can be found from the northern isles of Scotland down to Galicia and northern Portugal. The impressive brochs (the pinnacle of a building type known as the *complex round house*), fortified duns (simple stone-built strongholds) and crannogs (artificial islands constructed to support a timber building or stone dun) of Scotland all form part of the same settlement tradition. Such homesteads defended the occupants – but also their grain, as the raised granaries found within them would have provided secure storage. A similar outcome may have been achieved by building underground stone-lined cellars known as *souterrains*, sometimes found associated with an above-ground settlement.

Roman archaeology

The Roman military presence in Scotland is really better considered as a series of campaigns. It began with their advance into southern Scotland under Agricola in the AD70s and their defeat of the *Caledonii* at the battle of Mons Graupius in AD83. The Roman return to Scotland in AD139 saw the construction of the Antonine Wall, abandoned upon their withdrawal to Hadrian's Wall in the mid AD160s (although their influence upon Scotland continued). Finally, a

Figure 36 Castle Grugaig broch, overlooking Loch Alsh.



major but brief campaign was conducted by Severus between AD208 and 210. As a result, Roman settlement in Scotland is almost entirely concerned with supplying military garrisons during the different campaigns fought in Scotland. Apart from the forts and the roads to supply them, there is little evidence of any associated civilian settlements. However, the preservation of these military remains is of international importance for understanding how the Roman army and administration worked across the Empire – the Antonine Wall and forts such as Ardoch are among the best surviving examples of Roman military architecture in Europe. Roman remains are restricted to the south and east of Scotland and include the stone walls of forts (often with much surviving archaeological evidence both within and surrounding them), the turf-walled ramparts of temporary camps, fortlets and signal towers and the extensive network of Roman roads.

Earthen defensive mounds

Many earthwork castles were built during the 12th and 13th centuries as mounds with ditches or water-filled moats (often described as *mottes*). These were built in different styles, some using existing glacial knolls. The slope, the shape and the defining ditch are key elements in helping identify these as defensive features, once topped by timber or even stone forts and often found in association with an outer enclosure (the *bailey*). These castles were built to defend the focus of a feudal estate. Both earlier and later earthen defended enclosures also survive and can take many varied forms, including moated homesteads, ring works and block works.

Tower houses

Unsettled political conditions continued through the medieval and modern periods and defences were generally built with mortared stone, more resistant to attack until the development of modern siege guns. Even in woods unrecorded stone castles can still be found, especially if they have been heavily robbed out in later times. Tower houses are found throughout Scotland, but *peel towers* and *peel houses*, or farmhouses with stone-vaulted basements known as *bastles*, were typical of the Scottish Borders, most dating from the 16th and 17th centuries.

Figure 37

This motte at Garpol Water in Dumfriesshire has been created from an existing glacial mound.

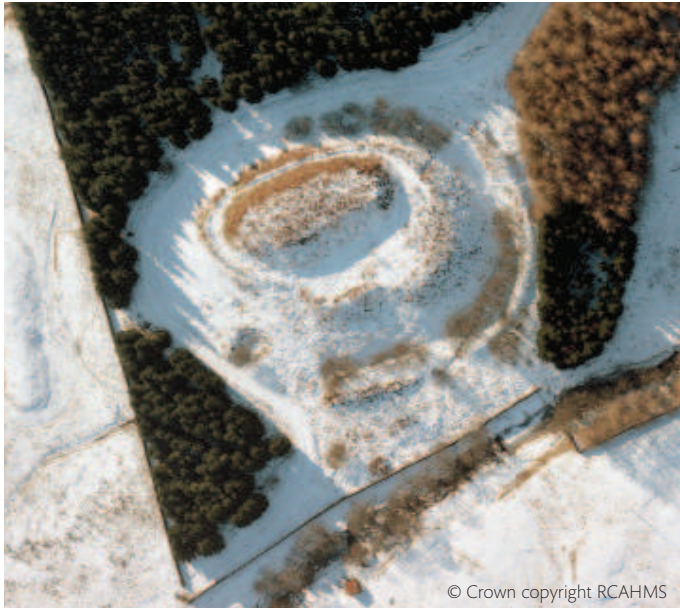


Figure 38

Cardrona Tower near Peebles.



Military roads and bridges

The original Highland military road network was organised by General George Wade between 1725 and 1733 and comprised over 400km of road and about 40 bridges, linking the four barracks at Fort William, Fort Augustus, Inverness and Ruthven. Before General Wade, travel within the Highlands was done on foot or by horseback – and the Highland military road network outlived its military purpose and enhanced communications and development throughout the region. The network was greatly extended between 1740 and 1767, guided by Major Caulfield. Stretches of metalled road, culverts and single-span bridges all survive, alongside some larger, multiple-arched bridges.

Figure 39 This 18th century bridge near Fort Augustus was built as part of the extensive network of military roads across the highlands.



WWII defences

Most of the WWII coastal defences and inland stop lines were built over the course of only a few months in 1940, in response to the German invasion of Norway and the threat of the invasion of Britain. Their construction was in part forward planning and in part a very public show of defiance. Coastal crust defences included lines of anti-tank cubes and pill boxes, gun emplacements and radar stations; while inland defences included stop lines designed to hinder a German advance and pill boxes erected at key road and rail junctions throughout the country. The majority of WWII defences were removed after the war (farmers were paid a bounty of £5 per pillbox), but some can still be found, particularly those that were protected by forestry. Such defences have not always been well-recorded. Wartime defences can also include the remains of airfields, Observer posts, training and POW camps, all important as a record of the impact of war on the Scotland. The shortage of imported timber led to large felling camps being constructed in woodland areas. Traces of building platforms, machinery and trackways for extracting timber can still be found.



Figure 40

These concrete blocks were built as an antitank barrier near Lossiemouth.

Ceremony and burial

Neolithic chambered tombs

During the Neolithic period (roughly spanning the fourth and third millennia BC), when a settled farming economy was gradually becoming established, permanent structures were built for the first time. The most visible today are chambered tombs, large structures for communal burial. These ancestral 'houses for the dead' were built by local communities and were often in use over many hundreds of years. Most would have originally consisted of a burial chamber and entrance

passage covered by an earthen mound or stone cairn. The tradition of building and using chambered tombs was common to western Britain, Ireland and the Atlantic seaboard of Europe, although there are many regional traditions and variations in shape and construction. The sheer scale of some tombs and the size of the stones used in their construction provide a vivid illustration of the engineering skills required to build them, using only rollers, ropes and muscle. They also indicate that society was organised beyond the family group and was structured in such a way that members would co-operate on large-scale projects. Large ceremonial enclosures were built during the Late Neolithic, palisades and ditches enclosing special areas and forming processional routes. Aerial photography has proved very useful in identifying such monuments, now usually only visible as cropmarks and soilmarks.

Figure 41

The Grey Cairns of Camster seen from the air: two well preserved Neolithic chambered tombs.



Figure 42

Wormy Hillock henge, an unusually well preserved Late Neolithic ceremonial enclosure.



Standing stones, stone circles and stone rows

Broadly dating from the third millennium BC, the standing stones and stone circles of late Neolithic and Bronze Age Scotland are some of our most iconic prehistoric monuments. While major monuments like Callanish and the Ring of Brodgar are obvious features, much smaller circles are known and some may yet be found in woodlands. The purpose of standing stones, stone circles and stone rows is still little understood, although they are assumed to have had some form of religious or ceremonial function. They may have formed a link to the celestial 'skyscape' that ruled the days, seasons and weather, all of which were of great importance within the lives of their builders. What is not in doubt is that their positions were deliberately chosen. The setting is an integral element of the monument. For example, standing stones and stone rows may have acted as markers within the landscape, guiding the eye, the traveller or a ceremonial procession. Small stone circles may have served the needs of the local community, while larger ones may have functioned as regional meeting places for ceremonies to which people travelled from further afield.

Cup and ring marks

Cupmarks are simple round depressions carved on stone surfaces, probably created by using a pecking technique. Most are shallow and approximately 50 mm in diameter. They date from both the Neolithic and the Bronze Age periods and are usually found on prominent natural boulders and rock outcrops, but are also occasionally found on standing stones, on the stones of stone circles and on stones incorporated into burial chambers and cists. Boulders can also be found incorporated into later features such as drystone dykes. Cupmarks can form impressive works containing complex arrangements of cups with multiple rings and grooves, often with connecting gutters, although they are more often found as small clusters on a suitable boulder or outcrop. Such rocks have been explained as territorial markers, sacrificial altars or religious symbols. As a cultural tradition of rock art, cupmarks would appear to have a long and complex history, with similarities among the regional styles all along the Atlantic seaboard. Many possible interpretations have been put forward, from maps and markers in the landscape, to use in rites of passage and ancestor worship. In reality, it is unlikely that we will ever know for sure. New examples of prehistoric rock art are uncovered every year and can be among the most rewarding of archaeological sites to discover.

Figure 43 Cup marks recently revealed at Ormaig, Kilmartin within a modern forestry plantation.



Cists and cairns

During the Bronze Age (between around 2,300 BC and 800 BC) round stone burial cairns and earthen mounds were constructed. These were built both singly and within cemeteries. Excavated examples have been found sometimes to contain inhumations (usually individual skeletons) and sometimes cremations. Grave goods might also be included. Sometimes one or more stone cists (coffins) contain the remains. Many cairns were deliberately sited to have enhanced prominence and visibility and this has often led to later use as landmarks and boundary markers and to their appearance in myths and legends. A more unusual type, the ring cairn, was often positioned to be seen from a viewpoint on adjacent higher ground. This perhaps indicates that priests performed ceremonies here before an onlooking crowd.

Figure 44 An antiquarian drawing of a cairn excavated at Acharole in Caithness in 1904.



In both prehistoric and early medieval times some burials were made in simple cists, found both singly or in cemeteries. They may now only be made visible by ploughing or other ground disturbance. Such discoveries are always significant.

Churches and churchyards

Early Christian sites were often located in remote places, either as monastic retreats or because what is remote to us was not so in the past. Medieval chapel and church sites are usually enclosed by a wall or at least by a bank and ditch, often enclosing both the church and a cemetery. Early churches were built of timber or of turf and stone, only beginning to be built of mortared stone from the medieval period onwards. Church sites are usually distinguished from other dwellings by their location, place name evidence or association with gravestones or sculptured crosses. However, a cross slab or a cemetery group of extended burials (most prehistoric inhumations were buried in a crouched position) without a visible building may mark a chapel site nearby, where the foundations are no longer visible. It is important to remember that human remains should always be treated with respect and guidance on best practice is available from Historic Scotland (www.historic-scotland.gov.uk/index/heritage/archaeology/human-remains).

Crosses, carved stones and boundary markers

The Pictish carved stones and early Christian crosses of Scotland are some of our most evocative historical monuments. Their detailed craftsmanship can be truly breathtaking. However, not all crosses and carved stones are as impressive – although they can be just as important. Even small boundary stones have a story to tell.

Figure 45 A small medieval chapel can be seen in the centre of this photograph, set within a circular enclosure.



Figure 46 Medieval grave markers at Eilean Fhianain Loch Shiel.



Recording the historic environment

If you find a new archaeological site, it is important to record it. Often all that is required is an accurate location, a brief measured description, any appropriate photography and perhaps a sketch plan. Such records should be retained in order to inform future management, but copies should also be supplied to the local Historic Environment Record and submitted to *Discovery and Excavation in Scotland* (details below), both as a permanent record and in order to inform future investigation and research. You may find it useful to create a standard recording form for use within your organisation, both to aid recording in the field and to standardise record management in the office. If new archaeological discoveries become commonplace in any given area – or you are unsure of the identification or importance of a site – seek advice from a professional archaeologist.

The basic record

The location may be plotted using a handheld GPS unit or by preparing a detailed sketched map. An accurate grid reference is important, not least for future GIS input.

The written site description should be clear and concise. It should include an objective measured description (describing the site and its dimensions in metres and in as much detail as possible); a subjective site interpretation (explaining what you think that the site itself – or any individual features – may be); and a description of its current condition (including possible threats such as erosion or burrowing animals and a description of its vegetation cover). Care should also be taken when describing measurements: for example, always state whether or not you are measuring within the walls of a building, including their thickness and height, or over the site as a whole.

Where appropriate, site photography should include both overviews (with a note of which direction the view is facing) and details of any particular features or management issues, where appropriate.

Sketch plans can be very useful, particularly in highlighting any individual elements relevant to archaeological conservation management (such as the position and extent of erosion scars, gorse or bracken). Sketch plans can also indicate the rough layout of a larger site or group of associated sites. Detailed guidance can be seen at www.scotlandsruralpast.org.uk.



Figure 47

Photographing and recording deserted township remains in Glen Affric.

Discovery and Excavation in Scotland

For over 60 years, *Discovery and Excavation Scotland* (DES) has played a vitally important role in Scottish archaeology, providing an annual published account of archaeological discoveries and fieldwork in Scotland. Each new issue offers a simple way to keep up to date with current work in the field; and the back issues provide a research tool for anyone seeking information about the archaeology of Scotland. All the entries in DES are eventually deposited with the Royal Commission on the Ancient and Historical Monuments of Scotland and input onto the Canmore database. Full details on how to submit entries may be obtained via the DES page on the Archaeology Scotland website at www.archaeologyscotland.org.uk.

Figure 48

This recently issued Field Recording Manual will give you the techniques to record archaeological features.



Figure 49

Discovery and Excavation in Scotland.



Further work

There is much useful information in regard to survey and recording techniques within the Scotland's Rural Past website (www.scotlandsruralpast.org.uk). The advice covers a wide range of methods that you might find useful to survey and record a site in more detail, whether you choose to do a basic survey or a more detailed study. A professional archaeologist can advise in regard to the recording and management of important discoveries and as to whether or not further investigation or mitigation is required. For a complete list of Local Authority archaeological services in Scotland (and a number of other useful links) please consult the RCAHMS website (www.rcahms.gov.uk/links).

An accompanying guidance note to this booklet, *Historic Environment Information and Advice for Forest and Woodland Managers*, may be found on the FCS website (www.forestry.gov.uk/scotland). This guidance reviews and details the current range of historic environment information available in Scotland.

Archaeological finds and artefacts

Archaeological finds come under the system of Treasure Trove in Scotland. Under the *regalia minora* common law rights of the Crown in Scotland, it is the prerogative of the Crown to receive all lost and abandoned property which is not otherwise owned. These laws apply to all newly discovered archaeological finds (object or coin) and to all old finds which have not been reported. Finders have no ownership rights to any find they make in Scotland and all archaeological finds, with the exception of Victorian and 20th century coins, must be reported to the Treasure Trove Unit in the National Museum of Scotland (www.treasuretrovescotland.co.uk) for assessment. The booklet *Treasure Trove in Scotland: A Code of Practice* sets out the guidelines and responsibilities more fully.

Conclusion

The care and conservation of the historic monuments of Scotland not only protect a valuable and fragile resource but also help to ensure a more diverse and attractive landscape. Ancient monuments and archaeological features once damaged or destroyed can never be replaced nor properly understood – and important elements of our history and inheritance are lost. By investigating and recording the archaeological sites and historic features within Scotland's forests and woodlands we take our first steps towards ensuring due care and protection.

Further reading

'The making of Scotland' series (Historic Scotland) is an excellent introduction to the archaeological and historical context of the sites and monuments that can be found in Scotland's woodlands and forests.

ADKINS, L., ADKINS, R. AND LEITCH, V. (2008). *The handbook of British archaeology*. Constable.
FORESTRY COMMISSION SCOTLAND (2008). *Scotland's woodlands and the historic environment*. Forestry Commission Scotland, Edinburgh.

MUIR, R. (2004). *Landscape encyclopaedia: a reference guide to the historic landscape*. Windgatherer Press.

SMOUT, T.C., ed. (2003). *People and Woods in Scotland*. Edinburgh University Press.

Identifying the historic environment in Scotland's forests and woodlands has been prepared by Forestry Commission Scotland and Archaeology Scotland as an aid to forestry and woodland managers when considering the historic environment in their stewardship. The principal purpose of this practice guide is to provide an accessible introduction to exploring 'archaeology in the field'.

Archaeological and historical features represent a valuable and fragile resource. Once damaged or destroyed they can never be replaced nor properly understood - and important elements of our history and inheritance are lost. They are a critical part of the wider contemporary landscape and are part of the legacy that all land managers hand on to their successors. They can enhance the sense of place and historical context of the local community - and play a significant role in ensuring a more diverse and attractive landscape. An understanding and appreciation of the historic environment is essential if we are to protect the achievements of our ancestors for the benefit of future generations.



Forestry Commission Scotland
Coimisean na Coilltearachd Alba

231 Corstorphine Road
Edinburgh
EH12 7AT

£6.50

www.forestry.gov.uk/scotland