Comment: The new ‘Locust Years’ of ancient-woodland destruction

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Ancient woodland at Moss Valley Woodlands, Derbyshire. Ian D. Rotherham

Ancient woodlands cover a diverse range of habitats, which at a landscape scale include former medieval forests, ancient parks, various wooded commons and, of course, ‘woods’. The last of these were mostly enclosed from wood-pasture commons in the early medieval period. They were protected by banks, ditches, fences, stone walls and hedgerows to exclude grazing animals and allow the woods to be managed as simple coppice (with trees cut to the base to allow regrowth of multiple stems or ‘springwood’) or else coppice-with-standards (coppice interspersed with single-stemmed timber trees). The land managed thus produced timber and underwood for fuel or charcoal more or less sustainably and sometimes continually for a thousand years. The process of woodmanship over centuries involved groups of rural craftspeople and their families often living in the woods, passing skills down through generations and oral traditions. Such people had a deep connection to their place in the working countryside and were at the heart of the rural economy.

Woodmanship and traditional woodland management, however, largely ended in the period 1850–1950, to be replaced by the continental style of high forestry whereby the woods were replanted with (mostly exotic) timber trees. This style of modern forestry received huge impetus after the First World War owing to the establishment in 1919 of the Forestry Commission as a governmental department with an almost unlimited budget to ‘improve’ British timber production. This process was again boosted following the Second World War by investment in increasingly mechanised methods using large machines, allowing deep trenching and draining, and massive encroachment into the supposed wastelands of moors, heaths, commons, bogs and woods. The late Oliver Rackham described the impacts of the Forestry Commission and the grant-aided forestry industry on British ancient woodlands during this period as ‘the Locust Years’, with unrivalled destruction of irreplaceable historic landscapes – all paid for by public funding.
I have personal experience of the latter stages of what Rackham described, as well as through friends and colleagues who were foresters at that time. In the 1960s, they knew that they were (for example) ploughing out ancient hillforts or medieval woodland features but, given the lack of protection for either heritage or wildlife, they simply followed instructions. There was little awareness or recognition of the special qualities of ancient woodlands until Rackham’s seminal books (Rackham 1976, 1980, 1986), along with works by other authors (e.g. Pigott 1993). These demonstrated how ancient woods preserve archaeology and evidence of the intimate relationships between management history and vegetation. Rackham and others, such as Melvyn Jones (e.g. Jones 2009), revealed the amazing history and heritage retained in the humps and bumps of earthworks and worked trees, reflecting human presence in these semi-natural (or, perhaps better, eco-cultural) landscapes over centuries. Awareness grew until, in the 1980s and 1990s, the destruction became so obviously damaging that it began to be phased out.

At the time it was assumed, in the relatively new discipline of professional conservation, that the destruction of Britain’s ancient woods had ended, and issues such as biodiversity loss and climate change took precedence. Now, however, we have, I believe, entered a new era of Locust Years – a plague revisited – that is driving destruction of ancient woods, often in the name of conservation and disease control.

Ancient woods

While ancient woods are very old, they are not remnants of the mythical ‘wildwood’. Enclosed from wooded commons or other wood-pastures around a thousand years ago (Rotherham 2017), these cultural landscapes were important in the medieval and early industrial countryside. The ecology and heritage of ancient woodlands reflect their unique timelines and remarkable longevity. Woods often retain features from early industry, from medieval times, from the Dark Ages, from Romano-British, Iron Age or Bronze Age times, and even earlier. The evidence may be in the form of earth-fast boulders and stones, clearance cairns (where rocks were removed prehistorically in order to allow cultivation) and barrows of stone (constructed for ancient burials), boundaries, banks and ditches, pits and platforms, and sites of buildings. In Ecclesall Woods in Sheffield, for example, we can see the traces of earlier industrial workers with charcoal hearths, smelting sites, so-called Q-pits and much more, too: the bank and ditch of a medieval deer park, abandoned coppice trees and a hilltop Bronze Age enclosure overlain by a Romano-British field system are all apparent in this single small urban woodland site.

Along with the earthworks and archaeological features are formerly worked trees such as pollards, coppices and stubs, along with ancient clones of trees such as Small-leaved Lime *Tilia cordata* (some being 2,000+ years old) and Holly *Ilex aquifolium* (up to 1,000 years old). Formerly coppiced oaks *Quercus* can be 500–800 years old. Linked to these long timelines, continuity and soil conditions, the woodland ecology, especially the vegetation, is another unique part of its heritage.

Such qualities, though, are extremely vulnerable to the impacts of modern management.
Worse still, they remain largely unrecognised by most practitioners and, beyond the Woodland Heritage Manual (Rotherham et al. 2008), there is little guidance available on preserving them. Woodland and forestry sustainability ‘badges’ mostly omit this heritage, and this is the root cause of our current problems.

The original Locust Years: beginning and end

Rackham (2006) labelled the period 1950–1975 as ‘the years that the locust hath eaten’, as it was demanded that every acre of Britain’s land should be useful and productive. As a result, many woods were felled, poisoned and replaced by plantations, mostly of fast-growing conifers, while others were grubbed out to make way for farmland, housing, roads and other infrastructure. Like in ancient Israel, the Locust Years did not last forever, but by the end of that period ecologists would note that around 40% of the ancient woodland area had been written off. The longer-term prognosis for woodland vegetation was more positive, the ecology of replanted woods proving resilient to change and able to recover if exotic conifers were removed. Forestry plantations reaching saleable size died on felling, but the economics of replanting were questionable and, as maintenance failed, attributed to the destruction of planted saplings by rabbits, squirrels and deer, native trees returned. Many smaller- and medium-sized woods also escaped the ravages of Locust Years foresters.

Despite the ecological resilience of woodlands themselves, however, it was clear that their heritage was fragile. Rackham stated that forestry activities should be guided by management-plan maps, essentially marking ‘no-go’ areas identified from archaeological surveys. These were woodland zones that were out of bounds to operations in order to avoid damage. Furthermore, impacts might be mitigated by steps such as not using machinery in woodland during wet weather, and infilling ditches with logs in order to provide safe exit routes. Damage certainly was reduced after the 1970s, although much of this was due to the decline in commercial forestry following exposés of tax breaks supporting environmental damage to ecological sites (Rackham 2006). This was particularly the case on peat bogs in Scotland. With reduced incentives for commercial forestry and greater protection for ecological interest, adverse effects on ancient woods generally declined in frequency and scale through the 1980s and 1990s.

The New Locust Years and lessons from the past

This period of calm, however, has lasted only a few decades – a lull in a storm that was simply a presage of more to come. Despite the transformation of attitudes towards ancient woods in the 1980s and 1990s, there is presently almost no awareness of their vulnerability to a new period of intensive management. In part, the current impacts are driven by a misconceived desire to ‘manage’ and to work the woods rather than to conserve wildlife, heritage and public-amenity resources. As one public-sector archaeologist told me, ‘even ancient woodlands have to pay for themselves’. An argument put forward to justify this is that these were ‘working woods’ and today we are simply ‘working’ them once more. Yet while it is true that these woods were indeed worked over many centuries, they had long-term continuity of traditional management by woodmen and their families, with heavy horses and oxen. Traditional management did change woodland soils and vegetation, but as part of a gradual process...
over many centuries, and it produced a palimpsest of evidence of different periods each overlain on those that went before. This is totally different from modern industrial management by a handful of itinerant workers using massive, often tracked, vehicles. Such machine access erases the soil surface, displaces earth-fast rocks and boulders, damages worked veteran trees and woodland ground flora, and imposes a new landscape in place of the old. The ground flora of ancient woods is itself a part of the historic landscape and indicates the management histories of individual woods. Deep disturbance to the ground conditions by forestry machines disrupts soils, releases nutrients, alters pH and may cause stormwater to flood downstream faster, this compounded by loss of topsoil to leave an exposed and impervious subsoil. Heavy machines trigger further long-term compaction in the soil horizons, as has been evidenced on farmland, exacerbating problems with floodwater runoff. The massive disturbance of woodland soils triggers carbon release and pollution of downstream watercourses through associated eutrophication and turbidity. Today’s heavy-handed industrial working of ancient woods obliterates the past rather than adding to it. This feels equivalent to taking medieval illuminated manuscripts, richly embellished with marks, words and images added over centuries, and erasing and replacing them with cheap, mass-produced paperback novels.

Conservation grant aid encourages interventions on site (e.g. tree-felling, replanting, fencing and creation of access routes) and largely fails to support necessary surveys, management planning and mitigation of adverse impacts. Moreover, although the Woodland Heritage Manual (Rotherham et al. 2008) provides support for surveyors, there is almost no meaningful guidance on how to avoid irreparable damage while working in woodland. Archaeology is often unrecorded and is rarely noted in local planning-authority Historic Environment Records, which are the primary consultation point for planning and for forestry proposals. Worse still, even when it is known, the heritage resource is rarely offered any protection.

Another dramatic shift in recent years has arisen from the response to tree diseases, the spread of which is most probably encouraged by environmental stresses (nitrogen deposition and climate change) and by global trade. Monoculture forestry plantings during the 20th century have likely exacerbated these factors, making woodlands more vulnerable to such threats. Now, highly disruptive interventions aimed at controlling diseases and pests probably leave remaining trees more susceptible and may well disperse propagules more widely to new sites. Discussions with experienced foresters suggest that there is little evidence that current interventions will either control spread or eradicate infections. Furthermore, pre-emptive extraction of trees from woodland deemed to be infected or at risk also takes out those individuals that may have resistance to infection or which have the potential to recover, thus losing these adaptations from the gene-pool. A major incentive to remove trees at risk (rather than those that are infected) comes from the fact that timber extraction is used to generate income to pay for disease-removal work. Even on amenity and conservation woodland sites (i.e. non-commercial woods), it is clear that timber is extracted for profit or at least to pay the costs of enforced

Impressive displays of woodland wildflowers are the product of low-impact management over long time periods. Ian D. Rotherham
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Felling. Orders are given from Defra to the Forestry Commission, which passes these to landowners, who must implement the work but often receive no grant aid in order to carry this out. It seems that, in many cases, only a few trees have confirmed disease but many more remain uninfected, and these, too, are felled and dragged out for sale. The details of numbers infected and totals removed are shrouded in mystery, as woods may be closed off to public access and the sites watched over by CCTV. This can cost a private landowner, a local authority or a conservation NGO, for instance, many tens of thousands of pounds; and there is no support, no requirement for a site assessment, no engagement with local-community stakeholders and no mitigation of impacts. Overall, the process here flies in the face of established good practice in management-planning (survey, assessment, consultation, review), and public information or involvement is often minimal (Rotherham 2015).

The bulk of the damage done during the above-mentioned works is caused by two procedures. The first is tree-felling by large, tracked vehicles, while the second is the physical extraction of timber from site. The latter is necessary only in order to fund the mandated disease-control operations, and if grant aid was on offer this would not happen. Moreover, prior survey with mitigation plans and safe entry and extraction routes in the woods would also reduce potential damage. Felling by and with chainsaws (i.e. manually) and snigging (extraction with heavy horses) can also achieve the desired objectives of management or disease control without the adverse impacts. The vehicle-led approach is economically more cost-effective, but only because the associated damage is unquantified and unvalued. Leaving felled timber on site reduces disruption to woodland vegetation and allows soils to retain not just carbon but also, during storms, water.

From this position, it follows that the irreversible damage being inflicted on ancient woodlands is due primarily not to disease control or the perceived need for conservation management (such as removal of planted conifers), but simply to the fact that we are not prepared to pay to do the work properly. Forestry professionals are perfectly capable of undertaking tree-felling for disease control with minimal effect on woodland heritage and ecology. As a community we have not chosen this route. Instructed by Defra, the Forestry Commission simply proceeds instead with interventions that are damaging, while at the same time we fail to offer guidance to planners and operators to minimise the adverse impacts.

Corporate blindness

In light of the above issues, it seems surprising to me that the conservation sector, relevant government agencies and departments, and the wider media appear blind to what is happening. The idea that such heavy-handed treatment is necessary and unavoidable is simply accepted with barely a murmur. Woodland management undertaken for conservation and access reasons (health and safety) continues without heritage assessment, often without bat-roost surveys (even when hollow trees are being removed) and during the bird breeding season. Ancient woods taken over as nature reserves often suffer from a predilection for health-and-safety management more appropriate to a public park than to a woodland. In some cases, there is even a demand to develop

Vehicle tracks through an archaeological site in Whitwell Wood.
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recreational routes, such as BMX cycle tracks, using earth-moving equipment. Such approaches and actions cause significant damage to vegetation, to archaeology and to veteran trees.

To give just one example, a conservation body working in a wood near me, in north Derbyshire, demolished the historic boundary of an ancient-woodland nature reserve and created a large parking area so that lorries, used to remove timber, could turn around. The spoil from the car park was then spread over a medieval trackway and a historic metal-smelting site, neither of which was effectively surveyed or assessed. Another site 30 miles away has recently had a thousand-year-old park bank totally flattened by grant-aided timber extraction (Andy Gaunt, pers. comm.).

The first efforts by myself and colleagues to raise concerns and find shared resolution were in around 2008 (e.g., publications such as Rotherham et al. 2008, and site meetings with stakeholders). Since then I have had numerous meetings with Forestry Commission staff, with landowners’ agents, with policymakers and with woodland-management stakeholders, with almost no positive response to the concerns raised. At one site managed by the Forestry Commission on a long-term lease, the considerable damage to major archaeological features has continued year-on-year. This unique resource continues to be eroded, and what remains is muddied and masked by wheel ruts and imposed tracks from timber extraction.

Part of the problem is that most management is delivered by foresters or arboriculturists (two very different professions), while most conservation is driven by those with ecological interests but sometimes with limited experience of practical site management. In addition, woods have frequently been neglected by historians and archaeologists, and dialogue between all these disciplines is often limited at best.

Perception of management impacts also varies significantly across the disciplines. Focusing solely on conservation, for instance, it may be observed that the wildlife and vegetation of a disturbed woodland will, to an extent, recover well once perturbation has ceased, while the unrecoverable harm to heritage may not be registered. Thus, heritage timelines that may run over 3,000 years or more can be removed entirely in just a few hours, and nobody mourns their loss.
Current forest-quality standards and sustainability badges (such as UK Woodland Assurance Standard, 2018; the UK Forestry Standard, 2017; and the Programme for the Endorsement of Forest Certification) do not effectively address these issues. Local-authority archaeological services tend to focus on recorded ‘monuments’ (which experience suggests make up just a tiny fraction of the whole) within woods, rather than the heritage of the woods themselves; charcoal hearths, pits and platforms, wood banks, trackways, ancient coppice stools, stubbed veteran trees, lapsed pollards and the rest are mostly ignored. These issues are not limited to the UK, either. A Europe-wide initiative to ‘restore’ coppice woods (COST Action FP1301 EuroCoppice) advocated the use of heavy haulage machinery on steep woodland slopes often covered in medieval and early industrial archaeology. This was touted by the EuroCoppice Working Group at a conference in Freiburg (IUFRO 125th Anniversary Congress) in 2017 as ‘sustainable’.

The future

Basic guidelines on how to minimise adverse impacts when carrying out works on woodland sites have been produced (e.g. Rotherham et al. 2008; Rotherham 2021). A key point to establish is that use of heavy wheeled or tracked vehicles is incompatible with keeping their ‘ancient woodland’ status. If such usage cannot be avoided, a site should be denotified and recategorised as an ‘industrial managed wood’ and not a ‘traditionally managed ancient wood’. This would at least foster a little more transparency and allow wider stakeholders and the public to understand what is happening. This does not mean that no timber extraction can take place in ancient woodlands, but low-impact vehicles (e.g. Argocats with balloon tyres) would be essential. This change should be relatively easy to bring about, since most Forestry Commission projects and local-authority works are now put out to tender. Contractors would need to stock up on appropriate machinery, and stakeholders might see a reduction in profit margins, but sites would remain intact and their ancient-woodland status and long-term value would be unimpaired.

Other changes would be fairly simple to implement as part of conservation works, such as the need to have a management plan underpinned by up-to-date information and agreed with stakeholders and experts. This should trigger guidance for site operations and be subject to regular, ongoing review. Importantly, surveys and plans should result in carefully expedited safe access routes into and out of a given site, and necessary protection for vulnerable features. Of course, operatives also require straightforward guidance notes for site working, and preferably additional briefing on site.

Finally, there is a more deep-seated problem with professional practice, which goes back to educational and training bodies such as universities, colleges and institutes. We tend to learn, be trained and then work in silos separate from other disciplines. Yet in order to manage a wood sustainably, we need a coming-together of ecologists, archaeologists, landscape historians, foresters and arboriculturists. These are the core disciplines required in order to understand fully the nature of an ancient wood.

Surely, we should seek to tread gently in our ancient woodlands as we walk alongside ghosts and shadows, in the footsteps of the woodmen and their families who worked these places over countless centuries. Only then can we hope to manage them sustainably.

References


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