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# Historical-Futures and Future-Futures in Environmental Law Pedagogy: Exploring ‘Futures Literacy’

Elen Stokes and Ben Pontin\*

In this article, we begin reflecting on how ‘futures literacy’ – recently championed by UNESCO as a vital skill that allows people to better understand the role of the future in what they see and do – might be developed in environmental law pedagogy. Law and legal analysis tend to be absent from futures scholarship, and we discuss various ways of engaging with environmental law as an important but underexplored site and means of future-making. We consider our shared teaching of an undergraduate module in which students examine historical legislation for what it says about past ideas of the environment’s future and the action within the law necessary to safeguard it; and contemporary texts, including science fiction and poetry, imagining a future for the environment on and through which law operates. Futures literacy, we argue, is at its richest when ‘historical futures’ and ‘future futures’ are read together, or alongside one another.

Environmental law is one of the most future-oriented legal disciplines that, without much conscious effort, involves everyday acts of imagination, anticipation, projection, prediction and promise. Students of the subject are expected to work across a range of different time-horizons and temporal modes, often simultaneously within the same discrete topic. The law on climate change is archetypal of the multiple futures at play at any one time, engaging as it does with short-term carbon budgets, long-term emissions targets, land-use planning, transitional economies, intergenerational justice, precaution, sustainability and so on. Such diversity in how the future is drawn into the present is not unique to environmental law’s headline policies and governing frameworks, however. It is also evident in its low-level bureaucratic workings and routine practices, such as environmental impact assessment, planning and permitting conditions, and site management systems. Therefore it seems obvious to say that the study of environmental law necessarily entails the study of the future – so obvious that the relationship between the two has remained a background variable, not an issue in its own right.

This lack of direct focus is especially intriguing given that the future is increasingly being taken up as a matter for inquiry by the social sciences and humanities,<sup>1</sup> in an effort to broaden the

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\* Cardiff Law School. We are grateful to Barbara Adam, Steven Vaughan and the two anonymous reviewers for their comments on earlier drafts. We must also acknowledge the contribution to the module at the heart of the conversation of colleagues Ludivine Petetin and Caer Smyth, and our students particularly from the years 2018/2019 to the present.

<sup>1</sup> See e.g. Barbara Adam and Chris Groves, *Future Matters: Action, Knowledge, Ethics* (BRILL 2007); Vincanne Adam, Michelle Murphy and Adele E Clarke, ‘Anticipation: Technoscience, Life, Affect, Temporality’ (2009) 28 *Subjectivity*

remit of futures studies beyond strategic planning, economic forecasting and actuarial science. Legal scholarship has been largely absent from multidisciplinary conversations in this context,<sup>2</sup> so there are questions to ask about what perspectives and methods from law could add to the mix. These questions are timely, their salience heightened by an international campaign led by UNESCO to facilitate the exercise of futures-thinking and improve what it calls ‘futures literacy’. Futures literacy is described as:

... an essential skill in the context of the unprecedented crisis we are confronting, and where we come to realize that the future of humankind will depend on the kind of decisions we take today. Using Futures Literacy, we can question the current way we explain the world, and the analytical choices we make. We can challenge our assumptions, move out from our comfort zone and expand our imagination.

These developments have led us to reflect on what futures literacy might entail in academic legal education, using teaching and learning in environmental law as our entry point into wider discussions about how and with what effect the future is understood, problematised, related to and experienced ahead of time. Our aim then is to begin to think more broadly and contextually about futures literacy as an important aspect of environmental law pedagogy, albeit one that has not yet been addressed directly.

Our module is called Environmental Law and Policy, and is available as an option for second and third year undergraduates in the Cardiff Law School. No core textbook is used. Rather, students are provided with a list of prescribed reading and suggestions for further independent research on a topic-by-topic basis, oriented where possible around research articles and cases, statutes, and government reporting in the areas covered by the syllabus. The first semester covers overarching themes in environmental law, including the nature of environmental expertise, environmental principles, access to justice and participation in decision-making. Semester Two focuses on post-Brexit developments in the discipline (notably the Environment Act 2021). We deal with futures, but sometimes inadvertently and on an ad hoc basis, using texts that include ‘traditional’ legal ones (including statutes no longer in force) and ones that stretch

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246-265; Ben Anderson, ‘Preemption, Precaution, Preparedness: Anticipatory Action and Future Geographies’ (2010) 34(6) *Progress in Human Geography* 777-798; Arjan Appadurai, *The Future as Cultural Fact: Essays on the Global Condition* (Verso 2013); Peter Pels, ‘Modern Times: Seven Steps toward an Anthropology of the Future’ (2015) 56(6) *Current Anthropology* 779-796; Rebecca Coleman, ‘A Sensory Sociology of the Future: Affect, Hope and Inventive Methodologies’ (2017) 65(3) *The Sociological Review* 525-543.

<sup>2</sup> Notable exceptions include Emily Grabham, ‘Governing Permanence: Trans Subjects, Time, and the Gender Recognition Act’ (2010) 19(1) *Social and Legal Studies* 107-126; Annelise Riles ‘Collateral Expertise: Legal Knowledge in the Global Financial Markets’ (2010) 51(6) *Current Anthropology* 795-818; Renisa Mawani ‘Law As Temporality: Colonial Politics and Indian Settlers’ (2014) 65(4) *UC Irvine Law Review* 65-95; Davina Cooper, ‘Towards an Adventurous Institutional Politics: The Prefigurative ‘As If’ and the Reposing of What’s Real’ (2020) *The Sociological Review* 893-916.

the traditional range (e.g., science fiction and poetry) as addressed below. In this paper, which takes the form of an edited conversation, we discuss our different approaches to the future and how the teaching of environmental law can inform our understanding of futures literacy.

ES: We're both interested in the role of the future – how it is imagined and acted upon – in environmental law, but from quite different perspectives. You come at it through a critical examination of historical sources and are more strongly focused on futures of the past, whereas I focus more on ways of orienting to the not-yet and anticipated futures to come. Both angles feature heavily in how we teach our module at Cardiff, although we are careful, I think, not to posit 'history' and 'future' as opposites – and to see them instead as integral parts of each other. Yet I am not sure we ever really make those connections explicit, and perhaps we are guilty of separating out past, present and futures a little too artificially in our teaching materials – even if we can see the interdependencies on a more abstract level.

I'd like us to talk about those interdependencies a little, because they seem to sit under the surface of environmental law scholarship and teaching generally without being articulated. Approaches tend to be either historical or futural but not both. Perhaps this is because history and futures studies are researched and taught as separate disciplines with different roots, agendas, methods and techniques. Certainly, I don't feel conceptually or methodologically equipped to engage in historical research, which is why I tend not to focus on official records of futures-past. I am however interested in futures that did not transpire – the temporal dimension of potential, the 'counterfactual imagination'<sup>3</sup> – a history of events which have not happened, as Disraeli put it, and how to access it empirically.

What is the value in studying the future from a historicised contextual perspective? What does historical method unlock in our understanding of how the future is or should be in environmental law?

BP: Thank you so much for kicking off with this encapsulation of the gulf that exists within our discipline between scholars of the past and of the future. I agree that this is where any discussion of the role of time in environmental law must begin, and that the interdependencies and common ground are worth making explicit.

My concern, when phrased in terms of historical futures (rather than history per se) is with ideas about the future that have resulted in legal outputs which have shaped human

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<sup>3</sup> See e.g., Catherine Gallagher, *Telling it Like it Wasn't: Counterfactual Imagination in History and Fiction* (University of Chicago Press 2018).

relations with wider ecology in ways that not only help us imagine what a green future can look like, but which obliges us to help realise that future, or something like it. There is thus a descriptive aspect – what people shaping the law had in mind or intended about the future – and a normative element – what moral force does a vision of the future historically exert in the present day, about the future ahead? The moral dimension is similar to what John Rawls was contemplating in his backwards looking ‘just savings principle’, according to which we ought to save for (i.e. protect) future generations out of respect for our ancestors having done so in relation to our generation.<sup>4</sup> This can be applied to almost any area of historical environmental protection through the law, but three examples may suffice.

First, a clause in the Liverpool and Manchester Railway Act 1826 requiring locomotives to ‘effectually consume their own smoke’. This was inspired by a vision of the future comprising green industrialised transport, in which fossil fuels were used carefully and responsibly. Second, section 17 of the Public Health Act 1875 requiring sewage authorities to ‘purify’ sewage prior to discharge into rivers. This was inspired by a vision of growing urban centres which treaded lightly on the water bodies in their midst. Third, the Alkali etc. works Regulation Act 1881 (various sections) requiring the leblanc chemical works to use best practicable means to prevent emissions to air, water and land. This was inspired by a vision of the future in which the chemical industry enhanced the quality of life of humankind without adverse impacts on the environment. In Rawlsian terms of backward-looking intergenerational justice, these legislators were ‘saving’ for our benefit. When we imagine the nature of our responsibility to and for the future, we should (so Rawls’ revised just savings principle has it) start from a position of reciprocity with the past.

Rawls’s just savings principle is a thought experiment rather than an empirical account of a great past. It asks us to imagine a perfect past in which previous generations passed on an environment for us to pass on in future. In practice, however, in the areas above, there is a gap between imagined and actual futures which is important. Perhaps we’re not so far apart, as you and I are each interested in future imaginaries that have not necessarily aged well, if that is the right expression. I am drawn to the moral issue of unfinished business grounded in past attempts that got as far as the statute book in the first industrial nation.

ES: Unfinished business is a nice way of putting it, as it opens the door to critical engagement with the processual character of future-making, and the idea of the future not as an object of

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<sup>4</sup> I discuss this in Ben Pontin, ‘The Role of “Previous Generations” in the Just Savings Principle of John Rawls’ (2019) 24(4) *Kantian Review* 555-571. See further John Rawls, *A Theory of Justice* (Harvard University Press 1971) 292.

study but as a set of relations of absence and presence. I can see very clearly the need for a return to history, so to speak, in the interpretation of environmental law, because it gets at the significance of context as an active and animating force that makes some futures imaginable, others not.

But one of the criticisms made of other fields, which can also be levelled at legal studies, is that the problem of the future tends to have been overlooked in favour of the relationship between past and present. The future is a ‘displaced temporal logic’, as Nancy D. Munn says of the cultural anthropology of time.<sup>5</sup> This is not to say that the present-future relation should instead be the focus, but rather that there is a need to consider the past, present and future as all implicated in each other.

BP: Nancy Munn and others have written about the ‘past in the present’, the upshot of which is that the future is somehow squeezed out, or, as you say (quoting Munn) displaced. At risk of contradicting myself, I think that what is important about the examples of legislation above is that they are not in the present. They are distant. They are distant until, that is, imagination is used to draw the historian to old documents, or other material artefacts, to explore a time that no longer is. In contrast, much if not all of the futurity scholarship I am familiar with quite literally is entirely of the present, or at least that’s my understanding.

Take for example JB Ruhl’s ‘Case of the Speluncean Polluters’,<sup>6</sup> set in some imaginary future over two thousand years hence. This is some of the first reading our students are given to introduce the subject. It’s brilliant. Yet the ideas it contains are entirely contemporary. It does not tell us anything of the future, but of Coase and Brundtland and Bullard and so on (whose names form the base of each of the fictional judges in that case) who are our contemporaries.

By contrast, historical futures are not of the present. The legislators in the examples I have given are long dead, and indeed Benjamin Disraeli was/is among them – he sponsored the Public Health Act 1875. It is possible that the present in relation to this legislation is broadly as Disraeli and his peers legislated for it to be, even causing it to be thus. And to the extent that it is not – to the extent that there is still work to be done to realise Disraeli’s vision of towns whose economies grow not at the expense of river quality – it is conceivable that we have a duty to finish the job. There is such a lot of descriptive and normative material to explore historically, in

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<sup>5</sup> Nancy D. Munn, ‘The Cultural Anthropology of Time: A Critical Essay’ (1992) 21 *Annual Review of Anthropology* 93-123, 115.

<sup>6</sup> J.B. Ruhl, ‘The Case of the Speluncean Polluters: Six Themes of Environmental Law, Policy, and Ethics’ (1997) 27 *Environmental Law* 343-373.

contrast to the paucity of any materials genuinely *of* the future. I'd be very interested in the tools or materials you and our students use in accessing *future-futures*.

ES: The Speluncean Polluters is a good example here, but not so much because it offers a direct route to exploring radically different legal imaginaries – as you say, many of the proposed solutions to the hypothetical scenario were not new at all. But that is what makes it so relatable and so unsettling, the idea that in 4310 AD we could still be rehearsing the same old arguments about whether to mine for the fictitious substance placidium or keep it in the ground. So maybe there is something to be said for the pedagogical uses of science fiction, even when it is not so fictional after all. Science fiction is not intended to be predictive; it is descriptive. I find the following explanation helpful in this regard: 'It is not "real" in the sense of being actual, concrete, and verifiable, but it is "true" because it corresponds or conforms to that which *is* real, actual, and verifiable'.<sup>7</sup> The question is what might be gained in the study of the future from fiction that holds a mirror up to society and reflect what is going on, rather than conjures up a certain fantastical otherworldliness.

Two things seem to stand out in how our students have engaged with Ruhl's fictitious case (which is modelled on Lon Fuller's famous 'The Case of the Speluncean Explorers'). The first is the power of storytelling and narrative scenarios in rendering the future tangible in the form of interlinked plots and problems, not 'out there' waiting to materialise but an already realised present. I find it interesting that there is virtually no discussion of 'the future' in this first tutorial that we do with our students in Cardiff (despite the futuristic setting), presumably because such little imaginative effort is needed to read hypothetical judgments of the Supreme Court. Students come to the module with a prior sense of the ideological tensions characterising the field given their previous legal studies, and Ruhl's exposition of the different frames and counter-frames of environmental law and policy – sustainable development, cost-benefit analysis, private property rights, ecological stewardship and so on – does not take them much beyond their existing understandings and experiences. Again, though, the familiarity of both the ideas and their presentation is its major strength, because it begins a process of critiquing the futures that are always already embedded in the present – 'the extended present', in the words of Helga Nowotny.<sup>8</sup> Science fiction is not about the time in which the story is set (e.g., 4310 AD); it is

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<sup>7</sup> Cheryl Laz, 'Science Fiction and Introductory Sociology: The "Handmaid" in the Classroom' (1996) 24(1) *Teaching Sociology* 54-63, 54.

<sup>8</sup> Helga Nowotny, *Time: The Modern and Postmodern Experience* (Neville Plaice tr, Polity Press 1994) ch. 2.

about the time in which it is written.<sup>9</sup> Certainly, there is an affective power in the portrayal of environmental concerns or crises not as possibilities but as *fait accompli*. And this condensing of the temporal horizon may be a necessary first step in any attempt to imagining how things could be otherwise, in an alternative reality.

A second, related point is that the Speluncean thought experiment becomes one of the key source materials for the remainder of the module – a storehouse of images, ideas and tropes that students later draw on in analysing substantive topics in the first semester (e.g. the relationship between environmental law and science, public participation in environmental decision-making, and access to environmental justice), which can bring a greater freedom and lightness to the critique of specific legal rules and practices.

The same is true of how we use Kim Stanley Robinson's recent sci-fi, or cli-fi (climate fiction), novel *The Ministry for the Future* to encourage engagement with the broader cultural context in which legal and institutional developments take place. In that tutorial, we ask students to reflect on passages of the book in order to construct a sense of the future that may have been more difficult to achieve with legal doctrine alone. The story begins in 2025, with a heatwave of unprecedented and unsurvivable wet-bulb temperatures (accounting for both heat and humidity) having devastating effects across India, killing an estimated 20 million people in two weeks. Other plot lines involve controversial geoengineering techniques to stabilise Antarctica's sliding glaciers, violent eco-resistance movements, cyberattacks against the coal industry, and the introduction of a new currency called the carbon coin designed to create a reward for reducing the risks of climate change. By the end of the book, the outlook is quite positive. But the idea is not to focus on the likelihood or accuracy of those scenarios, rather to provoke an immediate and visceral reaction to the future as if it were the present.

Seeking to engage the imagination means tapping into something different from purely intellectual categories of analysis. Futures literacy is not just about developing an understanding of the future in terms of conventional sources of expertise and knowledge practices – such as formal models and quantitative measures of risk that have come to characterise mainstream approaches to environmental risk regulation.<sup>10</sup> It can also involve an appreciation of how futures are lived through specific modes or structures of feeling – surprise, fear, urgency, hope, and

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<sup>9</sup> Paul Graham Raven, 'Telling Tomorrows: Science Fiction as an Energy Futures Research Tool' (2017) 31 *Energy Research & Social Science* 164-169, 168.

<sup>10</sup> On the central role of risk in environmental law, see e.g., Sheila Jasanoff, 'Virtual, Visible, and Actionable: Data Assemblages and the Sightlines of Justice' (2017) *Big Data and Society*.



uncertainty, for example.<sup>11</sup> These are all ways of registering and responding to the future which somehow shape, or at least help to explain, how law and legal responsibilities towards the future are practised.

For instance, the language, imagery and sense of hope animates our study of the Well-being of Future Generations (Wales) Act 2015 – the first legislation worldwide to impose a legal duty on public bodies to act in the interests of future generations. It proves useful to think of the Act's seven well-being goals not just in their own terms but against a backdrop of multiple and interconnected discourses of progress, transitions, sustainable development and global climate change. In that regard, reading the Act alongside *The Ministry for the Future* helps to create a sense of shared histories and of shared futures, but it also serves to highlight what is unique about Wales's socio-political imaginary, comprising collectively held values and visions of territorial identity and devolved power and administration. The aim is to capture the Act's social and cultural depth, by highlighting the range of expectancies entailed in the 'now'. In certain respects, Wales already has a ministry for the future, in its Future Generations Commissioner, and the fact that the Welsh institutional landscape is partly reflected in a literary work offers different vantage points for seeing the premises and sustaining cultures of law in a different light. This helps to equip students with a different set of conceptual tools for understanding the role of law in governing the future not just through individual rules but also through the mobilisation of temporal orientations and affective-ideational intensities.

BP: Fundamentally, it is about rethinking the subjects we teach in a broader way, and encouraging students to develop an openness to other disciplines and approaches. The key to what you are saying is that the work of Ruhl and Stanley Robinson afford us and our students insight about the future we cannot get from, say, the sections of the 2015 Act or reported cases dealing with risks of this or that.

ES: Challenges do emerge from that, however. One is in determining which contexts are relevant. There is a risk, isn't there, of treating context as anything and everything. What does *The Ministry for the Future* bring to the study of the Well-being of Future Generations Act, that could not be achieved pedagogically without it? Possibly not a huge amount, and it wouldn't be wholly unfair to criticise the comparison with science fiction here as superficial. *The Ministry for the Future* provides insights into a context in which the Act operates, but it is not the only context

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<sup>11</sup> See e.g., Rebecca Coleman, 'A Sensory Sociology of the Future: Affect, Hope and Inventive Methodologies' (2017) 65(3) *The Sociological Review* 525-543; Ben Anderson, 'Emergency Futures: Exception, Urgency, Interval, Hope' 65(3) *The Sociological Review* 463-477.

that could have been chosen. There are inevitably difficulties in achieving a ‘total picture’<sup>12</sup> of law in any one tutorial – time constraints alone mean that lines have to be drawn and reading materials have to be picked. Still, I think we should be honest about the fact that our selection of texts sometimes involves decisions of convenience (*The Ministry* having been published at the beginning of the academic year); it can be narrow and self-serving (I was writing on that particular topic at the time); it might even be motivated by a desire for the module to appeal to as many students as possible. Making modules appealing and relatable is itself a sell for this kind of approach to context. We could even say that the university workload model creates an incentive to contextualise using popular culture, encouraging a higher student take-up.

BP: If I can briefly come in here and very much echo everything you are saying about the contingencies of our selection of contexts, including the impact of the workload model on academics employed on teaching and research contracts to ‘integrate’ the two in the interests of convenience. We promise the students a teaching experience that is informed by our research, like a simple line or path from one to the other, when often our teaching contributes to our research (e.g., trialling ideas among students that will later be put to our peers in the settings of research outputs). My Brexit and Environment teaching touched on later has strongly contributed to my research in this field as much as the other way round.

ES: Another plausible influence on what we take to mean by ‘context’, and on which texts we use to help build this bigger picture, is graduate destinations. The majority of our LLB students will not go on to become legal practitioners. In fact, a large proportion of our undergraduates report that they do not intend to pursue a career in law, citing poor job prospects as a primary reason. I wonder if as a result we feel more compelled to move away from legalism in search of the literature, philosophy, art, history and so on that enable students to learn from those contexts which values are relevant and how they may be realised through law as through other societal and cultural spheres.

In a further attempt to broaden the resources deployed to make sense of the Future Generations Act, we invited Barbara Adam, Emerita Professor at Cardiff University and leading social theorist on social time and futures theory, to give a guest lecture reflecting on environmental law in a futures context. One of the aims was to encourage an active and reflective interaction with futures not as fixed or finished objects of study but as always-in-the-

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<sup>12</sup> William Twining and David Sugarman, ‘Jurist in Context: William Twining in Conversation with David Sugarman’ (2020) 47(2) *Journal of Law and Society* 195-220, 211.

making. This required a shift in emphasis, away from some of environmental law's conventional knowledge practices, such as risk assessment and cost-benefit analysis, towards more critical discourses of anticipation and possibility.

We must draw into our thinking, imagining and feeling the 'shadow side' of futures as latent processes on their way to emergence. Instead of conceiving of futures simply as the products of our actions and activities in the present, we have to understand the futures societies create as swelling up within them, always on the way to unfolding. The future in this sense is not abstract, not empty, and not simply open to transformation, but is instead living within the present. It inhabits the relations that establish the interdependence of things, and which contain the potential for producing unintended and unforeseen consequences.<sup>13</sup>

This conceptual framing for thinking about the future creates a space for different types of critiques to be made of the Future Generations Act. One of the common criticisms of the Act is that the duty it places on public bodies to carry out sustainable development for the benefit of future generations is too general and aspirational to be directly enforceable through judicial review. That may be so, but the question of justiciability is not the only one that can be asked. What is the Act's anticipatory orientation? Does it disrupt or reproduce the 'uneven distributions of futurity'?<sup>14</sup> In other words, which and whose futures emerge from the interpretation and implementation of the Act as having potential for change, growth, development, and so on, and which and whose possibilities are denied as a result? It is not that these other questions could not have been asked without the accompanying literature, but rather that the non-legal texts give us and the students access to new vocabulary to explain how law structures experience of the future in the here and now. We have also used poems and meditations in our classes with our students to try to integrate emotional, social, and situated dimensions of future-making. The idea is to move away from futures literacy as a functional field of prediction to build a view of environmental law-and-the-future that takes in different ways of being-in-the world. For example:

## **FUTURE PRESENTS**

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<sup>13</sup> Barbara Adam and Chris Groves, *Future Matters: Action, Knowledge, Ethics* (Brill 2007) 122.

<sup>14</sup> Kevin Grove and others, 'The Uneven Distribution of Futurity: Slow Emergencies and the Event of COVID-19' (2021) *Geographical Research* 1-12.

We *plan* futures  
With compassion  
For all fellow beings  
Recognizing our impacts  
Knowing everything matters  
Aware of footprints & timeprints

We *create* futures  
Through technology  
Science & economics  
For ourselves and others  
Here and in distant locations  
With care & forethought of effects

We *know* futures  
As invisible processes  
Deeds & actions in progress  
Immanent and latent but very real  
Layers upon layers of past & present  
Futures of predecessors & contemporaries

We *infuse* futures  
With hope & visions  
Of what is right and good  
Knowing of our connections  
As impacts ripple through matter  
Affecting the entirety of space & time

We *imbue* futures  
With virtue and care  
Using lightness of touch  
Earth guardians & gardeners  
Taking on responsibility for effects  
Accompanying actions to their destination

Barbara Adam, 2009<sup>15</sup>

BP: I think we were a little surprised by the contrasting responses of our students to this new vocabulary. Some expressed genuine wonder that it was possible to write and think of law in terms of infusions, ‘imbuings’ and in other really imaginative ways suggested in Adam’s work. Yet others doubted that Adam’s language was helpful to their understanding of environmental law. Perhaps in future runs of the module we might think of different ways of preparing students to help them make the leap that we are asking.

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<sup>15</sup> Included with Barbara Adam’s permission.

The leap is worth making particularly for purposes of the second semester's focus on Brexit. Reference in *Future Presents* to 'hope and visions' and futures that do not follow in a simple linear fashion as much as 'swelling up' in ways envisaged by Adam link well with second term's themes. The syllabus for the module as a whole was radically revised when the UK voted in the referendum on the future of Britain's role in the European Union – voted, that is, to leave – to focus in depth on the future of environmental law outside the EU. We devoted a whole (second) semester to this. It is a profoundly important topic that engages with 'hopes' and '[a]ccompanying actions to their destination' mentioned by Adam but also anxiety in which 'layers and layers of past and present' leave us doubtful about the future.

In practical terms, our focus has been the UK Environment Bill, and now Environment Act 2021, which in some shape or form has been before Parliament for four years. The legislation is central to our contribution to futures literacy as it is shaped by dialogue between the hopeful and the doubtful (those optimistic about the UK taking a different line on the environment from the EU and those who find the prospect alarming). The juxtaposition of different inclinations or dispositions is reflected in the teaching team! One preliminary point I would like to mention, at risk of being trite, is that teaching has become a different experience with the passing of each year. Initially Brexit was seen by almost all students as a dramatic event in which many had participated (students of the 2016/2017 were the only ones we have taught who had voted in the referendum, as subsequent students are too young to have voted). Yet with the passage of time it has become, as one student this year stated, 'ancient history'.

The topic is examined through a 3000-word essay on the significance of the Act, submitted at the end of the semester. In the guidance we provide students, it is explained that they are being asked to write about the future prospects for law and the environment under the Act's provisions, but from the vantage of the present *and* the past. In this respect one of the futures-richest discussion points – which is given an overarching place during the semester – is the Government rhetoric of legislation representing an 'unfrozen moment' in which it is possible and necessary to grasp opportunities for a 'Green Brexit'.<sup>16</sup> We ask what Michael Gove (the Environment Secretary responsible for the imagery) meant by this cryogenic language. Can moments be frozen? By whom and how? Is a frozen moment a good or bad thing, or both (or neither)?

Students are invited to explore this with reference to old environmental legislation in force on the UK's entry into the European Economic Community (EEC), before the early EEC environmental legislation of the mid to late 1970s. They study the Control of Pollution Act 1974

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<sup>16</sup> Michael Gove, 'Unfrozen Moment: Delivering a Green Brexit', Defra Speech, 21 July 2017.

regulating waste, rivers and air, and the National Parks and Access to the Countryside Act 1949 covering landscapes and wildlife habitat conservation. Little of this remains in force. They touch on green papers, such as the ‘War on Waste’ of 1975, and the first Environment Green paper of 1970, in which climate change is mooted in the context of the solar system being in a state of gradual decay (as the sun is dying). This is pedagogic material that fits within the historic-futures category. It encourages students to understand environmental law’s post-Brexit future using historical texts – the materials of historical futures.

Students are also invited to link the ‘unfreezing’ of exclusive legislative competence to the ‘taking back control’ rhetoric of the leave campaign. This is a phrase that is prominent in the Brexit and environment literature, but with the caveat that emphasis in the literature is usually placed on the ‘where’ of control (rather than the ‘when’).<sup>17</sup> If our pedagogic efforts in the area of futures literacy have been successful, students will be equipped to understand the ‘historical futures’ and ‘future futures’ that speak to ‘taking back control’. It is an exciting thought that some students will experiment with materials in an imaginative way in writing their essays on the Green Brexit topic, perhaps applying the thought experiments and science fiction contexts studied in the first semester. But even if they largely cover historical futures, perhaps because they feel on more comfortable ground with an old imagined future than a new one, then that is still something.

Overall, one of the most challenging aspects of the semester, for us staff and the students, was making sense of Brexit in terms of Rawls’ just savings principle, according to which (as touched on above) the benefits we inherit from previous generations should be ‘saved’ for the benefit of future generations. We greatly struggled to agree on these past savings. We both acknowledge that looking back over the decades in which the UK joined and left a supranational jurisdiction involved a lot of rubble to sift through. But in the lecture we jointly delivered to students towards the end of the semester, it was clear that we differed quite profoundly in our understanding of how rich (or poor) a legacy ancestor legislators have bequeathed – on what the pre-EU architecture was like. We agree that one of the principal criticisms of Brexit environmentally – and one of the biggest causes of doubt and distrust – stems from the sense in which the UK is perceived in the past as the ‘dirty man of Europe’. But students felt differently about the ‘validity’ of this perception, don’t you agree?

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<sup>17</sup> Colin Reid, ‘Taking back control from Brussels – but where to?’ 17 November 2016, OUP Blog ([Taking back control from Brussels – but where to? | OUPblog](#))

ES: In the joint class you refer to we certainly did cover some radically divergent views about environmental law's past, and I think we agreed once again on the importance of context: Britain's beaches received tonnes of raw sewage and were dirty but its countryside was clean where the countryside code was complied with. Different historical narratives support different visions of the future. But I am still concerned about the priority given to certain historical futures relevant to future futures. Whether you consider the UK historically a green leader or a green laggard, the fact is that Britain in 2022 is so different from Britain in 1972 that there is an argument for treating certain accounts of the past with caution.

There is something worryingly reactionary in Gove's imagery. It is coming dangerously close to suggesting that half a century of membership of the EU can melt away in an erasure of Brussels red tape that many Brexiteers said they hoped to achieve from leaving the EU. Nostalgia is at work here, isn't it? For example, Gove cited the poem by Philip Larkin, 'Going Going', written in the year of the European Communities Act 1972 to give expression to the loss of the natural world at the hands of industrialisation. It suggests a longing not only for an imagined pastoral past but for a time when Britain was at the head of the most powerful empire the world has known. A contextual focus on futures encourages the students to develop a sharper critical account of the future not as a single promise but as multidirectional and multilayered.

Another layer to this is the irony of Brexit in futures terms. One side's hope about the future (one free of red tape) has not worked out that way (at least not in terms of trade border processes on export). But politics seldom allows a recognition that one was wrong about the future. The promise has to be reinscribed, even when the other side calls it out as fanciful and ludicrous.<sup>18</sup>

BP: Time (or probably it is space) does not allow an answer to the question I'd like to ask next: whether there is an equivalent of nostalgia looking to the future that is something more than, say, blind optimism (or deep anxiety and alarm). We have agreed to conclude at this point, so that can wait for another time!

The part of the conclusion I'd like to lead on concerns the form our paper takes – what we called at the outset an 'edited conversation' (an apt descriptor on reflection). We had a hunch that this approach would 'work', but hadn't formulated how or why and what limitations a dialogue brings with it compared to a 'mainstream' essay.<sup>19</sup> The role of law in futures literacy is a

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<sup>18</sup> We are grateful to one of the reviewers for this observation.

<sup>19</sup> Our dialogical approach is different from the 'Socratic' approach in Benoit Meyer and Alexander Zahar, *Debating Climate Law* (Cambridge University Press 2021) 6, in which the authors have orchestrated thesis/anti-thesis essays

proverbial blank canvass, with little pre-existing literature with which to frame a conventional argument engaging with a body of academic opinion. But what we positively have is rich experience of grappling with the issue in and around the classroom. That is to say, we have designed and implemented a course over the years, including content relating to temporality, through creative dialogues – involving us, members of the wider teaching team, and students. Conversation has formed a part of our delivery in ways that are, I suggest, integral to the subject matter.

ES: We have focused on how futures literacy enables us to not just to study the future as an object of legal and regulatory intervention, but also as a mode through which governance effects are achieved – for example, through temporalities of hope, fear, urgency, nostalgia, and so on. As Genevieve Liveley and colleagues say, ‘higher level FL [futures literacy] involves not only looking at the future but also looking at how we look at the future’<sup>20</sup> – the cultures, norms, discourses and feelings that arise from imaginaries of future possible worlds. But it is not just environmental law pedagogy that stands to gain from a greater emphasis on futures past and present. Futures literacy, as an important and growing field of inquiry, can also benefit from engaging directly with the role of law and legal institutions in future-making. Law brings new empirical materials to the table and offers considerable potential for further analysis.

BP: I agree and if there is to be a transformation in thinking from the conversation we have had, it is that law, whether historical or future, is rich in empirical material. At the outset there was some ambiguity about whether we were using futures literacy to inform law/legal pedagogy or law to inform futures literacy. I think the point is that the two are in a constitutive tension!

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through which the editors seek to identify the best arguments in support of opposing positions. By contrast, our approach involves an element of interaction, and is less polarised.

<sup>20</sup> Genevieve Liveley, Will Slocombe and Emily Spiers, ‘Futures Literacy through Narrative’ (2021) 125 *Futures* 2021 8.