The Making of the Chilterns Landscape

Chilterns Historic Landscape Characterisation Project

an Area of Outstanding Natural Beauty
The Chilterns is a landscape which has been shaped by mankind over several thousand years giving it a special historic character. Today we experience an environment shaped by prehistoric farmers, medieval lords and peasants, the gentry’s garden designers and Victorian surveyors. The Chilterns Historic Landscape Characterisation project has for the first time mapped changes across the whole of the Area of Outstanding Natural Beauty providing information to enrich our appreciation of the area's special character.

This report summarises the study's approach and its findings, and also shows how information can be used to care for this wonderful asset for the benefit of current and future generations. We urge all organisations and individuals with a responsibility for the Chilterns landscape to take heed of this study when planning for the future.

Sir John Johnson
Chairman - Chilterns Conservation Board

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Fold Out Map of Chilterns Historic Landscape Character

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Foreword

The Chilterns is a landscape which has been shaped by mankind over several thousand years giving it a special historic character. Today we experience an environment shaped by prehistoric farmers, medieval lords and peasants, the gentry’s garden designers and Victorian surveyors. The Chilterns Historic Landscape Characterisation project has for the first time mapped changes across the whole of the Area of Outstanding Natural Beauty providing information to enrich our appreciation of the area’s special character.

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Executive Summary

The Chilterns is renowned as one of Britain's finest landscapes, famous for its rolling chalk hills, steep-sided valleys, cathedral like beech woods, rich chalk grassland, winding lanes and unspoilt, picturesque villages with brick and flint cottages. All of these components combine to create the varied landscapes that are highly valued by both residents and visitors.

Although protected and designated as an Area of Outstanding Natural Beauty (AONB) much of what we can see in the Chilterns is the result of centuries of human endeavour. In order to better understand and appreciate the historic value of this special landscape, the Chilterns Conservation Board, English Heritage and Buckinghamshire County Council have completed a Chilterns Historic Landscape Characterisation project (Chilterns HLC) covering the designated AONB and an area immediately around it. The outcome of this work is a strategic-scale system that can produce a wide range of maps to characterise the distinctive, historic dimension of the environment with the aim of improving our understanding of the Chilterns and the management of its landscape. This short guide provides a summary of the study explaining its methodology, what it tells us about the Chilterns landscape and how it can be used. Chilterns HLC will be an essential information source informing revisions of the Chilterns AONB Management Plan, planning policies and practical actions for the conservation and promotion of the area’s heritage and landscape.

This report is a summary of the full technical report report, which can be accessed on the Chilterns Conservation Board’s website: www.chilternsaonb.org
Chapter 1: Introduction

The Chilterns Historic Landscape Characterisation (Chilterns HLC) Project was undertaken by Buckinghamshire County Council Archaeological Service for the Chilterns Conservation Board and English Heritage between August 2004 and September 2008. The aim was to produce a character map of the historic dimension of the present rural landscape across the whole of the Chilterns.

The project contributes to the aims of the Chilterns AONB Management Plan, by improving understanding and awareness of the Chilterns' historic landscape character.

The intended uses for this resource are to inform future planning policy and decisions affecting the AONB, and to help identify areas that could benefit most from landscape conservation or restoration initiatives. The HLC will also be a resource for community based projects.

The study began by merging existing county HLC maps of Bedfordshire, Buckinghamshire, Hertfordshire and mapping the Oxfordshire Chilterns to produce a comprehensive character map of the AONB and its surrounding landscape. A second stage of the project featured a series of deepening projects on important aspects of Chilterns landscape not covered in much detail by the county HLC studies. The topics chosen for these studies were: woodland, the built environment and roads and trackways.

Map showing the extent of the Chilterns HLC Project.
The project area covered the whole of every modern civil parish which lies wholly or partly within the Chilterns AONB.
Although HLC uses historic maps to look at the date of landscape, the age of enclosed fields and woods is not always readily apparent as many have been in existence since before the earliest maps. However the shape and pattern of fields can provide a broad indicator of their history. Usually regular shaped fields are indicative of more recent surveyed or ‘planned countryside’ whereas fields that are more irregular in character can be an indicator of older landscapes, or more piecemeal creation.

### Methodology

The first phase of the Chilterns HLC project was to create a historic character map by analysing a range of historic maps and aerial photographs. This information was recorded on a Geographical Information System (GIS). Using GIS enabled the creation of computerised maps that allow areas to be analysed and described according to their historic character. Its flexibility permits a variety of maps showing different landscape types to be produced at various scales.

### Historic Landscape Types

The project began with analysis of the landscape as seen on modern maps and aerial photographs. It assigned each piece of land first to a broad “Landscape Group” and then into a more detailed “Historic Landscape Type”. Some 51 historic landscape types have been defined, the types included varieties of woodland, settlement and various patterns of enclosures/field systems.

### Historic Maps

In addition to modern maps the project used a series of historic Ordnance Survey maps and county maps going back to the middle of the 18th century. When compared to one another these maps are important for observing changes in the landscape.

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**Methodology**

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The analysis of patterns can also help us understand historic settlement types (see chapter 3) as well as woodlands.

![Irregular shaped fields recorded on nineteenth century maps, but of earlier origin (Studham, Beds)](image1)

![Regular shaped fields created in the nineteenth century (Watlington, Oxon)](image2)

The landscape was then systematically mapped using the historic landscape types to create a seamless historic landscape character map of the Chilterns landscape (see fold out map). The final map comprises over 14,000 individual areas, or polygons, each of which is linked to a database containing a range of descriptive and interpretive information.

After the mapping was complete, a summary description and interpretation of each type was prepared, accompanied by information on its origins, survival and rarity, distribution and contribution to landscape character. Recent and current management issues and trends were also noted.
Methodology

Using historic maps and aerial photographs it is possible to chart landscape change and continuity over a 200 year period. Chilterns HLC uses a method of analysing landscape starting with the most recent source and regressing back to earliest Ordnance Survey maps of 1800-23 and, where relevant, parliamentary enclosure maps and the early county surveys (e.g. those undertaken by Bryant and Jeffreys in Buckinghamshire). At each stage the sources were assessed to establish whether there had been fundamental changes or whether the land had remained essentially the same with only minor changes. This information was entered into the GIS database using codes to record changing landscape types. The database also records other aspects of landscape change such as the loss of field boundaries since the 19th century and place names which can provide clues to origins and forms of some earlier landscapes.

Mapping Change: An Example

At South Heath near Great Missenden, change can be charted in some detail from c.1811 where the first ordnance surveyor’s drawings show a landscape consisting of a common (olive) a number of irregular and coaxial fields to the north and east (purple and orange respectively) and small areas of woodland (green). There are also several small historic settlements (brown).

By the 1st edition 6” map of 1878 the landscape had changed due to parliamentary enclosure in 1850 dividing the common into regular fields (the pale blue area). Other parts of the common were lost to private enclosure (dark blue).

The latest episode of landscape change can be seen with the encroachment of housing in the 20th century (red area) and some prairie fields (pale yellow), although other areas of the landscape have remained relatively unchanged such as the irregular fields (purple) and the woodland (green).

South Heath, Bucks
Chapter 2: Historical Development

The purpose of this chapter is to examine the historic landscape by time period, showing the contribution each of three important phases has made to the development of the present landscape of the Chilterns. The dominant historic character of each area is classified into one of three broad periods:

- Pre 18th century landscape
- 18th -19th century landscape
- 20th century landscape

Each section contains a map depicting the surviving landscape components from that period together with a brief description of the processes that have shaped the Chilterns landscape and a comparison with the landscape surrounding the AONB. Discussion of the historical landscape types can be found in Chapter 3.

The maps and descriptions can only provide a very generalised representation of complex local histories - no Chilterns landscape remains entirely unchanged over the past century whilst earlier features survive within all but the most altered modern landscapes.

Broad Landscape Overview

Enclosed fields are the dominant historic landscape type, accounting for nearly 66% of the AONB area, reflecting the Chilterns' essentially rural character. Woodland is another major landscape component covering just over 20% of the AONB, making it one of the most heavily wooded areas in England, comparable to the Weald, New Forest or Wye Valley. Built-up areas (settlement, civic and industrial buildings) account for just over 5% of the AONB, a much lower proportion than the surrounding areas. This is a reflection of how much built up land there is adjacent to the AONB and how effectively the AONB boundary has prevented growth from neighbouring towns. Parks and Gardens are also a significant element in the Chilterns accounting for nearly 4% of the AONB. Open Land comprising commons, greens, downland and heaths make up just over 2% of the landscape. Other Landscape 3%, is taken up by minor land uses: communications, military, open land, recreation, utilities and water.
Pre 18th Century Landscape

Pre 18th century historic landscape types make up 45% of the Chilterns AONB.

Field patterns pre-dating the earliest maps cover nearly 30% of the AONB. These are some of the least well understood historic landscape types in the Chilterns. It appears that enclosure was a continuous and often piecemeal process so it is often hard to distinguish one phase from another. Coaxial fields – elongated fields, sharing a dominant alignment, are thought to be some of the oldest in the Chilterns with origins in prehistoric or early medieval times. Medieval sources show that fields were being created by woodland clearance, a process known as ‘assarting’. Other hedged fields were created by piecemeal enclosure of medieval open field arable strips - ‘sinuous fields’ may preserve traces of this process. Other pre 18th century fields are simply categorised as having regular or irregular patterns.

Woodland, comprising ancient woodland and wood pasture, covers nearly 11% of the Chilterns AONB. These woods originated in the medieval period either as the private woods of manorial lords or as common woods where the local community held grazing rights. Very little wood pasture survives, although it was once widespread.

Open Land is represented by commons, heaths and downland which all have medieval or earlier origins. Commons and Heaths were communal grazing land, as well as sources of fuel and building materials. Downland was also used for grazing. In total Open Land makes up just over 2% of the Chilterns AONB but was once far more abundant.

Historic Settlement comprises 1% of the Chilterns AONB. The majority of the Chilterns historic settlements probably originated between the 10th and 13th centuries from which time they gradually developed into their 19th century form. Many retain substantial late medieval and post-medieval historic building stocks. The Chilterns is a landscape of predominately dispersed settlement, which is discussed in Chapter 3.
**18th/19th Century Landscape**

Historic landscapes of this period cover 23% of the Chilterns AONB. They comprise:

**Fields:** The most distinctive landscape types of the 18th and 19th centuries are fields created as a result of Parliamentary Enclosure Acts which sought to improve land for farming. Parliamentary Enclosures in the Chilterns form two distinctive groups. In a band running along the Oxford and Aylesbury clay vales abutting the Chilterns scarp the fields were enclosed from medieval open fields. By contrast south of the Chilterns scarp the medieval open fields had already disappeared and instead parliamentary enclosure focussed on creating fields from common land. Not all enclosure in the 19th century required a parliamentary act as individual landowners could act alone. Such enclosures are recognised by landscape change from the early to late 19th century maps. They usually involved grubbing up woodlands or wholesale change to earlier field boundaries. The 18th and 19th century fields cover nearly 14% of the AONB.

**Settlement:** Within the AONB, newly founded 18th and 19th century settlements are largely confined to Victorian farms. The majority of hamlets and villages in the Chilterns underwent some rebuilding, although in most cases not enough to significantly alter their form.

**Woodland:** The 18th and 19th centuries saw the demand for wood increase, initially to provide fuel for London then later as a source for the furniture making industry. Many ancient semi natural woodlands were converted to the renowned ‘cathedral’ beech woodlands. This period is also characterised by the growth of secondary woodland, including the extension of existing ancient woodlands and the colonisation of open land as traditional management declined.

**Other Landscape:** The remaining landscape types in the 18th and 19th centuries make up less than 1% of the AONB. They include commercial orchards, allotment gardens, canals and railways.

**Parks and Gardens:** The 18th and 19th centuries marked the zenith of parks and gardens in the Chilterns. They cover almost 4% of the AONB today. Increasing wealth allowed the establishment of country houses and parks by the landed elite as expressions of status and power. The proximity of the Chilterns to London and Windsor added to its attraction and there are more in the eastern half of the AONB.
20th Century Landscape

Twentieth century historic landscape types make up 32% of the Chilterns AONB. They comprise:

**Fields:** Modern hedged fields account for the largest proportion of the 20th century landscape and cover nearly 24% of the Chilterns AONB. Modern fields are divided into two distinct historic landscape types: so-called 'prairie fields' created by the clearance of hedgerows to create large fields for intensive farming and '20th century enclosures' - older fields subdivided by modern fencing to create smaller landholdings for livestock or to facilitate equestrian activities. Both field types are found throughout the Chilterns AONB particularly on the clay vales and in the central and eastern Chilterns.

**Settlement:** The principal modern settlements in the study area lie outside the AONB, focussed around the historic towns in the river valleys. Nevertheless, there is a significant amount of modern settlement in the AONB itself covering 4% of its area. There has also been settlement infill within villages and small towns, which in some cases has significantly altered their character.

**Woodland:** Modern woodland covers 2% of the AONB. The growth of secondary woodland continued a trend from the 19th century with the colonisation of downland and common land. The 20th century also saw the planting of coniferous woodland for commercial use in the form of separate plantations and within existing historic woodlands.

**Recreation:** The 20th century saw a subtle change in the Chilterns landscape with land being increasingly converted to recreational purposes. Golf courses and playing fields make up 2% of the AONB landscape, the former are found mainly in the southern parts of Chilterns, close to major centres of population.

**Other Landscape Types:** The other kinds of 20th century landscape types consist of industry and land uses such as allotments and garden centres. These types are small in extent collectively covering under 1% of the AONB.
Chapter 3: Themes

Fields

Hedged or fenced fields (known as 'enclosed land') cover two-thirds of the Chilterns AONB. The oldest fields have prehistoric or medieval origins but most were created over the last 500 years. Field patterns are classified according to their shape, size and likely origins. Older fields (those pre-dating the 18th century) account for 42% of fields in the Chilterns AONB. Modern fields account for 37% of enclosed land whilst 18th and 19th century enclosures make up the remainder.

Older fields

The 'older' fields of the Chilterns are those which were recorded on the earliest maps used in this study, c. 1800-20. Their age is hard to determine; for most all that can be said without further detailed local study is that they probably predate the 18th century. The majority of enclosure types are defined by the shape and size of the field. There are, however, two enclosure types for this period that are distinctive and have been recorded separately:

Assarts

Assarts are fields created by a process of woodland clearance in medieval and post medieval-times. Assarted fields often lie close to ancient woodlands, are irregular in shape or preserve typical curving woodland boundaries with species-rich hedgerows. In the absence of maps to confirm former woodland use, field names such as ‘sart’ or ‘stocking’ can indicate woodland clearance. Assarts cover less than 3% of the Chilterns AONB. Good examples can be found at Lacey Green (Bucks) and Swancombe and Woodcote (Oxon).

Coaxial fields

Another distinctive field type is the 'coaxial' field. Coaxial fields are so named because they have two clear axes of orientation. Their origins have been the subject of much debate by archaeologists and landscape historians. In some parts of the country such fields were being laid out in the Bronze Age but it is possible that they continued to be created into early medieval times. In the Chilterns roads and trackways often form the 'spine' of the co-axial pattern linking valleys to higher ground - this suggests that the system could be related to the local seasonal movement of cattle and sheep.
Pre 18th century irregular shaped fields
The vast majority of older fields in the Chilterns are harder to date and categorise. The Chilterns HLC project has used pattern descriptions to classify these early field types. The commonest and most extensive are irregular fields; their widespread occurrence is mainly due to the heading acting as a catchall for fields of irregular pattern that appear on the earliest maps. Irregular fields in the Chilterns are thought to range in date from medieval period to the 16th and 17th centuries after the early break up of the open field system. They are found throughout the Chilterns and good examples can be seen at Caddington and Studham (Beds), Little Missenden (Bucks), Wigginton (Herts), and Swyncombe and Rotherfield Greys, (Oxon).

Meadows
Meadows are areas of land originally used for the cultivation of hay in the early summer months and then for grazing. The grass was dried and used for livestock fodder in the winter. Meadows were well-established by the medieval period and remained important as late as the 19th century.

Although the original use of meadows has generally ceased in modern farming, meadows are still discernable in the landscape, with their sinuous shapes and location on low-lying ground on damp valley bottoms adjacent to the course of a river.
Fields of the 18th and 19th centuries

Parliamentary Enclosures
In the 18th and 19th centuries new fields were created by Parliamentary Enclosure Acts. These fields were professionally surveyed and are usually rectangular in shape with straight hedgerows and roads. At first the enclosure acts made little impression upon the Chiltern Hills where most of the best land was already enclosed - the biggest effect was felt in the clay vales north of the scarp, where a large proportion of the landscape was still covered by medieval open fields. However Parliamentary enclosure made its mark in the 19th century when there was a drive to 'improve' marginal or unproductive land, such as Chilterns commons. Parliamentary enclosed fields are one of the few examples of fields where a specific date of origin is known.

19th century fields
19th century fields are similar in shape and form to parliamentary enclosure, although not always laid out with quite the same precision. Planned private enclosure of wastes and open field will be identifiable particularly in areas where the extents of parliamentary enclosure are already known. Extensive examples of this type are located at Barton-le-Clay (Beds), Great Missenden (Bucks), Markyate (Herts) and Ewelme (Oxon).

Parliamentary and 19th century enclosure represents 21% of enclosed land in the Chilterns.

Notable examples of enclosed commons are found at Sonning Common, (Oxon) and Wigginton, (Herts).
'Prairie' fields
From the middle of the 20th century agricultural practices in the Chilterns changed in response to technology and the demand (and Government support) to increase food production. These changes are reflected in the landscape with the appearance of so-called 'prairie' fields, large enclosures created by the grubbing up of hedgerows to maximise crop yields and to accommodate large machinery. Prairie fields are usually found on more fertile land and are therefore more prevalent in the Bedfordshire, Hertfordshire and east Buckinghamshire parts of the AONB.

Prairie fields and 20th century enclosures make up 37% of the fields in the Chilterns AONB.

Modern prairie fields at Ashley Green, Buckinghamshire (above) The same area at the time of the 1st edition OS six inch map, c.1880 (right)

Modern fields
Modern leisure pursuits have also seen the creation of small enclosures, particularly so-called pony paddocks with wooden or wire fencing. These fields are often subdivisions of older enclosures and other landscape types. Modern fields also occur next to new roads, like bypasses and the M40 motorway, where older field patterns have been disrupted and reorganised.

Prairie Fields, Goring, Oxon

Twentieth century enclosures, Ellesborough
Open Land
Commmons and heaths

Commons and heaths are an important Chilterns landscape covering some 2% of the AONB. The origins of Chiltern commons are not well understood. They may have assumed something like their earliest documented form in the medieval period, when poorer quality land was not cultivated by the lord or his tenants, but might be available for grazing by livestock: this was the ‘waste of the manor’. Heaths have similar origins but are generally on acid or sandy soils which had a propensity to be covered by heather, gorse and coarse grasses.

Most commons are now privately owned although rights of common have their origin in local custom and include, for example, the right to graze stock, for pigs to forage on beechmast and acorns (pannage), to remove peat for the hearth (turbary), to fish (piscary) and to collect bracken or firewood (estovers). Commons provided an important economic role in the Chilterns as places for grazing livestock and as a crucial source of fuel and were also social centres for local gatherings and festivals.

Analysis of Change

In the last 200 years 82% of Chiltern commons and heaths have been lost. These losses can be attributed to five main causes: enclosure for agriculture, building new villages and industry, natural regeneration of woodland due to under-grazing and deliberate tree-planting.

The 19th century was a time when many Chilterns commons were enclosed to make use of the land for agriculture (see above). By the 20th century, many of the fields created on common land had become unproductive, resulting in some commons being left unmanaged with land reverting to woodland while others were sold to accommodate new housing.

These changes have had varying effects on the character of Chilterns commons: Sonning (Oxon) has been marginally affected while Radnage (Bucks) was completely lost to enclosure in the 19th century.

Today, the importance of protecting and managing commons is widely recognised, for example by the Commons Act 2006. The Countryside and Rights of Way Act 2000 created new rights of access to common land.
Downland
The Chilterns is synonymous with chalk downland, although today it comprises only 2% of the AONB. Downlands are grasslands found almost exclusively on the steeply sloping ground and rounded hills of the Chilterns scarp. Downland provides a haven for wildlife accommodating rare species of flora and fauna. It is also archaeologically sensitive, containing numerous well preserved prehistoric and medieval earthwork monuments.

Downland reflects centuries of traditional land management. Up until the 18th century downland was used for grazing, managed in the same way as common land - the established practice was for livestock, in particular sheep, to feed on the downland pasture during the day before being folded upon arable land in the clay vales at night. However, by the 20th century this practice became largely obsolete with changes to agricultural practice and intensive farming.

Analysis of Change
Due to the changes in management practice the extent of downland has declined markedly. Over 70% of downland has been lost within the AONB since the early 19th century. This loss is mainly due to the encroachment of scrub and woodland, enclosure for agriculture and mineral extraction. An example can be seen at Whiteleaf Hill, Princes Risborough, where during the 20th century woodland established itself on the summit and invaded the scarp sides - the grassland has recently been partly restored. A notable example of the impact of chalk extraction is at Totternhoe, Bedfordshire which is now used as a landfill site.

Another threat to downland has come from the creation of golf courses as can be seen on the Dunstable Downs at Kensworth, and at Warden Hill, Streatley (Beds).

Despite the pressures of change, there are areas of downland that are well protected and maintained, particularly the steeper areas on the scarp edge. The best sites are to be found at Knocking Hoe and the Barton Hills (Beds) and at Pitstone and Ivinghoe Beacon (Bucks). Examples such as Whiteleaf Hill show that downland restoration can be achieved in favourable circumstances.
Woodland

Woodland represents one of the defining features of the Chilterns landscape covering over 20% of the Chilterns AONB. Nearly two thirds of this woodland is ancient in origin, while the remainder is the result of subsequent natural regeneration or deliberate plantations. Orchards represent less than 1% of the total.

Ancient Woodland

Around two thirds of woodland in the Chilterns AONB is classified as ancient - woods that have been in existence for the last 400 years but thought to have much earlier origins. Some contain prehistoric settlements and boundaries likely to have lain within open countryside suggesting that woodland patterns have ebbed and flowed over several millennia. Ancient woods contain many historic features reminding us of the way our forebears used them. Some woods contain earthen banks marking out compartments that are traces of sophisticated long-term management systems. Other woods, lacking such evidence, were probably used for wood-pasture. Stumps with many vertical stems coming out of them are a sign of coppicing techniques that were used to produce timber suitable for firewood, charcoal, laths and hurdles. The Chilterns used to supply fuel-wood for London.

Some of the hollows in the woodland floor may be the remains of sawpits, used by woodland workers to saw trees into planks. Ancient beech pollards are a feature of some wooded Chilterns commons. By the early 19th century the Chilterns beech woods around Wycombe and Amersham, were used by chair leg turners or ‘bodgers’, who made the components of Windsor chairs that were assembled in local factories. By the late 19th century the industry had spread into the Oxfordshire Chilterns with bodgers working in the woods around Stoke Row and Checkendon while other factory centres were established at Chinnor and Stokenchurch.

Analysis of Change

Since the late 19th century there has been a 9% loss of ancient woodland, largely due to woodland replanting and clearance for fields. One of the chief causes of this is the replanting of coniferous woodland, while the establishment of modern enclosures in the 20th century has also had an impact.
Secondary Woodland
Secondary woodland is the term given where trees have re-grown on ground that had previously been used for other purposes through the natural processes of colonisation and succession. Typically secondary woodland in the Chilterns reflects a decrease in grazing pressure over the past two hundred years. Secondary woodland represents 26% of woodland in the Chilterns. It has colonised a number of landscape types in particular common land and downland. The greatest concentrations of secondary woodland are found at Barton-le-Clay (Beds), Aldbury (Herts) and Ipsden (Oxon). In comparison to ancient woodland, secondary woodlands are usually quite small, normally 5 to 10 hectares.

Coniferous Plantation Woodland
Woodland plantations are characterised by blocks of trees that are all of one age, often consisting of only one or two types of tree within each regular block of planting. Very often the species planted were non-native species, such as spruce. The purpose of the wood is to produce a ‘crop’ of trees for commercial felling.

Plantations are found throughout the Chilterns although there are greater concentrations in Oxfordshire (Swyncombe) and Buckinghamshire, especially at Fawley and Medmenham. The main difference in the location of plantations compared to secondary woodland is that the former were deliberately placed, mostly on enclosed fields, whereas the latter have grown up due to reduced grazing mainly on commons and downs.

Woodland Resource Assessment
In addition to making statements about the growth, loss and threat to woodlands by other processes, the Chilterns HLC project also undertook a pilot woodland resource assessment. This study aimed to provide more specific information about the make up or character of individual woodlands, including information on species composition, the remnants of former woodland management regimes and the presence of historical and archaeological features.

The study compiled information from Environmental Record Centres and Historic Environment Records (HERs) and individual surveys by organisations such as the National Trust. The results have provided a map of woodland surveys and acts as a guide for future work.
Parks and Gardens

Enclosed fields, settlement, woodland and open land cover 93% of the Chilterns AONB. The remaining 7% is defined by a range of other land uses, principally: historic parks and gardens, modern recreational areas, military sites, industry and communications such as motorways and canals.

Historic Parks and Gardens

The Chilterns possess some prominent country houses and designed landscapes. They make a significant contribution to landscape character and represent an important chapter in the social and economic history of the Chilterns reflecting the area’s proximity to London, the political centre of the British Empire. Parks and gardens cover almost 4% of the AONB and were established over the last 300 years by the wealthiest landowners as an aesthetic expression of power and wealth. Although many parks and gardens have earlier antecedents most were substantially redesigned or expanded during the 18th and 19th centuries as fashion and tastes changed. There are a number of grounds embellished by Lancelot ‘Capability’ Brown who worked at Ashridge and Gaddesden Hoo (Herts), Fawley (Bucks), and Greys Court (Oxon). Humphrey Repton was involved in the design of Bulstrode Park and Shardeles (Bucks). Notable 19th century parks and gardens are the neo-gothic Friar Park near Henley (Oxon) built in the 1880s and Halton House (Bucks).

Some parks and gardens have recognition by inclusion on English Heritage’s Register of Parks and Gardens of historic interest. Many are in the ownership of large organisations such as the National Trust who conserve and provide for access to the public - including West Wycombe (Bucks), Ashridge (Herts), Greys Court (Oxon) and Hexton (Beds). However, not all parks and gardens are afforded such protection and custodianship. Because of the extent and cost of maintaining parkland landscapes, many have faced changes to their original design for recreation purposes, in particular the creation of golf courses. Others have had part of the landscape revert back to farmland or have been abandoned to woodland encroachment.

Designed Landscape of Newnham Murren, depicted on the 19th century 1st edition Ordnance Survey map (top right) and below, modern Ordnance Survey map (2003) illustrating the loss of the park land.
Settlements and Buildings

The Chilterns is renowned for its concentration of picturesque historic villages and hamlets. The vast majority of these settlements originated between the 10th and 13th centuries from which time they gradually developed into their 19th century form. Most contain important historic buildings including churches and chapels, timber framed houses and flint and brick cottages.

The rapid expansion of many Chiltern settlements in the early and mid 20th century means that today the majority of buildings comprise housing built in the 20th century. The designation of the AONB has done much to restrict further urbanisation and influence modern building design. Conservation areas have also provided some protection for historic settlements.

Historic Settlement Pattern

At the heart of most villages and towns there is an ‘historic core’ made up of the 19th century and earlier elements from which the modern settlement grew. The Chilterns HLC project mapped these historic cores and also recorded their distinctive plan form.

The following categories of settlement pattern were defined:

- **Nucleated Clusters**: These are villages with buildings grouped or clustered together, sometimes around a focus such as a green or church.
- **Nucleated Rows**: This type of settlement is focussed along a road, sometimes displaying signs of regular planning. Nucleated rows in the Chilterns are found predominantly along the river valleys.
- **Common Edge**: Buildings grouped around a common or green. This form is often regarded as a quintessential feature of the Chilterns.
- **Farm Clusters**: Groups of farms that form a distinctive pattern in the landscape.
- **Interrupted Rows**: Farms and dwellings that occur intermittently along a road. In the Chilterns this type is found mainly along ridge tops.
- **Individual Farmsteads**: Single Farmsteads situated away from any distinct settlement.

**Examples**: Whipsnade, Bedfordshire; Mapledurham, Oxfordshire; Hard to Find Farm, Little Marlow, Buckinghamshire; Little Gaddesden, Hertfordshire; Henley, Oxfordshire; Ewelme, Oxfordshire; Great Missenden, Bucks.

The village of Aldbury, Hertfordshire
Interrupted Row
Farms and dwellings that occur intermittently along a road. In the Chilterns this type is found mainly along ridge tops.

Little Gaddesden, Hertfordshire

Common Edge
Buildings grouped around a common or green. This form is often regarded as a quintessential feature of the Chilterns.

Whipsnade, Bedfordshire

Farm Clusters
Groups of farms that form a distinctive pattern in the landscape.

Mapledurham, Oxfordshire

Individual Farmsteads
Single Farmsteads situated away from any distinct settlement.

Hard to Find Farm, Little Marlow, Buckinghamshire

The Chilterns is renowned for its concentration of picturesque historic villages and hamlets. The vast majority of these settlements originated between the 10th and 13th centuries from which time they gradually developed into their 19th century form. Most contain important historic buildings including churches and chapels, timber framed houses and flint and brick cottages. The rapid expansion of many Chiltern settlements in the early and mid 20th century means that today the majority of buildings comprise housing built in the 20th century. The designation of the AONB has done much to restrict further urbanisation and influence modern building design. Conservation areas have also provided some protection for historic settlements.

Towns
Small market towns are the principal settlements in the Chilterns, although the majority are outside the AONB. Towns typically show signs of a regular planned layout with the medieval market place occupying a central position.

Nucleated Clusters
These are villages with buildings grouped or clustered together, sometimes around a focus such as a green or church.

Nucleated Rows
This type of settlement is focussed along a road, sometimes displaying signs of regular planning. Nucleated rows in the Chilterns are found predominantly along the river valleys.

Henley, Oxfordshire

Ewelme, Oxfordshire

Great Missenden, Bucks

Historic nucleated settlement of Turville, Bucks
Settlement Character Areas
Using these historic settlement forms, a distribution map was produced. The settlement patterns are markedly different in particular areas of the Chilterns. Broadly, an immediate distinction can be made between the clay vale to the north of the Chilterns which is characterised by nucleated forms (nucleated clusters and nucleated row settlements) and south of the Chilterns scarp which has a predominantly dispersed pattern. From these settlement patterns it has been possible to produce a map of historic settlement character zones.
Historic Buildings Survey

To better understand the subtle character of the built environment, a pilot study was devised to record more details about the sorts of building found in Chilterns settlements. The study involved volunteers undertaking on the ground survey, recording details of the variations in architectural styles, building types and materials.

One of the pilot areas was Chartridge (Bucks), where the results of the survey produced a series of character maps showing the distribution of building types, styles and ages of buildings. These maps are a refinement of the broad HLC characterisation which focused on old and modern settlement. It provides useful information on the character of small settlements in the Chilterns and potentially a useful tool for conservation officers and planners. It is hoped that more surveys of this type will be carried out.

Volunteers undertaking building character survey at Whipsnade, Bedfordshire
Method for recording roads and trackways

The roads and tracks methodology was adapted from the standard HLC approach. Historic maps were used to date and define roads and routes that had been created in the last 200 years. Routes were divided into three time slices: 20th century, 18th/19th century and the roads in existence before the 18th century.

Main phases of road development

<table>
<thead>
<tr>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20th century</td>
<td>Motor roads - newly-constructed arterial A-roads and local roads typically serving housing estates or commercial areas.</td>
</tr>
<tr>
<td>18th/19th century</td>
<td>Surveyed roads - typically arterial turnpikes and local enclosure roads designed for horse-drawn vehicles.</td>
</tr>
<tr>
<td>Pre-18th century</td>
<td>All other roads - for animals, people and carts. Arterial routes - 'ridgways', Roman roads, medieval highways etc. Local roads typically within or linking parishes. Some may be planned and engineered but most are probably ‘organic’ in origin.</td>
</tr>
</tbody>
</table>

The majority of Chilterns roads and tracks already existed on the earliest available maps, so a further method was devised that recorded a range of characteristics of these roads to provide some clues as to their age, function and importance. The relative age of early routes was explored by looking at the relationship between them. An example can be seen near Tring, Hertfordshire where the Roman road of Akeman Street (A41) appears to cut or overlay a number of roads, tracks and footpaths which run north south. This implies that these roads were established earlier and were in existence before the arrival of the Romans in AD 43. Archaeological investigations during construction of the Aston Clinton Bypass discovered a long-lost pre-Roman droveway which could have formed part of this network.
Character of Roads
The study also included a field survey, where the character of road borders was recorded. It was noted whether roads are ancient sunken lanes, bordered by hedges, had wide verges or a combination of border types.

The defining feature of the pilot study area is a network of droveways running north south which have been interpreted as routes used to move animals between lowland and ‘upland’ grazing on commons and wood-pastures. This network is clearly related to the medieval parish structure, and it origins are tentatively dated to the first millennium BC.

Results of the Study
The project devised a dozen routeway character types which refined the description of routeways giving the origins, shape and historic function of each road. Example classifications include ‘modern motor roads’ - purpose built for motorised traffic. While older character types include: ‘historic highways’ - arterial roads pre-dating the 20th century such as Roman roads, turnpike roads and ‘Axial droveways’ - ancient routes running for several kilometres across the strike of the landform.

The study has demonstrated that the historic routeways of the Chilterns are numerous and complex. The majority of the roads, trackways and paths in the study area pre-date the invention of the internal combustion engine and form significant historic landscape features within the Chilterns AONB contributing to its special character and appearance.

The study has highlighted the need to improve awareness of the historic importance of roads and trackways in the Chilterns that should be recognised by the planning system and the management of rights of way in the Chilterns.

Historic routeways can be publicised as part of guided and promoted walks in the Chilterns. It is also hoped that the findings from this study will encourage future research into roads and routeways through other local landscape projects.
Other Land Uses

Recreation
Areas of modern recreational use comprise over 2% of the Chilterns AONB and are composed of golf courses, playing fields, theme parks and zoos. The largest of these categories is golf courses. Golf courses are found mostly in the south of the Chilterns, adjacent to major centres of population, and within easy travelling distance of London. There are also a number of courses set in more remote and rural contexts, particularly in Oxfordshire and Hertfordshire.

Golf courses in the Chilterns have tended to be located in parks and gardens (e.g. Ashridge, Herts) or on downland and common land, e.g. Warden Hill, Streatley (Beds), Nuffield Common (Oxon).

Industry

The Chilterns AONB has relatively little industry, which covers only 0.5% of the area. The distribution of industrial sites is intermittent and they are usually small in scale encompassing a wide variety of types from mineral extraction sites to woodland industries, for example timber yards (Stokenchurch, Bucks) and sawmills (Goring Heath, Oxon).

A more recent trend is for modern industrial estates set in rural locations, e.g. West Yard Industrial Estate, Saunderton (Bucks).

A common feature in their location is proximity to major roads such as the M40.

Military

Military sites comprise less than 0.5% of the Chilterns AONB landscape. The category encompasses all MoD sites in active use, training camps, and research establishments. There is one significant site within the AONB, the RAF strike command base at Walters Ash. The other bases overlap or abut the Chilterns. The main military sites are the RAF base at Benson (Oxon) and the training camp at Halton. This site in the grounds of Halton House comprises a Royal Flying Corps airfield, inter-war RAF training base and hospital. Smaller facilities exist next to former World War II airfields.

All the Chilterns' military sites were created during the 20th century. The end of the Cold War has seen the mothballing and downsizing of military establishment with former MoD land sometimes regarded as suitable for new housing.
Archaeological Remains

The Chilterns landscape is rich in archaeological sites and monuments, from Bronze Age barrows to training trenches dating to the First World War. Archaeological remains reflect historic land uses and therefore form part of the historic landscape. Their survival and condition depends upon recent and historic land use - thus sites in grassland or woods are often visible earthworks, whereas in arable fields only buried remains may survive. Recorded archaeological sites were viewed against the historic landscape characterisation data to see whether there are noticeable patterns or concentrations of archaeology with certain historic landscape types.

Scheduled Monuments (SMs)
The Chilterns AONB contains a total of 122 Scheduled Monuments (SMs); these are nationally important archaeological monuments protected by law. The majority of SMs in the Chilterns date to the prehistoric period (71). There are also 36 medieval SMs and 14 from the Roman period. The majority of SMs are found in 10 of the 51 landscape types:

<table>
<thead>
<tr>
<th>Historic Landscape Type</th>
<th>No. of SMs*</th>
<th>SMs per km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement (Historic)</td>
<td>19</td>
<td>1.83</td>
</tr>
<tr>
<td>Downland</td>
<td>17</td>
<td>1.76</td>
</tr>
<tr>
<td>Woodland (Secondary)</td>
<td>30</td>
<td>0.71</td>
</tr>
<tr>
<td>Woodland (Coniferous)</td>
<td>12</td>
<td>0.45</td>
</tr>
<tr>
<td>Settlement (Modern)</td>
<td>12</td>
<td>0.40</td>
</tr>
<tr>
<td>Woodland (Ancient)</td>
<td>19</td>
<td>0.22</td>
</tr>
<tr>
<td>20th century Enclosures</td>
<td>26</td>
<td>0.20</td>
</tr>
<tr>
<td>Parliamentary Enclosure</td>
<td>12</td>
<td>0.19</td>
</tr>
<tr>
<td>Prairie Fields</td>
<td>12</td>
<td>0.13</td>
</tr>
<tr>
<td>Enclosure (Pre 18th Irregular)</td>
<td>15</td>
<td>0.05</td>
</tr>
</tbody>
</table>

* some SMs are extensive and cover more than one landscape type.

Historic Environment Records (HER)
In addition to SMs, the Chilterns HLC project has also analysed the distribution of archaeological monuments from county Historic Environment Records (HERs). Unlike the selective data of SMs, HERs are databases containing information on all the known sites, monuments and buildings that have been recorded through survey, excavation, or chance finds. HER data has to be used with caution as each HER has its own local recording biases. For example, proportionally the Oxfordshire Chilterns have more recorded prehistoric monuments than the other counties, whilst the Hertfordshire Chilterns record more Roman sites, Bedfordshire a higher level of modern monuments and Buckinghamshire more undated ones.

<table>
<thead>
<tr>
<th>Historic Landscape Type</th>
<th>No. of HER records</th>
<th>HER records per km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement (Historic)</td>
<td>1662</td>
<td>16.02</td>
</tr>
<tr>
<td>Crofts</td>
<td>6</td>
<td>2.66</td>
</tr>
<tr>
<td>Water Meadows</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Parks and Gardens</td>
<td>578</td>
<td>1.79</td>
</tr>
<tr>
<td>Meadows</td>
<td>79</td>
<td>1.46</td>
</tr>
<tr>
<td>Downland</td>
<td>128</td>
<td>1.33</td>
</tr>
<tr>
<td>Settlement (Modern)</td>
<td>386</td>
<td>1.31</td>
</tr>
<tr>
<td>Commons and Heaths</td>
<td>88</td>
<td>0.92</td>
</tr>
<tr>
<td>Woodland (Secondary)</td>
<td>397</td>
<td>0.9</td>
</tr>
<tr>
<td>Parliamentary Enclosure</td>
<td>316</td>
<td>0.58</td>
</tr>
<tr>
<td>20th century Enclosures</td>
<td>585</td>
<td>0.53</td>
</tr>
<tr>
<td>Prairie Fields</td>
<td>476</td>
<td>0.53</td>
</tr>
<tr>
<td>Enclosure (Pre 18th Irregular)</td>
<td>621</td>
<td>0.49</td>
</tr>
<tr>
<td>Woodland (Ancient)</td>
<td>409</td>
<td>0.46</td>
</tr>
<tr>
<td>Woodland (Coniferous)</td>
<td>99</td>
<td>0.41</td>
</tr>
</tbody>
</table>

A table showing the density of HERs monuments in selected Historic Landscape Types in the Chilterns AONB.

Reconstruction drawing of the hillfort on Ivinghoe Beacon
Archaeology in Downland
Downland has one of the highest densities of SMs in the AONB and archaeological monuments in HERs reflecting the attractive topographical locations occupied by much downland and the survival of earthworks in long-term grassland. Downland archaeology displays a particular bias towards prehistoric monuments such as hillforts e.g. Sharpenhoe Clappers (Beds) and Ivinghoe Beacon (Bucks) and prehistoric burial mounds. In contrast other open land types such as commons and heaths have fewer SMs but a large concentration of monuments from the HER. This is perhaps a reflection of the many activities that took place on commons and the fact that their poorer soils led to historical settlements being focussed around them.

Archaeology in Woodland
One of the densest concentrations of SMs and archaeological remains in the Chilterns is found in woodlands. This is despite the fact that there is a lack of information on archaeology of woodlands as less than 5% of Chiltern woods have had any form of archaeological survey. Where woods have been surveyed almost all have contained some features. Statistically the majority of monuments that are recorded are undated. Woodland acts as an aid to preservation, protecting remains from more damaging activities such as ploughing, although trees themselves can cause damage (see image below). Secondary woodland contains a number of archaeological monuments, including SMs such as Boddington Hillfort (Bucks). Ancient woodland too contains a concentration of archaeological monuments including earthworks of woodland industries such as woodbanks, charcoal hearths and saw pits. Within ancient woodland and wood pasture there are also relics of historic wood management in the form of pollards and coppiced trees.

Archaeology in Fields
Archaeological features in fields can be divided between those found on arable land and monuments on permanent pasture. Monuments on pasture can take the form of earthworks which are generally better protected under grass. Archaeological remains in arable fields are under greater threat as they are vulnerable to incremental damage by ploughing. The distribution of archaeological monuments in fields varies from type to type but meadows and crofts have a higher concentration. Crofts are small fields in close proximity to the historic settlements while meadows have a number of monuments relating to water management, such as mills and leats and also prehistoric and Roman settlements which were preferentially located along them.

Archaeology in Settlements
Also of note are the concentrations of SMs and HER records amongst historic settlement, reflecting a preferential location for medieval monuments such as castles (Berkhamsted) and moated sites (Pednor farm). Some types of pre-18th century enclosures have relatively low densities of SMs - this must partly reflect where sites have been levelled by centuries of cultivation but may also relate to deeply embedded patterns of settlement and agricultural land use.
Chapter 4: Heritage Values and Significance Principles

The law provides specific protection to widely valued elements of the historic environment: listing for historic buildings, scheduling for archaeological monuments and protection for historic hedgerows. However, most historic sites and the wider historic landscape depend on the planning system for their protection, and environmentally aware owners supported, where appropriate, by grant schemes for their management.

As Chilterns HLC provides a seamless map of the landscape it is able to fill in the gaps between designated heritage sites and show that all of the Chilterns landscape, to varying degrees, has an historic character. This chapter shows how HLC can be used where appropriate to assess the significance of historic landscape character by looking at the particular heritage values of each historic landscape type.

The Chilterns HLC adopted an approach used by English Heritage*- whereby the historic environment is assessed in relation to four heritage values:


www.english-heritage.org.uk/server/show/nav.9181

Evidential value: is the potential of a place to yield evidence about past human activity. This value typically relates to archaeological evidence in the form of earthworks, buried remains and built structures. It also includes landscape patterns and relationships, evidence for historic woodland management practices (coppices etc), the flora of hedgerows or environmental evidence for past landscapes preserved within wetlands.

Historical value: derives from the ways in which past people, events and aspects of life can be connected through a place to the present. This can be through illustrating aspects of history or prehistory or through association with famous people, events or movements. In the Chilterns historic values might be displayed for example through illustration of historic woodland management practices (e.g. saw pits etc) or the association of designed landscapes with famous owners or landscape designers.

Aesthetic value: derives from the ways in which people draw sensory and intellectual stimulation from a place. They can either reflect conscious design or the fortuitous outcome of the way a place has developed. Parks and gardens and polite architecture most obviously reflect design whilst the attractive combination of historic fields and woods or open vistas across downland owe more to fortuitous circumstance.

Communal value: derives from the meaning of a place to people and can relate to commemorative, symbolic, social or spiritual values. Villages, community or religious buildings will tend to display strong communal values, as too may landscapes with good public access such as downs or commons.
Recognising Heritage Values

Heritage values were assigned to historic landscape types by the Chilterns Historic Environment Group. Members were asked to independently rate the 45 historic landscape types on a simple 1 to 3 point scale for each of the four values and the scores averaged and moderated by the group to give an agreed score.

1 = Low: Generally the historic landscape type demonstrates only limited or localised expressions of this value.

2 = Medium: The historic landscape type demonstrates this value to a significant degree and thereby contributes to the special character of the Chilterns.

3 = High: The type demonstrates this value to an outstanding degree contributing significantly to the special character of the Chilterns.

The agreed scores for the four values were then summed to give an overall significance rating for each historic landscape as follows:

- **11 - 12 High**: The most significant historic landscape types which are of outstanding value to the Chilterns worthy of conservation, enhancement, restoration and promotion.
- **9 - 10 Medium High**: Significant historic landscape types which are of considerable value to the Chilterns and will normally be worthy of conservation, enhancement, restoration and promotion.
- **8 Medium**: Historic landscape types of value to the Chilterns and normally worthy of conservation.
- **6 - 7 Low Medium**: Historic landscape types which make a limited contribution to the heritage value of the Chilterns; although some exemplars will be worthy of conservation other locations could absorb more change and/or may merit enhancement or restoration.
- **4 - 5 Low**: Historic landscape types which make at best a limited contribution to the heritage value of the Chilterns. Typically areas which can absorb more change and/or may merit enhancement or restoration

Note on method: it is important to recognise that this is a generalised high level strategic analysis that is no substitute for more localised or project-specific assessments. There will undoubtedly be cases where such local studies demonstrate significant variations from the generalised assessments of values presented here. It is also important to note that views on significance vary between individuals and groups, and also vary according to the scenario under consideration. For example a place may be valued differently when the issues being considered are road construction, wood planting or increased educational access.
Recognising Heritage Values

The distribution of these generalised heritage values and overall significance can be mapped by reference to the historic landscape types.

- Medium evidential value is the most common value with higher values evenly distributed throughout the Chilterns.
- High historic value is widely expressed across the AONB with only localised areas having low value.
- Aesthetic value is generally medium to high across the central and south western parts of the AONB although lower values are present in parts of the northeast.
- Communal value is rather variable and patchy.

With respect to aesthetic and communal values it is essential to recognise that this study only considers the heritage contribution to these values - it does not for example take account of topography and viewpoints.
Statement of Significance

Consideration of the Chilterns’ heritage values has allowed a ‘statement of significance’ to be drawn up. This is intended to be a high level statement of what the historic environment contributes to the Chilterns AONB and therefore what special characteristics are most worthy of conservation and enhancement.

The Significance of Ancient Landscape

The Chilterns can justifiably be regarded as ‘ancient countryside’ because 45% of the AONB landscape retains the patterns of pre-18th century landscapes: historic settlements, ancient woodlands, downland and commons, and irregular or co-axial field patterns. These ancient landscapes display a wide range of heritage values and are considered to vary from medium to high significance.

Evidential value

Evidential value is likely to be scored highly in all these early landscapes where there is considerable evidence bound up in historic buildings, archaeological remains, botanical data, survivals of traditional management practices and landscape patterns themselves. Woodland and downland preserve regionally significant reserves of visible archaeological monuments.

Historical values

All landscape types of this period are likely to be given high historical values. Notable examples are the management practices of coppicing and pollarding in historic woodland, the historical associations with grazing and land management of commons and heaths. Villages and hamlets are amongst the richest and most valued historical elements of the Chilterns, many dating back to the middle ages.

Aesthetic values

Aesthetic value is the value most closely associated to the concept of ‘natural beauty’. Again it will be widely appreciated in all pre-18th century landscapes often reflecting a fortuitous organic development expressed through the relationship of historic features to the natural landform. In any particular locality the aesthetics of the whole landscape are likely to be more than the sum of its parts so understanding the interrelationships between historic features will be critical. Aesthetic values also derive from deliberate design as seen most obviously in historic parkland and polite architecture but also in some vernacular architecture. The setting of the Chilterns AONB is also important to its aesthetic value, for example in displaying the contrast between this ancient landscape and the planned or ‘champion’ landscapes to the north.

Communal values

Pre 18th century landscape can have high communal values for several reasons. Historic settlements and commons often contribute to strong local identity reflecting social values as do areas with public recreational access such as downland, or rights of way through fields. Spiritual values may be found both in rural churches and more generally in the tranquility and contact with nature that goes with many of these early landscapes; ancient woodlands represent the most obvious example of this phenomenon.
The Significance of Landscapes of the 18th and 19th centuries

Although the Agricultural and Industrial Revolutions were defining periods in British history their impact on the Chilterns was relatively modest compared to many other parts of England. Overall only 20% of the Chilterns AONB owes its essential character to this period, and much of this change occurred within the ‘grain’ of earlier landscape.

Evidential Value: Evidential values in this period are typically more selective - some buildings and complex sites such as parks and gardens have significant potential whilst in many areas earlier landscape features and archaeological sites survived within the altered landscapes, for example secondary woodland has grown up over many much earlier archaeological monuments.

Historical Value: Parliamentary enclosure fields and farms, industrial, commercial or transport structures are the iconic features of this period. Country houses and their parks were also important, and some are associated with famous people.

Aesthetic and Communal Values: Aesthetic and communal values tend to be moderate rather than outstanding, although there are exceptions such as the high aesthetic value of designed landscapes or communal value of allotments.

The 18th and 19th centuries are significant to the Chilterns but not generally an outstanding nor defining characteristic of the AONB. Nevertheless, there is a need for selective conservation of the better examples of buildings, landscapes and archaeological sites from this period, of which the historic parklands are the most widely recognised.

Significance of the 20th Century Landscapes

Despite being by far the shortest of the three time-periods used in historic landscape characterisation, the 20th century is responsible for framing the character of 35% of the Chilterns AONB reflecting the increasing mechanisation of agriculture, and life in general, and the expansion of London ‘overspill’. At a landscape scale the 20th century saw major built development (mostly prior to the designation of the AONB); the expansion of settlements; the loss or subdivision of historic fields and the decline of grazing leading to the growth of secondary woodland. 20th century landscapes have mostly been classed as low or low/medium sensitivity, although perceptions on this point may change.

Some well designed modern buildings display aesthetic values whilst others have communal value. Places such as military installations have historic value relating to defining events of modern history. It is important to recognise that historic features and archaeological remains from earlier eras do often survive within ostensibly modern landscapes and in some places it may be desirable to restore earlier landscape patterns.
Assessing change

Having outlined generalised heritage values for the Chilterns historic landscape, it remains to be considered how changes over the past century have affected the historic landscape types to which they have been attached and what future management priorities could be. The table provides a summary of how the extent of each historic landscape type has changed over the past 120 years cross-indexed against the generalised heritage significance of the type. It shows that at a large scale some historic landscape types (historic settlement and parkland for example) have fared fairly well, but others (e.g. downland, meadows and co-axial fields) have suffered serious or critical losses. Much of this change happened before the AONB was designated in 1965. This analysis indicates that a ‘do-nothing’ approach over the last forty years would probably have resulted in an unsustainable loss of types with high historic significance over much of the Chilterns within a lifetime. It also suggests some future management priorities for different historic landscapes:

<table>
<thead>
<tr>
<th>Heritage Significance</th>
<th>Trajectory of long-term change (from 1880s to 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increasing</td>
</tr>
<tr>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Low/medium</td>
<td>Hospitals and Schools Industrial 20th century recreation Golf courses Modern settlement</td>
</tr>
<tr>
<td>Medium</td>
<td>Replanted ancient woodland Secondary woodland Civic Military</td>
</tr>
<tr>
<td>Medium/high</td>
<td>Crofts Riverine landscape</td>
</tr>
<tr>
<td>High</td>
<td>Watercress beds</td>
</tr>
</tbody>
</table>

Conserve and Restore: historic landscapes of medium to high significance which have declined rapidly or critically. Surviving examples of these landscapes need protection whilst opportunities to restore significant lost sites would be desirable in most instances.

Conserve: historic landscape types of medium to high significance that are stable or declining slowly. Existing measures to protect these areas should be maintained; and where appropriate enhanced if the special character of an area is in danger of erosion through small-scale piecemeal change.

Selective Conservation: historic landscape types of low/medium significance or which increased in extent in the 20th century. Conservation should focus on particular exemplars worthy of special attention to protect or enhance particular heritage values.

Mitigate or Restore: historic landscapes of low or low/medium significance where it would be desirable to mitigate negative impacts or restore lost landscape patterns. Can overlap with ‘selective conservation’.
Chapter 5: Using Chilterns HLC

This chapter provides examples of uses of HLC in development planning, conservation management and raising public awareness of the historic dimension of the Chilterns landscape.

Planning

Planning Development Control

The Chilterns AONB lies within the hinterland of Greater London and is fringed by substantial settlements, including Reading, High Wycombe, Marlow, Chesham, Amersham, Aylesbury, Hemel Hempstead, Luton, Dunstable and Hitchin. This surrounding area has been, and continues to be, subject to considerable development pressure. Consequently it is important that the Chilterns Conservation Board, local authorities and other responsible bodies ensure that the character and special qualities of the AONB are recognised and protected in all development plans.

Chilterns HLC can be a valuable tool in informing the preparation of development plans and planning applications affecting the AONB and its surrounding rural landscape. Current national planning policy and best practice guidance advocates the use of ‘evidence base’ character studies such as the Chilterns HLC to assess the significance of the landscape.

Development Plans

HLC can provide strategic-scale information about the likely sensitivities of locations to particular forms of development. Such information could assist with strategic environmental assessment of plans or be used to make appropriate response to a proposal, including indicating what project-specific studies ought to be undertaken to inform and improve schemes. The HLC can help ensure new development is well designed and in keeping with the historic landscape character of the Chilterns.

Careful consideration of historic landscape character can help blend new development into existing landscape patterns.

A41 road improvement and bypass, Aston Clinton

Major Infrastructure Projects

Historic Landscape Characterisation can also contribute to minimising the adverse impact on the historic environment of new infrastructure projects such as railway lines and roads schemes. Chilterns HLC can be used to help assess the impact of a route, potentially avoiding the more sensitive historic landscapes. The impact of road construction on the historic environment has been recognised by English Heritage and the Highways Agency who have issued specific guidance on the routing and design of future road building schemes. The principles may be also applied to new railway lines.


2 Assessing the Effect of Road Schemes on Historic Landscape Character (Highways Agency)
Landscape Management

The historic environment’s contribution to guiding land management in the Chilterns has often been restricted to consideration of the needs of archaeological sites recorded in county HERs. The completion of the Chilterns HLC provides a broader perspective enabling consideration of the Chilterns landscape as a whole, an approach that can be a useful reference for land agents and others involved in drawing up land management plans.

Environmental Stewardship Schemes

Chilterns HLC has been used for environmental stewardship applications. These are schemes which provide funding to farmers and other land managers in England to deliver effective environmental management on their land, including restoration of hedgerows and positive management of heritage features. An example shown above is an application on farmland at Fawley. Consulting the Chilterns HLC showed that there was the opportunity to recommend the management of water meadows and enhancement of a section of the 19th century designed parkland of Fawley Court.

Conservation Management

At a strategic scale the Chilterns HLC can be used to inform the conservation and management of historic landscape types most relevant to the designation of the Chilterns as an AONB. HLC has shown that Chilterns commons have declined by 54% since the early 19th century and indicates the causes of this change. The Chilterns HLC data can be further refined to identify particular commons which would particularly benefit from positive conservation management.

HLC is also a valuable reference to ecologists as it can identify suitable areas for undertaking habitat surveys. In particular it can identify the location of historic landscape types that are now lost but were once rich in biodiversity such as wood pasture, downland and calcareous grassland. Biological surveys may reveal that relict elements of these former landscapes survive.

Head and Body Pond, Cadmore End Common, Bucks

Higher Level Stewardship application at Fawley, Bucks
Conservation Area Appraisals

The Chilterns HLC can provide a broader perspective for Conservation Area Appraisals placing the designated area within its wider context and setting, providing further information for its description and helping define its extent.

The character of a historic settlement has often been perceived in terms of its immediate built environment. By contrast relatively little attention has been paid to the landscape surroundings that also contribute to the distinctiveness and identity of places.

The Conservation Area Appraisal of Penn and Tylers Green (Bucks) used the Chilterns HLC to define the significance of the villages and their setting. HLC supported the importance of the common and showed that away from the modern built up area of High Wycombe, Penn and Tylers Green are surrounded by a landscape composed predominantly of ancient woodland and assarted fields. It also identified some small closes to the south of Church Road, Penn which are thought to be long established crofts, associated with buildings and forming part of a settlement’s evolution and history. These fields provide an attractive setting. With many species rich hedgerows they provide a habitat for a variety of wildlife.

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Conservation Area Appraisal map of Penn and Tylers Green

Hambleden Conservation Area

Farm cluster at Town End, Radnage

Conservation Area Reviews

Although the majority of larger historic settlements in the Chilterns are protected by Conservation Area status, the Chilterns HLC can be used to review and update existing designations and also to identify places that might merit designation as future Conservation Areas.

It is recommended that conservation officers consult the Chilterns HLC in the initial stages of each Conservation Area review, and obtain expert advice on its interpretation where necessary.

A settlement type under-represented in Conservation Area designation are farm clusters that are virtually unchanged since the 19th century. Places such as Colstrope in Hambleden or Town and Bennetts End at Radnage could be considered for new Conservation Areas.
Community and Education

Special Trees and Woods volunteers measuring an earthwork at Tring, Herts

Perhaps one of the most rewarding uses of the Chilterns HLC is to encourage local communities to raise awareness of their own historic landscape and environment. The Chilterns has a strong tradition of volunteer groups and organisations that play an active role in the management of the Chilterns. The information from the HLC can be used as a resource to contribute to particular Chilterns projects such as the Special Trees and Woods project and Chilterns Commons Network.

HLC can be a valuable resource for people involved in local research and can help communities writing village design statements. It can also be an educational tool for teaching history and geography in schools.

Understanding and Enjoyment

Another potential application of HLC is for recreational purposes, providing an interpretation of the surrounding landscape for promoted routes and rights of way maps. Most walkers’ guides contain an illustration of the route along with details of particular features of interest but generally there is not much information on the composition of surrounding landscape. HLC can provide extra details about the age, date of fields, woodlands and settlement. Overall this additional description could enhance future guides and make the experience of exploring the Chilterns more enlightening.

Map showing the Ridgeway walk, Ivinghoe Beacon
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Chapter 6: Further Information

Chilterns Conservation Board
For further information on the Chilterns Historic Landscape Characterisation project please contact:
The Chilterns Conservation Board,
The Lodge,
90 Station Road,
Chinnor,
Oxfordshire OX39 4HA
Website:
www.chilternsaonb.org/caring/historic_environment.html
email: office@chilternsaonb.org

English Heritage
Further information on the national programme of Historic Landscape Characterisation projects can be found on the English Heritage website:
www.english-heritage.org.uk

Buckinghamshire County Archaeological Service
For information on the historic environment of Buckinghamshire Chilterns please contact:
Buckinghamshire County Council
County Hall,
Walton Street
Aylesbury HP20 1UY
www.bucksc.gov.uk/sites/bcc/archaeology/Archaeology.page
email: archaeology@bucksc.gov.uk

The Heritage Gateway
www.heritagegateway.org.uk
for information on and access to on-line HERs (incl Herts)

Central Bedfordshire Council
For information on the historic environment of Bedfordshire Chilterns please contact:
Heritage and Environment Service
Central Bedfordshire Council
PO Box 1395
Bedford
MK42 9AP
www.centralbedfordshire.gov.uk/environment-and-planning/archaeology/default.aspx
email: HER@centralbedfordshire.gov.uk

Hertfordshire Historic Environment Unit
For information on the historic environment of Hertfordshire Chilterns please contact:
Environment Department,
Hertfordshire County Council, County Hall,
Pegs Lane,
Hertford SG13 8DQ
www.hertsdirect.org/lib/leisure/heritage1/archaeology/
email: isobel.thompson@hertscc.gov.uk

Oxfordshire County Archaeological Services
For information on the historic environment of Oxfordshire Chilterns please contact:
Speedwell House, Speedwell Street, Oxford OX1 1NE
Website: www.oxfordshire.gov.uk
email: archaeology@oxfordshire.gov.uk

Duke of Bridgewater Monument, Ashridge, Herts