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WITHOUT WASTE OR DESTRUCTION:
The aesthetics of coppicing

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Abstract

The subject of this paper is the traditional woodland management practice of coppicing. I aim to show that this practice has aesthetic as well as, its more frequently extolled, ecological benefits. I also aim to use the example of coppicing to make a case for managing nature despite the intellectual climate of environmental philosophy that is dominated by a non-interventionist approach to nature.

Key words: woodland management, wilderness, aesthetics

I would like to begin with a quotation from a survey written in 1356

> A certain Wood called Heylewode which contains 80 acres by estimate. Of the underwood of which there can be sold every year, without causing waste or destruction, 11 acres of underwood which are worth 55s at 5s an acre ...[1]

It would require painstaking historical research and a leap of imagination to understand exactly what the anonymous chronicler of the Bishop of Ely's estates meant by "without causing waste or destruction". My aim is not to unravel that, but to examine the sense of disquiet we may have about the claim that 11 acres of underwood can be removed and that no waste or destruction is involved.

There are three sections to this paper:

First I will outline of the practice of coppicing including the possible environmental benefits. Then I will suggest that criticisms of managed woodland on the grounds that

nature is being interfered with are particularly misguided in the English context. Thirdly I will examine what constitutes the beauty of individual coppiced trees and coppice woodland and whether any specific knowledge is required before these forms can be experienced as beautiful.

The coppice system

The coppice system takes advantage of the regenerative properties of trees. It has been shown to have been carried out in England as early as 4000 BC[2] From the early middle ages until the late 19th century most woods in lowland England were coppice.[3] If trees are cut close to the ground several shoots will grow up from the trunk (stool), if these are cut close to the ground the stool will send up even more shoots. This natural response of the tree to intervention in its growth was used to produce long straight poles of wood which could be used for many purposes as well as easily gathered firewood. The number of years between harvesting the poles would depend on the species and the intended purpose, but would usually be at least 5 and no more than 20 years. The tree would remain productive for centuries and indeed there is evidence of lime *Tilia cordata* several thousand years old[4].

The virtue of coppicing was the fast production of useful sizes of wood (poles) for making trackways, buildings, fences, and tools and for providing firewood and harvests of leaves for animal feed. The species used were those naturally occurring such as oak *Quercus petraea,* lime *Tilia cordata*, hazel *Corylus avellana,* ash *Fraxinus excelsior,* maple *Acer campestre,* alder *Alnus glutinosa*, willow *Salix caprea* and, after its introduction by the Romans, chestnut *Castanea sativa*. Interspersed amongst the coppice stools would often be individual trees (standards) left to grow to their full height. The standards would be felled for timber, but so valuable was the underwood that until the late eighteenth century it usually exceeded the price of timber.

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[1]Public Records Office E143/9/2. Quoted in Rackham, O. (1986) *The History of the Countryside* p.62 (London: J.M. Dent, 1993).
[2]Rackham, O. *The History of the Countryside* p. 382. (London: Dent, 1986).
[3]Fuller, R and Warren, M.S. *Coppiced Woodlands: Their management for wildlife* p.7. (Peterboborough: Joint Nature Conservation Committee, 1993).

Traditionally an area of woodland would be divided into sections and cut in rotation. However, the system was very flexible allowing individual stools to be part harvested or left longer for specific building projects or other anticipated needs. The soil type and climate conditions of individual woods and changing techniques over time would mean that every wood was different and only where paper records are extant is it possible to see a particular regime exactly.[5]

The evidence from old stools and pollen records suggests that little planting was done. Layering and suckering would have occurred naturally and it appears that layering was the preferred technique for expanding production and filling in gaps. This was called plashing and easy to do with ash, alder, and willow. This technique of plashing emphasises the mutability of the different parts of the plant. Any leaf node finding itself buried in soil will proceed to produce roots in response to the new environment. This is a natural process and if the person managing the wood wants more stock they need only bend a shoot over and fix it under a covering of soil.

Management regimes could be very basic or could involve allowing domestic animals to graze under the mature coppice areas and pigs to forage for acorns or beech mast. It was important to keep stock out of areas in the first few years of new growth as this would be grazed.

The most common way of preventing animals grazing the new shoots of coppiced woods was to dig a trench and deposit the earth on the woodland side of the trench to make a bank. This would prevent domestic animals and deer from entering the woodland area. Evidence of huge earth workings around ancient woodlands show how crucial this aspect of management was. Today evidence of the eroded banks remain: as semi-filled ditches around woodlands and as serpentine lines of smoothed humps and dips in open fields.

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[4]Mabey, R. *Flora Brittanica* p.118 (London: Sinclair-Stevenson, 1996).

[5])Peterkin, G. *Woodland Conservation and Management* 2nd ed. (London: Chapman and Hall, 1993).

The management practices of the past have shaped the type of woodland that exists today, particularly the distribution of plants. Although these practices seem much less intrusive than, e.g., plantations of single species trees and clear cutting, they did leave a legacy. This can be seen easily with the wood banks, but coppicing also has an impact on the micro-climate of each area of woodland. The changing patterns of light density in a traditionally managed coppice meant that a wide variety of plants could grow there. The amount of light can change from 5%, prior to cutting, to almost 100% just after cutting.[6] This means that the shade liking plants usually flower well in the next year and then die back (perennials to a vegetative state) until the shade starts to return as the coppice shoots grow. The sun liking plants sprout from dormant seeds and flower well for two or three years. The dense shade of the last 2 or 3 years of each cycle prevents invasive grasses and shrubs from taking over.[7]

Although there is very little traditionally managed woodland now woodland with a long history of coppicing tends to have very rich flora and fauna and is, in some cases, the only place in England where some species survive. This management system is generally recognised as increasing the biodiversity of both flora and fauna.[8]

Although we do not know exactly what the poles from Heylewode would have been used for, we can guess that all of it would have been used for something, from the largest poles for building to the dried twigs for kindling. The management of woodlands was such that all its products would be integrated into, not just a rural economy, but the infrastructure of people's lives.

The waste and destruction of the opening quotation, I would suggest, are two separate things here and not simply an intensified version of the same thing. The "waste" of the 14th century chronicler may have referred to not allowing a resource to go to waste and

[6] Peterken *Ibid* p.52
[7] Lane and Tait *Op.Cit* p.77
[8] Some commentators have claimed that a mixture of high forest and wide rides and glades would introduce more biodiversity. See Clarke, R. 'Heritage in Trust: Sustainable stewardship in transition' *International Journal of Heritage Studies Vol 2 No. 3 Autumn 1996* pp. 145- 159.

the "destruction" would imply not managing the resource in a way that we now would call sustainable. "Without waste and destruction" in this context could be seen as a moral imperative to use and properly manage the woodland as a resource.

This emphasis on the use value of coppice could also be used as a means of defending and promoting or reinvigorating the practice. However, many of the traditional uses no longer exist and the development of coppicing that is seen as having use value today is short rotation coppice to produce fuel for power stations. It is interesting to note that short rotation coppice: which is a single species, cut every four years, not interspersed with standards and where undergrowth is kept down with weed killers, is not seen as having much aesthetic value.[9]

Moreover, any emphasis on usefulness would seem to work against the idea that there is aesthetic value in a practice on some interpretations of what can be aesthetic. However, the integration of humans and plants in the coppicing relationship could be seen as having an intense elegance. The person working an area of woodland in this way develops an intimate knowledge of their wood and of the regenerative properties of trees. Although it can still be seen as pragmatic resource management, their relationship with the wood entails promoting the wellbeing of the coppice. I am not sure that it could be seen as a synergy as the trees, it could be claimed, had their own goals[10] which are thwarted by the practice. But it is interesting to note that coppice stools, correctly managed over many human generations, live much longer than uncoppiced trees of the same species.

Regeneration of traditional coppiced woods is not always possible, but where these practices have been successfully reintroduced there is claimed to be a subsequent increase in biodiversity. The coppice stools and pollarded trees still exist were woodland has survived. Although when left to grow they no longer positively assist the biodiversity of the ground vegetation they do produce the characterful shapes of the woodland trees indicative of English woodlands.

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[9] Sadler, R. 'Public Perceptions of Short Rotation Coppice' (Department of Trade and Industry Report 1993).
[10] Taylor, P. *Respect for Nature: a theory of environmental ethics* p.67. (Princetown: Princetown University Press, 1986)

It could be said that what we think of as natural woodland is in fact more often lapsed managed woodland and an affection for the woods of one's youth - especially those of us from Southern counties - is an affection for semi-derelict coppice and not pristine nature.

Putting aside the usefulness or otherwise of the coppice poles and the ecological benefits of biodiversity can a case be made for traditional coppice woodland on purely aesthetic grounds?

One potential obstacle is the contemporary preference for unmanaged nature.

Wilderness

One of the main sources of objection to managed nature comes from the idea of nature as being good and any kind of human intervention, other than preventing intervention, is wrong. The wrongness is often voiced in the language of moral pollution: defiled, degraded, soiled, impure. Thus nature becomes both fecund all absorbing mother goddess and delicate Victorian virgin.

Objections to managed nature often come from what I shall call the 'wilderness' discourse[11] This wilderness motif behind the public consciousness could be paraphrased in the following loose argument: woodland is part of nature, nature is good, human action is not part of nature, therefore, human action diminishes the naturalness of the woodland and makes it less good. On this basis coppicing, which is a highly invasive technique, is definitely detrimental to the woodland.

The problem with objections inspired from a wilderness discourse and applied here is that the British landscape really has no wilderness. Apart from the odd cleft in a crag or remote highland bog, there is no part of the land that has not already been shaped for some human purpose. When we move from attempts to preserve natural environments to attempts to recreate them something of the heart is taken out of the wilderness ideal.

[11] Following Martin Jay (1994) *Downcast Eyes* I am using the term discourse to denote "a corpus of more or less loosely interwoven arguments, metaphors, assertions, and predjudices that cohere more associatively than logically in any strict sense of the term. Discourse in this usage is explicitely derived from the Latin *discurrere*, which means a running around in all directions." p.16

Restoring ancient woodland in England seems to have closer cultural connections to the nineteenth century 'wild' garden or even the picturesque ruin than the climax forest of pre human habitation Britain. If pristine nature is the ideal then the wilderness discourse casts any attempts at preserving, conserving, restoring or re-creating a particular habitat or ecosystem as either totally misguided or a definite second best.

However, a critique of the wilderness idea can also be applied to its North American home. The wilderness admired is not free of a human history it was somebody's home and was changed, sometimes radically, by its earlier inhabitants. The failure to see that as human interference with nature is a failure to see its inhabitants as human. There seems to be a class basis to the perception of wilderness which has from Romanticism, through a myth of the pioneer, to the position where land that could be a livelihood becomes the cultural artefact 'Nature'. This point is well argued by Cronon. He takes the erasing of one history for another as proof positive that wilderness is a cultural construct. Moreover, it is a construct of those who are alienated from nature. He does not deny that there is a realm of the natural that is in some sense distinct from humans, but wilderness is a construct that specifically denies the connection between food and cultivation, between housing and timber. Cronon goes so far as to see potentially bad effects from the concept of pristine nature as promoted by an essentially urban people: it displaces environmental responsibility from the everyday places where we interact with the environment to a distant ideal.[12]

In the English context our relationship to the land is almost always mediated by use: the landscape is one of historical layers of human/land interactions. To reject that history as entirely deficient in care for the environment is to place ourselves outside of nature - as unworthy to act in the realm of nature. However, in our intuitive appreciation of the English landscape, an attitude that could be seen as naïve from the perspective of the wilderness discourse, we are appreciating the interplay of humans and nature as part of the beauty. Whether it be the beauty of the hedgerows, patchwork of fields, hillsides with lichen rich dry stone walls or well chosen and tended trees in city streets. In the coppiced woodland we have an archetypal example of just the kind of beauty that can be

born of human action and understanding working with the forces of nature.

Where is the beauty?

I want to identify particular characteristics of coppice woodland that could be articulated as things of beauty. The characteristically rich bird song and occasional sightings of animals add to the beauty offered by the plants, but it is to the plants that I want to turn.

The variety of species is an often cited feature, both variety of trees and the flora which the changing light density allows to flourish. Variety in the coppice woodland needs slightly more explanation because of the additional cyclical pattern of cutting back small areas. This means that as well as the seasonal cycle of winter, spring summer autumn and all the changes that these bring to deciduous woodland there is a 7,8,9, or up to a 20 year cycle of cutting and growth with the related changes in the ground flora and fauna. In a traditional woodland this would not be a case of, for example, the 3 year type patch moving round, but lots of interlocking cycles as the types of trees in the sections would vary according to soil types, water distribution and the proximity of the full grown standards. Moving through the changes of light intensity helps to focus one's attention on the exact quality of light around the different tree species.

The growth of new poles close to the ground means that the visitor to the woodland can experience in close proximity the leaves of tree species that in mature forms are far overhead. The particular beauty of unfurling leaves in spring can be experienced very close at hand. We can see their intricate forms and the subtle changes in colour as they mature.

The strong vertical gesture of the coppice poles can create an uplifting effect, particularly when seen in proximity to mature trees with serpentine forms such as the beech or gnarled twisted oak boughs, or when echoed by clumps of ferns. The juxtaposition of the rugged cracked base of the coppice stool and the smooth gleaming bark of the poles is also striking.

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[12] Cronon, William 'The Trouble With Wilderness; or, Getting Back to the Wrong Nature' in Cronon *Uncommon Ground* p.81.

Perhaps the most controversial form in the coppice woodland is the newly cut stool, which to the uninformed eye appears to be the stump of a tree cut down and destroyed. If we are seeking to find beauty in this type of woodland we could just ignore that phase and say it is necessary but unpleasant and choose to walk elsewhere. However, understanding of the processes involved in this form of regeneration can, for the careful observer, transform the newly cut stage into a thing of beauty. The internal growth patterns of rings are revealed and bring a new pale colour to the woodland floor. Around the edge are the growth points where in a surprisingly short time new shoots will appear and the low compact form will be transformed. The dense compact stage, with the growth seemingly held back for a moment, when seen as part of the process, can be experienced as the most intense expression of the regenerative possibilities of these deciduous trees and the source of the more accessible beauty to follow.

The intense expression of regeneration amongst coppice, under the stately spread of occasional standard trees and the burgeoning variety of flora allows one an insight into the nature of woodland. Each of the plants can be seen as arising out of thickening of vegetative space and each forming the cradle of each other's becoming.

The knowledge required, for this transformation of appreciation to take place, is not necessarily scientific knowledge in the frameworks of either biology or ecology. It can be assisted by the craft knowledge of woodland management, but can spring from attentive observation with no external epistemological basis beyond the trees themselves.

The beauty of coppiced woodland usually features as an afterthought to claims of its ecological benefits, heritage value or potential usefulness. In this paper I have made a start in elucidating the specific qualities of beauty that the coppice woodland can express. To fully experience this beauty we need to reject claims that managing nature is always misguided and endorse the wisdom of some woodland management practices. Perhaps this could be extended to the bold claim that, in some places, coppiced woodland could be maintained, reclaimed or even begun simply because it is a thing of beauty.

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