End of Tradition?

Part 2

Commons: Current Management and Problems
(Cultural Severance and Commons Present)

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Definition and key features
Ancient wood pastures in the uplands are areas of grazed pasture, heath or open hill with a scattering of open-grown veteran trees, some of which may have been pollarded in the past. These upland habitats are analogous to the more familiar lowland wood pastures and parklands in the UK, which also contain large numbers of veteran trees.

Upland wood pastures grow on a range of soil types, and so may be found in several ecological niches corresponding with the site types occupied by semi-natural woodlands. One of the most conspicuous types of ancient wood pasture in the upland landscape is dominated by low alder pollards, with occasional veteran ash and often with old single stemmed hazels. This is on a wet but nutrient rich site type which would otherwise carry slope alder woodland (NVC community W7). Ash/elm/hazel wood pastures occur on somewhat drier nutrient rich sites (NVC W9), while oak/birch wood pastures occupy drier more acidic soils (W17 and W11).

There are equivalent upland wood pastures dominated by birch and also Scots pine, yet with some exceptions, and rather illogically, these types of open woodlands are not generally considered to be wood pastures. Thorny species such as hawthorn, blackthorn, holly, juniper and crab apple are favoured in the well lit conditions of upland wood pastures as they can withstand heavy browsing by livestock. Aspen often survives on craggy refugia within wood pastures.

The key feature that helps define ancient wood pastures in either upland or lowland situations is the presence of open-grown veteran trees, especially if they have been worked in the past. A long history of grazing under the tree canopy is implied for that type of tree-form to have developed. The open grown trees provide shelter for livestock and are themselves utilised for a variety of products. Ancient wood pastures therefore have the same structure and benefits as some types of agro-forestry, whereby tree canopies and either crops or pasture at ground level co-exist.

Ancient wood pastures, both upland and lowland, display a range of tree forms with characteristics defined by the longevity of the trees and also by their open and well lit situation compared to normal woodland trees. Since many veteran trees in wood pastures are very hollow, in the branches as well as the main stem, a wide range of niches is created for nesting birds and animals. The hollow stem can build up an humus soil which supports epiphytic plants, ferns, shrubs, and also other trees. A remarkable feature of ancient wood pasture trees is the growth of ‘air trees’ which root inside the hollow veteran, typically rowan inside alders, but there are many combinations and species of air tree. Veteran trees in wood pastures frequently develop huge burry swellings on the stem, which may be a response to the light conditions. Massive basal ‘skirts’ of burr also develop in response to prolonged livestock browsing.

Another feature typical of open wood pastures is that when trees are blown over, they very often continue to grow, as long as some roots are still attached. They develop new upright stems from branches and become ‘phoenix trees’, which may persist for long periods. Within woodlands such blown trees tend to die in the shade. Branches may also layer in the soil once they are old enough to reach the ground. There is a sort of built in persistence in wood pasture trees.

Location and Inventory
Wood pastures can be found in the uplands usually on the mid and upper slopes, but also sometimes in valley bottoms. They can occur in any location that a semi-natural woodland may once have occupied. Upland wood
pastures are often adjacent to crag and gully refugia, whereby remnants of genuine natural-origin woodlands have survived through protection from grazing, exploitation and fire in deep gullies, gorges and ravines, and also around crags. Often the woodlands in these gullies can extend to a high elevation, presumably near to the previous natural tree line. In many upland landscapes, for example in the Border hills, the Trossachs, and in other parts of the Highlands, these are almost the only surviving locations for native woodlands containing oak, elm, ash and hazel in natural situations. Rare tree and shrub species like rock whitebeam and aspen also tend to survive mainly in these refugia.

These gully refugia are important since wood pastures often survive on the easier terrain between these wooded gullies. This is very much the case for example around Lochs Katrine and Arklet. Observation of the location of remnant woodlands in gullies and comparison with old maps shows that they are survivors from a more heavily wooded past.

My conclusion is that many upland wood pastures have a similar origin to the gully refugia woodlands. Wood pastures are sited on more open terrain, and instead of being restricted narrow areas of otherwise normal woodland, as one finds in gullies, a modified very open woodland is developed in response to a long history of grazing. Wood pasture is composed of a few grazing resistant tree species together with some browse resistant thorny shrubs. Modification of those trees by pollarding or high-cut coppicing makes them extraordinarily stable and long lived, protected against windthrow by their low stature. Since their pollard-like shoots are above stock browsing height, they are resistant to damage by livestock and deer. The alder/ash/hazel type of wood pasture also occupies a site type which is not prone to damage by fire.

Old map research and documentary evidence tend to reinforce the hypothesis that the unenclosed woodlands have not felt the influence of herbivores. Many upland wood pastures also survive on sites which were the hunting forests of the royalty and nobility in medieval times, for example Glenfinlagas Forest and South Loch Katrine (Menteith Forest).

It is unfortunate that wood pastures are often omitted from OS maps since they are below the canopy density convention for woodlands, and as a consequence are missing from ancient woodland inventories. The Native Woodland Survey of Scotland (NWSS) currently being undertaken by Forestry Commission Scotland does not cover woodlands below 20% canopy cover, or those with mapped polygon areas below 0.5ha. Neither does that survey recognise ancient wood pasture as a distinctive woodland type. SNH maintain an inventory of wood pastures in Scotland which meet the HAP description, including upland examples, but it is partial and not based on comprehensive survey. Rackham reports that there are similar problems with the inventory of low density wood pastures in many parts of the world. (Rackham, 1998) This can lead to the resource being under-recorded and officially un-noticed, which is probably true of British upland wood pastures until relatively recently, when upland wood pastures were added to the lowland wood pasture habitat in the official biodiversity process.

Upland wood pasture – is it a sustainable habitat?
There is an implication in the Habitat Action Plan definition and in published guidance on wood pastures that these sites have been managed sustainably for a very long period by careful husbandry. However the history of many upland sites show that this is often far from the case. Woodlands have declined and turned into wood pastures over long periods of heavy grazing or fire. Sometimes the reverse can happen, in this case rather more quickly, and wood pastures have regenerated to dense woodland when livestock have been removed.
Wood pastures can be lost completely, even sites which were shown as well wooded on eighteenth and nineteenth century maps. For example, Brian Choille, Glenloy, Lochaber, is shown as semi-natural woodland of normal density on the 1st Edition Ordnance Survey map in 1860, but that previously wooded area is now an open wood pasture. The adjacent wood pasture of the 1860s to its east has now only a tiny scatter of veteran trees and is all but lost.

Because of that vulnerability wood pastures in the uplands must be seen as an inherently unsustainable land use. To survive they must have periodic episodes of regeneration, including regeneration of principal species such as oak, ash, hazel and alder, but because of generally high deer levels on the hills in Scotland this is rarely achieved. The less common species like aspen, bird cherry, juniper, gean etc should also regenerate periodically, but most managers are resigned...
to not even expecting such a luxury, or they resort to planting. Fortunately bird-sown species especially rowan and holly, as well as the easily seeding birch, usually do regenerate after grazing levels are reduced.

Foresters normally see upland wood pastures as degraded native woodlands. Certainly no-one has queried this approach to open native pinewoods where for many decades the emphasis has been to enclose and regenerate those pine wood pastures. So who can blame foresters for seeing the broadleaved equivalents in a similar way? The normal response by both foresters and conservation managers has been to roughly enclose the wood pasture and exclude all livestock and deer, and sometimes this does indeed result in a period of regeneration (albeit artificially within the confines of the fence), though in many cases rank vegetation growth does not allow that to happen.

Fortunately more land managers are now experimenting with low level and seasonal grazing by livestock, backed up by deer control or exclusion. There are indications that this kind of management may be very successful in maintaining upland native woodlands of a wide range of types, including previous wood pastures.

My view is that most upland wood pastures should be protected and regenerated with as much vigour as any other ancient native woodland. However there have been good legal reasons why tenant farmers, now and in the past, have not wanted to allow wood pastures to turn into woodland, as it can often mean permanent loss of those grazings from their tenancy. This points the way to a need to promote a form of sustainable grazing management for wood pastures on farms and estates today.

**Wood pasture dynamics**

A model habitat structure for upland wood pastures would be one in which regeneration takes place more or less continuously, perhaps among thorny shrubs or in small patches of regeneration. This would result in a mix of veteran individuals and a succession of groups covering a range of ages through an unenclosed landscape. Yet this ideal and sustaining structure is unusual to find in the uplands today. The reality is that most ancient wood pastures are overgrazed and composed more or less only of veteran oak, or ash, alder, birch or pine, all species which can show extraordinary longevity in open wood pasture situations, especially if pollarded in the past. The characteristic species of the better soils, reflected in the ancient oak or ash pollards, are generally not regenerating.

An ironic aspect of wood pastures is that when they are enclosed and do start to regenerate, the characteristic structure of the wood pasture, and even the veteran trees and their micro-habitats, can very quickly change. Thus alder, ash, and single stemmed hazels despite having maintained a pollard-like tree-form over the last century or more, typically and quickly send up masses of basal shoots. In the case of hazel at least this new growth is likely to cause the ancient single stem to be deprived of nutrients and it will then decay and die.

These are not just changes of structure but also of ambience, admittedly a very subjective quality. The open character of wood pastures is quickly lost, bracken and brambles multiply, and the feeling at least initially, can be one of loss rather than renewal.

There is a lack of understanding of what upland wood pastures are, how they arose, and what their future should be. I see them as characterful but temporary woody habitats, the accidental product of a history of 200 years of intense sheep grazing. There is little evidence during the last two centuries of a deliberate and planned management system for the benefit of the trees. There may have been more careful husbandry before that, but we know little of the detail. The large numbers of alders of low pollard form have clearly been cut in the past but in a way and for reasons we do not yet fully understand. It is amazing that these historic trees have survived to the twenty-first century, but clearly they are of limited number and will not last for ever. There is a strong incentive to study and yes to celebrate them today, for they cannot be replicated in the future.
So the bulk of the habitat that we today call upland wood pasture is a form of biocultural heritage, which has never been the same structure before, nor can it realistically survive long into the future in this structure and with the same features. This heritage is unique in time and place. The main threats to its future are the lack of recording and so lack of status, combined with gradual natural loss and little replacement. The main management technique now, as before, would be a low intensity and seasonal livestock grazing regime with reduced deer numbers which allowed some young trees to establish in perpetuity. Planting of replacement trees is both expensive and artificial. It may be a delusion that upland wood pasture can be a sustainable habitat under modern land-use conditions.

Loss of tradition

If it is agreed that today's wood pastures are indeed unique in time, then we cannot expect them to continue with the same structure and features indefinitely into the future. There has indeed been a complete break with traditional land uses in wood pastures, yet the effects of the loss of traditional management on the habitat itself have been long drawn out, for several reasons. One is that the traditional land use changed during the nineteenth century to other types of upland grazing regimes, either of large hill sheep flocks or of red deer herds maintained for sporting, and very often both simultaneously. So the effect on the previous traditional pasture woodlands was slow and almost imperceptible. This is in stark contrast to the effects of these land use changes on the human population and their traditional culture, which for most of the Highlands was also a Gaelic culture. The human effects were often sudden, dramatic and far reaching. Absolutely ‘the end of tradition’!

Yet few things are absolute, and there are signs that some of the old ways persisted in the work and life of the new type of shepherd who, after the clearances, husbanded large areas of the Highlands, and who replaced the numerous subsistence farmers of the small townships. Many of those old townships were abandoned, and now form the raw material for a popular form of archaeology: investigating and recording the township ruins and investigating their past (RCAHMS, 2010). The idea that traditional ways of working trees by farmers persisted into the nineteenth century is under active investigation. By using scientific tree ageing techniques we hope to find out until what date pollarding and coppicing was last carried out in various sites. Was it contemporary with the last of the pre-improvement farms and did it continue after abandonment of the old townships?

One such investigation (Mills, Quelch and Stewart, 2009) has demonstrated a 10-12 year pollarding cycle during the eighteenth century in an old ash pollard which survives today. Dendrochronology shows the last pollarding event for that tree to be in 1790, at about the same time that Murlagan farm on South-East Loch Katrine was abandoned. The farm tack for Murlagan appears in Montrose estate rentals up to 1779. It is hoped to carry out further combined history, tree form and dendrochronology studies.

Future of upland wood pastures

An important debate surely concerns the future of upland wood pastures. There needs to be far more informed discussion about the future management of these areas between landowners, farmers, deer sporting interests, conservationists, and of course landscape historians. Upland wood pastures are not simply a habitat, nor simply a cultural landscape worth preserving, nor can they be adequately described as biocultural heritage, even though they are indeed all these things. Wood pastures together with adjacent semi-natural woodlands occupy large areas of private land, as well as large areas in public or conservation body ownership.

It is essential to find new ways to manage these lands, and every reason to respect traditional management in doing so. We have an opportunity now to be more imaginative and to develop sustainable management techniques to reflect twenty-first century needs.
It would be good to see upland wood pastures (and many other native woodlands too) maintained sustainably by seasonal cattle and sheep regimes, producing saleable products, and covering their maintenance costs as far as feasible. This is in contrast to the way strict nature reserves are managed with costs being covered by the public purse, which is only sustainable in times of surplus.

Settlement archaeology combined with documentary history show that far more people once lived on these lands. Traditional ways of life have been lost, yet not well recorded. We have little knowledge of how these wood pastures were used in the past. Why for example were the alders cut in the way they have been, or whether leaf foliage was used to feed livestock as in Norway and Cumbria, and if so which species of tree leaf and for what benefits, and so on. What was the role of goat husbandry in forming these habitats?

Landscape history studies need to help demonstrate potential new ways of life in the hills based on the best of historic traditional techniques. Pre-improvement farming traditions like the transhumance to high altitude summer shielings have long since disappeared. Yet woodland archaeologists are observing ancient trees which survive on the hill and are linked in some way to those old ways of life. The old trees have a story to tell and a history which has yet to be fully unravelled. So while tradition is dead, long live tradition!

References


and coming soon …
London’s Commons, Heaths and Greens
by David Lambert and Sally Williams
www.english-heritage.org.uk/professional/advice/advice-by-topic/landscape-and-areas/
contact: jenifer.white@english-heritage.org.uk
This volume of papers was published as part of a major event ‘The End of Tradition’? conference organised by Professor Ian D. Rotherham and colleagues held in September 2010 at Sheffield Hallam University. A companion volume Vol 8 (1) ‘History of Commons and Commons Management’ was also published; this includes papers by other speakers at the conference, including Professors David Hey, Melvyn Jones, Chris Smout and Ian Whyte.

The threats from global cultural change and abandonment of traditional landscape management increased in the last half of the twentieth century and ten years into the twenty-first century show no signs of slowing down. Their impacts on global biodiversity and on people disconnected from their traditional landscapes pose real and serious economic and social problems which need to be addressed now. The conference addressed the fundamental issues of whether we can conserve the biodiversity of wonderful and iconic landscapes and reconnect people to their natural environment. And, if we can, how can we do so and make them relevant for the twenty-first century.