Coming into the Anthropocene:
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CONCLUSION

Law is the boring side of many interesting topics. Entertainment law is not famously amusing, nor is the law of war notably heroic or monstrous. Law is the place where passion comes to die of procedure.

Nonetheless, there is something especially poignant in this vignette from the early weeks of any introductory course on environmental law. Students arrive, animated by memories of Yosemite Valley or kayaking trips, a passion for biology or rock-climbing, a love of oceans or animals. They find seats, deposit their water bottles, and open their laptops. Then they are introduced to the Clean Air Act and the National Environmental Policy Act (NEPA), the category of Best Available Technology, and the Finding of No Significant Impact.

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Aesthetic judgments are notoriously hard to defend, but it does not seem controversial that environmental law is among the driest, most technical, and least thematically coherent fields around. If it has a super-statute, it is the procedural NEPA, which does not engage the substantive values at stake in the natural world. Little in the way of rich or imaginative doctrine has developed: the field remains defined by court review of agency interpretation of statutes – making it in effect a subfield of administrative law, only with rivers and trees in the cases. Although much of the scholarship in environmental law has tried to find a master vocabulary in cost-benefit analysis, the law itself has an inconsistent, even erratic relation to economic balancing.

Not to put too fine a point on it, environmental law is often boring. Yet it is among the fields that people come to, and stay in, out of love. It is one area where procedure has not killed off passion. This is true despite the fact that the nature-loving students who fill environmental law classes find little in the statutes and doctrines to answer the energy of their commitments.

Jonathan Z. Cannon knows both sides of this paradox with a rare intimacy. He was general counsel of the Environmental Protection Agency (EPA) from 1995 until 1998, following a nearly twenty-year private career in environmental law. He is currently the Blaine T. Phillips Distinguished Professor of Environmental Law at the University of Virginia Law School, where, along with “hard” environmental law, he teaches a seminar, cross-listed with the English department, on the literature of environmentalism. He has spoken on public occasions of the adult lawyers’ version of the beginning student’s discomfiture: rooms full of high-powered advocates, expertly deploying technical vocabulary, none of them naming the underlying question that fires their conflict: whether a tract of forest should be logged, a coal-fired turbine installed, or a piece of habitat paved for a highway. The conflicting commitments that bring parties and lawyers to the bar are often so concealed in technical forms as to irrecoverably invisible.

Cannon’s debut book, *Environment in the Balance*, sets itself an ambitious task: to overcome this division by showing that environmental law, much as it may appear dry and dull, is deeply infused with conflicts over value. Cannon’s project is to bring into sight the green ghost in the gray machine, the soul of disagreement that lends shape to arguments that may otherwise seem aridly technical. He does this by carefully reading thirty major Supreme Court decisions in environmental law, teasing out the differences in worldview that animate the Justices’ reasoning, the divisions that are not simply over abstract legal questions, but rather reflect divergent views of the natural world and the human place in it.

I. Environmentalism’s Incomplete Revolution

Cannon’s story begins with a reminder: environmental law may seem a merely technical field now, but it was not always so. Four-plus decades ago, the birth of modern environmental law came at a time of tremendous cultural ferment.
From Sierra Club activists to influential commentators to Congresspersons explaining the wave of environmental legislation that emerged in the 1970s, many argued that ecological insight demanded changes in values and consciousness. Ecology, explained the *Sierra Bulletin*, had been a science; now it needed to become something more like a religion.¹ Pundits and legislators agreed.²

Cannon argues, drawing on several decades of social science research, that this was not empty talk. Rather, a genuine shift in consciousness occurred in the environmental politics of the 1960s and 1970s. This shift brought to prominence a “new environmental paradigm” (NEP), an outlook including the beliefs that (1) nature is a limited resource on which humans depend for health and survival; (2) human-natural systems are interdependent and complex, characterized by delicate balances always subject to disruption; and (3) nature’s value is not simply in its usefulness to human beings: it should also be valued for its own sake.³ Taken together, these ideas implied – at least to many environmentalists – that human beings should work to achieve, sustain, and participate in a harmonious relationship with fragile, finite, and vulnerable natural systems.⁴ Many environmentalists also concluded that, in light of the vulnerability of natural systems, the intensity of human dependence on them, and nature’s intrinsic value, environmental concerns should enjoy priority: nature should come first, at least sometimes.⁵

In Cannon’s telling, only some Americans adopted the new environmental paradigm. Others remained attached to the “dominant social paradigm” (DSP), an outlook regarding nature as (1) abundant; (2) robust; and (3) valuable chiefly for its usefulness to human beings.⁶ These optimistic and human-centered premises about nature tended to support a program of market-led extraction and use of natural resources: in short, a laissez-faire, development-oriented agenda.⁷ By contrast, the NEP tended to support extensive regulatory intervention to protect finite and

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² See Flora Lewis, *Instant Mass-Movement*, L.A. TIMES, Apr. 29, 1970, at B7 (“The ideas [of ecology] are so fundamentally new, so drastically opposed to the heritage of many centuries, they are painful to absorb ... Environmental harmony requires a much deeper review of western thought, now challenged on almost every level”); 117 CONG. REC. 38,819 (1971) (statement of Sen. John Sherman Cooper) (arguing that the Clean Water Act “asserts the primacy of the natural order on which all, including man, depends”).
³ EB 6.
⁴ EB 13-23 (exploring relation among these values and their implications).
⁵ EB 23.
⁶ EB 7.
⁷ Id.
delicate natural systems from human damage, both for their own sake and to prevent blowback harm to human health.\(^8\) Cannon follows Dan Kahan and his collaborators in arguing that much of the disagreement over environmental questions pivots on this affinity between environmental worldviews on the one hand and, on the other, attitudes toward regulation and the proper relationship between the state and economic life.\(^9\) Kahan and his colleagues have found that variance over a wide range of issues, from abortion and guns to nuclear power and climate change, corresponds robustly to individuals’ locations on a four-part worldview grid whose two axes run between the poles of, respectively, hierarchy versus egalitarianism, and individualism versus collectivism. Because the NEP (which we might also call the ecological outlook, if only to avoid an acronym) supports a strong role for government and promotes regulation of businesses and such traditional icons of self-reliance as ranchers and farmers, it attracts collectivists and alienates individualists.\(^10\)

Perhaps because of its mistrust of traditional figures of authority such as business leaders and its embrace of community-led activism, perhaps because of its concern for the victims of environmental harm, the ecological outlook also has affinities with egalitarian rather than hierarchical outlooks.\(^11\) Moreover, the ecological outlook contradicts a key traditional hierarchy, the presumed superiority of human beings over the natural world, and proposes to replace it with biological egalitarianism, the recognition that all living things matter.\(^12\) Because differences in worldview affect not just “normative” questions (“How important is nature relative to human interests?”) but also how people process “empirical” information (“How fragile is nature? How much harm are people doing, and what dangers are they creating?”), these divisions in environmental outlook tend to perpetuate and even amplify themselves.\(^13\)

Environmental law, then, arose as part of an incomplete revolution. Between 1970 and 1980, modern environmental law took form as the US adopted a wave of major statutes, most of them with overwhelming Congressional majorities: these include NEPA (1970), the Clean Water Act (1972), the Clean Air Act (1970, with major revisions in 1977), and the Endangered Species Act (1973), as well as the Comprehensive Environmental Response, Compensation, and Liability Act (better known as Superfund, 1980) and lesser-known laws. During this time, nominal concern for the environment attained the status of “consensus view.”\(^14\) At the same time, however, the new ecological outlook stalled, running into resistance from the

\(^8\) Id. at 8-9.
\(^9\) Id. at 7-9.
\(^10\) Id. at 8-9.
\(^11\) Id.
\(^12\) Id. at 13-15.
\(^13\) Id. at 9 [on the robustness of worldview to new information; the point about self-perpetuation and amplification is part of my interpretative argument].
\(^14\) EB 6.
dominant social paradigm. Absorbed into longer-running American divisions between hierarchy and equality, individualism and community, environmentalism's strong claims became flashpoints of disagreement. As Cannon summarizes his interpretation of the last forty-five years, "We face a paradox.... Despite its apparently successful inroads into the culture, environmentalism is perceived widely as having failed in its basic transformative mission and lacking the strength to force further change." Environmentalism has reached an impasse.

II. CULTURAL DIVISION AS A KEY TO LEGAL INTERPRETATION

Cannon’s cultural interpretation of environmentalism is the keystone of a bridge that he builds to connect the broad currents of political conflict with the highly specific disagreements that the Supreme Court decides. Certain key areas of doctrine pivot on the worldviews of the justices. They concern watershed questions about the role and structure of law: the jurisdiction of the federal courts and Congress; the existence or non-existence of substantive priority for environmental protection or, alternatively, of a substantive priority for private property rights; and the status of cost-benefit analysis in the design of regulation. In certain cases involving standing, the Commerce Clause, the Takings Clause, and a variety of statutory-interpretation questions, the Court of course looks to traditional legal materials, as it does elsewhere; but it what it makes of those materials depends in part on where the Justices stand with respect to the basic division between the post-1970 ecological worldview and the human-centered, development-oriented outlook that competes with it.

Certain constitutional questions especially lend themselves to this type of analysis because their core concepts were formed in eras when the law’s commitment to the traditional paradigm was much stronger. Their contours express the shape of a pre-ecological worldview. The Court’s choice in these cases, therefore, comes down to whether it will change inherited concepts by incorporating elements of the ecological outlook, or will cabin the reach of the ecological outlook by fencing environmental claims within pre-ecological legal constraints. Legal interpretation in these cases is also a faceoff between NEP and DSP, between ecological and pre-ecological versions of ideas such as causation and harm, the public interest, and the meaning of private property in land.

A. ECOLOGICAL STANDING

Take standing.16 A party’s qualification to bring a claim in federal court depends on the familiar formula that she must have (1) suffered an injury which (2) is caused by a breach of another party’s legal duty and (3) is likely to be remedied by the action the plaintiff requests of the court.17 This formula depends for its meaning on views about what counts as an injury and about counts as causation and

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15 EB 26.
16 Cannon discusses standing at EB 141-70, with particular attention to *Massachusetts v. EPA* at 164–69.
remediation. The traditional paradigm of injury would be to a bodily or economic interest, particularly that of a property-holder. Standing’s paradigm legal subject, therefore, is the autonomous individual, standing apart from nature and in control of it. A legally cognizable injury would be, so to speak, a direct hit on the body or chattel of that individual.

This may seem rather abstract, but its importance comes into focus once one appreciates how sharply certain ecological premises call these assumptions into question, in practical ways that federal courts cannot avoid addressing. The modern environmental movement portrays people as having very different kinds of interests in nature from those of owners: the interest of aesthetic appreciation, even the interest of coming to the defense of natural entities (such as rivers or endangered species) that are valuable in themselves. Citizen-suit provisions authorize plaintiffs to enforce these interests, for instance, in seeking review of administrative actions or in vindicating anti-pollution or species-protecting statutes. Permitting these cases to go forward accepts that the new environmental paradigm has changed the set of legally cognizable interests that federal courts may enforce; blocking them on standing grounds marks a constitutional boundary on the ecological expansion of the law’s conception of injury.

If new environmental values force judgments about the meaning of Article III injury, the ecological premise of interdependence invites new questions about what it means to cause an injury, and what counts as a remedy. The defining problem of modern environmental law is the management of subtle, complex, long-distance forms of interdependence, in which an event may have effects much later, far away, and in an unexpected fashion: air pollution, for instance, showing up as lake acidification or an increase in soil levels of heavy metals, many miles downwind. Such problems do not present cases of what the traditional law of standing would have regarded as a direct hit: most problems are indirect and confounded by many other contributing and mitigating factors. How far is too far downwind? What level of dilution removes water pollution from the polluter’s responsibility?

Moreover, as Justice Scalia has emphasized since shortly before he joined the Supreme Court, environmental plaintiffs are often in the non-traditional posture of asking the government to regulate a third party – usually a landowner or industry claimed to be in violation of an environmental statute.¹⁸ In this respect, standing cases crystallize the dispute that Cannon and others see as being central to political

¹⁸ See Antonin Scalia, The Doctrine of Standing as an Essential Element of the Separation of Powers, 17 Suffolk U. L. Rev. 881 (1983) (arguing that the central judicial responsibility is to protect the rights of individuals against government action, with protection of property rights being paradigmatic); see also Lujan, 504 U.S. 555, 561-62 (distinguishing between the easy case for standing, in which a plaintiff is himself the object of regulation, and the disfavored case, where the plaintiff complains of the government’s failure to regulate a third party).
disputes over environmentalism: whether and in what respects government appropriately regulates the market economy.

The issue of interdependence was at the heart of Chief Justice Robert’s dissent in *Massachusetts v. EPA*. Writing for four Justices, the Chief Justice argued in effect that climate change so thoroughly fails to fit the contours of traditional standing that no plaintiff can come into federal court to ask that it be regulated.19 The lines of interdependence are too long, complex, and globally dispersed across jurisdictions, and the relative contributions of human action and baseline natural perturbations are too obscure, for a court to say that any one specific injury was caused by any specific breach of legal duty and would likely be remedied by addressing the breach. In a sense, of course, this is uncontroversial and, indeed, precisely the point of environmentalists’ insistence on interdependence: nothing can be understood in isolation from everything else. The question is what these facts about the natural world imply for humans’ responsibilities toward that world and one another. The irony in Justice Roberts’s argument was that intensified interdependence implied diminished responsibility, to the point of the federal courts’ washing their hands of climate change.

By contrast, Justice Stevens’s opinion for the Court accepted that causal relationships that would once have seemed too attenuated to support standing can justify Article III jurisdiction today, in light of new insight into ecological relations and, in a powerful supporting consideration, the urgency of addressing climate change.20 Taking these touchstones of the ecological outlook as implicit sources of legal interpretation produced an expansive view of standing, while confining standing to the pre-ecological concepts of the DSP would have blocked climate-change plaintiffs from the federal courts. So constitutional interpretation can also be a contest between views of the natural world.

B. Private Property in the Age of Interdependence

In some instances, both constitutional and statutory interpretations may be inflected by the Justices’ attitude toward the potential ecological transformation of a traditional legal category. Private property is exemplary.21 William Blackstone’s famous description of the “sole and despotic dominion” that ownership establishes over a piece of land has, of course, been much belittled and qualified; but it remains a touchstone expression of what one might call the classical version of property.22

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20 See id. at 516-26.
22 2 *WILLIAM BLACKSTONE, COMMENTARIES ON THE LAW OF ENGLAND* 2 (facsimile ed. 1979) (1765-69); for a discussion of qualifications and criticisms, see Carol M. Rose, *Canons of Property Talk, or, Blackstone’s Anxiety* 108 *Yale L.J.* 601 (1998).
Ownership, in the classical version, implied primary and nearly exhaustive authority to set the agenda of use for a piece of land: whether agriculture, industry, residence, preservation as a park, the point was that the decision lay with the owner. The common law’s restrictions on owners’ authority served mainly to protect the reciprocal interests of immediately neighboring landowners, as nuisance doctrine did, or to secure the interests of future owners who already enjoyed legally defined reversionary or remainder interests, which as in the law of waste. Owners, that is, owed some forbearance to other identifiable and proximate owners; but otherwise, the use of land was up to them.

Ecological interconnection implies a much wider set of interests at stake in private land use: numerous and remote others, by no means all owners, may depend on the water purification that wetlands accomplish, the carbon uptake of forests, the health of soil (for instance, in the harm caused by runoff of fertilizer or pesticide or the intensified floods that can follow erosion), or the storm-buffering effect of a barrier beach. And these examples are merely at the level of the individual landowner: much broader effects come into play when one considers air and water emissions from factories, power plants, and so forth. For law to vindicate the interests that these ecological effects touch, it is not enough for courts to balance the competing common-law claims of owners and potential owners: legislatures must impose collective judgments about which interests deserve protection, and in what measure. Thus private property moves from being an emblem of practical self-sufficiency and touchstone of legal autonomy to being thoroughly entangled in interdependence and subject to collective regulatory judgments. This change is both a major shift in the legal landscape and a significant symbolic affront to a traditional image of self-reliance.

Moreover, the environmentalist idea that non-human nature matters for its own sake greatly expands the set of values that might limit the powers of owners. Never mind neighbors: what about all the plant and animal species that share a plot of land, and for which it is habitat rather than an economic resource? Once the Endangered Species Act created express federal protection for what Cannon calls “the environmental other,” sole and despotic dominion was no longer on the menu.

1. Taking Interdependent Property

Exactly what ownership meant after ecology’s incomplete revolution became a constitutional flashpoint in the doctrine of takings, the Court’s interpretation of the Fifth Amendment’s guarantee that “private property” shall not be “taken” without “just compensation.” The question in Lucas v. South Carolina Coastal Council was whether beachfront property were “taken” within the meaning of the Amendment, and its owner thus entitled to compensation, when South Carolina prohibited all construction on a certain class of barrier-island land that included Lucas’s plot. The reason for the building ban was to limit erosion and storm

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23 Constitution of the United States, Am. V.
damage by preserving the buffering function of the barrier beaches. Lucas’s intended use of the property, home-building for sale and for his own use (on respective neighboring tracts) was precisely what property law had traditionally aimed to protect and encourage, and now suddenly prohibited instead.

Writing for the Court, Justice Scalia held that, where a regulation eliminated all economically valuable use of a piece of land, it worked a taking per se, with no need for further inquiry except as to the amount of compensation. The effect was to impose a constitutional boundary on legislatures’ power to redefine the rights of ownership in light of ecological interdependence. Justice Scalia wrote that there was only one case in which a legislature could eliminate all economically valuable use of a piece of land and avoid the compensation requirement: where the banned use could also have been prohibited under historical common-law principles, for instance, as a public nuisance. In dissent, Justice Stevens objected that environmental law should be understood as expressing the ongoing moral learning of society, much as evolving common-law principles had once done, and thus as changing the scope of ownership in balance with ecological concerns. By contrast, Justice Scalia invoked a “historical compact” memorialized in the Takings Clause, which guaranteed traditional ownership against excessively intrusive redefinition.

Lucas stands for the view that private property retains a pre-ecological core which the Constitution shields from interference. To constitutionalize this idea ties a key aspect of the legal relationship between people and the natural world – that of ownership – to its pre-ecological origins in a world where the autonomy of owners seemed intuitive in a way that ecological interdependence confounds.

2. Statutory Interpretation and Ecological Ownership

In Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, the Court again asked how far environmental lawmaking revised traditional ownership. Here the issue lay in interpretation of the Endangered Species Act, which forbids anyone, including private parties, to “take” a member of an endangered species. The statute defined “take” as including “harm[ing]” a member of the species, and the Department of Interior, in turn, defined “harm” to include “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” The question was whether the statute’s language supported the regulatory definition of “harm” as including habitat modification.

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25 See 505 U.S. at 1015-19.
26 See id. at 1027-30.
27 See id. at 1069-70.
28 See id. at 1028.
31 16 U.S.C. Sec. 1532(19); 50 C.F.R. Sec. 17.3(2013).
The Court upheld the relatively expansive agency definition of "harm" over a strong dissent from Justice Scalia. For Justice Scalia, the heart of the matter was the traditional sense of the verb "take," which connotes direct force against, or seizing control of, an individual animal. From this conservative, textualist position, no amount of ecological interconnection could expand that older sense of the word to include effects on an animal mediated through effects on its habitat: cutting trees in ways that impeded breeding or nesting was not at all the same thing as "taking" an animal. By contrast, the Court, in an opinion by Justice Stevens, pivoted its decision on the term "harm" in the statutory definition of "take," arguing that harm may be indirect as well as direct, and that treating habitat degradation as a form of indirect harm advanced one of the ESA's core purposes, the preservation of ecosystems on which endangered species rely.

Like the conservative view in the standing cases, Justice Scalia's position in Sweet Home would have tethered a tract of law to a pre-ecological idea of what it means for an action to have an effect. While the Court accepted that the statute prohibits land-use decisions that cause ecologically mediated harm to members of endangered species, the dissent would have restricted that prohibition to an act of individual-to-individual violence, such as hunting or trapping a member of a protected species. A pre-ecological interpretation of a key operative term would have significantly weakened the statute's prohibition of harms arising from ecological interdependence.

Moreover, like his interpretation of the Takings Clause in Lucas, Justice Scalia's Sweet Home dissent would have guaranteed traditional economic expectations against collective, political revision launched in the name of ecological protection. Justice Scalia interpreted the ESA as envisioning habitat protection only through federal purchase of private land – that is, the government could protect habitat not by revising the rights of owners, but by acquiring their ownership rights on the market. This approach would secure private ownership against undermining by ecological interdependence: precisely as with takings, a government that wanted to change landowners' powers would have to purchase the rights it sought to eliminate. The turn to collective regulation that ecological interdependence implied could take place only with a price tag dictated by pre-ecological ownership.

C. NEPA AS AN EMBLEM OF AN INCOMPLETE REVOLUTION

One statute's interpretation serves as a kind of synecdoche for the last four decades of environmental law. The National Environmental Policy Act, which became law in 1970, contains a series of substantive directives for all federal policy: among others, to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations"; "assure for all Americans safe, healthful,

32 516 U.S. 687 at 715-21.
33 Id. at 697-702.
34 Id. at 727-29.
productive, and esthetically and culturally pleasing surroundings”; “attain the widest range of beneficial uses of the environment without degradation”; and “maintain, wherever possible, an environment which supports diversity and variety of individual choice.” Cannon calls the statute’s substantive language “a succinct, compelling articulation of the NEP.” As he points out, Lynton Caldwell, the chief intellectual influence on NEPA, regarded it as a statement of a new public policy based on interdependence and cooperation. Some federal courts seemed poised to move in the same direction, indicating a new sympathy to the values of the new environmental paradigm. As Judge Skelly Wright wrote in the landmark Calvert Cliffs’ Coordinating Committee v. U.S. Atomic Energy Commission, the courts should expect “a flood of ... litigation seeking judicial assistance in protecting our natural environment ... to control, at long last, the destructive engine of material ‘progress.’” The judicial mood that Judge Wright expressed also appeared, for instance, in dissents by Justices Douglas and Blackmun in Sierra Club v. Morton, the seminal environmental-standing case, in which the two justices assumed, respectively, that environmentalists were self-evidently the trustees and spokespersons of the natural world, and that well-established environmental groups spoke for a consensual public interest in conservation. As the federal judiciary had recently taken sides in the battle over desegregation, so it now seemed possible that it would lead in the development of a substantive common law of national environmental priorities.

Events played out differently. A series of Supreme Court decisions went out of their way to indicate that reviewing courts were not to use NEPA’s substantive language as a basis for assessing agency decisions: the statute was purely procedural. As Cannon interprets it, this way of reading NEPA reflected the Justices’ own position within the American division between the “new environmental” and “dominant social” paradigms. Making NEPA a purely procedural statute kept a place at the table for the values of the ecological outlook, but declined to give those values any particular authority.

35 42 U.S.C. Sec. 4331(a)-(b) (2012).
36 449 F.2d 1109, 1111 (D.C. Cir. 1971).
37 See id. See also LYNTON K. CALDWELL, ENVIRONMENT: A CHALLENGE FOR MODERN SOCIETY 238 (calling for an “ecological” way of thinking to replace an “economic” mode that “ma[d]e nature serve man’s material needs” (1970).
39 See Kleppe v. Sierra Club, 427 U.S. 390, 410 n. 21 (1976) (“The only role for a court is to insure that the agency has taken a ‘hard look’ at environmental consequences; it cannot ‘interject itself within the area of discretion of the executive as to the choice of the action to be taken.”).
40 See EB 265-67 (so arguing).
NEPA, then, is a microcosm of where ecological values stand in law: enduring part of the mix, but frequently shunted to the side. The partial revolution that brought the new environmental paradigm into American culture, politics, and law remains incomplete and contested. While the ecological revolution has inspired many acts of judicial creativity that stitch its new premises and concerns into the law’s old conceptual fabric, the effect has often been to constrain its effect and leave much of the legal system committed to autonomy, mastery, and the exploitation of the natural world, rather than develop a countervailing program of interdependence, cooperation, and caretaking.

III. A WAY BEYOND DIVISION?

A certain modesty is very basic to Cannon’s intellectual style. His claims advance with careful qualifications on their flanks, and his conclusions are on-balance, not categorical. This attitude serves him well in the bulk of the book, where his close readings of Supreme Court decisions in cultural context benefit from a sure hand and careful eye. It is invaluable to revisit these cases with a guide who combines the precision of a veteran lawyer and the sensitivity to trope and implication of a literary critic. Nonetheless, one wants more. What does Cannon’s cultural analysis provide by way of assessing future prospects?

A. CANNON’S “ENVIRONMENTALIST FUTURES”

When Cannon comes to the concluding big-picture assessment that seems to be mandatory in books on law and politics, his careful style immunizes him from overreach, but also seems to inhibit him from saying all that he might have. For more than a decade, a polemical contest has been afoot to account for environmentalism’s political stalling-out. Some have argued that the movement has lost its fire and imagination by allowing itself to become ensconced in ordinary Beltway politics as just another interest group, rather than the prophetic cultural movement it once was.42 Others claim that political environmentalism is a victim of its own success: pollution controls and other political victories have reduced the sense of crisis that fired calls for basic change.43 Still others argue that environmentalism’s brief flush of political victory created an illusion of consensus, when in fact the “dominant social paradigm” of human autonomy and mastery over a bountiful world remained deep-seated and powerful: its adherents struck back no later than the first Sagebrush Rebellion of anti-regulation Westerners in the 1970s, and were buoyed by their alliance with the Reaganite New Right and its Tea Party

43 See Coglianese, supra n. __ at 99-101 (the arguments are not mutually exclusive, and Coglianese, like Cannon, finds room for both).
successors. Cannon is most convinced by the third interpretation, focused on deep-seated cultural conflict, and least by the first, which treats Beltway politics as cause rather than symptom of environmentalism’s post-prophetic period; but, in his even-handed and self-effacing style, he allows some weight to each.

Cannon’s prescriptions are constructive and tentative. He is interested mostly in the ways that new problems and solutions might shift the cultural politics of environmentalism, creating space for new political coalitions. He notes the rise of market-modeled regulatory schemes, most visibly carbon markets, and the role of private enterprise in environmental initiatives, from non-profit certifying groups such as the Forestry Stewardship Council to Wal-Mart, which has adopted a series of environment-friendly sourcing policies. The “greening” of business culture and “marketizing” of environmental policy might combine to bridge the cultural gap between the pro-business, pro-property attitudes of the DSP and the emphasis on interdependence and ecological caretaking of the NEP. So might the rise of a new strain of what one could call pro-mastery environmentalism, which embraces technology, from carbon capture and energy innovation to geo-engineering, and is enthusiastic about the human role in shaping the world. The claim of this school of thought is that human impact on the planet is so vast and irreversible that people must give up misgivings about their world-shaping power if they are to use it well. Pro-mastery environmentalism has room for traditional images of human agency and the resilience of nature, but also embraces the environmentalist idea that people must be conscious caretakers of an interdependent world. With characteristic balance, Cannon sees promise in the developments, but warns against abandoning the more radical strains of the ecological outlook, especially its romantic responsiveness to the beauty and sublimity of the natural world and its commitment to the intrinsic value of nature. These attitudes may be hard to defend in a rulemaking hearing or a venture-capital presentation, but they have been politically and culturally productive before, and there is no reason to assume they are exhausted now.

These careful claims are quite consistent with the book’s topic and method, as well as Cannon’s own style. His main concern is to read Supreme Court opinions as special instances of a broader set of cultural and political divisions, in order to

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47 See EB 296-98.
understand how those divisions are contributing to the development of law. This is thus a diagnostic, not a prescriptive, book at its core. It would be strange, and probably unconvincing, for Cannon to stand up from his careful interpretive work and announce that he had found a key to the future of environmental politics. No key to any area of politics is likely to emerge directly from a close reading of Supreme Court opinions.

Having said that, it would still have been interesting to see Cannon set his interpretive arguments within a broader historical and analytic frame. There is more to say about both the long trajectory of environmental politics and its contemporary prospects. Cannon prepares us for these questions with a rich picture of judicial disagreement in our own moment, but his excellent book does not quite carry its readers across the threshold.

B. Why Cultural Division Is So Interesting Today

The reasons to go further begin with this. Cannon’s project responds to a specific constellation of forces in environmental lawmaking. Political deadlock has prevented passage of significant environmental legislation since the 1990 amendments to the Clean Air Act. Environmental lawmaking for twenty-five years has happened, not on the clean slate of legislative drafting, but on the ever-denser palimpsest of existing statutes. The action has accordingly moved away from movements and legislatures, which dominated the field during environmental law’s rise in the 1970s, in favor of agencies and courts. The central place of agencies accounts for much of the prominence that cost-benefit analysis has gained in environmental law and scholarship: whereas legislators establish authoritative values, regulators implement and prioritize among values already established. In doing so, they naturally seek the appearance of neutral and technical decision-making, to avoid creating the impression that they are acting (reluctantly or otherwise) as a second phalanx of legislators, choosing values on behalf of the public.48

The courts join the agencies as the major environmental lawmakers of the age. Whether the Clean Water Act allows for cost-benefit based interpretations of its technology standards, or the Clean Air Act extends to greenhouse-gas emissions, are the interpretive questions that will dictate substantive policy on these questions in the absence of new statutes.49 To state the obvious, the statutes do not explicitly resolve these questions, and so judges’ interpretations become central. In this situation, there is much to learn from Cannon’s sophisticated, culturally focused

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49 See, e.g., Entergy Corp. v. Riverkeeper, Inc., 556 U.S. 208 (2009) (finding some permission for cost-benefit consideration in agency implementation of the Clean Water Act’s technology-based standards); Massachusetts v. Environmental Protection Agency, supra n. __ (finding that the Clean Air Act’s definition of “pollutant” extends to greenhouse-gas emissions).
version of legal realism. What determines a court’s decisions, if not the text of the statute? Cannon makes a strong case that, often, the driver is the cultural valence of the environmental problem at issue: the judge’s image of the natural world, both moral and material, and the corresponding image of the human place in the world. The reason that the New Environmental Paradigm and the Dominant Social Paradigm grapple for control in the United States Reports is not some diffuse zeitgeist: it is a matter of which institutions can get anything done today (courts and agencies), which cannot (legislatures), and the tools and techniques available to those institutions that remain active (interpretation of statutes and the Constitution).

This is why students of public law may have detected a similarity between Cannon’s style of argument and that of certain constitutional scholars, notably Reva Siegel and Robert Post, who study the ways that popular ideas of liberty and equality interact with the text of the Constitution, giving new and ever-contested meaning to old terms that, to speak literally, hardly ever change. This is the pattern of cultural and legal struggle when the authoritative rules and principles are embodied in static text while both politics and concrete problems change around them. Cannon’s scholarship, like those of his fellow culturalists and movement theorists in constitutional law, helps both scholars and practitioners to understand the complex ways in which law can serve as connective tissue between widely held values and beliefs, on the one hand, and the concrete, institutional operations of power, on the other. Reading him, one recognizes one’s self, or one’s opponents – recognizes one’s own community of conflict – in the activity of law.

C. FROM HOLOCENE THOUGHT TO ANTHROPOCENE POLITICS

This, then, is the situation in which Cannon’s work finds its force and appeal. It is also, however, a situation that has to change. Both the New Environmental Paradigm and the Dominant Social Paradigm are products of what the future will think of as Holocene Culture. That is, they are products of an anomalous ten-thousand-year blink in the eye of geological time, in which relatively stable climate patterns made the planet extraordinarily congenial to human habitation: above all, consistent weather patterns permitted agriculture to flourish for long enough periods that agricultural societies produced urban, imperial, and technological civilization, eventually reaching the momentum that today’s globally networked world continues to extend.

The difficulty is that the vast industrial and fossil-fuel economy that Holocene stability fostered has, in turn, undone the Holocene. Human pressure on the planet’s systems has ushered in what commentators call the Anthropocene, the geological

The defining feature of the Anthropocene – whose official status is under consideration by the Stratigraphy Commission at the time of writing – is that human activity has become a force, arguably the force, in the development of the planet. The signal Anthropocene phenomenon is global climate change driven by changing atmospheric chemistry; but mass extinction, disruptions in the nitrogen cycle, and global toxicity count toward the Anthropocene as well.\(^{51}\)

In what sense are Cannon’s NEP and DSP products of Holocene thought? To understand this, it helps to appreciate two distinct bases for calling our time the beginning of the Age of Humanity. The first and more straightforward is the Anthropocene Condition, the situation in which human action has changed every place, species, and system of the natural world, from the upper atmosphere to the deep sea. The Anthropocene, in this sense, is the time in which there is no longer any such thing as a “nature” that is apart from and prior to human beings: all the world is a joint product of human activity and underlying non-human phenomena, blended in patterns from which the two can no longer be separated.

1. Anthropocene Disruptions
The Anthropocene condition undercuts key premises of both the Dominant Social Paradigm and the New Environmental Paradigm. The traditional vision (DSP) of the world as a stable and resilient storehouse of resources for human use is a cosmological narration of Holocene life. It generalizes from a very particular historical experience, of a world not catastrophically perturbed by either natural or human phenomena, and so able to serve as a reliable substrate of human projects. It may once have been true that the world was, for many purposes, as stable and bountiful as the DSP imagined it; but in an age of massive human-induced change, which is already disrupting human life with droughts and super-storms, the premise of benign stability cannot hold.

The ecological worldview (NEP), by contrast, insists that the world is fragile, endangered, and interdependent. Thus far, it seems promising as a framework for the Anthropocene. But there is a problem. The NEP relies at a very basic level on the idea of nature: a picture of the world as it was, or would be, absent human intervention. Such an idea is the basis of two features of the NEP that Cannon aptly identifies: the intrinsic value of natural things, and the principle that humans should live in harmony with the natural world. Without a nature that is independent of human beings, what is it, exactly, that has intrinsic value? What is the natural order with which humans should seek harmony? These basic commitments of the NEP require a baseline idea of nature, of what the natural world is apart from human

action. If human action is part of what creates the world, how can the character of the world guide human action?

The second paradigm-arresting aspect of the Anthropocene is the Anthropocene Insight. This is the recognition, now widespread across both humanities scholarship and popular culture, that talk of “nature” has always been, in fact, a way for people to talk to and about other human beings. Thus nature has been invoked to support both economic development and environmental preservation, liberty and slavery, democracy and monarchy, the hierarchy of the sexes and their equality, and so forth. In light of this insight, it simply is not credible to imagine the natural world as supporting any particular human agenda, whether development and extraction or preservation and aesthetic appreciation. The world does not impart moral status to human projects. In order to imagine a world that could do so, one must already be in the grip of a human interpretation of the natural world that braids its phenomena with judgments and projects that can only come from people.

It might seem that the Anthropocene Insight would be especially damaging to the NEP, with its openly moralized view of harmonious nature; but in fact, the traditional, anthropocentric view of the natural world is also deeply moralized, only in ways that are less evident because they are camouflaged as common sense. The development-oriented idea that nature is the supportive substrate of market capitalism arose in integral connection with the American civic religions of natural rights and Manifest Destiny. A natural world portrayed as calling out for labor, clearing, and settlement supported the egalitarian individualism (among white men) of the early American republic and the bloody clearing of Native Americans, who allegedly failed to fulfill their natural duty to make the continent productive. The history of talk about the natural world is thoroughly a history of its moralization: the NEP is only the latest example – one that, because of its association with environmentalism, strikes the contemporary ear as implying a special moral concern for “nature.”

52 I present this argument in detail in JEDEDEIAH PURDY, AFTER NATURE: A POLITICS FOR THE ANTHROPOCENE 11-17, 31-45 (2015, forthcoming).
53 The canonical statement of this argument comes in John Stuart Mill, Nature, in THREE ESSAYS ON RELIGION 64 (1874) (arguing that nature can have no moral or political significance other than what people impart to it).
54 See PURDY, AFTER NATURE at 70-95 (exploring this episode and its persistent influence in American environmental politics and imagination).
55 See James Kent, 4 Commentaries on American Law 307 (14th ed., 1896) (1826) (presenting this argument as being canonical to early Anglo-American settlement); JAMES TULLY, AN APPROACH TO POLITICAL CONTEXTS: LOCKE IN CONTEXTS 137-76 (1993) (describing the reception and use of natural-law theory with respect to Native American land claims).
Combined, the Anthropocene Condition and Anthropocene Insight imply a world that is the joint product of human activity and non-human processes, and in which human activity inevitably reflects human judgments and priorities: there is no “pattern of nature” that can tell us, for instance, how to organize an economy or direct a technology research agenda.

2. LAW’S SPECIAL ROLE IN THE ANTHROPOCENE

Law plays a special role in the joint human-natural production of the Anthropocene world. Human activity is a kind of collective landscape architecture: by the ways we get food and shelter and propel ourselves from place to place, we quite literally shape the planet, from its soils and terrain to its atmospheric and oceanic chemistry. The structure of this activity expresses the legal framework in which it happens: energy policy, agricultural policy, transport systems, zoning, pollution laws, wilderness and parks preservation, and so forth. Laws, in turn, express the worldviews of those who make them: their priorities, their dislikes, their points of indifference. So nineteenth-century American law helped to produce an army of clearing, settlement, and individual and community-scale development across a moving frontier, leaving in its wake the checkerboard pattern of roads and fields still visible from airplanes across the Midwest. So the zoning laws of the twentieth century, combined with fuel policy and highway construction, produced the landscape of suburbs, exurbs, and commercial and industrial zones where most Americans live today. So our legally structured energy economy is producing the global atmosphere of the twenty-first century, and thus the climate in which everyone will live.

The Anthropocene is not mainly a theoretical conceit, but a theoretical distillation of concrete circumstances. These circumstances show up in very specific ways. There is no “natural” baseline for climate-change goals, and no principled way of distinguishing between “natural” and “anthropogenic” climate change – part of the motive for Chief Justice Roberts’s argument in Massachusetts v. EPA that climate change is incompatible with traditional legal ideas of causation and redress. Species conservation efforts inevitably involve some level of choice between those things that are to be saved and those that will be allowed to perish, choices that draw on, and impose, human priorities among other living things.

Land conservancies deal almost invariably with disrupted and transformed

56 See, e.g., Willard Hurst, Law and the Conditions of Freedom in the Nineteenth-Century United States (1956) (arguing that the design of federal settlement policy realized a program of unleashing human energy in the interest of development).
57 See, e.g., John A. Jakle, Paving America for the Automobile, in The Making of the American Landscape 403-22 (ed. Michael P. Conzen) (2d. ed., 2010); Michael P. Conzen, Developing Large-Scale Consumer Landscapes, in id. at 423-50.
58 See Massachusetts v. Environmental Protection Agency, supra n. __.
landscapes, leading to questions about what it is they wish to “conserve,” and why.\textsuperscript{60} Even wilderness is a federally defined legal category requiring a series of land-use decisions that turn on judgments about what are, and what are not, wilderness values.\textsuperscript{61}

IV. POLITICS AS THE ANTHROPOCENE PIVOT

For the moment, embrace of the Anthropocene has affinities with a specific kind of agenda: centered on human interests and unapologetic about actively shaping and changing the natural setting. As Peter Kareiva, lead scientist of the Nature Conservancy, has put it, “If there is no wilderness, if nature is resilient rather than fragile … conservation … should seek to support … development by design, with the importance of nature to thriving economies foremost in mind…. Instead of pursuing the protection of biodiversity for biodiversity’s sake, a new conservation should seek to enhance those natural systems that benefit the widest number of people…. Nature could be a garden…”\textsuperscript{62} The appearance of affinity between the Anthropocene idea and Kareiva’s human-centered agenda is partly a matter of who has seized the label, partly a result of the pre-Anthropocene language that still characterizes much of environmentalist politics. Because many environmentalists use a Holocene vocabulary that is easily made to seem philosophically naïve, their critics can score points by observing, for instance, that all ecosystems have been disrupted and that all conservation choices involve values.

That said, the idea that embracing the Anthropocene implies supporting a human-centered, managerial program mistakes a contingent affinity for an essential connection. The pivot of the mistake is a confusion between two senses in which the values that guide environmental decisions may be “human.” In one sense, human values are ones that people can understand, hold, and respond to – that is, they must be possible bases for evaluation and action. In the second sense, human values are restricted to some set of human interests, whether as narrow as economic growth or

\textsuperscript{60} See Kareiva, et al., supra n. ___ (exploring the implications of the Anthropocene for land conservation).

\textsuperscript{61} See, e.g., Wilderness Society v. United States Fish & Wildlife Service, 353 F.3d 1051 (9th Cir., 2003) (en banc) (holding that a fish-stocking program is a commercial activity within the terms of the Wilderness Act and thus forbidden within a federal wilderness area).

broadened to include, say, aesthetic appreciation of nature. The managerial values that certain Anthropocene enthusiasts tout are human in both sense; but it is only in the first sense that Anthropocene values must be human values. That is, people can take them seriously and act on them. But values that are human in this sense may include many that are not human-centered in the more substantive sense: they may include, for instance, the core ideas of the NEP, that nature matters for its own sake, that we should strive to establish and support certain kinds of harmony in natural systems, and so forth. It is simply necessary to understand that these are human values, not natural ones, and that they need to be vindicated among human beings, not dictated on the basis of their “naturalness.”

A. MARKETS, TECHNOCRACY, OR DEMOCRACY?

The real question is how the relevant human values will be determined and implemented: which decision procedure will guide the collective decisions about what sort of world to shape? In effect, there are only a few alternatives. First, the decision can be marketized, that is, coordinated by the price mechanism, which links billions of spending, investment, and production choices in a single pattern of resource allocation. In a second alternative, the decision can be made technocratically, by specifying a form of expert technique to generate an ostensibly neutral optimum result. Or, in the third alternative, the decision can be made democratically, through public contest over the meaning of the natural world and the human place in it.

Markets and technocracy have their respective advantages, but they are also profoundly unsuited to the task of deciding how to shape a world. Democracy is, at once, the only decision procedure adequate to the problem and, inconveniently, the most difficult to achieve. Let us take the three in order.

1. THE LIMITS OF MARKETS

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64 See, e.g., Paul Hawken, Natural Capitalism (1999) (arguing for a merger of free-market and ecological thinking); James Salzman, Valuing Ecosystem Services, 24 Ecol. L. Q. 887 (1997) (setting out the development and prospects of ecosystem services, a key concept in unifying ecological management and market valuations).
Markets are highly efficient in aggregating and transmitting the local knowledge contained in each decentralized economic decision. For instance, a judgment about whether to install copper or ceramic tile in a kitchen in San Francisco incorporates everything from new energy technologies intensifying demand on the metal to threats of political instability in copper-mining regions – all through the supple instrument of price, so that the purchaser need not know any of the qualitative detail. Markets also have notorious limitations: they do not take account of unpriced externalities (a problem at the base of much of environmental economics), and they process only the priorities of those who have spending power, meaning that they reflect rather than resist structural inequalities in wealth – for instance, in producing research into baldness rather than into the diseases of global poverty.\footnote{See Barton H. Thompson, \textit{What Good Is Economics?} 37 U.C. DAVIS L. REV. 175 (2003) (setting out an applying key features of environmental economics and its uses in environmental policy).} But the most basic limitation of markets for the Anthropocene question – the question of what sort of world to create – is this: markets operate only within the legal systems that establish their frameworks: for instance, what may be owned, what one may do with it, who owns what at the outset, how redistribution is managed, which sorts of public goods are provided and how, and so forth.\footnote{See \textit{e.g.}, Amartya Sen, \textit{The Moral Standing of the Market}, in \textit{ETHICS AND ECONOMICS} 1 (Ellen Frankel Paul et al., eds., 1985) (so arguing).} In a basic sense, markets are derivative of law, and therefore derivative of the political decisions that generate and enforce law.

This point is common to Legal Realists and sophisticated mainstream economists alike. It need not weigh against entrusting any particular area of economic life to market coordination. It does, however, mean that the world a market will make is a function of the prior choices that constitute that market – to give a signal and simple example, whether carbon emissions have a price, and how it is determined. Answers to the Anthropocene question come from the political and legal choices that give a market its shape, not the decisions that take place within the market. Changes within a given market, rather than changes to the economic order itself, will always make their difference only on the margin: for instance, personal or corporate decisions to purchase voluntary carbon credits will produce some supply of those (as long as they are legally recognized), but not at the systemic scale of an economy-wide price for carbon. Similarly, a trend toward buying sustainably produced food will raise prices and productive levels, but in a way that differentiates the market into sustainable and non-sustainable segments (the latter increasingly attractive to those who must, or happen to, prize affordability) rather than pivot the system as a whole.

World-making choices, then, must take place at the scale of system design, not merely within an existing price system. To speak of entrusting environmental decisions to a “complete” market, one that prices all environmental effects of every action, is itself an incomplete answer. The internal workings of a market cannot...
provide its own prices, except in a way that is derivative from the foundational legal and political choices that constitute that market in the first place. A market is an instrument of world-making policy, not its source.

2. THE LIMITS OF TECHNOCRACY

Technocratic decisions have a parallel limitation. On the one hand, they benefit (at least notionally) from associations with expertise and neutrality: ideally, they purify key public decisions of the distortions that notoriously accompany politics, such as factional selfishness, emotional projection and other forms of irrationality, and the shifting and provisional character of nominal majorities. On the other hand, if technocratic decisions are to be perceived as legitimate, they must implement values that have already been established as authoritative. (Otherwise, technocracy would be merely authoritarian.) If these values do not come from previously enacted laws, then they typically come from efforts to measure the interests and preferences of present and (at a discount) future individuals. When technocracy takes its values from previous legislation or other political acts, it derives its legitimacy from the sovereign polity; when it takes its values from measurements of interests and preferences, it acts as a sort of ideal market.

The latter kinds of measurements depend on various judgments that cannot be justified on internal, technocratic grounds. These include decisions about the technical aspects of measurement, notably but by no means only the discount rate for the interest of future generations. They also depend, for their raw data, on the existing interests and preferences that people have. These judgments, interests, and preferences, in turn, are products of the present: people wish for the kinds of things they know to desire (who now longs for a sight of the extinct North American ground sloth?), and the measurement of their interests and preferences reflects a current technical consensus that can command a modicum of political legitimacy. In other words, technocratic decisions are ideally suited to the rationalization of the world as it is, and the refined expression of priorities as they are now understood; but it is no way to choose a world.

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69 See, e.g., WALTER LIPPmann, THE PHANTOM PUBLIC (1930) (arguing that existing majoritarian schemes of popular voting are not adequate versions of any credible conception of collective self-governance).


71 See DOUGLAS M. KYSAR, REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY 99-122, 150-75 (arguing for the importance of procedures that make possible continued, creative engagement with values, rather than simple replication of those now in force).

72 See DALE JAMIESON, REASON IN A DARK TIME: WHY THE STRUGGLE AGAINST CLIMATE CHANGE FAILED AND WHAT IT MEANS FOR OUR FUTURE 115-37 (2014) (setting out the value commitments unavoidably embedded in any effort to apply cost-benefit analysis to complex environmental problems).
Like the market, then, technocratic environmental governance is an incomplete response to the Anthropocene question. Its judgments are derivative of politically established values; of markets, actual or idealized, that depend in turn on politics for their definition and creation; and of personal values and interests that arise from and reflect the world as it has so far been created by human activity. Like markets, technocracy takes its bearings from politics, whether that politics is explicit in legislation or embedded in politically created market practices, landscapes, and ecosystems.

3. The Case for Democracy

The alternative is to embrace a fully political view of the natural world. To summarize the argument: (1) In the Anthropocene, the world we inhabit is the world we make; (2) We make the world, in turn, by the ways that we inhabit it; (3) We shape these, at the scale of economies and systems, through collective choices that provide the architecture of everyday life; (4) If these choices are to extend beyond the simple reproduction of what already is, to choose a world, they must be political; (5) If political choices are to be legitimate, they must be democratic.

Democracy has several roles to play. A democratic politics of nature produces authoritative answers to collective questions: in this sense it has a sovereign role, the role of pivotal decision-making. But democracy also organically connects the agendas of collective decision with cultural experiments and innovations that create new ways of valuing the natural world, new ways of living with it, which can in turn influence the next wave of lawmaking. Such experiments make plausible or compelling approaches to the natural world that would recently have seemed alien and unattractive. A recent example of such change is the surge of interest in the sources, quality, and environmental effects of food. Another is the rise of local, regional, and movement efforts to live in a low-carbon way. Still another is the movement to spread decentralized, renewable energy sources, particularly solar power, in ways that complement, work around, and aim to overgrow the existing energy grid. Each of these involves new ways of seeing the relationship between human activity and the natural world: food systems and energy sources come into focus, become visible, for members of these movements. Each generates new kinds of satisfaction: the pleasure of working and eating in an intelligible and sustainable food web, of generating the energy one uses, or of getting through the day with a minimum of carbon emission. These ways of living, in turn, may become the basis of politics aimed at law reform: alternative versions of the Farm Bill, support for a new kind of electric grid, and so forth.

73 See, e.g., Purdy, Our Place in the World, supra n. __ at 905-12 (discussing the potential of the food movement to contribute to development in environmental ethics and politics).
74 See id. at 917-27 (same for popular politics of climate change).
75 See id.
Although these examples are current, the pattern they describe has been around for a very long time: the modern system of national parks and wilderness, for example, owes much to cultural minorities of trekkers and sporting enthusiasts, notably the early Sierra Club and the Boone and Crockett Club, which cultivated Romantic satisfactions in nature. These earlier movements turned their own modes of engaging nature from eccentric pleasures into national priorities, generating and sharing modes of experience and ways of talking about it that became part of the larger culture and shaped lawmakers.

B. CAVEAT: POLITICS IN A TIME OF POLITICAL FAILURE

This is the bright side of looking to democracy as a key to the choice of future worlds. It must be said that there is also plenty of cause for pessimism. Few today would turn to democratic politics to solve their problems if they had a plausible alternative. Democracy has been in crisis, or crises. In the United States, elections are awash in money and recent governments have produced gridlock and unpopular, arguably fruitless wars – and, tellingly, no meaningful legislation on climate change, the signal environmental problem of the day. In Europe, established parties are collapsing electorally, while the major joint project of the region’s democracies, the European Union, is experiencing a crisis of legitimacy. In the former Soviet bloc, a transition to nominal democracy, once welcomed in a sanguine mood, now looks like the watershed of a new kind of (more or less) soft authoritarianism. Even democracy’s place as the only say-able standard of political legitimacy is in doubt: China’s non-democratic regime and its supporters show a new boldness in criticizing Western democracy as a weak, ineffective system.

Even if some of these problems turn out to be no more than the passing crises of the day, there are more basic structural challenges. So far as democracy can be said to have succeeded, it has been on the scale of nations and their sub-jurisdictions, such as states and towns. It has also, perhaps less obviously, had its

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76 See Purdy, POLITICS OF NATURE, supra n. ___ at 1147-49 (on Sierra Club); Purdy, After Nature, supra n. ___ at 180-86 (on Boone & Crockett Club).
77 The Center for Responsive Politics estimates the cost of national elections in 2012 at over $6 billion, the most expensive ever. See Total Cost of U.S. Elections, at https://www.opensecrets.org/bigpicture/.
78 See Steven Erlanger, As Europe’s Political Landscape Shifts, Two-Party System Fades, N.Y. TIMES, Apr. 7, 2015 at A7 (“The fragmentation of traditional party voting is increasing all over Europe... The days of a ‘broad church’ party and governments formed by a single party are fading.”); Tony Barber, Europe Must Confront Crisis of Legitimacy, FINANCIAL TIMES, Apr. 23, 2012 (warning of a “potentially far-reaching crisis of legitimacy in Europe’s political system).
79 See Perry Anderson, Russia’s Managed Democracy, 29 LONDON REV. OF BOOKS 2, 3-12 (Jan. 25, 2007) (summarizing scholarship on Russia’s post-Soviet governance).
80 See, e.g., Eric X. Li, Why China’s Political Model Is Superior, N.Y. TIMES, Feb. 16, 2012 (arguing that democracy is an unsustainable form of government).
own temporal scale: it is a political system run by and chiefly for the living. But, notoriously, climate change and other environmental crises outrun those scales: they are global and very long-term. They also outrun familiar habits of moral and prudential judgment: their lines of cause and effect, responsibility and prevention, are obscure relative to the more palpable and immediate tasks that have formed common-sense notions of what it is to do or prevent harm, or to act at all. The very problems that increase the need for democratic engagement also make it less likely to succeed, at least as it now is.

Nor is this true only of environmental problems. The global economy of financial capitalism turns out, like global environmental problems, to outstrip political management in both scale and complexity. For this reason, Thomas Piketty’s 2014 best-seller, Capital in the Twenty-First Century, was at once an empirically rigorous expose of markets’ propensity to amplify inequality and an inadvertent meditation on the powerlessness of national political communities to do anything about it. The comparison is not for its own sake: it goes to the heart of the problem. In the Anthropocene, there is no separating economic and ecological futures: the economy is the architecture of the human activity that shapes the planet.

Politics, in turn, is the only way to make binding collective decisions about our shaping role. Politics is both what we need to do and what we cannot do, at least for now. The central place that judicial interpretation, and hence judicial worldview, play in our environmental politics today is, in some measure, a symptom of this pervasive failure of politics.

CONCLUSION

This discussion of the Anthropocene is not intended as unfriendly criticism of Cannon. On the contrary, his interpretation of the last forty years of Supreme Court opinions takes precisely the attitude that the Anthropocene demands. The central upshot of an Anthropocene approach, recall, is that the work of environmental law – shaping a future world – must be recognized as thoroughly political. In fact, the problem of nature itself must be recognized as political through and through. Competing conceptions of the natural world and the human place in it are not

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81 See, e.g., Stephen M. Gardiner, A Perfect Moral Storm: Climate Change, Intergenerational Ethics, and the Problem of Moral Corruption, 15 ENVIRONMENTAL VALUES 397 (2006) (setting out these arguments); Jamieson, supra n. __ at 100 (arguing for the possibility that democracy’s orientation to the present makes it unable to address climate change effectively).

82 See, e.g., Jon Gertner, Why Isn’t the Brain Green? N.Y. TIMES MAG., Apr. 16, 2009 (surveying psychological bases of failures to process climate harm as ethical harm).

83 See THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY 1-38 (2014) (summarizing findings on accelerating inequality); PURDY, AFTER NATURE at 17-21 (arguing in greater detail for the linked character of economic and ecological crises).
alternatives to this politics (although their partisans may present them as such – and probably will): they are aspects of it. They are its characteristic form.

Environmental statutes crystallize these political conceptions of nature. As Cannon emphasizes, the anti-pollution and biodiversity statutes of the 1970s reflected the ecological premises of nature’s fragility, interdependence, and inherent value, and the importance of seeking a harmonious human relation to it. This, however, is just one example. The statutes that guided settlers across the American frontier reflected just as directly the nineteenth-century ideas that became Cannon’s “dominant social paradigm”: an image of the natural world as demanding and rewarding development, ideally in the form of individual and family ownership and agricultural settlement.84 The Wilderness Act reflects a Romantic conception of the natural world refined over decades of wilderness advocacy and eventually enshrined in the Act’s definitions, preamble, and operative language.85 The Organic Act of the Parks Service and the Forest Service reflect the managerial, utilitarian, and statist conception of the natural world that informed much of Theodore Roosevelt-era Progressive reform and led him to describe conservation as a model for all his domestic policies.86

Judicial interpretation of all these statutes involves judgments about the relation to the natural world. As Cannon demonstrates, this interpretation recapitulates the diverse and conflicting ideas that inform the statutes. Environmental law is thus a layered and braided system of conflicting ideas of the world and how to inhabit it, some of which become authoritative for certain times and purposes. It is also a continuing contest over the image in which the world will be shaped. Understanding environmental law in this light invites adopting Cannon’s method and extending it, increasing the range of worldviews to include all those that have shaped this area and being explicit that its stakes are the political shaping of the future world.

In all of this there is the beginning of a strategy for imagining environmental futures. It is in fact the method that is implicit in Cannon’s concluding meditation on “environmentalist futures.” This is less a political program than a turn of mind, a way of focusing attention and energy. It is, first, skeptical toward any claim to have identified or created a master vocabulary for environmental politics, whether that is a philosophical account of the inherent value of living things or a new technique of cost-benefit analysis. Such vocabularies should always be understood as products of, and moves within, a field of contested environmental visions whose conflicts they cannot magically resolve. Second, this attitude is keenly interested in the ways that concrete experiments in thinking and living – from the wilderness movement to the rise of sustainable-energy activism – may adjust the relations

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84 See Purdy, American Natures, supra n. __ at 185-88 (setting out this program’s main features and ideological origins).
85 See id. at 205-07 (same for Romantic approach to environmental law).
86 See id. at 189-91 (same for Progressives’ managerial approach).
among existing constituencies and their ideas, or even introduce entirely new ones, thus shifting the field of political possibility.

A way of thinking that built on Cannon’s analysis toward an Anthropocene politics would add two additional points. A politically productive attitude should always include a keen awareness that a choice of environmental futures is inseparable from a choice of economic futures: because economic life is the center of humans’ collective shaping of the planet, there is, in a real sense, no question of economic policy that is not also an environmental question, and no environmental question that can be resolved without corresponding economic judgments. Finally, this attitude should be acutely aware of the gap between the ideal of democratic decision-making about these linked environmental-economic questions and the reality of democracy: inefficacy, inadequate scope, the oligarchy-making role of money, and persistent failures of self-restraint. For the reasons developed above, an environmental politics adequate to the Anthropocene question can arise only alongside an enhanced and expanded democracy.

Cannon’s method also provides a solution to the cultural problem of environmental law that opened this review: that it is boring and alienating, despite its high stakes and especially to those who are drawn to its underlying subject matter. The remedy is to excavate and trace out the many threads that tie the language of the statutes, their judicial and agency interpretation, and their constitutional housing and constraint, to vital and keenly felt ideas of the world and the human place in it. It is to bring environmental law alive simply by showing that it is already alive: deeply imbued with moral and aesthetic conceptions of the living world that are also human, political choices, which courts, legislatures, agencies, and social movements will continue making into the future.

Recovering environmental law from a certain technocratic narrowness required an extraordinary suite of talents: a lawyer’s eye and a poet’s ear, a mature judgment about the meaning of decisions married to a youthful enthusiasm for the ideals that pulse behind the technical dispositions. It took a rare mind to write this book. Everyone who cares about environmental law should be grateful to Jonathan Cannon for doing it.