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**Choosing a Past for The Future:**

**Why today’s environment policy is also history**

**(but doesn’t know it)**

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This is the second lecture in a series of three from History and Policy, examining the question, unsurprisingly, of how History can inform Policy.[[1]](#footnote-1) Today I am speaking as an academic historian, but of course history has a broader meaning than this: an understanding we all share that the present is related to decisions made in the past, and that nothing – especially not policy – appears in a vacuum. Today I not going to tell you, ‘What we can learn from the past’, although of course we can (and we can also make mistakes based on histories we believe). Above all, I want to address how our present and future are products of our past, and thus how even a policy area as future-orientated as environmental policy, full of predictions, models and assessments, is strongly conditioned by history.

I will deal with four themes. Firstly, how what counts as ‘environmental policy’ is itself the product of a history that has included some things and excluded others, setting us on particular paths and valorising certain kinds of expertise. Revisiting this history can help us understand its successes and failures. Secondly, more along the lines of ‘learning from history’, we can look at analogues that might give more insight into current problems: how have societies dealt with similar problems in the past, or what effect have similar policies had in the past? This is not to argue that the past can simply be translated into the future, any more than we should expect a policy to have the same effect in two different countries. But it is doubtful that thinking historically will make us *less* wise. Thirdly, history provides Information, the gold-standard in an age demanding evidence-based policy.[[2]](#footnote-2) History is a vast repository of knowledge about environments and how they have changed over the long-term. It is a minimum requirement to pay attention to this before assessing how they are likely to change in the future (of course, historians are not the only providers of this historical information). Finally, once you have taken the step of looking at long-term environmental change, you quickly discover that environments are dynamic and the ‘baseline’ chosen for when the environmental was in a ‘good’ state is essentially a choice about the desirability of a certain previous historical state. Of course, some environments can remain stable for hundreds or even thousands of years – depending on the scale at which we examine them – but other change much more rapidly, whether under human influence or not. To be aware of this dynamism, that the environment is not fixed, isn’t to say that ‘anything goes’ for the future, that one environment is no better than any other. Rather, it helps makes explicit what values we are applying when we make a judgement about the desirability of a landscape or environment. In fact in some ways, as we will see, this kind of thinking was more explicit before the ‘environmental’ turn in policy – hardly half a century old - when nature reserves and national parks were protected for their ‘beauty’.

I am not trying to provide a comprehensive history of environmental policy, even less environmental change. In Britain I would direct you to the work of above all, John Sheail and Chris Smout to discover more.[[3]](#footnote-3)

**I**

So, to begin: what is environmental policy? What kind of beast is it? This is in some ways hard to say, and Prime Ministers have clearly found it hard to place too. Today, the environment is dealt with by the Department of Environment, Food and Rural Affairs (DEFRA), set up in 2001. At this point the environment ceased to be intimately linked in the official mind with transport and the regions, as it had previously been under the Department of the Environment, Transport and the Regions, itself created in 1997. Instead, it was married to what had previously been the Ministry for Agriculture, Fisheries and Food, founded in 1955 (but with predecessors running back to the Board of Agriculture founded in 1889). A ‘Ministry for the Environment’ was originally created in Britain in 1970.[[4]](#footnote-4) Climate change, the premier ‘environmental issue’ of our time, was allocated its own separate department in 2008. The list could be extended back in time and internationally. Of course, there are also many agencies that interact with these government departments. DEFRA, for example, liaises with and directs the ‘Environment Agency’, established in 1996, whose mandate is, ‘to protect or enhance the environment, taken as a whole’.[[5]](#footnote-5) In practice, this primarily means the management of waterways and coastal sites, regulation of waste disposal and monitoring of air pollution; generally issues to do with safeguarding property (flood prevention), ensuring access and preventing contamination. When it comes to the protection of species in nature reserves, or Sites of Special Scientific Interest (SSSIs), or the power to nominate and manage cherished landscapes in National parks or ‘Areas of Outstanding Natural Beauty’ we find a different constellation of institutions. The larger areas have their own statutory bodies that work with local councils to ensure access and influence planning. Some areas enjoy regulatory protection determined by the European Union, and conservation work is led in England by ‘Natural England’, a rebranding in 2006 of ‘English Nature’, merged with the ‘Countryside Agency’.[[6]](#footnote-6) These were the inheritors of early changes in 1991 which had seen the amalgamation the Countryside Commission and Nature Conservancy Council, which in turn had their roots in founding of ‘Nature Conservancy’ in 1949 as part of the national parks Act.[[7]](#footnote-7)

What this indicates is that politically, the domain actively marked out as ‘environmental’ may shift with time and place, and indeed isn’t always given the same name. Indeed, we could argue that environmental policy has been around since medieval times, given that legislation has existed on issues such as fire prevention, street lighting, air and water pollution, management of fields, fishery protection, wood supply, and so on, for many centuries. What in some ways makes modern environmental policy distinct is the idea that all these things should be governed by the same institution, and belong to the same policy area.

Thinking about and legislating around nature, in the sense of modern ‘conservation’, took off in the nineteenth century in relation to two movements: towards the protection of species where extinction was feared (and especially where the birds were in decline because of allegedly frivolous demand, such as for feathers in women’s hats); or where nature provided ‘green lungs’ for recreational and health reasons. From the 1860s we also see the gradual emergence of a global movement for protecting spaces as parks, often focused on ideals of grandeur and wilderness, and as ‘national parks’ linked to nationalist and nation-building sentiment.[[8]](#footnote-8) Notably, England & Wales got round to establishing them by law in 1949, in the tumult of post-war enthusiasm that saw novel ventures from the establishment of comprehensive planning and the National Health Service to the foundation of the UN agencies and International Union for the Conservation of Nature.

None of these ventures were thought of as environmental policy. The ‘Environment’ – a word popularised in English during the nineteenth century by Thomas Carlyle, but above all Hebert Spencer - was a thing that affected you, although plenty of earlier writers since Antiquity had noticed our capacity to affect soils, forests, water flows, and so on. But ‘the environment’ had not acquired a name as something that had an interconnected life of its own that could be changed by us.[[9]](#footnote-9) This changed after World War Two, with mounting evidence of worldwide impact, and fears over population growth and scarcity of raw materials in an increasingly globalised logistics system – especially to the military. This was the context for books like William Vogt’s *Road to Survival* or Fairfield Osborn’s *Our plundered planet.* This is the moment when the idea of the ‘the environment’ emerges to describe a system under threat, primarily used by people trained in ecology, and the ideas behind modern environmental policy were born. ‘The world is sick’, declared Vogt, and people were seen as the main problem. It was not that any of the environmental problems identified were new in themselves, but rather that they were seen, *collectively,* as *environmental problems*.[[10]](#footnote-10)

Intellectually, this ‘environmental turn’ paved the way for developments by the end of the 1960s – the setting up of Environmental Protection Agencies, the National Environmental Research Council, and by 1970, the new Conservative government’s Ministry of the Environment.[[11]](#footnote-11) The explicit call for ‘environmental policy’ was made by American planner Lynton Caldwell in 1963, as a way of linking together things previously dealt with in isolation: in his words, ‘In our characteristic concentration on intensive, specialized analysis of our public problems we may omit so many data for, our normal field of vision that the integrating profile does not appear... [I] ask whether “environment” as a generic concept may enable us to see more clearly an integrating profile of our society’.[[12]](#footnote-12) Around the same time, Rachel Carson’s famous *Silent Spring* popularised research that demonstrated the dangers of pesticides and introduced ecological thinking to a new audience.

‘The environment’ was in essence a plea that we weren’t doing enough ‘joined-up’ thinking about the world that we lived in. But in truth, that demand for integration wasn’t fulfilled in the way that might have been hoped. Environmental policy tended to fall into two distinct areas – in fact, following Caldwell, it developed new forms of intensive, specialized analysis. Firstly, protection from hazards – new regulatory and monitoring systems for dealing with chemicals, flooding, etc. Secondly, preservation – using the nature conservancy, applying planning restrictions, protecting species and areas, but with usually with limited budgets and that have limited the scale of action. Indeed, the second mission tended to be split between very small areas monitored by scientists, and larger landscape-scale protected areas with the emphasis on amenity, recreation and character. In large part this work was negative, rather than positive. It forbade rather than inspired.

The result is a fragmented system that has struggled to live up to the ambition of ‘the environment’. Policy has been fairly successful in mandating and employing scientific experts dealing with very specific problems. But the wider problem of integration remains. This is apparent in, for example, current funding of research in the ‘National Ecosystem Assessment’ and the use of the language of ‘ecosystem services’ as a way of describing why we should value nature: nature is valued for the ‘service’ it provides, whether the capacity to grow plants or provide clean water, in the same way that car provides the service of mobility or a bank the service of storing money. While the National Ecosystem Assessment has collated a lot of valuable information, it is generally organised along established land uses and administrative responsibilities, with little ‘boundary crossing’, even if integration is a strongly expressed aspiration. Policymakers struggle to turn the valuing of environments into broadly accepted measures.

This desire for integration to some degree explains the rapid recent uptake of the idea of the ‘ecosystem services’, borrowed from environmental economics, as a way of making ‘what nature does for us’ comparable with what we get out of economic activity, and even to create monetary values for these services. In fact this had been done many times before, in the ‘Cost-benefit Analysis’ that appeared in the late 1940s as a way of deciding whether governments should invest in infrastructure projects. Numerous local studies attempted to put a money value on what nature does for us. While such attempts then and now can be enlightening and interesting, they told us little new about the functioning of the environment, or indeed why we value it. One can value scenery by the tourist revenue it brings, or how far we are prepared to travel to see it. But does this mean that scenery becomes less valuable if, say, air transport becomes cheaper so we can fly elsewhere, or incomes decline so we spend less on holidays? Do we value something less because we can see it out of our back window than if we have to drive there?

Cost-Benefit Analyses quickly found that opponents in debates simply produced similarly-styled analyses that put different values on things, mostly by including different sets of criteria in the valuations. Instead of allowing one to see more clearly what was valuable, the numbers were used to shore up already existing positions (although on the part of civil servants it is a requirement that they produce them). We see the same today with debates over High Speed 2 rail link. If the terms of the analysis are not relatively simple, we find methodological debates acting as screens for what are in fact political debates. And often, there are profound methodological difficulties. If we value the services of an ecosystem, do we assign the full value to every single part – i.e. fungi in the soil, the trees, the invertebrates, etc., because they are all essential to the functioning of the system which would fail if any one of them was lost? Do we value the tree or the forest? If we assign the value to the services of the forest, how valuable is any one tree? Such methods answer some questions – but they also raise many more questions. In fact, turning nature into ‘services’, money values and markets may well be reproducing the problem that Lynton Caldwell wished environmental policy into existence to avoid in 1963:

‘The public decision-maker ... has been compelled to seek some calculus of objectivity that would pass as defensible rationality and simultaneously afford room to manoeuvre among the fixed or conflicting political forces – the pressures of public life.’[[13]](#footnote-13)

This isn’t to say that money values are unimportant in environmental policy. Clearly they are. But we should be cautious: valuing ecosystem services on a large scale is following a policy trend we have seen before. It is not a really a means to integrate different values and forms of knowledge into the policy process, but a way to subsume those values and forms into one specialised form of analysis – a particular kind of economics – that *appears ‘*objective’, but may conceal more than it reveals. This is a classic problem with many economic valuations, as was highlighted by Ross Garnaut to the Australian Multi-Party Climate Change Committee in 2011, in talking about the ‘discount rate’ – effectively the rate of interest we use to value the money of the future in today’s terms, to assess whether an investment is worthwhile or not. ‘If we used the share market’s discount rate to value the lives of [the future]... and if we knew that doing something now would give lots of benefits now but would cause the extinction of our species in half a century, the calculations would tell us to do it.’ In reply, Julia Gillard declared that the entire committee – even in fractious Australian politics - were ‘against the extinction of the human species’.[[14]](#footnote-14)

It would be an ironic end to the insight of ‘the environment’ – that things we once treated separately were actually interconnected – if we ended up trying to resolve the problem by reducing the vast yet still inadequate information we have about environments to a single economic criteria, to enable the ‘right’ decisions to be made – which might also suggest that we are able to manage economies rather better than we really are.

**II**

The mere existence of environmental policy was not enough to protect the environment: so much is clear. Indeed, a spurious correlation could even argue that destruction has accelerated alongside the measures to prevent it. But what other policy lessons lie in the past? In one sense, all of history can be a source of analogues. The question is: which ones are useful? I want to pick up on just one question, and that is in relation to the current demand for ‘evidence-based’ policy? Does more knowledge help make better policy? There can be little doubt that some knowledge is essential for policy of any kind. As a historian, I am all in favour of knowledge. But has policy been a reaction to better knowledge, thus improved knowledge would drive us towards better policy? Here, the answer is more equivocal.

I will address this in regard to two areas: first, air pollution, and second, global warming from carbon dioxide emissions.

By the late nineteenth century it was already clear that air pollution was a major – perhaps the major – cause of death in Britain. Or, in the words of the Chief Sanitary Inspector of Glasgow, Peter Foyle, after a fog of November 1909: ‘Let us use no euphemisms, no glossing words, to cover our own misdemeanours in the vain attempt to blame Dame Nature. The citizens themselves, along with some manufactures, are alone to blame; and the dire effect, death – this excessive death – is due to one thing and one thing alone, and that is smoke!’[[15]](#footnote-15) Factories were widely blamed as the greatest culprits, so gradually regulation emerged of chimney height, for example, to disperse smoke. But as Foyle argued, domestic hearths were actually the main source of the problem in cities. Voluntary efforts to change behaviour, such as introducing better technology, or alternative energy sources such as gas and electricity had relatively little effect. Factors encouraging resistance to change included a persistent popular belief in the healthy ventilating effects of coal fires; the fact that they remained much cheaper than alternatives; and a dominant rental sector, where neither landlord or householder had much incentive to invest in the long-term value of the house for a problem that was perceived as social rather than personal.[[16]](#footnote-16) Hence no real action came until after great London smog of 1953, and then the Clean Air Act had to wait until 1956. Change was facilitated by a rapid cheapening of alternative fuels after WWII; but most immediately, by the stick of a ban on smoky fuels coupled with large subsidies for new heating equipment. It was not a question of either/or with the carrot and stock, but both being deployed simultaneously. The political will was created by a large number of people dying in a very short space of time from a highly visible phenomenon. But no new knowledge was required, because the problem had been absolutely clear in medical circles for decades.

Now, to climate. Already at end of nineteenth century it was understood that burning a lot of fossil fuel was likely to heat the world up because of CO2 emissions; in retrospect the most famous writer on the theme was the Swede, Svante Arrhenius. However, this was not much of a preoccupation of climate scientists at the time, who focused on other things: developing an understanding of regional weather; the obviously important focus on variations in incoming solar radiation; and more localised phenomena such as polar warming in the 1920s and 1930s, or as it was called at the time, ‘climate embetterment’. Only post-WWII, and with the advent of modelling of the global climate system did the potential for warming from CO emissions become the subject of more attention, and widely in climate science as a potential issue by the late 1950s.[[17]](#footnote-17) By the end of the 1960s the ‘Keeling Curve’ measuring increasing atmospheric CO2 concentrations in Hawaii was suggesting these models were correct. Frank Fraser Darling’s Reith lectures from 1969 already warned of dangers from the ‘greenhouse effect’ from burning fossil fuel, which would melt polar ice caps and cause massive coastal flooding.[[18]](#footnote-18) It took another eight years before the first warning about ‘the greenhouse effect’ from fossil fuels appeared in *The Economist* in April 1977.[[19]](#footnote-19)

Yet policy impact was delayed another decade; and still moves only slowly, despite huge refinement of data and greatly more sophisticated modelling across the 70s, 80s and 90s. None of this has changed the basic story, although we have realised that climate change could happen more rapidly than previously suspected. Again, no new ‘knowledge’ was essential to change wider attitudes on climate change. Instead, what *was* needed were political interventions to get policymakers to perceive global warming as an issue worthy of their attention.[[20]](#footnote-20)

What these histories shows us is that while the scientific underpinnings are clearly essential, what changes policy is, unsurprisingly, the policymakers, and the political world they inhabit. These histories also suggest that policies rely on an appeal to what should be rational in theory – ( that surely people can see they will be better off in the long-term if they change their boiler or reduce their chance of dying) – have rarely, in themselves, had very much effect on the ground. Put bluntly, reason does not always win out in the market for ideas, because the market for ideas and policies is a very strange place where the cards are distributed very unevenly, both in the political realm and our everyday lives. Carrots have not tended to work well without sticks, because it is not enough to give people a ‘choice’ that may even be skewed in favour of a beneficial result to them and the environment: they also have to be forced to make that choice. The alternative to ‘the stick’ is to build from the ground up, as in the UK’s land management policies where environmentally-friendly farming is generally encouraged on a case-by-case basis, locking farmers into agreements after voluntary negotiation. It is successful to a degree, but it is immensely time consuming and inevitably marginal.[[21]](#footnote-21) Of course, I would not want to claim that these historical observations are applicable in all cases.

**III**

Sometimes, however, the knowledge is staring us in the face, and we don’t take the implications in. It doesn’t actually take much thought to recognise that our preference for how a landscape should look is basically a preference for the landscape of a particular historical period. The idealised English landscape of hedgerows and copses and a mix of arable and pastureland – think Constable – is essentially that of the old enclosed countryside of parts of southern England. Throw in a few heaths and moorlands to keep the Romantics – Coleridge or Wordsworth – happy. The current distribution of open and uncultivated country has partly been preserved because it was what had been created by sheep farming and grouse shooting when campaigns for access and rambling emerged in the 19th century, a movement as much about health and equity, against big landowners, as nature.[[22]](#footnote-22) These landscapes have hence been preserved in the form they happened to have then. More recently, with the proposed sale of the Crown’s forest estates in 2010 in England, it was proposed that certain woodlands would be ‘heritage’ forests and hence sold off to appropriately-minded NGOs. These were essentially the relicts of areas designated by royal fiat as hunting forests in medieval times, and managed accordingly. But it was the drive to retain these for the nation that led to the privatization plan being scuppered, rather than the fate of ‘commercial forests’ which had *actually* been created with public money to provide a secure supply of timber to the nation in the wake of the world wars. Thus understanding why we value something – and why it is as it is – are fundamentally historical questions. It is hard to conserve a landscape without understanding how it got there, or to measure impact without any knowledge of how it once was. Here history must come to the fore.

It is also good to be aware of how we class and protect things. We show great concern today – as in many parts of the world – for ‘native species’. But 10 000 years ago Britain was either deep under ice, or a windswept tundra. There wasn’t much in the way of native species. Today, we classify species as introduced, but nativised (archaeophytes) or non-native (neophytes). The boundary date is 1500. Suffice to say this is completely arbitrary, or at least, if you want to exclude plants and animals that come from really far away – the Americas – you could perhaps make it 1492. 8 out of 10 of our most endangered archaeophyte species were introduced alongside people, in connection with agriculture, but thousands of years ago.[[23]](#footnote-23) If a species arrived a mere 514 years ago, it has no such native rights. Such judgements may be justified, but they are hardly ‘scientific’. Nor do they distinguish a human and non-human natural world. Such distinctions are not just true of lists of protected species, or our valuing of obviously ‘historic’ landscapes. Dig a little into those who advocate, ‘re-wilding’ and you soon find that their notion of ‘when wild was’ is very different – some essentially wanting to restore medieval times, some the Mesolithic, some actually before the last Ice Age.[[24]](#footnote-24) All this may be fine – but it is not restoring some ‘untrammelled nature’.

It is certainly true that we have introduced a lot of plants and animals into the country in the last couple of centuries – intentionally or not. Some we rather like, while we put a lot of energy (rightly) into eradicating others. Himalayan balsam (*Impatiens glandulifera)* is one example of an introduction – beloved of Victorian landscapers. It can certainly be ‘invasive’, as the militarily loaded terminology goes... but does this make it bad? Should we also remove all that invasive Victorian architecture added or alongside medieval buildings, for example (sometimes actually with the intention of making them look more medieval!)? The point here is that the way we treat both buildings and landscapes are cultural choices, and we might be more conscious of this fact; we might examine whether we are consistent in the way we regulate each. This works both ways. We can, as I have just done, question the arbitrariness of how we decide whether a species in the natural world is good or bad, or at least understand it as a cultural judgement. But equally, given that we bind ourselves tightly with building regulations and planning rules in regard to buildings, we show relatively little regulatory concern for what constitutes an acceptable standard of landscape.

There is, of course, no reason for us to restore, perfectly or ‘authentically’ the buildings or landscapes of any particular period – unless we want to. And in any case every landscape throughout history has itself been the result of long historical accretions of all the ages before, just as an old house does not just contain furniture from the year it was built. But this kind of historical perspective and juxtaposition can make us far more aware of what we are actually doing and the basis on which we are spending resources.

**IV**

Sometimes, historical baselines provide information that is less value-laden, but simply tells us how things were, and hence gives a sense of how things are likely to be. Landscape history since W.G. Hoskins has made an essential contribution to many a policy decision;[[25]](#footnote-25) we can use the evidence of archaeology, field-walking, maps, old photographs, paintings, writings – which have also become quite important sources for climate reconstruction. We must of course use them with care, and historians’ expertise helps decide when it is appropriate to use a source in a particular way. This is an area I have not dwelt on – it is perhaps more self-evident, but it should be stated that it is an area of important innovation. As I stated before, if we want to assess the impact of policy, we must have an idea of the baseline, the rates of change, the natural cycles. Historical work can help provide information on all of these.

Many such historical projects are best done by natural scientists and historians working together, to piece together and understand fragmentary evidence, and the human actions that helped produce particular environments – and how they shaped society in turn.

At the same time, I hope to have demonstrated how ‘the environment’ and appropriate policy for it and us can never only be a matter of scientific knowledge, of policymakers doing what scientists tell them, and somehow discovering what an ‘optimal’ environment is which we then strive towards. Science should of course be at the heart of environmental policymaking. But so should everything else we value. There has been a dichotomy at the heart of post-war environmental policymaking, between measuring acceptable levels of risk on one hand, and preserving a certain set of things perceived to under threat (both species and beauty) on the other. This division reflects the emergence of ‘the environment’ in the 1940s as an object in crisis, and the institutional means to confront the crisis at that point in time.

Now, indeed, the environment it is entrenched in our minds as being in almost permanent crisis, with any policy successes often perceived as local, isolated, and possibly temporary at best. Nature is an even more nostalgic idea in many cases; something we can hardly say without feeling that we are in the process of losing it. There is a truth of course to these perceptions; we have lived through a hugely destructive, as well as creative age. But in realizing that we are implicitly or explicitly making historical valuations in environmental policy can help us see that environmental policy can, or should be, about what we *want*; what makes for a good life, and what is good for life. This was the spirit in which pre-war conservation and preservation ideals were drawn up. As well as a question of safety, or security, it is a question of beauty – which was actually the most prominent idea to be defended in the creation of the National Trust, the National Parks, and, even more obviously, Areas of Outstanding Natural Beauty.

‘Beauty’ is of course rather far from that ‘objective calculus’ that policymakers – evidence-based kind of people – are supposed to be seen to be using. At the other end of the cognitive scale, perhaps, policy has also seen some success where specialists have been able to measure numbers in a relatively restricted way: toxicity levels to control water quality, or stepped in to protect some species when their numbers becomes sufficiently small that the survivors suddenly became valued enough to stop the few left being destroyed.

Looking into the future is, of course, a more perilous pastime than peering into the past – albeit with the advantage that people cannot immediately prove you wrong. Now, history can be useful to policy in a million little things, and indeed might make us wary of great claims. But on a grander scale, some of the deficiencies of environmental policy I have highlighted were dealt with in the 2010 Lawton Report, *Making space for nature* commissioned by DEFRA and now steering the objectives of Natural England.[[26]](#footnote-26) One of the unfortunate effects, perhaps, of defining ‘the environment’ as a thing under assault from humans is that it has remained held, institutionally, at arm’s length from us. It remains a place we escape to or that must be isolated from us for its own good; or where we inevitably mix in air and water supplies, the metric of wholesomeness is limited to assessing the risk of a direct measureable health impact from pollutants. It remains quite hard to bring together the humanities, social and natural sciences in teaching, even at university level – but this might be a prerequisite for producing the joined-up thinking we need. Ironically, one of the more successful ‘conservers’ of nature in recent times is the military, which found itself having to justify denying access to a significant area of the country’s landscape for training purposes, and realized that it could act positively as a custodian of the national environment, as its security. It was actually militarily beneficial to cultivate an interest in the land. Since the 1970s it has even had its own glossy conservation magazine, *Sanctuary.[[27]](#footnote-27)* Now, militarising the country may not be an ideal general model for environmental management, but shows that a degree of integrated, multiple use of land can emerge in surprising places – when the right conditions exist. As it has been the past - we can say with some confidence – environmental policy is all about cultural change.

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1. www.historyandpolicy.org [↑](#footnote-ref-1)
2. Cox, P., ‘The future uses of history’, *History Workshop Journal* 75 (2013), pp.125-145. [↑](#footnote-ref-2)
3. For a small selection of their works, see Smout, T.C., *Nature contested. Environmental history in Scotland and northern England since 1600* (Edinburgh, 2000); Smout, T.C., *Exploring environmental history. Selected essays* (Edinburgh, 2011); Sheail, J., *An environmental history of twentieth-century Britain* (Basingstoke, 2002); Sheail, J., *Conservation in Britain. The formative years* (London, 1998). See also Simmons, I., *An environmental history of Great Britain: from 10, 000 years ago to the present* (Edinburgh, 2001); on a more global scale, McNeill, J.R., *Something new under the sun. An environmental history of the world in the twentieth century* (London, 2001); Radkau, J., *Nature and power. A global history of the environment* (Cambridge, 2008). [↑](#footnote-ref-3)
4. Internationally, the distribution of responsibilities can be quite varied. In the United States, fish and wildlife parks are managed by the Ministry for the Interior, while the Forest Service has always been part of the Department of Agriculture. In Russia we find the Ministry for Natural Resources and the Environment (official English trans., although the Russian word in fact means ‘ecology’ rather than environment).In being responsible for both exploitation of and protection of nature, it has potentially conflicting interests within it, somewhat like the UK’S DEFRA. [↑](#footnote-ref-4)
5. See http://www.environment-agency.gov.uk/ and http://www.defra.gov.uk/environment/ [↑](#footnote-ref-5)
6. The devolved administrations of Northern Ireland, Scotland and Wales have their own equivalent bodies. [↑](#footnote-ref-6)
7. Sheail, J., *Nature in trust. A history of nature conservation in Britain* (Glasgow, 1976); Adams, W.M., *Future Nature* (2nd edition, London, 2003); Anderson, M.A., ‘Areas of outstanding natural beauty and the 1949 National Parks Act’, *The Town Planning Review,* 61 (1990), pp.311-339. [↑](#footnote-ref-7)
8. Sheail, J., *Nature’s Spectacle. The world’s first national parks and protected places* (Abingdon, 2010); Adams, W.M., ‘Separation, proprietorship and community in the history of conservation’, in Sörlin, S., & Warde, P. (eds), *Nature’s End. History and the Environment* (Basingstoke, 2009), pp.50-69. [↑](#footnote-ref-8)
9. I will examine this development in two future books: with Libby Robin and Sverker Sörlin on *The Environment: a History.* And with Peter Coates and David Moon (eds), *Local places, global processes* (forthcoming, 2014). [↑](#footnote-ref-9)
10. Vogt, W., *Road to survival* (London, 1948); Osborn, F., *Our plundered planet* (London, 1948); see also Osborn, F., *The limits of the Earth* (London, 1954); on post-war conservation thinking, see Robertson, T., *The Malthusian moment. Global population growth and the birth of American environmentalism* (London, 2012). For the longer history of these developments, see Robin, L., Sörlin, S., and Warde, P., (eds), *The Future of Nature. Documents of global change* (New Haven, 2013). [↑](#footnote-ref-10)
11. Sheail, *Nature Conservation* (2002). [↑](#footnote-ref-11)
12. Caldwell, L., ‘Environment: a new focus for public policy’, *Public Administration Review,* 23 (1963), pp.132-9. See also Caldwell, L., *Environment: a challenge for modern society* (New York, 1970). [↑](#footnote-ref-12)
13. Caldwell, ‘Environment’, (1963). [↑](#footnote-ref-13)
14. Garnaut, R., *The Garnaut Review 2011. Australia in the global response to climate change* (Cambridge, 2011), p.ix. [↑](#footnote-ref-14)
15. Mosley, S., *The chimney of the world: a history of smoke pollution in Victorian and Edwardian Manchester* (London, 2001), p.100. [↑](#footnote-ref-15)
16. See Mosley, S. 'The Home Fires: Heat, Health and Atmospheric Pollution in Britain, 1900-45.' in M.Jackson, (ed.) *Health and the Modern Home.* (New York, 2007), pp.196-223; Mosley, S., 'Fresh Air and Foul: The Role of the Open Fireplace in Ventilating the British Home, 1837-1910'. *Planning Perspectives* 18:1 (2003), pp.1-21; Brimblecombe, P., *The big smoke: a history of air pollution in London since medieval times* (London, 1987). [↑](#footnote-ref-16)
17. Weart, S., *The discovery of global warming: a history* (2nd edition, Cambruidge MA, 2008); Edwards, P., *A vast machine: computer models, climate data and the politics of global warming* (Cambridge, MA, 2010); Sörlin, S., ‘The global warming that did not happen: historicizing glaciology and climate change’, in Sörlin and Warde, *Nature’s End* (2009), pp.93-114. [↑](#footnote-ref-17)
18. Darling, F. Fraser, *Wilderness and Plenty: the Reith Lectures 1969* (London, 1970). [↑](#footnote-ref-18)
19. "Weather: magnificent ignorance?" *The Economist* (9 Apr. 1977), p.14. [↑](#footnote-ref-19)
20. A very useful introductory discussion can be found in Hulme, M., *Why we disagree about climate change* (Cambridge, 2009). [↑](#footnote-ref-20)
21. Even thought with recent efforts some kind of voluntary agreement now covers a majority of English farms, with the Entry Level Stewardship scheme – although with thus far limited results. Lawton, J.H., Brotherton, P.N.M., Brown, V.K., Elphick, C., Fitter, A.H., Forshaw, J., Haddow, R.W., Hilborne, S., Leafe, R.N., Mace, G.M., Southgate, M.P., Sutherland, W.J., Tew, T.E., Varley, J., & Wynne, G.R. (2010) *Making Space for Nature: a review of England’s wildlife sites and ecological network*. Report to Defra, p.88. [↑](#footnote-ref-21)
22. Smout, *Nature Contested* (2001). [↑](#footnote-ref-22)
23. Smout, T.C., ‘Nature, Cultural Choice and history’, in Coates, Moon, Warde, *Local places* (forthcoming). [↑](#footnote-ref-23)
24. Jørgensen, D. (University of Umeå), ‘Back in the good ol’ days: when is the wild’, paper given at ‘Wild Desires’ conference, Pembroke College, Cambridge, 19 April 20-13. [↑](#footnote-ref-24)
25. For texts introducing the field, see Rackham, O., *A history of the countryside* (London, 1986); Pryor, F., *The Making of the British Landscape* (London, 2010); Rowley, T., *The English Landscape in the Twentieth Century* (London, 2006). [↑](#footnote-ref-25)
26. Lawton et al, *Making space for nature,* (2010). [↑](#footnote-ref-26)
27. Dudley, M., *An environmental history of the UK defence estate 1945 to the present* (London, 2012). [↑](#footnote-ref-27)