



Crossing Borders: International Collaboration and Cooperation in Research

The Reformation of National and International Policy on Ancient Tree Conservation

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Abstract: Following Brexit, the UK has an opportunity to reform its environmental policies. Previously, the UK was locked into EU legislative frameworks, and while many principles of these regulatory structures remain, such as the notion of Special Areas of Conservation (SACs), the models for environmental assets and services are undergoing significant change.

Specifically, the climate crisis necessitates the adoption of novel approaches to valuing natural resources. Through fieldwork at an SAC in England, I will examine some of the implications of these policy shifts on ancient tree conservation, and how tree valuation is changing as a result.

This scholarship primarily aims to trace the evolving landscape of national and international policies concerning ancient tree conservation in the UK. It assesses the grounded outcomes of policy reforms, and provides nuanced insights into their implementation, shedding light on broader implications for ancient trees across social, political, and scientific domains.

In order to contribute to a deeper understanding of sustainable conservation practices, this work builds on existing discourses and attempts to address whether or not new environmental policies and models foster or detract from collaboration between human and non-human worlds.

Keywords: Natural Capital, EIA, SACs, SSSI, Landscape Approach



1 Introduction

“The Reformer is always right about what's wrong. However, he's often wrong about what is right” (popularly attributed to G.K. Chesterton).

As the UK transitioned out of the EU, significant concerns about changes to British environmental policies emerged. At the same time, Brexit has also presented a unique chance for a policy overhaul that could bring the UK closer to environmental reconciliation. Looking at this opportunity, and its potential pitfalls, through the lens of ancient trees is the main focus of my research into this discourse.

In recent years, much anthropological work has been done on the relationship between humans and non-humans, with a particular enthusiasm for ethnographically communicating the entangled lives of those non-humans symbiotically influenced by human lives (Kirksey and Helmreich, 2010; Marder, 2012; Kohn, 2013; Whitehouse, 2015; Tsing, 2017; Gibson, 2018; Ingold, 2018).

Trees provide one example of non-human entities that are almost constantly entangled with human lives. Trees, or more accurately, woodlands, function as sinks for emissions due to their capacity to absorb or offset harmful greenhouse gases. Consequently, with the recent rise in the politics of carbon, woodlands have become far more significant to policymakers and economic players. Like many other countries committed to achieving Net Zero under various climate change conventions, the UK is trying to transition towards a greener future.¹

What will real steps towards change look like? In 2017,² for instance, UK woodlands sequestered 18 million tonnes of carbon (Office for National Statistics

¹ Net Zero refers to the reducing carbon emissions so that the amount of emissions produced is balanced by the amount sequestered or removed from the atmosphere.

² A reference to woodland sequestration value is presented from 2017 as ONS currently use the Natural Capital Accounting method, as opposed to ecosystem service. The Woodland's natural capital accounts for 2024 state “As a result of changing methods and an expanding portfolio of natural services measured, this latest account cannot be directly compared with previous years' accounts. Our latest methods have been applied retrospectively, giving a consistent time series in these accounts.” ONS (2024). *Woodland Natural Capital Accounts*. Available at:

<https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/woodlandnaturalcapitalaccountsuk/2024>



[ONS]). The ONS estimated that the value of sequestration at that time was worth £553 million, the highest value of any service provided by the woodlands. However, while such services are undoubtedly valuable in and of themselves, they do not easily explain, nor capture, the limits of resources.

For the same reasons, ancient trees have a precarious status. However, they not only tend to take on cultural and social value as forms of local heritage and landmarks, but they also have their own unique character that can play a significant role in defining a place. As Natural England and the Forestry Commission highlight, “Ancient woodland takes hundreds of years to establish and is defined as an irreplaceable habitat....An ancient tree is exceptionally valuable” (2022). The longer lives of ancient trees are harder to monitor, or evaluate economically. The science of ancient trees and their role in the ecosystem is also contentious. While it is known that ancient trees provide vital habitats to often rare and biodiverse species, some theories go so far as to suggest that they help sustain the environment outside themselves (see *Finding the Mother Tree* by Suzanne Simard). All this makes their value difficult to measure, thereby making the task of approximating and articulating the sum of their services even more challenging.

For example, translating value from a field such as ecology, where those who work with trees often focus on their intrinsic value, to a political perspective, which frequently involves a homogenising approach, can require many different steps. One must consider where ancient trees fit into broader frameworks of policy and value in order for them to be afforded the protections they need. These interdisciplinary complications created a curious puzzle for this research.

2 The Context of the Research

Although the UK has a long history of conservation practices in its own right, the EU did provide a significant framework and legislative bedrock to all its member states. Critically, its policy, though enacted in each member state somewhat differently, substantially contributed to what were considered legislative norms. In the case of the UK, EU law was so thoroughly embedded in policy, that one of the great worries about leaving the EU was the advent of “Zombie legislation” (UK Parliament, 2017).



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This referred to a large body of EU legislation still operating effectively in the UK, but without the EU's administrative or legal power to enforce it. Such an outcome would have been disastrous for environmental protection legislation.

The recourse to mitigate such a 'Zombie legislation' apocalypse was twofold. Firstly, a temporary stay of EU policy was allowed, which gave the UK time to conceive its own body of UK policy and frameworks to plan for the UK's environmental future, otherwise known as the 25 Year Plan. Many hoped that this plan would provide guidance during uncertain times and offer an opportunity to revitalise environmental legislation overall. As the Environmental Audit Committee Chair, Mary Creagh MP, expressed, "Changes from Brexit could put our countryside, farming and wildlife at risk...The Government should safeguard protections for Britain's wildlife and special places in a new Environmental Protection Act" (UK Parliament, 2017).

When such potential paradigm shifts occur, what might be considered accepted practice can become subject to sudden re-evaluation. As an anthropologist, this repositioning presented a chance to observe transitions in societal beliefs, and the understanding and valuation of the landscape in real-time.

Although environmental legislation did pay keen attention to woodland habitats on the whole, specific recognition of trees as individual elements of a habitat, and their unique ecologies tended to be neglected in much EU policy. On the one hand, one can argue there is great enthusiasm for woodlands motivated by the Kyoto Protocol, the Paris Agreement, and other international conventions because they focus on reducing emissions, and woodlands are a medium for that purpose.

On the other hand, individual trees, and especially ancient trees, attracted more interest for their ecological benefits, such as creating habitats for biodiversity. Nonetheless, even though a single tree can be its own habitat, trees were more commonly considered in their larger context as woods.

Indeed, the matter of scale is critical in relation to certain policy dimensions. With a governing body as large as the European Union, adopting policies that overly focus on the individual dimensions of an ecosystem is unlikely to be practical.



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In addition to this spatial differential, temporality is a challenging condition of ancient trees as political objects. Ancient trees have many unique attributes. However, the precise age of an ancient tree belonging to one species may differ significantly from that of another species. That is, there is no average age between different species of ancient trees. For instance, a birch tree might be considered ancient at 150 years, whereas a yew tree must live 800 years for the same distinction to be applied (National Trust, 2024). In the field of ancient tree conservation itself, the definition itself is still formative. The experts I encountered in the field were inclined to combine their knowledge of the species along with observations of the tree's character. Typically, an ancient tree, regardless of species, displays rotting in the form of dead branches, scarred or brittle bark, and hollowing- often spotted through holes in the bark, or through the use of specialist equipment. Trees also have several stages of growth, from establishing their roots, through to maturity.

Ancient trees will be in the end stage of their lifecycle, often beginning to decay in parts (though efforts can be made to extend this stage through veteranisation, a process designed to promote regrowth). There are many more features which suggest an ancient tree, and people may call some to mind when they think of Anker Wycke Yew in Surrey, England; the Capon Tree in Jedburgh, Scotland; or the Oak at the Gate of the Dead in Wrexham, Wales. Such trees are often named or associated with profound moments in human history.

Since ancient trees can outlive humans on such a dramatic scale, one can scarcely imagine trying to enact a policy with the kind of duration thus required. Realistically, some boundaries must be set to enact policy effectively. In the UK, for instance, ancient woodland (rather than trees) is defined as “areas of woodland that have been continuously wooded since at least 1600 AD” (Department for Environment, Food & Rural Affairs [DEFRA], 2022).

This differs from areas that have transitioned from one habitat type to another (i.e., woodland which was previously agricultural land). Generally, using methods such as coppicing (where trees are cut to allow new shoots to grow from the stump), ancient woods have been consistently wooded mostly by the same species, and left to naturally regenerate after human intervention.



Perhaps for this reason, the UK has a greater population of ancient trees than many other European countries. The University of Oxford's natural history database estimates that "in England, there are 115 living ancient oaks >9.00 m and in the rest of Europe (that includes Scotland and Wales) only 98" (Botanical Research And Herbarium Management System [BRAHMS] Database, 2024).³

Recent research outside the UK does seem to agree that there is a relatively high distribution of trees over 500 years old in the UK compared to most of the EU (Liu et al., 2022). As mentioned, this may relate to the UK's particular history regarding the conservation of certain species according to studies of British environmental law (Fisher, Scotford, and Lange, 2019).⁴ Alternatively, this research also points to a particular ecological character of the landscape (which the UK happens to exhibit, naturally or otherwise) where ancient trees are often found.

With such a high proportion of ancient trees in the UK, their welfare is often more heavily featured in national policy than in the EU context, and with a burgeoning UK-specific environmental policy coming into focus, this research will concentrate on whether policy changes improve the outcomes of ancient trees.

3 Political Background and Key Policies

Unsurprisingly, after nearly 50 years in the EU, a substantial amount of the UK's environmental policies originated from EU legislation. Often, these would begin as EU directives, which would go through a transposition process where individual member states are required to integrate EU directives into their own policies and laws.

3.1 Pre-Brexit EU Legislative Frameworks

From the first, EU legislation has emphasised the adaptable nature of its laws for member states. An important example is the EU Habitats Directive, which is considered the "cornerstone" of EU biodiversity policy (European Commission, 2024)

³ It is of note that not all European countries have been surveyed to the same degree.

⁴ It is also worth noting that eco-policies can and have varied widely between Wales, Scotland, and England.



Within this policy, the EU enforced an overarching objective for members to ensure protected “species and habitat types are maintained, or restored, to a favourable conservation status within the EU” (European Commission, 2024).

Subsequently, the UK officially introduced the Conservation of Habitats and Species Regulations in 2005,⁵ which amended several existing UK acts and regulations, and provided new protections including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) (Joint Nature Conservation Committee [JNCC], 2009).

While the SPAs specifically help preserve habitats for protected bird species, SACs more broadly offer protection for species and habitats considered significant at the European level.

3.2 Implementation in the UK

EU environmental law provided a broad framework for assessing and penalising legislation as part of the UK's participation in these directives. At the same time, the application of policy must be filtered through several layers. This is due to the nature of the UK's devolved administration, which refers to the transfer of power from the UK parliament to its constituent nations of Scotland, England, Northern Ireland, and Wales (UK Parliament, 2020). The powers and funding are then further distributed from national to local government (LGA, 2024).

Nonetheless, while local authorities have their own regulatory power to fit policies into their regional economic and community structure, there are also organisations such as Natural England and the Joint Nature Conservation Committee (JNCC), which are non-departmental public bodies that help standardise the implementation of environmental laws.

Nevertheless, both local authorities and organisations like the JNCC fall under the jurisdiction of the Natural Environment and Rural Communities (NERC) Act. In the case of SACs, the JNCC is responsible for advising national and local governments on the

⁵ The introduction of the Conservation of Habitats and Species Regulations was officially in 2005 for England and Scotland, it was 2004 for Wales.



designation and management of these sites, including the types of sites that are selected, as well as monitoring and research. While they do not have direct punitive powers, when a site is designated as a SAC, it confers some of the highest protections in UK law (WLC Link, 2023).

To clarify, a regulation augments an act. This allows protections like SACs to coexist with other designations, such as Sites of Special Scientific Interest (SSSI), which are common in the UK. Like SACs, SSSIs protect areas with rare or significant species, habitats, and ecosystems for the UK, although planning protections are generally less concrete for SSSIs (Natural England, 2022). Ultimately, both designations are administered by Natural England and are usually the two most relevant laws for ancient tree protection.

Tree Preservation Orders (TPOs) also protect certain trees from damage or destruction, but unlike the higher legislative protections of SACs and SSSIs, they are only enforced at the discretion of the local council.

3.3 Post-Brexit Policy Shifts

As previously discussed, the embedding of EU environmental law into UK legislation has broadly meant that many critical policies, such as the use of SACs, remained in force in the UK post-Brexit.

However, three main problems remained: the first was the loss of the EU's enforcement powers; the second was the significant drop in funding; and third was, given the first two constrictions, the maintenance of the UK's prior climate commitments. As a partial solution to these problems, the UK developed its own environmental policy.

The 25 Year Plan

The 25 Year Plan, drafted in 2018, was described by DEFRA as “a living blueprint for the environment covering the next quarter of a century” (p. 11). The plan sought to reinforce a sustainable infrastructure to carry the UK through the economic and legalistic void left by the EU. To do this effectively, a significant emphasis was placed on increasing the efficiency of the UK's existing environmental resources, as



comprehensive regulation needed to be balanced against incentives to maintain landscapes under favourable conditions.

The plan also recognised that due to the UK's devolved political landscape, it would need to be flexible enough to be tailored to local authorities. However, in order to enact any environmental standard across multiple scales and governances, there had to be a measurable way to determine whether goals were being met. The proposed strategy included processes such as monitoring, evaluation, and setting various benchmarks meant to “[Maximise] the value and benefits we get from our resources” (DEFRA, 2018, p. 27).

The benefits, as well as the risks of such an approach, are described in notable anthropologist Marilyn Strathern's *Audit culture* as “a general trend towards more accountability... ‘but this is not democratic accountability but bureaucratic accountability... The way questions are asked make you answer in a certain way’” (Strathern, 2000, p. 80).

Before Brexit, the predominant way of conducting environmental assessments was using an ecosystem services (ES) framework. Such frameworks typically provide the foundation for evaluating natural resources, such as air, soil, and water, to map and manage environments more effectively. Importantly, the 25-year plan suggested a move toward a natural capital framework over an ES framework.

Ecosystem services

First published in 2013, the “Common International Classification of Ecosystem Services (CICES) [was] developed from the work on environmental accounting undertaken by the European Environment Agency (EEA)” (2018). The CICES was one of many ES frameworks employed in the EU to capture the conditions of the environment in a systematic manner, and to underline the benefits of natural resources (CICES, 2018). The ES approach created a way to value nature in terms of economic and social benefits, however, benefits in this capacity are intrinsically difficult to quantify.

For instance, a broad term such as benefit can mean different things to different interest groups. Moreover, not everyone is likely to agree on whether these benefits are



necessarily valuable or not. This is also true when considering benefits across international, national, and governmental scales.

The UK's commitment to the Paris Agreement, a legally binding contract with quantified goals and expectations (UNFCCC, 2015), was not nullified by their exit from the EU. Therefore, the central failure of ES as a singular measurement framework was that it makes it challenging to quantify goals such as Net Zero.

Trees, for instance, provide invaluable carbon sinks, which, are important for meeting Net Zero goals and reducing emissions. Additionally, woodlands offer other services such as recreation, urban cooling, timber, fuel, and noise reduction. While these are all vital services, they do not easily explain or capture the limits of resources. They also do not provide a way to compare resources across scales.

Perhaps for these reasons, the 25 Year Plan shifted away from the commonly used ES frameworks as the sole approach to environmental mapping, which was more common in the EU pre-Brexit, in favour of natural capital accounting.

Natural Capital Accountings

Natural capital is an accounting model for actual and future natural products and assets. These products and assets are described as any natural resources and include stocks of the environment's biotic (living) and abiotic (non-living) elements, such as water, soil, plants, and animals. In essence, natural capital maps ecosystem services, but gives them a measurable value.

Natural capital is not a new approach, nor exclusive to the UK.⁶ It was enveloped into a model to concur with the prevailing economic status quo, and cemented in the Rio Declaration as an international system for environmental and economic accounting (UN, 1992). There, it is described as a way to better measure environmental assets,

⁶ The term natural capital was first used by the economist E.F. Schumacher in his book *Small is Beautiful*. The book critiques mainstream economics during the 1970s. It positions the idea that bigger is better development as fundamentally at odds with nature's finite limits (Schumacher and Mckibben, 2014). This notion has extended into modern ideas of natural capital. Though somewhat different to Schumacher's vision. The EU has also formally adopted Natural capital accounting methods in recent years. Although these methods have existed in EU policy for some time, according to the EU Environmental Agency, they lacked "adequate integration in sectoral policies" (2020). Thus, they haven't been applied as well until now.



particularly against "by-products generated during the production of man-made capital and other human activities" (UN 1992, p.107).⁷

3.4 The Landscape Approach and Natural Capital Accounting

Natural capital is now central to much UK eco-policy. A significant part of this is the interesting interaction between the legacy of EU legislation relating to protected areas, and the UK's own history of landscape conservation.

Firstly, protected areas like SACs and SSSI do not conform to the boundaries of owned land. This means when a designation is made, it may extend across several traditional land borders. Secondly, when the UK was part of the EU, all SACs and SPAs across Europe formed part of the Natura 2000 network under the Nature Directive, which connected and tracked these sites across multiple countries (JNCC, 2024). Post-Brexit, the UK adopted the Nature Recovery Network, which functions similarly, but at a national level (DEFRA, 2020).

These two points highlight a growing concern about the interconnectedness between natural environments. Moreover, with the aid of natural capital accounting, UK landscapes could be mapped at an increasing scale, and the collaboration between different locations could allow for better standardisation, even across various scales of governance. Moreover, natural capital accounting located both valuable services and deficits (i.e., areas where goals were not being met). Of course, natural capital accounting provided a way to validate economic spending on the environment, which was and continues to be important due to loss of funding.

England Trees Action Plan 2021 to 2024

On the face of it, a landscape approach—one where the interrelated aspects of habitats are acknowledged at a macro scale—was good for trees. For example, as part of implementing the 25 Year Plan, the government published the England Trees Action Plan (DEFRA, 2021). This covered increasing woodlands within the nature recovery network, tree planting, better management approaches incorporating natural capital and, interestingly, increased intensity of research on ancient trees.

⁷ Man -made capital - Man-made or human capital typically refers to the labour, objects, and by-products processed and created by people (Holland and Cox, 1990).



4 The Case Study

The research that informs this case study occurred in Burnham Beeches, a National Nature Reserve (NNR), an SAC and SSSI in southeast England. Most of the site is owned and managed by the City of London Corporation (COLC), the governing body of London's financial district, the Square Mile, though the site itself is officially an independent charity.

4.1 The Research Site

The site received all designations before Brexit—its NNR status in 1993, SSSI status in 1953, and SAC status in 2005 (COLC, 2010). Its most recent designation as an SAC comes directly from the Conservation Objectives, referred to in the Conservation of Habitats and Species Regulations 2017, administered by Natural England.

The site is famous for its ancient beech woodlands, where the traditional practice of pollarding, a tree-pruning method, is still practised. This practice was utilised when grazing was still a fundamental part of land management to keep the regrowth of trees away from animals, whilst allowing the trees and animals to flourish side-by-side. Pollarding involves removing the tree's upper branches, which has the side effect of sustaining growth and, in effect, lengthening the tree's life. As a result, Burnham Beeches has several trees between 450 and 550 years old, with the oldest, Druids Oak, being possibly 800 years or older.

4.2 Methods

Through interviews and surveys, qualitative research data was gathered from conservation volunteers, locals, tree experts, and management to evaluate the impact of policy change on the ancient tree population at the site.

What is documented here is only a small portion of that research. However, during field research, reviewing site management plans, and discussions with participants, a strong theme emerged regarding the implementation of new policies that better preserve ancient trees: how EU and UK ideas about the environment mingle, what



changes have resulted from Brexit, and how these policies may influence future research on ancient trees.

The main methodology, participant observation, involved studying, surveying, and monitoring trees with those who worked at Burnham Beaches. This not only provided a better understanding of how larger policy frameworks are enacted, but also brought to head the broader implications for ancient trees across social, political, and scientific domains. Policies inform how trees are managed in the UK, however, the concept of ancient trees and their value, as understood by stakeholders in and around the field, remains an area for further exploration.

4.3 Natural Capital Assessment

During the year spent working at the site, a natural capital assessment had taken place, and I was asked to contribute to a public summary of the work.⁸ The assessment had begun prior to the research itself and was the cumulative effort of many stakeholders (both private and local) across Buckinghamshire. Being afforded access to this work shone a light on the actual application of policy tools, and the complex realities of collaborative landscapes on the ground level. As one participant elaborated:

“Landscape-scale projects are sort of in the works which I think are really important ...for [the] future because [of]... climate change and various other factors. If you've got fragment habitats, then they're much more vulnerable, so being able to link them together to different places is quite important) - Ranger.

This description reveals several factors relevant to policy administration. Importantly, it raises one critical motivation for using a landscape scale to reform management approaches. As discussed, natural capital accounting should, in theory,

⁸ The full contents of the Natural Capital assessment have not been made public. To protect the integrity of the research and the participants' interests, what is discussed in this paper only pertains to the public version of the assessment - Richards, M., Merayo, E., Zini, V., Holt, A. and Holt, A. (2024). *Baseline natural capital assessment of the City of London Corporation's open spaces* Authors. [online] Available at: <https://www.cityoflondon.gov.uk/assets/Green-Spaces/Epping-Forest/baseline-natural-capital-assessment-the-city-of-london-corporation.pdf> [Accessed 5 Jun. 2024].



allow for standardisation and comparison of ecological systems from a larger vantage point than was previously possible.

In the case of Burnham Beeches, fragmentation is a crucial consideration for their work on heathland and woodland habitats. Buckinghamshire is thought to have been historically woodland pasture (a mixture of connected heathland, woodland and grazed grassland habitats) however, centuries of management changes and urban redevelopment have left very few of these habitats in the region. Those that do remain are disconnected from each other (also known as fragmentation). Burnham Beaches is a significant example of an attempt to re-establish a woodland pasture habitat; even so, it is limited to some extent by the City of London Corporation's ownership boundaries.

Additionally, their SAC status helps to extend the woodland landscape because, as mentioned, it goes beyond the boundaries of traditional land ownership. For instance, the natural capital assessment went beyond the parameters of Burnham Beeches and looked at other areas that could broaden the scope of the work rehabilitating disconnected wooded areas.

The assessment was partly conducted to highlight the value of certain habitats and “increasing connectivity with the wider natural landscape” (Holt et al., 2024, p. 12). Integrating a landscape model could potentially mean converting other types of landscapes into woodland pasture, which could benefit all groups involved.

4.4 Connecting Landscapes

This idea of landscape calls to mind the tragedy of the Commons which posits that, within a shared pool of natural resources, individual parties will always exploit their joint portion for maximal personal gain (Hardin, 1968). In contrast, a landscape-scale project like this one would do just the opposite; individual landholders would trust (for lack of a better word) in the other parties enough to sacrifice a portion, or even all of their land, for the greater good. For instance, they might convert agricultural land into woodland pastures on the basis that they provide more services or value for the region, such as increasing air purity or providing more carbon sinks, than if the land remained solely for agricultural purposes.



At first glance, this prospect might not seem beneficial to the farmer owning the agricultural land. However, natural capital (differing from an ES model) does not simply capture how much more carbon would be absorbed by the transition of one type of land to another, as it also puts a price on the service. Natural capital accounting then compares this against an estimate of the value from the agricultural land that the farmer is currently receiving.

It is not a perfect comparison, and in reality, it does not rely on trust; instead, it approximates the farmer's potential income via land conversion schemes or sustainable land management incentives. Still, the natural capital accounting method highlights that appraising high demand resources, which landowners have the potential to supply, may create a more equitable means of achieving larger environmental goals. For instance, when they account for the benefits that would accrue in just 50 years, the assessment estimated that the monetary value Burnham Beeches contributes through its services to be well over three million pounds (Holt et al., 2024).

4.5 Temporality

Not surprisingly, temporality is heavily featured in landscape management planning, especially with ancient trees- but this is not just in terms of monetary value. From one perspective, the very idea of a woodland pasture maintained by the time-honoured practices of pollarding and grazing marks a return to a more traditional approach to landscape management.

At the same time, within this same approach, trees create a sense of continuity in assembling a place's character and giving meaning to people's work there over time. The same speaker explains:

"...about the wider landscape project, I think that [it's] a really good thing to keep going because even when staff members leave, hopefully [the work] can carry on happening. And you never know, maybe in 100 years time, Burnham Beeches might still be here" - Ranger.

The link between the temporal agency of trees and the past, present, and future is attractive for policy. The 25 Year Plan, for example, aimed not only to maintain stability



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through the transition of Brexit, but also to look towards the future, and beyond immediate concerns.

As the participants and the natural capital assessment both emphasised, time can be a way to demonstrate value. Just as the 25 year plan makes use of a future landscape, the use of ancient trees in policy can help reference an idealised past landscape and make the outcome of ongoing projects more appealing. One could argue that the longevity of ancient trees creates a sense of stability that does not necessarily reflect reality—especially regarding policy. On this topic, a major proponent of the UK ancient tree conservation explained to me:

“Ancient trees can fall through all the gaps in the policy and the legislation. So, you know, most ancient trees are absolutely not protected at all. Very, very few have got any sort of legislation on them. And yes, they may be valued in terms of when a planning application hits a local authority desk. But, until that planning application is submitted, those trees are vulnerable to being cut down and removed...So you can see that these trees have been very shortchanged in terms of our assessment of policy and protection.”
(Ancient tree specialist)

Many key insights are offered here regarding what policies say and, alternatively, what they actually do. A good comparison of the legislative difference between domestic and national or international policy is TPOs (Tree Protection orders), which show very different sorts of valuing in practice.

“It is strange because, you know, we do have strong legislation for TPOs...but they're not applied in the same way as some other habitat legislation...we have SSSIs, which is a system of valuing what is of national importance, and protecting what is of national importance. Whereas TPOs aren't used like that at all. They're used really in planning situations to protect trees from planning for a very short period of time.”
(Ancient tree specialist)

The decision to implement policies such as these suggests the weighing of two distinct possibilities. At one level, stronger environmental protections mean that a future where we conserve trees is of a greater value than what present development practices



could offer. At another, emergent level, priorities can be judged differently depending on the viewpoint (for instance, a local vs. national perspective).

4.6 Scale

TPOs may offer legal protection for ancient trees, but how an individual tree is valued over time is determined by local authorities rather than national interest. DEFRA describes a TPO as “an order made by a local planning authority in England to protect specific trees, groups of trees or woodlands in the interests of amenity” (DEFRA, 2014). Therefore, the political scale at which ancient trees are evaluated can also become another factor in considering their value. As my participant argues, policies themselves can be symbols of this value:

“TPOs [are] one of our oldest pieces of legislation, protection legislation. And then we also, when we're doing planning, we have British standard 5837, which is the British standard in trees in relation to demolition, design, and construction. But, you know, these are signs that people value these important trees, but it's piecemeal, I suppose, and we need it to be a bit more joined up, and we need to close a few loopholes. But at the moment, of course, we don't have any political will for that at all.” (Ancient tree specialist)

From the speaker’s perspective, the power of the legislation goes beyond what the policies say they will do, and looks toward whether the authorities of legal protection they grant are genuinely being used. On SSSIs, for instance, she further notes:

“They're doing really badly... [but] maybe we haven't made the case strongly enough that these trees are extremely vulnerable, but when nobody's monitoring them, it's very difficult to bring the evidence points” (Ancient tree specialist).

Here, the devolved nature of the UK administration comes into play, as well as the loss of EU regulatory power, and the resultant ‘political will’ to enact the kind of protections that ancient trees need.

For instance, the same issue taken up in a national context may have far more relevance at an international level, as the scope of international authority and the items being weighed exist on a far grander scale. Although there needed to be more emphasis



on individual ancient trees, the power and supervision of EU directives did provide the regulatory strength to back more resolute environmental policies. However, it could also be argued that the overarching nature of environmental enforcement offered by a landscape approach may be more practical. As highlighted on a macroscale, natural capital methods exemplify, temporally and spatially, that ancient trees can be holistically brought into the political and economic fold as significant service providers to the broader environment. Yet, there is a risk of conflating the interdependence of these types of habitats with their interconnectedness.

Interdependence assumes a particularly stringent requirement for placing ancient trees into the broader landscape. Conversely, interconnectedness merely identifies their role in creating or sustaining the environment as a whole. This difference may seem small, but while interdependence suggests a break in functionality, interconnectedness can only establish a weak correlation with ancient trees.

Nonetheless, interconnectedness was the primary issue on which EU policy made much headway. With the introduction of SACs, for instance, the type of habitats that fell under their remit belonged to the Natura 2000 network. They explain that “working at the biogeographic level makes it easier to conserve species and habitat types under similar natural conditions across countries” (European Commission, 2023). The UK sat within the European Environmental Agency’s (EEA) Atlantic categorisation, as opposed to other biogeographical distinctions – including alpine, arctic, Mediterranean, and continental regions covering the rest of Europe and beyond) and is further sub-categorised by regional habitats and general characteristics⁹ (EEA, 2017).

4.7 What Remains

The Atlantic region extends over parts of the UK, France, and, to a lesser degree, Spain, Germany, and other EU countries (European Environment Agency, 2009). This grouping not only conceptualised the landscape by its ecological features but also political and economic features. For instance, the EEA’s guidance on the Atlantic region's scope considered various environmental policy instruments, including

⁹ On general characteristics - i.e., topology, soils, climate, etc.



international conventions and World Heritage sites, as “Pan-European and European community collaboration” mechanisms (2009).

The EEA holds these mechanisms against what it describes as shared threats, including urbanisation and fragmentation. When looking through this lens, there is also a bio-political dimension to phrases like “invasive alien species” (European Environment Agency, 2009, p. 41), which seem to implicitly delineate some species as being uncharacteristic of the EU landscape. Still, it is hard to distinguish where this line could be affirmatively drawn in Europe.

Once more, spatiality is relevant to where and how lines are drawn by humans in relation to the environment, which can alter the perception of how they are valued. Reforms that alter these ecological spatialisations borders can connect or disconnect landscapes in various ways. As discussed, in the case of ancient tree policy as related to the UK's new reformations, the more landscape-orientated perspective brought by the EU is still, in many ways, incorporated into UK environmental discourse.

5 Conclusion

The conservation of ancient trees in the UK stands at a pivotal junction as the nation redefines its environmental policies in the post-Brexit era. The transition from EU regulatory frameworks to a more autonomous UK-centred approach presents both challenges and opportunities for ancient tree preservation, and may also provide some lessons for environmental policy reformation as a whole. Dimensions of scale and time complicate the matter, and they have different implications for valuing these trees and, most likely, other ecological assets. Ultimately, the task of integrating ancient trees into broader economic and political frameworks must be underscored by an understanding of their ecological, cultural, and social contributions.

The Burnham Beeches case study may offer insights into the practicalities of such an endeavour in several ways. For example, a landscape approach can emphasise how interconnectedness and large-scale ecological consideration can lead to more effective conservation strategies, while also highlighting potential risks.



A shift towards natural capital accounting, while also promising to standardise and enhance the valuation of natural resources, highlights the need for a nuanced understanding of the unique value of ancient trees.

Homogenising their diverse ecological, social, and political characteristics under broad economic terms can lead to gaps in policy that leave them unprotected. Logically, it follows that policies must be adaptive and sensitive to local contexts and the specific needs of ancient trees. Yet the role of ancient trees as ecological keystones and cultural landmarks seems to be understated, not necessarily in the policies themselves, but in their application.

Utilising a natural capital approach helped this case study to promote both the benefits of ancient trees for long-term health, as well as the value of the landscape as a whole. Once more, we are left with the questions of time and scale, which concern what the broader implications of such processes will mean for the value of ancient trees in the future.

Reforming national and international policies on ancient tree conservation in the UK is a complex and ongoing process. It necessitates continuous dialogue between policymakers, conservationists, and local communities and, therefore, cannot be judged as successful or unsuccessful in static terms. By fostering collaborative efforts and leveraging traditional practices and modern valuation techniques, there is potential to enhance the preservation and appreciation of these invaluable natural assets.

The auditing processes embedded in long-term environmental plans can theoretically contribute to achieving these goals. However, we must acknowledge that the methodologies employed alter the scope of ancient tree values in ways that are not yet fully understood, especially as they navigate the spatial and temporal dimensions of social, political, and ecological domains.

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