



A Report to the Woodland Trust

The identification of ancient woodland: demonstrating antiquity and continuity- issues and approaches

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1 Non-technical Summary

This report presents an overview of the various types of evidence which can be used to determine whether a woodland site is likely to be designated as 'ancient' and discusses how these can be used as part of the decision making process. It has been commissioned by the Woodland Trust as part of their work promoting the value of ancient woodlands and getting the importance of such sites recognised through the planning process.

An ancient woodland is defined as *a woodland which has been continuously wooded from before 1600 AD*. The evidence used to determine whether a site is ancient woodland is therefore:

- evidence which indicates the continuity of woodland cover at a site from before 1600.
- evidence which indicates that woodland was established post-1600 on a site.
- evidence of a gap in woodland cover and the presence of other land uses, e.g. farmland, at that site since 1600.

The robustness of the evidence sources varies, modern sources are often more robust and easier to verify but only demonstrate woodland cover in recent times. Care needs to be taken with all sources in their interpretation and use. Guidance has been provided regarding some of the potential limitations of the various types of evidence and recommendations have been made.

General recommendations when seeking to identify/confirm an ancient woodland:

- Ideally multiple sources of evidence should be obtained.
- The reliability of the evidence used should be considered in the analysis.
- A wide range of evidence sources should be consulted.
- It needs to be recognised that absence of reference to a woodland on a map or in a document is not necessarily evidence of the absence of a woodland at that site.
- In looking for evidence to determine whether a site is an ancient woodland it is as important to look for evidence that there was another land use at this site (i.e. evidence of a gap in woodland cover as shown by farmland on a map) as it is to look for evidence that there has been a continuity of woodland cover.
- Field based evidence should normally be used to support map and archive evidence. However, ancient woodland plants can aid in ascribing antiquity where archive evidence alone is insufficient.
- The evidence used to support the designation of a woodland as ancient or not needs to be clearly stated.

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As indicated previously, evaluation of the historical and other evidence for a site being an ancient woodland or not is a matter of judgement. Much of the evidence used is historic and not scientific, yet a rigorous scientific approach needs to be taken in determining the status of a possible ancient woodland site.

It is recommended that in the near future further investigations into developing a more rigorous method for identifying and verifying the status of a site as an ancient woodland should be investigated.

It is also recommended that the statutory agencies consider the development of detailed advice to consultants, planners and other workers involved in decisions relation to identify or potential ancient woodlands. It is hoped that this document may aid in this development.

2 Introduction and Context

This report has been commissioned by the Woodland Trust as part of their work promoting the value of ancient woodlands and getting the importance of such sites recognised through the planning process. It presents an overview and assessment of the various types of evidence which can be used to determine whether a woodland site can be designated as 'ancient'.

The value of ancient woodland sites is well recognised. Peterken (1977, 1983) argued that ancient semi-natural woodlands are the most important category of woods for nature conservation. The importance of ancient woodland is recognised in planning (under PPS) see below. There is therefore a need to identify ancient woodland sites and to acquire the evidence to confirm their status. A wide variety of evidence and sources needs to be used to identify whether a woodland is ancient or not. Advice on the evidence used can be found in:

- GOLDBERG, E. and KIRBY, K. (2002/3). Ancient woodland: guidance material for local authorities. English Nature. Free download at: <http://naturalengland.twoten.com/naturalenglandshop/docs/AWG1.pdf>
- ROTHERHAM, I.D. et al (eds) (2008). The Woodland Heritage Manual, Wildtrack, Sheffield

There is, however, a need for more detailed advice on the full range of sources, their use and limitations; hence this document.

2.1 What is Ancient Woodland and why is it Important?

Natural England's Ancient Woodland Inventory defines ancient woodland as

land that has had continuous woodland cover since at least 1600 AD.

This date is used because archive documentary evidence indicates that there was little deliberate tree planting prior to 1600AD on ground which had not previously been wooded.

Ancient woodlands have a wide range of values including:

- **Biodiversity** - ancient woodlands support a wide range of species. The biodiversity of ancient woodland is often higher than that of more recent woodlands.
- **Rarity** – ancient woodland habitats are quite rare and therefore valuable. Such woodlands may support a number of plant and animal species which are nationally rare or nationally scarce and often only found in these habitats.
- **History** – ancient woodlands are important historical features in the landscape, their form and location indicating their longevity. They often

contain archaeology showing past management and uses which may not be immediately recognisable to a casual observer. The associated documentary evidence may show that they are amongst the oldest entities within a district.

- **Community** – ancient woodlands are often important to the community around them, they can be important as historical linkages, recreational areas, for their landscape and aesthetic values etc.
- **Irreplaceability** – ancient woodlands have been around for hundreds of years and often contain species with poor colonisation ability. If lost, the ecology and history they contain cannot easily be replaced, if at all.

The importance of ancient woodland sites is recognised in planning. For example, in England, Planning Policy Statement 9 (PPS9) states:

Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. Local planning authorities should identify any areas of ancient woodland in their areas that do not have statutory protection (e.g. as a SSSI). They should not grant planning permission for any development that would result in its loss or deterioration unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat.

It is therefore important to identify ancient woodlands and recognise ancient woodlands in planning and decision making. As noted by Oliver Rackham (1979):

“Historical information enables us to look beyond the neglect or destruction of much English woodland in the last few decades to the often more conservative management of past centuries. Without such information it is impossible adequately to assess the importance of individual woods and woodland types, or to draw up rational management schemes...”

Guidance is needed on the determination of whether a wood is ancient for several reasons, firstly that the ancient woodland inventories do not cover all ancient woodlands (in particular woods under two hectares, and ancient wood pasture). Secondly, the designation of ancient woodland sites is increasingly being questioned by developers in planning cases. Guidance on the types of evidence used will help those seeking to determine whether a site is ancient or not and improve the robustness of the decision made. The report will also be helpful in those cases where the status of a site is unclear, by identifying other sources of evidence which can be used to confirm or question woodland continuity, or by giving advice on the issues relating to evidence and its robustness.

2.2 Determining the Ancientness of a Woodland

Identifying whether or not a wood is ancient is based on the analysis of a range of types of evidence which indicate either the continuous historic presence of a woodland at the same location, or which indicate a gap in woodland cover with another type of land use such as farming. Such gaps may be followed by the deliberate planting of trees, or natural colonisation of trees which have since gone on to form secondary woodland.

Because of the timescales, coverage and types of administrative processes involved in recording and managing woodlands across the UK, there is no single piece of evidence which can reliably and conclusively confirm that a woodland site is ancient. A variety of types of evidence and sources needs to be analysed and assessed before a woodland can be classified as ancient. The individual types of evidence available will vary depending on the part of the UK and the land ownership of the area where the woodland is located.

There are **two types of evidence to consider when seeking to determine whether a site is an ancient woodland or not:**

- 1. Evidence that shows continuity of woodland cover at that site, or**
- 2. Evidence which demonstrates a clear gap in woodland cover.**

Determining that a site is not ancient woodland is about determining that there was a clear period of time since 1600 when the site was not wooded and was used for another purpose such as farmland etc.

The fact that a woodland may not appear on a piece of historic evidence could be due to several reasons:

1. There was no woodland present at the site at that time and the land was being used for another purpose.
2. The woodland was present but was not relevant to the document/map being produced. Historic maps and documents were produced for specific purposes and often did not include features which were present but not relevant to the purpose of the map.
3. The woodland was present but had recently been coppiced or cut and was therefore not recorded.

It is only in the former case that it can clearly be said that there was a gap in woodland continuity and that the site is not ancient.

Analyses of evidence need to look for evidence of woodland presence and evidence of another land cover being present (i.e. a gap in woodland cover).

There is a range of types of evidence which can be used to determine the status of a possible ancient woodland. These are summarised below and the strengths and potential issues relating to the types of evidence are summarised in Section 3.

Main types of evidence of ‘ancient’ woodland and continuity of woodland cover
Recorded on the Ancient Woodland Inventory if more than 2ha in extent.
Site shown as woodland on early estate maps (pre-1600AD) or estate maps from the seventeenth century and from subsequent centuries.
Site shown as woodland on maps from the seventeenth and eighteenth century map series, or before.
Pre-1600AD manorial and estate records which refer to the site as woodland or describe woodland management activities for the site.
Management accounts and surveys which refer to the site as woodland or describe woodland management or processes for the site from the sixteenth century onwards.
Presence on Ordnance Survey (OS) first series maps (early nineteenth century) and all OS maps since.
Woodland names that appear on older series as well as modern Ordnance Survey maps which have been derived from old place-names or descriptions of woodland management.
Woodland location which may be typically along or next to old parish boundaries; or adjacent to common land or heath areas.
Woodland topography, for example where woodland is located on steep slopes, valley sides or along streams i.e. generally land unsuitable for arable agriculture.
Woodland shape, for example irregular or sinuous boundaries or those which don't fit in with the seventeenth century (or later) regular enclosure patterns of surrounding field boundaries.
Woodland has well-developed external boundary banks and ditches with old / veteran trees growing on them and may have internal boundaries which are not straight.
Woodland contains archaeological features linked to traditional woodland management, for example, charcoal hearths, old kilns.
Woodland contains features which are only associated with post-1600AD non-woodland activities.
Woodland structure is typical of ancient woodland type – old / large coppice stools, veteran trees, old pollards, standing dead wood.
Woodland contains ‘ancient woodland indicator’ species (botanical, mycological, entomological).
Series of aerial photographs showing woodland cover over the same area.

The above categories of evidence can be used in combination to confirm woodland continuity and whether the wood can be defined as ancient. Although the robustness of some types of evidence is less certain, they can be used to support or confirm woodland continuity or indicate woodland continuity. Ideally several sources of information, including robust evidence, should be used to demonstrate that a woodland is ancient or to confirm gaps in continuity.

It is important to remember that many pieces of evidence such as old maps and documents were written for specific purposes. The absence of a woodland in the evidence may not necessarily mean that the woodland did not exist at that time but rather that it was not seen as relevant to include for the purpose of the document.

Confidence in designation of a site as ancient woodland is therefore linked to two factors:

- The number of pieces of evidence which indicate woodland continuity, or show a clear gap in woodland cover.
- The reliability of the different types of evidence used to determine continuity of a gap in cover.

For most woods only some of the types of evidence will be available and it can be a matter of judgement as to whether the evidence that a wood is ancient is strong enough.

An example of a robust approach to evaluating evidence and determining whether a woodland was ancient or not can be seen in the recent Woodland Trust survey of Ancient Woodland sites in Northern Ireland (see Box below)

The evidence required for the woodland to be classified as ancient in **the Northern Ireland Woodland Inventory** included:

- Site is currently woodland
- Site is shown as woodland on all ordnance survey maps since the first series (early 1800s)
- Woodland shown on all pre-OS maps (eighteenth century)
- Archive evidence when available shows or describes the site as wooded with an absence of any historical evidence referring to the site as unwooded (bog, arable etc.) and description of the site in early memoirs as natural, ancient etc.
- Availability of archive evidence dating to the 1600s and 1700s
- Separate naming of woodland on earliest OS maps or earlier maps
- Documentary records of woodland in that location, even in the absence of maps
- Correlation of woodland location and boundary between OS maps and earlier maps
- Site supporting a number of ancient woodland indicator plants (threshold not indicated)
- The number of evidence sources which point to continuity of woodland cover

The hierarchy of evidence being:

OS maps – recent continuous woodland cover

Archive – historic continuous woodland cover

Field based – ancient woodland indicators of continuous cover

Principles

The use of archive evidence in association with topographical features alone to ascribe antiquity should be restricted to situations where that cannot be done with reasonable confidence (not explained).

Field based evidence – use of ancient woodland plants to ascribe antiquity where archive evidence alone is insufficient.

If cannot be confirmed identify as 'long established (possibly ancient) woodland'

3 Analysing and Interpreting Evidence

3.1 Introduction

As indicated in Section 2 there are many potential sources which indicate ancientness of woodland and the continuity of woodland cover. Each of these types of evidence has its own strengths and potential issues/limitations.

The following section summarises the main types of evidence, provides short descriptions of the evidence, outlines their strengths and some potential issues/limitations. Evidence has been organised into four main sections:

- Ancient Woodland Inventory;
- Maps;
- Documentary (non map sources); and
- Field based evidence.

3.2 Ancient Woodland Inventory

The Ancient Woodland Inventory is an easy starting point for identifying whether a woodland is already listed as ancient. In the 1980s and 1990s the Nature Conservancy Council (now Natural England) produced inventories for England, Scotland and Wales, which are now held and administered by the relevant statutory conservation agency in each country. The Woodland Trust completed an inventory for Northern Ireland in 2007.

The Ancient Woodland Inventories are, and by their nature always will be, provisional.

The maps and sources used to determine which woods should be included are variable.

In England and Wales, the main sources used were 1:25,000 maps from the 1920s and 1930s, the first edition one-inch Ordnance Survey maps, aerial photographs and, where available, recent survey reports. In Northern Ireland the Woodland Trust used a range of evidence sources (see box on page 7) a standardised structured approach was applied.

In England, Scotland and Wales the minimum area of ancient woodland mapped was two hectares. A woodland may be ancient woodland but if smaller than two hectares it will not be listed on the inventory. In Northern Ireland, the minimum area mapped was 0.5 hectares. Apart from Northern Ireland, ancient wood pasture and parkland was not comprehensively mapped on the inventories.

More detailed information about the evidence used in listing a woodland on the Ancient Woodland Inventories in Great Britain is available from the original data sheets, where they are available. Details of the judgment process for individual woodlands can usually be reconstructed from information held on these, but may not be apparent from the

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published boundary and entry on the original databases alone. In Northern Ireland, the website www.backonthemap.org.uk enables you to look in more depth at the sources consulted and the decision making process used to classify a wood.

For further information on the Ancient Woodland Inventory for England and Wales visit

http://www.english-nature.org.uk/pubs/gis/tech_aw.htm

For more information for Scotland, *The inventory of ancient and long-established woodland sites and the inventory of semi-natural woodlands (provisional)*, visit

<http://www.snh.org.uk/publications/on-line/advisorynotes/95/95.html>

To find out if your site is listed you can use the interactive map at

www.magic.gov.uk

Click on the interactive map icon, select 'Habitat Inventories' from the drop down menu and tick 'place'. Type in the name of a town near to your woodland (you can also use the other options provided). You can now zoom in by selecting the location of your wood. A panel to the right of the map will tell you the classification your wood has been given.

For information and sites in Northern Ireland see

www.backonthemap.org.uk

3.3 Maps

The following table should be read in connection with the notes below the table; the notes clarify issues in more detail and provide some guidance on the approach to take.

It is often easiest to start by comparing maps from the present day back through time. The first edition Ordnance Survey (OS) map series goes back into the mid-nineteenth century and will give essential information about the shape and extent of the woodland and the surrounding area at this time. Subsequent editions of the OS maps will allow changes to woodland boundaries and overall composition (broadleaf / conifers) to be identified up to the present day.

Map Type	Description	Strength of evidence	Issues / Limitations – what to look for
Ordnance Survey maps	First edition Ordnance Survey maps and more recent editions show locations of woodlands and boundaries. Large-scale maps (25 inches to 1 mile) also give an indication of the overall composition of a wood.	First edition OS Maps date back to early / mid nineteenth century. Date of first survey depends on the area of the country. They supply good evidence of the boundaries and overall composition of potentially continuous woodland cover since 1800. The six inch county series is particularly useful.	OS maps are more robust than previous maps as they were designed to cover all habitats, features etc. However, the reliability of some early OS maps is variable. The absence of a woodland from a site does not necessarily indicate that the woodland was not present. Recently coppiced woodland for example may not be shown on an OS map as woodland. See notes 1 to 6

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Estate Maps	Prior to the Ordnance Survey series, maps were commissioned privately, normally as maps of specific land holdings and estates produced as part of estate records.	Estate maps were produced for specific purposes and can be very accurate in relation to the feature relevant to the purpose of the map. Maps may or may not have been drawn up to show woodlands. Even if they do not show woodlands they often show place names linked to woodland.	Early estate maps may omit woodlands if they lie outside estate holdings. Inconsistency in use of map symbols may cause confusion. Woodland may be excluded because it was not relevant to the purpose of the map Early maps may mark woodland locations incorrectly. Woodlands on slopes on early maps may be obscured by hachuring. Recently cut areas (such as in worked coppice) may be shown as open habitat. See Note 7, 8, 9 and 11.
Earlier Commercial Maps	Prior to OS some maps were produced commercially by individuals or companies, especially in the eighteenth century. These maps were often of specific areas which were thought to be of interest.	Such earlier maps often include woodlands where these are of interest.	The limitations and issues listed above for estate maps apply See Notes 7, 8 and 11.
Tithe maps	Parliamentary Enclosure Awards and Tithe Commutation Act Maps	Such maps provide detailed and accurate records normally the maps are linked to accompanying documents from the period 1750-1830.	See Notes 10 and 11.
Deed maps	Maps relating to transfer of estates etc.	Can accurately show key features relating to the deeds.	Woodlands may not be shown if not relevant. See Notes above.

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Advice:

- 1 The absence of a woodland on a map does not necessarily indicate a gap in continuity. It may indicate that the woodland has been recently coppiced or that the cartographer (particularly if pre-OS) was not recording presence of all woodlands.
- 2 If a woodland is not shown on a map look for:
 - i. other land-use types being shown – particularly arable, buildings etc. which indicate an interruption in woodland continuity
 - ii. check for woodland names at and around the woodland location (see Section 3.5).
- 4 Start by looking at the most recent Ordnance Survey map (preferably the 1:2,500 scale) and then work backwards through all the available editions to the first which was produced around the middle of the nineteenth century. Dates of the earliest editions of the maps vary across England as the surveys were carried out over a period of time. The earliest surveys were carried out on a county by county basis and mapped areas correspond to old county boundaries.
- 5 The most useful in terms of detail of the old Ordnance Survey maps are the six inch to the mile (1:10,560) series (the County Series) which started in 1840, and the more detailed 25-inch to the mile (1:2,500) series, the first edition of which was produced between 1853 and 1896, there are later editions from the 1970s and 1980s.
- 6 Often the 1:10,560 and 1:2,500 are held in Local Studies Libraries but they may not have a complete set of maps. The British Map Library, part of the British Library, holds full sets of all OS maps. Historic OS maps can be accessed online via Digimap. This is a subscription service.
- 7 How to locate historic maps – the starting point should be the Local Records Offices. Often they have catalogues by specific estates which usually have a separate section listing maps. Please note that maps and documents for some estates may be held at a single location possibly at some distance from the site under consideration.
- 8 If your woodland does not appear on an early map you need to check other documentary sources to see if it is mentioned elsewhere before concluding that it did not exist at that date.

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- 9 Each estate archive is also likely to contain some pre-Ordnance Survey maps. Some may be of whole parishes, others of smaller areas and even of individual woods. These may show how they were compartmented, when they were last felled, even giving the number of timber trees of varying ages that remained after felling ('reserves').
- 10 Parliamentary Enclosure Awards and Tithe Commutation Act Maps are often found in Record Offices and are collections of maps and field books made by firms of local surveyors. These surveyors often carried out the surveys for the Parliamentary Enclosure awards (1750-1830) and the *Tithe Commutation Act* of 1836. These enclosure and tithe maps with their accompanying awards (as manuscripts) are full of accurate detail on the ownership, size of holdings and the names of individual fields and woods. In the case of the enclosure awards there are sometimes two maps for a parish - one before enclosure and one after enclosure.
- 11 The first easy step to finding old maps is by visiting www.old-maps.co.uk. This website shows you at least one old map of the area you are searching for and you can then purchase a copy from them. Search for the closest village or town then scroll to where your wood is located today. You can find a series of historical maps in your local studies library and/or local archives.
- 12 Up-to-date local maps at the Ordnance Survey website: www.ordnancesurvey.co.uk/oswebsite/getamap.

Other Potentially Useful Maps

Godfrey Edition Old Ordnance Survey Maps - 25-inch maps, reduced to 17-inch to the mile with historical essay on the map area written by a local expert.

The Greenwood Collection of old maps.

Generally seek to look at any other old maps you can find such as deed maps, estate maps, enclosure and tithe maps.

If the estate is still in private hands consult the land agent who may have a series of reference maps. If not, the Record Office will be the most likely source.

3.4 Documentary (non map sources)

Arguments about the ecological and heritage value of sites are greatly strengthened by combining field and documentary evidence. Sites with a well-documented history can be more readily understood than those where such information is scarce or entirely lacking. Sites where documentary and landscape evidence can be combined have still more added value.

The information that can emerge from a documentary study of a wood includes:

- The status of a woodland at the time the document was published and in some cases the history of the woodland prior to that date.
- Past management practices: wood pasture; simple coppice; coppice-with-standards; high forest; game reserve; length of coppice cycles; compartmentation; long-term and short-term changes of management.
- Markets for wood, timber and other woodland products (e.g. poles, bark, besoms), including changing markets leading to changes of management.
- Other past uses of parts of the site, e.g. mining and quarrying, lime kilns, charcoal platforms, potash production.
- Significance and in some cases the dating of boundary and internal earthworks.
- Woodland clearances and woodland extensions.

There is a likely to be lot of historical documentary evidence relating to the woodland and its surroundings. The information may be buried in a range of sources and held at a variety of locations. For advice on where to start see Note 1.

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The following table should be read in connection with the notes below the table; the notes clarify issues in more detail and provide some guidance on the approach to take.

Document Type	Description	Strength of evidence	Issues / Limitations – what to look for
Ancient Woodland Inventories	List of ancient woodlands above 2ha	Lists derived for each county, evidence used to determine status, data sheets may be available.	All woodlands of less than 2ha excluded, wood pasture etc. not included. See Section 2.2.
Forestry Commission's Census of Woodlands	The Forestry Commission's Census of Woodlands in 1947-49 of all woods over 2ha (5 acres).	Accurate detailed mapping. See Note 10.	
Aerial Photographs	Series of photographs taken at various times. Oblique and vertical aerial photographs date back to the 1920s (obliques) and the 1940s (verticals).	Accurate images of the site from above at specific point in time showing woodland extent and are useful records of more recent changes in woodland shape and structure. See Note 9.	Some aerial photography sets are difficult to access. Historic sets often taken for specific purposes so coverage is patchy. Woodland on steep slopes may be difficult to see. Only shows woodland cover at that point in time.
Manorial and estate records	Records of the proceedings of manorial courts which may date from the thirteenth to the twentieth century.	Such records, though often brief or imprecise about location or extent, enable named woods to be placed unequivocally in the ancient woodland category. Many have been published by local antiquarian and archaeological societies and they are also often available online. See Note 6.	Historical records are written for specific purposes and may omit reference to woods that were present but not relevant to the particular document concerned.

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<p>Management accounts and surveys</p>	<p>As accounts deal with money transactions they are minutely detailed and can run for long periods.</p>	<p>Accounts are probably the most informative of all documentary records. Woodland accounts of a particular owner may often be found in a series of 'wood books' or a special section in the general accounts. For some estates they are in the account books under the heading 'Spring Woods and Plantations' and may run for hundreds of years. Some species may be mentioned in the documentary record: lists of planting schemes may appear in account books.</p>	<p>Availability and accessibility of records.</p>
<p>Advertisements</p>	<p>Handbills were used from at least the second half of the eighteenth century to advertise wood sales.</p>	<p>These handbills are valuable because they show how woods were being managed (e.g. simple coppice or coppice-with-standards) and often give the names and numbers of tree species being felled. If cross-referenced with the account books, the buyer(s) of particular sales can be ascertained.</p>	<p>Advertisements need to be cross-related to other evidence sources.</p>
<p>Title Deeds</p>	<p>These are documents drawn up to prove ownership of property.</p>	<p>They mention woods, deer parks and commons and list purchases, sales and inheritances. They are found in the archives of the great landowners.</p>	<p>Woodlands may or may not be mentioned. Maps may or may not be available.</p>

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Leases and sales	<p>Instead of having their woods felled by their own staff, landowners often leased large woods or groups of woods and they were felled in rotation by tenants. Alternatively a single wood would be sold standing and the coppice and timber trees sold (but not the land on which it grew) to a woodman or wood and timber user. They would then be given a period of time in which to fell the wood and process it (e.g. remove bark or make charcoal) and take it away.</p>	<p>Leases usually involved the drawing up of elaborate agreements that not only named the woods concerned but also gave acreages, details of management conditions, tree species, compartmentation details and conditions surrounding grazing in the woods or restoration of the land at the end of the agreement. Such agreements extend from the medieval period to the nineteenth century.</p>	<p>Availability and accessibility of records.</p>
Rentals	<p>Indicate which woodlands were tenanted and by whom and which were being worked directly by the owner.</p>	<p>They give the names of woodlands, their acreages and sometimes details of management practices.</p>	<p>Normally lacking in some detail they show the presence of woodlands at that point in time.</p>
Census Returns	<p>Details of individual households are available for all the national censuses carried out at ten year intervals from 1841 to 1901 and give information on names, ages, marital status, occupation and place of birth for each member of every household including lodgers and visitors.</p>	<p>These returns help identify workers named in woodland accounts and can help to answer questions such as the age structure of a local woodland workforce, whether sons were following fathers into the same crafts and whether the woodmen and woodland craftsmen were locally born or migrants from other areas. See Note 14.</p>	<p>Census does not specifically indicate where households were working or which woodlands in the area were present/being worked.</p>
Anglo-Saxon Perambulations	<p>More than 800 perambulations (descriptions of the boundaries of land being sold and bought) have survived from the Anglo-Saxon period.</p>	<p>Woodlands are named in these documents and it has been estimated that about a quarter of the woods named in them still exist.</p>	<p>The documents survive in larger numbers in some regions than in others. They are very scarce for the north of England.</p>

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<p><i>Domesday Book</i></p>	<p>The earliest and best-known survey of woods for most areas. Compiled in 1086 it does not often mention individual woods but does distinguish between wood pasture (<i>silva pastilis</i>) and coppice wood (<i>silva minuta</i>) in individual manors or villages (<i>vills</i>)</p>	<p>The data allow for crude calculations to be made of woodland cover in individual manors but not to an individual woodland level.</p>	<p>Coverage is variable with some areas such as the North of England being poorly represented. Individual woodland not normally mentioned.</p>
<p>Cartularies and Valor Ecclesiasticus</p>	<p>Monastic cartularies (records of monastic acquisitions) and Valor Ecclesiasticus, an inventory of church property compiled at the Dissolution of the Monasteries contain references to woodlands.</p>	<p>The owners of many private estates employed specialist surveyors to undertake surveys and these sometimes contain woodland names, locations, acreages and how woods were being managed. Accompanying maps may be available and, if so, show the location of numbered plots in the survey.</p>	<p>Coverage is variable. Maps may or may not be available.</p>
<p>Local histories</p>	<p>Eighteenth and nineteenth century antiquarians often wrote local histories which can still be found in local studies libraries.</p>	<p>These can give a useful history of the area. However, more importantly, they often contain full transcripts of medieval documents or at least useful references to such material in source lists and footnotes.</p>	
<p>Personal accounts</p>	<p>Made by previous generations of naturalists and local people may have recollections of the woodland as a child.</p>	<p>Useful supporting evidence.</p>	<p>Personal recollections may not be accurate.</p>

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Photographs and pictures	Photographs, often going back into the nineteenth century, of woodland crafts and craftsmen such as charcoal makers, basket makers and bark peelers should also be searched for. Landscape photographs may show locations of woodlands. Local studies libraries have large collections of photographs. Paintings can be used in similar ways for earlier periods.	Photographs and paintings can be important historical evidence sources for woodlands.	Photographs and paintings may be undated and the relevant woodlands not indicated. Paintings may show an idealised rather than realised landscape and need to be treated with care.
Miscellaneous Records	Such records include diaries, private and estate correspondence, game books, trespass books, engravings, poems, county Board of Agriculture reports from around 1800 (which contain useful woodland management information), and newspaper items (including newspaper advertisements).	Useful supporting evidence	

Advice:

1. Some historical documentary sources have been **published** either by individual researchers or by local historical / archaeological societies either in special publications or in the society's journal. These can be consulted in a **Local Studies Library**.
2. **Primary sources** (handwritten, original documents) are usually found and must be read in a **Record Office** or other archive location. A key starting point for research is to find out who the past owners of the wood were. The bigger the landowner, the more likely it is that their records have survived.
3. A particular category of primary sources are those held in the **National Archives (formerly Public Record Office)** at Kew. These can often contain references to woods from very early surveys and perambulations. However, this is quite a specialist area and requires some knowledge of how the country was administered in various eras. Items of possible relevance can be searched

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online using keywords at www.nationalarchives.gov.uk/catalogue, and requests for an estimate of the cost of copying a document can also be made online (fee payable for the estimate which is offset against the cost of the item if ordered). Many items are also listed in **Lists and Indices** published by HMSO and also by the List and Index Society. Some are also fully transcribed in **Calendars** also published by HMSO. These volumes can often be found in local studies libraries, university libraries or on the shelves in record offices.

4. Manorial Records - indexes for the whole of Wales and eleven English counties can be searched on line at www.nationalarchives.gov.uk/mdr, and the records of individual manors are sometimes available on-line.
5. Detailed census enumerators' returns can be consulted in local record offices, local studies libraries and online (e.g. www.1901Census.nationalarchives.gov.uk and www.ancestry.co.uk).
6. English Heritage's Public Archive National Monuments Record holds the largest collection of historic aerial photographs in England and should be consulted first. Other sources of aerial photographs are the local county or borough / city planning department and important collections are held by Hunting Aerofilms of Borehamwood and Cambridge University. Up-to-date aerial photographs can easily be viewed online at www.earth.google.com.
7. The Forestry Commission survey 1940s - record sheets and maps for England and Wales are in the Public Record Office at Kew (National Archives online catalogue www.nationalarchives.gov.uk/catalogue).
8. In some cases, all or part of the library or archive record centre's catalogue (list of books in the library or items contained in each archive collection) may be available online, either on their own website or via the Access to Archives website.

Websites

- 'Access to Archives' catalogues material held at English record offices (excluding the National Archives, formerly the Public Record Office, London), libraries, museums and heritage centres: www.a2a.org.uk.
- The National Register of Archives (NRA) is useful for finding possible record offices and archive record centres which may have collections concerning a given place, family or person: www.nationalarchives.gov.uk/nra.

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- The National Archives catalogue lists the material held at the National Archives at Kew in London: www.nationalarchives.gov.uk/catalogue.
- A directory of archive and record centres can be found at www.nationalarchives.gov.uk/archon.
- A directory of local history groups which gives basic information on groups around the country can be found at www.local-history.co.uk/groups

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Guides from the British Association of Local History website: www.balh.co.uk.

The Local Studies Library: A Handbook for Local Historians.
Directing the Past: Directories and the Local Historian.

3.5 Field Sources

Field based surveys should be used to support and confirm the evidence of ancientness obtained through map and documentary sources. There is, however, a range of valuable evidence which can be obtained from field surveys.

As a starting point if you know who currently owns your woodland, ask if they have any information about its history and who owned it before them. If you don't know who the current owners are you will need to find this out to gain permission to carry out your survey and can ask about its history.

The range of field evidence includes:

Evidence Type	Description	Strength of evidence	Issues / Limitations – what to look for
Woodland name	Woodland named separately or the name reflects nearby historic settlement or old woodland words.	Possible ancient names include spinney, thorns, withy (willow), copse, wood. Absence of names associated with secondary woodland: plantation, field, lot, piece, leas, furze, common, warren, gorse etc. See Note 1	Woodland names can be changed Traditional woodland names are reused in more recent time in relation to non-woodland sites.
Place names on maps	Maps can be a source for place-names and old maps can give information on former management practices.	Place names linked to woodland practices at that time or historically.	See section 3.5 for advice on place names.
Location of woodland	Ancient woodlands are more frequently found located on steep slopes or valley sides or along streams.	Such locations are associated with land generally unsuitable for arable agriculture and therefore less likely that woodlands will be cleared.	Where woodlands are fragments of formally larger woods criteria may not apply.

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Woodland position in relation to administrative boundaries	Location towards the edge of old parishes along parish boundaries: ancient woods are often found in the farthest corners of parishes and townships, often right on their boundary.	Woods were normally cleared from the centre of the settlement outwards thus ancient woods often remain on the edge of the boundary. Ancient woodlands are often, but not exclusively, located towards parish boundaries.	Not all ancient woodlands are located close to parish boundaries. Other factors such as topography are important. Where woodlands are fragments of formally larger woods this criterion may not apply
Internal boundaries within woodland	Absence of internal boundaries, or if present internal boundaries are not straight.		Lack of management in recent years may obscure internal boundaries.
Woodland shape and boundary	Irregular (sinuous) woodland boundaries.	Unlike more modern woodland, ancient woodlands tend to have irregular boundaries. Their history of piecemeal management means ancient woodland boundaries often tend to be sinuous or zigzagged.	Ancient woodland boundary shapes may be altered to fit with new field patterns and more recent developments. Some woodland boundaries are less fixed and may change, especially in the uplands. Where woodlands are fragments of formally larger woods this criterion may not apply.
	Woodland boundaries that do not fit with seventeenth century (or later) enclosure patterns in the surrounding field boundaries.	If the boundary shape of the woodland does not fit in with more recent patterns of fields and enclosures this often indicates that the woodland is older.	Ancient woodland boundary shapes may be altered to fit with new field patterns and more recent developments.
	Well-developed external boundary banks and ditches.	Boundary banks, hedges, walls and / or ditches can reflect former management or division of ownership of the wood.	More recent management may have led to loss of some features. Features may have not been surveyed for or missed in previous surveys.

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Bordering habitats	Adjacent to common land or heath	Where woodlands are fragments of formerly larger woods criteria may not apply.	Adjacent habitat may have recently been modified.
Ground flora	Presence of 'ancient woodland indicator' species, particularly in the ground flora	No plant species appear as exclusive to ancient woodlands have been identified. Some AWI species vary between regions AWIs have been recorded in more recent woodland and open habitats.	Ground flora can be modified by recent management. Ancient woodland indicators vary between different regions and need to be used with care. Ancient woodland indicators can only indicate ancientness not confirm it.
Trees	Old/large coppice stools, or veteran trees.	Old trees can give insight into the history and longevity and management of a wood.	Some veteran trees may be relicts of hedgerows or more open habitat that has been subsumed into more recently planted or successional woodland. More recent management may have led to loss of older trees.
Woodland structure	Woodland structure – coppice, veteran trees, pollards, standing fallen wood.	Some veteran trees may be relicts of hedgerows or more open habitat that has been subsumed into more recently planted or successional woodland. More recent management may have led to loss of some features.	Woodland structure may have been affected by recent management.
Woodland archaeology	Presence of features linked to traditional woodland management, for example charcoal hearths, old kilns.	More recent management may have led to loss of some features Features may have not been surveyed for or missed in previous surveys.	Identifying such features requires specialist knowledge.

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Non-woodland archaeology	Absence of features associated with non woodland activities, such as ridge and furrow, field boundaries etc.	More recent management may have led to loss of features. Features may not have been surveyed for or may have been missed in previous surveys.	Identifying such features requires specialist knowledge.
Local specialist knowledge	<p>An active local ecology or history group in the area may already have undertaken some research which is relevant for your woodland. It will be worth contacting them to ask if they know of anything relevant or if they may be willing to help with your research.</p> <p>Local people who have lived or worked in the area may be able to shed light on some of the recent history of your woodland especially if they remember it from their childhood or have family photographs.</p>	Local sources can provide valuable direction to historic evidence.	Information provided is valuable but often relates to recent history. Robustness of evidence may need to be confirmed.

Advice:

Woodland Names Landscape historians are interested in two types of woodland place-name:

- **The names of settlements.** These can tell us much about the former distribution of woodland and the amount of woodland cover from the fifth century onwards.
- **The names of individual woods.** These can tell us about former owners, former tenants, tree composition, why the site remained wooded, woodland industries and crafts and, perhaps most importantly, because of the language used in the name and the date when it was first recorded in a document, the earliest period when the wood is known to have been in existence.

For more details of woodland place names see the Woodland Heritage Manual.

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4 Conclusions and Recommendations

General recommendations when seeking to identify/confirm an ancient woodland:

- Ideally multiple sources of evidence should be obtained.
- The reliability of the evidence used should be considered in the analysis.
- A wide range of evidence sources should be consulted.
- It needs to be recognised that absence of reference to a woodland on a map or in a document is not necessarily evidence of the absence of a woodland at that site.
- In looking for evidence to determine whether a site is an ancient woodland it is important to look for evidence that there was another land use at this site (i.e. evidence of a gap in woodland cover as shown by farmland on a map) as to look for evidence that there was a continuity of woodland cover.
- Field based evidence should normally be used to support map and archive evidence, however, ancient woodland plants can help to ascribe antiquity where archive evidence alone is insufficient.
- The evidence used to support the designation of a woodland as ancient or not needs to be clearly stated.

As indicated previously, evaluation of the historical and other evidence for a site being an ancient woodland or not is a matter of judgement. Much of the evidence used is historic and not scientific, yet a rigorous scientific approach needs to be taken in determining the status of a possible ancient woodland site.

There has been recent questioning of the robustness of the determination of some ancient woodlands and it is important that both those identifying ancient woodland sites and those questioning their designation need to adopt a more critical approach. A robust, standardised approach has been taken in developing the Ancient Woodland Inventory in Northern Ireland and lessons can be learnt from their approach.

It is recommended that the approach taken in gathering and evaluating evidence the following principles are followed recommended:

- Universality – that as many available pieces of evidence as possible are used.
- Triangulation – that different types of evidence (maps, field evidence and documents) are looked at and it is seen if they all lead to the same conclusion.
- Robustness – potential limitations and strengths in the evidence are considered.

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- Verification and falsification – does the evidence show woodland continuity, does the evidence show clear gaps in continuity?
- Precautionary – if an ancient woodland site is lost then it may be that it cannot be replaced. A cautionary approach needs to be taken when it is uncertain if a site is ancient or not, the term 'potentially/probably ancient' could be used. In such cases the precautionary principles should be followed.

It is recommended that in the near future further investigations into developing a more rigorous method for identifying and verifying the status of a site as an ancient woodland should be investigated.

It is also recommended that the statutory agencies consider the development of detailed advice to consultants, planners and other workers involved in decisions relation to identified or potential ancient woodlands. It is hoped that the above may be an aid in this development.

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